

Operating Instructions

W 40

Fully Automatic 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 easy to learn how to use the Fully Automatic Surface Grinding Machine, hereafter referred to as grinding machine and to properly utilize its features.

These operating instructions contain important notes on how to operate the grinding machine safely, properly and efficiently. Observing these instructions helps to avoid hazards, reduce repair costs and downtimes, and to increase the reliability and service life of the grinding machine.

The operating instructions must always be stored in the location that the grinding machine is used.

The operating instructions must be read and applied by every person tasked with working with the grinding machine, e.g.:

- transport, installation, commissioning
- operation, including error rectification during operation, as well as
- servicing (maintenance, repair).

Recognized technical standards for safe and professional work must be observed in addition to these operating instructions and the binding accident prevention regulations applicable in the country of use and at the place of use.

1.2 Warnings and symbols in the operating instructions

The operating instructions use the following symbols/designations that must be followed:



The hazard triangle with the signal word “CAUTION” serves as a work safety notice for all work for which there is a risk of personal injury or death. In these cases, work should be done with special attention and care.



“ATTENTION” is written in places where special attention must be paid to prevent damage or destruction of the grinding machine or its surroundings.



“NOTICE” refers to user tips and especially useful informations.

1. Important notes

1.3 Warning and mandatory signs and their meaning

1.3.1 Warning and mandatory signs on /in the grinding machine

The following warnings and mandatory signs have been affixed on/in the grinding machine:



CAUTION! DANGEROUS ELECTRICAL VOLTAGE!
(warning sign on the control cabinet)

The grinding machine carries life-threatening voltage when it is connected to the power supply.

Voltage-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! PACEMAKER
(prohibition sign on the safety flap)

A strong magnet is built into the machine. To avoid any adverse effects on persons with a pacemaker, a minimum distance of 30 cm must be maintained between the rotary table and the implant.

1.3.2 General warning and mandatory signs

The following general mandatory signs must be observed:



CAUTION! RISK OF INJURY FROM KNIFE!

Working with the grinding machine involves grinding knives that could cause serious cut injuries due to their sharpness.

Caution when transporting knives. Use the protective equipment provided by the knife manufacturer. Protective gloves and safety shoes must be worn.

Protective gloves must also be worn when changing the coolant (see Chapter 9.4).

1. Important notes

1.4 Rating plate and machine serial number

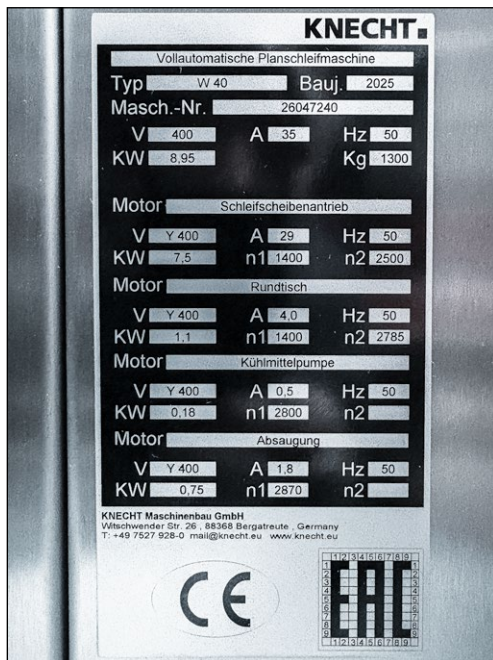


Figure 1-1 Rating plate

The rating plate (1-1) is located on the right side of the machine behind the control panel.

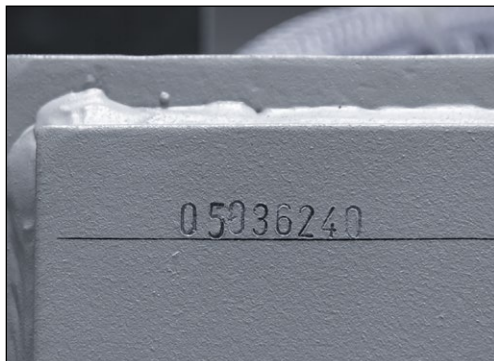


Figure 1-2 Machine serial number

The machine serial number (1-2) is located on the rating plate (1-1) and in the machine room, visible through the opening of the suction unit.

1. Important notes

1.5 Figure and position numbers in the operating instructions

If the text makes a reference to a machine component depicted in a figure, the figure and position number will be given in brackets.

Example: (7-1/1) means picture number 7-1, position 1.

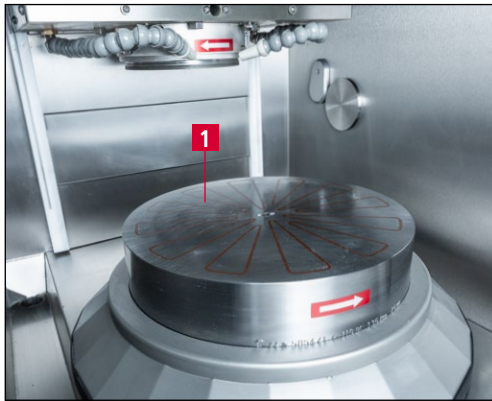


Figure 7-1 Rotary table

For processing, the workpieces are placed on the rotary table (7-1/1). The rotary table has an electromagnet to hold the workpiece in place. The strength of the magnetic field is divided into six levels and can be adjusted.

The rotary table is driven by a spur gear. Two speeds are available.

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-awareness of the personnel at work 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 that they have understood them.

2.1.4 Hazards involved in handling the grinding machine

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

The grinding machine may be used only:

- for its intended purpose
- in a safe and secure condition.

Malfunctions that may impair safety are to be eliminated immediately.

2. Safety

2.1.5 Malfunctions

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 only suitable for surface grinding cutting sets for mincers, inline grinders and emulsifiers, hereinafter also called workpiece.

All knives must be clamped centrally on the magnetic rotary table.

Any other use or use beyond this is not considered as intended. KNECHT Maschinenbau GmbH is not liable for any damage resulting from this. The risk is borne solely by the user.

Intended use also includes observing all instructions in the operating manual.

ATTENTION

Improper use of the grinding machine exists, for example, if:

- **fixtures are not properly attached.**
- **workpieces other than those described in Chapter 2.2 are 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 transport, 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),
- failure to monitor machine parts that are subject to wear, and

2. Safety

- use of unapproved replacement and wear parts.

Use only original replacement and wear parts. If externally purchased parts are used, it is not guaranteed that they have been designed and manufactured to meet the requirements in terms of stress and safety.

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

Protective equipment may only be removed after the grinding machine has come to a complete stop and has been secured against restarting.

When attaching spare parts, 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 locally relevant accident prevention regulations must also be made available and observed.

All safety alert symbols and hazard 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

Under no circumstances make program changes to the software. Parameters that the operator can set himself are excluded from this.

Only trained and instructed personnel are permitted to switch on and operate 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.

At least once per shift (or per day), check the grinding machine for externally visible damage and proper functioning of the safety devices.

Immediately report any changes present (including those of the operating behavior) to the responsible office or person. If necessary, immediately shut down the grinding machine and secure it against restart.

Before you switch on the grinding machine, ensure that no one can 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 immediately rectified by an authorized specialist.



The yellow power supply cable is electrically live even when the main switch is turned off.

2.4.8 Particular hazard areas

In the area of the grinding wheel there is a danger of pinching and being drawing in e.g. clothing, fingers and hair. Suitable personal protective equipment must be worn.

2. Safety

2.4.9 Servicing (maintenance, repair) and fault rectification

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 service work, the grinding machine is to be disconnected from the current supply and secured against accidental restart. Remove power plug. Secure repair area as necessary.

After completing maintenance work and rectifying any faults, install all safety devices and verify that they are fully functional.

2.4.10 Structural alterations to the grinding machine

Do not make any changes, additions or conversions to the grinding machine without the approval of the manufacturer. This also applies to the installation and setup of safety devices.

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

Immediately replace machine parts that are not in perfect condition.

Use only original replacement and wear parts. If externally purchased parts are used, it is not guaranteed that they have been designed and manufactured to meet the requirements in terms of stress and safety.

2.4.11 Cleaning the grinding machine

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

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

2.4.12 Lubricants/oils and greases

When using oils and greases, follow the safety regulations applicable to the product. Comply with the special regulations for the food areas.

2.4.13 Relocation of the grinding machine

Disconnect the grinding machine from any external power supply, even in the event of a minor change of location. Before restarting the grinding machine, connect it properly to the power supply.

For loading work, use only lifting equipment and load-bearing devices with sufficient lifting capacity. Appoint a qualified instructor for the lifting operation.

No persons other than those designated for this work may be present in the loading and installation area.

2. Safety

Only lift the grinding machine properly with lifting gear as specified in the operating instructions.
Only use a suitable transport vehicle with sufficient load-bearing capacity. Secure the load reliably.
Use suitable attachment points.

When restarting the machine, proceed only in accordance with the operating instructions.

3. Description

3.1 Intended use

The W40 Fully Automatic Surface Grinding Machine sharpens cutting sets for mincers, inline grinders and emulsifiers up to a diameter of 400 mm.

3.2 Technical specifications

Height	approx. 1740 mm
Width (with belt filter coolant unit)	approx. 1770 mm
Depth	approx. 1745 mm
Space requirement (WxDxH)	approx. 2500x2500x1800 mm
Weight	approx. 1200 kg
Weight Belt filter coolant unit	approx. 90 kg
Power supply*	3x 400 V
Mains frequency*	50 Hz
Power output*	9 kW
Nominal voltage*	35 A
Back-up fuse	25 A
Operating noise level (measured A-weighted emission sound pressure level at the workplace LpA)**	approx. 75 dB (A)
Rotary table diameter	400 mm
Rotary table speed	31 and 62 rpm
Grinding wheel diameter	200 mm
Grinding wheel speed	100–3000 rpm
Cutting speed with grinding wheel d.200***	31 m/s

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

**) Two-digit sound emission value according to EN ISO 4871. Noise emission value indication according to EN ISO 11201, measurement uncertainty KpA: 3 dB(A). A mincer plate from Turbocut (d.200 mm) was ground.

***) Caution! The cutting speed of 31 m/s is achieved at 50 Hz. An electrical supply with a higher frequency results in higher cutting speeds. Only use abrasives permitted for this purpose.

3. Description

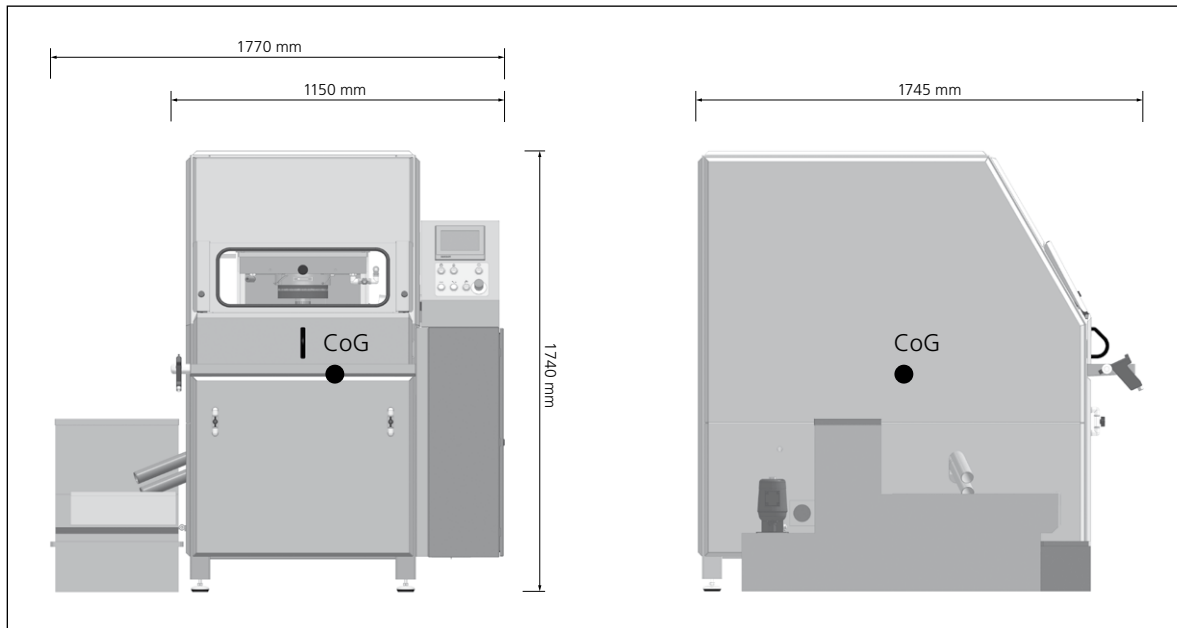


Figure 3-1 Dimensions in mm and center of gravity (CoG) of the machine

3.3 Functional description

The W40 Fully Automatic Surface Grinding Machine is used to grind cutting sets for mincers, inline grinders and emulsifiers up to a diameter of 400 mm.

Workpieces are fixed and ground on the rotary table of the W40 surface grinding machine using centering pieces and magnetic clamping.

Cross knives are fixed to a mincer plate for surface grinding using the appropriate centering piece for the cross knife.

Special fixtures are also available for special applications.

The machine is supplied as standard with a CBN grinding wheel, an air cleaning unit (hereinafter called suction unit) and a belt filter coolant unit.

3. Description

3.4 Description of the assemblies



Figure 3-2 General view of grinding machine

- 1 Control panel
- 2 Safety flap
- 3 Working light (hidden)
- 4 Flexible jointed coolant hose
- 5 Grinding unit (z-axis)
- 6 Rotary table (y-axis) (hidden)
- 7 Coolant tap
- 8 Belt filter coolant unit
- 9 Adjustable machine feet
- 10 Suction Unit

3. Description

3.4.1 Switching the grinding machine on/off

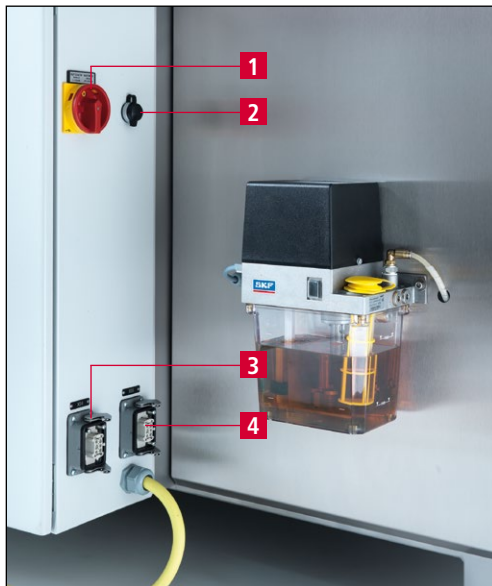


Figure 3-3 Main switch

The main switch (3-3/1) of the grinding machine is located on the backside of the control cabinet.

Turning the main switch to position "1 ON" activates the grinding machine ready for operation.

Turning the main switch to position "0 OFF" disconnects the grinding machine from the power supply.

- 2 Connection for internet
- 3 Connection for coolant pump
- 4 Connection for belt filter coolant unit

3.4.2 Control system in general



Figure 3-4 Control panel

The machine is controlled via the control panel on the right side of the machine.

The program is automatically loaded when the machine is switched on. The user interface is activated only when the "Control ON" button is pressed.

The machine is operated via the touch panel (3-4/1) and the buttons (3-4/2).

3. Description



Figure 3-5 Control panel

- 1 "Magnet On/Off" button: switches the rotary table magnet on/off
- 2 "Start/Stop" button: start / stop the selected product file
- 3 "Control ON" button: activate control
- 4 "Feed" button: manually increase the traverse speed of the axes
- 5 "Step" button: feed the grinding unit a defined step
- 6 "Coolant pump on/off" button: switch coolant pump on/off
- 7 "Emergency stop" button

3. Description

3.4.3 Layout of user interface (main screen)

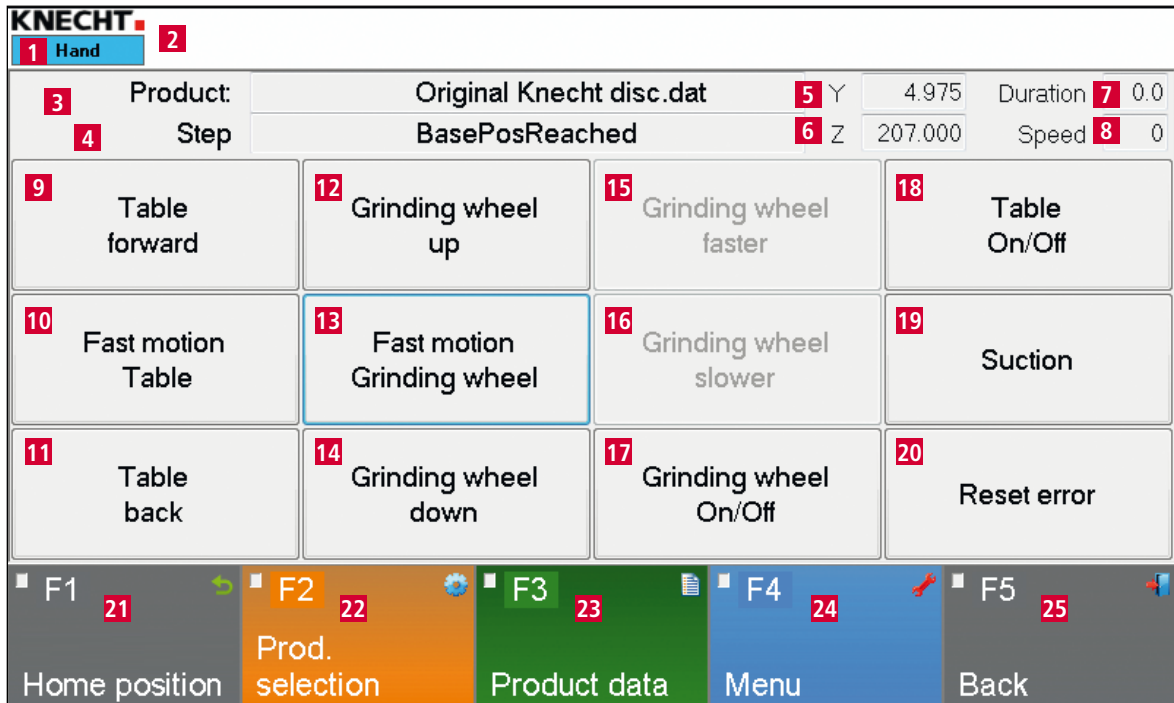


Figure 3-6 Main screen

- 1 Status display
- 2 Error messages
- 3 Loaded product file
- 4 Current processing cycle
- 5 Actual value of y-axis
- 6 Actual value of z-axis
- 7 Grinding time (in s)
- 8 Current speed of the grinding wheel
- 9 **"Table forward"**: move the table forward
- 10 **"Fast motion Table"**: rapid traverse for table forward/backward
- 11 **"Table back"**: move the table backward
- 12 **"Grinding wheel up"**: move the grinding wheel upward
- 13 **"Fast motion Grinding wheel"**: rapid traverse for grinding wheel up/down
- 14 **"Grinding wheel down"**: move the grinding wheel downward
- 15 **"Grinding wheel faster"**: increase the speed of the grinding wheel
- 16 **"Grinding wheel slower"**: decrease the speed of the grinding wheel
- 17 **"Grinding wheel On / Off"**: switch the grinding wheel on / off
- 18 **"Table On / Off"**: switch the table on/off
- 19 **"Suction Unit"**: switch the suction unit on/off
- 20 **"Reset errors"**: delete temporary fault messages
- 21 **"Home position"**: move the table and grinding wheel to the home position

3. Description

- 22 **"Prod. selection"**: select the product files
- 23 **"Product data"**: change the parameters of the product files
- 24 **"Menu"**: manage the product files and language of the user interface
- 25 **"Back"**: back to the last view

3.4.4 Belt filter coolant unit



Figure 3-7 Belt filter coolant unit

The belt filter coolant unit (3-7) is located on the left side of the machine.

ATTENTION

The grinding machine's mechanical components are not corrosion-resistant! Always use coolant additive.

4. Transport



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

Only transport the grinding machine with the machine feet facing downwards.

4.1 Transport aids

For transporting and for setting up of the grinding machine, only use 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 during acceptance of the delivery, immediately inform KNECHT Maschinenbau GmbH and the forwarding agent. If necessary, an independent expert must be called in immediately.

Remove packaging and fastening 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 stand firmly and securely.



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

5. Installation

5.1 Selection of qualified personnel



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

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

5.2 Installation site

When determining the installation site, bear in mind the space required for installation as well as maintenance and repair work on the grinding machine (see Chapter 3.2).

5.3 Supply connections

The grinding machine is provided ready to connect with the corresponding connection cable.

The power supply must be installed on site by a qualified electrician.



Check that the power supply is connected correctly.

If the connection to the voltage supply is incorrect, the grinding wheel can rotate in reverse of the prescribed direction. An incorrect direction of rotation can result in serious injuries.

Observe the prescribed rotating direction, see Chapter 6.

5.4 Settings

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

ATTENTION

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

5. Installation

5.5 Initial start-up of the grinding machine

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

Compensate uneven floors by turning the machine feet (3-2/9) with an AF 19 mm open-end wrench.

The power supply must be installed on site by a qualified electrician.

Completely install and inspect the protective equipment before commissioning.



Have all protective equipment checked for proper functioning by authorized trained personnel before commissioning the machine.

6. Commissioning



CAUTION

All work may only be carried out by authorized specialist personnel.

Observe the locally applicable safety and accident prevention regulations.

Check that the power supply is connected correctly.

If the connection to the voltage supply is incorrect, the grinding wheel can rotate in reverse of the prescribed direction. An incorrect direction of rotation can result in serious injuries.

Observe the prescribed rotating direction!



Figure 6-1 Filling the belt filter coolant unit

Set up and connect the belt filter coolant unit.

Fill with approx. 140 liters water and approx. 7 liters COLOMETA ecoS 602 coolant additive (mixing ratio 1:20) (see Chapter 9.4).

Connect the power plug to the socket provided on site (3x 400 V, 32 A) and set the main switch to the position "1 ON".



Figure 6-2 Control panel

Close the safety flap (3-2/2).

Press the "Control On" button (6-2/1) on the control panel. The PLC control is activated when the button lights up.

Switch on the magnet of the rotary table with the "Magnet On/Off" button (6-2/2).

6. Commissioning

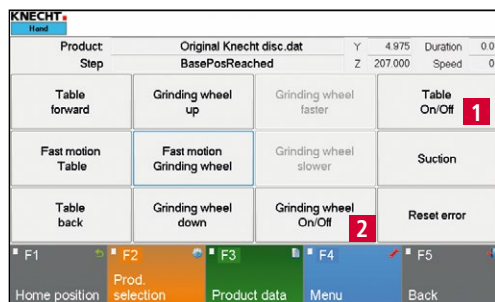


Figure 6-3 Main screen

Press the **"Table On / Off"** (6-3/1) and **"Grinding wheel On / Off"** (6-3/2) touch panel fields on the main screen to switch both on.

The rotary table and the grinding wheel start rotating.

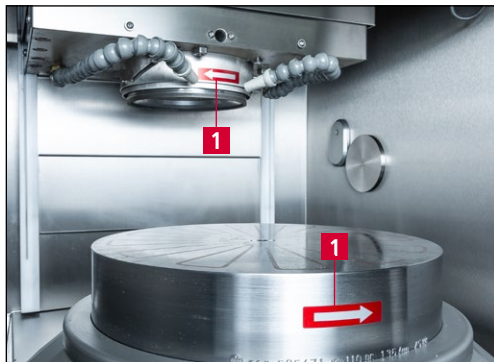


Figure 6-4 Check rotating direction

Check the rotating direction.

The direction arrows (6-4/1) show the rotating direction of the rotary table and grinding wheel.

If the rotating direction of the grinding wheel is incorrect, have the phase reversed by a qualified electrician.

After ensuring the prescribed rotating direction, once again press the **"Table On / Off"** (6-3/1) and **"Grinding wheel On / Off"** (6-3/2) touch panel fields to switch off the rotary table and the grinding wheel.

ATTENTION

In the event of an incorrect connection, the grinding wheel and the rotary table can turn opposite to the specified rotating direction.

An incorrect rotating direction can result in the grinding wheel coming loose.

When commissioning, first check the direction of rotation of the rotary table. The rotary table must rotate counterclockwise.

7. Operation

7.1 Switch on the grinding machine

Set the main switch (3-3/1) to the "I ON" position. Press the "Control On" button (3-5/3). The control unit 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). The rotary table has an electromagnet to hold the workpiece in place. The strength of the magnetic field is divided into six levels and can be adjusted.

The rotary table is driven by a spur gear. Two speeds are available.

7.3 Workpiece holder

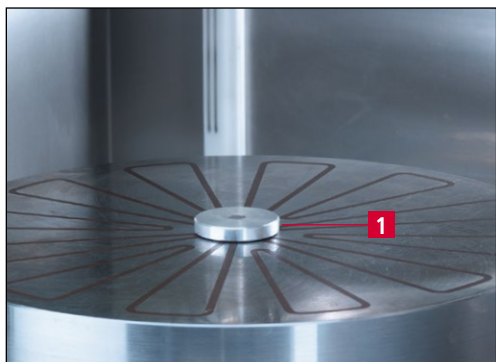


Figure 7-2 Workpiece holder

For loading the workpieces, the rotary table can be moved to the change position. To do this, move the table and the grinding wheel to the initial position via the "**Home position**" touch panel field (3-6/21).

Centering pieces (7-2/1) are used to hold smaller workpieces. The centering pieces are used to properly align the workpiece on the rotary table. The corresponding centering piece is inserted into the hole in the middle of the rotary table.

Large workpieces are centered without a centering piece. The edge of the rotary table and the grooves on the rotary table can be used as orientation aids.

The workpiece is clamped with the electromagnetic table. Before each grinding process, the rotary table's magnet must be activated by pressing the "Magnet On" button (3-5/1).

7. Operation

7.4 Setting the working position

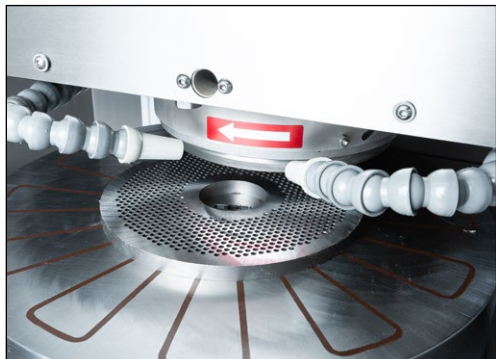


Figure 7-3 Position rotary table

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

The position of the rotary table is defined via the **"Table forward"** (3-6/9) and **"Table back"** (3-6/11) touch panel fields.

Rough adjustment can be carried out by activating **"Fast motion Table"** (3-6/10) and pressing the relevant touch panel fields. For fine adjustment, deactivate the **"Fast motion Table"** touch panel field.

The position of the grinding unit is defined via the **"Grinding wheel Up"** (3-6/12) and **"Grinding wheel Down"** (3-6/14) touch panel fields.

Rough adjustment can be carried out by activating **"Fast motion grinding wheel"** (3-6/10) and pressing the relevant fields. For fine adjustment, deactivate the **"Fast motion grinding wheel"** touch panel field.

ATTENTION

Fast motion highlighted in green: Unit moves continuously without interruption.

Fast motion highlighted in gray: Unit moves a predefined distance.

When grinding cross knives, ensure that the grinding wheel does not touch the collar of the knife.

7. Operation

7.5 Adjusting the coolant supply

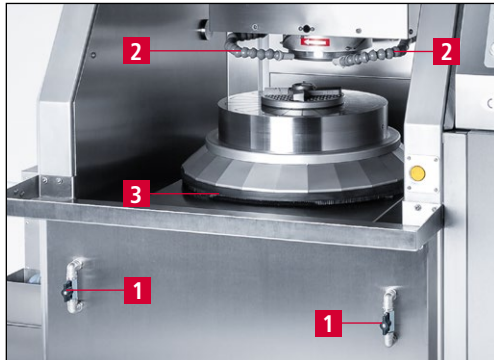


Figure 7-4 Interior

The coolant pump is switched on and off by pressing the "Coolant On/Off" button (3-5/6) when the control unit is activated. The coolant supply can be controlled with the coolant taps (7-4/1).

Turning the coolant tap clockwise reduces the coolant feed. Turning the coolant tap counter-clockwise opens the coolant tap and releases the coolant supply.

The jointed coolant hoses (7-4/2) are flexible and must be adjusted so that the coolant flows directly onto the workpiece.

ATTENTION

When grinding, ensure that the workpiece is always adequately supplied with coolant, otherwise overheating and associated damage could occur in the metal structure of the workpiece. Check the coolant level regularly.

7. Operation

7.6 Surface grinding mincer plates

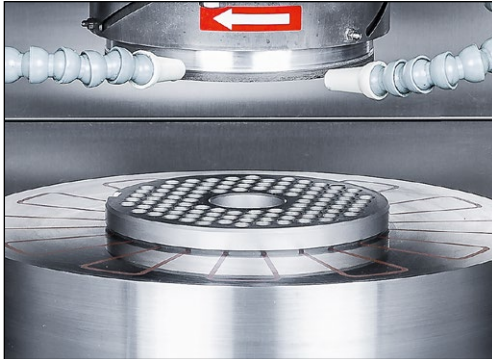


Figure 7-5 Mincer plate on the rotary table

ATTENTION

Switch on the machine (see Chapter 3.4.1) and activate the control unit with the "Control On" (3-5/3) button.

Place and center the mincer plate on the rotary table. For small workpieces, use centering pieces (7-2/1).

Fix the mincer plate in position by pressing the "Magnet On/Off" button (3-5/1).

Close the safety flap (3-2/2).

The machine is electrically secured and the units can only be operated when the safety flap is closed and the magnet is active.

The mincer plates are now ground as described in Chapter 8.1 "Fully automatic touching and grinding", Chapter 8.2 "Fully automatic grinding with direct approach to the preset workpiece height", Chapter 8.3 "Fully automatic touching and grinding with intermediate stop", Chapter 8.4 "Fully automatic grinding with manual touching", or Chapter 8.5 "Manual grinding".

ATTENTION

It is important to ensure that the correct product file is active.

The mincer plate can now be removed and ground on the rear side.

To ensure a consistent level of quality, the first side is then ground again.

7. Operation

7.7 Surface grinding cross knives

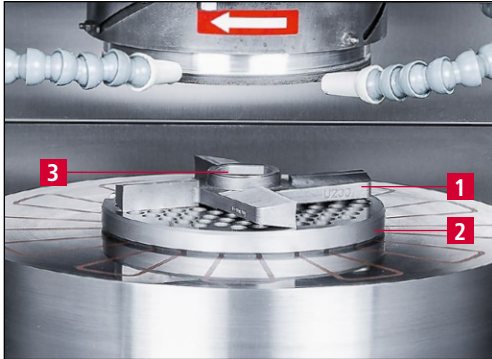


Figure 7-6 Grinding cross knives

NOTE

For grinding cross knives switch on the machine (see Chapter 3.4.1) and activate the control unit with the “Control On” (3-5/3) button.

The cross knife (7-6/1) is placed on a surface-ground mincer plate (7-6/2). The collar lies in the hole of the mincer plate. Centre the mincer plate and cross knife with the flat centering piece for knives (7-6/3).

Fix the cross knife in position by pressing the “Magnet On/Off” button (3-5/1).

The knife is not held with magnetic force. Switching on the magnetic table in this case only serves to enable the control unit so that the grinding drives can be switched on.

When grinding cross knives, ensure that the grinding wheel does not touch the collar of the knife.

Precise adjustments to the position of the rotary table can be made via the **“Table forward”** (3-6/9) or **“Table backward”** (3-6/11) touch panel fields or under “Product data – process data [1] – Product diameter” (8-30/2).

The cross knives are now ground as described in Chapter 8.1 “Fully automatic touching and grinding”, Chapter 8.2 “Fully automatic grinding with direct approach to the preset workpiece height”, Chapter 8.3 “Fully automatic touching and grinding with intermediate stop”, Chapter 8.4 “Fully automatic grinding with manual touching”, or Chapter 8.5 “Manual grinding”.

ATTENTION

It is important to ensure that the correct product file is active.

The cross knife can now be removed and ground on the rear side.

To ensure a consistent level of quality, the first side is then ground again.

7. Operation

7.8 Replacing the grinding wheel



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



Figure 7-7 Loosening the grinding wheel

Open the safety flap (3-2/2).

The grinding wheel is easily replaced using the locking pin (7-7/1) and the mounting wrench.

To release the grinding wheel, insert the locking pin (7-7/1) into the hole above the grinding wheel. To do this, turn the grinding wheel until the locking pin blocks the rotation.



Figure 7-8 Loosening the grinding wheel

Then place the mounting wrench (7-8/1) on the flange (7-8/2) from below and loosen the grinding wheel by turning it **clockwise**.



Figure 7-9 Replacing the grinding wheel

Attach the new grinding wheel and tighten **counterclockwise** using the mounting wrench (7-9/1).

Pull out the locking pin (7-7/1) again.

After replacing the grinding wheel, the grinding wheel guard must be readjusted. The grinding wheel must not protrude more than 1.5 cm below the guard.

7. Operation

NOTE

Ensure that the locking pin (7-7/1) is removed when switching on the machine (turn the wheel briefly by hand).

ATTENTION

Only original abrasives from KNECHT Maschinenbau GmbH are permitted to be used.

KNECHT Maschinenbau GmbH assumes no responsibility for the use of non-original abrasives.

8. Control

8.1 Fully automatic touching and grinding



Figure 8-1 Control panel

Press the "Control On" button (8-1/1).

If necessary, activate the relevant product file (see Chapter 8.6).

Place the workpiece. Close the safety flap.

Press the "Magnet On/Off" (8-1/2) and "Start/Stop" (8-1/3) buttons.

All the units are started; table and grinding wheel move to working position in front of the workpiece.

The grinding wheel slowly approaches the workpiece until it touches the surface. The machine runs through the grinding cycles in accordance with the product file.

The units then move back to home position and shut down fully automatically.

The workpiece can be removed.

NOTE

For fully automatic grinding, the parameter "Fully automatic grinding" (8-2/1) must be set to "true" in the product file.

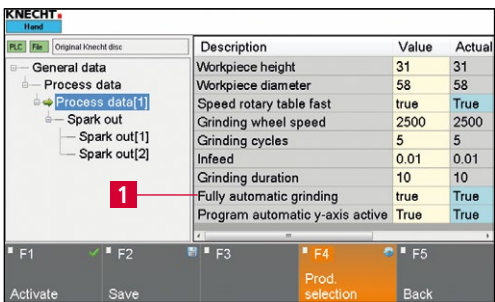


Figure 8-2 "General data – Process data – Process data [1]"

See also Chapter 8.8.2.

8. Control

8.2 Fully automatic grinding with direct approach to the preset workpiece height

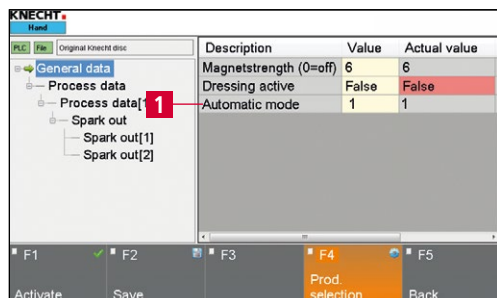


Figure 8-3 "General data"

Press the **"Product Data"** touch panel field (3-6/23) on the main screen to access the product data.

The value "1" must be set on the "Automatic mode" (8-3/1) line under "General data".

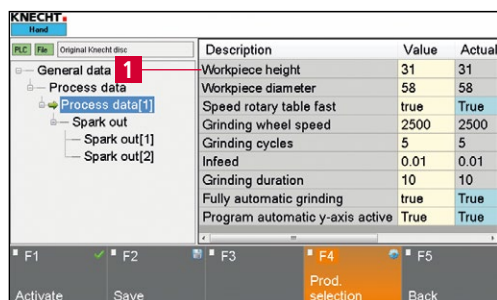


Figure 8-4 "General data – Process data – Process data [1]"

Under "Process data [1]", enter the exact height of the workpiece in the "Workpiece height" line (8-4/1).

ATTENTION

Entering an incorrect workpiece height can lead to damage to the workpiece and machine.



Figure 8-5 Control panel

Press the "Control On" button (8-5/1).

If necessary activate the relevant product file (see Chapter 8.6).

Place the workpiece. Close the safety flap.

Press the "Magnet On/Off" (8-5/2) and "Start/Stop" (8-5/3) buttons.

All the units are started; table and grinding wheel move to working position in front of the workpiece.

8. Control

The grinding wheel runs slowly towards the workpiece until reaching the height entered, where it then begins the grinding process. The machine runs through the grinding cycles in accordance with the product file.

The units then move back to home position and shut down fully automatically.

The workpiece can be removed.

NOTE

For fully automatic grinding, the parameter “Fully automatic grinding” (8-3/2) must be set to “true” in the product file (see also Chapter 8.8.2).

8. Control

8.3 Fully automatic touching and grinding with intermediate stop

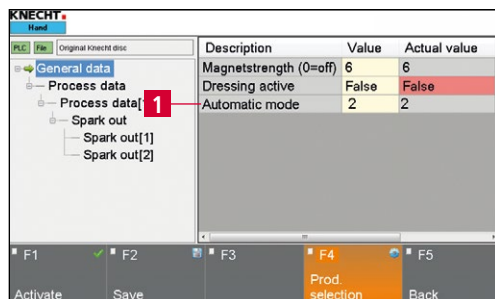


Figure 8-6 "General data"

Press the **"Product Data"** touch panel field (3-6/23) on the main screen to access the product data.

The value "2" must be set on the "Automatic mode" (8-6/1) line under "General data".



Figure 8-7 Control panel

Press the "Control On" button (8-7/1).

If necessary activate the relevant product file (see Chapter 8.6).

Place the workpiece. Close the safety flap.

Press the "Magnet On/Off" (8-7/2) and "Start/Stop" (8-7/3) buttons.

All the units are started; table and grinding wheel move to working position in front of the workpiece.

The grinding wheel slowly approaches the workpiece until it touches the surface. The machine runs through the grinding cycles in accordance with the product file.

After completing the first grinding cycle, the units run back to their initial positions.

Open the safety flap.

You can now turn the workpiece or remove parts of the workpiece, for example with multi-part grinding sets.

Close the safety flap.

Press the "Start/Stop" button (8-7/3).

The units will again run to their working position and carry out the grinding process until completion.

8. Control

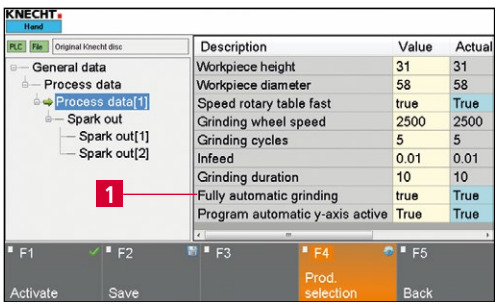
They will then run back to their initial positions and switch off automatically.

The workpiece can be removed.

NOTE

For fully automatic grinding, the parameter “Fully automatic grinding” (8-8/1) must be set to “true” in the product file.

See also Chapter 8.8.2.



Description	Value	Actual
Workpiece height	31	31
Workpiece diameter	58	58
Speed rotary table fast	true	True
Grinding wheel speed	2500	2500
Grinding cycles	5	5
Infeed	0.01	0.01
Grinding duration	10	10
Fully automatic grinding	true	True
Program automatic y-axis active	True	True

Figure 8-8 “General data – Process data – Process data [1]”

8. Control

8.4 Fully automatic grinding with manual touching



Figure 8-9 Control panel

Press the "Control On" button (8-9/1).

If necessary activate the relevant product file (see Chapter 8.6).

Place the workpiece. Close the safety flap.

Press the "Magnet On/Off" (8-9/2) and "Start/Stop" (8-9/3) buttons.

All the units are started; table and grinding wheel move to working position in front of the workpiece.

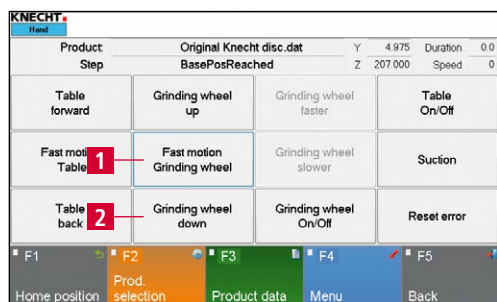


Figure 8-10 Main screen

The surface of the workpiece is approached with the **"Fast motion Grinding wheel"** (8-10/1) and **"Grinding wheel down"** (8-10/2) touch panel fields.

Press the "Start/Stop" button (8-9/3). The machine runs through the grinding cycles in accordance with the product file. The grinding wheel sparks out twice.

The units move back to home position and shut down fully automatically.

The workpiece can be removed.

ATTENTION

Fast motion highlighted in green: Unit moves continuously without interruption.

Fast motion highlighted in gray: Unit moves a predefined distance.

8. Control

NOTE

To be able to grind automatically with manual touching, the parameter “Fully automatic grinding” (8-11/1) in the product file must be set to “false”.

See also Chapter 8.8.2.

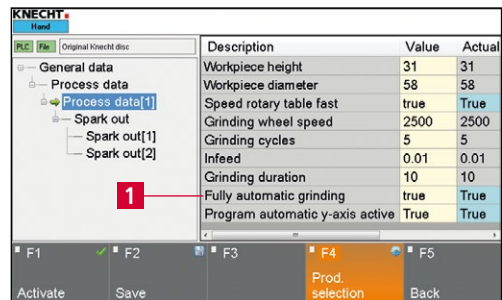


Figure 8-11 “General data – Process data – Process data [1]”

8. Control

8.5 Manual grinding



Figure 8-12 Control panel

Press the "Control On" button (8-12/1).

Place the workpiece. Close the safety flap.

Press the "Magnet On/Off" (8-12/2) and "Coolant On/Off" (8-12/3) buttons.

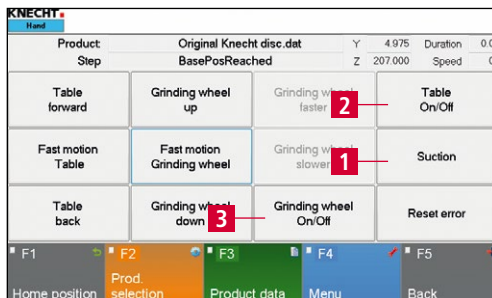


Figure 8-13 Main screen

First activate "Suction" (8-13/1) on the touch panel, then press "Table On/Off" (8-13/2) and "Grinding wheel On/Off" (8-13/3).

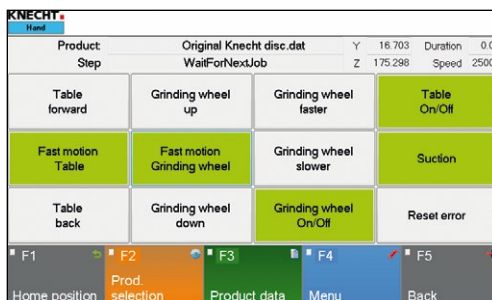


Figure 8-14 Active units

All the required units are switched on now. The relevant buttons are illuminated and the touch panel fields (8-14) are highlighted in green.

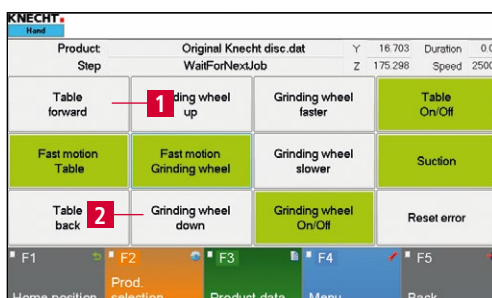


Figure 8-15 Moving the table and grinding wheel in working position

Now "Table forward" (8-15/1) and "Grinding wheel down" (8-15/2) are pressed to move the table (y-axis) and the grinding wheel (z-axis) to working position and to grind the workpiece.

8. Control

ATTENTION

Fast motion highlighted in green: Unit moves continuously without interruption.

Fast motion highlighted in gray: Unit moves a predefined distance.

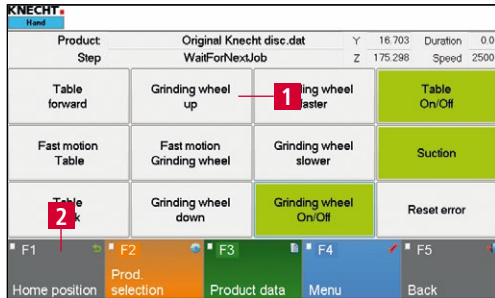


Figure 8-16 Home position

After grinding, raise the grinding wheel by pressing **"Grinding wheel up"** (8-16/1).

Use the **"Home position"** command (8-16/2) to move the machine to its home position.

Switch off all the units manually.

The workpiece can be removed.

8. Control

8.6 Activating a product file

You can grind various mincer plates and cross knives with the most diverse parameters. A separate product file is stored for each grinding operation. This product file must be selected and loaded before grinding in the automatic modes (Chapter 8.1, 8.2, 8.3 and 8.4).

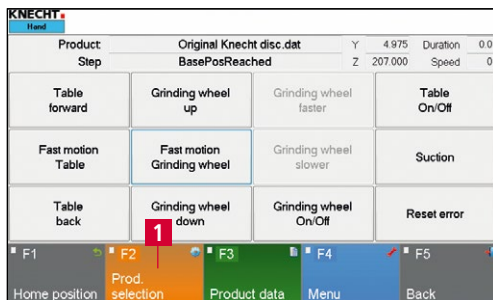


Figure 8-17 Main screen

The is done as follows:

Activate the **“Prod. selection”** touch panel field (8-17/1). A new window (8-18) opens.

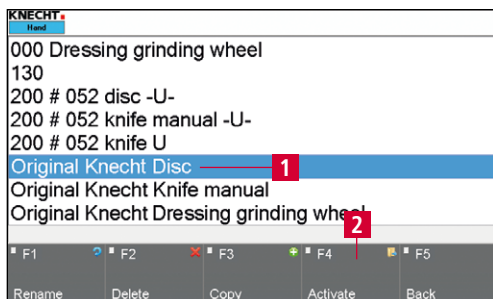


Figure 8-18 Selecting the product file

Select the required product file so that it is highlighted in blue as shown in the figure (8-18/1).

Use the **“Activate”** touch panel field (8-18/2) to load the product file into the control system.

The program automatically switches back to the main screen.

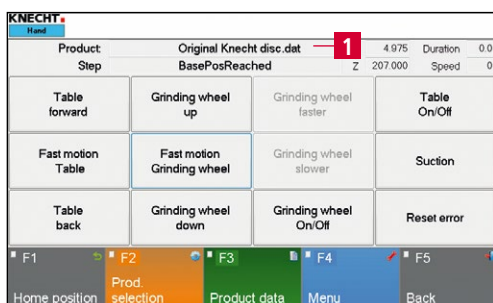


Figure 8-19 Main screen

The new product file appears in the **“Product”** line (8-19/1). The new parameters are now loaded from the control system.

8. Control

8.7 Renaming, creating and deleting the product file

ATTENTION

No parameters are changed.

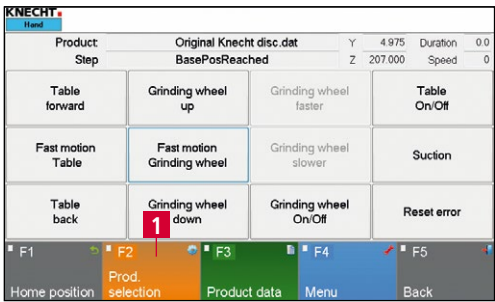


Figure 8-20 Main screen

Product files can be renamed, deleted and new ones created by copying.

This is done as follows:

Activate the **"Prod. selection"** touch panel field (8-20/1).

A new window (8-21) opens.

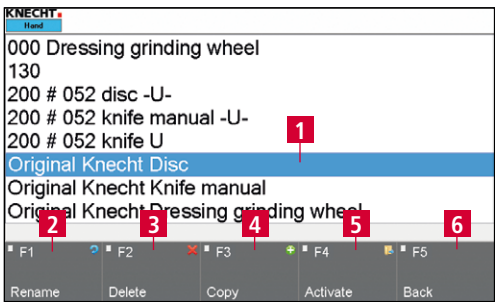


Figure 8-21 Editing a product file

Select the required product file so that it is highlighted in blue as shown in the figure (8-21/1).

Select the relevant touch panel field: **"Rename"** (8-21/2), **"Delete"** (8-21/3) or **"Copy"** (8-21/4).

8. Control

8.7.1 Renaming a product file



Figure 8-22 Renaming a product file

If **"Rename"** (8-21/2) is pressed, the image on the left (8-22) will appear.

Edit the file name (8-22/1) using the keyboard and confirm with **"OK"** (8-22/2).

The window closes. The renamed file appears in the product file directory.

Then activate a product file with **"Activate"** (8-21/2) or return to the main screen with **"Back"** (8-21/6).

8.7.2 Creating a product file



Figure 8-23 Creating a product file

If **"Copy"** (8-21/4) is pressed, the image on the left (8-23) will appear.

Edit the file name (8-23/1) using the keyboard and confirm with **"OK"** (8-23/2).

The window closes. The new file appears in the product file directory.

Continue with Chapter 8.8 to edit the parameters of the product file.

8.7.3 Deleting a product file

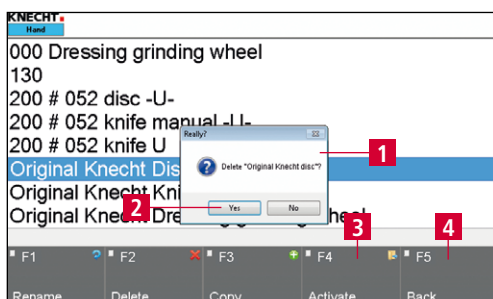


Figure 8-24 Deleting a product file

If **"Delete"** (8-21/3) is pressed, a pop-up window (8-24/1) opens.

Confirm with **"Yes"** (8-24/2); cancel with **"No"**.

The pop-up window closes.

Then activate a product file with **"Activate"** (8-24/3) or return to the main screen with **"Back"** (8-24/4).

8. Control

8.8 Editing the parameters of a product file

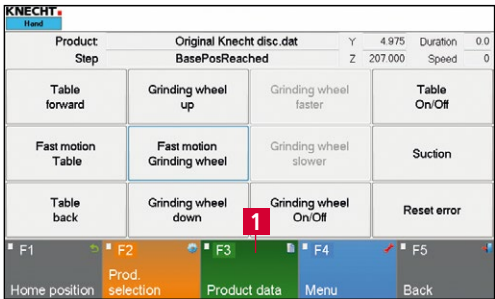


Figure 8-25 Main screen

The parameters of the product files can be changed as follows:

Activate the **“Product data”** touch panel field (8-25/1) on the main screen.

A new window (8-26) opens.

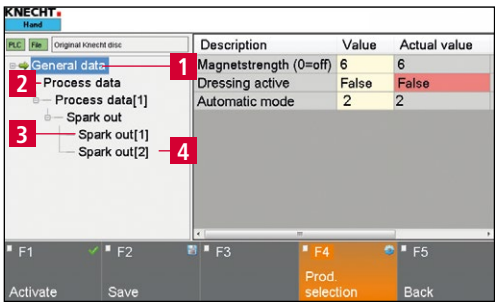


Figure 8-26 Parameter groups

There are four different parameter groups:

„General data” (8-26/1): general data (see Chapter 8.8.1)

“Process data” (8-26/2): grinding process data (see Chapter 8.8.2)

“Spark out [1]” (8-26/3): spark out 1 process data (see Chapter 8.8.3)

“Spark out [2]” (8-26/4): spark out 2 process data (see Chapter 8.8.3)

The active group is always indicated with a green arrow. A group becomes active by pressing on its name. The arrow moves forward and the group is highlighted in blue.

8. Control

8.8.1 Meaning of the parameter "General data"

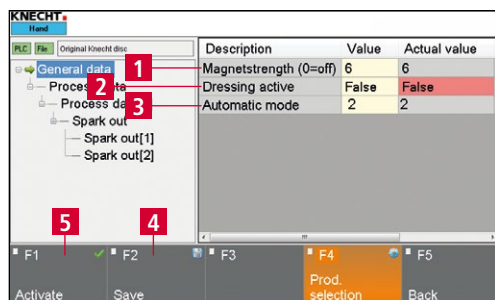


Figure 8-27 Parameter "General data"

Magnet strength (0 = off, 6 = max) (8-27/1): magnet strength from 0 = off to 6 = max

Dressing active (8-27/2): dress the grinding wheel (False = not active, True = active)

Automatic mode (8-27/3): selection of various automatic programs:

- 1 = Fully automatic touching and grinding
- 2 = Fully automatic grinding with direct approach to the preset workpiece height
- 3 = Fully automatic touching and grinding with intermediate stop

Changing the parameters: Tap on the relevant field highlighted in yellow ((8-27/1), (8-27/2) or (8-27/3)).

With "Numbers" the window (8-28) opens; with "Values" the window (8-29) opens.

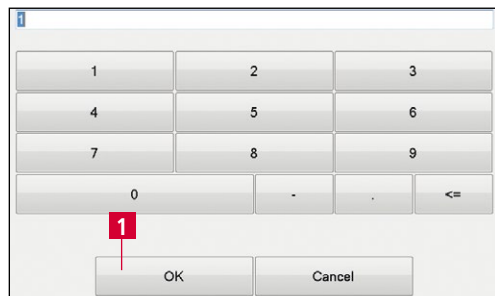


Figure 8-28 Editing the "Number" parameter

Select the desired number and confirm with **"OK"** (8-28/1).

The touch panel field **"Cancel"** closes the window without applying the new number.



Figure 8-29 Editing the "Values" parameter

Select values between **"true"** and **"false"** and confirm with **"OK"** (8-29/1).

The touch panel field **"Cancel"** closes the window without applying the value.

ATTENTION

Save the changed values with the **"Save"** (8-27/4) touch panel field.

8. Control

ATTENTION

If a current product file is changed, transfer it to the control system using the “Activate” touch panel field (8-27/5).

8. Control

8.8.2 Meaning of the parameter "Process data"

Description	Value	Actual
Workpiece height	31	31
Workpiece diameter	58	58
Speed rotary table fast	true	True
Grinding wheel speed	2500	2500
Grinding cycles	5	5
Infeed	0.01	0.01
Grinding duration	10	10
Fully automatic grinding	true	True
Program automatic y-axis active	True	True

Figure 8-30 Parameter "Process data"

- 1 **Workpiece height:** height of the workpiece (in mm)
- 2 **Workpiece diameter:** diameter of the workpiece (in mm)
- 3 **Speed rotary table fast:** speed of the rotary table (True = fast, False = slow)
- 4 **Grinding wheel speed:** speed of the grinding wheel (rpm)
- 5 **Grinding cycles:** number of grinding cycles
- 6 **Infeed:** path that is fed from cycle to cycle (in mm)
- 7 **Grinding duration:** dwell time between cycles (in s)
- 8 **Fully automatic grinding:** automatic or manual touching (True = automatic, False = manual)
- 9 **Program automatic y-axis active:** approaching the home position (True = yes, False = no)

To change the parameters, tap on the relevant button highlighted in yellow.

With "Numbers" the window (8-31) opens; with "Values" the window (8-32) opens.

8. Control

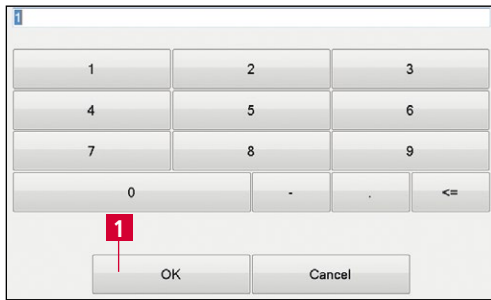


Figure 8-31 Editing the “Number” parameter

Select the desired number and confirm with **“OK”** (8-31/1).

The touch panel field **“Cancel”** closes the window without applying the number.



Figure 8-32 Editing the “Values” parameter

Select values between **“true”** and **“false”** and confirm with **“OK”** (8-32/1).

The touch panel field **“Cancel”** closes the window without applying the value.

ATTENTION

Save the changed values with the **“Save”** (8-30/11) touch panel field.

If a current product file is changed, transfer it to the control system using the **“Activate”** touch panel field (8-30/10).

8. Control

8.8.3 Meaning of the parameter "Spark out [1]" and "Spark out [2]"

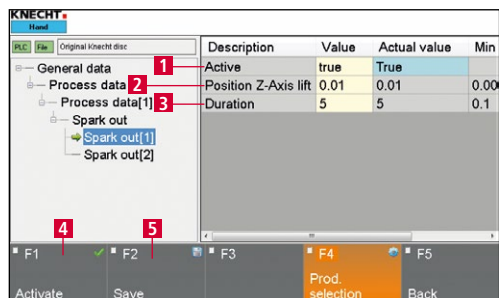


Figure 8-33 Parameter "Spark out [1]"

Active (8-33/1): spark out cycle active (True = yes, False = no)

Position Z-axis lift (8-33/2): path that is covered by the cycle (in mm)

Duration (8-33/3): dwell time between cycles (in s)

To change the parameters, tap on the relevant button highlighted in yellow.

With "Numbers" the window (8-34) opens; with "Values" the window (8-35) opens.

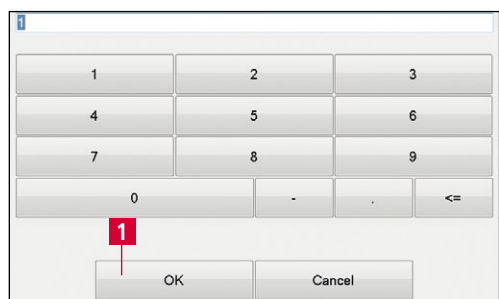


Figure 8-34 Editing the "Number" parameter

Select the desired number and confirm with **"OK"** (8-34/1).

The touch panel field **"Cancel"** closes the window without applying the number.



Figure 8-35 Editing the "Values" parameter

Select values between **"true"** and **"false"** and confirm with **"OK"** (8-35/1).

The touch panel field **"Cancel"** closes the window without applying the value.

ATTENTION

Save the changed values with the **"Save"** (8-33/5) touch panel field.

If a current product file is changed, transfer it to the control system using the **"Activate"** touch panel field (8-33/4).

8. Control

8.9 Language

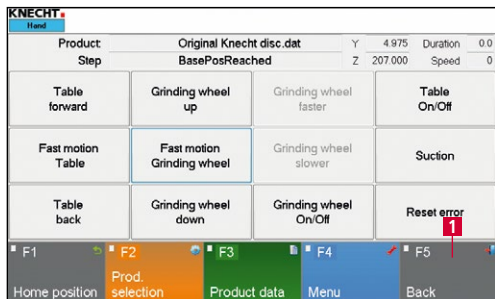


Figure 8-36 Main screen

The user interface language can be changed to the respective national language.

Press **“Back”** (8-36/1) on the touch panel to get back to the start screen.



Figure 8-37 Start screen

Activate the **“Language”** touch panel field (8-37/1).

A new window (8-38) opens.



Figure 8-38 Selecting the language

The desired language is selected and automatically activated by pressing the corresponding touch panel field (8-38/1).

Then return to the start screen using the **“Back”** (8-38/2) touch panel field.

The main screen appears by pressing the **“Production”** (8-37/2) touch panel field.

9. Care and maintenance



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

9.1 Cleaning

The machine must be cleaned after each grinding operation, otherwise the grinding abrasion dries and is difficult to remove.

Clean the windows with soft cleaning cloths and window cleaning agent.

After cleaning, we recommend the products listed below for care of the machine (see also the table of cleaning agents and lubricants in Chapter 9.1.1).

ATTENTION

Never spray directly into the opening of the water tray when cleaning.

The grinding machine must not be cleaned with alkaline cleaning agents.

9.1.1 Cleaning agent and lubricant table

Cleaning / Lubrication work	Interflon	WÜRTH	SHELL	EXXON Mobil	OEST	Ballistol
Cleaning and care of machine parts	Dry Clean Stainless Steel	Stainless steel care spray	Risella 917	Marcol 82	New Process Multispray	
Lubrication of threads and sliding surfaces	Fin Grease	Multi-purpose grease	Gadus S2 V1002	Mobilith SHC 100	IXELON GOC 190	
Central lubrication system					Lubricating oil CGLP 68	
Lubricate cutting tools						H1 Spray

ATTENTION

To prevent corrosion, non-corrosion-resistant cutting tools must be oiled after grinding.

9. Care and maintenance

ATTENTION

Only use lubricants approved for use in the food industry.

We recommend Ballistol H1 Spray.

It has NSF H1 approval in accordance with the FDA (Food and Drug Administration) and is permitted for use in the entire food industry.

9.1.2 Cleaning the rotary table



Figure 9-1 Rinsing the rotary table

The rotary table must be rinsed with water before and after each grinding process.

Open the safety flap (3-2/2).

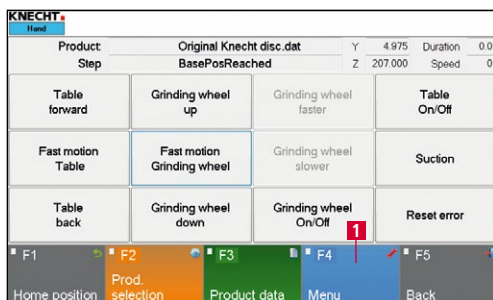


Figure 9-2 Main screen

Switch on the coolant pump

To do this press the **"Menu"** touch panel field (9-2/1) on the main screen.

A new window (9-3) opens.

9. Care and maintenance

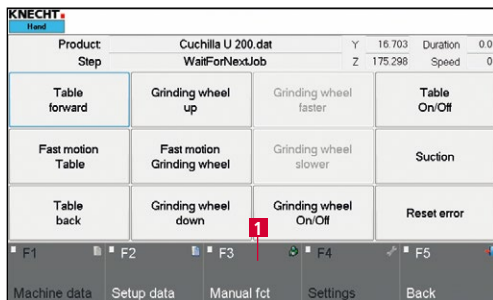


Figure 9-3 Menu

Use the **“Manual Functions”** touch panel field (9-3/1) to open the machine's manual functions.

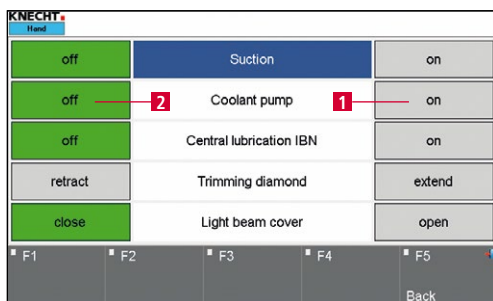


Figure 9-4 Manual functions

Activate the **“on”** touch panel field (9-4/1); the coolant pump will turn on.

Turn off accordingly using the **“off”** touch panel field (9-4/2).



Figure 9-5 Rubbing the rotary table

After rinsing, dry the rotary table using the squeegee.

9. Care and maintenance

9.1.3 Cleaning the drip ring



Figure 9-6 Removing the drip ring

Remove the drip ring (9-6/1) every day and remove the grinding abrasion underneath.

9. Care and maintenance

9.2 Maintenance plan (one-shift operation)

Interval	Assembly	Maintenance task
Daily	All machine surfaces	Clean with soft cleaning cloth and care spray.
	Grinding room	Clean interior metal sheets with a washing gun.
		Remove the drip ring from the rotary table and clean (see Chapter 9.1.3).
		Move finned plates upwards by hand and clean guides with an oily cloth in order to avoid the potential formation of rust.
	Light barrier	Open the covers of the light barrier and clean the light barrier with a soft cloth. Open the covers using the manual functions (see Chapter 9.4, Figure 9-9).
	Belt filter coolant unit	Check the filling quantity. If water has been added, be sure to measure the concentration of the coolant lubricant (see Chapter 9.4.1) and top up if necessary.
	Central lubrication system	Check the filling quantity and refill if necessary.
	Safety flap	Clean the safety flap window.
Weekly	Machine	Visual inspection for damage.
	Suction unit	Clean the hose nozzle.
		Check the filter.
Monthly	Rotary table	Check for any unevenness and, if necessary grind flat.
Annually	Suction Unit	Clean the suction hoses.
		Contact the service department of KNECHT Maschinenbau GmbH.

9. Care and maintenance

9.3 Lubrication



Figure 9-7 Central lubrication system

All bearing points are equipped with waterproof, grease-lubricated roller bearings and therefore maintenance-free.

All lubrication points are fed by the central lubrication system. A signal from the control system ensures a steady supply of oil to the various points.

The touch panel can be used to trigger unscheduled lubrication cycles if the operator determines that the machine needs to be lubricated (e.g., after a deep cleaning, repair, or service).

See also the notes in the lubricant table, Chapter 9.1.1.

ATTENTION

Always ensure that the storage tank of the central lubrication system is sufficiently filled with the prescribed amount of oil.

The lubrication system generally runs automatically at the programmed intervals.

9.3.1 Additional lubrication interval

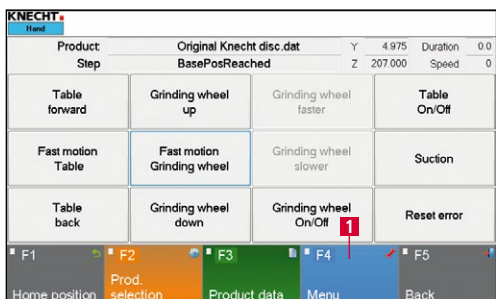


Figure 9-8 Main screen

If it appears that the linear rails need an additional lubrication by the central lubrication system, then proceed as follows:

On the main screen press the **“Menu”** touch panel field (9-8/1).

A new window (9-9) opens.

9. Care and maintenance

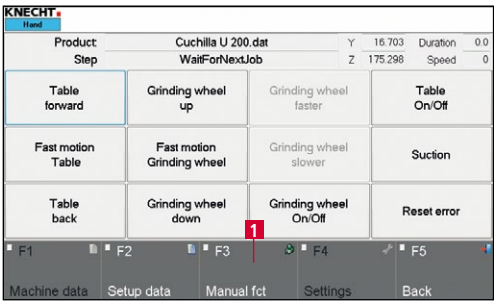


Figure 9-9 Menu

Use the **“Manual Functions”** touch panel field (9-9/1) to open the machine's manual functions.

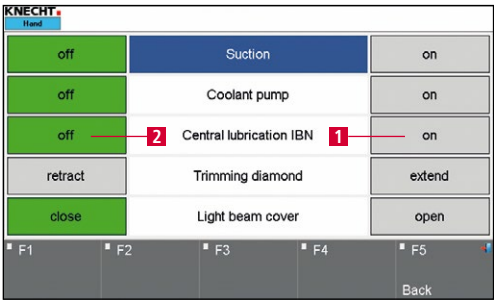


Figure 9-10 Manual functions

Activate the **“on”** (9-10/1) touch panel field to switch on the central lubrication unit.

Activate the **“off”** (9-10/2) touch panel field to switch it off.

Otherwise, the central lubrication unit switches off automatically after a certain period of time.

9. Care and maintenance

9.4 Coolant additive

It is absolutely essential to add a corrosion-inhibiting coolant additive to the coolant water. To do this, add approx. 140 liters of water with approx. 7 liters of COLOMETA ecoS 602 coolant additive to the coolant unit (mixing ratio 1:20).

ATTENTION

No other coolant additive may be used without the permission of KNECHT Maschinenbau GmbH.

9.4.1 Measuring the cooling lubricant concentration

ATTENTION

Measurement errors are eliminated by carrying out a zero line adjustment with the provided calibration fluid before using the refractometer.

To do this, turn the small upper screw of the measuring device until zero is displayed.



Figure 9-11 Measuring the cooling lubricant concentration

The concentration of the cooling lubricant is measured using the hand refractometer supplied.

To do this, use the pipette (9-11/1) and place a few drops of the coolant water on the test area (9-11/2) of the refractometer.



Figure 9-12 Reading the refractive index

Then read off the refractive index of the liquid (Figure 9-12).

The value read in °Brix multiplied by 1.6 gives the concentration in %.

9. Care and maintenance

9.4.2 Maintenance schedule for cooling lubricant

- Check filling volume daily.
- If water has been topped up, be sure to measure the concentration and top up with cooling lubricant if necessary.
- Check the cooling lubricant concentration weekly.

[illegible]

The value read in °Brix multiplied by 1.6 gives the concentration in %.

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

Check the cooling lubricant regularly for smell and appearance. The cooling lubricant must be exchanged every three months at the latest (biological hazard due to germ formation in the cooling lubricant).

10. Disassembly and disposal

10.1 Disassembly

All operating materials must be disposed of properly.

Secure moving parts against slippage.

Disassembly must be conducted by a qualified specialist.

10.2 Disposal

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

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

11. Service, spare parts and accessories

11.1 Postal address

KNECHT Maschinenbau GmbH
Witschwender Straße 26
88368 Bergatreute
Germany

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

mail@knecht.eu
www.knecht.eu

11.2 Service

Service line:

For address, see postal address

service@knecht.eu

11.3 Wear and spare parts

If you need spare parts, please use the spare parts list provided with the machine. Please place your order using the format described below.

When ordering, please always provide: (example)

Machine type	(W40)
Machine serial number	(03114940)
Designation of assembly	(Table incl. drive)
Designation of single part	(Output shaft_bottom)
Item number (position number)	(16)
Drawing number (article number)	(410GA20-0090)
Quantity	(1 pc)

We are always happy to answer any questions.

11. Service, spare parts and accessories

11.4 Accessories

11.4.1 Abrasives used etc.

Designation	Dimensions	Article number	Notes
CBN-grinding wheel	d.200x50x78	412F-80-0435	installed on delivery
Dressing device for CBN-grinding wheel		014G-50-0300	included in scope of delivery
Filter mat (suction unit)	d.200x340	418P-55-0300	installed on delivery
Coolant additive COLOMETA ecoS 602		417C-25-0011	included in scope of delivery
Hand refractometer with calibration fluid		413L-20-0100	included in scope of delivery

ATTENTION

Only original abrasives, wear and spare parts from KNECHT Maschinenbau GmbH are permitted to be used.

KNECHT Maschinenbau GmbH assumes no responsibility for the use of non-original parts.

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

Thank you for choosing KNECHT!

12. Appendix

12.1 EU Declaration of Conformity in accordance with EU Directive 2006/42/EU

- Machinery 2006/42/EU
- Electromagnetic Compatibility 2014/30/EU

We hereby declare that the machine designated as follows, due to its construction and design, as well as the version we placed on the market, complies with the relevant fundamental safety and health requirements of the applicable EU Directive.

In case of a modification of the machine not agreed with us, this declaration loses its validity.

Designation of the machine:	Fully Automatic Surface Grinding Machine
Model designation:	W 40
Machine serial number:	from no. 23096840
Applicable harmonized standards, in particular:	DIN EN ISO 12100 DIN EN ISO 13857 DIN EN ISO 16089 DIN EN 61000-3-2 DIN EN 61000-3-3 DIN EN 55014-1 DIN EN 13854
Responsible for documentation:	Andreas Doerr (State-certified technician) Phone +49-7527-928-81 a.doerr@knecht.eu
Manufacturer:	KNECHT Maschinenbau GmbH Witschwender Straße 26 88368 Bergatreute Germany

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

The validity of the declaration expires in the event of changes to the legal requirements.

Bergatreute, August 13, 2026

KNECHT Maschinenbau GmbH


Markus Knecht
CEO

KNECHT Maschinenbau GmbH

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mail@knecht.eu · www.knecht.eu