

Operating Instructions

W 200 II

Surface Grinding Machine



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Manufacturer

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Documents for machine operator

Operating Instructions

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1. Important notes

1.1 Preface to the operating instructions

These operating instructions are intended to make it easier to get to know the surface grinding machine, referred to in this document as grinding machine, and to use it properly for the intended purpose.

The operating instructions contain important information on how to operate the grinding machine safely, properly and cost-effectively. Observance of these instructions helps to avoid hazards, repair costs and downtimes, and increases the reliability and service life of the grinding machine.

The operating instructions must always be accessible at the place of use of the grinding machine.

The operating instructions must be read and used by all persons entrusted with working on the grinding machine, e.g. those entrusted with

- transportation, installation, commissioning
- operation, including fault elimination in the process flow, as well as
- upkeep (maintenance, repair).

In addition to the operating instructions and the binding accident prevention regulations applicable in the country and place of use of the machine, the generally acknowledged rules of technology with regard to safe and professional work practices are to be observed.

1.2 Warnings and symbols in the operating instructions

Heeding the following safety alert symbols/designations used in the operating instructions is absolutely necessary:



The hazard triangle with the signal word "CAUTION" is a work safety indicator for all work for which there is a risk of serious or fatal injury.

Special care and caution must be taken when carrying out such work.



"ATTENTION" is used to draw attention to particular points in order to avoid damage and/or destruction of the grinding machine and its environment.



"NOTICE" refers to user tips and especially useful information.

1. Important notes

1.3 Warning signs and their meaning

1.3.1 Warning and prohibition signs on the grinding machine

The following warning and prohibition signs have been affixed to the grinding machine:



CAUTION! DANGEROUS ELECTRIC VOLTAGE (Warning signs on switch cabinet)

On being connected to the current supply (3x 400 V), the grinding machine becomes electrically live and touching its live parts directly could be life-threatening.

Current-carrying device parts may only be opened by authorized personnel.

The grinding machine must be separated from the mains supply before carrying out servicing, maintenance and repair work on it.



CAUTION! RISK OF INJURY FROM ABRASIVE PARTICLES (mandatory sign on the front plate)

Grinding and dressing gives rise to grinding particles which could enter the eyes.

Wearing protective goggles is mandatory when carrying out such work.

1.3.2 General mandatory signs

The following general mandatory signs must be followed:



CAUTION! RISK OF INJURY FROM KNIFE

Work on the grinding machine involves grinding knives that could cause cut injuries due to the sharp blades.

Wearing protective gloves is mandatory when carrying out such work.

Caution when transporting blades.

Protective gloves should also be worn when changing the coolant (see chapter 8.1).

1. Important notes

1.4 Rating plate and serial number



Figure 1-1 Rating plate

The rating plate is to be found on the right-hand side of the machine.



Figure 1-2 Machine serial number

The machine serial number is to be found on the rating plate and in the machine room, visible due to the KNECHT logo.

1.5 Figure and item numbers in the operating instructions

If there is a reference to a machine component in the text which is depicted in an image, the figure and item number will be given in parentheses.

Example: (7-5/1) means Figure number 7-5, item 1.

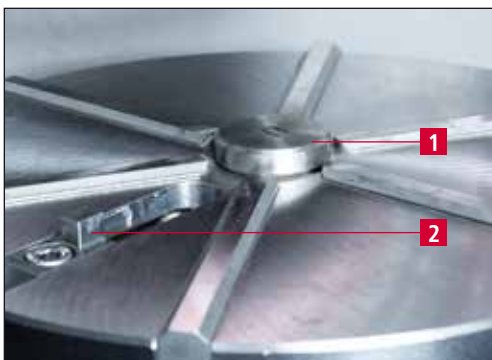


Figure 7-5 Centering piece and follower

The workpieces are mounted and correctly aligned on the rotary table by means of centering pieces (7-5/1) and the follower (7-5/2). The corresponding centering piece is placed in the bore at the center of the rotary table.

The follower is used to attach smaller workpieces to the rotary table.

2. Safety

2.1 Basic safety instructions

2.1.1 Observe notes in the operating instructions

The basic prerequisite for the safe handling and uninterrupted operation of this grinding machine is knowledge of the basic safety instructions and regulations.

- These operating instructions contain important notes on how to operate the grinding machine safely.
- All persons carrying out work on the grinding machine must follow these operating instructions, in particular the safety notices.
- In addition, the rules and regulations regarding accident prevention at the place of use are to be observed.

2.1.2 Obligation on the part of the operator

The operator is obliged to allow only those persons to work on the grinding machine, who

- are familiar with the occupational safety and accident prevention regulations and have received instruction in handling the grinding machine,
- have read and understood the operating instructions, in particular the section entitled "Safety" and the warning notes, and have provided signed confirmation of this.

The safety-related work of personnel will be monitored at regular intervals.

2.1.3 Obligation on the part of the personnel

All personnel working on the grinding machine shall be obliged, before starting work, to

- observe basic occupational safety and accident prevention regulations,
- read the operating instructions, particularly the section entitled "Safety" and the warning notes, and provide signed confirmation of this.

2.1.4 Hazards involved in handling the grinding machine

The grinding machine has been built to the latest technological standards and the acknowledged rules of technical safety. In spite of that, its use presents inherent risks which could result in bodily harm or even death of the user or third persons, or impairment of the grinding machine or other property.

The grinding machine may be used only:

- for its intended purpose,
- in faultless condition with regard to safety-related aspects.

2. Safety

Malfunctions that may impair safety are to be rectified immediately.

2.1.5 Malfunction

If safety-relevant malfunctions occur with the grinding machine, or if the processing behavior indicates that such malfunctions may have occurred, the grinding machine must be stopped immediately and until such time as the malfunction has been found and eliminated.

Allow only authorized trained personnel to eliminate the malfunctions.

2.2 Intended use

The grinding machine is designed solely for surface grinding mincing plates and knives, also referred to in the following as workpieces.

All knives must be clamped in the center on the rotary table.

Any other use is considered to be improper. The company KNECHT Maschinenbau GmbH is not liable for any damage arising from this. The user alone bears this risk.

Use as intended includes the observance of all the notes in the operating instructions.

The grinding machine is being used improperly, if for example:

- fixtures are not properly attached.
- workpieces other than mincing plates and knives are being ground.

2.3 Warranty and liability

Warranty and liability claims in case of personal injury or property damage are excluded if such damage is attributable to one or more of the following causes:

- improper use of the grinding machine
- improper transportation, commissioning, operation and maintenance of the grinding machine
- operating the grinding machine with defective safety devices, or using improperly attached or malfunctioning safety and protective equipment
- failure to observe the instructions with regard to transportation, commissioning, operation, maintenance and repair of the grinding machine
- unauthorized structural alterations to the grinding machine
- unauthorized modification, e.g. of the drive conditions (output and speed), and
- insufficient monitoring of machine parts that are exposed to wear

2. Safety

- use of unapproved replacement and wear parts

Use only original replacement and wear parts. When using external parts, it cannot be guaranteed that they are constructed and manufactured to be suitable and safe.

2.4 Safety regulations

2.4.1 Organizational measures

Inspect all available safety devices regularly.

Observe prescribed intervals for recurring maintenance work or as specified in the operating instructions!

2.4.2 Protective equipment

Before commissioning the grinding machine, ensure that all protective equipment is properly mounted and in functional condition.

Protective equipment may be removed only after the grinding machine has stopped and has been secured against accidental restart.

When spare parts are supplied, the protective equipment must be attached by the operator as stipulated.

2.4.3 Informal safety measures

The operating instructions must be permanently available at the place of use of the grinding machine. In addition to the operating instructions, the generally applicable as well as the locally relevant accident prevention regulations must also be made available and observed.

All safety alert symbols and danger warnings on the grinding machine must be complete and clearly legible.

2.4.4 Selection and qualification of personnel

Only trained and instructed personnel may work on the grinding machine. Observe the legally permitted minimum age!

The responsibilities of personnel with respect to commissioning, operation, maintenance, and repair must be clearly specified.

Personnel still undergoing training or instruction may only work on the grinding machine under the permanent supervision of an experienced person!

2. Safety

2.4.5 Machine control system

Only trained and instructed personnel are permitted to activate the machine.

2.4.6 Safety measures in normal operation

Do not operate the machine in any unsafe manner. Only operate the grinding machine if all the safety devices are installed and fully functional.

Check the grinding machine for external signs of damage and correct operation of the safety devices at least once every shift.

Report any changes present (including those of the operating behavior) to the responsible office or person. If necessary, shutdown the grinding machine and secure it against restart.

Before activating the grinding machine, ensure that no one will be injured by the start-up of the machine.

In the event of a malfunction, immediately stop the grinding machine and secure it against restart. Rectify malfunctions immediately.

2.4.7 Hazards due to electrical power sources

Work on electrical systems or operating materials may only be performed by a qualified electrician, in accordance with electrical regulations.

Defects such as damaged cables, cable connections, etc., must be rectified immediately by an authorized specialist.



Cables marked in yellow are electrically live even when the main switch is in the off position.

2.4.8 Particular hazard zones

In the area of the grinding wheel, there is a danger of pinching and being drawn in (e.g. clothing, fingers and hair). Wear suitable personal protective equipment.

2.4.9 Servicing (maintenance, repair) and fault elimination

Maintenance work is to be carried out on schedule by trained personnel. Inform operating personnel before beginning repair work. Designate a supervisor responsible for this.

For all upkeep work, the grinding machine is to be disconnected from the power supply and secured against accidental restart. Remove power plug. Cordon off the maintenance area, where required.

2. Safety

After completing maintenance work and fault rectification, install all safety devices and verify that they are fully functional.

2.4.10 Structural modifications to the grinding machine

Modifications, retrofitting or rebuilds of the grinding machine are not allowed without the permission of the manufacturer. This also applies for installation and configuring the safety devices.

Any conversion work requires the written permission from KNECHT Maschinenbau GmbH.

Immediately replace any machine parts that are not in a serviceable state.

Use only original replacement and wear parts. When using external parts, it cannot be guaranteed that they are constructed and manufactured to be suitable and safe.

2.4.11 Cleaning the machine

Handle any cleaning agents and materials used properly and dispose of them in an environmentally-friendly manner.

Dispose of parts subject to wear and replacement parts in a safe and environmentally-friendly manner.

2.4.12 Oils and greases

When using lubricants and grease, follow the safety provisions applicable to the product. Comply with the special regulations for the foodstuffs sector.

2.4.13 Relocation of the grinding machine

Disconnect the grinding machine from any external power, even if adjusting its position slightly. Before restarting the grinding machine, properly connect it to the power supply.

When loading or unloading, only use suspension devices and load suspension devices with sufficient load-bearing capacity. Designate suitable lifting devices for the lifting process.

Ensure that no one, who is not certified for this work, is located where the machine is unloaded and installed.

Only lift the grinding machine correctly with a suspension device in accordance with the operating instructions (attachment points for load suspension devices, etc.). Use only a suitable transport vehicle with sufficient carrying capacity. Secure loads safely. Use suitable attachment points. When putting the machine into operation again, proceed only as instructed in the operating instructions.

3. Description

3.1 Intended use

The W 200 II surface grinding machine grinds mincing plates and knives with a diameter of up to 200 mm.

3.2 Technical specifications

Height (maximum when lever is at top)	approx. 1950 mm
Width (incl. suction unit)	approx. 1263 mm
Depth (maximum, when lever is in forward position)	approx. 980 mm
Weight	approx. 320 kg
Weight (incl. suction unit)	approx. 400 kg
Current supply*	3x 400 V
Mains frequency*	50 Hz
Output*	3.5 kW
Power consumption*	6 kW
Energy consumption*	7 A
Back-up fuse	16 A
Measured A-evaluated emission sound pressure level at workstation LpA**	78 dB (A)
Rotary table diameter	200 mm
Rotary table speed	53 1/min
Grinding wheel diameter	100 mm
Grinding wheel speed	4500 1/min
Cutting speed with grinding wheel d.100***	24 m/s

*) This information may change depending on the electrical power supply.

**) Sound emission value according to EN ISO 11202 (measurement uncertainty KpA 2.5 dB(A)).

***) Beware! The cutting speed of 24 m/s is reached at 50 Hz. An electrical supply with a higher frequency results in higher cutting speeds. Only approved abrasives may be used.

A mincing plate with a diameter of 200 mm was ground.

3. Description

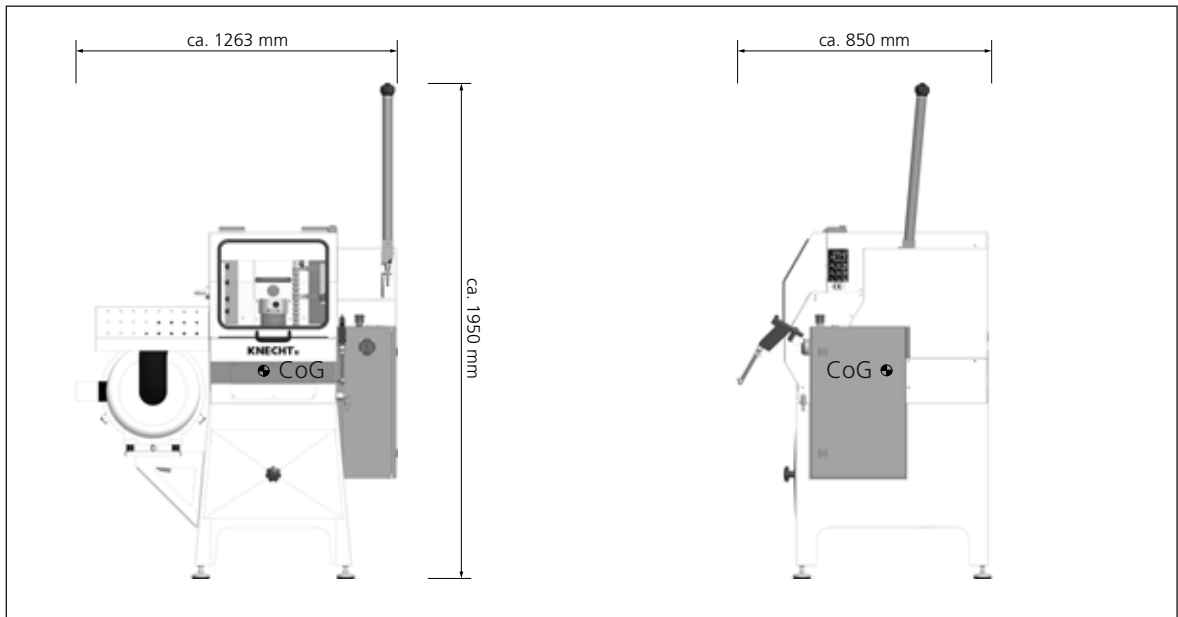


Figure 3-1 Dimensions in mm

3.3 Functional description

The W 200 II surface grinding machine is capable of surface grinding mincing plates and knives with a diameter of up to 200 mm.

ATTENTION

The mincing plate may not protrude over the rotary table.

The mincing plates are fixed on the rotary table of the W 200 II surface grinding machine by means of centering pieces and followers.

For the purpose of surface grinding, mincing knives are attached to a mincing plate using the centering piece for knives included.

Special mounts are available for unusual applications.

The machine is supplied as standard with CBN grinding wheels.

The W 200 II is optionally supplied with an air purification system (referred to in the following as the suction unit).

ATTENTION

Abrasives may only be used if they are approved by KNECHT Maschinenbau GmbH.

3. Description

3.4 Description of modules



Figure 3-2 General view of grinding machine

- 1 Protective door
- 2 Stainless steel table
- 3 Suction unit (optional)
- 4 Control lever "Grinding unit"
- 5 Control panel
- 6 Coolant unit
- 7 Adjustable machine feet

3. Description



Figure 3-3 Interior

- 1 Grinding unit
- 2 Coolant hose
- 3 "Grinding unit" stop
- 4 Locking pin
- 5 LED work light

3. Description

3.4.1 Switching the grinding machine on/off



Figure 3-4 Main switch

The main switch is located at the front of the control panel.

Turning the main switch from “0” to “1” switches on the grinding machine.

Turning the main switch from “1” to “0” switches off the grinding machine.

3.4.2 Control panel

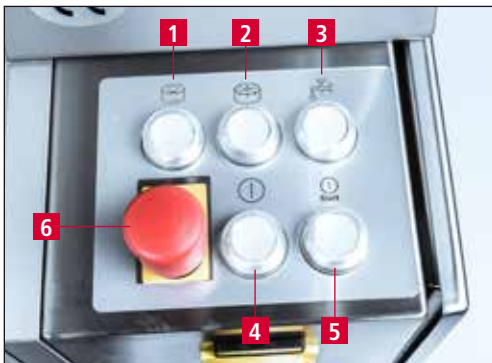


Figure 3-5 Control panel

The machine is operated via the control panel of the PLC control.

The mechanical components are operated using the control buttons and switches.

- 1 “Grinding wheel On/Off” button: Switch grinding wheel on/off
- 2 “Rotary table On/Off” button: Switch rotary table movement on/off
- 3 “Coolant On/Off” button: Switch coolant pump on/off
- 4 “Control ON” button Activate PLC control
- 5 “Drives On/Off” button: Switch drives for grinding wheel, rotary table, coolant pump and suction unit on/off
- 6 “Emergency stop” button

3. Description

3.4.3 Coolant unit

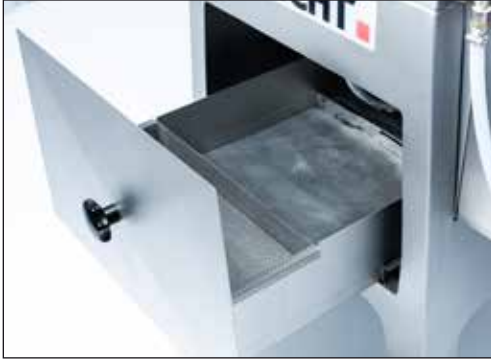


Figure 3-6 Coolant unit

The coolant unit is located in the base of the machine.

During grinding, the workpiece has to be permanently cooled.

For this purpose, put approx. 35 liters of water with coolant additive into the water tank.

4. Transport



When transporting, observe the local applicable safety and accident prevention regulations.

Transport the grinding machine with the machine feet facing downwards.

4.1 Transport aids

When transporting and setting up the grinding machine, use only adequately dimensioned transport aids, e.g. truck, forklift or hydraulic lifting truck.

When using a forklift or a lifting truck, move the fork under the grinding machine.

Note the machine's center of gravity when transporting. The center of gravity (CoG) is shown in figure 3-1.

4.2 Transport damage

If damage is detected after unloading when receiving a delivery, notify KNECHT Maschinenbau GmbH and the forwarding agent immediately. Refer directly to an independent specialist as needed.

Remove the packaging and shipping straps. Remove the shipping straps on the grinding machine. Dispose of packaging in an environment-friendly manner.

4.3 Transport to another installation site

For transport to another installation site, ensure that the space requirements are fulfilled (see chapter 3.2).

A permissible electrical connection must be provided at the new installation site. The grinding machine must sit tightly and securely.



Work on the electrical unit is only to be carried out by an authorized specialist. Observe the local applicable safety and accident prevention regulations.

5. Installation

5.1 Selection of qualified personnel



We recommend having maintenance work on the grinding machine carried out by trained KNECHT personnel.

We are not liable for any damage resulting from improper installation.

5.2 Installation site

Consider the necessary space requirements for installation, maintenance, and repair work when determining the location at which to set up the grinding machine.

5.3 Supply connections

The grinding machine is provided with the corresponding connection cable.



Confirm that the machine is correctly connected to the current supply.

5.4 Settings

KNECHT Maschinenbau GmbH will configure the various components as well as the electrical system before delivery.

ATTENTION

Unauthorized changes to the preset values are not permitted and can damage the grinding machine.

5. Installation

5.5 Using the grinding machine for the first time

Place the grinding machine at the installation site on a level base.

Adjust the machine feet to compensate for unevenness in the floor.

Have an authorized electrician install the current supply on-site.

Completely install and inspect the protective equipment before commissioning.



CAUTION

Be sure to have all the safety devices checked by trained personnel before commissioning.

6. Commissioning



All work on the machine may only be performed by trained personnel.

Observe the local applicable safety and accident prevention regulations.



Figure 6-1 Filling the coolant unit

Fill coolant unit (6-1/1) with approx. 35 liters of water (incl. coolant additive).

For information on coolant additive, see chapter 8.1.

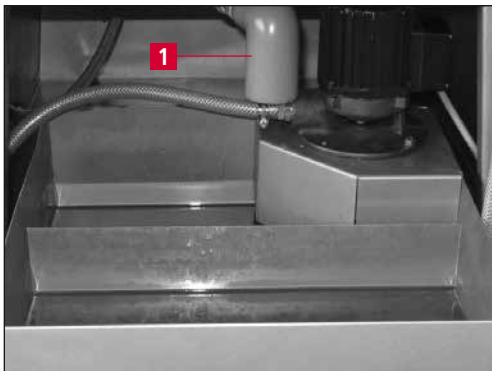


Figure 6-2 Adjusting the discharge

The discharge (6-2/1) must be set up so that waste water can flow into the sieve basket.

The sieve basket is attached by means of recesses.

Connect power plugs (CEE plugs) to the on-site outlet (3x 400 V, 32 A) and set main switch to "I".

6. Commissioning



Figure 6-3 Control panel

Press "Control ON" on the control panel (6-3/1). The PLC control is now activated.

Press the "Rotary table On/Off" button (6-3/2). The rotary table rotates.

ATTENTION

The machine is electrically secured. All units apart from the coolant pump can only be switched on when the protective door is closed.

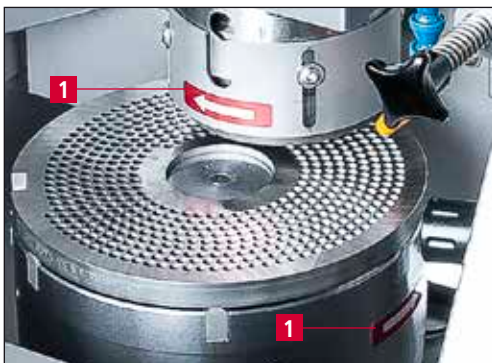


Figure 6-4 Checking the direction of rotation

Check the direction of rotation.

The direction arrows (6-4/1) indicate the direction in which the rotary table and grinding wheel are moving.

Change by means of the pole changer plug if necessary.

ATTENTION

If the connection is incorrect, the grinding wheel and rotary table can rotate in the reverse of the prescribed direction.

The wrong direction of rotation can lead to the grinding wheel becoming loose.

When commissioning, always check the rotational direction of the rotary table first. The rotary table must rotate in a counterclockwise direction.

Once the prescribed direction has been ensured, press the "Rotary table On/Off" button (6-3/2) once again to switch off the rotary table.

7. Operation

7.1 Switching on the grinding machine

Set the main switch (see Figure 3-4) to "1". Press the "Control ON" (3-5/4) switch. The PLC control is now activated.

7.2 Rotary table



Figure 7-1 Rotary table

For processing, the workpieces are placed on the rotary table (7-1/1) and centered. Centering pieces (7-1/2) and a follower (7-1/3) are used to center the workpieces.

7.3 "Grinding unit" control lever

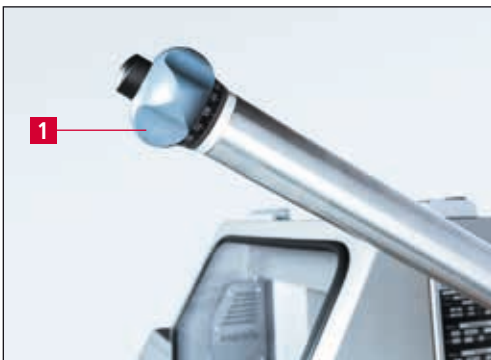


Figure 7-2 "Grinding unit" control lever

The control lever (7-2/1) is used to feed the grinding unit.

In order to achieve a fast feed, the control lever is pressed upwards and pulled forward.



Figure 7-3 "Grinding unit" fine feed

The control level first has to be electromechanically released. For this purpose, press the button (7-3/1) at the tip of the control lever. Once the desired position has been reached, release the button. The control lever is electromechanically locked once again.

For the fine feed, activate the rotary knobs (7-3/2) at the tip of the control lever.

7. Operation

7.4 Workpiece mounting with centering piece



Figure 7-4 Moving the grinding unit into the change position

The grinding unit can be moved back in order to insert the workpiece.

For this purpose, pull out the locking handle (7-4/1) and push the slide back as far as it will go using the grab handle (7-4/2).

After this, lock the grinding unit once again.

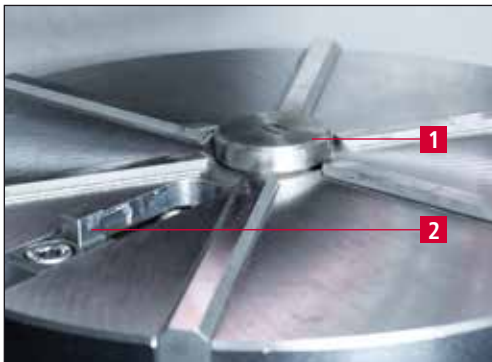


Figure 7-5 Centering piece and follower

The workpieces are mounted and correctly aligned on the rotary table by means of centering pieces (7-5/1) and the follower (7-5/2). The corresponding centering piece is placed in the bore at the center of the rotary table.

The follower is used to attach smaller workpieces on the rotary table.

7. Operation

7.5 Determining working position



Figure 7-6 "Grinding unit" position

The working position of the rotary table varies depending on the size of the workpiece. The correct working position is reached when the workpiece is grasped from the bore to the outer edge of the grinding wheel.



Figure 7-7 "Grinding unit" position

Set the position of the grinding unit as follows: unscrew the stop (7-7/1) and pull the slide forward across the workpiece using the handle (7-7/2) until the working position is reached.

After this, lock the grinding unit once again.

NOTICE

For fine alignment, turn the stop handle (7-4/1) by 180°.

ATTENTION

When grinding mincing knives, make sure that the grinding wheel does not touch the knife collar.

7. Operation

7.6 Configuring the coolant supply

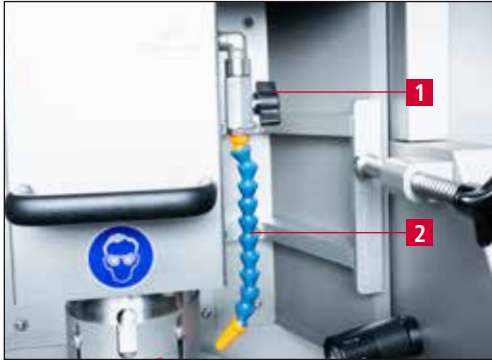


Figure 7-8 Setting the coolant supply

The coolant pump is switched on and off by pressing the “Coolant On/Off” (3-5/3) button while the controller is activated. The coolant supply is regulated using the coolant tap (7-8/1).

The coolant supply is throttled by turning the coolant tap clockwise. Turning it counterclockwise opens the coolant tap and thus the coolant supply.

The coolant hose (7-8/2) is flexible and must be configured so that the coolant flows directly onto the workpiece.

ATTENTION

When grinding, make sure that the workpiece is always provided with sufficient coolant, otherwise the workpiece may overheat, thus damaging the metal structure of the workpiece. Check the coolant level before grinding.

7. Operation

7.7 Grinding mincing plates



Figure 7-9 Mincing plate on rotary table

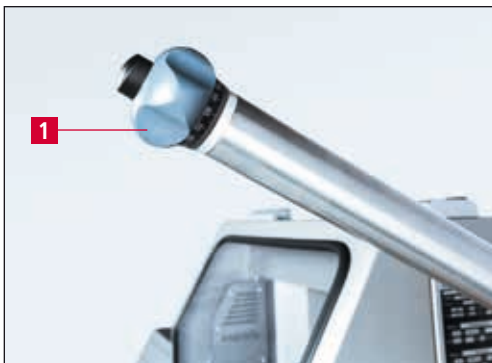


Figure 7-10 "Grinding unit" control lever

ATTENTION



Figure 7-11 "Grinding unit" fine feed

Switch on the grinding machine (see chapter 3.4.1) and activate the control using the "Control ON" (3-5/1) button.

Put the grinding unit in its working position as described in chapter 7.4.

Place the mincing plate onto the rotary table and center it. Use the centering piece (7-9/1) and follower (7-9/2).

Put the grinding unit in its working position as described in chapter 7.4.

Use the control lever (7-10/1) to bring down the grinding unit until it is just above the mincing plate. The grinding wheel may only touch the mincing plate when the drive is activated.

Start the rotary table, coolant pump and suction unit by pressing the "Drive On/Off" button (3-5/5).

The machine is electrically secured. All units apart from the coolant pump can only be switched on when the protective door is closed.

To grind, feed the grinding unit using the fine feed (7-11/1) at the tip of the control level until sparks are clearly visible.

Allow the machine to operate without further feed until the sparks die away. Feed again until the mincing plate is evenly surface-ground.

In order to achieve good surface quality, apply slightly less pressure for approx. 10 seconds after the last feed (using the fine feed).

After grinding, run the grinding unit upwards using the control lever until the drive stops automatically.

7. Operation

The mincing plate can now be removed and ground on the back.

In order to ensure consistent quality, the procedure is completed by grinding the first side once again.

7. Operation

7.8 Surface grinding mincing knives



Figure 7-12 Mincing knife on rotary table

Switch on the grinding machine (see chapter 3.4.1) and activate the control by pressing the "Control ON" (3-5/4) button.

Put grinding unit in its working position as described in chapter 7.4.

Place the mincing knife (7-12/1) onto a surface-ground mincing plate (7-12/2). The collar of the mincing knife lies in the drill hole of the mincing plate. Attach the mincing plate with the follower and use the appropriate centering piece (7-12/3) for mincing knives to center on the rotary table.

Put the grinding unit in its working position as described in chapter 7.4.

When grinding mincing knives, make sure that the grinding wheel does not touch the knife collar.

The position of the rotary table can be set precisely using the stop (7-13/1).



Figure 7-13 "Rotary table" stop

NOTICE

For fine alignment, turn the stop handle (7-13/1) by 180°.

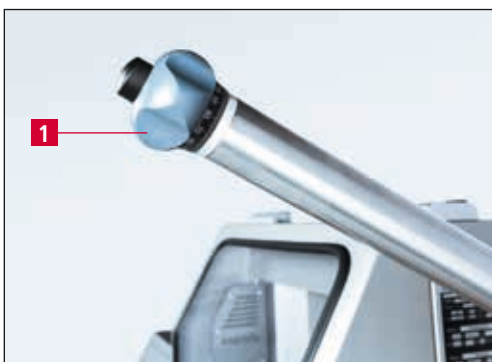


Figure 7-14 "Grinding unit" control lever

Use the "Grinding unit" (7-14/1) control lever on the right-hand side of the machine to bring down the grinding unit until it is just above the mincing plate. The grinding wheel may only touch the mincing knife when the drives are activated.

Start the rotary table, coolant pump and suction unit by pressing the "Drive On/Off" button (3-5/5).

7. Operation

ATTENTION

The machine is electrically secured. All units apart from the coolant pump can only be switched on when the protective door is closed.



Figure 7-15 "Grinding unit" fine feed

To grind, feed the grinding unit using the fine feed (7-15/1) at the tip of the control level until sparks are clearly visible.

Allow the machine to operate without further feed until the sparks die away. Feed again until the mincing knife is evenly surface-ground.

In order to achieve good surface quality, apply slightly less pressure for approx. 10 seconds after the last feed (using the fine feed).

After grinding, run the grinding unit upwards using the control lever (7-15/1) until the drive stops automatically.

The mincing knife can now be removed and ground on the back.

In order to ensure consistent quality, the procedure is completed by grinding the first side once again.

7. Operation

7.9 Changing the CBN grinding wheel

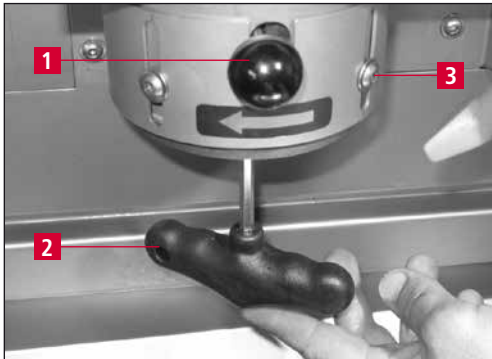


Figure 7-16 Changing the CBN grinding wheel

To release the grinding wheel, insert the locking pin (7-16/1) and press it until the spindle blocks. Release the grinding wheel with the Allen key SW6 (7-16/2) and remove by screwing in a clockwise direction.

Insert the new grinding wheel and tighten with the Allen key SW6 (7-16/2). Remove the locking pin (7-16/1) once again

The protective equipment (7-16/3) must be set in such a way that the grinding wheel is visible.

NOTICE

Only abrasives recommended by KNECHT should be used in order to ensure optimum operation.

Take care to ensure that the locking pin is released and removed before switching the machine on (briefly rotate the wheel by hand).



CAUTION

For all work on the grinding machine, the locally applicable safety and accident prevention regulations as well as instructions in the "Safety" and "Important notes" section of the operating instructions must be observed.

Use only original replacement and wear parts. When using external parts, it cannot be guaranteed that they are constructed and manufactured to be suitable and safe.

A test run must be carried out after mounting the new grinding wheel.

8. Care and maintenance

8.1 Coolant additive

It is imperative to add a rust-suppressing coolant additive to the coolant (see chapter 8.1.1).

ATTENTION

No other coolant additives may be used without the approval of KNECHT Maschinenbau GmbH.

8.1.1 Cooling lubricant maintenance plan

- Check fill level daily.
- After topping up with water, always measure the concentration and if necessary top up with cooling lubricant.
- Check cooling lubricant concentration weekly.

Cooling lubricant: Colometa SBF-PN	Refractometer °Brix: 3 - 5			
Date:	°BRIX	Conc %	Remarks etc.	Signature

(The value read off in °Brix multiplied by 1.6 is the concentration in %).

The concentration must always be between 3 - 5 °Brix (corresponds to a concentration of 5 - 9%).

Check the odor and appearance of the cooling lubricant regularly. The cooling lubricant must be replaced at least every three months (biological hazard due to germ formation in the cooling lubricant).

8. Care and maintenance

8.2 Lubrication



Figure 8-1 Lubrication

All bearing points are fitted with waterproof, grease-lubricated anti-friction bearings and are therefore maintenance-free.

The ball bearing guide (8-1/1) of the grinding head should be lubricated with fluid grease every four weeks. This is done through the recesses above the KNECHT inscription inside the top cover of the machine.

The rotary table should be lubricated with multi-purpose grease every four weeks.

Lubricate the control lever with fluid grease as necessary.

8.2.1 Lubrication schedule and lubricant table

Lubrication work	Cycle	OEST	SHELL	EXXON Mobil
Ball bearing guide	4 weeks	LT 0000-EP	Rentiax CSZ	–
Rotary table	4 weeks	L2 multipurpose grease		
Oil machine parts after cleaning	After each grinding	Paraffinum Perliquidum 16 L	Shell Risella 917	Marcol 82

8.3 Maintenance plan

Interval	Assembly	Maintenance task
Daily	Grinding space	Clean plate in interior using the spray gun.
	Grinding space	Clean glass on lights.
	Grinding space	Clean panel of hinged door.
Weekly	Coolant tank	Check fill level, refill as necessary. If the water was refilled, check the concentration (see chapter 8.1.1) and refill cooling lubricant as needed.
	Coolant tank	Empty and clean skimmer basket.
	Water system	Measure cooling lubricant concentration (see chapter 8.1.1)
	Suction unit	Clean hose support and check filter.

8. Care and maintenance

Monthly	Guide rails	Lubricate guide rails on grease nipple.
	Rotary table	Lubricate rotary table bearing on side grease nipple.
	Rotary table	Lightly grind flat any unevenness.
Annually		Contact service department of KNECHT Maschinenbau GmbH.

8.4 Cleaning

Clean the machine after each grinding process, otherwise the grinding sludge dries and is harder to remove.

After cleaning, we recommend a light application of acid-free oil to the machine.

See also the lubrication schedule, chapter 8.2.1.

9. Disassembly and disposal

9.1 Disassembly

Dispose of all operating materials properly.

Secure moving parts against slippage.

Disassembly must be conducted by qualified trained personnel.

9.2 Disposal

After the machine has reached the end of its service life, it must be disposed of by qualified trained personnel. In certain situations, and after consultation with KNECHT Maschinenbau GmbH, the machine may be returned.

Operating materials (e.g. grinding wheels, coolants etc.) must also be disposed of correctly.

10. Service, spare parts and accessories

10.1 Postal address

KNECHT Maschinenbau GmbH
Witschwender Straße 26
88368 Bergatreute
Germany

Telephone +49-7527-928-0
Fax +49-7527-928-32

mail@knecht.eu
www.knecht.eu

10.2 Service

Service line:

For address, see postal address

service@knecht.eu

10.3 Spare parts

If you are in need of spare parts, please use the spare parts list provided with the machine. Please make your order using the format provided in the following.

When ordering, please always provide:	(Example)
Machine type	(W200II)
Machine serial number	(101156200)
Designation of assembly	(motor carriage, left)
Designation of individual part	(guide carriage)
Item no.	(09)
Drawing no.	(405L-08-0426)
Quantity	(1)

We are always happy to answer any questions.

10. Service, spare parts and accessories

10.4 Accessories

10.4.1 Grinding wheels used

Type	Dimension	Supplement	Standard	Order number	Note
CBN	d.100xd.40x40			412F-73-0106	Standard

NOTICE

Do not use any other abrasives without the approval of KNECHT Maschinenbau GmbH.

KNECHT Maschinenbau GmbH does not accept any liability if other grinding wheels are used.

If you require grinding wheels or other accessories, please contact our sales staff, dealers, or KNECHT Maschinenbau GmbH directly.

Thank you for choosing KNECHT!

11. Annex

11.1 EC Declaration of Conformity

in accordance with the EC Directive 2006/42/EC

- Machinery Directive 2006/42/EC
- Electromagnetic Compatibility Directive 2014/30/EC

We hereby declare that the machine designated as follows, due to its construction and design as well as the version we sell, complies with the relevant basic safety and health requirements of the applicable EC Directive.

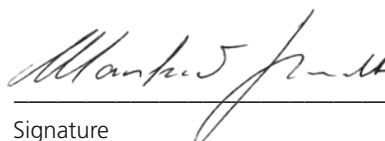
If the machine is modified in a manner that we did not condone, this declaration shall no longer be valid.

Designation of the machine:	Surface Grinding Machine
Model designation:	W 200 II
Applicable harmonized standards, especially:	DIN EN 12100-1 DIN EN 12100-2 DIN EN 60204-1 ISO 13857 DIN EN 349
Responsible for documentation:	Peter Heine (B. Eng. Mechanical Engineering BA) Tel. +49-7527-928-15
Manufacturer:	KNECHT Maschinenbau GmbH Witschwender Straße 26 88368 Bergatreute Germany

Technical documentation is available and complete. The operating instructions document for the machine is available in its original version and in the native language of the user.

Bergatreute, October 28, 2019

Place, date


Signature

Managing Director

Signatory details

KNECHT Maschinenbau GmbH

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