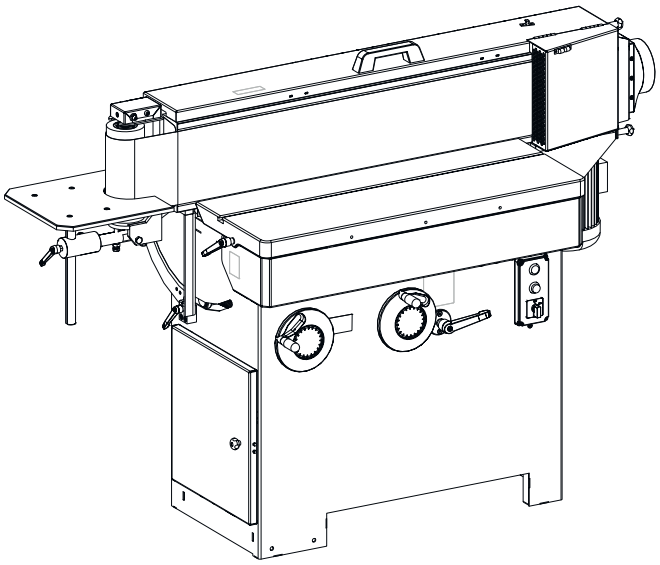
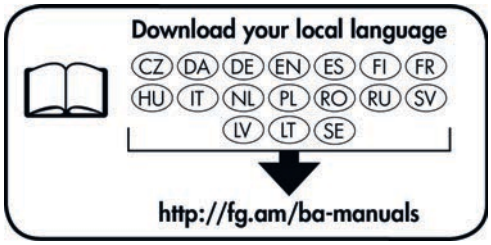
FELDER®

FS 700 K

Edge Sander





Keep this manual to hand and in good condition for future reference.
Please read this operating manual carefully before using the machine.

Translation of the original operating instructions

Operating instructions

504032-910, 1, en_GB

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Table of contents

1 Information about the manual

1.1 Symbol legend

Safety instructions

Safety instructions in this manual are indicated with symbols. The safety instructions are introduced by key words which state in words the extent of the hazard.

Comply with safety instructions under all circumstances, and act with care in order to avoid accidents, personal injury, or material damage.

DANGER

… indicates a situation of immediate danger which will result in death or severe injuries if it is not avoided.

WARNING

… indicates a situation of possible danger which can result in death or severe injuries if it is not avoided.

CAUTION

… indicates a situation of possible danger which can result in minor or slight injuries if it is not avoided.

NOTICE

… indicates a situation of possible danger which can result in material damages if it is not avoided.

Tips and recommendations

… emphasises useful tips and recommendations as well as information for efficient and trouble-free operation.

OK / NOK

Symbols	Explanation
OK	Result is okay.
NOK	Result is not okay. Procedure when troubleshooting.

1.2 Contents of the operating manual

- This operating manual describes the safe and proper use of the machine.
- All instructions in this manual must be strictly followed without exception.

- The operating manual is an integral part of the machine. It must therefore be kept in the direct vicinity of the machine and be accessible at all times.
- The operating manual must always accompany the machine.

1.3 Copyright

- This instruction manual is to be treated as confidential. It is intended solely for those people who are to work on or with the machine.
- All descriptions, texts, drawings, photos and other depictions are protected by copyright and other commercial laws.
- Any unauthorised use is prohibited.
- This manual, in its entirety or parts thereof, may not be transferred to third parties or copied in any way or form, and its contents may not be used or otherwise communicated without the express written consent of the manufacturer. Infringement of these rights may lead to a claim for compensation. The right to further claims is reserved.
- We reserve all rights in exercising commercial protection laws.

1.4 Liability and warranty

- The contents and instructions in this manual have been compiled in consideration of current regulations and state-of-the-art technology as well as based on our know-how and experience acquired over many years.
- The manufacturer shall not be liable for damage and/or faults resulting from the disregard of instructions in the manual.
- The text and images do not necessarily represent the exact product that has been delivered. The images and graphics are not depicted on a 1:1 scale. The product that has been delivered, may have custom-built specifications, add-on options or recent technical modifications and may therefore deviate from the descriptions, instructions and images contained in the manual.
- We reserve the right to make technical changes to the product in order to improve the properties of use and further product development.
- The guarantee period is in accordance with national guidelines. Details may be found on our website, www.felder-group.com.
- Should any questions arise, please contact the manufacturer.

1.5 Training

- All those appointed to work on or with the machine must have fully read and understood the manual before commencing any work. This requirement must be met even if the appointed person is familiar with the operation of such a machine or a similar one, or has been trained by the manufacturer.
- Knowledge about the contents of this manual is a prerequisite for protecting personnel from hazards and avoiding mistakes so that the machine may be operated in a safe and trouble free manner.
- It is recommended that the operator requests proof from the personnel that the contents of the manual have been read and understood.

2 Safety instructions

2.1 Intended use

- The machine described in this manual is intended solely for the processing of wood, synthetic materials, and similar machinable materials. Operational safety is only guaranteed when the machine is used for the intended purposes.
- Any use, other than that of the machine's intended purpose shall be considered improper and is therefore not permitted. All claims regarding damage resulting from improper use that are made against the manufacturer and its authorised representatives will be rejected.
- The operator is solely liable for any damage that results from improper use of the machine.
- The term "proper use" also refers to correctly observing the operating conditions as well as the specifications and instructions in this manual. The machine may only be operated with parts and accessories recommended by the manufacturer.

2.2 Making changes and modifications to the machine

- In order to avoid potential hazards and to ensure optimum performance, no modifications, alterations or changes may be made to the machine that have not been explicitly approved by the manufacturer.
- All the pictograms, signs and labels affixed to the machine must be kept visible, readable and may not be removed.
- Pictograms, signs and labels that have become damaged or unreadable must be replaced promptly.

2.3 Responsibilities of the operator

- The machine may only be operated if it is in proper working order and in safe condition.
- The general condition of the machine must be checked and the machine must be inspected for visible defects each time before it is switched on.
- Do not leave the machine running unattended.
- Secure the switched-off machine against unauthorised operation (padlock on the main switch, remove the key from the operating mode selector switch, block off the area around the machine, pull out the mains plug etc.).
- In addition to the safety advice and instructions specified in this operating manual, any local accident prevention regulations and general safety regulations applicable to the machine's area of use, as well as any applicable environmental protection regulations, must be observed and complied with.
- The operator and designated personnel are responsible for the trouble-free operation of the machine as well as for clearly establishing who is in charge of installing, servicing, maintaining and cleaning the machine. Keep children away from machines, tools and accessories.

2.4 Requirements of the personnel

- Only authorised and trained personnel may work on and with the machine. "Qualified personnel" is a term that refers to those who – due to their professional training, know-how, experience, and knowledge of relevant regulations – are in a position to assess delegated tasks and recognise potential risks.
- Personnel must be briefed about all functions and potential dangers of the machine.
- If the personnel lack the necessary knowledge for working on or with the machine, they must be trained. Responsibility for working with the machine (installation, service, maintenance, overhaul) must be clearly defined and strictly observed.
- Only those people who can be expected to carry out their work reliably may be given permission to work on or with the machine.
- Personnel must refrain from working in ways that could harm others, the environment or the machine itself.
- It is absolutely forbidden for anyone who is under the influence of drugs, alcohol or reaction-impairing medication to work on or with the machine.
- When appointing personnel to work on the machine, it is necessary to observe all local regulations regarding age and professional status.
- The machine may only be operated by an adult, that is without mental limitations or under the supervision of such a person.
- All operators must ensure that unauthorised persons are kept at a safe distance from the machine.
- Personnel are obliged to immediately report any irregularities with the machine that might compromise safety to the operator.

2.5 Work safety

- Following the safety advice and instructions given in this manual can prevent bodily injury and material damage while working on and with the machine.
- Failure to observe these instructions can lead to bodily injury and damage to or destruction of the machine.
- Disregard of the safety advice and instructions given in this manual as well as the accident prevention regulations and general safety regulations applicable to the operative range of the machine shall release the manufacturer and their authorised representatives from any liability and from any compensation claims.

2.6 Personal protective equipment

2.6.1 Prohibitions

When working on or with the machine, the following must be strictly observed:

	Please note
	Long, loose hair is forbidden. With long hair and beards a hair net must be worn.

	Please note
	It is prohibited to wear gloves whilst working with the machine. It is only allowed to wear gloves whilst carrying out tool changes and maintenance work.

2.6.2 Mandatory safety equipment

When working on or with the machine, the following must always be worn by personnel:

	Please note
	Protective clothes: Sturdy, tight-fitting clothing (tear-resistant, no wide sleeves, no rings or other jewellery).
	Protective footwear: To protect feet from heavy falling objects and prevent from slipping on slippery floors.
	Ear protection: To protect against loss of hearing.
	Safety glasses: Protection to prevent damage to eyes.
	Respiratory mask: To protect against dust

2.7 Residual risks

The machine has undergone a hazard analysis. The design and construction of the machine are based on the results of this analysis and correspond to state-of-the-art technology. The machine is considered operationally safe when used properly. Even if the safety measures are complied with, there are still certain associated risks that must be considered when working on the machine.

Generally applicable residual risks

- Crushing by being caught between moving parts.
  - Do not reach into the area of moving parts.
- Whilst processing, sparks can be created.
  - Carefully inspect workpieces for foreign matter (nails, screws) which might impair processing.
- Hearing damage caused by noise intensity. Hearing protection must always be worn.
- Risk of damage to health from dust especially when processing hard woods.
  - Connect the dust extraction system in accordance with the instructions and make sure that it is working properly.
- Injury from flying workpieces and parts of the workpieces.
- Cut or crush injuries, when changing the tools.

- Injury caused through being crushed, cut, caught or bumped into.
- Before switching on the machine, always check to make sure that there are no other persons in the immediate vicinity of the machine.
- In the event of power supply failure, the machine will coast to a stop without applying the brakes (no electric brake action).

  It takes longer than normal for tools to come to a stop.
  - Do not reach into the area of rotating tools.

Disorder at the workplace

Loose objects or objects that are lying around can cause severe injuries.

- Ensure that there is sufficient space to work around the machine.
- Remove loose objects from the working area.
- Keep the work area orderly and clean.

Insufficient lighting of the installation site

Serious injuries

- Light installation site sufficiently.

Standing on the machine

The covers or projecting components of the machine are not suitable for standing on them. If the machine falls down, severe breaks can occur.

- It is forbidden to climb onto the machine.

Decommissioned safety devices

The machine is equipped with diverse protective devices with safety function. When protective devices are decommissioned, the safety function is no longer ensured. Decommissioned safety devices can cause severe injury.

- Do not deactivate or bypass protective devices.

Damage to electrical components or their insulation

Damaged electrical components or damage to their insulation cause deadly electric shocks.

- Work on electrical fittings may only be carried out by qualified personnel and in strict observance of the safety instructions.
- Disconnect machine from power supply and secure against restarting before carrying out work at electrical devices.

2.7.1 Transport, setup, installation and disposal

Improper transport

Improper transport can cause the machine to tilt or fall. This can cause severe crushing.

- Carry out transport according to the specifications in this instruction.
- Transport the machine as carefully as possible. Avoid mechanical vibration.
- Keep enough distance to the machine during transport.
- Move unauthorised people out of the area.
- Always clean and tidy the work area and cordon it off.
- Ensure that there is room to escape should the machine fall.
- Only use suitable lifting gear that has a sufficient load-carrying capacity.
- Chains, belts, ropes or other hoisting devices must be equipped with safety hooks.
- Do not use any torn, frayed or knotted chains, belts or ropes.
- Ensure that chains, belts and ropes do not lie against sharp edges.
- Only attach lifting equipment to the attachment points provided. Never lift the machine by its protruding parts.
- Keep the machine's centre of gravity in consideration.
- Take measures to prevent the machine from slipping.
- Never lift loads over a person.
- Do not stand below suspended loads.

Incorrect setup and installation

Serious injuries and material damage.

- Machine may only be set up by authorised, trained personnel who are familiar with how to operate the machine and are in strict observance of all safety instructions.
- Before assembling and installing the machine, check to make sure it is complete and in good condition.
- Only assemble and install the machine if the machine and all of the parts are complete and intact.
- Do not setup machine in areas with high electromagnetic fields.
- Keep the work area orderly and clean. Components and tools that are not put in their correct place or put away may be the cause of accidents!
- Do not setup machine on escape routes.
- Only place machine within buildings.
- Place the machine on a level, sufficiently stable, non-slip and vibration-free surface.
- The foundation must comply with the norms stipulated in the technical layouts.
- Use safety equipment according to regulations and check for proper function.
- The load bearing capacity, the coating and the surface of the floor must not be affected in the long term.
- The working area must be adequately lit.

Electrostatic charging of the extraction hoses

Burns or electric shock caused by unearthed, or low quality extraction hose.

- Always ensure continuous electrostatic earthing when connecting machines.
- Only use dust extraction hose approved by the manufacturer.

Indirect touch with residual currents

Deadly electric shocks

- Equip the machine's supply line with a fault-current circuit breaker.

2.7.2 Adjustments tool changes, operation

Improper adjustment and setup

Serious physical injury or material damage.

- Adjustment and setup may only be carried out by authorised, trained personnel who are familiar with how to operate the machine and are in strict observance of all safety instructions.
- Before beginning any maintenance work on the machine, switch it off and secure it against accidentally being switched on again.
- Adjustments to the machine or changing the tools may only be done once the machine has stopped.
- Before commencing any work with the machine, inspect it to ensure that it is complete and in technically good condition.
- Ensure that there is sufficient space to work around the machine.
- Keep the work area orderly and clean. Components and tools that are loose or not put in their correct place may cause accidents.
- Attach safety equipment according to regulations and check for proper function.

Deactivated or defective protective devices

Serious injuries

- The safety equipment required for processing must be in good working conditions and properly maintained. Check all required safety devices to ensure good working condition.
- Do not switch off, circumvent or remove protective and safety devices during operation.

Large or small workpieces

Serious injuries

- Ensure that there is sufficient space to work around the machine.
  Drive fed workpieces could be a hazard when processing. Keep sufficient distance from walls, machines and fixed objects.
- Support long workpieces with additional supports (e.g. table extensions, roller supports).
- Use auxiliary equipment for machining short and narrow workpieces (e.g. push grip, pushing stick, workpiece holder).
- Only process workpieces that can be safely placed on the machine and guided.

Foreign objects in the workpiece

Serious injuries

- Carefully inspect workpieces for foreign matter (nails, screws) which might impair processing.

During operation

Serious injuries

- Keep the work area orderly and clean. Components and tools that are loose or not put in their correct place may cause accidents.
- Offcuts or other parts of the workpiece must not be removed from the working area whilst the machine is still running.
- Injury from flying workpieces and parts of the workpieces (e.g. knots, offcuts).
- Do not lean over the working area.
- Only remove chips when the machine is at a standstill. No program may be loaded / executed.

Surpassing or falling below the allowed ambient temperature

Surpassing or falling below the allowed temperatures can cause malfunctions of the machine and unpredictable machine movements, which can lead to severe personal and material damage.

- Only operate machine within the listed temperature range.

Dust deposits

Dust build-ups can ignite when in contact with hot parts or cause an explosive atmosphere due to resuspension. Fire or explosion events can cause serious injuries.

- Clean production area as needed.
- Open fire, smoking and cleaning with compressed air forbidden.
- Only carry out spark-producing work and hot work after work release process.

2.7.3 Maintain and troubleshoot

Improper operation of the machine

Serious injuries

- Work on the machine may only be carried out by authorised, trained personnel who are familiar with how to operate the machine and are in strict observance of all safety instructions.
- If possible, only perform work when the machine is disconnected from all energy sources and an unintentional restart is prevented.
- The machine has to be switched off when carrying out any work on the machine.
- Disconnect machine from power supply before carrying out work on electrical devices.
- Do not deactivate or bypass protective devices.

Improper work at the electrical units

Deadly electric shocks

- Work on electrical fittings may only be carried out by qualified personnel and in strict observance of the safety instructions.
- Disconnect machine from power supply and secure against restarting before carrying out work at electrical devices.

Improper maintenance

Serious injuries

- Machine may only be maintained by authorised, trained personnel who are familiar with how to operate the machine and are in strict observance of all safety instructions.
- If possible, only perform maintenance work when the machine is disconnected from all energy sources and an unintentional restart is prevented.
- Disconnect machine from power supply before carrying out work on electrical devices.
- Wait for all the moving parts to come to a standstill.
- Maintenance technicians need to be fully aware of how the machine operates and moves, and they must be familiar with the exact operating sequence.
- Whilst maintenance work is being carried out, secure the area around the machine.
- Whilst maintenance work is being carried out, put up a sign that states "Machine under maintenance".
- To ensure quick and unmistakable communication, visual contact with the operators must be kept at all times.
- Operators should repeat and confirm instructions before they are carried out.
- Only start the machine when there is no one within the safety zone.
- Properly reinstall all components after the maintenance work and check the functionality.
- As part of the machine maintenance, the whole machine, including the safety devices, must be checked regularly for damage.
- Keep a record of all maintenance work.

Exceeding the lifespan of protective devices that carry out a safety function

Serious injuries

The safety devices have a lifespan of 20 years. If safety devices are used exceeding their lifespan, the proper function of the safety devices can not be guaranteed. Deficiently maintained safety devices can cause severe injury.

- Safety devices have to be replaced by expert personnel from Felder Group before the end of the lifespan.

Improper replacement or reparation of safety devices with safety function

Serious injuries

- Only let safety devices be replaced or repaired by expert personnel of the Felder Group.

Improper correction of malfunctions

Serious injuries

- Wait for all parts to be still.
- Disconnect machine from all energy sources and secure against restarting.

2.8 Foreseeable misapplications

The examples given highlight possible dangers. This list makes no claim to completeness.

This information is intended to enable users to assess hazards and risks.

General misuse

- Disregarding operating instructions.
- Operating the machine, even if the operation manual is not complete or is not available in the language of the country it is being operated in.
- Placing objects or tools on the work surface.
- Use of tools or materials which are not intended for processing on the machine.
- Inserting tools that are either not allowed, or not authorised in the machine.
- Using modified tools.
- Using spare parts, accessories and equipment that have not been approved by the manufacturer.
- To change or modify the machine.
- To adapt, remove or bridge the safety equipment.
- Intentionally trigger safety equipment.
- Climbing on the machine.

Misuse during operation

- Operating the machine carelessly.
- Operating the machine without using the appropriate safety equipment.
  - Check the correct functioning of the safety equipment regularly.
- Processing of overly large or heavy workpieces.
- Processing very small workpieces without assistance.
  - Keep handling accessories at hand.
- Processing of unsuitable materials such as steel.
- Processing workpieces that are not fixed or insufficiently fixed.

3 Declaration of Conformity

CE	EG-Declaration of Conformity according to Machine Guidelines 2006/42/EC **Machine number reference:** The machine number is printed on the cover sheet of the operating manual.

We hereby declare that the machine indicated below, which corresponds to the design and construction of the model we placed on the market, conforms with the health and safety requirements as stated by the EC guidelines (see table).

Manufacturer	Felder KG KR-Felder-Straße 1 6060 Hall in Tirol	
Product designation	Edge Sander	
Manufacturer	Felder	
Model type	FS 700 K	
The following EC guidelines were applied	2006/42/EC 2014/30/EC	

This EC Declaration of Conformity is valid only if the CE label has been affixed to the machine. Modifying or altering the machine without the express written agreement of the manufacturer shall render the warranty null and void. The signatory of this statement is the appointed agent for the compilation of the technical information.

Prof. h.c. Ing. Johann Georg Felder
CEO Felder KG
KR-Felder-Straße 1, A-6060 HALL in Tirol
Date: 1.2.2022

UKCA - Declaration of Conformity

UK CA	Declaration of Conformity according to UK Directive S.I. 2008/1597 **Machine number reference:** The machine number is printed on the cover sheet of the operating manual.

We hereby declare that the machine indicated below, which corresponds to the design and construction of the model we placed on the market, conforms with the health and safety requirements as stated by the UK guidelines (see table).

Manufacturer	Felder KG KR-Felder-Straße 1 6060 Hall in Tirol
Product designation	Edge Sander
Manufacturer	Felder
Model type	FS 700 K
The following UK guidelines were applied	S.I. 2008/1597 - Supply of Machinery (Safety) Regulations 2008 S.I. 2016/1091 - Electromagnetic Compatibility Regulations 2016

This EC Declaration of Conformity is valid only if the CE label has been affixed to the machine. Modifying or altering the machine without the express written agreement of the manufacturer shall render the warranty null and void. The signatory of this statement is the appointed agent for the compilation of the technical information.

Prof. h.c. Ing. Johann Georg Felder
CEO Felder KG
KR-Felder-Straße 1, A-6060 HALL in Tirol
Date: 1.2.2022

4 Technical information

4.1 Dimensions and weight

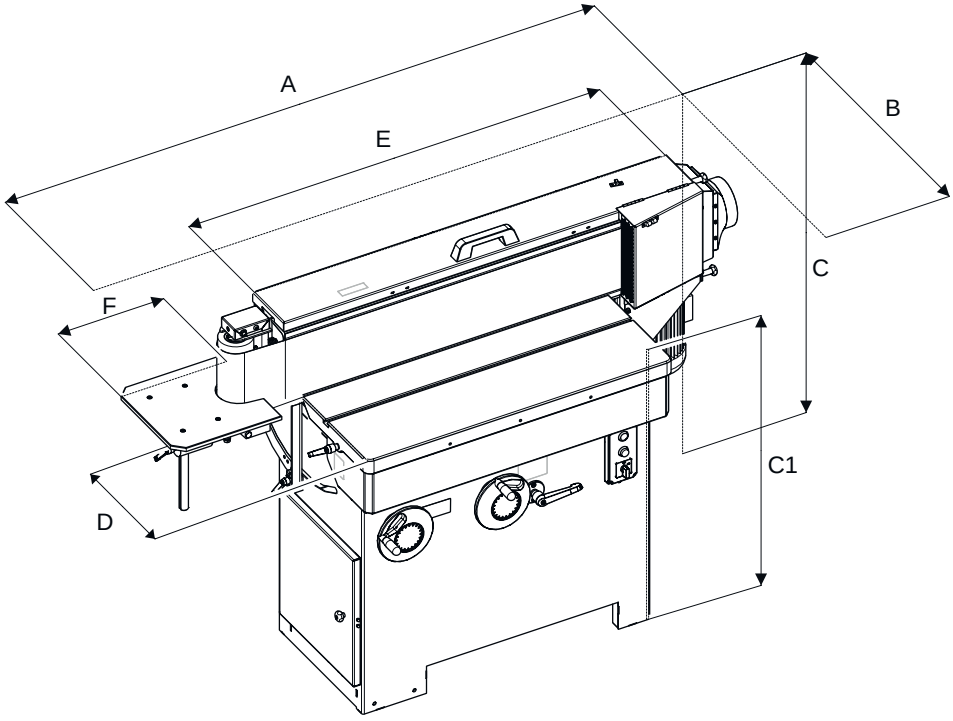


Fig. 1: Dimensions

Machine

Data	Value	Unit
Length (A)	1875	mm
Width (W)	776	mm
Height (C)	1437	mm
Min. - max. working height (C1)	895 - 1024	mm
Machine table width (D)	350	mm
Machine table length (E)	960	mm
Support table length (F)	330	mm
Weight	295	kg

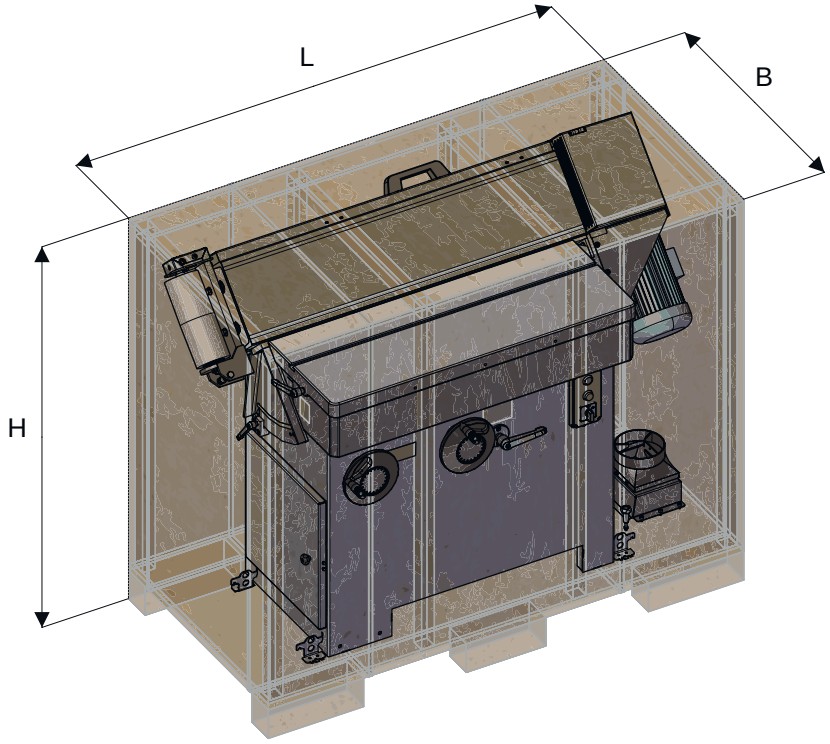


Fig. 2: Packaging dimensions

Package size

Data	Value	Unit
Length (L)	1494	mm
Width (W)	760	mm
Height (H)	636	mm
Weight	370	kg

4.2 Operation and storage conditions

Data	Value	Unit
Operating/room temperature	+5 - +40	°C
Storage temperature	-10 - +50	°C
Humidity (non-wetting)	90	%

4.3 Electrical connection

Data	Value	Unit
Mains voltage according to specification plate	± 10	%
Frequency	50 / 60	Hz

Data	Value	Unit
Power supply cable 3 x 400 V (H07 RN-F)	5 x 1.5	mm^2
Power supply cable 3 x 230 V (H07 RN-F)	5 x 2.5	mm^2
Fuse protection	see the wiring diagram	
Triggering characteristic	C	
RCCB circuit breaker (amps/type)	30 A / mA	

Three-phase motor

The actual values can be found on the machine nameplate.

Data	Value	Unit
Motor voltage (standard)	3 x 400	V
Motor voltage (option)	3 x 230	V
Motor frequency	50 / 60	Hz
Protection class	IP 54	
Motor power S6 - 40% *)	3.0	kW
Motor power S6 - 40 % - Sanding belt oscillation *)	3.0	kW

*) S6 = operation under load and intermittent service; 40 % = relative operating factor

4.4 Sanding unit

Data	Value	Unit
Sanding belt size	3000 x 200	mm
Drive roller diameter	130	mm
Idle roller diameter	100	mm
Sanding belt inclination	90° - 45°	
Sanding belt speed 50 Hz	19	m/s
Sanding belt speed 60 Hz	23	m/s
Vertical traversing distance machine table	0 - 128	mm
Oscillating range	24	mm
Oscillating frequency 50 Hz	27	per min.

Data	Value	Unit
Oscillating frequency 60 Hz	27	per min.

4.5 Storage conditions of the sanding belts

- Temperature from 16 to 25 degrees celsius (60 to 80 degrees fahrenheit).
- Relative humidity from 40 % to 60 %.

4.6 Dust extraction

Data	Value	Unit
Extraction connection diameter	140	mm
Minimum negative pressure	1310	pa
Air speed	20	m/s
Minimum volume flow (at 20 m/s)	1110	m^3/h

4.7 Dust emission

The working areas of this machine are considered dust-minimised according to DGUV Information 209-044. The maximum concentration level of 2 mg/m^3 of inhalable dust in the air will not be exceeded.

This only applies if the conditions that are specified in the section "Extraction" are adhered to.

4.8 Noise emission

Measurement in accordance with EN ISO 19085-1:2021 appendix E:

- with ISO 11202 for the emission noise pressure with accuracy level 3
- due to the background noise

If the stated noise emission values are to be checked, then the measurements must be taken following the same procedure and in the same operating and installation conditions as described.

WARNING: The noise emission values stated are only valid, when the same operating- and installation conditions apply. Other operation and installation conditions, e.g. a different work process, can lead to higher noise emission values with the danger of underestimation.

WARNING: The noise emission values stated are not exposure level values. Although there is a correlation between emission and exposure levels, the emission values can not be used to reliably determine whether increased safety measures are required. Factors that influence the actual degree of exposure are the actual work process, the exposure time, the characteristics of the workplace and other neighbouring noise sources in the workshop.

Indication of the noise emission values two numbers according to ISO 4871:1996

	Idle	Operation
A-weighted sound power level L_{WA} in dB	107	107
A-weighted emission sound pressure level L_{pA} in dB at workplace A	83	82.5
A-weighted emission sound pressure level L_{pA} in dB at workplace B	83	82.5
Uncertainty K_{WA} / K_{pA} in dB	4	

5 Machine overview

5.1 Overview

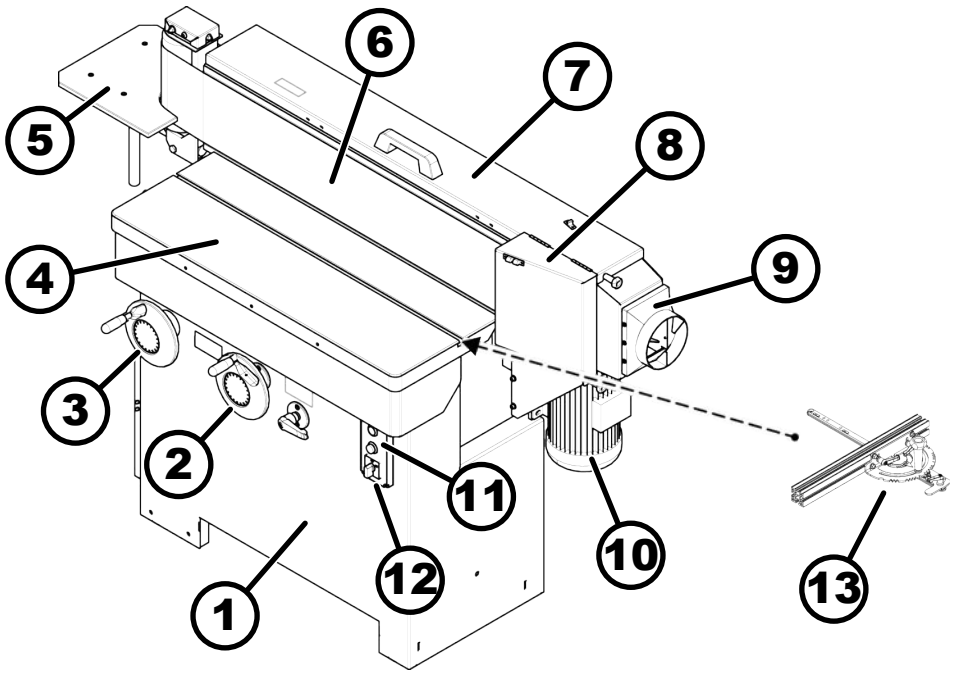


Fig. 3: Machine overview

1 Machine frame
2 Adjust machine table height
3 Adjust sanding unit inclination angle
4 Machine table
5 Support table - sanding curves
6 Sanding unit (tiltable)
7 Sanding belt cover
8 Extraction flap (tiltable)
9 Extraction connection
10 Drive motor
11 On and off switch
12 Mode switch - Sanding belt oscillation
13 Workpiece fence (accessory)

5.2 Pictograms, signs and labels

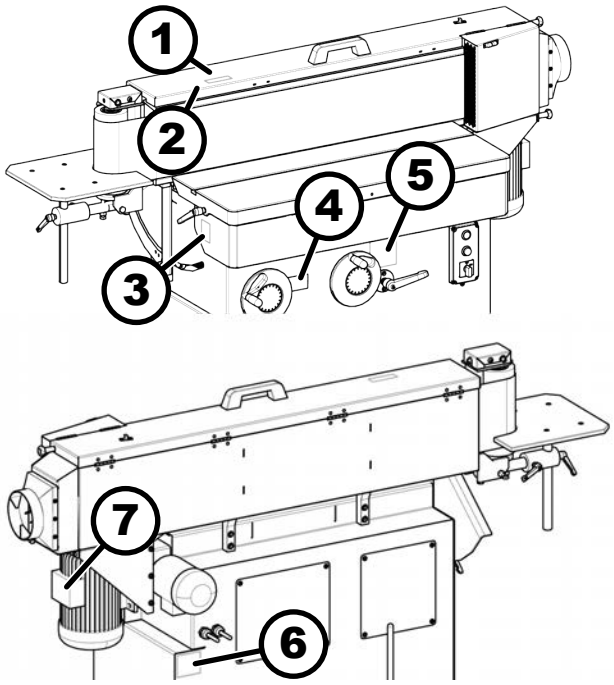


Fig. 4: Location of the machine sticker

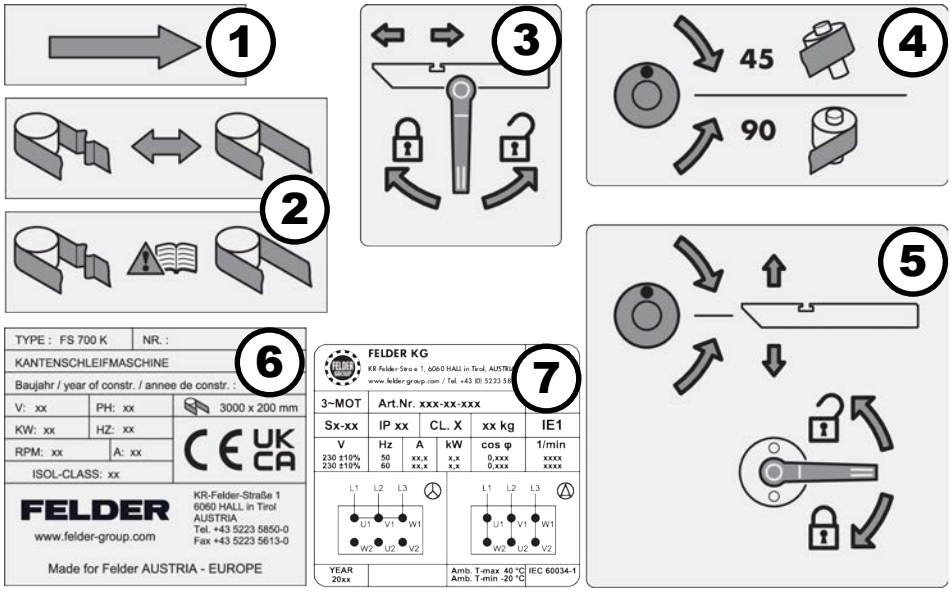


Fig. 5: Machine sticker overview

1 Sanding belt rotation direction
2 Sanding belt tensioning
3 Adjust the machine table horizontally / clamping lever
4 Adjust sanding unit inclination angle
5 Adjust machine table height / clamping lever
6 Machine data plate
7 Motor power information

5.3 Information on the machine data plate

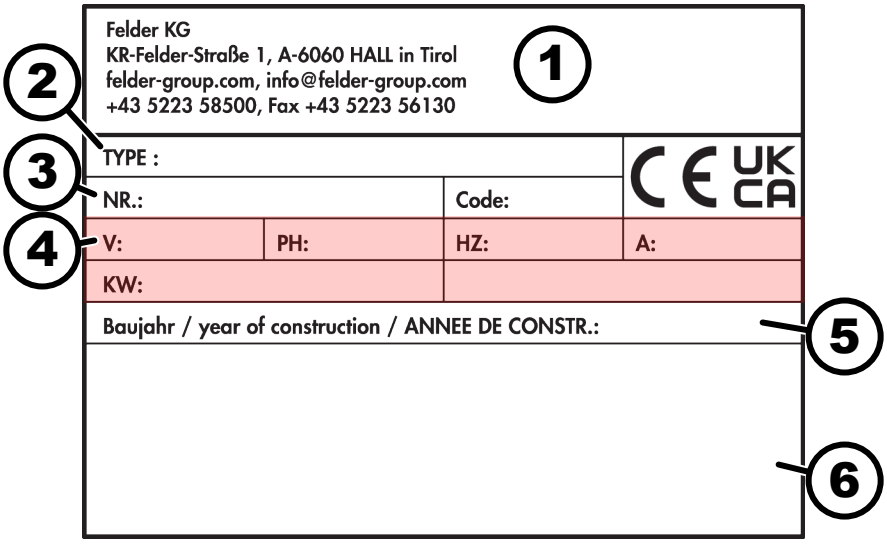


Fig. 6: Machine data plate

1 Manufacturer information
2 Model type
3 Machine number
4 Electrical connection
5 Year of construction
6 Additional information (optional)

5.4 Operation and display elements

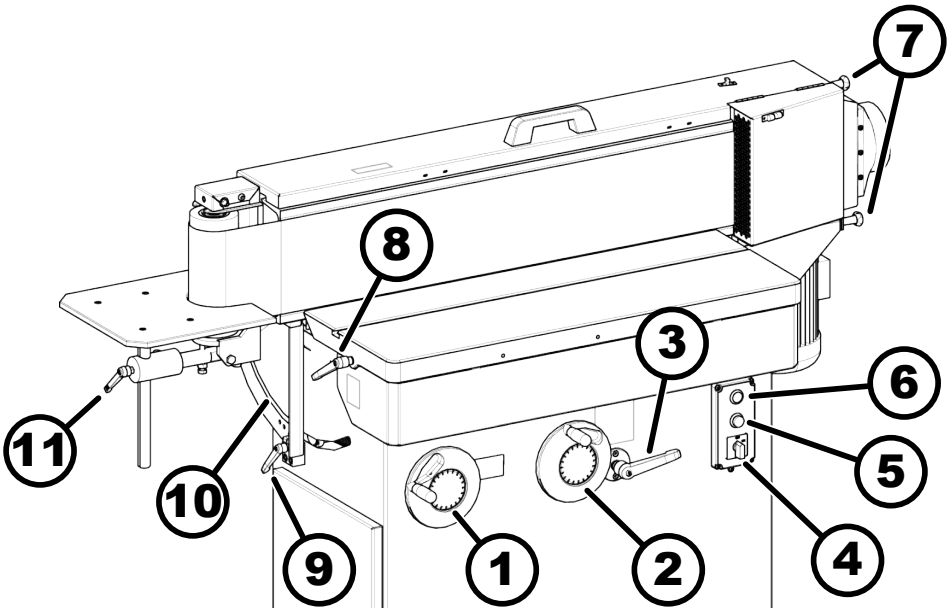


Fig. 7: Operation and display elements

1 Adjust sanding unit inclination angle
2 Adjust machine table height
3 Machine table height - clamping lever
4 Mode switch - Sanding belt oscillation
5 Red stop button - Switch off / Switching off the machine in an emergency
6 Green button - switch on

7 Clamping screws - extraction flap (extend the processing surface for longer workpieces)
8 Adjust the machine table horizontally / clamping lever
9 Sanding unit inclination angle - clamping lever
10 Sanding unit inclination angle scale
11 Adjust support table height - clamping lever

5.5 Sanding belt cover

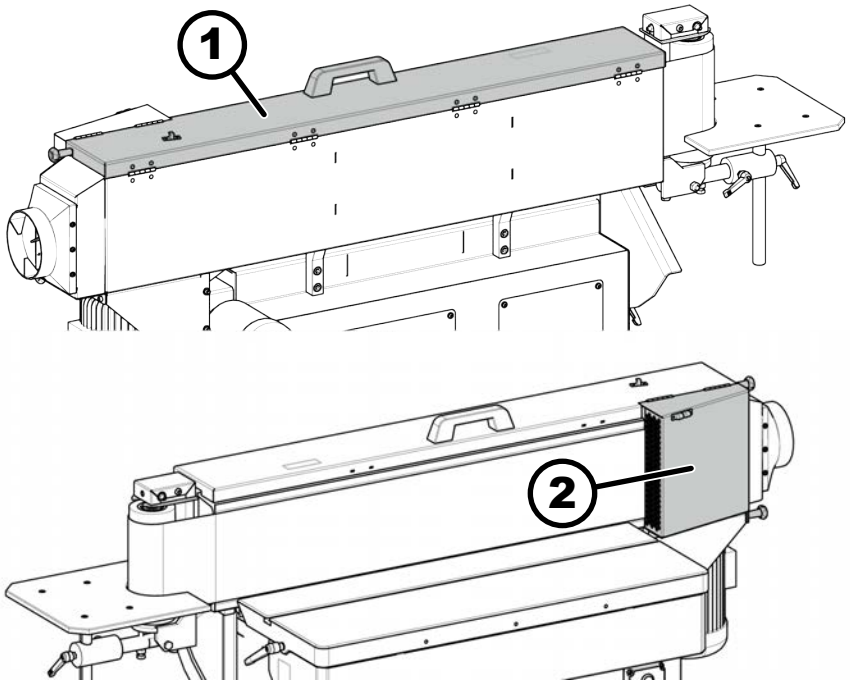


Fig. 8: Safety devices

1 Sanding belt cover
2 Extraction flap

6 Transporting, packing, storing

6.1 Transport inspection

1. Upon arrival, inspect the shipment to ensure that it is complete and has not suffered any damage.
2. If any transport damage is visible from the outside, do not accept the delivery or only accept it with reservation.
3. Record the scope of the damage on the transport documents/hauliers delivery note.
4. Initiate the complaint process.
5. Any defects that are not discovered upon delivery, must be reported as soon as they are identified as damage claims are only valid if claimed within the valid complaint period.

6.2 Packaging

If no agreement has been made with the supplier to take back the packaging materials, help to protect the environment by reusing the materials or separating them according to type and size for recycling.

When using overseas transport the machine must be tightly packed and protected from corrosion. Use desiccant.

Environmental protection

Packaging materials are valuable raw materials and in many cases they can be used again, reprocessed or recycled.

ENVIRONMENT

Dispose of the packaging in an environmentally friendly manner

- Dispose of packaging materials in an environmentally friendly manner and in accordance with the applicable local disposal regulations.
- Contract a recycling company.

6.3 Storage

Keep items sealed in their packaging until they are assembled/installed and be sure to observe the stacking and storage symbols on the outside of the packaging.

Storage conditions

- Do not store outdoors.
- Store in a dry and dust-free environment. Use desiccant if necessary.
- Protect from direct sunlight.
- Avoid mechanical vibration.
- Avoid extreme temperature fluctuations (condensation build-up).
- Apply a coat of oil to all exposed machine parts (corrosion protection).
- Regularly check the general condition of all parts and the packaging during longer storage (> 3 months). If necessary, refresh or re-apply the coat of anti-corrosive agent.

6.4 Unloading / transport

The machine is delivered partly assembled and is attached to the pallet with several transport brackets.

Remove the transport brackets before moving the machine to the installation location.

The machine can be transported with a crane, forklift, pallet jack or rolling carriage.

The transport width measures under 800 mm. This makes it possible to transport the machine through doorways.

NOTICE

Transport damage

The machine can be damaged or destroyed if it is subjected to improper handling during transport.

- Always move the machine with the utmost care and caution.
- Avoid mechanical vibration.
- Transport of the machine only in accordance with the enclosed transport and assembly instructions.
- Overseas transport: Machine must be tightly packed and protected from corrosion. Use desiccant.

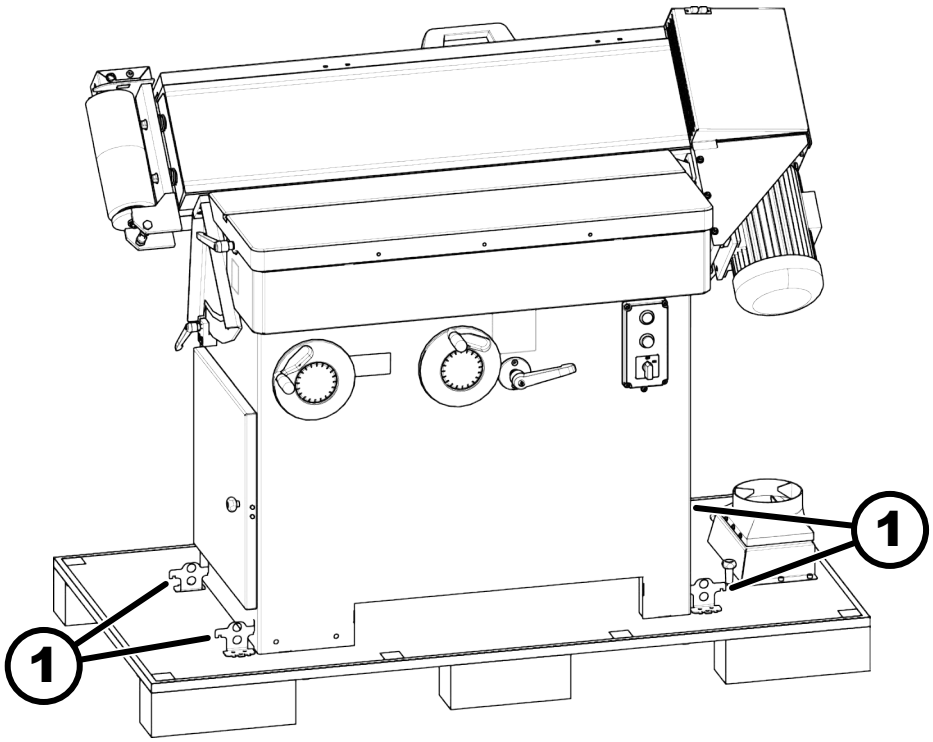


Fig. 9: Transport bracket

1 Transport bracket

6.5 Means of transportation

6.5.1 Transport with a pallet truck

Use a ramp similar to the one depicted in the illustration to unload from the pallet.

1. Remove transport brackets.

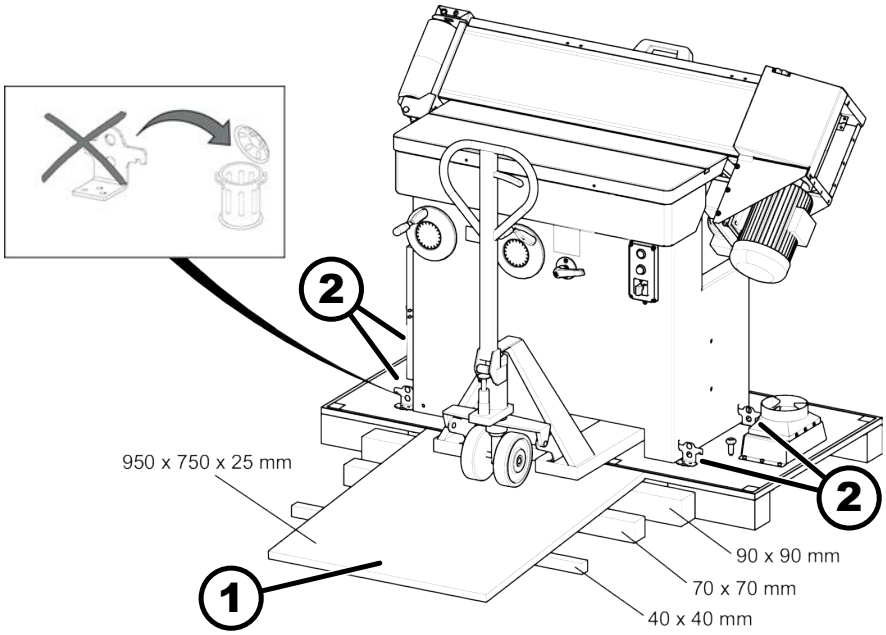


Fig. 10: Transport with a pallet truck

1 Unloading ramp
2 Transport bracket

2. Push the forks under the recess in the machine frame.
3. Unload the machine from the pallet with the pallet truck.

6.5.2 Transport with a forklift truck

Move the forks of the forklift truck so they fit into the pallets slots.

Lifting material (belts, ropes, chains or fork lift forks) must be positioned as far apart as possible in the opening.

Only remove the brackets once the machine is to be removed from the pallet.

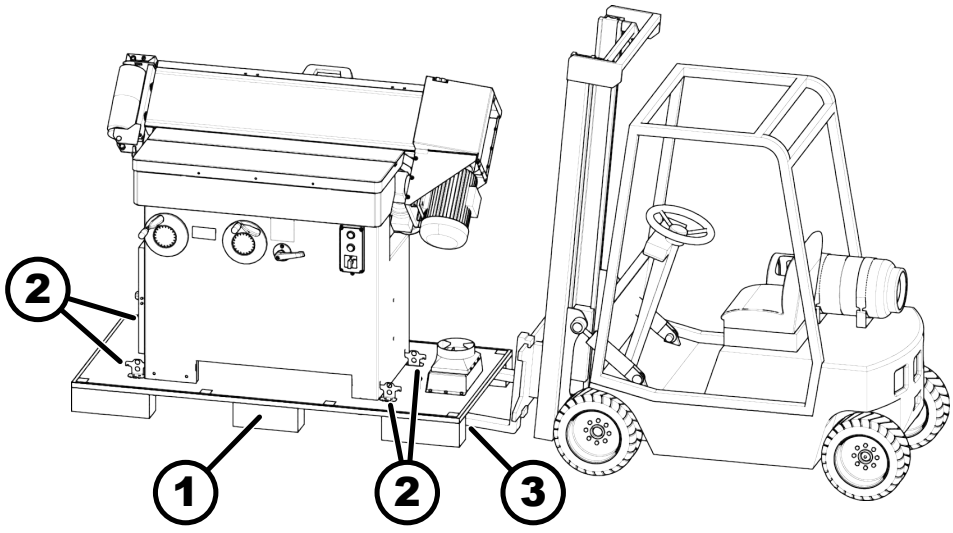


Fig. 11: Transport with a forklift truck

1 Pallet
2 Transport bracket
3 Recesses in the pallet

6.5.3 Transport with a crane

WARNING

Incorrect handling of the machine

Severe injuries and material damage due to falling machine.

- Do not lift the machine using the machine table, support table, extendable frame or by the hand grips.
- Ensure that the lifting gear used has an adequate capacity and that the load is secured against lateral slippage.
- Thread the lifting material (belts, chains or ropes) through the cutout holes in the machine frame.

1. To lift the machine with the crane, the following components must be removed:
   - Sanding belt cover
   - Support table
   - Workpiece fence
2. Thread the belts or ropes through the cutout holes in positions 1 and 2 in the machine frame.

OK Suitable lifting points.

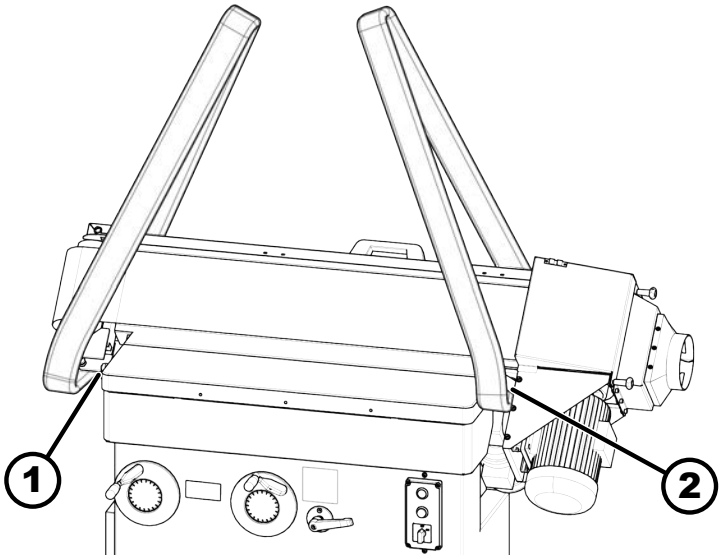


Fig. 12: Lift machine

1 Position 1
2 Position 2

NOK Incorrect lifting points.

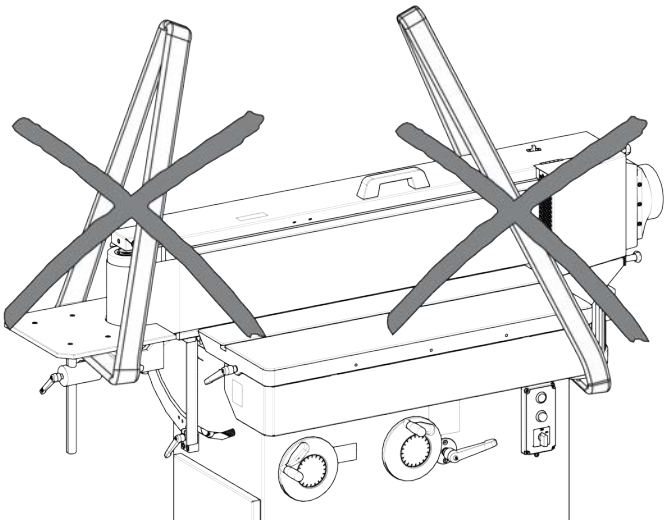


Fig. 13: Lifting the machine incorrectly

3. Lift machine.

6.5.4 Transport with a rolling carriage

The rolling carriage and the lifting bar (option) facilitate the task of transporting the machine.

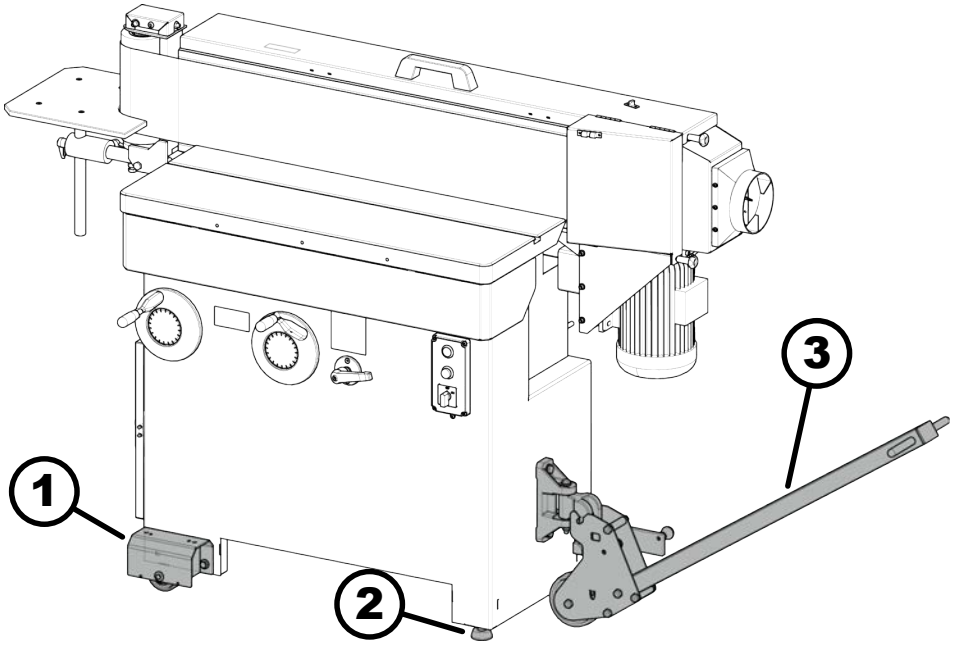


Fig. 14: Transport with a rolling carriage

1 Rolling carriage
2 Adjustable foot
3 Lifting bar

The rolling carriage is mounted to the machine chassis. (See: Assembly instructions "rolling carriage" and "lifting bar").

7 Setup and installation

7.1 Space requirement

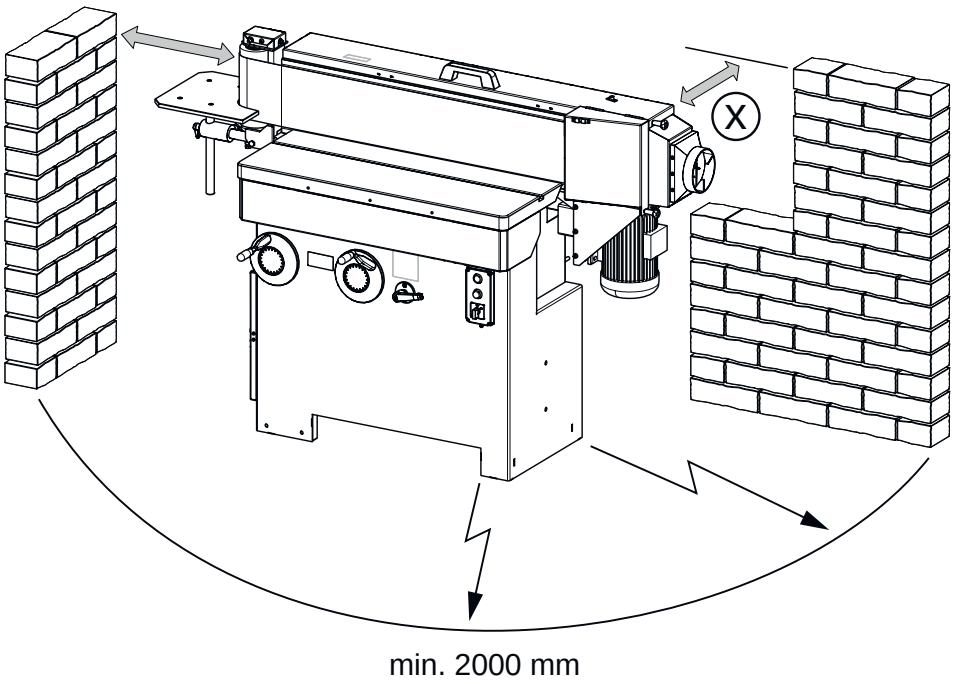


Fig. 15: Space requirement

Installation location requirements:

- Sufficiently stable and proper load-bearing capacity of the work surface.
- Sufficient lighting of the working area.
- Sufficient clearance or screening from neighbouring workstations.
- The machine location must provide enough space for the machine operator. Consider the requirement of enough space for loading, working and stacking of workpieces. At least 2000 mm of free space to operate the machine in the working area is required.
- In order to maintain and operate the machine properly, it must be set up at least 1000 mm away from the wall, parallel to the work direction (measurement X).
- The free space in the processing direction must be at least 500 mm larger than the workpiece length.
- The machine may only be used in dry rooms, free from frost and not outside.

7.2 Levelling the machine

For proper machine function, the machine must be levelled.

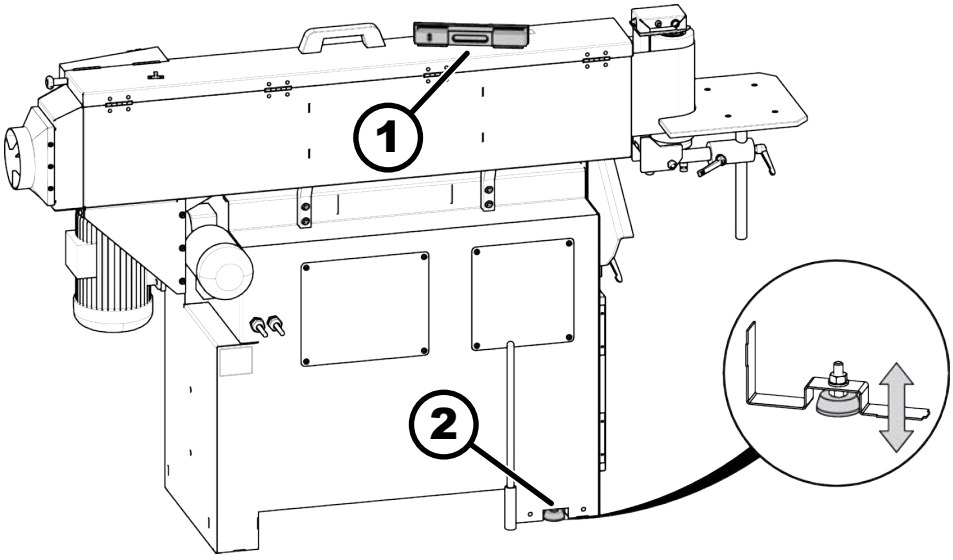


Fig. 16: Levelling the machine

1 Spirit level
2 Adjustable foot

Tool:

- Spirit level

1. Align the adjustable feet, until the machine stands firmly on the floor.

2. Align and level the machine.

3. Check the alignment of the machine using a spirit level both lengthways and crossways on all machine sides.

OK	Machine is stable and levelled.
NOK	Machine is not stable and levelled. **1.** Set the adjustable feet. **2.** If necessary, level out uneven ground conditions with underlays.

4. Secure the adjustable feet with a locking nut.

7.3 Install

7.3.1 Mount the extraction connection

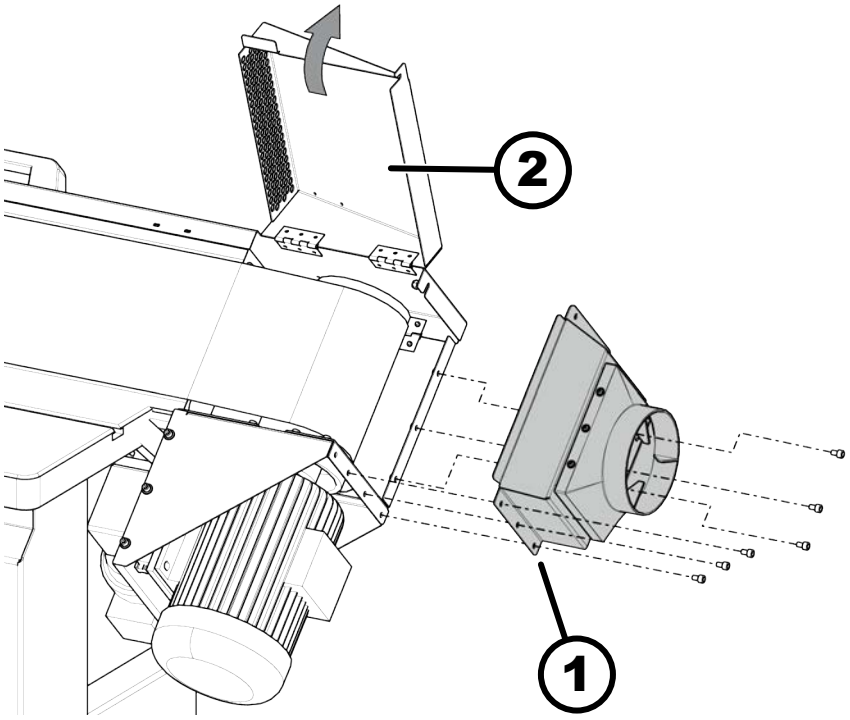


Fig. 17: Mount the extraction connection

1 Extraction connection
2 Extraction flap

Tool:

- Allen key

1. Tilt the extraction flap upwards and mount.

2. Attach the extraction connection using nuts and screws to the machine stand.

- To facilitate assembly, first remove the plastic connector and then tighten the inner screws with nuts.

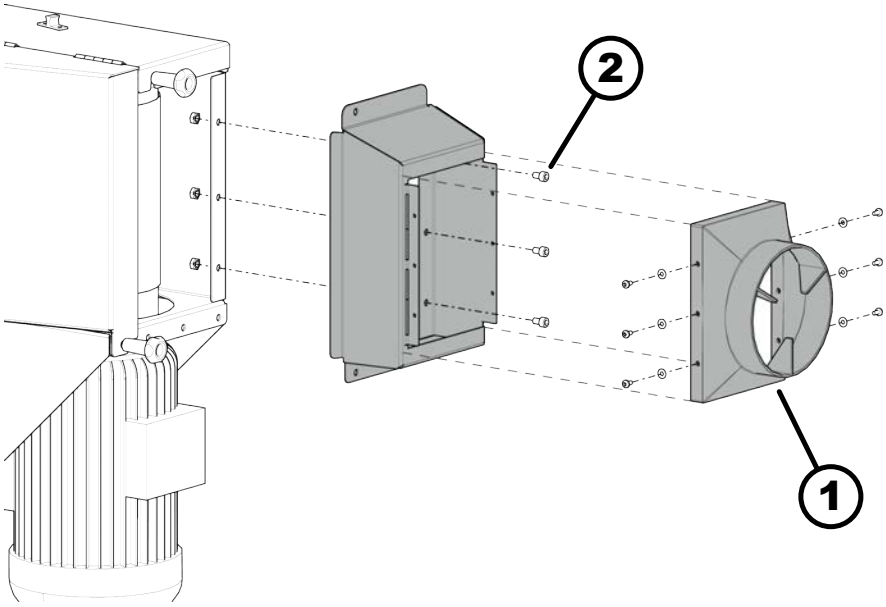


Fig. 18: Remove the plastic connector

1 Plastic connector
2 Internal screws

3. Mount the clamping screws with nuts.

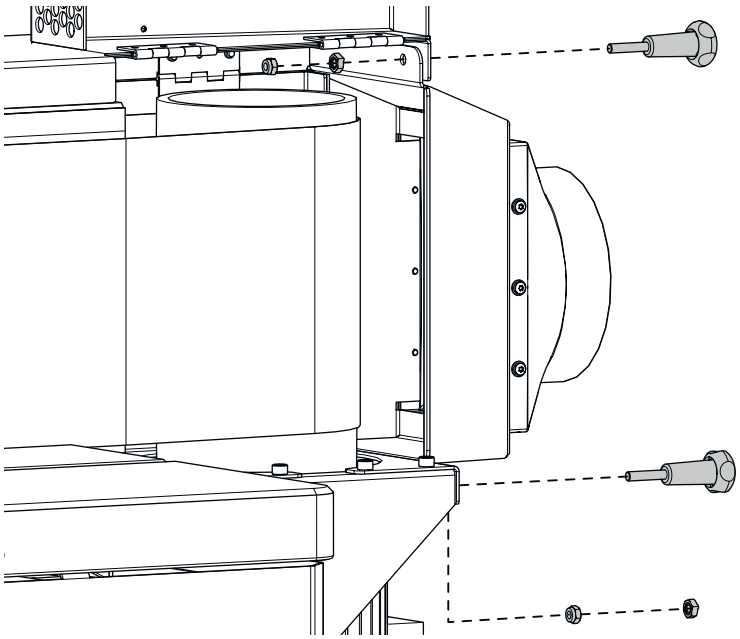


Fig. 19: Mount the clamping screws with nuts

4. Close the extraction flap.

5. Tighten the clamping screws.

7.3.2 Mount and set the support table

During the assembly, loosely connect all parts first. Finally, tighten all screws.

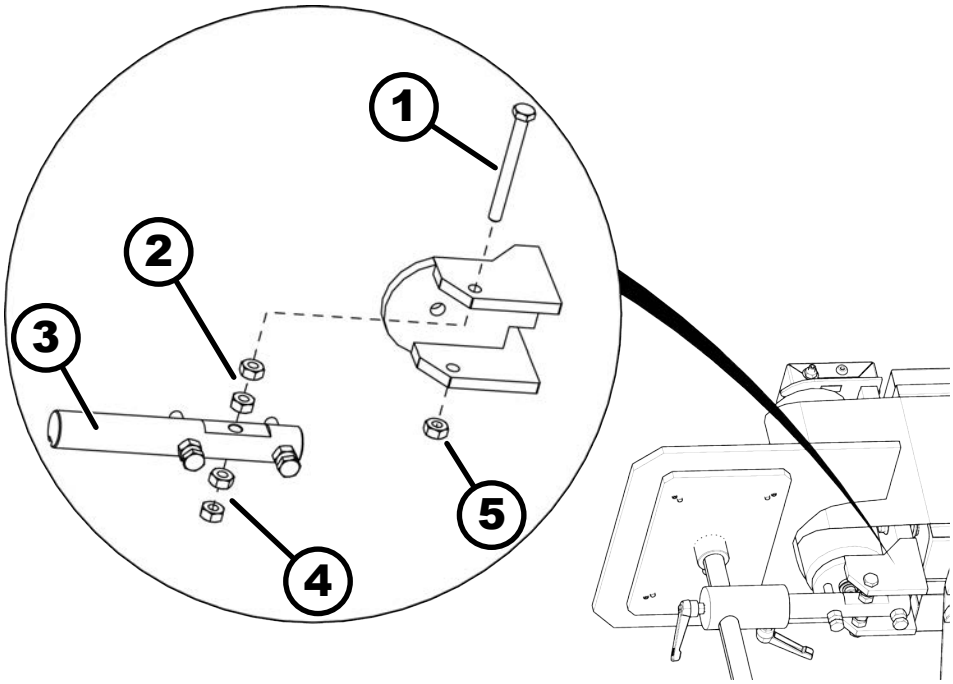


Fig. 20: Mount the support table brackets

1 Hexagon screw
2 Adjusting nuts 1
3 Holder bar
4 Adjusting nuts 2
5 Locking nut

Tool:

- Combination spanner

1. Push the hexagon screw through the holder.

2. Turn the adjusting nut (1) on the screw.

3. Place the holding bar on the screw.

4. Turn the adjusting nut (2) on the screw.

5. Fully tighten the hexagon screw and fix in place using the locking nut.

6. Rotate the inner adjusting nuts (1 and 2) to position the support table centrally.

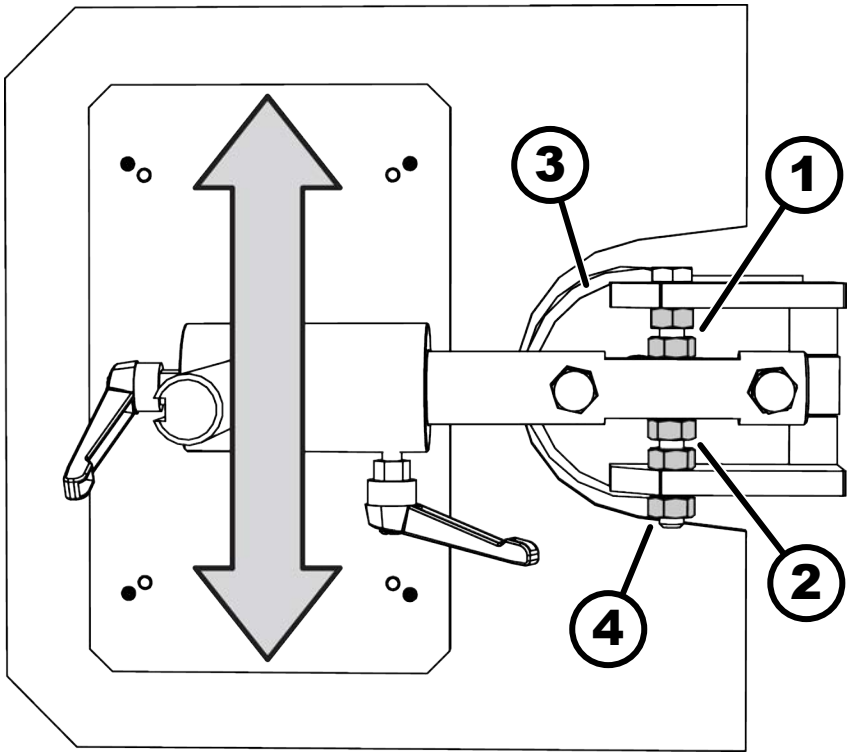


Fig. 21: Position support table

1 Adjusting nuts 1
2 Adjusting nuts 2
3 Idle roller
4 Locking nut

OK The idle roller rotates in the centre of the table recess.

NOK Table rubs against the idle roller.

1. Position the support table in such a way that the idle roller rotates in the centre of the table recess.

7. Tighten all of the nuts.

7.4 Attach the dust extraction hose

Dust extraction system requirements

Every machine that uses an extraction system shall be extracted in accordance with EN 12779:2015 or EN 16770:2018.

- The extraction performance must be sufficient to achieve the negative pressure and air speed required at the connection point (see technical data or layout).
- Check extraction power before initial start-up and after significant changes (to the machine and / or extraction system).
- Before the machine is put into operation for the first time the dust extraction setup must be checked. Check for obvious defects on a daily basis and the efficiency on a monthly basis.
- The dust extractor must be connected to the machine in such a manner that it runs in unison with the machine.

- The dust extraction hose must be electroconductive and grounded to prevent electrostatic build up.
- Only use flame-retardant extraction hoses.
- Use extraction with reduced dust emission to clean dust from the machine.

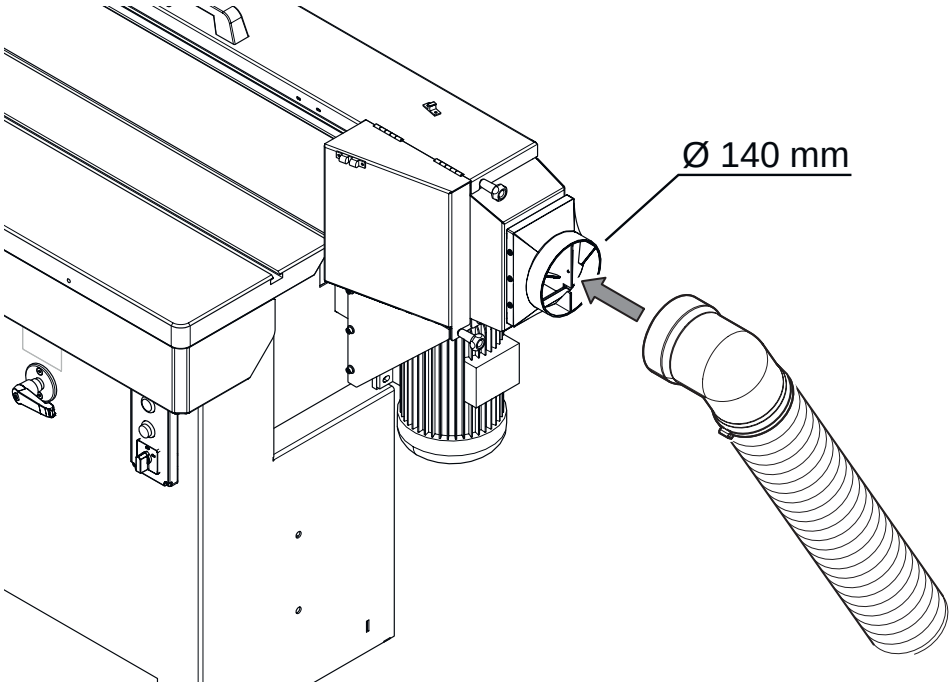


Fig. 22: Attach the dust extraction hose

Tool:

- Hose clamp

1. Connect the flexible extraction hose to the extraction connection with hose clamps.
2. Check the extraction performance.

7.5 Connect electrics

7.5.1 Connect electrics

Electrical connection requirements:

- The machine must be earthed with electrical conductors.
- Pay attention to voltage fluctuations in the mains supply. ➥ *Chapter 4.3 'Electrical connection' on page 21*
- The power supply cable must be protected against damage (e.g. armoured conduit).
- The power supply cable must be laid in such a way so that is does not bend or chafe and that there is no risk of tripping over it.

NOTICE

Electric current

Damages due to incorrect power supply

- Electrical connection of the machine must be carried out by a licensed electrician on the day of installation.
- Before connecting the machine to the power supply, compare the information on the nameplate with those of the power supply. Only connect the machine if the two sets of data correspond to each other.
- To protect against electric shock, the operator must ensure that the machine is equipped with a protective device (residual current circuit breaker).
- Checking the loop impedance and the suitability of the overcurrent protective device must take place at the location where the machine is to be commissioned.
- It is prohibited to open the electrical box on the machine without the express authorisation from the Felder Group Service Department. Violating this stipulation will invalidate any guarantee claims.

NOTICE

Sleeve nut not closed properly

Material damage

- Close the opening of the connection cable dust-tight using the sleeve nut.

WARNING

Improper work at the electrical unit

Electrocution or fatal electrocution

- Work on electrical fittings may only be carried out by qualified personnel and in strict observance of the safety instructions.
- Disconnect machine from all energy sources and secure against restarting.

WARNING

Indirect touch with residual currents

Electrocution or fatal electrocution

- Equip the machine's supply line with a fault-current circuit breaker.

WARNING

Oversized preliminary fuse of the electrical connection

Serious physical injury or material damage due to fire

– Make preliminary fuse under consideration of the specification in the circuit diagram.

Personnel:

- Qualified electrician

Protective equipment:

- Protective clothing
- Protective footwear

The machine's power cable is delivered with an open cable end, i.e. without a plug. The machine's power cable must be fitted by an electrician with a suitable plug in accordance with country specific regulations. The electrical outlet must have the appropriate socket (for a three-phase alternating current motor, CEE).

→ Have the machine connected by a qualified electrician.

Check the direction of rotation

1. → Connect the plug to the power supply.
2. → Switch on the machine with the green *[start]* button.
3. → Let the machine run briefly, then switch it off.
4. → Check the direction of rotation whilst the motor is running.

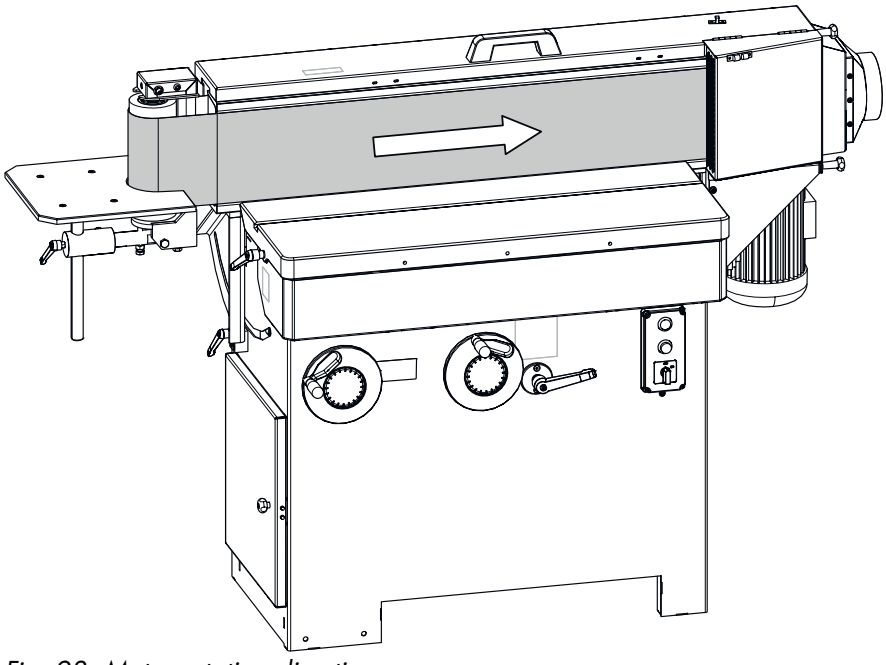


Fig. 23: Motor rotation direction

OK Correct rotation direction (see graphics).

NOK Incorrect rotation direction (see graphics).

1. → An electrician should swap 2 phases on the power cable.

8 Adjustments and tool changes

8.1 Sanding belts

- Only use appropriate sanding belts.
- Never use a torn sanding belt.
- Ensure that the surfaces of the rollers are clean and free of dust before attaching a sanding belt.
- Loosen the tension of the sanding belts when the machine is not in use.

8.2 Change / mount the sanding belt

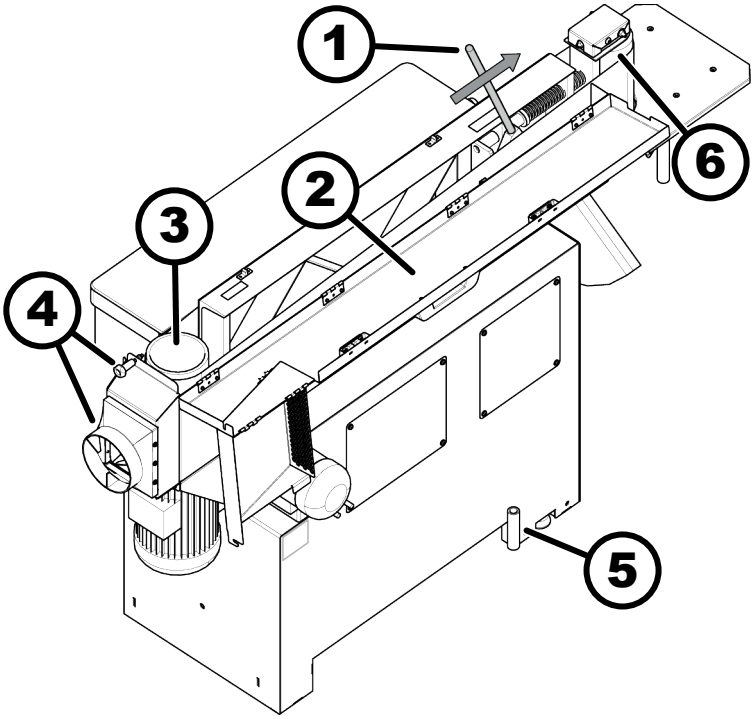


Fig. 24: Mount the sanding belt

1 Sanding belt tensioning using lever handle
2 Guard
3 Drive roller
4 Clamping screws
5 Lever handle bracket
6 Idle roller

CAUTION

Running sanding belt

Cut and abrasion injuries from the sanding belt

- Only tension / change the sanding belt when the machine is not in use.
- Switch off the machine and secure it against being switched on again.

Protective equipment:

- Protective gloves

1. Switch off the machine and secure it against being switched on again.

2. Loosen the clamping screws.
3. Swing the extraction flap upwards.
4. Open protective cover.
5. Move the lever until the sanding belt tension locks into place.
6. Pull the belt out of the machine in a twisting motion.
7. Place in a new sanding belt in the correct rotational direction.
   - The direction of rotation is indicated by an arrow on the back of the abrasive belt.
8. Slowly tension the sanding belt using the handle lever.
9. Ensure, that the sanding belt runs in the centre.

OK The sanding belt runs in the centre of the idle and drive roller.

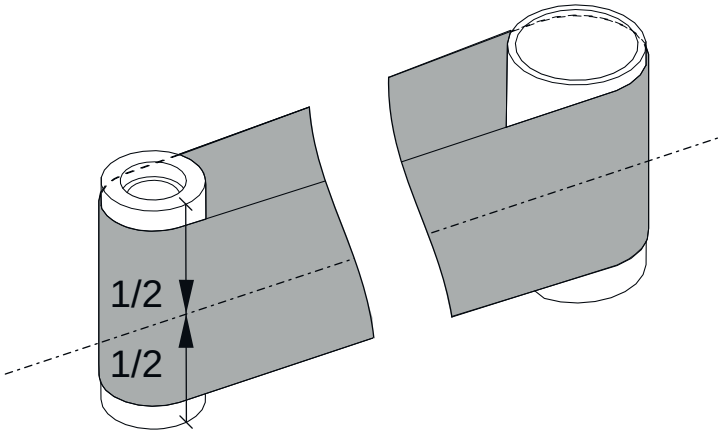


Fig. 25: Sanding belt is positioned correctly

NOK The sanding belt does not run in the centre of the idle and drive roller.

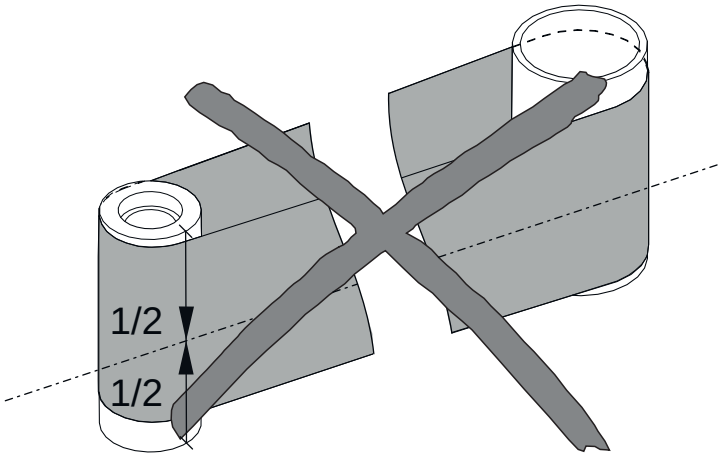


Fig. 26: Sanding belt is not positioned correctly

1. Adjust the sanding belt until it is in the centre.
2. Check the run of the belt.

10. Close the sanding belt cover and extraction flap.

11. Tighten the clamping screws.

8.3 Height adjustment - machine table / support table

NOTICE

Moving machine components

Material damage

- The machine and the support table must not touch the sanding belt.
- Adjust so that there is sufficient distance between the sanding belt and the machine and support table.

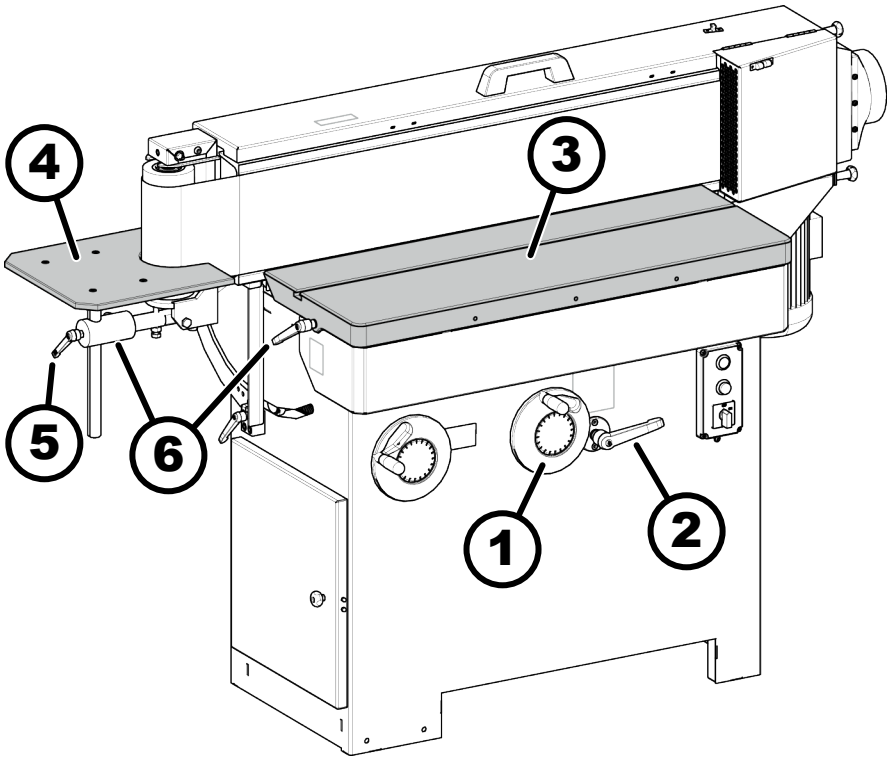


Fig. 27: Height adjustment machine table / support table

1 Adjust machine table height - handwheel
2 Adjust machine table height - clamping lever
3 Machine table
4 Support table
5 Adjust support table height - clamping lever
6 Adjust the machine and additional table height - clamping lever

Machine table

1. Loosen the clamping lever.
2. Adjust the machine table height using the handwheel:
   - Clockwise: higher
   - Anti-clockwise: lower
3. Clamp the clamping lever.

Support table

1. Loosen the clamping lever.

2. To move the support table to the desired height position.
3. Clamp the clamping lever.

Horizontally adjust machine / support table

1. Loosen side adjustment clamping lever.
2. Push or pull working table into position.
3. Tighten the clamp lever for the side adjustment.

8.4 Adjusting the angle - support table

Setting: 90° angle of the idle roller to the support table.

Adjusting the angle - support table

Tool:

- Combination spanner

Material:

- Precision bevelled steel square

1. Place the bevelled steel square (90°) between the idle roller and the support table in position A and B.

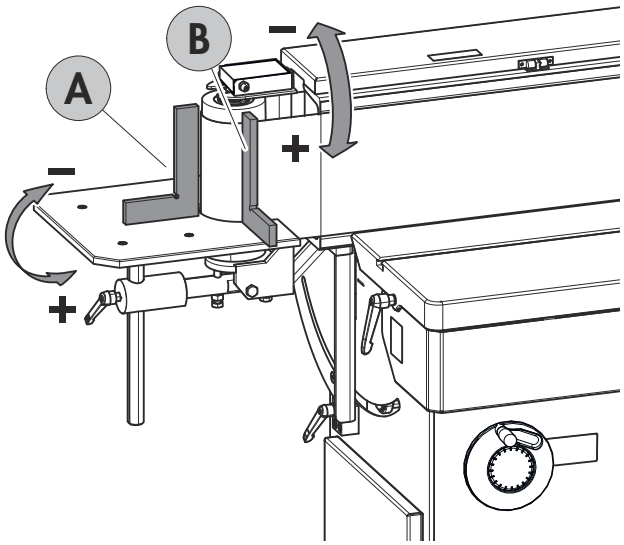


Fig. 28: Place the bevelled steel square in position

2. Measure the distance between X and Y in position A and B.

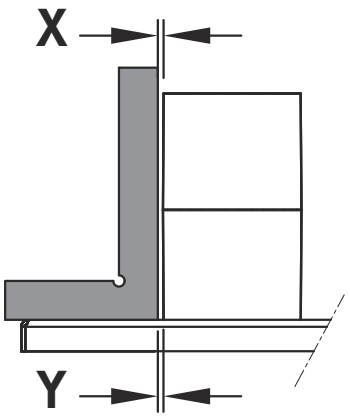


Fig. 29: Measure distance

3. Angle position A:

OK	Value of X and Y is equal.
NOK	Value of X and Y is not equal.

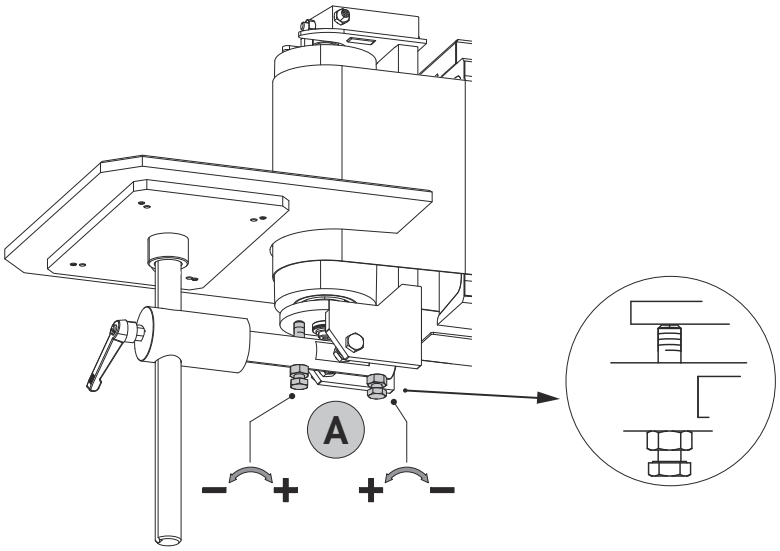


Fig. 30: Adjusting angle A

1. Loosen locking nuts.
2. Set the position of the table extension with the adjusting screws.
3. Setting at X > Y:
   - Adjustment in direction "-"

   Setting at X < Y:
   - Adjustment in direction "+"
4. Tighten the lock nut.

4. Angle position B:

OK Value of X and Y is equal.

NOK Value of X and Y is not equal.

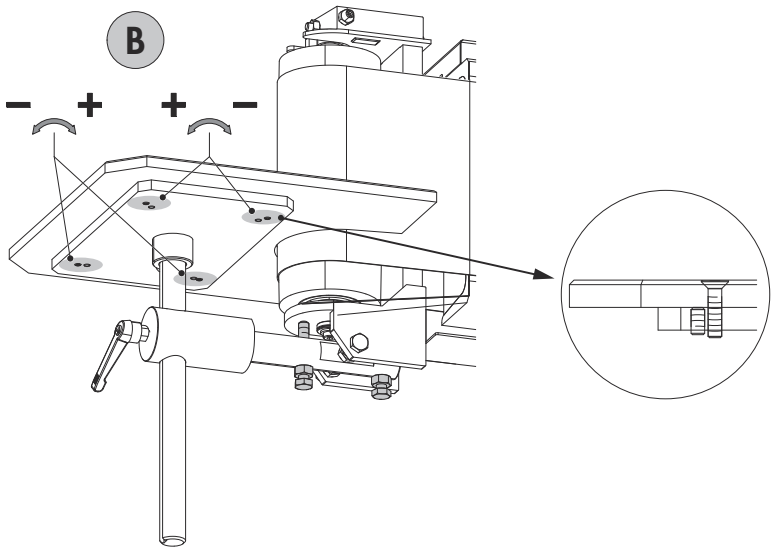


Fig. 31: Adjust angle B

1. Release clamping screw (countersunk-head screws).
2. Set the position of the table extension with the adjusting screws.
3. Setting at X > Y:
   - Adjustment in direction "-"

   Setting at X < Y:
   - Adjustment in direction "+"
4. Release clamping screw (countersunk-head screws).

8.5 Adjust sanding unit inclination angle

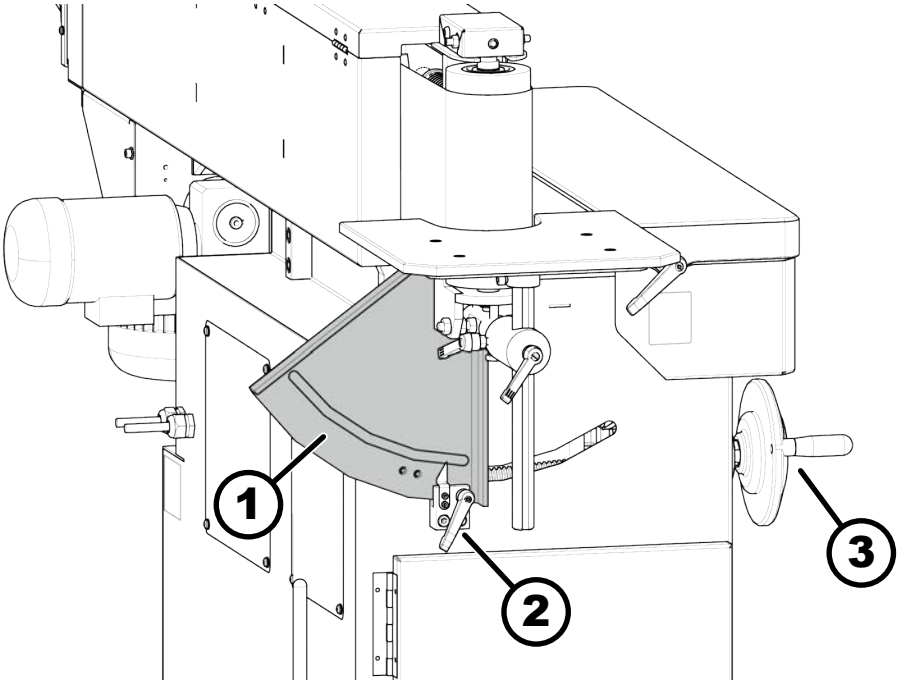


Fig. 32: Sanding unit inclination angle

1 Inclination angle scale
2 Clamping lever
3 Adjust sanding unit inclination angle

1. Loosen the clamping lever.

2. Rotate the handwheel, in order to tilt the aggregate:

- Adjust the angle between 90° and 45° on the scale.

3. Clamp the clamping lever.

8.6 Extending the machining area (long workpieces)

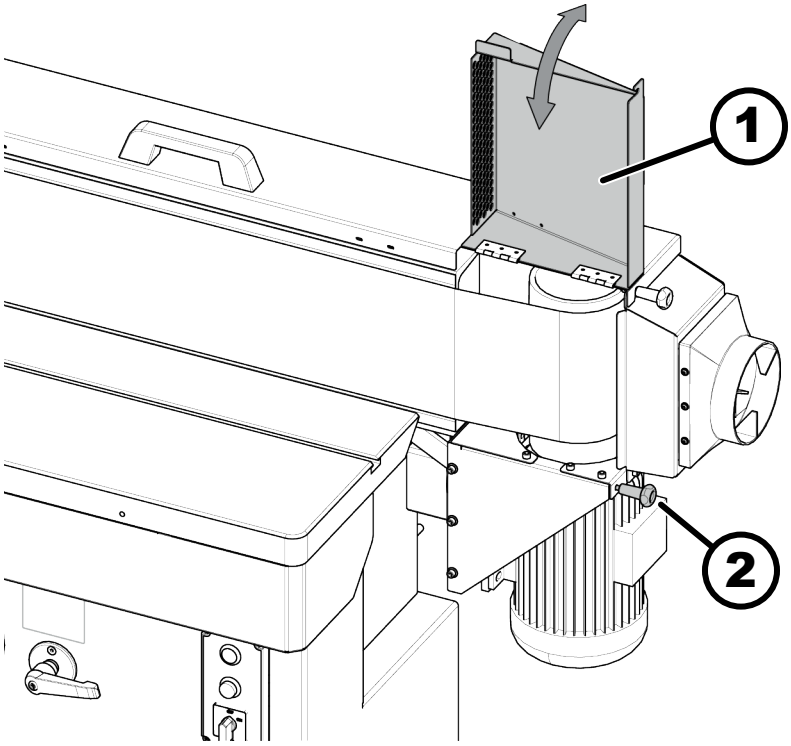


Fig. 33: Extend the processing surface

1 Extraction flap
2 Clamping screw

1. ▸ or remove the workpiece stop.

2. ▸ Loosen the clamping screw.

3. ▸ Tilt the extraction flap upwards and lock into place.

8.7 Sanding belt oscillation on / off

The oscillation stroke can be switched on or off to change the sanding pattern. To prevent one-sided wear of the abrasive belt, switch on the switched-off oscillation stroke again after use.

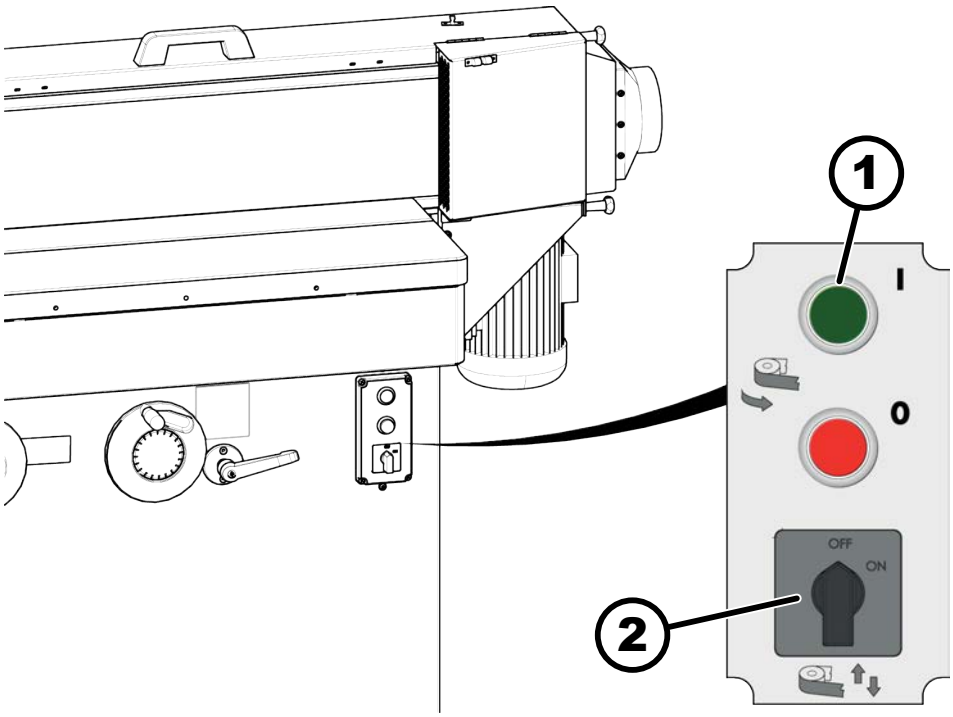


Fig. 34: Sanding belt oscillation on / off

1 Green start button - switch the machine on
2 Mode switch - Sanding belt oscillation

1. Switch on the machine with the green *[start]* button.

2. Turn the oscillation switch to position *ON* or *OFF*.

9 Use

9.1 Switch on the machine

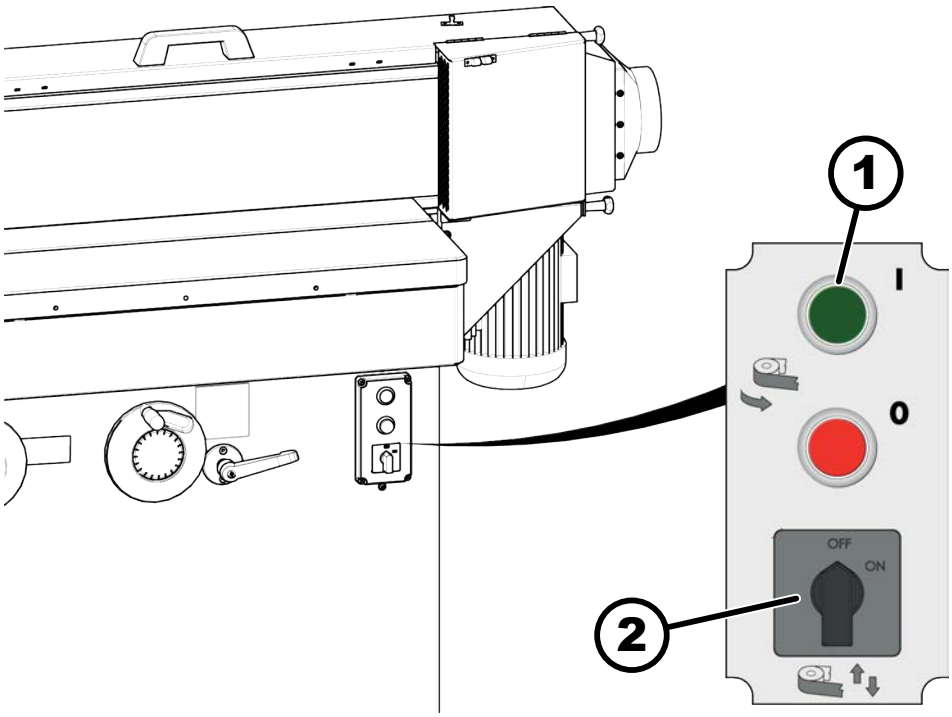


Fig. 35: Switching the machine on / off

1 Green start button - switch the machine on

1. Connect the machine to the main power supply.
2. Press the green *[start]* button.
3. or switch the sanding belt oscillation on / off.

9.2 Switch off / Emergency stop

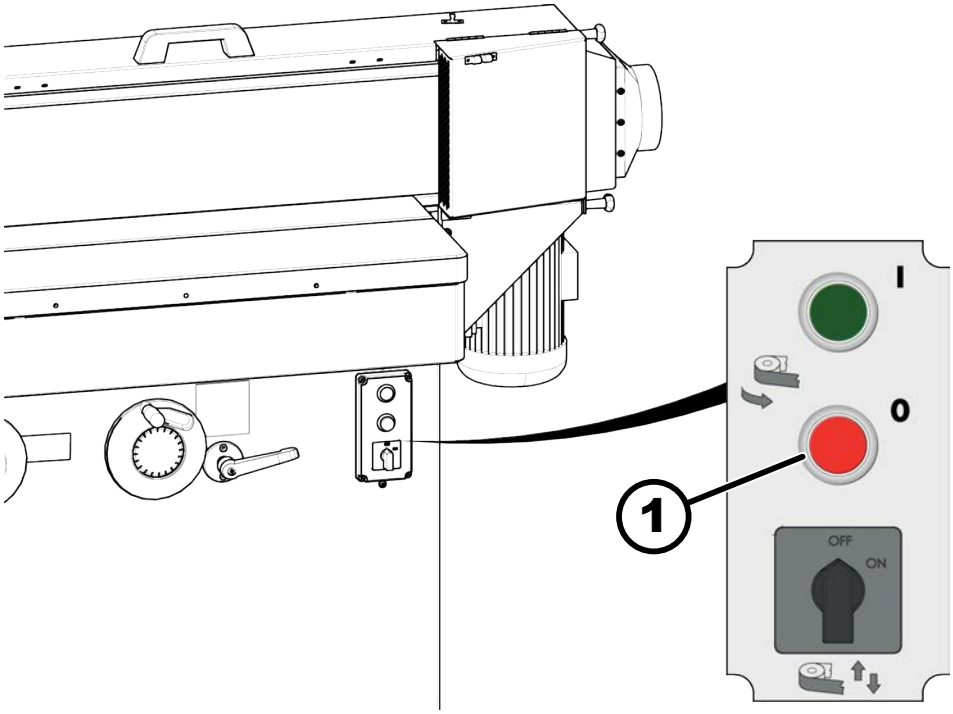


Fig. 36: Switch off / Emergency stop

1 Red stop button

1. Press the red *[Stop]* button.
   ➡ Machine will stop immediately.
2. Wait until the sanding belt has come to a complete stop.
3. Disconnect the machine from the main power supply.

9.3 Processing workpieces

9.3.1 Working positions

Take up the working position as shown in the image when working with the machine.

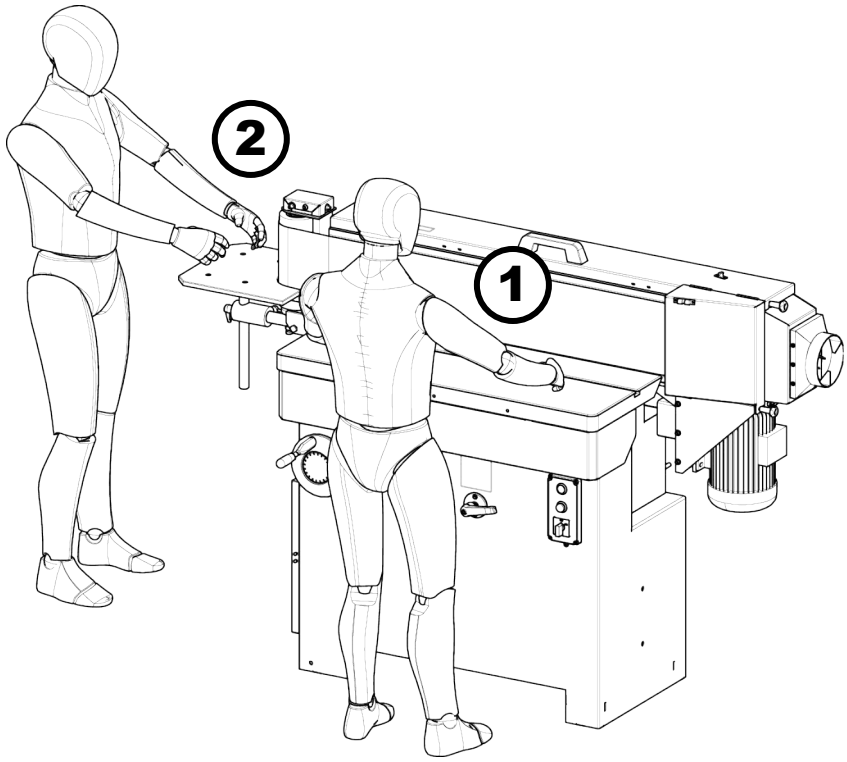


Fig. 37: Working positions

1 Working area for flat surfaces
2 Working area for curves

9.3.2 Authorised working methods

All other working techniques that deviate from the following uses are improper on this machine and therefore not permitted:

- Sanding of longitudinal sides on the longitudinal sanding side of the machine.
- Sanding of longitudinal sides on the longitudinal sanding side of the machine with pivoted sanding unit.
- Sanding of end faces using the tiltable fence mounted to the work table with either a tilted or non-tilted sanding unit.
- Sanding using the idle roller / support table.
- Only process workpieces in reverse operation.
- Use a feeding aid or a workpiece fence for small or thin workpieces.
- Place the workpiece against the fence first and then guide it to the sanding belt.
- With large, heavy or longer workpieces use auxiliary equipment such as a lifting table or table extensions.

9.3.3 Prohibited working methods

Following working techniques must never be carried out on this machine:

- Sanding of metal components such as planer knives.
- Removing a standard cover.
- Simultaneous feed or overlapping of several workpieces.

9.3.4 Sanding on the longitudinal side of the machine

The following operations can be carried out:

- Sanding joist sides.
- Sanding of radius.
- Correcting uneven areas (Window angle).
- Head sanding.

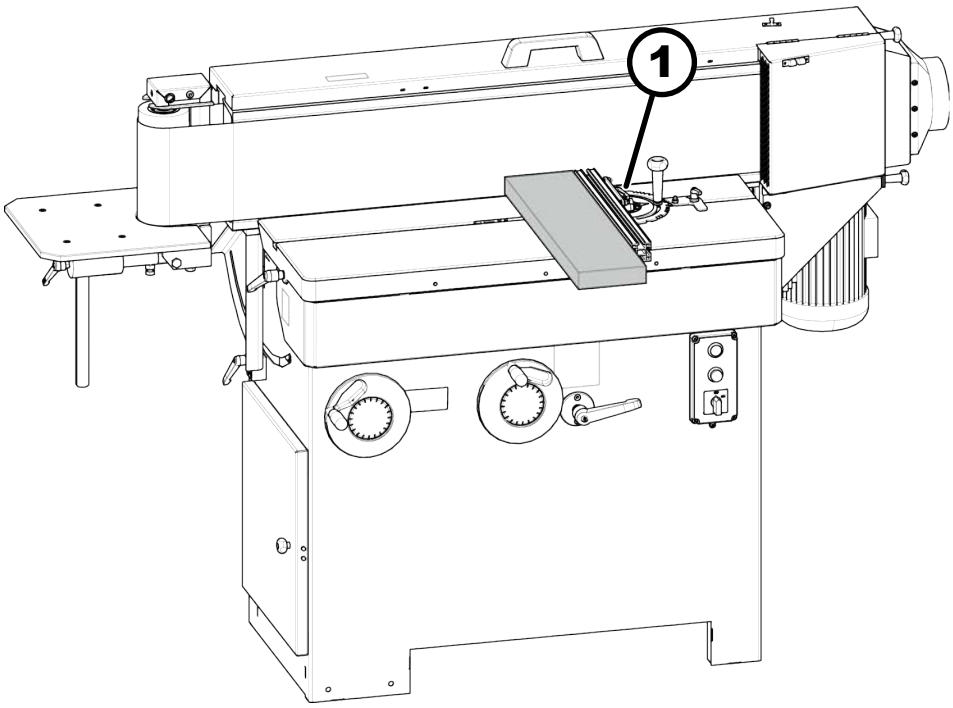


Fig. 38: Sanding at the front of the machine

1 Workpiece fence (accessory)

WARNING

Running sanding belt

Through contact with the running sanding belt it could cause serious cut or abrasion injuries.

- Avoid contact with the running sanding belt.
- Only use the machine in manual operation.
- Only process workpieces in reverse operation.
- Ensure that workpieces cannot be ejected (use a workpiece fence).

1. Set the table height correct to the workpiece.
2. Clamp all of the clamping levers.
3. Switch machine on.
4. First place the workpiece against the fence and then guide it to the sanding belt.

9.3.5 Sanding with tilted unit

The tilting sanding unit that can be swivelled from 90° - 45° makes it possible to sand:

- Mitred edges
- sharp edges
- chamfered edges

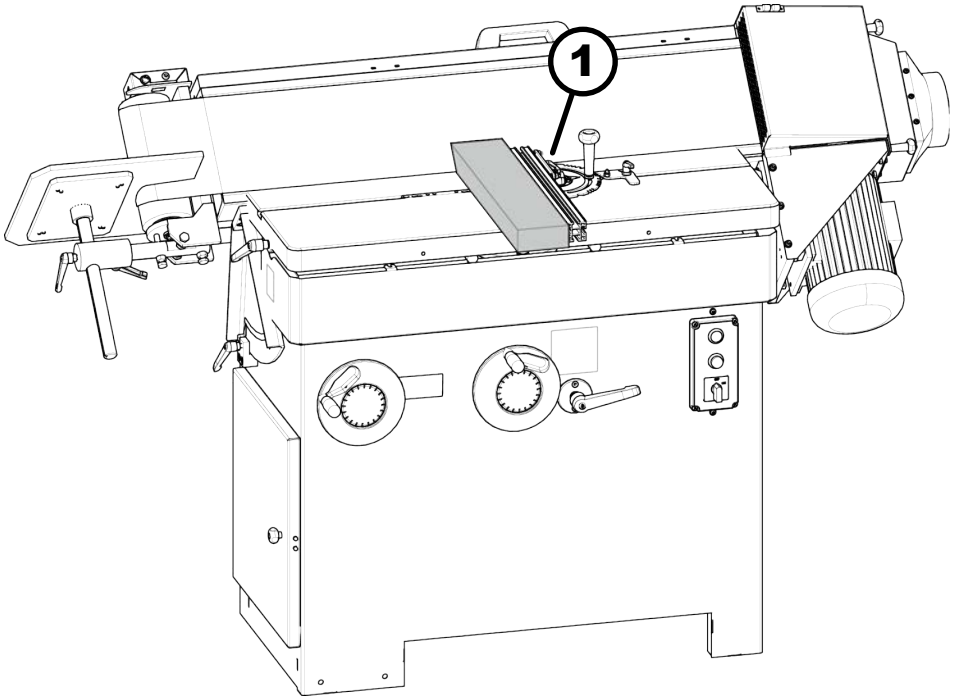


Fig. 39: Sanding with tilted unit

1 Workpiece fence (accessory)

NOTICE

Moving machine components

Material damage

– Remove tools and fences from the work table before tilting.

WARNING

Running sanding belt

Through contact with the running sanding belt it could cause serious cut or abrasion injuries.

– Avoid contact with the running sanding belt.
– Only use the machine in manual operation.
– Only process workpieces in reverse operation.
– Ensure that workpieces cannot be ejected (use a workpiece fence).

Take note of general procedures for permitted working methods.

1. Tilt the sanding aggregate and set the sanding angle.
2. Set the table height correct to the workpiece.
3. Clamp all of the clamping levers.

4. Switch machine on.
5. First place the workpiece against the fence and then guide it to the sanding belt.

9.3.6 Sanding of long workpieces

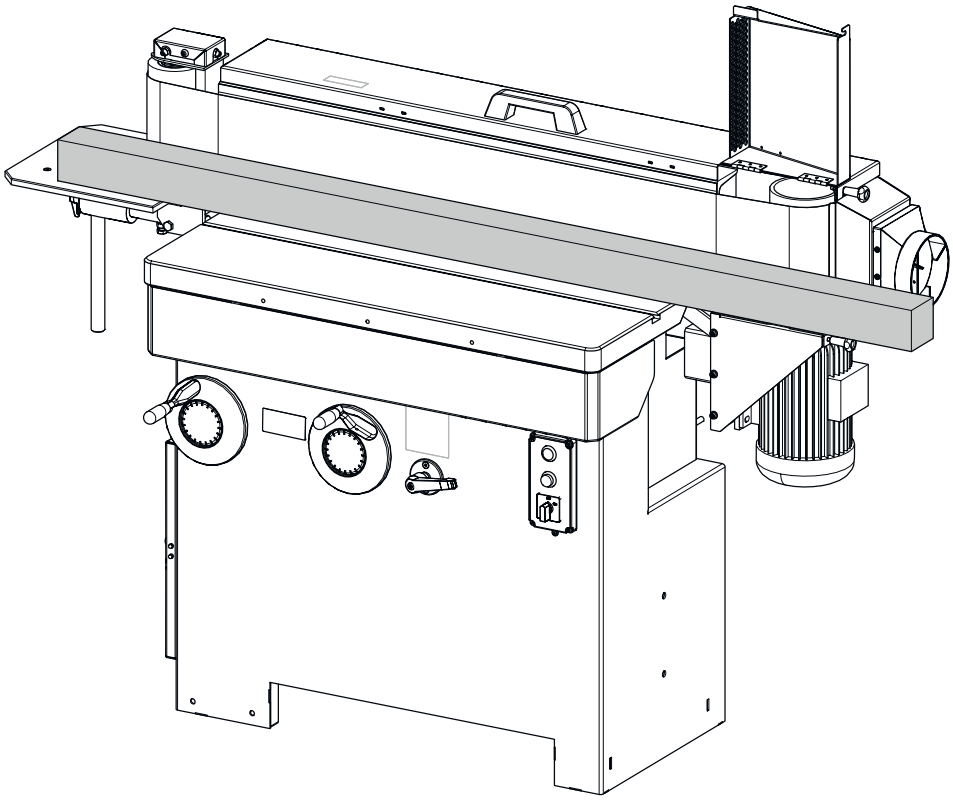


Fig. 40: Sanding of long workpieces

WARNING

Running sanding belt

Through contact with the running sanding belt it could cause serious cut or abrasion injuries.

- Avoid contact with the running sanding belt.
- Only use the machine in manual operation.
- Only process workpieces in reverse operation.
- Ensure that workpieces cannot be ejected (use a workpiece fence).

Take note of general procedures for permitted working methods.

1. Extend the processing surfaces. ➥ *Chapter 8.6 'Extending the machining area (long workpieces)' on page 50*
2. Adjust the table height to the workpiece to be processed.
3. Check that all clamping levers are tightened firmly.
4. Switch machine on.

9.3.7 Sanding curves

Using this working technique sand curved workpieces with large radius.

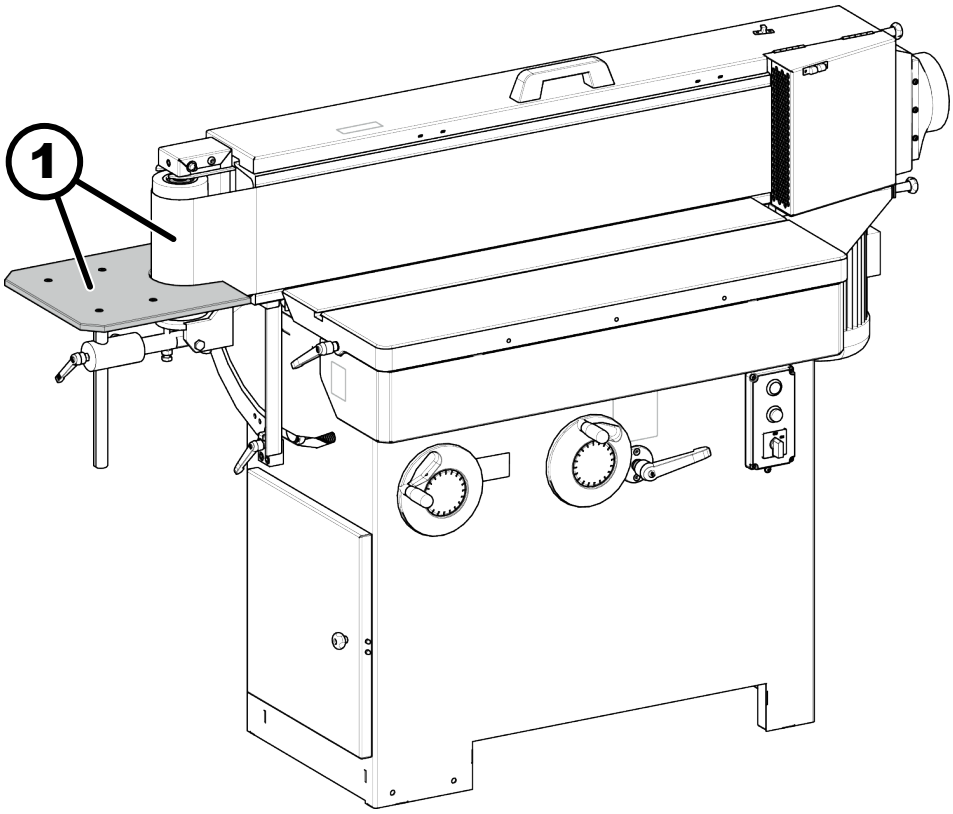


Fig. 41: Sanding curves

1 Sanding curves on the support table

NOTICE

Moving machine components

Material damage

- Remove workpieces and fences from the support table before tilting.

WARNING

Running sanding belt

Through contact with the running sanding belt it could cause serious cut or abrasion injuries.

- Avoid contact with the running sanding belt.
- Only use the machine in manual operation.
- Only process workpieces in reverse operation.
- Ensure that workpieces cannot be ejected (use a workpiece fence).

Take note of general procedures for permitted working methods.

1. Adjust the table height to the workpiece to be processed.
2. Check that all clamping levers are tightened firmly.
3. Place the workpiece on the support table.

4. Switch machine on.

10 Maintenance

10.1 Maintenance schedule

Chap.	Task to execute	Every 8 operating hours	Twice a year	If required	Page
10.2	Clean the machine	X			60
10.3	Clean the sanding belt			X	61
10.4	Lubricating the height adjustment spindles		X		63
10.4	Lubricating the tilting spindle		X		64
10.5	Change the graphite sliding mesh			X	64

10.2 Clean the machine

WARNING

Fire caused by ignited wood dust and chips

Serious burn injuries

– Regularly clean the machine of wood dust and chips.

Protective equipment:

- Protective clothing
- Protective gloves
- Safety goggles

Tool:

- Cleaning cloths
- Resin remover
- Vacuum cleaner

1. Switch off the machine and secure it against being switched on again.
2. Clean the machine of dust, shavings, waste material and other contaminants.
3. Clean the machine, table and guide surfaces of chips and dust.
4. Clean the drive and idle roller and check that they function properly.

5. Perform a visual inspection of all machine parts.

OK No damage

NOK Damage identified.

1. Repair damage immediately.

➡ If it is not possible, contact the Felder Group service centre.

10.3 Clean the sanding belt

CAUTION

Running sanding belt

Cut and abrasion injuries from the sanding belt

- Never clean the sanding belt whilst in the machine.
- Remove the sanding belt and clean away from the machine.

Clean the sanding belt

1. Switch the machine off and secure it against being switched on again.
2. Remove the sanding belt. ➦ *Chapter 8.2 'Change / mount the sanding belt' on page 43*
3. Clean the sanding belt.
4. Fit the sanding belt.

10.4 Lubricate the height and tilt spindle

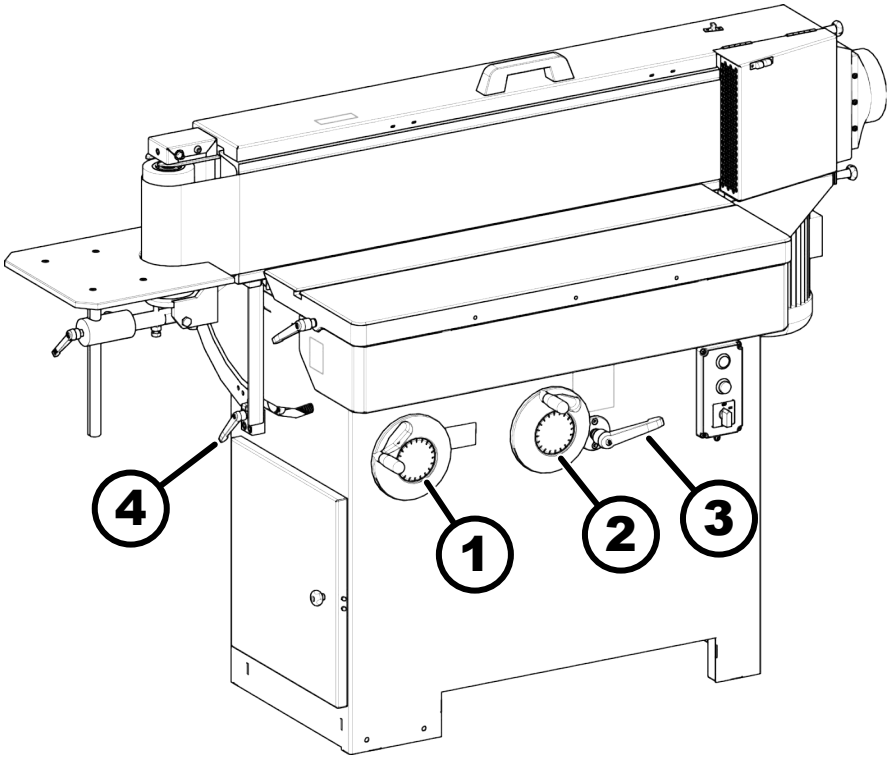


Fig. 42: Preparation for maintenance work

1 Adjust sanding unit inclination angle
2 Adjust machine table height
3 Machine table height - clamping lever
4 Sanding unit inclination angle - clamping lever

1. Switch off the machine and secure it against being switched on again.

2. Loosen the clamping lever.

3. Move the worktable all the way to the lowest position with the handwheel.

4. Tilt the aggregate to 90° using the handwheel.

Lubricating the height adjustment spindles

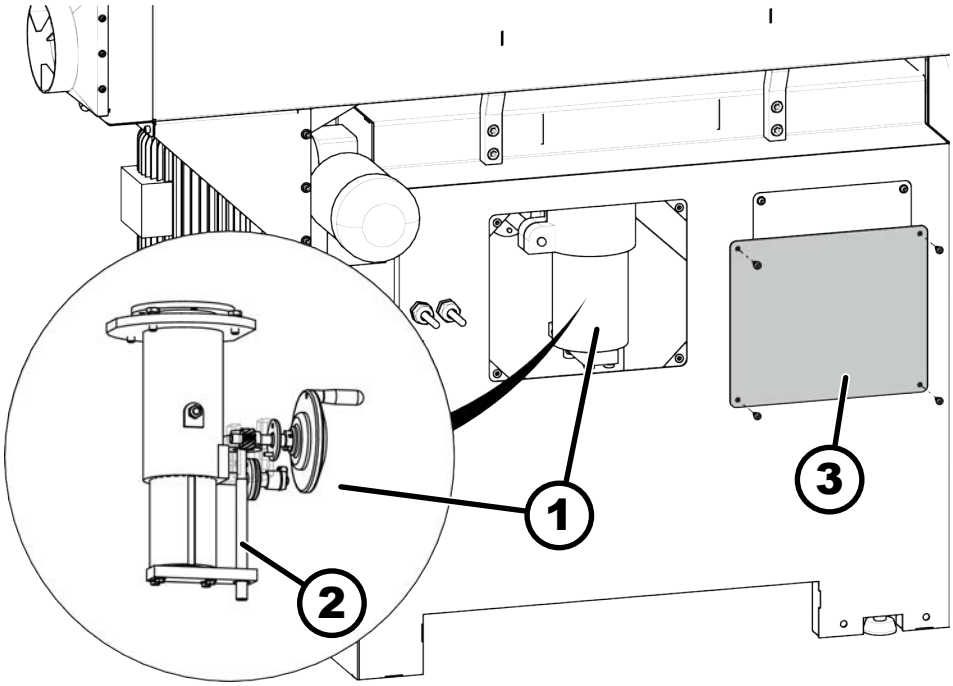


Fig. 43: Lubricating the height adjustment spindles

1 Height guide
2 Height spindle
3 Cover plate

Protective equipment:

- Protective clothing
- Protective gloves
- Safety goggles

Tool:

- Cleaning cloths
- Vacuum cleaner
- Allen key

Material:

- Machine grease

1. Remove the cover plate.
2. Clean the height guide and height spindle and re-lubricate with machine grease.
3. Move the work table all the way up and then all the way down again.
4. Clamp the clamping lever.
5. Mount the cover plate.

Lubricating the tilting spindle

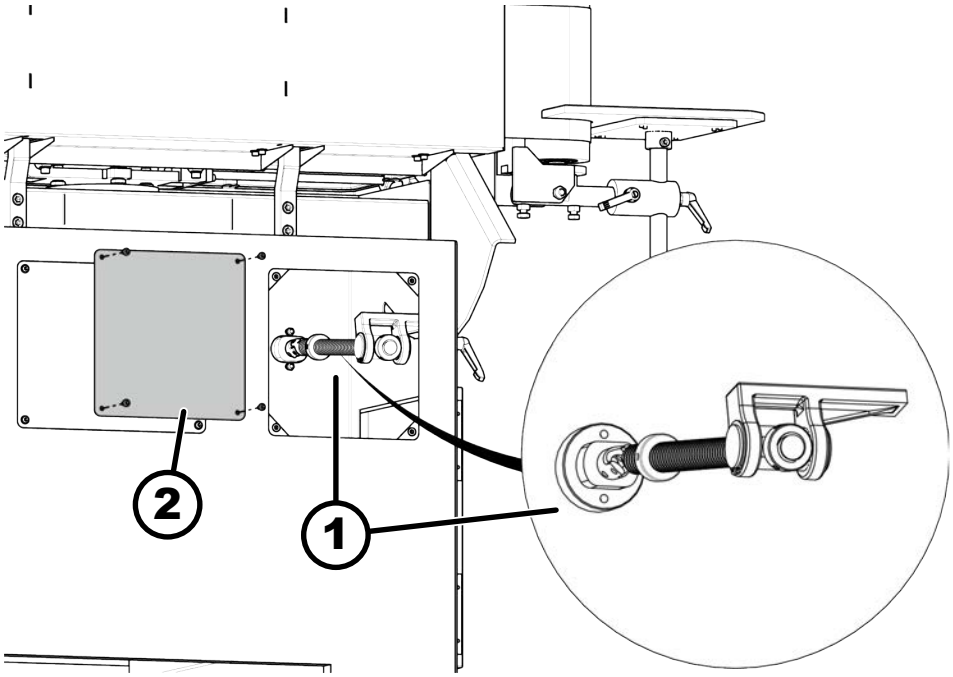


Fig. 44: Lubricating the tilting spindle

1 Tilting spindle
2 Cover plate

Protective equipment:

- Protective clothing
- Safety goggles

Tool:

- Cleaning cloths
- Vacuum cleaner
- Allen key

Material:

- Machine grease

1. Remove the cover plate.
2. Through the frame opening, lubricate the tilting spindle with machine grease.
3. Tilt the aggregate all the way to the end stop: 90° –> 45° –> 90°.
4. Clamp the clamping lever.
5. Mount the cover plate.

10.5 Sanding belt support - Change the graphite sliding mesh

Change the graphite sliding mesh

1. Switch the machine off and secure it against being switched on again.
2. Remove the sanding belt. ➥ *Chapter 8.2 'Change / mount the sanding belt' on page 43*
3. Remove the graphite sliding mesh from the sanding belt support.

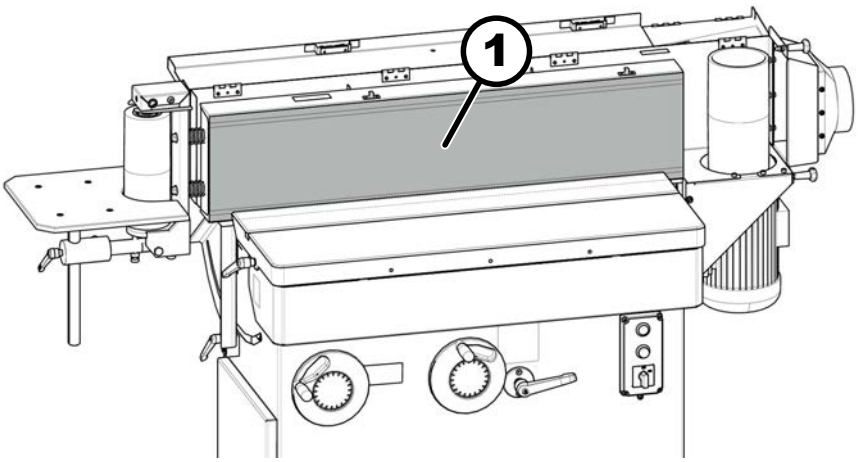


Fig. 45: Change the graphite sliding mesh

1 Sanding belt support

4. Glue a new graphite sliding mesh on.
5. Fit the sanding belt.
6. Check the run of the sanding belt.

OK The sanding belt runs smoothly.

NOK The sanding belt rubs on the sanding belt support.

1. Replace the graphite sliding mesh.

11 Troubleshooting

11.1 What to do in the event of malfunctions

WARNING

Improper troubleshooting

Severe injuries and damage to property

– Troubleshooting may only be carried out by authorised, trained personnel who are familiar with how to operate the machine and are in strict observance of all safety instructions.

In the event of malfunctions that pose an immediate threat to persons, equipment or operational safety:

1. Stop the machine immediately by pressing the red *[Stop]* button.
2. Disconnect the machine from the mains and ensure it can not be switched on again.
3. Have an authorised specialist determine the cause and repair the malfunctions.

11.2 What to do after rectifying the fault

Check,

1. if the malfunction and cause of the malfunction have been professionally remedied.
2. whether all safety equipment has been installed in accordance with regulations and are technically and functionally in perfect condition.
3. whether, there are no individuals located within the danger area of the machine.

11.3 Adjust the sanding belt height

The run of the sanding belt is set at the factory.

WARNING

Running sanding belt

Through contact with the running sanding belt it could cause serious cut or abrasion injuries.

– Avoid contact with the running sanding belt.

Set the run of the sanding belt higher

Tool:

- Hex key
- Combination spanner

1. Dismount cover.

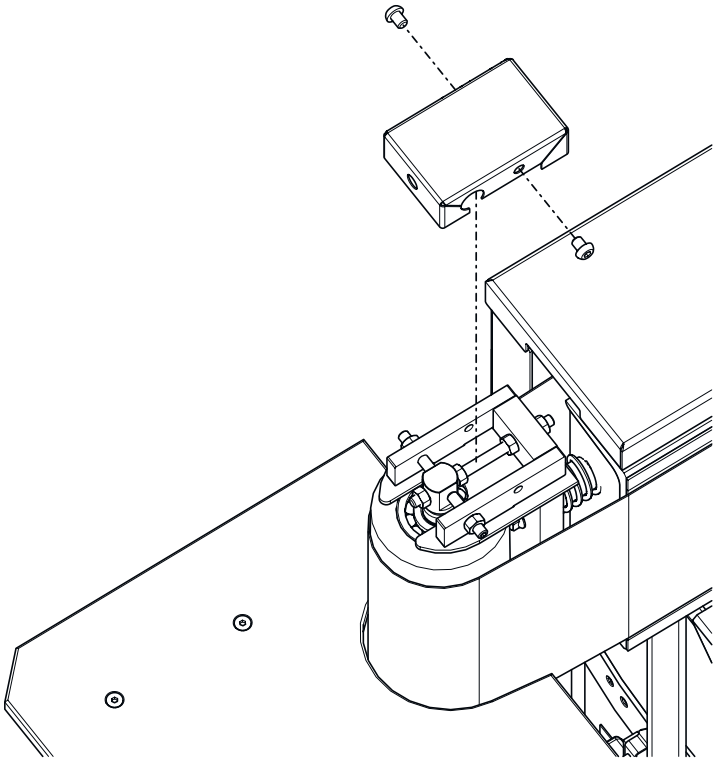


Fig. 46: Dismount cover

2. Start machine.

3. Adjust adjusting nut 1.

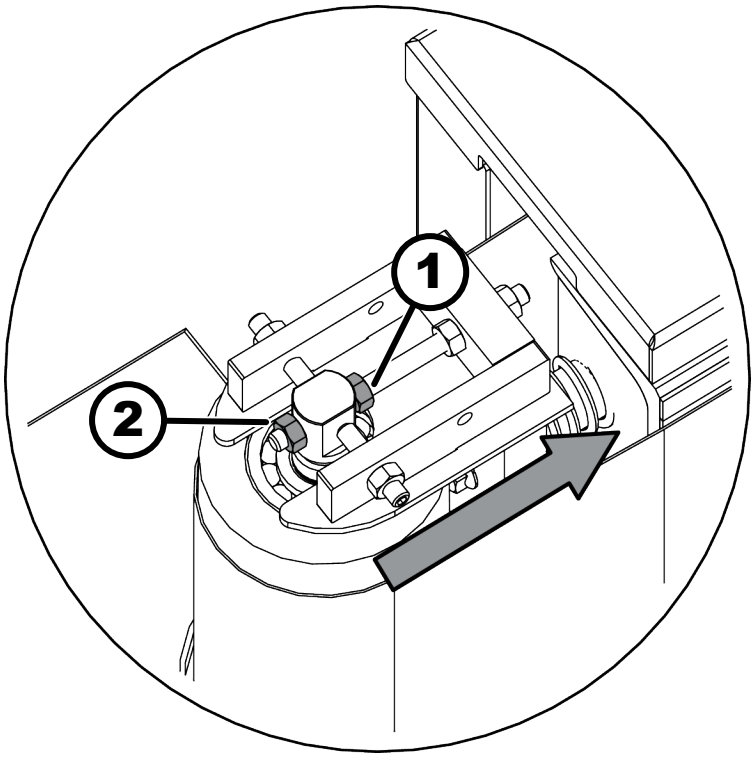


Fig. 47: Set the run of the sanding belt higher

1 Adjusting nut 1
2 Adjusting nut 2

4. As soon as the sanding belt runs in the centre of the idle and drive roller tighten adjusting nut 2.

OK Sanding belt runs in the centre.

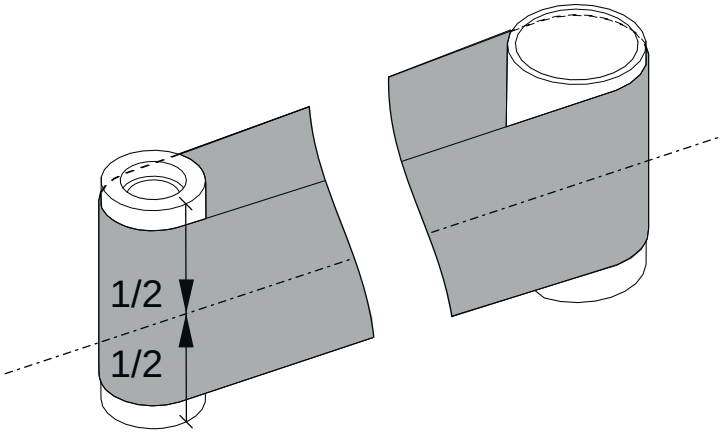


Fig. 48: Sanding belt run central

NOK Sanding belt is not central.

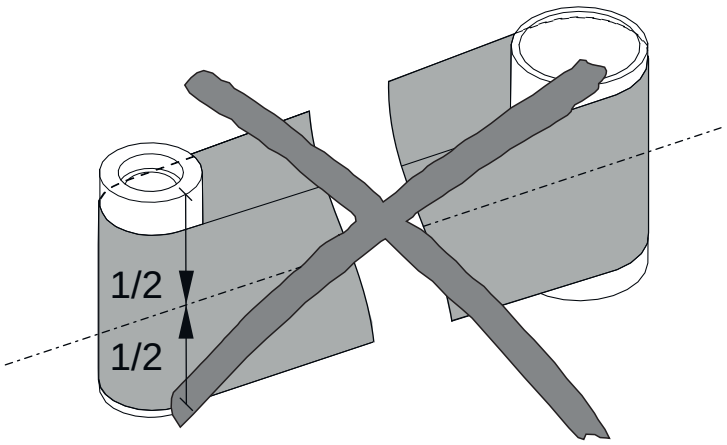


Fig. 49: Sanding belt is too low

1. Adjust adjusting nut 1.
2. Tighten adjusting nut 2.

WARNING

Running sanding belt

Through contact with the running sanding belt it could cause serious cut or abrasion injuries.

– Avoid contact with the running sanding belt.

Set the run of the sanding belt lower

Tool:

- Hex key
- Combination spanner

1. Dismount cover.

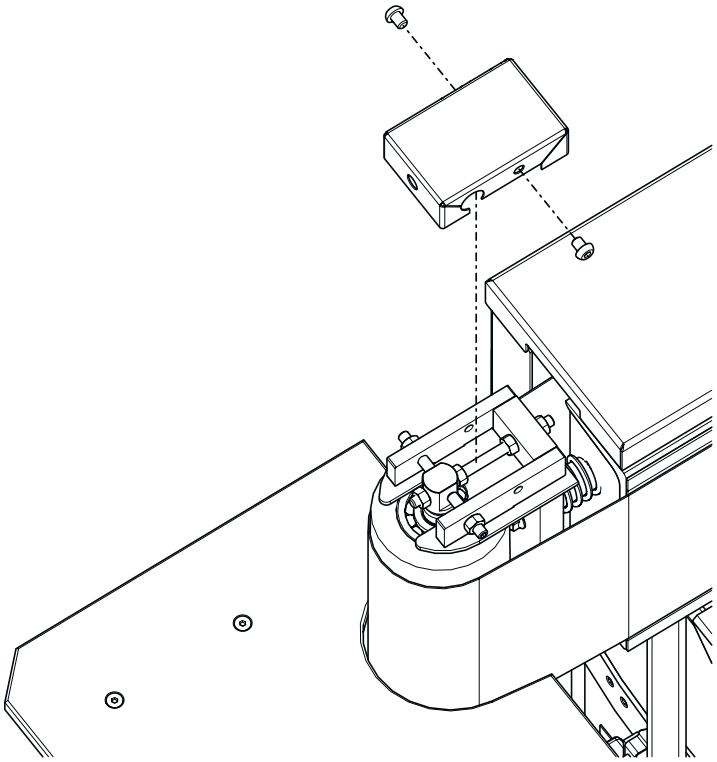


Fig. 50: Dismount cover

2. Start machine.
3. Loosen adjusting nut 2 and tighten adjusting nut 1.

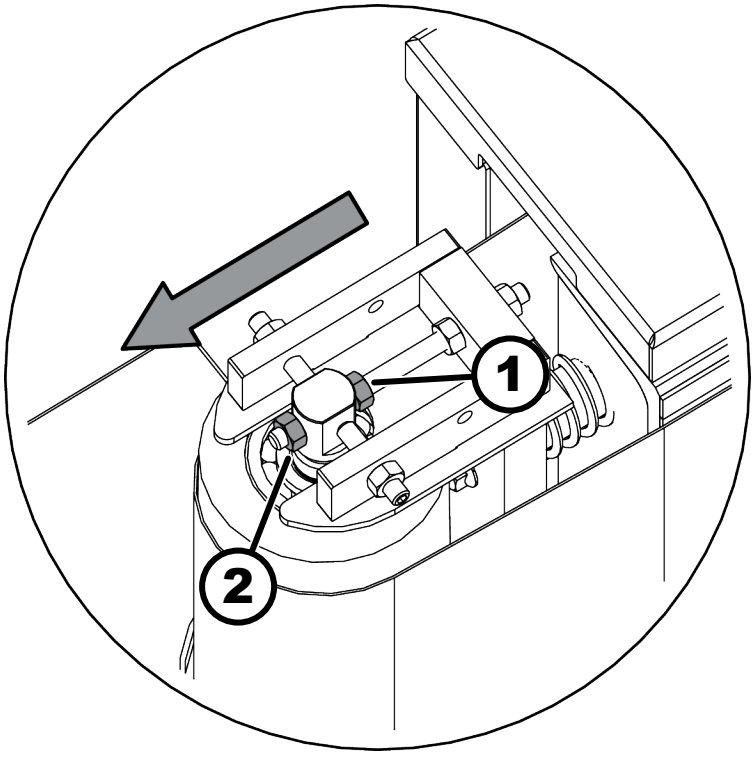


Fig. 51: Set the run of the sanding belt lower

1 Adjusting nut 1
2 Adjusting nut 2

4. Check, whether the sanding belt runs in the centre of the idle and drive roller.

OK Sanding belt runs in the centre.

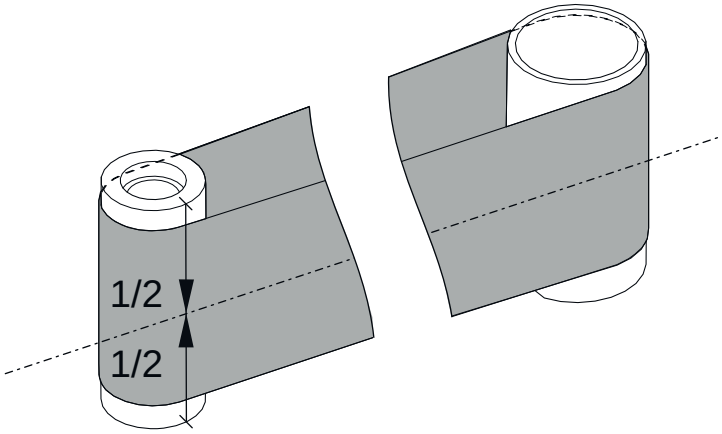


Fig. 52: Sanding belt run central

NOK Sanding belt is not central.

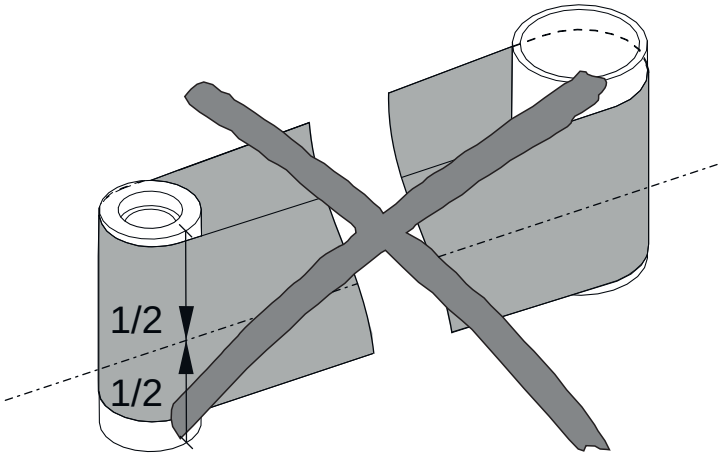


Fig. 53: Sanding belt is too high

1. Adjust adjusting nut 2.
2. Tighten adjusting nut 1.

11.4 Faults, causes and repairs

11.4.1 Fault with the sanding belt controls

Fault description	Cause	Remedy
The sanding belt is slipping off the sanding unit.	The sanding belt is not running in the centre.	⇢ Set the height of the sanding belt run. ➦ *Chapter 11.3 'Adjust the sanding belt height' on page 66* ➡ Sanding belt runs in the centre.
	The sanding belt is skewed.	⇢ Fit another sanding belt.
	Belt tension too low.	⇢ Contact Felder Group service centre.
Sanding belt rattles.	The joint (splice) is uneven.	⇢ Fit another sanding belt.
	The sanding belt is damp.	**1.** ⇢ Let the sanding belt run for a few minutes. ➡ The sanding belt is dry. **2.** ⇢ Store the sanding belts in a dry location.
	Sanding belt support, graphite sliding mesh, glide surface of the idle and drive roller are dirty.	**1.** ⇢ Clean the sanding belt support and glide surfaces. **2.** ⇢ Exchange the graphite sliding mesh. ➦ *Chapter 10.5 'Sanding belt support - Change the graphite sliding mesh' on page 64*
	Sanding belt support is not parallel.	⇢ Contact Felder Group service centre.
Sanding belts tear.	Incorrect storage of the sanding belts (to moist).	⇢ Fit another sanding belt.
	Poor joints in the sanding belt or the sanding belt sides are damaged.	**1.** ⇢ Check that the belt joint is correct. **2.** ⇢ Carefully place the sanding belts on the machine. **3.** ⇢ Handle sanding belts according to the storage conditions defined. ➦ *Chapter 8.1 'Sanding belts' on page 43*
	Sanding belt is overloaded.	⇢ Use a sanding belt with coarser grain size or reduce the depth of cut.
The angle on the workpiece deviates from the set angle.	The angle adjustment is misadjusted.	⇢ Adjusting the angle.

Fault description	Cause	Remedy
The workpieces are being sanded unevenly.	Sanding belt support is not parallel.	→ Contact Felder Group service centre.
Lines appear along the workpiece length during the sanding process.	The sanding belt grains are crushed or the sanding belt is damaged as a result of irregularities on the workpieces (e.g. due to protruding nails).	1. → Fit a new sanding belt. ➥ *Chapter 8.2 'Change / mount the sanding belt' on page 43* 2. → Process workpieces using the full width of the sanding belt.
	The sanding belt is partly covered with glue or dust from previously sanded workpieces.	1. → Fit a new sanding belt. 2. → Carefully inspect workpieces for foreign matter (nails, screws) which might impair processing.
	The belt guide elements are dirty.	→ Clean the sanding belt support and glide surfaces.
Cross lines appear in the workpiece width.	The joint on the sanding belt has a difference in thickness which shows on the workpiece.	1. → Fit another sanding belt. 2. → Check that the belt joint is correct.
Burn traces appear on the workpiece and the sanding belt during the sanding process.	The grain size used is too fine to achieve the desired depth of cut.	→ Use a sanding belt with coarser grain size or reduce the depth of cut.
	The sanding belt is blunt or covered with dust / glue.	→ Fit a new sanding belt.

12 Attachment

12.1 About spare parts

NOTICE

Wrong or faulty spare parts

Material damage, malfunction, machine failure

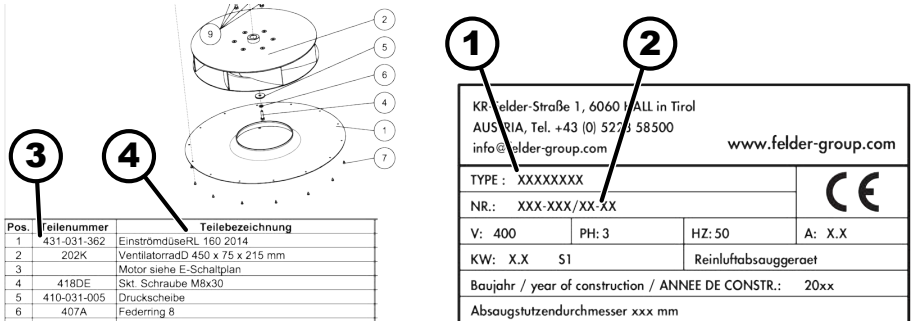
– Only use spare parts approved by the manufacturer (see spare parts list).

If unauthorised spare parts are fitted into the machine, all warranty, service, compensation and liability claims against the manufacturer and their contractors, dealers and representatives will be rejected.

Use genuine spare parts

The original spare parts that have been authorised for use are listed in a separate spare parts catalogue, enclosed in the documentation package supplied with the machine.

Spare part order



Pos.	Teilenummer	Teilebezeichnung
1	431-031-362	EinströmdüseRL 160 2014
2	202K	VentilatorradD 450 x 75 x 215 mm
3		Motor siehe E-Schaltplan
4	418DE	Skt. Schraube M8x30
5	410-031-005	Druckscheibe
6	407A	Federring 8

Fig. 54: Spare parts - Order

1 Model type
2 Machine number
3 Article number
4 Article description

The following information is required when ordering spare parts:

- Type description and machine number according to the identification plate
- Article number, article description and required quantity
- Shipping address
- Shipping mode (mail, freight, sea, air, express)

Orders for spare parts, which do not include the required details, will not be processed. Unless specific dispatch instructions are given, the manufacturer / supplier standards shall apply.

12.2 Disposal

ENVIRONMENT

Disposal of machine components

Used electrical materials, electronic components, lubricants and other auxiliary substances must be treated as special waste and may only be disposed of by specialised, licensed firms.

The machine consists of many different materials for which different disposal conditions may apply depending on national legislation.

1. Separate all machine components into material groups.
2. When disposing, pay attention to international regulations, standards and environmental protection norms.

ENVIRONMENT

Disposing of batteries

Batteries are subject to special waste treatment regulations and must be disposed of in accordance with locally enforced regulations.

The improper handling of batteries, can due to their potentially dangerous substances, have a negative environmental effect and consequences for human health.

For this reason, follow the advice relating to batteries exactly:

- do not open or short circuit
- do not throw them into fire or expose them to high temperatures
- protect from getting wet and do not place them in water
- do not store them together with electroconductive items (e.g. chains, screws, metal waste etc.)

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