FELDER®

User Manual

Translation

Throughfeed edgebander with chain feeder and glue pot G 330 / G 360

Keep this manual handy and in good condition for continual reference!

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FELDER | **A product of the FELDER GROUP**

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Note: Year of construction
The machine number of this machine will be printed on this operating manual
The final two digits of the machine number show the year of construction of this machine
e.g. XXX.XX.XXX.18 -> Year of manufacture 2018

Attention! The machine must be inspected immediately upon arrival. If the machine has been damaged during transport, or if any parts are missing, a written record of the problems must be submitted to the forwarding agent and a damage report compiled. Also be sure to notify your supplier immediately.

For the safety of all personnel, it is necessary to conscientiously study this manual before assembly and operation. This manual must be kept in good condition, and should be considered as part of the machine. Furthermore, the manual must be kept to hand and within the vicinity of the machine so that it is accessible to operators when using, maintaining or repairing the machine.

Important Notices!
Please note, that depending on the model of the machine, not all described functions are present, or additional functions and buttons are available (e.g. machines with special functions).

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1 General

1.1 Symbol legend

Important technical safety instructions in this manual are marked with symbols.
These instructions for work safety must be followed.

In all these particular cases, special attention must be paid in order to avoid accidents, injury to persons or material damage.

Warning! Risk of injury or death!
This symbol marks instructions that must be followed in order to avoid harm to one's health, injuries, permanent impairment or death!

Warning! Danger! Electric current!
This symbol warns of potentially dangerous situations related to electric current. Not observing the safety instructions increases the risk of serious injury or death. All electrical repairs must be carried out by a qualified electrician!

Attention! Risk of material damage!
This symbol marks instructions which, if not observed, may lead to material damage, functional failures and/or machine breakdown!

Note:
This symbol marks tips and information which should be observed to ensure efficient and failure-free operation of the machine.

1.2 Information about the manual

This manual describes how to operate the machine properly and safely. Be sure to follow the safety tips and instructions stated here as well as any local accident prevention regulations and general safety regulations. Complying with the regulations described below will guarantee the correct operation of the machine, a longer useable life and lower costs.
Before beginning any work on the machine, ensure that the manual, in particular the chapter entitled "Safety" and the respective safety guidelines, has been read in its entirety and fully understood. This manual is an integral part of the machine and must therefore be kept in the direct vicinity of the machine and be accessible at all times. If the machine is sold, rented, lent or otherwise transferred to another party, the manual must accompany the machine.

1.3 Spare parts

Attention! Non genuine, counterfeit or faulty spare parts may result in damage, cause malfunction or complete breakdown of the machine. 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.

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 shall be rejected.

1.4 Liability and warranty

The contents and instructions in this manual were 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. This manual must be read carefully before commencing any work on or with this machine. 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 delivery contents. The images and graphics are not depicted on a 1:1 scale. The actual delivery contents are dependent on custom-build specifications, add-on options or recent technical modifications and may therefore deviate from the descriptions, instructions and images contained in the manual. Should any questions arise, please contact the manufacturer. We reserve the right to make technical modifications to the product in order to further improve user-friendliness and develop its functionality. The manufacturer also reserves the right to cease production and supply of parts of the machine.

1.5 Copyright

This manual should be handled confidentially. It is designated solely for those persons who work on or with the machine. All descriptions, texts, drawings, photos and other depictions are protected by copyright and other commercial laws. Illegal use of the materials is punishable by law. 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 demand for compensation or other applicable claims. We reserve all rights in exercising commercial protection laws.

1.6 Warranty notice

The guarantee period is in accordance with national guidelines. Details may be found on our website www.felder-group.com

1.7 Disposal

If the machine is to be disposed of, separate the components into the various materials groups in order to allow them to be reused or selectively disposed of. The whole structure is made of steel and can therefore be dismantled without difficulties. This material is also easy to dispose of and does not pollute the environment or jeopardise public health. Always comply with international environmental regulations and local disposal laws.

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

2 Safety

At the time of its development and production, the machine was built in accordance with prevailing technological regulations and therefore conforms to industry safety standards.
However, hazards may arise should the machine be operated by untrained personnel, used improperly or employed for purposes other than those it was designed for. The chapter entitled "Safety" offers an overview of all the important safety considerations necessary to optimise safety and ensure the safe and trouble-free operation of the machine.
To further minimise risks, the other chapters of this manual contain specific safety instructions, all marked with symbols. Besides the various instructions, there are a number of pictograms, signs and labels affixed to the machine that must also be heeded. These must be kept visible and must not be removed.

2.1 Intended use

The FELDER G 330 - G 360 is part of the automatic edgebander family, which applies edging to solid wood boards, fibreboards, chipboards, plywood panels and MDF boards. Panels must be manually fed into the machine and taken out at the outfeed side.
Machining materials other than wood is only permitted with the express written consent of the manufacturer. Operational safety is guaranteed only when the machine is used for the intended purposes.

Attention! Any use outside 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 shall be rejected. The operator shall be 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 original manufacturer parts and accessories.

2.2 Manual contents

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.

2.3 Making changes and modifications to the machine

In order to minimise risks and to ensure optimal performance, it is strictly prohibited to alter, retrofit or modify the machine in any way without the express consent of 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.

2.4 Responsibilities of the operator

This manual must be kept in the immediate vicinity of the machine and be accessible at all times to all persons working on or with the machine. 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 controlled and the machine must be inspected for visible defects every time before it is switched on. All instructions in this manual must be strictly followed without reservation.
Further to the safety advice and instructions stated in this manual, it is necessary to consider and observe local accident prevention regulations, general safety regulations and current environmental stipulations that apply to the operational range of the machine.
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.
Machines, tools and accessories must be kept out of the reach of children.

2.5 Personnel requirements

Only authorised and trained personnel may work on and with the machine. Personnel must be briefed about all functions and potential dangers of the machine. "Specialist staff" 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. If the personnel lack the necessary knowledge for working on or with the machine, they must first be trained. Responsibility for working with the machine (installation, service, maintenance, overhaul) must be clearly defined and strictly observed. Only those persons 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 user is also responsible for ensuring that unauthorised persons remain 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.

2.6 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 all compensation claims.

2.7 Personal protective equipment

The user must wear suitable clothing when operating the machine as protection against moving machine parts.

Operators should not wear wide or flapping clothing, baggy sleeves, trousers or shirts that are too long or too wide etc.

Particular attention should be paid to belts, scarves, back belts, necklaces, bracelets, long hair etc. Such items may become caught in the moving parts of the machine and pose a considerable danger.

Operators are strictly forbidden to wear mocassins, clogs, crocs, slippers or any other footwear which jeapardises their freedom of movement or stability.

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

Persons with long hair who are not wearing a hairnet are not permitted to work on or with the machine!

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

Protective clothes
Sturdy, tight-fitting clothing (tear-resistant, no wide sleeves).

Protective footwear
To protect the feet from heavy falling objects and prevent sliding on slippery floors.

Hearing protection
to protect against loss of hearing.

Gloves

Safety glasses

Warning! Risk of injury! There is a risk of burn injuries and their possible long-term effects as a result of working closely with heat melting glue.

2.8 Machine hazards

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.
Nevertheless, there are some remaining risks that must be considered.
The machine runs at high electrical voltage.

Warning! Danger! Electric current! Electrical energy can cause serious bodily injury. Damaged insulation materials or defective individual components can cause a life-threatening electrical shock.

- Before carrying out any maintenance, cleaning and repair work, switch off the machine and ensure that it can not be accidentally switched on again.
- When carrying out any work on the electrical equipment, ensure that the voltage supply is completely isolated.
- Do not remove any safety devices or alter them to prevent them from functioning correctly.

2.9 Other risks

Warning! Risk of injury! Even if the safety measures are complied with, there are still certain associated risks that must be considered when working on the machine:

- Be wary of sharp edges to avoid cutting yourself, in particular when changing the tooling.
- Risk of injury if the operator comes into contact with the rotating circular saw and/or spindle moulder tools.
- Risk of injury from workpieces or other workpiece parts jamming in the machine or being ejected.
- Risk of injury from workpiece kickback.
- Hearing damage as a result of high noise levels
- Health impairments due to the inhalation of airborne particles, especially when working with beech and oak wood.
- Risk of injury through being crushed, cut, caught, wound up or sliced.
- Risk of burn injuries as a result of coming into contact with heated mechanical parts. Always use appropriate protective gear (e.g. gloves) and always be very careful.
- It is strictly forbidden to climb onto the machine - danger of falling.

3 Declaration of Conformity

CE

EG-Declaration of Conformity
according to Machine Guidelines 2006/42/EG

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.

Manufacturer:	**FELDER KG** **KR-FELDER-STR.1** **A-6060 Hall in Tirol**
Product designation:	**Edgebanding machine with chain feed**
Make:	**FELDER**
Model designation:	**G 330 / G360**
The following EC guidelines were applied:	**2006/42/EG** **2014/35/EU** **2014/30/EU**
The following harmonised norms were applied:	**EN ISO 18217**

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.

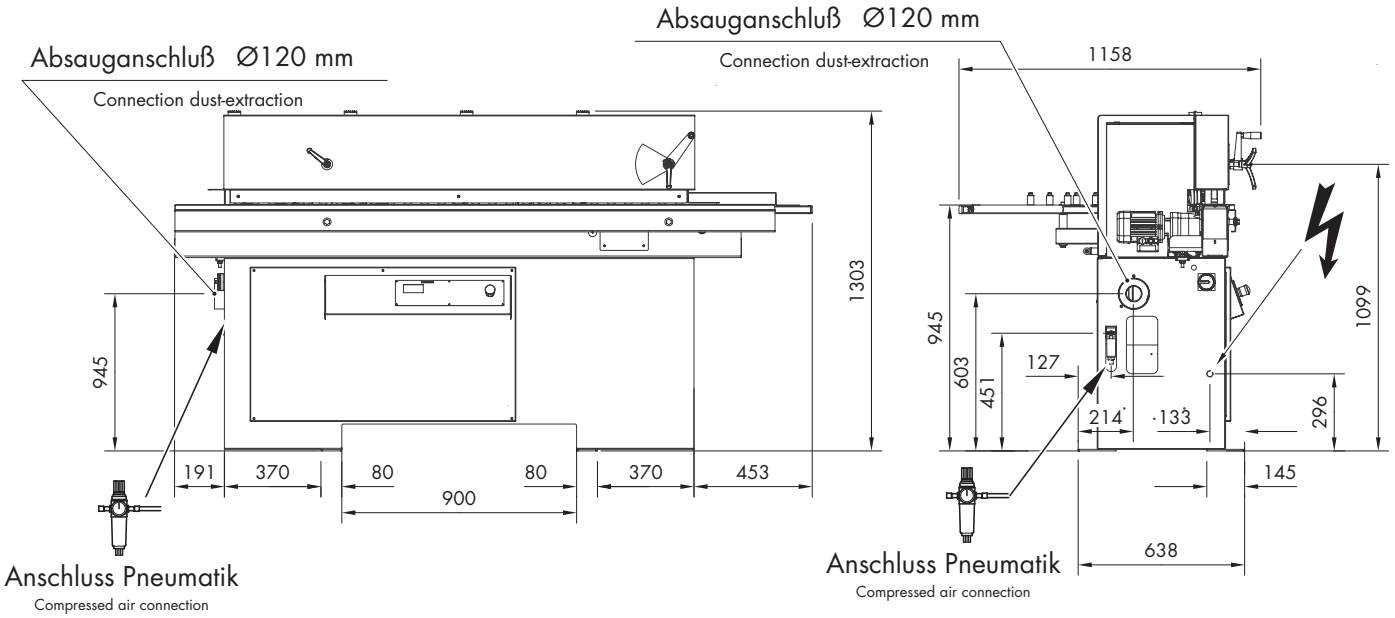
The signatory of this statement is the appointed agent for the compilation of the technical information

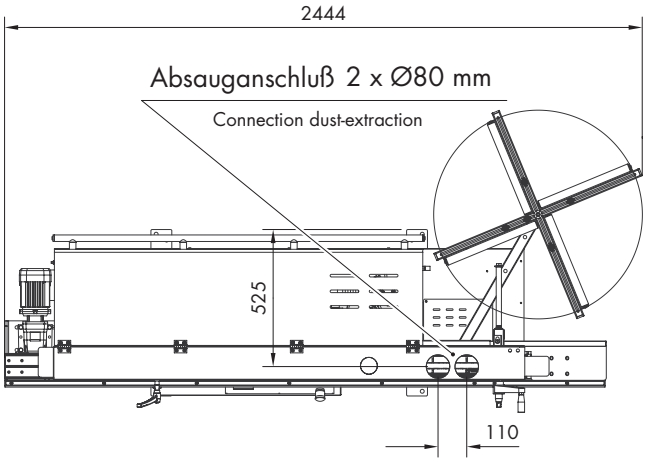
Hall in Tirol, 1.1.2017

Johann Felder, Managing Director FELDER KG
KR-FELDER-STR.1 • A-6060 Hall in Tirol

4 Specifications

4.1 Dimensions and weight





Machine including packaging G 330/360	
Length *)	2350 mm
Width	780 mm
Height	1550 mm
Gewicht netto *)	~450 kg

*) depending on the equipment

4.2 Operating conditions

Operating/room temperature	+18 max. +40 °C

4.3 Technical features

Edge thickness **(G330 / G 360)**	0,4 –5 mm
Strip material (W x H)	5 x 49 mm
Workpiece feed speed	8 m/min
Feed motor performance	0,75 kW
Total installed power	lt. Typenschild
Ø-Extraction connection	1 x120 mm **(G 330)**
	1 x120 mm +2 x 80 mm **(G 360)**

Workpiece dimensions	
Length (min.)	210 mm
Width (min.)*	70 mm
Workpiece thickness (min./max.)	10–45 mm

! **Attention! Risk of material damage!**
When processing very narrow workpieces, the workpiece may tilt slightly. This means that the workpiece will not be processed evenly.
***) The minimal workpiece width varies depending on the workpiece length, height and type of surface.**

4.3.1 Electrical connection

mains voltage according to specification plate (±10%)	3x 400 V
Mains voltage (Optional)	1x 230 V
Safeguarding	siehe Typenschild

4.3.2 Premilling unit (G 360)

Speed	12.000 rpm
Motor	2 x 0,75 kW
Outer diameter of the spindle moulder	60 mm
Bore	25 mm
Spindle moulder width	64 mm
Number of teeth or blades	Z 4
Inclination of the spindle moulder teeth	not adjustable 30°

4.3.3 End trimming saw unit

Speed	9.000 rpm
Motor	0,18 kW
Tooth width	H 3,2

Outer diameter of the standard blade	80 mm
Bore	20 mm
Number of teeth	Z 16

4.3.4 Radius trimming unit

Speed	12.000 rpm
Motor	0,22 kW
Outer diameter of the spindle moulder	77 mm
Bore	20 mm
Spindle moulder width	H 16
Number of teeth or blades	Z 4

4.3.5 Buffing unit

Rotation speed of the buffing pads: Motor power 0,9 kW	1400 rpm
Buffing pad dimensions (No. 4)	125 mm x 20 mm x St. 12,5

4.4 Particle emission

The working areas of this machine comply to BGI 739-1 and are classed as dust reduced.

The maximum concentration level of 2 mg/m³ 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.

See chapter entitled >Setup and installation<

4.5 Noise emission

The specified values are emission values and therefore do not represent safe workplace values. Even though a relationship exists between particle emission and noise emission levels, an inference cannot be made about whether additional safety measures need to be implemented. Factors which can significantly affect the emission level that presently exists at the workplace include duration of the effect, characteristics of the workspace, and other ambient influences. The permissible workplace values may also differ from country to country. Nevertheless, this information is provided to help the operator better assess hazards and risks. Depending on the location of the machine and other specific conditions, the actual noise emission values may deviate significantly from the specified values.

Attention!

Authorised noise emissions depend on the specific country regulations in which the machine is operated. If on a rare occurence, the noise emission should exceed the country specific limits as a result of particular circumstances, the operator is obliged to provide additional protection against the noise.

Ear protection must always be worn; however, such protection cannot be considered a substitute for properly sharpened tools or the correct speed.

The noise emission level was measured with the following workpiece:
Panel material: Chipboard 45 mm Edge material: PVC 3 mm

An allowance must be made to compensate for tolerances with the specified emission values K = 4 dB.

Without the premilling unit	Sound power level EN ISO 3746	Workplace emissions values EN ISO 11202 AP 1	AP 2
Idle	92 dB	72 dB	70 dB
Working	94 dB	73 dB	74 dB

With the premilling unit	Sound power level EN ISO 3746	Workplace emissions values EN ISO 11202 AP 1	AP 2
Idle	94 dB	76 dB	71 dB
Working	99 dB	82 dB	76 dB

5 Assembly

5.1 Overview

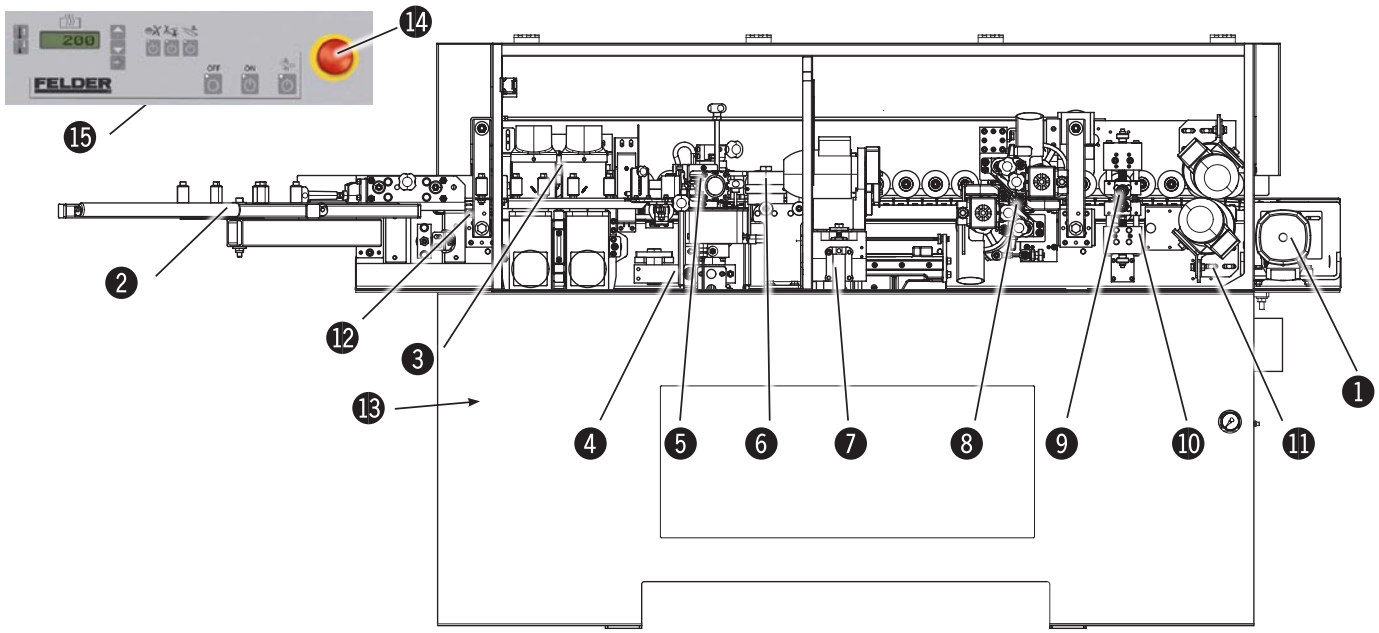


Fig. 5-1: Overview

1. Heavy duty chain feeder
2. Edgebanding material
   - Coiled edgebanding material
   - Strip material
3. Premilling unit (G 360)
4. Glue roller and glue
5. Guillotine unit
6. Pressure roller unit
7. End trimming unit
8. Flush and radius trimming unit
9. Radius scraping unit (Optional)
10. Flush scraping unit (Optional)
11. Buffing unit (Optional)
12. Workpiece feeder
13. Data plate
14. EMERGENCY STOP button
15. PLC control unit

5.2 Data plate

A-6060 HALL in Tirol, KR-Felder-Straße 1, Austria, Tel. +43 (0) 5223 58500, Fax +43 (0) 5223 56130, info@felder.at			FELDER www.felder.at
TYPE : XXXXXXXX			CE
NR.: XXX-XXX/XX-XX			
V: 400	PH: 3	HZ: 50	A: X.X
KW: X.X S1		XXXXXXXXX	
Baujahr / year of construction / ANNEE DE CONSTR.: 20xx			

Fig. 5-2: Data plate

The data plate displays the following specifications:

- Manufacturer information
- Model designation
- Machine number
- Voltage
- Phases
- Frequency
- Motor
- Power supply
- Year of construction
- Motor specifications

5.3 Electrical control panel - Standard equipment

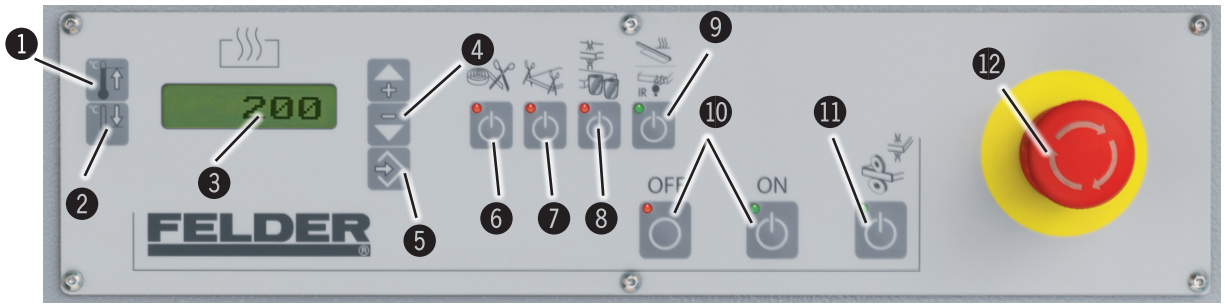


Fig. 5-3: Electrical control panel

Thermoregulator to control the temperature of the glue pot with double display:

1. Operating temperature (SP1)
2. Stand-by temperature (SP2)
3. Digital temperature indicator
4. "+" and "–" set the value desired for SP1 and SP2
5. Enter key

Choice switch ON/OFF:
ON / Active: LED lights up
OFF / Deactivated: Light off

6. Guillotine unit
   ON: Edge roller
   OFF: Strip material
7. End trimming unit
8. Side Trimming Unit **(only G 360)**
9. Heated guide ruler **(only G 330)**
   Infrared lamp **(Optional / only G 360)**
10. Start/Stop buttons for the unit
11. Buffing unit / Spraying equipment
12. EMERGENCY-STOP button

5.4 Safety devices - Safety break switches

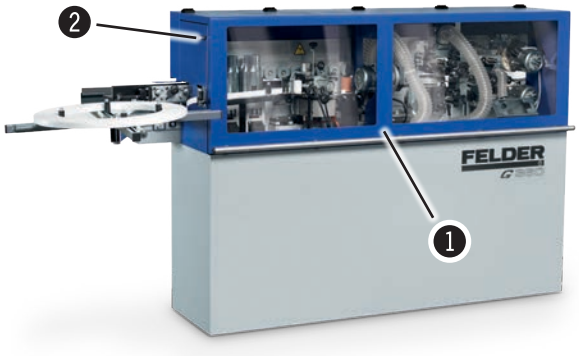


Fig. 5-4: Safety break switches - hinged lid

Safety break switches:

1. hinged lid
2. Lock system

Your machine is equipped with safety break switches. The machine will only operate if the break switches, inside the machine frame, are actuated by the locking system of the hinged lids. (Flap is closed)

This hinged lid may only be opened once the machine is in the idle mode. (Time-delayed)

Note:
Ensure that the folding cover locks in place correctly on the right and the left!
Ensure that the door lock locks into position correctly!

6 Transport, packaging and storage

6.1 Safety instructions

Warning! Risk of injury! There is a risk of injury as a result of falling parts while transporting, loading or unloading the machine.

Attention! Risk of material damage! The machine can be damaged or destroyed if it is subjected to improper handling during transport.

For this reason the following safety instructions must be observed:

- Never lift loads over a person.
- Always move the machine with the utmost care and caution.
- Only use suitable lifting accessories and hoisting devices that have a sufficient load-carrying capacity.
- Never lift the machine by its protruding parts (e.g. sliding table).
- Consider the machine's centre of gravity when transporting it (minimise the risk of it tipping over).
- The cables must be securely fastened to the machine and well tightened. If wooden trusses are used, the cables may be nailed or screwed to the loading surface.
- Take measures to prevent the machine from slipping sideways.
- Ropes, belts or other hoisting devices must be equipped with safety hooks.
- Do not use torn or worn ropes.
- Do not use knotted ropes or belts.
- Ensure that ropes and belts do not lie against sharp edges.
- Transport the machine as carefully as possible in order to prevent damage.
- Avoid subjecting the machine to shocks.
- When transporting the machine overseas, ensure that the packaging is airtight and that a desiccant is added to protect the metal parts against corrosion.
- During transportation, the machine may not be lifted more than 20 cm from the ground.
- Do not touch hanging loads and always keep a safe distance.
- Always clean and tidy the work area, cordon it off and move unauthorised people out of the area.
- Ensure that there is room to escape should the machine fall.
- The loading surface must be horizontal.

6.2 Transport inspection

Upon arrival, inspect the shipment to ensure that it is complete and has not suffered any damage. Any complaints must be made in writing within 8 days of receiving the machine.
If any transport damage is visible, do not accept the delivery or only accept it with reservation. Record the scope of the damage on the transport documents/ delivery note. Initiate the complaint process.
For all defects that are not discovered upon delivery, be sure to report them as soon as they are recognised as damage claims must be filed within a certain period, as granted by law.

6.3 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.

Attention! Dispose of the packaging materials in an environmentally friendly way and always in accordance with local waste disposal regulations. If applicable, contract a recycling firm to dispose of the packaging materials.

Note: Help preserve the environment! Packaging materials are valuable raw materials and in many cases, they can be used again or expediently reprocessed or recycled.

6.4 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.

Store packed items only under the following conditions

- Do not store outdoors.
- Store in a dry and dust-free environment.
- The machine must be covered with tarpaulins or nylon and raised from the ground.
- Do not store anything on the machine.
- Do not expose to aggressive substances.
- Protect from direct sunlight.
- Avoid subjecting the machine to shocks.
- Storage temperature: –10° to +50 °C
- Maximum humidity: 60 %
- Avoid extreem temperature fluctuations (to prevent build-up of condensation).
- Apply a coat of oil to all machine parts open to possible rusting (corrosion protection).
- When storing for a period longer than 3 months, apply a coat of oil to all machine parts open to rusting (corrosion protection). Regularly check the general condition of all parts and the packaging. If necessary, refresh or re-apply the coat of anti-corrosive agent.
- If the machine is to be stored in a damp environment, it must be sealed in airtight packaging and protected. (desiccant).

6.5 Transport

Attention! Transport the machine according to the enclosed transport and assembly instructions!

Attention! Before lifting the machine, ensure that moveable machine parts are blocked for transport purposes.

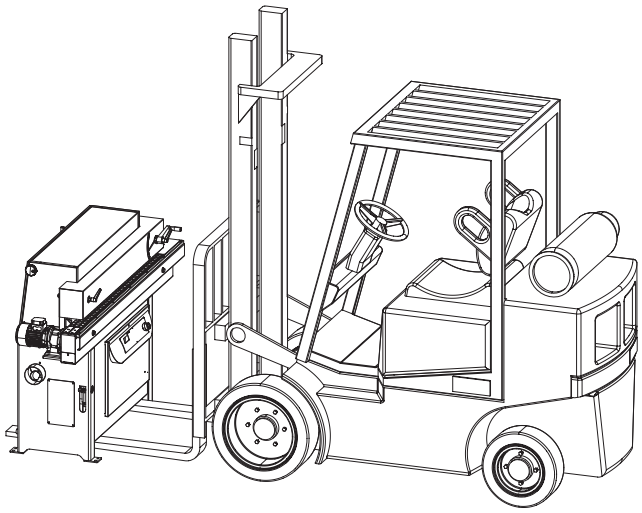


Fig. 6-1: Transport with a forklift truck

The machine can be transported with a forklift truck (insert the forks into the fork opening in the centre of the machine).

For long distances, the machine can be loaded into a container, onto a train or a lorry.

Please note the weight and dimensions of the machine and use this information to check whether the machine can be transported through narrow passageways.

The machine must be shrink-wrapped and transported upright on two wooden trusses which can be used to anchor it onto the loading surface.

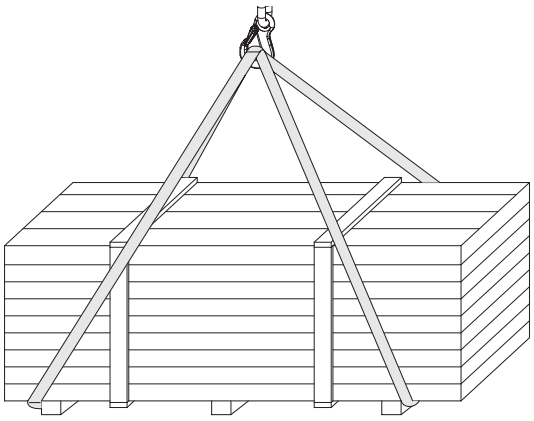


Fig. 6-2: Transport with a crane

The machine can be transported loaded and unloaded using a normal forklift truck with suitable load capacity.

If the machine is transported in a wooden crate, it must be lifted with a crane, cables or chains with suitable load capacity. These are to be constrained on both sides.

Ensure that the crane's load capacity corresponds with the machine's weight (see technical information).

7 Setup and installation

7.1 Safety instructions

Warning! Risk of injury! Improper assembly and installation can lead to serious physical injury or equipment damage. For this reason, this work may only be carried out by authorised, trained personnel who are familiar with how to operate the machine and in strict observance of all safety instructions.

- Ensure that there is sufficient space to work around the machine.
  If there is not sufficient distance between the machine and neighbouring machines, walls or other solid objects, larger workpieces could pose a risk during the sawing process.
- 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!
- Install the safety equipment according to the instructions and check that it functions properly.

Warning! Danger! Electric current! Work on electrical fittings may only be carried out by qualified personnel and in strict observance of the safety instructions.

Attention! Risk of material damage!
Only operate the machine at an operating/room temperature of +18 to +40 °C.
If the instructions are not followed, damage may occur during storage.

Warning! Risk of injury! An incomplete, faulty or damaged machine can lead to serious physical injury or equipment damage. Only assemble and install the machine if the machine and its parts are complete and intact.

Warning! Risk of injury! It is forbidden to dismantle the compensator devices (pressurised gas cylinder) of the protection chambers, as these contain pressurised gas. If the machine is used in line with other machines, the necessary safety interlocks must be made between the machines and access to the emergency equipment must be provided by the manufacturer or one of its contractors.

7.2 Setup

Installation site requirements:

- The installation site must be dry and weatherproof.
- Even, non-slip work surface.
- The installation site must be closed off or under surveillance, so that children or unauthorised people cannot gain access.
- The main switch with differential must be nearby.
- Operating/room temperature: +18° to +40° C
- Sufficient stability and load-bearing capacity of the working area (approx. 800 kg/m²).
- Provide sufficient light at the workstation.
- Ensure there is sufficient clearance for or from neighbouring workstations.

7.2.1 First cleaning of the machine

Any remants of protective oil must be removed from the unvarnished surfaces before the machine is assembled. Use a cleaning product such as an alkaloid (Turpentine or Naptha).

Do not, however, spray any cleaning products onto the machine. Wet a rag with the agent and then dispose of the rag according to environment protection regulations.

7.2.2 Setting up the edgebander

The machine will, according to the form of transportation used, be delivered either in cardboard or nylon packaging, on a wooden pallet or in a wooden crate.

During transportation, some parts are dismantled to avoid the possibility of damage during transportation. When installing the machine, ensure that there is sufficient space for the machine operator, including the space required to move workpieces (loading, processing, stacking) (see Fig.).

The machine stands must be on a smooth and even surface. Use a spirit level to ensure that the work table is level. Tolerance across the length ± 0.25 mm.

It is advisable to secure the machine to the floor using the four holes which are already drilled in the machine stand.

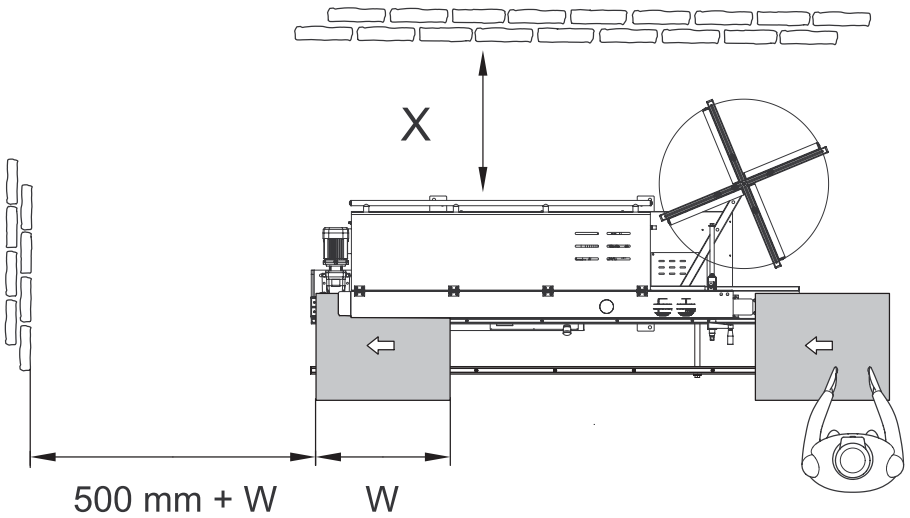


Fig. 7-1: Setting up the edgebander

7.3 Compressed air supply connection

Attention! Compressed air must be free of oil, condensate and particles according to: ISO 8573-1 5-4-3
Maximum limit pressure: 7 bar
> 7 bar : The pneumatic system is being vented.

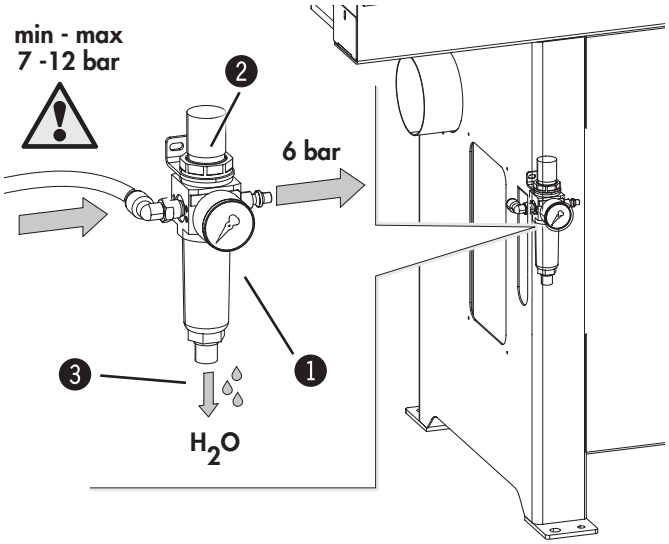


Fig. 7-2: Compressed air supply connection

1. Compressed air filter/ regulator (quick-release coupling) with condensation outlet
2. Air pressure
3. Lid

- The compressed air filter/regulator (quick-release coupling) with condensation outlet is located on the left-hand side of the machine. Before use, ensure that the compressed air is free from humidity and has been suitably filtered. Upon connection, the compressed air should be at a pressure of 7 to 8 bars to ensure perfect machining. Always connect the machine to the compressed air unit.
- The machine operating pressure is set ex-works to 6.5 bars. The machine is set and tested with this air pressure setting. Before proceeding with any maintenance operations, it is necessary to switch off the machine and to disconnect the compressed air system with the quick-release coupling. The air pressure connection does not need any type of lubrication! The use of lubricant oils can damage some of the pneumatic components. Never use lubricant oil on the condensation collecting cup.
- Press lid 3 to empty the maintenance unit; note the unit is under pressure. The length and the internal diameter of the pneumatic hoses must be in proportion to ensure that the machine functions correctly. Never supply the machine with a pneumatic hose with an internal diameter measuring less than 10 mm.

7.4 Electrical connection

Warning! Danger! Electric current:
Work on electrical fittings may only be carried out by qualified personnel and in strict observance of the safety instructions.
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!

Attention! Risk of material damage! An incorrect connection (for instance inverting a phase with the neutral or not connecting the neutral) can lead to irreparable damage to the components (frequency converter, PLC, heating resistances, motors).

Check that the voltage and the power frequency available correspond to those of the machine which are shown on the identification plate fixed on the machine frame. To connect the machine at 380, 415, 440 Volts, use a cable with 5 wires (3 phases+ neutral+ earth). The three phases must be connected to L1, L2, L3, the neutral to the N and earth to the connection PE.

To connect, use a 5x 2.5 cable adequate for the total power installed. To connect the machine at 220–240 volts, use a cable with 4 wires (3 phases + earth). The three phases must be connected to L1,L2,L3, the earth to the connections PE.

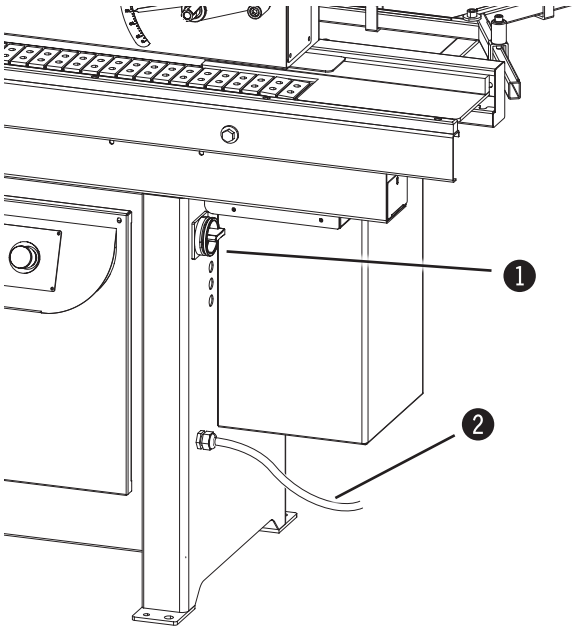


Fig. 7-3: Electrical connection

1 Main switch
2 Main cable

- It is strictly prohibited to earth the neutral wire. The main power system must be provided with a neutral and an efficient earth line. Open the electrical control panel. Insert the main cable line inside the cable grip on the machine frame.
- Connect the main cable with the relative joint clamps of the main switch. Close the electrical panel.

1. Check the direction of rotation of the motors:
   a. Connect the plug to the power supply.
   b. Turn the machine on for a short time.
   c. Check the rotation direction of the crawler.
   d. If it is incorrect, swap two of the three phases at the entry to the main switch of the machine.

2. Because of the auto-reverse, the HF motors energised by the inverter may turn in the opposite direction to the crawler.

3. This problem is solved by checking each individual motor of the different units (re-trimmer, gluing unit etc.).

Attention! Risk of material damage! The glue spreading roller is powered by the chain feeding system. Therefore, when testing the correct sense of rotation of the chain feeder, it is necessary to wait until the temperature of the glue pot reaches 190°C.
Do not manually start the chain feed remote switch if the glue is not yet fluid!

Note:
If the machine is equipped with a residual current circuit-breaker (RCCB), then it must be a Type B, sensitive to universal current RCCB, suitable for frequency inverter operation with a release current of 300mA.

7.5 dust extractors

- The machine has to be connected to a dust extractor.
- The dust extraction hoses must be electrically conductive and grounded to prevent electrostatic build up.
- The dust extractor setup must be controlled before the machine is put into operation for the first time. 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.
- In addition, the vacuum performance must be sufficient to achieve the required negative pressures and an air speed of 20 m/s at the connector.
- Check the air speed before putting the machine into operation for the first time and after essential changes.
- Use dust extractors with reduced dust emission to clean dust from the machine.

The quality of the edgebanding, the good functioning and durability of the machine all depend on the quality of the dust extraction system used.

7.6 Dust extraction port

The quality of the edgebanding, the good functioning and durability of the machine all depend on the quality of the dust extraction system used.

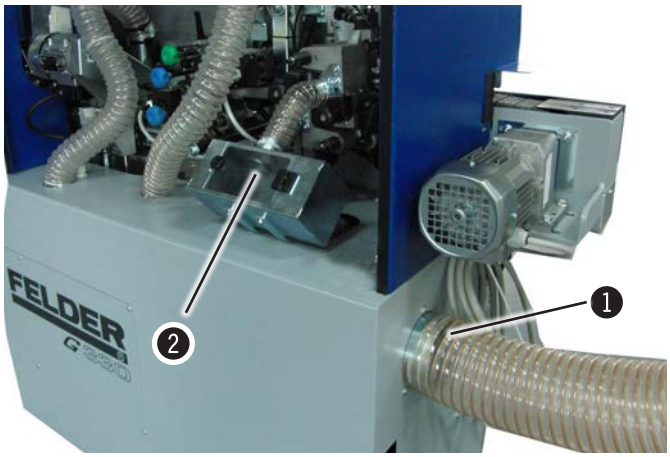


*Fig. 7-4: dust extractors–*Central

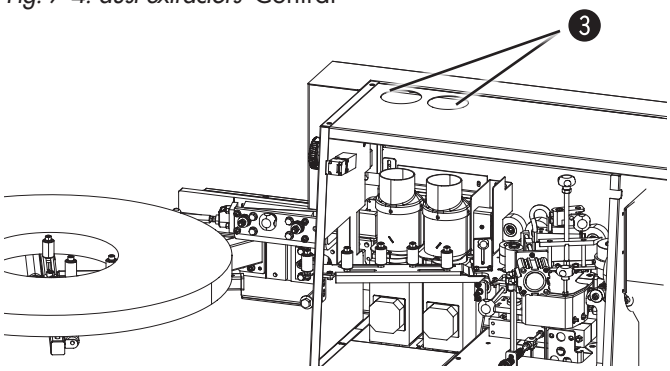


Fig. 7-5: dust extractors–Side Trimming Unit

The machine has to be connected to a dust extractor.

Chip container–Radius scraping unit
A chip container for the long scraper unit shavings can be added to the machine (optional equipment).
The scraper shavings are collected in a chip container.

The chip container must be emptied every so often, depending on the operating time.

The lid of the chip container must stay closed during normal operation.
Open the lid once the extraction system is switched off and remove the shavings.

1. Extraction port with diameter 120 mm **(G 330 / G 360)**
2. Scraper cuttings collection box (Optional)
3. 2x extraction ports with diameter 80 mm **(G360)**

Requirements for the dust extraction system and hoses:
The dust extraction system must produce the required vacuum and air flow (see table).

Dust extraction port-Ø–Central **(G 330 / G 360)**	120 mm
Dust extraction port-Ø–Side Trimming Unit **(G 360)**	2x 80 mm
Air speed,	20 m/s
Volume flow,(New at Format-4 20 m/s)	815 m^3/h **(G 330)**
	1500 m^3/h **(G 360)**

Attention!
The dust extraction hose must be non-flammable and must not conduct electricity! For this reason, only use genuine FELDER dust extraction hoses!

8 Inspecting and adjusting settings - Units

8.1 Safety instructions

Warning! Risk of injury! Improper adjustment and setup work can lead to serious physical injury or material damage. For this reason, this work may only be carried out by authorised, trained personnel who are familiar with how to operate the machine and 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.
- 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 not put in their correct place or put away may be the cause of accidents!
- Install the safety equipment according to the instructions and check that it functions properly.

Warning! Danger! Electric current! Work on electrical fittings may only be carried out by qualified personnel and in strict observance of the safety instructions.

Warning! Risk of injury! Before putting the machine into operation, check that the safety mechanisms are working well and that no moving parts are blocked. Check that no parts are damaged and that they are assembled and functioning correctly.

Damaged safety mechanisms and elements must be repaired or replaced by a specialist or at a customer service point authorised by the manufacturer.

Check that all safety precautions are activated and that the safety mechanisms are in the correct place. Ensure that the EMERGENCY-STOP button is disengaged.

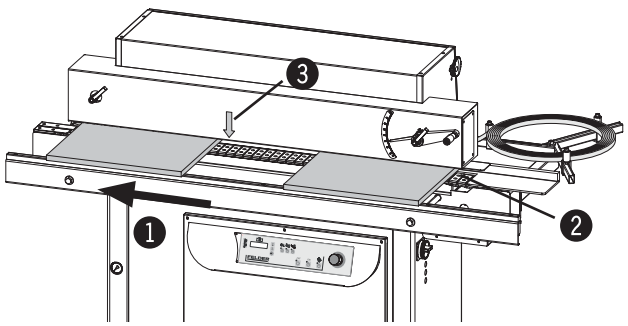


Fig. 8-1: Inspections

Check that the feed direction of the belt is in line with the arrow.

1. Belt feed
2. Panel entry
3. Reference for the board clearance

Attention! Risk of material damage!
The workpiece tipping due to insufficient workpiece support.
Support long workpieces with additional surface equipment (e.g. roll supports).

8.2 Adjusting the height of the pressure bar

Attention! Risk of material damage!
1) This setting has to be exact.
2) If the panel thickness is set incorrectly, the working cycle is changed and the workpieces may be damaged!

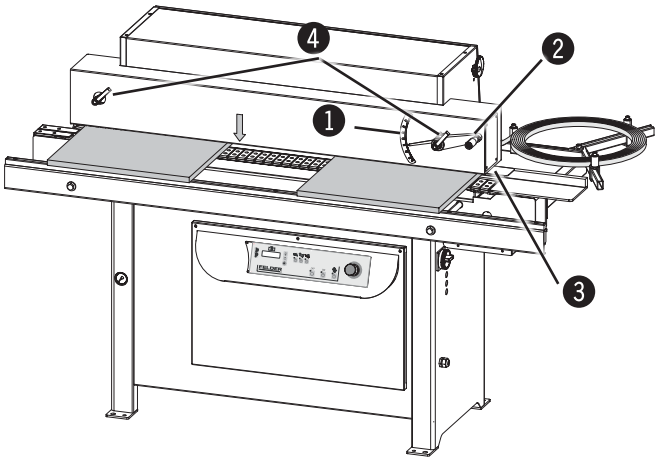


Fig. 8-2: Chain feeding unit

1. Workpiece height display
2. Winding handle
3. Safety device
4. Single-hand clamping lever

1. To set the height of the pressure bar, the thickness of the panel has to be known.
2. The safety device will switch the machine off if the panel to be machined is thicker than that of the value set in the display.
3. If the panel is thinner than the set thickness, the machine may become damaged or the gluing result will be of poor quality.
   A safety device prevents workpieces which are too thick from being fed into the machine.
   Workpiece dimensions - (see “Technical data”)

Setting the workpiece height:

1. Release both clamping levers.
2. Position the pressure bar, by manipulating the winding handle, so that the position indicator displays the thickness of the panel.
3. Tighten the clamping lever (on both sides!)

The height of the upper flush trimmer, the upper scraper and the upper buffer unit regulate themselves when the height of the pressure bar is changed.

Attention! Risk of material damage!
The edging material may end up not being glued properly if these units are not set correctly.

If the height of the panel has not been entered correctly, the machine will, as a result, not function correctly and the panels could be damaged! Should this occur, it is necessary to:

- Stop the machine immediately with the emergency push button
- Lift the pressure bar with the wheel handle
- Take out the panel

8.3 Edge tape feeding

This unit's function is to bring together the edging material with the workpiece.

To clamp the edging material, swing the pressure roller away with the handle (Pos. 1). The edging material has to be threaded through right up to the cutting edge of the guillotine scissors. Release the handle. The edging material is now fixed in position.

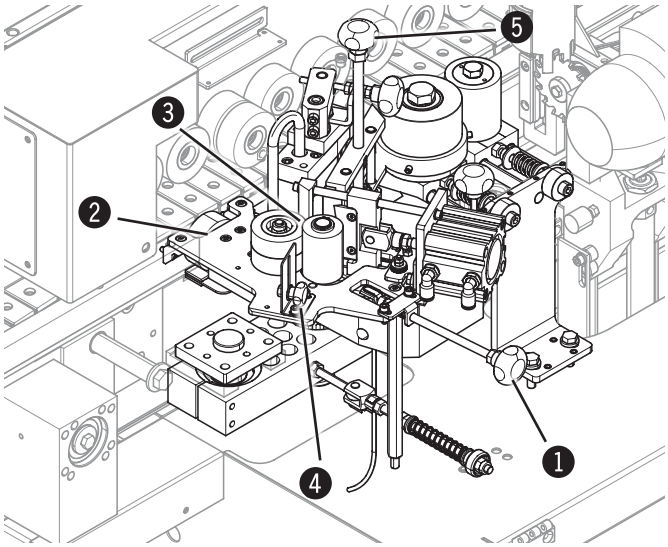


Fig. 8-3: Edge tape feeding

The workpiece movement over the copy roller on the chain conveyor (Pos. 2) moves the tape feeding roller (Pos. 3) via a series of gears, and therefore feeding the edging material exactly to the workpiece.

The height setting (Pos. 4) has to be adapted to the height of the edge material. This setting prevents the edging material from raising or lowering itself away from the workpiece.

You can adjust the height of the bar by turning the thumb nut (Pos. 4). It needs to be set so that the edging material can be fed easily and without any resistance.

A second height setting (Pos. 5) prevents the edging material from moving upwards in front of the guillotine scissors. You can adjust the height of the pin by opening the thumb nut (Pos. 5). It needs to be set so that the edging material can be fed easily and without any resistance.

! Attention! Risk of material damage!
The edging material may end up not being glued properly if these units are not set correctly.

8.4 Glue pots and settings

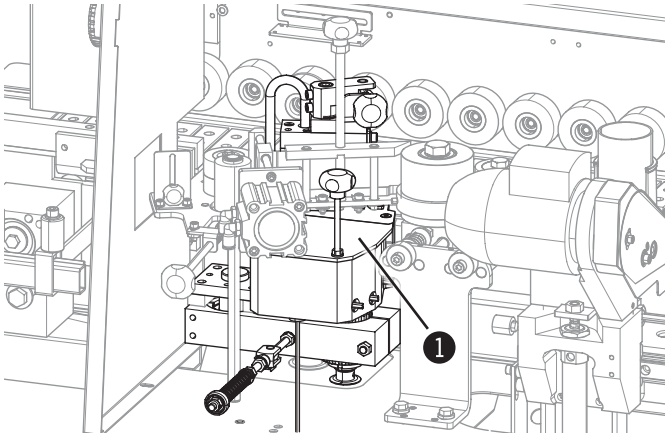


Fig. 8-4: Glue pot

1 Glue cover

Switch the machine off and ensure that it cannot be switched on again. Open the rear access door.

1. Remove the glue pot lid.
2. Remove any old and burnt glue
   See chapter entitled: Maintenance/Service
2. Fill up the glue pot with granular hot-melt glue until both blades are covered.
3. Close the glue pot lid and get the machine ready to operate.
4. Switch the machine on and let it warm up to its operating temperature.
   See chapter entitled:
   >Using the controls<

Note:
The glue pot heating system switches itself on once the machine is connected to a power supply, the main switch is on I/ON and the selector switch is on ON. The workpiece chain feeding system powers the glue application roller. The roller only starts rotating once the temperature of the glue pot has exceeded the stand-by temperature and the button to start up the chain feeder has been pushed down.

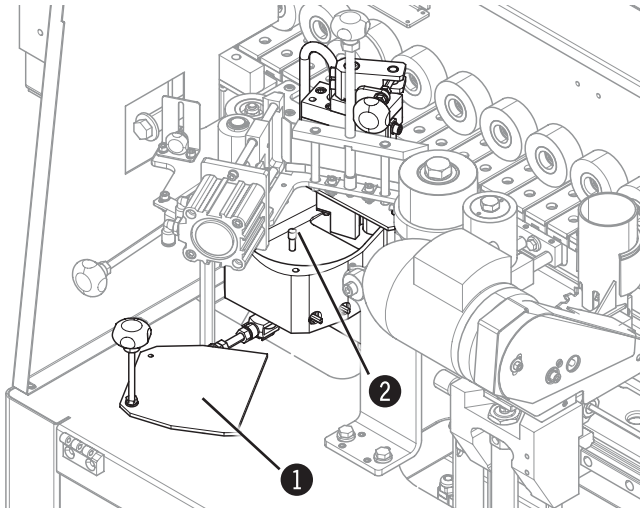


Fig. 8-5: Filling the glue pot

- We recommend not to fill the glue pot right up to the top; keep the level of glue constant and replenish in small quantities.
- The level of glue is indicated by the two fins in the pot; they should only be slightly covered in glue.

The quantity of glue to be spread can be adjusted. When edging, check the level of glue in the pot and if necessary, fill up to 1 cm below the edge of the pot.

1 Glue cover
2 Fins

Attention! We would like to highlight the importance of the correct choice of glue.
The product selected must be of the highest quality and designed for the automatic glueing of edges.
Use suitable glues with a viscosity between 70,000 mPa.s and 110,000 mPa.s and with a feed rate of between 7 and 12 m/min.
These values are of particular importance in ensuring that the machine operates correctly and that the edges are well glued.

8.4.1 Setting the glue quantity

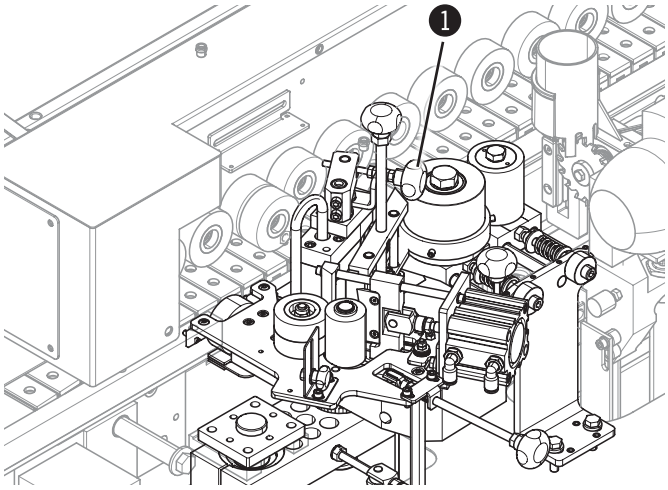


Fig. 8-6: Setting the glue quantity

To increase the quantity of glue, turn the knob in an anti-clockwise direction, and to reduce the quantity, turn the knob clockwise. When adjusting, it is advisable to increase the glue gradually.

1 Setting the glue quantity

8.4.2 Disconnecting the glue pot

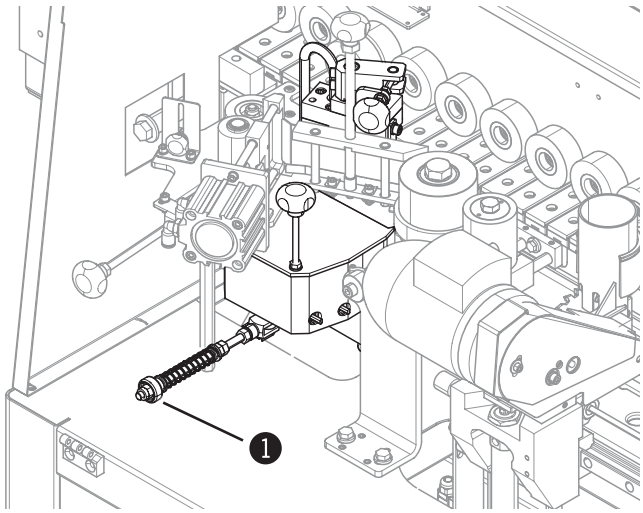


Fig. 8-7: Disconnecting the glue pot

The glue pot can be disconnected by actuating the lever. The glue pot is disconnected ex-works to prevent any damage occurring during transport. Always disconnect the glue pot when the machine is being transported.

1 Disconnecting the glue pot

8.5 Side Trimming Unit (Optional - G 360)

Note:
Exchanging Shaper - See chapter entitled: Maintenance/Service

8.5.1 Operation

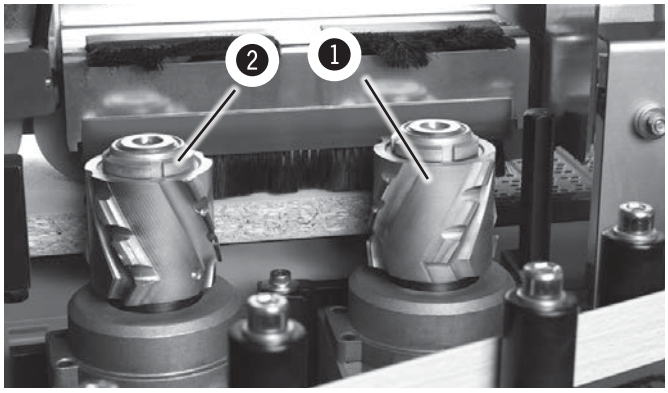


Fig. 8-8.1: Setting the premilling unit

The side trimming unit consists of two motor-driven moulders with a diameter = 60 H49 Z2+2. Both moulders work together, opposite to each other and have a maximum depth of cut of 0 to 2 mm.
Set the depth of cut on the infeed track.

1. Spindle moulder–Reverse
2. Spindle moulder–Synchronous operation

8.5.2 Setting the premilling unit

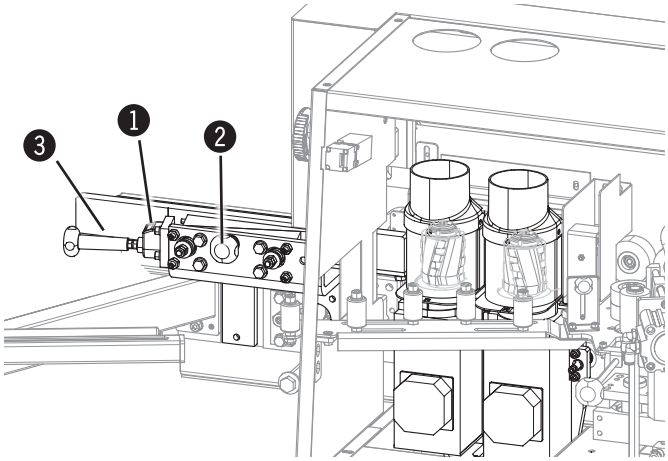


Fig. 8-8.2: Setting the depth of cut

Set the depth of cut of the premilling unit as follows:

1. Loosen the thumb screw 2.
2. Set the depth of material abrasion, displayed on the number display, with knob 3.
3. Tighten the thumb screw 2.

1. Number display
2. Thumb screw 2
3. Knob 3

8.6 Setting the guillotine shears

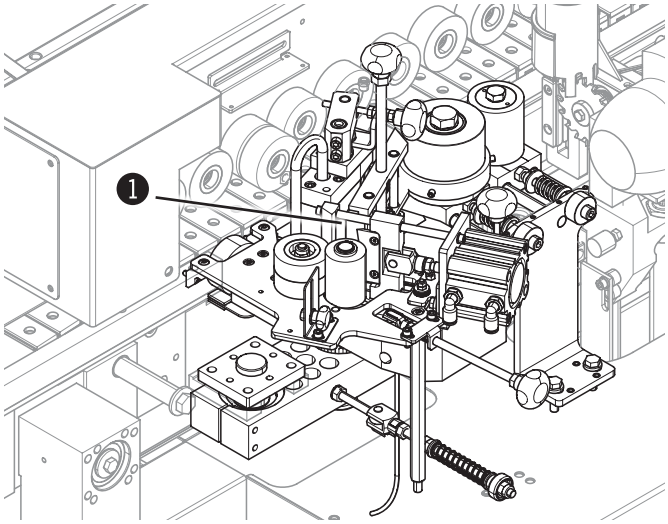


Fig. 8-9: Setting the guillotine shears

The guillotine shears cut off the edge material at a certain distance from the end of the panel.
This unit is only used for veneer, melamine, PVC, ABS, polyester edging in coils and with a diameter of 3 mm.
The guillotine shears are activated automatically when the programmes are set at the control panel.

1 Guillotine unit

8.7 Pressure rollers

Fig. 8-10: Pressure rollers

1 Shears from coil

This unit serves to help the edging material adhere better to the workpiece.

The two pressure rollers are mounted onto a plate, which needs to be set according to the thickness of the edge to be glued.

The depth of the cylinders can be adjusted by turning the thumb nuts.

A piece of edging is placed into the free space between the adjusting screw and the mounting bracket to obtain the correct contact pressure of the rollers.

The thumb nuts must be tightened so that the inserted edging material remains in place and cannot fall out.
The correct edging thickness setting has been set.

Caution: if this unit has not been set correctly it could lead to unsatisfactory gluing results. If the edging thickness has been set incorrectly, it could lead to damage to the workpiece or the edging material might not adhere properly to the workpiece.

Attention! Risk of material damage!
The edging material may end up not being glued properly if these units are not set correctly.

8.9 Setting the protruding edging - End trimming unit

Note:
This unit is used to remove the protruding tape (at the outset and the end).
Once the tape has been cut flushly, the tip saw unit returns to its exit position.

Note:
Proceed very cautiously with the settings described here. The given values are recommended values and must be tested using sample workpieces.

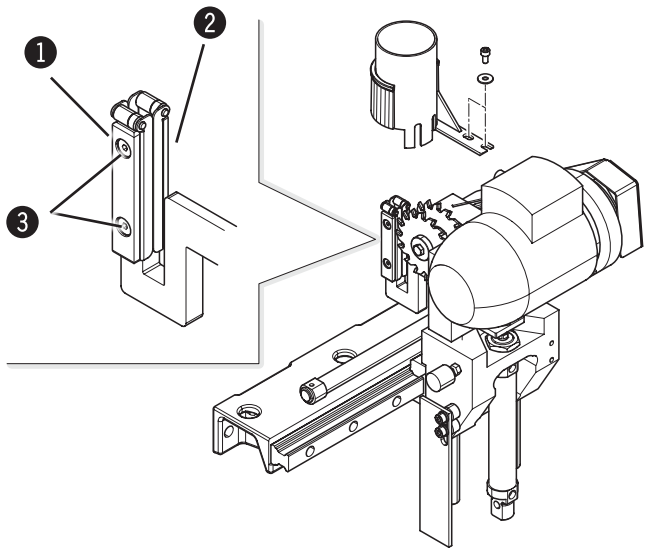


Fig. 8-12: Adjusting the copier pads

1 Copying pad for front cut
2 Copying pad for rear cut
3 Socket head cap screw to adjust the copying pad

The protruding edge is defined by the distance between the feeler pad and the saw blade.

The protruding edging is usually set to 0 (factory setting).

It may be necessary to readjust the protruding edge setting if the saw blade has been changed or replaced.

1. Switch the machine off and ensure that it cannot be switched on again. Open the rear access door.
2. Feeler pad: Clean thoroughly.
3. The pad is kept under tension by spring discs. If the 2 screws are screwed tighter, and the tension within the pads increased, the edge will be cut shorter. If the screws are loosened, then the edge cut will be shallow (leaving more edge).
4. Both adjusting screws need to be adjusted by the same amount at the top and the bottom. If the copying pad is not straight it can influence the final results and/or damage the workpiece.
5. Adjust other units or close the sawguard.

Warning! Risk of injury!/Risk of material damage!
Handle the saw blades carefully to avoid injuring your hands and damaging the cutting edges.

Note:
Changing the saw blade - See chapter entitled: Maintenance/Service

8.10 Combination milling unit

8.10.1 Operation - Combination milling unit

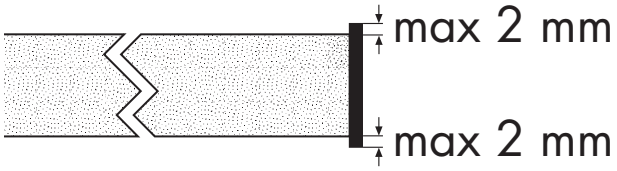


Fig. 8-13: Edge protrusion

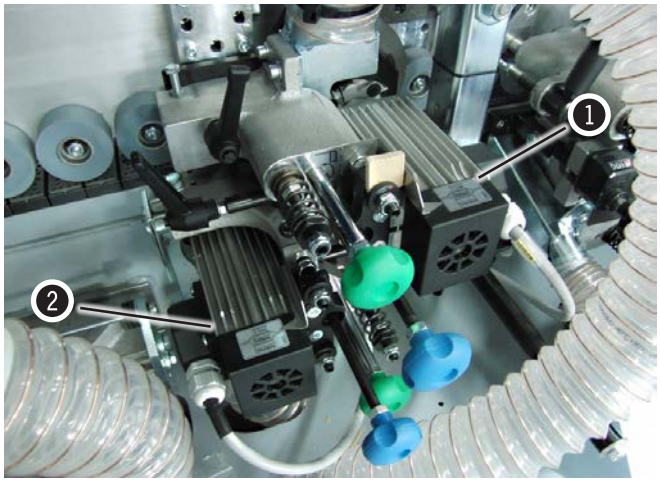


Fig. 8-14: Flush trimming unit

The high-frequency motors of the trimming unit are turned on using the middle button. The spindles are used for trimming protruding edges on both sides of the workpiece. If the workpiece is moving away from the trimming spindles, the unit will be copied from the buttons. Depending on the spindle tool and edge thickness, a sharp, beveled or rounded trim can be achieved. The standard equipment includes two spindle tools – top, bottom (right / left) – with a 2 mm radius (3 mm) and 3° slope. The spindles are equipped with extraction nozzles with a diameter of 60 mm and connected directly to the central dust extractor. The removable protruding edge is max. 2 mm per side.

The cutters turn in the opposite direction to the panel feeding. The upper flush trimmer regulates itself automatically when changing the tool thickness as it is attached to the pressure bars.

1. Upper flush trimmer
2. Bottom flush trimmer

Warning! Risk of injury!/Risk of material damage!
Shaping tools must be handled with special care.
We recommnend using exclusively original FELDER tooling (see FELDER Catalogue).

Note:
Exchanging Shaper - See chapter entitled: Maintenance/Service

8.10.2 Height adjustment - Setting the protruding edge

Note:
The setting is carried out by FELDER employees on delivery.

Note:
Proceed very cautiously with the settings described here. The given values are recommended values and must be tested using sample workpieces.

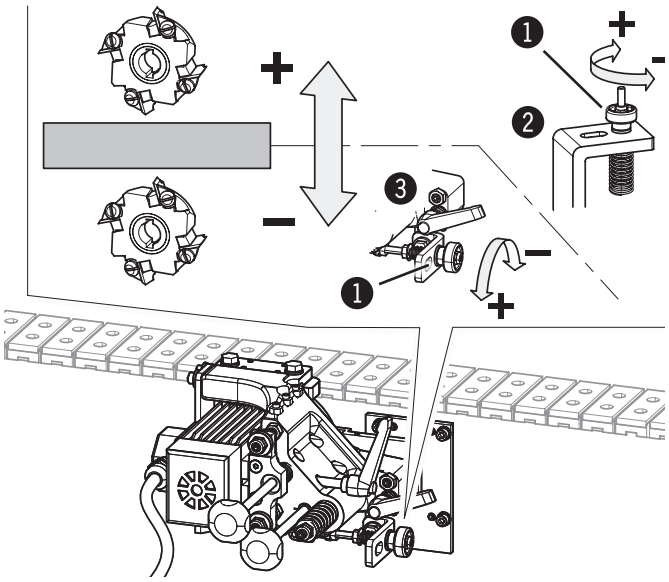


Fig. 8-15: Height adjustment

Activate/deactivate the units:

1. Switch the machine off and ensure that it cannot be switched on again Open the rear access door.
2. Removing the trimming unit:
   Tighten the thumb nut.
   (Clockwise, up to stop)
3. Activate the units:
   Loosen the thumb nut.
   (Anti-clockwise, up to stop)

1 Thumb nut
2 Adjustment - upper
3 Adjustment - down

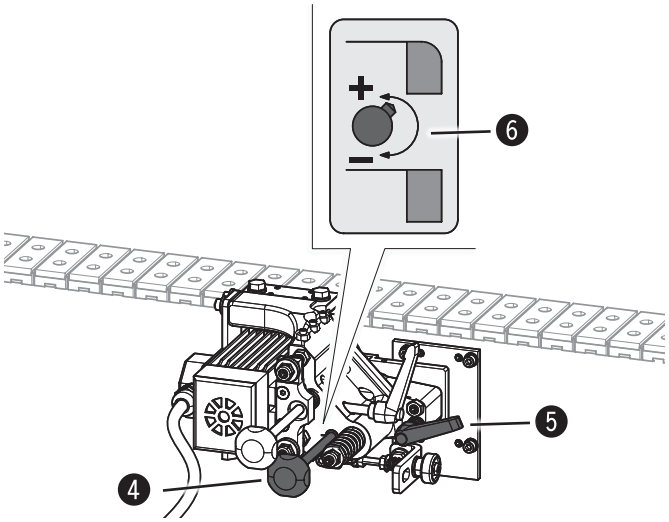


Fig. 8-15.1: Adjusting the moulding height

Adjusting the moulding height :

1. Switch the machine off and ensure that it cannot be switched on again Open the rear access door.
2. Activate the units.
3. Adjusting the moulding height:
   Open clamping lever.
   The setting can be carried out by twisting the screws.
   The setting is displayed on the scale.
   + Anti-clockwise up to stop
   Radius trimming
   – Clockwise up to stop
   flush trimming
4. Clamp the clamping lever.

4 Thumb screw - green / Height adjustment
5 Clamping lever / Height adjustment
6 Scale

Note:
The setting is carried out by FELDER employees on delivery.

8.10.3 Setting the cutting depth

Note:
The setting is carried out by FELDER employees on delivery.

Note:
Proceed very cautiously with the settings described here. The given values are recommended values and must be tested using sample workpieces.

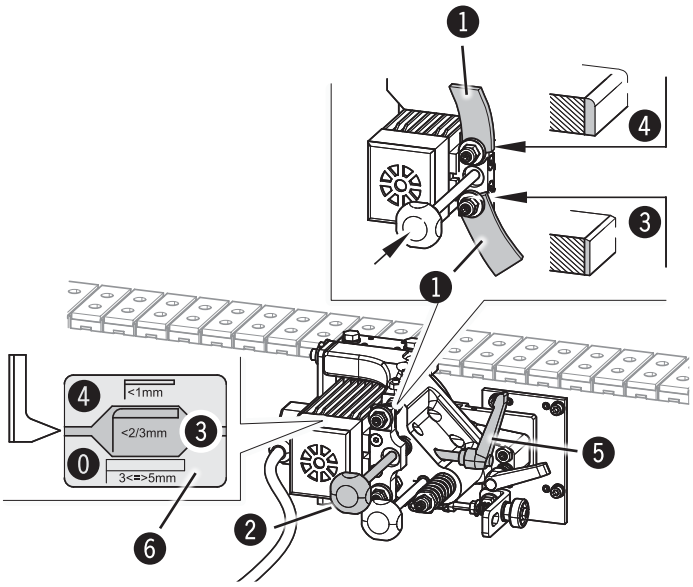


Fig. 8-16: Setting the cutting depth

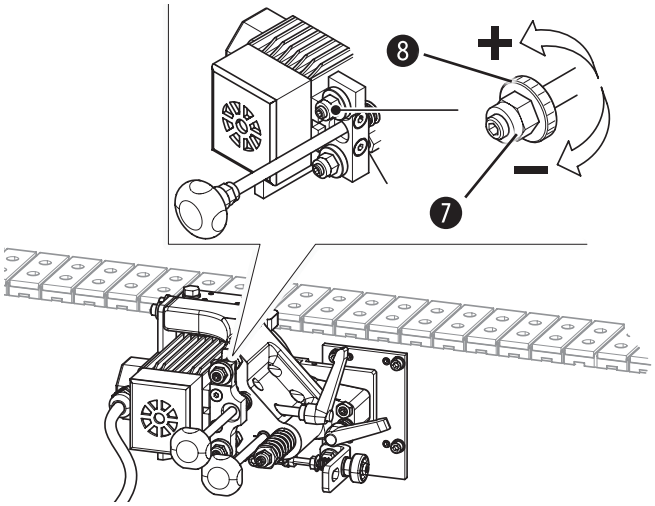


Fig. 8-16.1: Fine adjustment

Standard setting:

1. Switch the machine off and ensure that it cannot be switched on again Open the rear access door.
2. Open clamping lever.
   To unclamp, press the lever on the holding arm in the direction of the machine
3. Adjust the whole unit to the edge tape thickness to be used by turning knob "1".
   The setting is displayed on the scale

   3 Bevel trimming - Thin edges <1 mm

   4 Radius trimming <2 / 3 mm

   0 flush trimming 0,4 - 5 mm => See chapter entitled > Flush milling adjustment <
4. Release the lever.
   Clamp the clamping lever.

1 Shears from coil
2 Lever - blue
5 Clamping lever
6 Scale - Tape thickness

Setting the cutting depth (Fine adjustment):

1. Switch the machine off and ensure that it cannot be switched on again Open the rear access door.
2. Loosen the locking nut.
3. Adjust finely with the thumb nut.
   + Anti-clockwise:
   Deeper cut
   – Clockwise:
   less deep cut
4. Tighten the lock nut again.

7 Locking nut
8 Thumb nut (Fine adjustment)

Note:
The setting is carried out by FELDER employees on delivery.

8.10.4 Flush milling adjustment

Note:
The setting is carried out by FELDER employees on delivery.

Note:
Proceed very cautiously with the settings described here. The given values are recommended values and must be tested using sample workpieces.

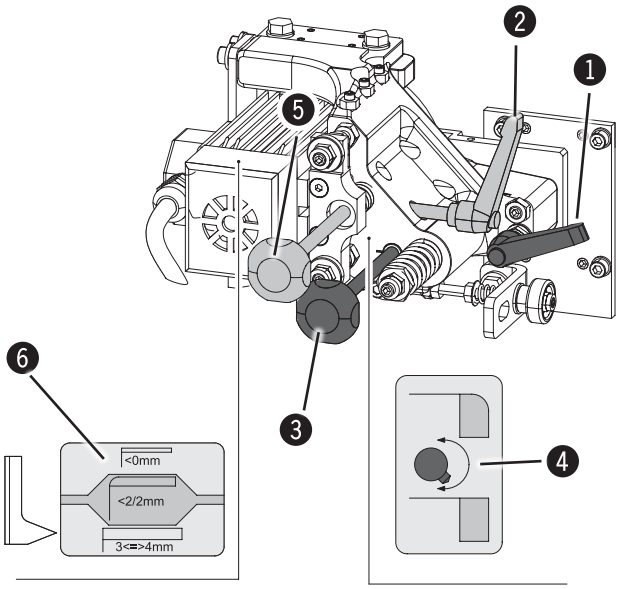


Fig. 8-16.2: Flush milling adjustment

Switch the machine off and ensure that it cannot be switched on again Open the rear access door.

Setting the protruding edge :

1. Loosen the clamping lever 1.
2. Turn the green knurled screw.=>
   Clockwise up to stop >flush trimming<
   The setting is displayed on the scale
3. Lock the clamping lever 1.

Setting the cutting depth :

1. Loosen the clamping lever 2.
2. Push the shaper unit fully backwards with the blue lever.
   Hold the shaper unit in this position and fix it with clamping lever 2.
   The setting is displayed on the scale

Note:
No edge sections are clamped when flush milling is used.

1. Clamping lever 1
2. Clamping lever 2
3. Thumb screw - (green)
4. Scale - Radius or flush trimming
5. Lever - blue
6. Thumb nut

8.11 Radius scraping unit, glue scraping unit (Optional)

8.11.1 Radius scraping unit

Attention! Risk of material damage!
1) This setting has to be exact.
2) Only use this unit on PVC edging!
The scraping knives and/or the workpieces may be damaged if the setting is incorrect or if material other than PVC is used.

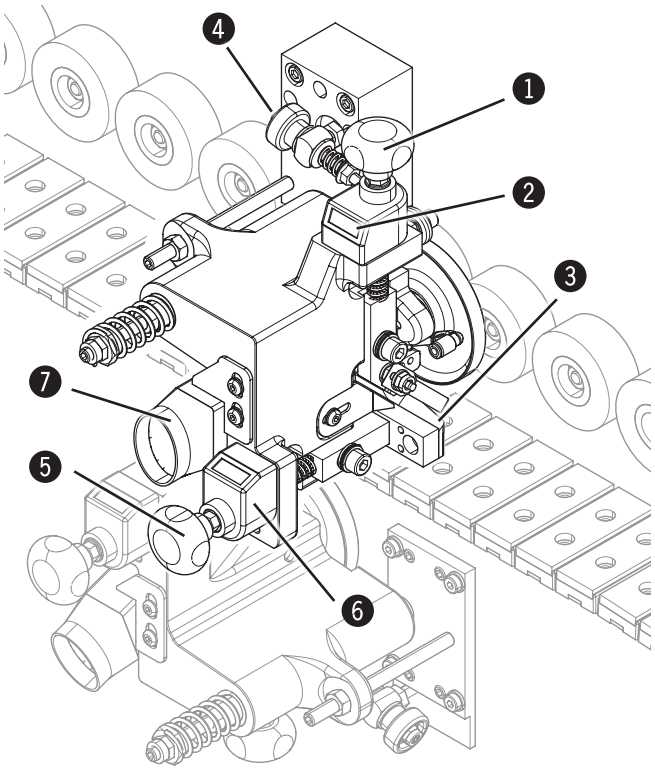


Fig. 8-17: Setting - Radius scraping unit

1. Adjusting knob - Chip thickness
2. Display - Chip thickness
3. Copy shoe
4. Knob to exclude scraper
5. Blade depth adjustment
6. Edging thickness display
7. Dust extraction port

The radius scraper removes cutter marks on the PVC edges.

The settings for the radius are defined using the horizontal copier pad.

Activate / Deactivate:

Standard equipment: Manual adjustment

To disengage the lower and upper glue scrapers, pull knob 4, thus moving the unit away from the workpiece.

Adjusting the depth of cut:

1. Switch the machine off and ensure that it cannot be switched on again Open the rear access door.
2. Adjust the depth of cut using the adjusting knobs until the positioning indicator shows the value of the edging to be glued on.

   Note: Always adjust towards the workpiece to compensate for the thread backlash.

3. Check the adjustment and repeat if required.

8.11.2 Flush scraping unit (Optional)

Attention! Risk of material damage!
1) This setting has to be exact.
2) Only use this unit on PVC edging!
The scraping knives and/or the workpieces may be damaged if the setting is incorrect or if material other than PVC is used.

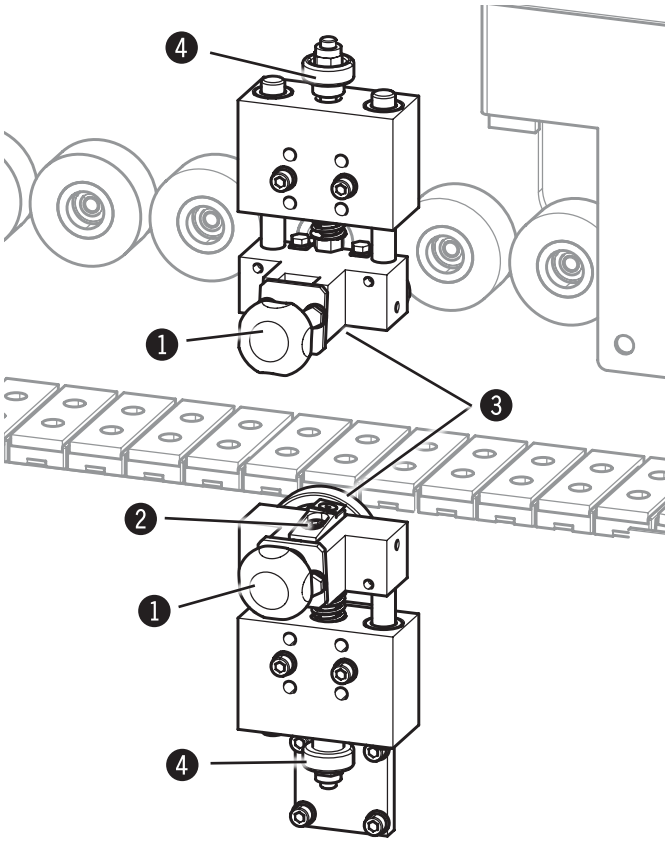


Fig. 8-18: Glue scraping unit

1. Adjusting knob - Chip thickness
2. Clamping screw
3. Follower rollers
4. Knob to exclude scraper

The glue scraper knife removes glue residues between the edging material and the workpiece.

The settings for the depth of cut are defined by the two follower rollers.

Activate / Deactivate:

Standard equipment: Manual adjustment

To disengage the lower and upper glue scrapers, pull knob 4, thus moving the unit away from the workpiece.

Adjusting the depth of cut:

1. Switch the machine off and ensure that it cannot be switched on again.
   Open the (large) right-hand side sawguard.
2. Loosen the clamping screws.
   Adjust the depth of cut using the adjusting knobs.
   Anti-clockwise:
   Deeper cut
   Clockwise:
   Shallower cut

Note: Always adjust towards the workpiece to compensate for the thread backlash.

3. Tighten the clamping screw.
4. Check the adjustment and repeat if required.

Attention! Risk of material damage!
The unit or rather the knife should not be allowed to damage the workpiece, it serves to scrape the excess glue from the workpiece. The knife has various settings depending on the quality of the workpiece, the workpiece surface structure etc.

8.12 Setting the buffing unit (Optional)

Attention! Risk of material damage!
The edging material and/or the workpieces may be damaged if the buffing brushes are too inclined.

Note:
Change the buffing brushes - See chapter entitled: Maintenance / Service

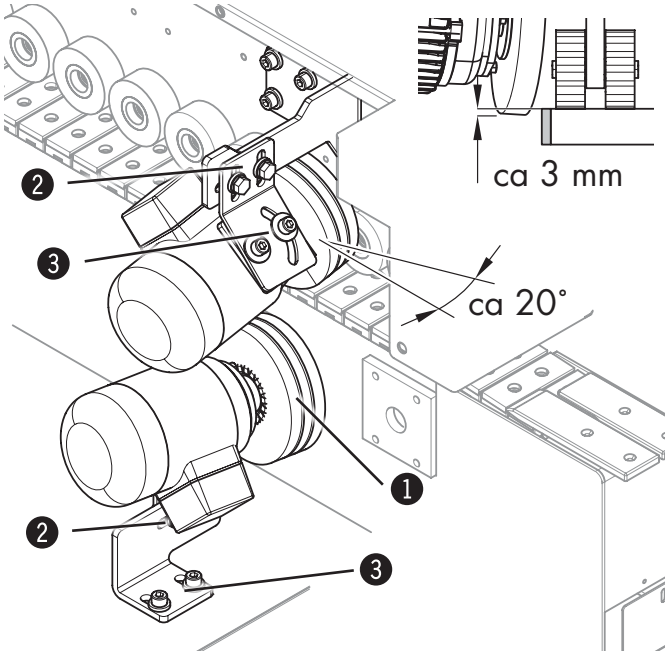


Fig. 8-19: Setting the buffing unit

1 Polishing wheel
2 Height adjustment
3 Tilt adjustment

The unit is made up of two independent electric motors, which are equipped with cotton brushes. The task of the buffing unit is to clean and polish the top and bottom part of the glued on edge.

Activate the buffing unit via the control panel.
See chapter entitled >Using the controls<

Setting the buffing unit

1. Switch the machine off and ensure that it cannot be switched on again. Open the rear access door.
2. To regulate the height of the motors, loosen Screws 2 and move in the vertical position, as desired.
3. To regulate the inclination, loosen Screws 3 and tilt the motor as desired.
4. Tighten the lock nuts.
5. Repeat the procedure with the bottom unit.

The top buffing unit, as a result of being fixed to the pressure bar, is adjusted automatically when the panel thickness varies.

Respect the following parameters in the choice of buffers:

- Max. diameter permitted 120 mm
- Diameter fixing spindle 20 mm
- Max. weight of each brush 200 g
- Max. number of rotations 3,000 rpm

9 Using the controls

Note: The following value appears in the display >LUB<:
See chapter entitled: Cleaning and lubrication --> Maintenance/Service

9.1 General information

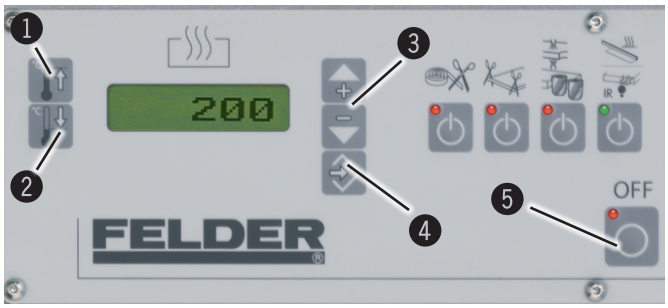


Fig. 9-1: Electrical control panel

The five touch-sensitive membrane keys on the front panel are used to program and operate the display.

Depending on the operating mode, the keys may have additional functions

1. Operating temperature (SP1)
2. Stand-by temperature (SP2)
3. Arrow keys
4. >OK< Enter key
5. OFF key

The values selected by you are stored in a non-volatile memory.

9.2 Display machine information / Setup

1. Operating temperature (SP1):
   press and hold (approx. 10 seconds)
2. The following value appears in the display:>TA: COUNTDOWN<
   Use the arrow keys to scroll through parameters:
3. Save changes with >OK< key and exit menu.

10 Display of the maintenance intervals (Countdown)
The setting is carried out by FELDER employees on delivery.
The following value appears in the display >LUB<:
Reset meter:
OFF key - press and hold (approx. 10 seconds)

11 The setting is carried out by FELDER employees on delivery.

12 Operating hour meter:
Meter (total material used)

13 Odometer for total meters of material used:
Meter (total material used)

14 Odometer for total meters of material used: Meter resettable
Reset meter:
Operating temperature (SP1) - press and hold (approx. 10 seconds)

9.3 Setting the glue temperature

Note: The machine has an automatic temperature reduction system:
If the machine is idle for 20 minutes the temperature will reduce automatically to the SP2 value specified.
If the glue is to be reheated to operational temperature (SP1), then this process can be started by pressing SP1 twice.

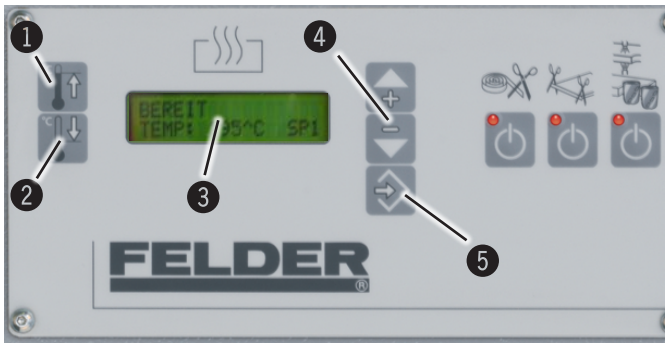


Fig. 9-2: Setting the glue temperature

The electronic temperature adjuster must be set to the temperature recommended by the glue manufacturers (in factory normally adjusted to 200°C)). The glue application roller starts automatically once the glue is liquid and has reached 190°C.
Depending on the type of glue, working temperatures may be approx. 180°–210° C (356°–410° F).

To ensure that the glue maintains its quality, the glue pot must be kept at the operational temperature for as short a time as possible.

Setting the glue temperature:

- Press either SP1 or SP2
- Adjust the value using "+" or "–" and press ENTER to confirm

1. Operating temperature (SP1)
2. Stand-by temperature (SP2)
3. Digital temperature indicator
4. "+" and "–" set the value desired for SP1 and SP2
5. Enter key

10 Service

As part of the machine maintenance, the whole machine, including the safety devices, must be checked regularly for damage. Screws, nuts and connectors must also be checked at regular intervals.

Abide by the laws of the country in which the machine is used regarding the disposal of products used to clean and maintain the machine, and follow the manufacturer's advice with regard to recommended products.

Attention! The guarantee will be rendered invalid in the case of incorrect maintenance.

10.1 Safety instructions

Warning! Risk of injury! Improper maintenance can cause serious injury or damage. For this reason, this work may only be carried out by authorised, trained personnel who are familiar with how to operate the machine and 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. In addition, ensure that the pneumatic supply is switched off.
- The pressure vent must be set to the "Release pressure" setting.
- Ensure that there is sufficient space to work around the machine.
- Suitable protective clothing must be worn during cleaning and maintenance work (See 2.7 Personal protective equipment).
- 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!
- Following the maintenance work, reinstall the guards and check that they are functioning properly.

Warning! Danger! Electric current! Work on electrical fittings may only be carried out by qualified personnel and in strict observance of the safety instructions.

Attention! Pay attention to the suitability of the recommended oils!

Warning! Risk of injury! During filling and re-filling, periodic maintenance and whilst cleaning the glue pot, be aware that the glue has an operational temperature of 200°C. Use all suitable methods of protection to prevent severe injury.
The used glue must be disposed of according to the regulations of the country where the machine is installed.

10.2 Maintenance work

Read individual operation instructions:
Maintenance and preservation guidelines (in particular intervals)
Edgebanders - with chain feeder

10.3 Cleaning and lubrication

Attention! Risk of material damage!
The following maintenance has to be carried out according to the instructed time intervals!

Note: The following value appears in the display >LUB<. (Display of the maintenance intervals)
Lubricate the machine after every 24 to 32 operating hours of intensive use.
Use regular machine grease.

Fig. 10-2: Electrical control panel

1 OFF key

Respect the general safety rules.
See chapter entitled >10.1 Safety instructions<

1. Switch the machine on and let it warm up to its operating temperature.
2. Switch the machine off and ensure that it cannot be switched on again
3. **The following service must be performed at the prescribed intervals.**
   - Lubrication - End trimming unit
   - Lubricating the glue roller bearing
   - Cleaning and lubrication - Chain feeder
   - Check the chain tension/Set
4. **Reset meter >LUB<**
   OFF key - press and hold (approx. 10 seconds)

10.3.1 Lubrication - End trimming unit

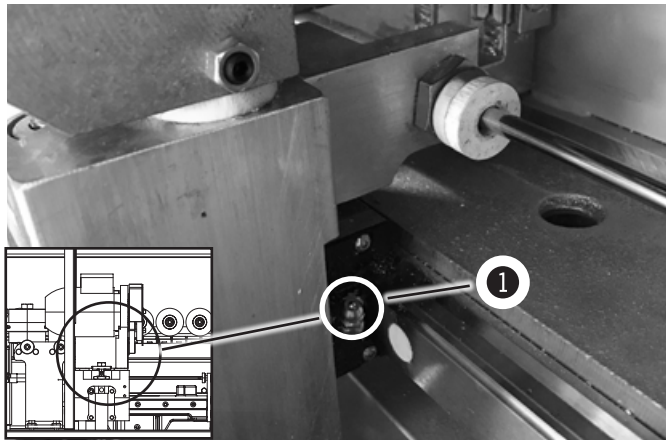


Fig. 10-3 : Lubrication End trimming unit

1. Switch the machine on and let it warm up to its operating temperature.
2. Switch the machine off and ensure that it cannot be switched on again.
3. Place the pressure grease gun onto the nipple and insert 2 to 3 squirts.
   Switch the machine on and let it warm up to its operating temperature.

1 Lubricant nipple

10.3.2 Lubricating the glue roller bearing

Warning! Risk of burns and serious injuries!
Many parts of the machine are very hot, in particular the glue pot!
Use all suitable methods of protection to prevent severe injury.

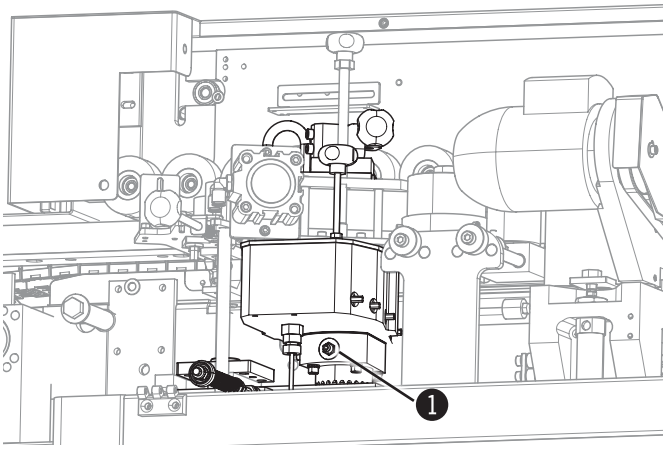


Fig. 10-4: Grease nipple - Glue roller

Lubricate the machine after every 24 to 32 operating hours of intensive use.
Use the lubricant for high temperature bearings ARE-XONS GC 300.

1. Switch the machine on and let it warm up to its operating temperature.
2. Switch the machine off and ensure that it cannot be switched on again. Open the rear access door.
3. Place the pressure grease gun onto the nipple and insert 2 to 3 squirts.
4. Switch the machine on and let it warm up to its operating temperature.

1 Grease nipple - Glue roller

10.3.3 Cleaning and lubrication - Chain feeder

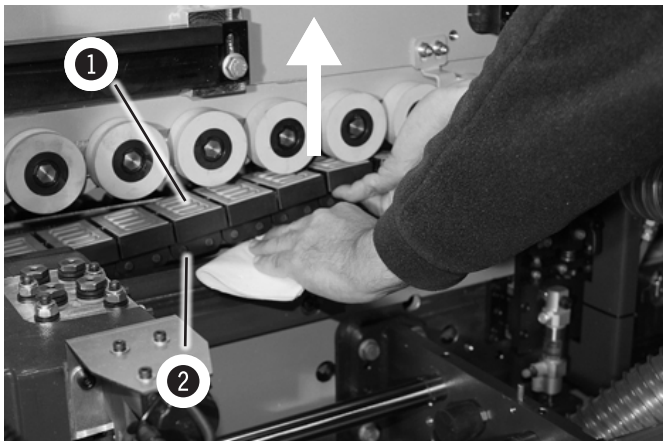


Fig. 10-5: Cleaning and lubrication Chain feeder

Items required:

- Cleaning cloths
- Multi-purpose grease
- Brush

1. Move the pressure bar right up to the top (Max. workpiece height)
2. Switch the machine off and ensure that it cannot be switched on again.
3. Lift up the pads. Clean the guiding using a towel.
4. Spread the grease with a brush onto the guide. Checking/greasing the chain

   Switch the machine on and let it warm up to its operating temperature.

1 Chain feeder
2 Guiding

10.3.4 Check the chain tension/Set

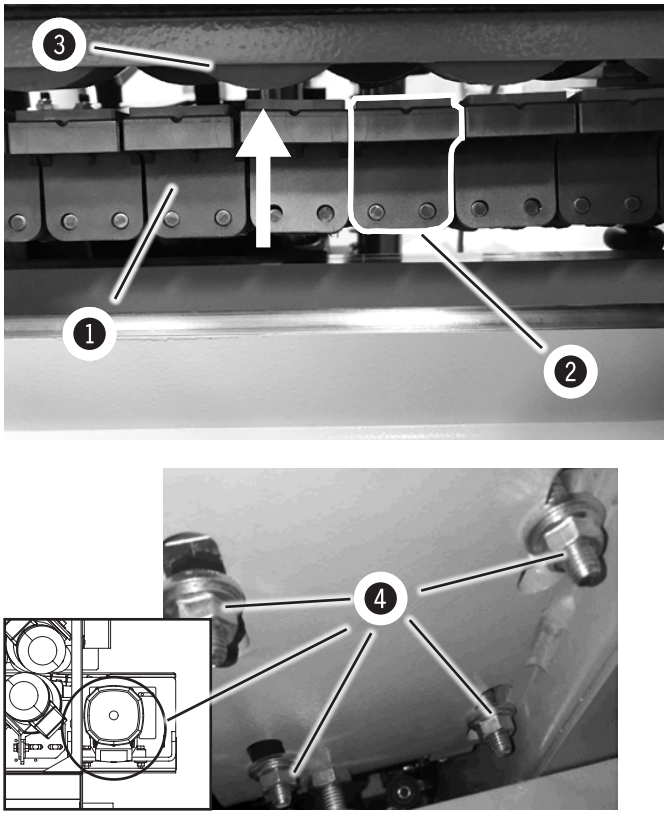


Fig. 10-6: Check the chain tension/Set

1. Move the pressure bar right up to the top (Max. workpiece height)
2. Switch the machine off and ensure that it cannot be switched on again.
3. Lift up the pads.Only two pads may touch the rollers.
4. Check chain tension and retighten/loosen if necessary.(Adjusting screw)

   Switch the machine on and let it warm up to its operating temperature.

1 Chain feeder
2 pads
3 Rollers
4 Adjusting screw

10.3.5 Cleaning the units

Attention! Risk of material damage!
Do not use compressed air as this will blow dust and shavings into the diverse ball bearings and guides. Remove dust and shavings with a dust extractor.

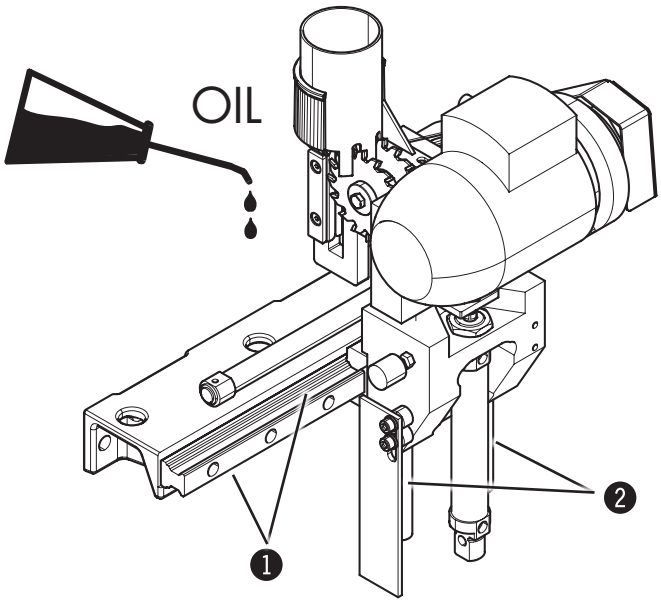


Fig. 10-7: End trimming unit

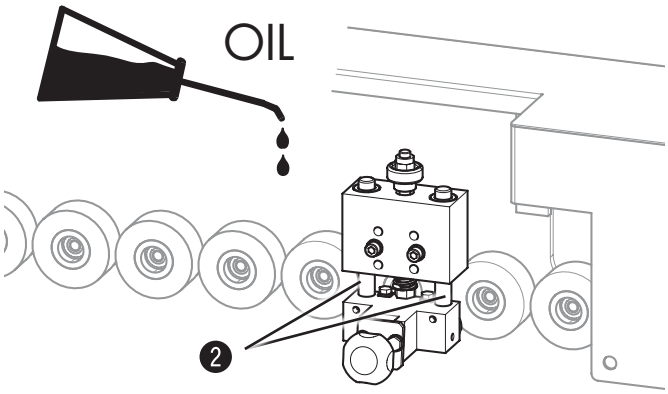


Fig. 10-8: Glue scraping unit

Respect the general safety rules.
See chapter entitled >10.1 Safety instructions<

1. Switch the machine off and ensure that it cannot be switched on again.
   Remove the machine from the compressed air supply system and vent the remaining compressed air.
   Open the rear access door.
2. Clean the unit thoroughly.
3. **End trimming unit:**
   Remove dust and shavings from the bearing tracks.
   Wet the rod guidings sparingly with silicone-free oil.
   Move the unit forwards and backwards a few times.
4. **Glue scraping unit:**
   Wet the rod guidings sparingly with silicone-free oil.
   Move the unit forwards and backwards a few times.
   Repeat the procedure with the bottom unit.
5. Service additional units or close the sawguard.

1 Guide tracks
2 Rod guiding

10.4 Replacing the burnt glue

Warning! Risk of burns and serious injuries!
During filling and re-filling, periodic maintenance and whilst cleaning the glue pot, be aware that the glue has an operational temperature of 200°C.
Use all suitable methods of protection to prevent severe injury.
The used glue must be disposed of according to the regulations of the country where the machine is installed.

10.4.1 Replacing the burnt glue (EVA)

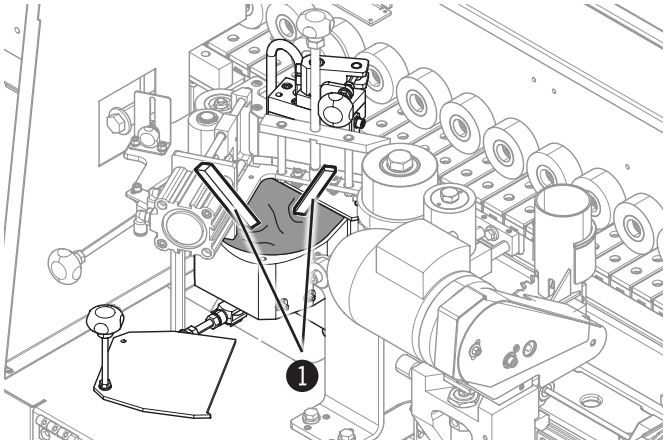


Fig. 10-9: Replacing the burnt glue

1. Heat the glue to the operating temperature.
   Insert two wooden batons into the liquid glue.

2. Then, leave the glue to cool down completely and warm up again.
   As soon as the glue detaches itself from the walls of the glue pot, remove the glue from the glue pot with the wooden batons.

3. Remove burnt glue residues with a wooden spatula.
   Clean the cooled down glue pot with rags and a glue remover.

1 Wooden batons

10.4.2 Replacing the burnt glue (PUR)

Attention! Risk of material damage!
Open PUR glue has to be processed within 6 hours (maximum 8)/manufacturer data sheet
The standard glue pot has to be cleaned :

mechanical removal of glue residue	**Daily**
Cleaning with cleaning granulate and mechanical removal of glue residue	**Daily**

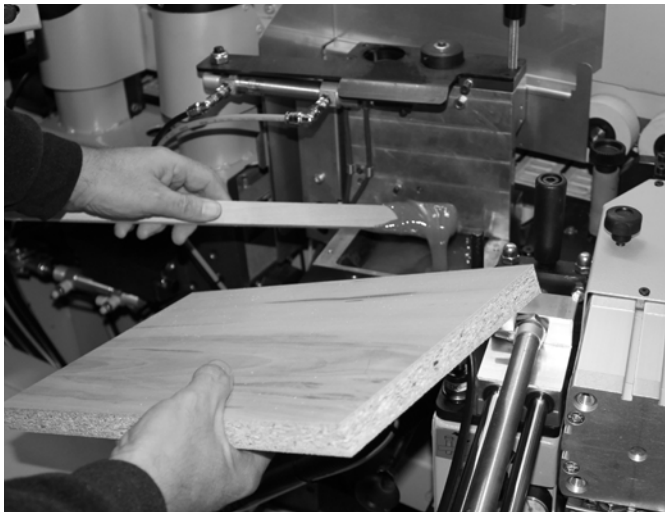


Fig. 10-9.1: Replacing the burnt glue

1. Activate the standby mode of the glue pot.
   Remove burnt glue residues with a wooden spatula.
   Use a lint-free cloth for the final cleaning of the glue pot.

2. Fill the glue pot with cleaning granules.
   Let the machine operate in the idle mode for ten minutes.
   Edge 4 - 5 test panels to remove the last residue of the cleaning granulate.

3. Scoop out the glue pot contents with sticks and wipe them on a panel.
   Use a lint-free cloth for the final cleaning of the glue pot.

10.4.3 Safety instructions about the hot melt adhesives

Environmentally unfriendly

Harmful

Do not smoke

Excerpt from the safety data sheets

Please read the complete data sheet of each hot melt adhesive!

Application purpose:
EVA - Glues (ethylene vinyl acetate) - Basic adhesive
PUR - Glues (Polyurethane) - Adhesive with high heat resistance and humidity resistance.

Danger indications:
R50/R53 = very poisonous to water organisms
may be harmful to waters in the long-term

Individual precautionary measures:
Ensure that the area is well ventilated.
Toxic vapours may be released if heated above the break-down point (carbon monoxide, hydrocarbons, acetic acid).

Personal protective equipment:
Observe the conventional precautionary measures when handling chemicals.
Avoid skin contact with the glue. Do not breathe in fumes.
Respirator: a respirator is necessary if ventilation/dust extraction is insufficient.
Gloves: thermally insulating gloves made of leather or thick material.
Eye protection: goggles are recommended when transferring the glue.
Personal protection: standard protective work clothing.

First aid measures:
If your skin has come into contact with the glue, apply cold water to cool down.
Do not peel off hardened glue from your skin. Consult a doctor.
Rinse your eyes with clean running water for several minutes if some of the product has gone into your eyes.
Contact a doctor.
Consult a doctor if you suffer continued complaints after swallowing some of the product.

Measures to fight fire:
Appropriate extinguisher: CO2, foam (alcohol ?), fire extinguishing powder or water spray.

Notes on disposal:
Leave to harden, remove mechanically. Small amounts may be disposed of in domestic waste.
Dispose of according to local authority regulations. The product's valid waste code can be found in the European Waste Catalogue.

10.5 Changing the saw blade - End trimming unit

Warning! Risk of injury!/Risk of material damage!
Handle the saw blades carefully to avoid injuring your hands and damaging the cutting edges.

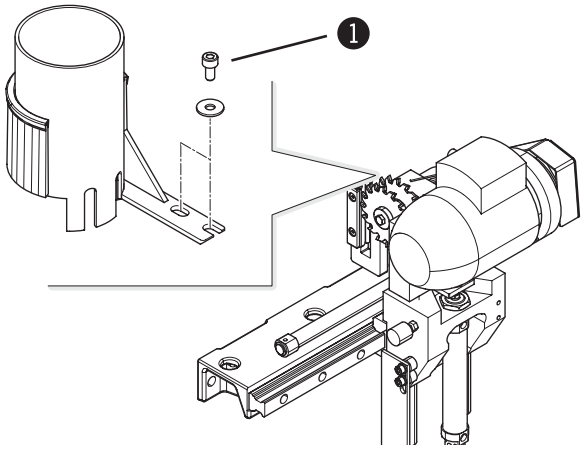


Fig. 10-10: Vacuum connector assembly

1 Counter screw for the saw guard

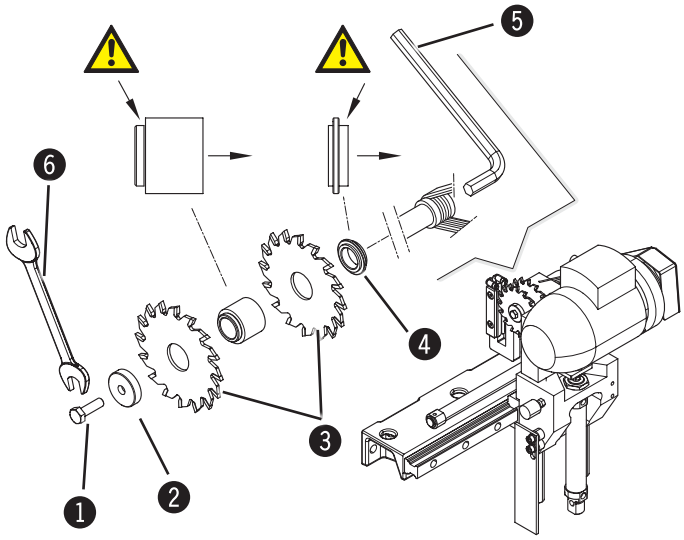


Fig. 10-11: Changing the tooling

1 Socket head cap screw
2 Flange
3 Saw blade
4 Rear flange
5 Allen key 8 mm
6 Spanner SW 10 mm

Respect the general safety rules.
See chapter entitled >10.1 Safety instructions<

Required tools:
- Allen key 4 mm / 8 mm
- Spanner SW 10 mm

1. Switch the machine off and ensure that it cannot be switched on again.
   Remove the machine from the compressed air supply system and vent the remaining compressed air.
   Open the rear access door.
2. Loosen the screws and remove the vacuum connector.
3. Block the motor shaft with a 10 mm spanner and loosen the mounting screw.
   It is important to maintain the opposite position using an allen key (8 mm)
4. Remove the old saw blade and place the new saw blade on the arbor. Note the direction of rotation!
5. Replace the flange (take note of the assembling position).
   Secure the screw again.
   minimum tightening torque: 20 Nm
6. Position the vacuum hood correctly.
   Tighten the socket head cap screws on both sides.

Note:

Once the tools have been changed:
Check the protruding edge of the saw blades or adjust.
See chapter entitled >Inspecting and adjusting settings<

10.6 Exchanging Shaper - Combination trimming unit

Warning! Risk of injury!
Be wary of sharp edges to avoid cutting yourself, in particular when changing the tooling.
We recommnend using exclusively original FELDER tooling (see FELDER Catalogue).

Note: Once the tools have been changed:
Check the flush trimming unit calibration and/or adjust.
See chapter entitled >Inspecting and adjusting settings<

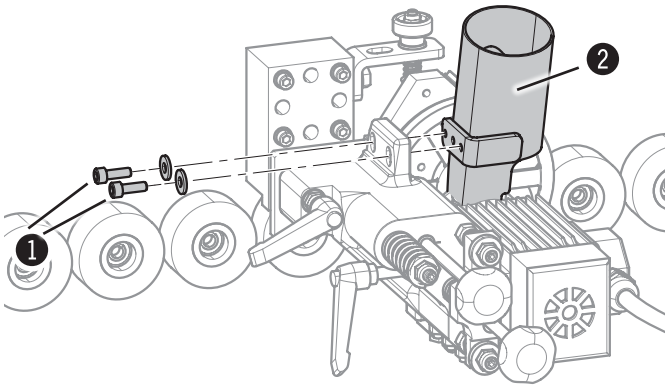


Fig. 10-12: Vacuum connector assembly / upper

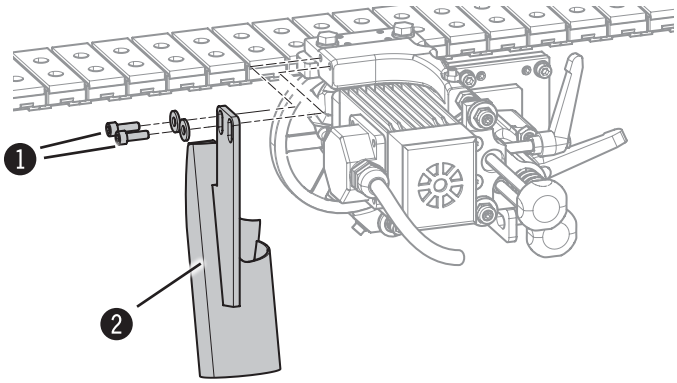


Fig. 10-12.1: Vacuum connector assembly / down

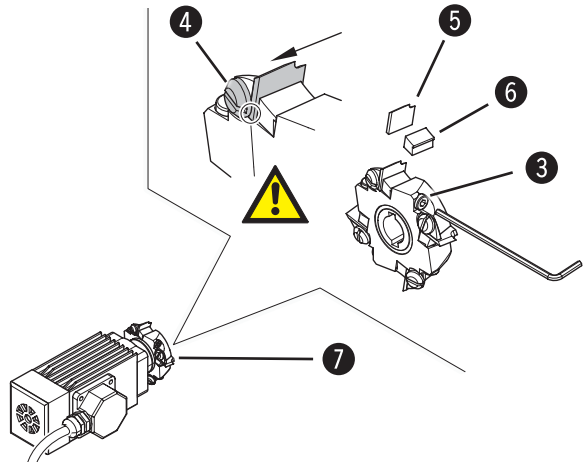


Fig. 10-13: Order of re-assembly

Respect the general safety rules.
See chapter entitled >10.1 Safety instructions<

1. Switch the machine off and ensure that it cannot be switched on again
   Remove the machine from the compressed air supply system and vent the remaining compressed air.
   Open the rear access door.
2. Loosen the screws and remove the vacuum connector.

Exchanging Cutterplates:

3. Loosen the clamping screw with an Allen key (3 mm).
4. Exchanging Cutterplates
   Clean all the parts thoroughly prior to assembly.
5. Insert the replacement knife and knife holder again. (is pressed against the positioning pin)
   Pay attention to the correct rotational direction of the spindle moulder tool!
6. Tighten the clamping screw again.
7. Position the vacuum hood correctly.
   Tighten the socket head cap screws on both sides.

Exchanging Shaper:

Please contact the FELDER customer service!

1. Knob
2. Vacuum connector
3. Clamping screw
4. Positioning pin
5. replacement knives
6. Blade holder
7. Spindle moulder tooling

10.7 Change the tool - Scraping unit

Warning! Risk of injury!
Be wary of sharp edges to avoid cutting yourself, in particular when changing the tooling.
We recommnend using exclusively original FELDER tooling (see FELDER Catalogue).

Note: once the tools have been changed:
Control or adjust the scraping unit calibration.
See chapter entitled >Inspecting and adjusting settings<

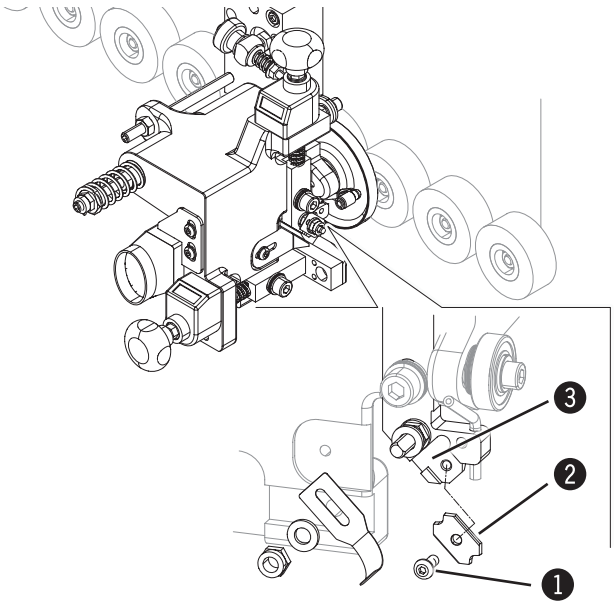


Fig. 10-14: Radius scraping unit

Respect the general safety rules.
See chapter entitled >10.1 Safety instructions<

1. Switch the machine off and ensure that it cannot be switched on again. Open the rear access door.
3. Loosen the socket head cap screw with an allen key. Reverse or replace the scraper knife blade. Take note of the assembling position!
4. Screw in the socket head cap screw with the allen key and tighten
   minimum tightening torque: 20 Nm
5. Repeat the procedure with the bottom unit.

1 Socket head cap screw
2 Cutter plates
3 Knife base

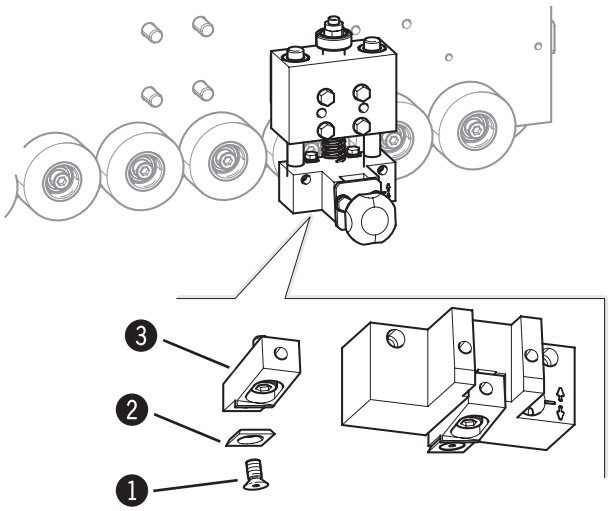


Fig. 10-15: Glue scraping unit

10.8 Exchanging Shaper - Premilling unit

Warning! Risk of injury!
Be wary of sharp edges to avoid cutting yourself, in particular when changing the tooling.
We recommnend using exclusively original FELDER tooling (see FELDER Catalogue).

Note:
See technical data for the authorised milling tools.

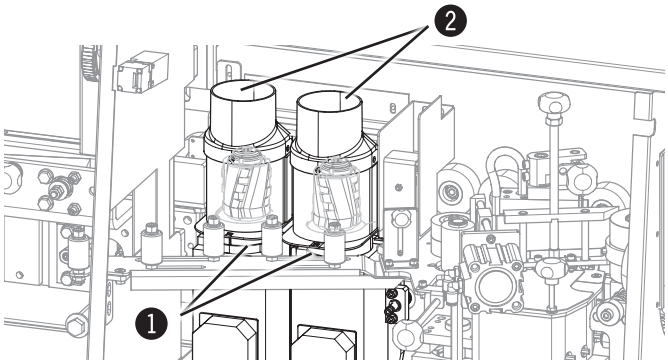


Fig. 10-16: Exchanging Shaper - Premilling unit

1 Hose clamps
2 Vacuum connector

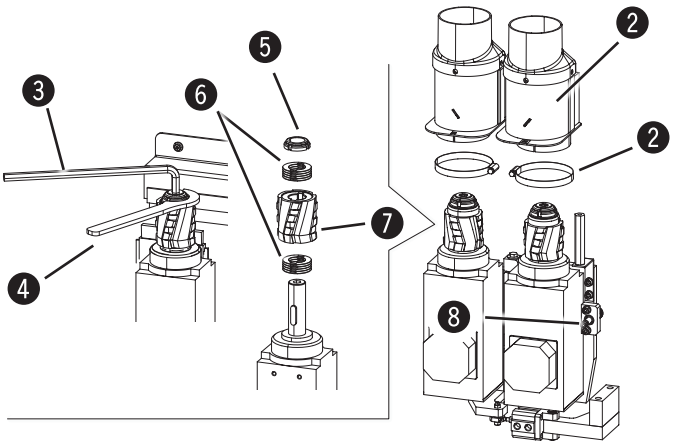


Fig. 10-17: Exchanging Shaper - Premilling unit

3 Allen key 10 mm
4 Hook wrench
5 Slotted round nut
6 Spacer washers
7 Spindle moulder
8 Moulder depth adjustable screws

Respect the general safety rules.
See chapter entitled >10.1 Safety instructions<

Required tools:
- Spanner / Socket spanner
- Allen key 10 mm

1. Switch the machine off and ensure that it cannot be switched on again
   Remove the machine from the compressed air supply system and vent the remaining compressed air.
   Open the rear access door.
2. Loosen the screws and remove the vacuum connector. (2 x Hose clamp)
3. Block the shaft of the cutter motor with an Allen key (10 mm). Loosen the slotted round nut with a hook wrench.
4. Replace the moulders.
5. Correct the height of the spindle moulder with the spacer washer.
6. Screw the slotted round nut tightly.
   minimum tightening torque: 25 Nm
7. Mount the extraction hoods back on.
   (2 x Attach with hose clamp)

Note:
If the cutters have been sharpened it is necessary to re-adjust the depth of cut with the adjusting screws.
Please contact the FELDER customer service!

10.9 Guillotine unit - Replacing, sharpening and lubricating the blades

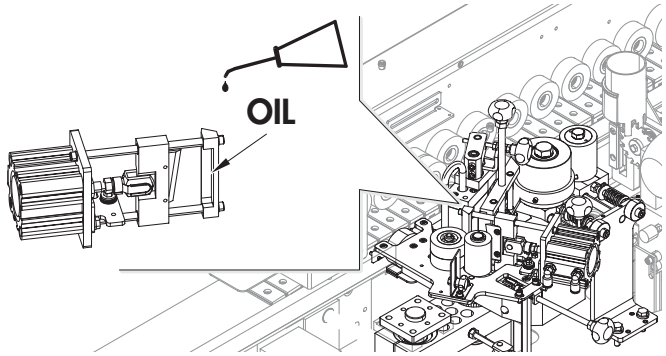


Fig. 10-18: Replace and sharpen the knife blade

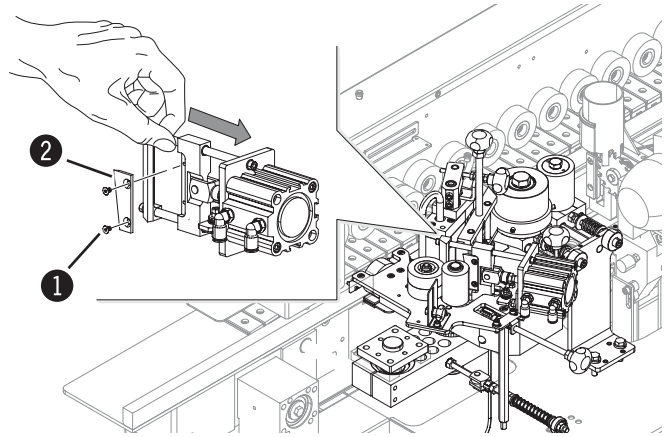


Fig. 10-19: Replace and sharpen the knife blade

Respect the general safety rules.
See chapter entitled >10.1 Safety instructions<

Wet the trimming knife and its guidings with silicone-free oil.

When lubricating with silicone-free oils, completely dry the cutting shears with a cloth. Silicone-free lubricants can lower the adhesive properties of the glue.

To replace or sharpen a shear knife which cuts from the roll, proceed as follows:

- Switch the machine off at the main switch.
  Pinch off the shaper cutter compressed air supply.
- Manually move the cutter knife to the front.
- Loosen the fixing screw as indicated with the Alan key supplied with standard equipment.
- Shear knife: regrind or replace

❶ Fixing screws blade
❷ Shear knife

Note: Only sharpen the slanted side of the knife blade.

10.10 Replacing the buffing pads - Buffing unit

Attention! Risk of material damage!
Remove one set of buffers at a time to avoid putting the motors back in the wrong place.
The screw of the bottom buffer has a left-hand thread.

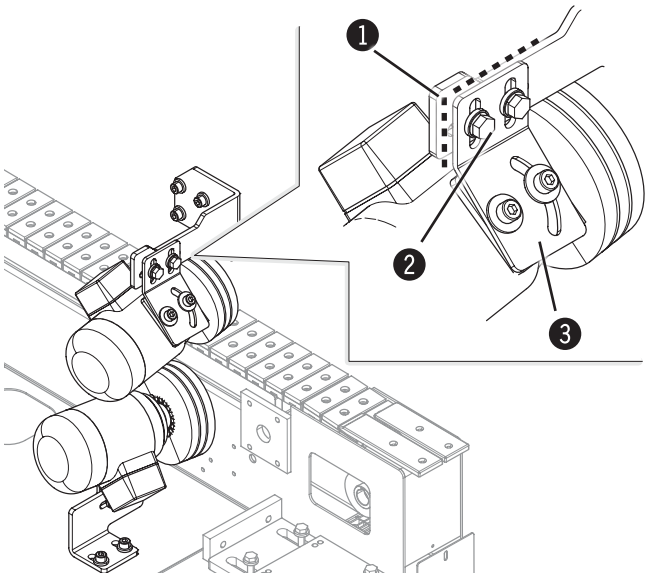


Fig. 10-20: Buffing unit

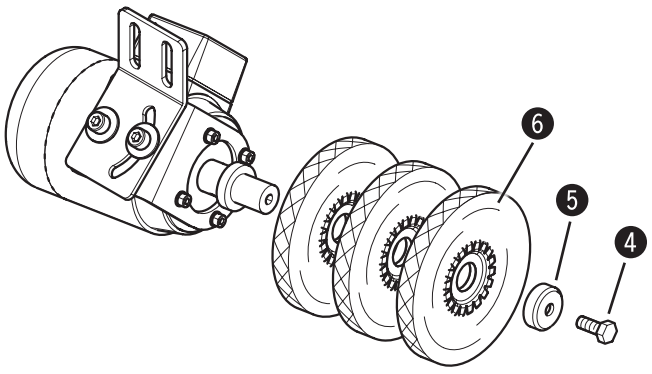


Fig. 10-21: Replacing the buffing pads

Respect the general safety rules.
See chapter entitled >10.1 Safety instructions<

Required tools:
- Spanner SW 13 mm

1. Switch the machine off and ensure that it cannot be switched on again. Open the rear access door.
2. Retain the position of the buffing brushes with markers.
   Loosen the clamping screws, Pull out the motor backwards and lay it on the working table.
3. Loosen and remove the motor fixing screw.
   Remove the flange and the brushes.
4. Place new brushes onto the motor.
   Screw on the flange and the screws.
5. Mount the motor onto the fixture. Check the position of the buffing brushes (markers).
   Tighten the clamping screws.
6. Repeat the procedure with the bottom unit.
   Test the adjustment and if required, readjust.
   See chapter entitled >Setting the buffing unit<

1 Marking
2 Clamping screws
3 Adjustable support
4 Fixing screw - Brush
5 Flange
6 Polishing wheel (Brush)

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