

Operating instructions

Universal multiple combination

- UMK 5-260 230V/50Hz/1Ph
- UMK 5-260 400V/50Hz/3Ph



UMK 5-260 230V/50Hz/1Ph

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Foreword

Dear Customer,

Thank you for purchasing the  Universal multiple combination.

 Woodworking machines offer the highest level of quality, technically optimal solutions and impress with an outstanding price-performance ratio. Continuous development and product innovations ensure the latest technology and safety at all times.

Before operating the device, please read this manual thoroughly and familiarize yourself with the universal multiple combination. Please also ensure that all persons operating the universal multiple combination have always read and understood the manual beforehand. Keep this manual in a safe place near the universal multiple combination.

information

This manual contains information on the safe and proper installation, operation, and maintenance of the universal multiple combination. Continuous compliance with all instructions contained in this manual ensures the safety of both personnel and equipment.

The manual specifies the intended purpose of the universal multiple combination and contains all necessary information for economical operation and a long service life.

The Maintenance section describes all maintenance work and functional tests that must be carried out regularly by the user.

The illustrations and information in this manual may differ from the current state of your universal multiple combination. As a manufacturer, we continually strive to improve and innovate our products; therefore, changes may be made without prior notice. The illustrations of the universal multiple combination may differ in some details from those in this manual; however, this does not affect the operation of your machine.

Therefore, no claims can be derived from the information and descriptions. We reserve the right to make changes and errors!

Your suggestions regarding this manual are an important contribution to optimizing the work we offer our customers. Please contact our customer service department if you have any questions or suggestions for improvement.

If you still have questions after reading this manual or if you cannot solve a problem using this manual, please contact your dealer.

Information about the manufacturer:

 - Stürmer Maschinen GmbH
Dr.-Robert-Pfleger-Straße 26;
D-96103 Hallstadt/Bamberg

fax (+49)0951 - 96555-55

Email: info@holzstar.de

Internet: www.holzstar.de

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UMK 5-260 230V/50Hz/1Ph	5946025
UMK 5-260 400V/50Hz/3Ph	5946026

1 Security

Conventions of representation

-	provides additional information
-	calls you to action
-	Lists

This part of the operating instructions

- explains the meaning and use of the warnings used in this manual,
- specifies the intended use of the universal multiple combination,
- draws your attention to dangers that could arise for you and other persons if these instructions are not followed,
- informs you how to avoid dangers.

In addition to the operating instructions, please note

- the applicable laws and regulations, the legal
- provisions for accident prevention, the prohibition,
- warning and mandatory signs.

Always keep the documentation near the device.

1.1 Safety instructions (warnings)

Hazard classification

We divide safety instructions into different levels. The table below provides an overview of the assignment of symbols (pictograms) and signal words to the specific hazard and (possible) consequences.

pictogram	Signal word	Definition/Consequences
	DANGER!	Failure to observe this instruction will result in imminent danger which will result in serious injury or death. High degree of risk of hazard.
	WARNING!	Failure to observe this instruction may result in a potential hazard that could result in serious injury or death. Medium risk level of hazard.
	CAUTION!	Failure to comply or risky procedures may result in potential hazards that could result in personal injury or property damage. Low risk level of hazard.
	DANGER!	Situation that may cause property damage and impair the function of the product.
	information	Application tips and other important/useful information and notes. No dangerous or harmful consequences for persons or property.

Pictograms that indicate specific hazards



General
Warning signs



Warning about
electric
Tension



Warning about
Hand injuries



Warning of hot
surface



Warning about
automatic
Start-up



Warning of obstacles
on the ground



Warning: Danger of tipping!



Warning of floating
Load!



Warning about
flammable substances!



Warning of opposing
Roll!

Pictograms indicating commands/prohibitions



Use protective clothing!



Use hearing protection!



Follow the instructions!



Unplug the power cord!



Use eye protection!



Use hand protection!



Use foot protection!



General
Mandatory sign!



No touching allowed!

1.2 Intended use

The universal multiple combination is used for planing/thicknessing, sawing and milling boards and strips made of wood or similar wood materials.

Part of the intended use is that you

- follow the operating instructions carefully,
- follow the inspection and maintenance instructions.



1.3 Reasonably foreseeable misuse

Any use of the universal multiple combination beyond its intended use or in any other way is considered misuse. Operating personnel must be sufficiently qualified or have received appropriate, practical training to operate the universal multiple combination. To avoid misuse, the operating instructions must be read and understood before use.

Possible misuses may include:

- Use of the universal multiple combination for materials other than wood (e.g. processing stone, plastic).
 - Use of the universal multiple combination with parameters that are not permitted for wood processing.
 - Misuse of the universal multiple combination.
 - Operating the universal multiple combination without the provided protective devices functioning.
 - Bridging or modifying the protective devices.
 - Failure to comply with maintenance instructions.
 - Failure to observe signs of wear and damage.
 - Service work by untrained or unauthorized personnel.
 - Maintenance work on an unsecured machine.
 - Processing of materials that are not or insufficiently fixed.
 - Deliberate or careless handling of the universal multiple combination during operation.
 - Installation of spare parts and use of accessories and operating materials not approved by the manufacturer.
 - Commercial or industrial use of the universal multiple combination.
 - Machining oversized or undersized workpieces
 - Modifications to the universal multiple combination or the use of modified tool systems.
-
- Operating the machine if the operating instructions have not been fully read and understood.

WARNING!

If the universal multiple combination is not used as intended

- **dangers arise for the staff,**
- **the universal multiple combination and other assets of the operator are endangered,**
- **the function of the universal multiple combination may be impaired.**



Improper use of the machine and disregard of the safety regulations or the operating instructions exclude the manufacturer's liability for resulting damage to persons or property and result in the expiration of the warranty claim!

1.4 Residual risks

Even if all safety regulations are observed and the machine is used correctly, residual risks still exist, which are listed below.

Mechanical risks

- Risk of injury during maintenance and service work.
- Risk of injury from moving parts if the machine operates after the safety covers have been removed.
- Hearing damage when working on the machine for a long time with defective hearing protection

- Danger of inhaling wood dust (if necessary, an extraction system must be used in accordance with legal regulations).
- Risk of injury to the upper limbs (e.g., hands, fingers) from the rotating blade shaft. Heat generated by components can cause burns and other injuries. Risk of injury from thrown or flying workpiece parts.
- Risk of injury from moving machine parts at an inadmissible distance - too close to working machine parts.
- Risk of injury from the machine falling if the machine is handled incorrectly, transported or moved.
- Danger of direct or indirect contact with electrical parts (live parts) after removing the protective covers or after damaging the insulating parts.

1.5 Qualifications of staff

Target group

This guide is for

- the operators,
- the operators,
- the personnel for maintenance work.

Therefore, the warnings refer to both the operation and maintenance of the universal multiple combination.

Clearly and unambiguously define who is responsible for the various activities on the universal multiple combination (operation, maintenance and repair).

Unclear competencies are a security risk!

This manual lists the qualifications required by individuals for the various tasks:

operator

The operator has been instructed by the owner about the tasks assigned to him and the potential dangers associated with improper use. The operator may only perform tasks that go beyond normal operation if specified in these instructions and if the owner has expressly authorized him to do so.

qualified electrician

Due to their professional training, knowledge and experience as well as knowledge of the relevant standards and regulations, the qualified electrician is able to carry out work on electrical systems and to independently identify and avoid potential hazards.

The electrician is specially trained for the working environment in which he or she works and is familiar with the relevant standards and regulations.

Specialist staff

Due to their professional training, knowledge and experience as well as knowledge of the relevant regulations, qualified personnel are able to carry out the work assigned to them and to independently identify and avoid potential hazards.

Instructed person

The instructed person was informed by the operator about the tasks assigned to him and the possible dangers in case of improper conduct.

Authorized persons

Authorized persons for operation and maintenance are the instructed and trained specialists of the operator and the manufacturer.

Only authorized personnel may operate the universal multiple combination! Improper use can pose a danger to people, machines, and the environment.

The operator must

- ensure that the personnel employed are technically and mentally suitable to operate the machine. Train the personnel,
- instruct staff at regular intervals (at least once a year) about
 - all safety regulations concerning the universal multiple combination,
 - the operation,
 - the recognized rules of technology,
- check the level of knowledge of the staff,
- document the training/instructions,
- Have participation in training/instructions confirmed by signature, check whether the staff
- works in a safety-conscious manner and observes the operating instructions.

The operator must

- have received training in the use of woodworking machines, know their function
- and mode of operation,
- before commissioning
 - have read and understood the operating instructions,
 - be familiar with all safety devices and regulations.

1.6 General safety instructions

- Never work under the influence of illnesses that impair concentration, overtiredness, drugs, alcohol or medication.
- The universal multiple combination may only be operated and maintained by persons who have read and understood these operating instructions.
- The operator must be adequately trained in its use, adjustment, and operation. When replacing consumables and wear parts, turn off the machine and unplug it.
- Only switch on the machine immediately before starting work. Do not leave the machine unattended while it is in operation.
- Never open the protective covers while the universal multi-purpose combination is in operation. Keep the work area and the floor around the universal multi-purpose combination clear of any objects that could compromise your stability or pose a tripping hazard. Keep your work area tidy. Clutter can lead to accidents.
- Before and during work, check the danger area to ensure that no unauthorized persons are present there.
- If the power cord is damaged, stop using the machine immediately and have it replaced by a qualified electrician.
- When laying the power cable, ensure that it is not crushed, bent, or wet. Protect the universal multiple socket combination from moisture and humidity to avoid the risk of short circuits or electric shock.
- Do not use the universal multiple combination tool in potentially explosive atmospheres or near flammable gases, liquids, or solids. Flying sparks pose a risk of explosion or fire.
- Only use the universal multiple combination in dry rooms or in dry environments and ensure that the work area is sufficiently lit.
- Make sure that an extraction hose is connected to the extraction system and universal multiple combination before putting it into operation.
- Only operate the universal multiple combination with all safety devices fully and correctly installed and do not modify the machine in any way.
- Hearing protection must always be worn when working with the universal multi-purpose combination. Loose clothing (ties, scarves, open jackets, and loose-fitting garments) is prohibited. A hairnet must be worn if you have long hair.
- Use only original spare parts.
- To protect against electric shock, only have the machine connected to a suitable and fused power supply by a qualified electrician.
- Before operation, check all workpieces for foreign objects such as nails and screws.



- Use suitable material supports when handling heavy or bulky workpieces, e.g. roller stands (optional equipment).
- Use a push block or push wood when planing small workpieces.
- When planing/dressing narrow workpieces, use additional supports such as a horizontal clamping device.
- Always adjust the universal multiple combination to the workpiece width. The unused part of the cutter block must be covered.
- Do not use tools that have cracks or are deformed.
- Wear suitable gloves when changing tools.
- Before performing any maintenance or adjustment work, turn off the machine and unplug it.
- Before switching on, check that all repair and adjustment tools have been removed. Before performing any maintenance or repair work, the universal multiple combination must be secured against operation.
- Do not use compressed air to clean the machine or remove chips. All protective and safety devices must be reinstalled immediately after repair or maintenance is completed.
- A thickness planer is a precision woodworking machine and should only be used for quality wood.
- Do not plane dirty boards; dirt and small stones are abrasive and will wear the blade. Remove nails and staples. Use the planer only for cutting wood. Avoid branches. Branches can become loose and jam the blade. Any object that strikes the planer blades can be violently ejected from the planer and pose a risk of injury.

FIRE HAZARD

- Make sure there are no flammable, ignitable materials near the work area.
- Have suitable extinguishing agents ready.
- Avoid the spread of open flames due to sparks, slag and glowing material.
- In the event of a fire, burning plastic parts can produce toxic emissions. Therefore, general fire safety regulations must be observed.
- The machine is not equipped with fire extinguishers. The operator is therefore required to equip the premises in which the machine is used with suitable fire extinguishing equipment of an approved type and in the appropriate number. They must be located in a visible area, protected from damage or misuse. The operator must be familiar with their use in accordance with applicable regulations.
- Electrical equipment must not be extinguished with water. Powder or halon fire extinguishers must be located in the premises, and operators must be familiar with their use. If a water or foam extinguisher is located near the equipment, it can be used after the power is turned off.
- The surface of electrical protective devices and surfaces on which increased heat generation is expected (e.g. electric motor) should be regularly cleaned of dust and other contaminants so that the efficiency of the surface cooling is not impaired.



1.7 Safety devices

Emergency stop button

In an emergency, press the emergency stop button to shut down the machine. After pressing the emergency stop button, it must be unlocked by turning it in the direction of the arrow to allow it to be restarted.



Fig.1-1: Emergency stop switch

1.8 Safety markings

The following safety markings and symbols are attached (Fig. 1-1), which must be observed and followed:



Fig.1-2: Safety signs - Prohibition sign: No reaching! |
Mandatory signs: Observe instructions for use, unplug, wear eye protection, wear hearing protection, wear foot protection, wear hand protection, wear protective clothing |
Warning signs: Warning of hand injuries, warning of electrical voltage, warning of counter-rotating rollers!

Notice:

Damaged or missing safety symbols on the universal multiple combination can lead to incorrect operation, resulting in personal injury and property damage. The safety symbols attached to the universal multiple combination must not be removed. Damaged safety symbols must be replaced immediately.



The following should be noted:

- If the safety signs fade or become damaged during the service life of the machine, new signs must be installed immediately.
- From the moment the signs are no longer immediately recognizable and understandable at first glance, the device must be taken out of service until the new signs are installed.

1.9 Safety data sheets

Safety data sheets for hazardous goods are available from your specialist dealer or by calling +49 (0)951/96555-0. Specialist dealers can find safety data sheets in the download area of the partner portal.

2 Technical data

Model	UMK 5-260		Model	UMK 5-260	
	230 V	400 V		230 V	400 V
length	2200 mm		Planer shaft diameter	70 mm	
Width	1330 mm		Feed shaft diameter	32 mm	
Height	1300 mm		Number of planer knives	3	
Weight	362 kg		Planer shaft speed	5500 rpm	
Connection voltage	230 V	400 V	Planing table width	260 mm	
Phases	1	3	Planing table length	1120 mm	
Type of current	AC		Chip removal max. dressing	4 mm	
Mains frequency	50 Hz		Thickness table length	545 mm	
Trimming length	1300 mm		Thickness table width	258 mm	
Saw blade inclination	45° - 90°		Working height thickness min.	5 mm	
Max. cutting height at 90°/45°	78 mm / 63 mm		Working height thickness max.	225 mm	
Saw blade diameter	254 mm		Chip removal max. thickness	3 mm	
Saw blade speed	4000 rpm		feed rate	7 m/min	
Format sliding carriage length	1300 mm		Extraction nozzle diameter milling machine	100 mm	
Format sliding carriage width	238 mm		Suction nozzle diameter Saw blade diameter	30 mm	
Format sliding carriage height	93 mm		Suction nozzle diameter thickness	100 mm	
Table length	920 mm		Table height	850 mm	
Table width	410 mm		Saw power input	2.2 kW	
Spindle mandrel diameter	30 mm		Planer power consumption	2.2 kW	
Useful length of the spindle	105 mm		Input power table router	1.5 kW	
Spindle height adjustment	110 mm		Idle sound pressure level	80 dB	
Spindle speeds	1400/4000/6000/ 9000 rpm		Idle sound power level	87 dB	
Tool diameter max.	160 mm		Load sound pressure level	92 dB	
			Load sound power level	101 dB	

Technical data accessories long hole drilling device

Model	UMK 5-260	Model	UMK 5-260
Table long hole drilling unit length	365 mm	Longitudinal stroke drilling unit	135 mm
Table long hole drilling unit length	160 mm	Long hole drilling unit clamping range drill chuck	Westcott drill chuck
Long hole drilling unit vertical stroke	80 mm	Long hole drilling device holder for shaft diameter	3~16 mm
Long hole drilling unit drilling depth	85 mm		

2.1 Operating conditions

relative humidity	30 to 95%
Temperature range	5 °C to 40 °C
max. altitude above sea level	1000 m

WARNING! This machine is not intended for outdoor use.



2.2 Nameplate

Universal-Mehrfachkombination Universal multiple combination		  	
Typ Type	UMK 5-260	Serien-Nr. Serial no.	
Artikel-Nr. Item no.	5946025	Baujahr Year of manufacture	Monat/Jahr month/year
Leistung Säge Power saw	2,2 kW	Netzanschluss Power connection	230 V / 1 ~ / 50 Hz
Leistung Hobel Power planer	2,2 kW	Schalldruckpegel Sound pressure level	92 dB(A)
Leistung Tischfräse Power tabel router	1,5 kW	Gewicht Weight	362 kg
Spindeldrehzahlen Spindle speeds	1400/4000/6000/9000 1/min		


 Stürmer Maschinen GmbH
 Dr.-Robert-Pfleger-Str. 26, 96103 Hallstadt
 Deutschland / Germany

Fig.2-1: Nameplate UMK 5-260 230V/50Hz/1Ph

3 Transport, packaging, storage

3.1 Transportation

Upon delivery, inspect the universal multiple combination for visible transport damage. If you discover any damage to the device, report it immediately to the shipping company or retailer.

3.1.1 Information on transport

Improper transport of individual devices, packaged or unpacked, unsecured devices that are stacked on top of each other or next to each other is prone to accidents and can cause damage or malfunctions for which we assume no liability or guarantee.

Transport the scope of delivery to the installation site using a sufficiently dimensioned industrial truck, ensuring that it cannot be moved or tipped over.

The universal multiple combination may only be transported with the motor switched off and disconnected from the power supply.

WARNING!

Risk of injury due to equipment tipping over or falling from a forklift, pallet truck or transport vehicle.

Only use transport equipment and load-slinging devices that can support the total weight.



3.1.2 General hazards during internal transport

WARNING RISK OF TIPPING!

The machine may only be lifted if it is adequately secured. Employees must stay out of the danger zone and out of reach of the load. Warn employees and inform them of the hazard.



Transport may only be carried out by authorized and qualified persons using a forklift truck or a pallet truck designed for the total weight.

- Slide the fork under the machine as shown in Figure 3-1.
- After lifting the machine slightly, check its stability. Lift the machine carefully and slowly, then move it to the selected location without any sudden changes in movement.



Fig.3-1: Transporting the machine with a pallet truck or forklift

Inadequately qualified personnel may fail to assess the risks involved in transporting the machine and may expose themselves and others to the risk of serious or fatal injury. Act responsibly during transport and always consider the consequences. Avoid daring and risky actions.

Particularly dangerous are inclines and declines (e.g., driveways, ramps, etc.). If driving on such sections is unavoidable, special caution is required.

Before starting transport, check the transport route for possible hazards, unevenness and faults as well as for sufficient strength and load-bearing capacity.

Hazardous areas, unevenness, and defects must be inspected before transport. The removal of hazardous areas, defects, and defects by other employees during transport poses significant risks.

Careful planning of internal transport is therefore essential!

3.2 Packaging

Keep the packaging in case you move, but at least until the end of the warranty period.

All packaging materials and packaging aids used in the universal multiple combination are recyclable and must be recycled.

Shred cardboard packaging components and dispose of them in the waste paper collection.

The films are made of polyethylene (PE), and the padding is made of polystyrene (PS). These materials can be disposed of at a recycling center or with your local waste disposal company.

3.3 Storage

Store the universal multiple combination thoroughly cleaned in a dry, clean and frost-free environment.

Do not store or transport the universal multiple combination unprotected outdoors or in damp environments.

Storage temperature: -25 °C to 55 °C

4 Device description

Illustrations in this manual are intended to provide a basic understanding and may differ from the actual design.

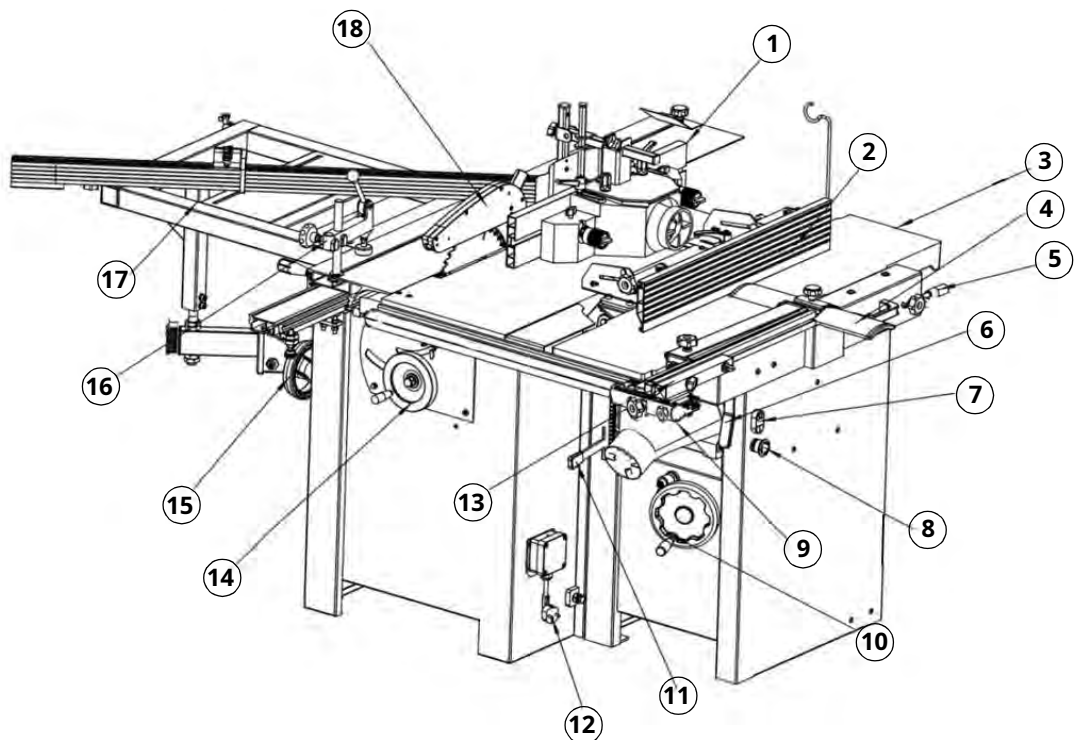


Fig.4-1: Front view

Pos.	Designation	Pos.	Designation
1	Sliding table	10	Height adjustment of the Thickness planer table
2	Planing stop	11	Feed ON/OFF lever
3	Feed table	12	Plug
4	Knife block guard	13	Saw stop
5	Lifting handle for the feed table	14	Handwheel for lifting the saw
6	Locking handle for planing table	15	Handwheel for swiveling the saw
7	On/off switch	16	clamping unit
8	Stop switch	17	External sliding table
9	Dust cover	18	Saw blade guard

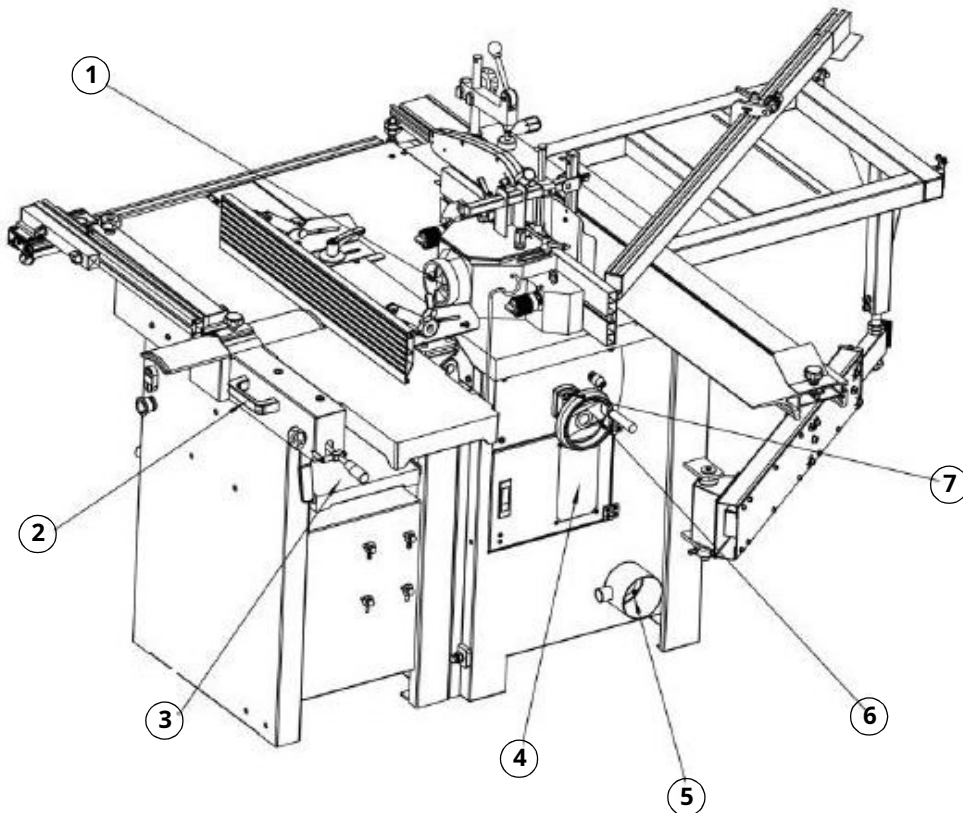


Fig.4-2: Rear view

Pos.	Designation	Pos.	Designation
1	Dust cover	5	Dust extraction outlet
2	Handle for tilting the table	6	Adjusting the milling height
3	Thickness planer table	7	Position display
4	Lockable door		

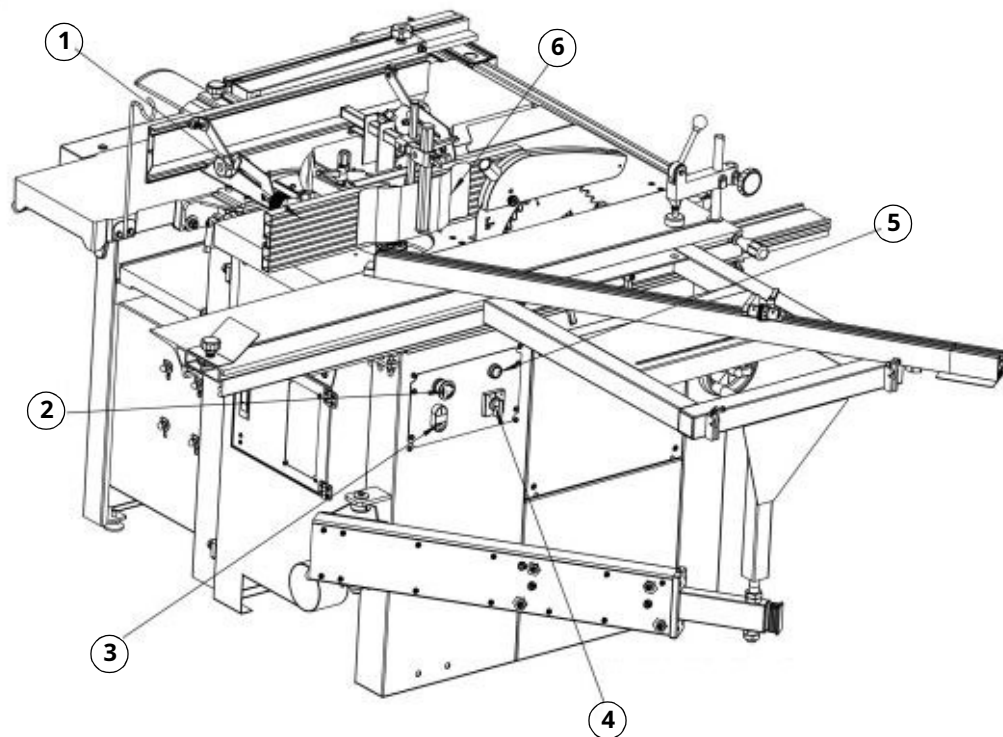


Fig.4-3: Side view

Pos.	Designation	Pos.	Designation
1	Milling grid	4	Mode switch
2	Stop switch	5	Work light
3	On/off switch	6	push button

4.1 Scope of delivery

- Eccentric clamp
- Angle stop with aluminum profile and hold-down clamp 1x
- saw blade 254x30x3 mm Z36
- 3x planer knives 250x30x3 mm

4.2 Accessories (optional)

Item No.	Designation
5916427	Long hole drilling device for UMK 5-260
5916428	Driving device for UMK 5-260
5914026	Replacement planer blade set (1 set = 3 pieces)
5912025	Saw blade 254 x 30 x 3 mm Z24
5912026	Saw blade 254 x 30 x 3 mm Z40

5 Commissioning

5.1 Requirements for the installation site

In order to achieve good functionality and a long service life of the universal multiple combination, the installation location should meet the following criteria.

- The surface must be level, solid, and vibration-free. The surface must not allow lubricants to pass through.
- The installation or work room must be dry and well ventilated.
- The installation location must have sufficient lighting (see Workplace Ordinance and DIN EN 12464).
- There must be sufficient space for operating personnel, for material transport and for adjustment and maintenance work.

It is important to maintain a clearance of 0.8 m around the machine.

5.2 Requirements for the extraction system

- An extraction device must be available with a minimum extraction capacity of 570 m³/h (dry chips) or 790 m³/h (wet chips), a flow velocity of at least 20 m/s (dry chips) or at least 28 m/s (wet chips) at the extraction connection; for hose diameter, see technical data, and a maximum hose length of 4 m.
- Use flexible suction hoses with diameters of 100 mm and 32 mm.

The ventilation hoses are connected to the suction nozzles, which are located on the individual machine parts as follows:

- **Circular saw:**
The upper extraction system of the circular saw is connected to the outlet on the saw blade guard. The outlet diameter is 32 mm. The lower extraction system is directed to the lower rear section of the machine. The diameter of the extraction hose is 100 mm.
- **Milling unit:**
For the milling unit, the suction hose is mounted on the outlet of the milling machine cover, the t. The hose diameter is 100 mm.

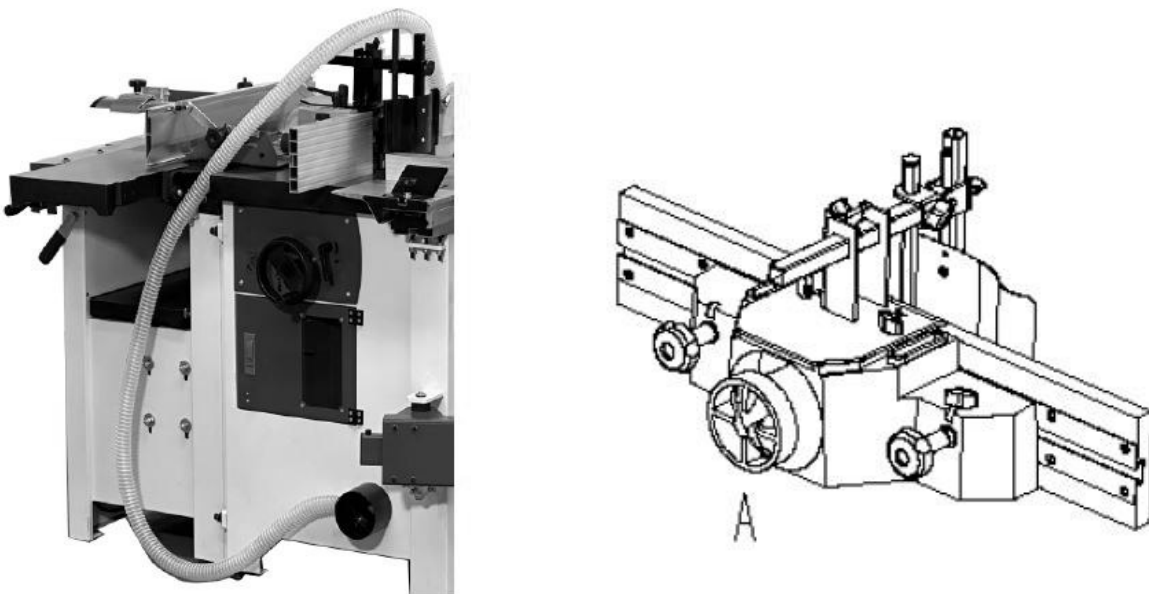


Fig.5-1: Extraction saw (left) and extraction milling machine (right)

- **Planer:**
On the planer, the extraction nozzle is located in the thickness planer compartment under the planing table.
- **Thickness planer:**
The thickness planer has the same extraction nozzle as the planer, but in the upper position. The diameter of the extraction nozzle for connecting the extraction hose is 100 mm.

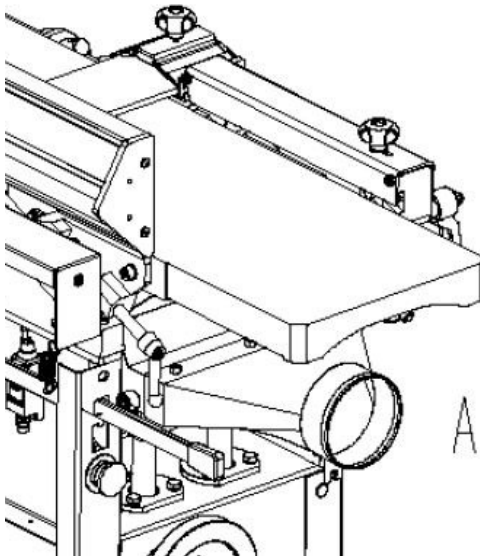


Fig.5-2: Extraction planing

5.3 Setting up the universal multiple combination

- Step 1: Remove the protective film from the work tables and other parts of the machine either with paraffin oil or a similar solvent, do not use gasoline or similar solvents for this activity - they can lead to reduced corrosion resistance of certain parts of the machine.
- Step 2: Align the machine horizontally with a tolerance of 1/1000 mm. Screw it firmly to the ground (In the lower part of the stand the machine is equipped with rubber bolts and support feet with anchoring holes).

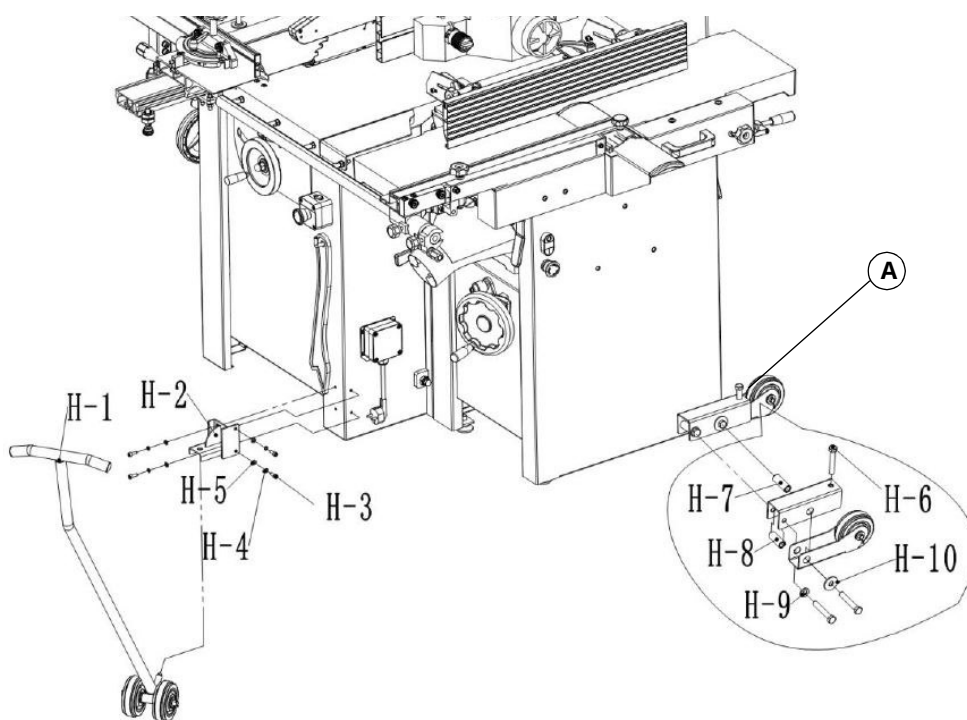


Fig.5-3: Assembly of the driving device

Pos.	Designation
H-1	Carrying bar and wheels
H-2	Bracket for lifting device
H-3	Screw M6X16
H-4	Spring washer Ø6
H-5	Washer Ø6
H-6	Hex. screw M12X70
H-7	Long socket
H-8	Short socket
H-9	Washer Ø12
H-10	Large washer Ø12

To mount the carriage on the machine, follow these steps:

- Insert the bolts through the wheel assembly and the pre-drilled holes in the machine frame and secure them with the bolts.
Make sure the wheels are facing up as shown in Fig. 5-1.
- Attach the lifting device to the front of the machine using the screws and washers as shown in Fig. 5-1.

When the trolley is not in use, the wheels must be raised off the ground by unscrewing the adjusting screw (A in Fig. 5-1). The wheels must be lowered again before using the trolley.

5.5 Long hole drilling device (optional)

5.5.1 Overview

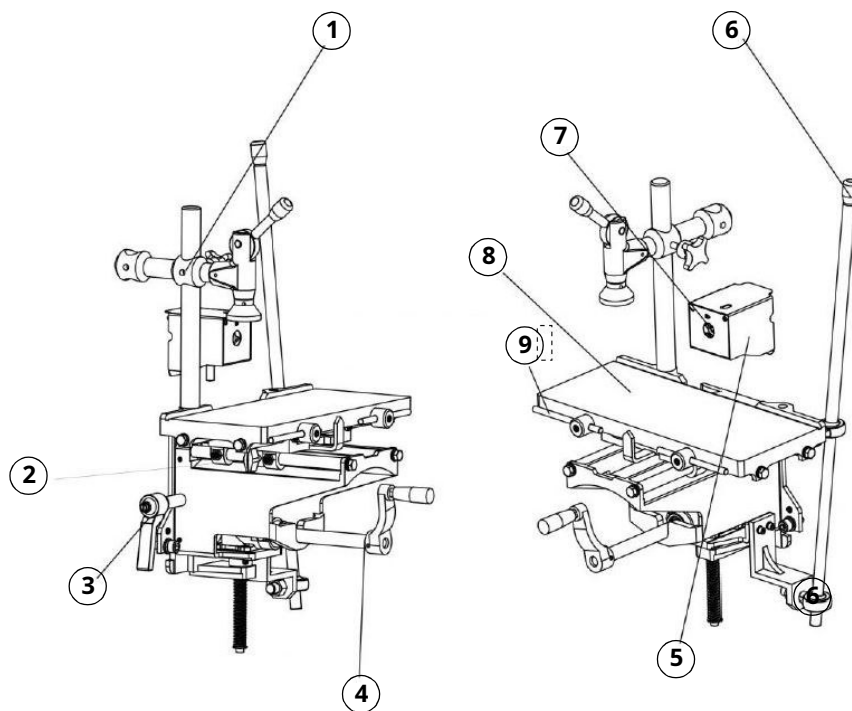


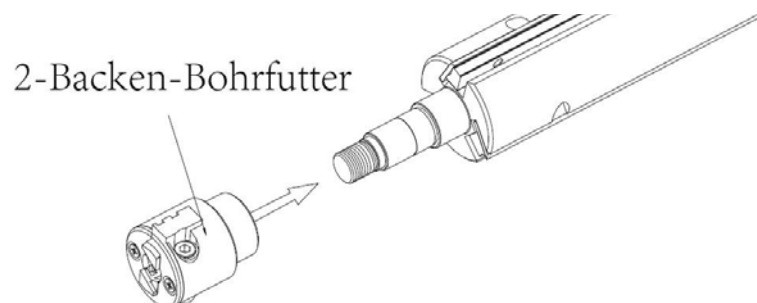
Fig.5-4: Long hole drilling device

Pos.	Designation
1	Hold-down assembly
2	Depth limitation
3	Lever for table height locking
4	Height adjustment of the table
5	Chuck cover
6	Table feed lever
7	chuck
8	Table
9	Longitudinal stops

5.5.2 Before assembly

The drill chuck on

e on:



5.5.3 Mont

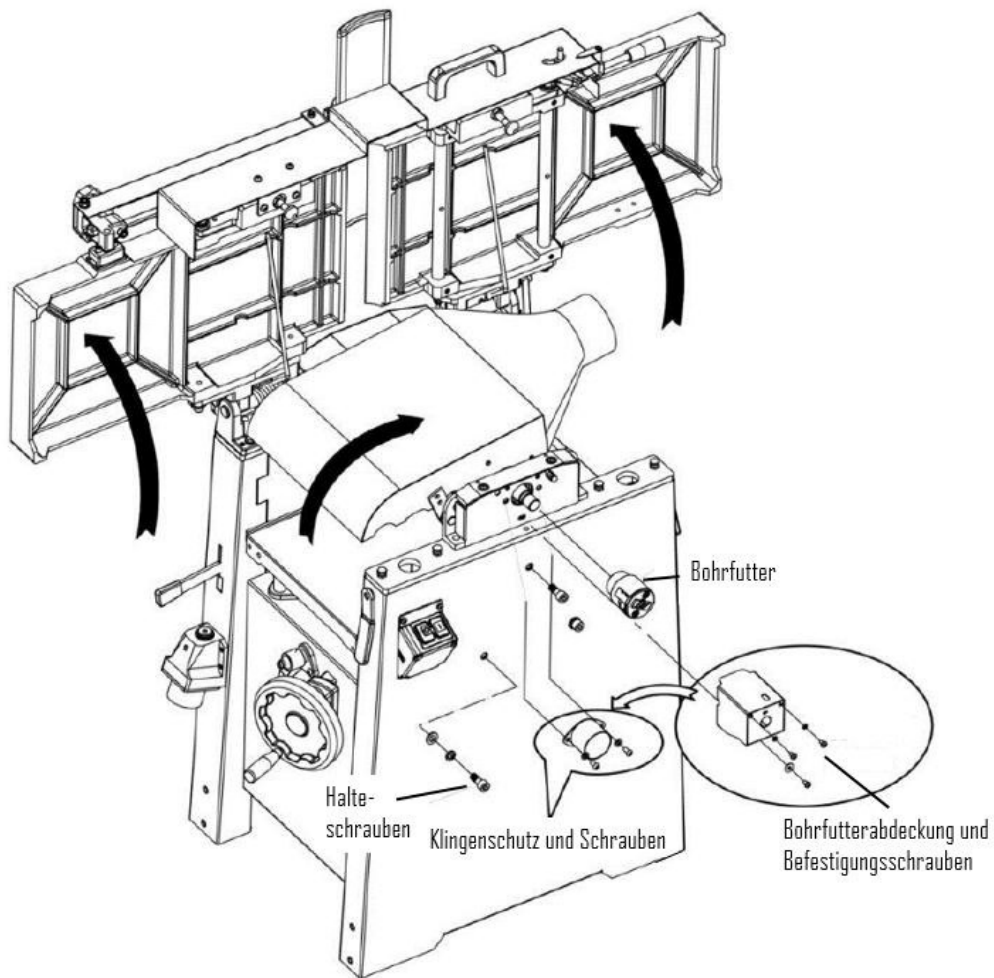


Fig.5-5: Installation of the fastening screws

- Remove the blade guard screws and mount the chuck firmly onto the blade shaft.
- Fasten the chuck guard with screws.
- Install and tighten the fixing screws that hold the work table to the machine frame
- Before starting work, the machine must be switched off and secured against being switched on again.
- Both planing tables must be folded up and secured with the drop locks.
- Fold up the extraction hood and insert the extraction hood into the holder.
- Attach the drilling table:
 - Depth adjustment in the rearmost position
 - Length adjustment in the middle position
- Screw the screws (including washers and spring washers) into the lower screw holes
- Hang the screws (including washers and spring washers) into the lower screw holes, maintaining a distance of 12 mm between the box and the washers.
- Hook the mortise table into the lower screws
- Fasten the screw (only itself) into the top screw hole.
- Level the drilling table with the adjusting screws.
- Fix the milling unit with 3 screws

5.6 Mains connection

Check that the voltage indicated on the rating plate matches the nominal voltage of your mains supply.

- The device may only be used with sockets and extension cables with protective contact plugs that have been installed by an authorized specialist.
- Use only approved extension cords. Keep the extension cord as short as possible. Make sure the extension cord does not pose a tripping hazard.
- Damaged power cords must be replaced immediately by a qualified electrician. Operation with damaged cords is life-threatening and therefore prohibited!
- Before putting the machine into operation, make sure that the voltage and frequency indicated on the machine's rating plate correspond to the values of the mains to which the machine is to be connected.

6 Operation

6.1 Adjusting the riving knife

The riving knife prevents the workpiece from being clamped behind the saw blade during cutting, which could cause the material to kick back.

The wedge is adjusted by sliding it so that its distance from the saw blade is 3 to 8 mm and vertically 2 to 3 mm. The protective cover is mounted on the riving knife. There is a hole on the top of the riving knife into which the cover is inserted and secured.

Adjust the riving knife so that the bottom of the protective cover on the inlet side is 2 - 4 mm lower than on the outlet side when the protective cover is raised to the highest position.

6.2 Sawing

6.2.1 General information

ATTENTION! When slitting a workpiece less than 120 mm wide, a slider must be used to guide the workpiece.

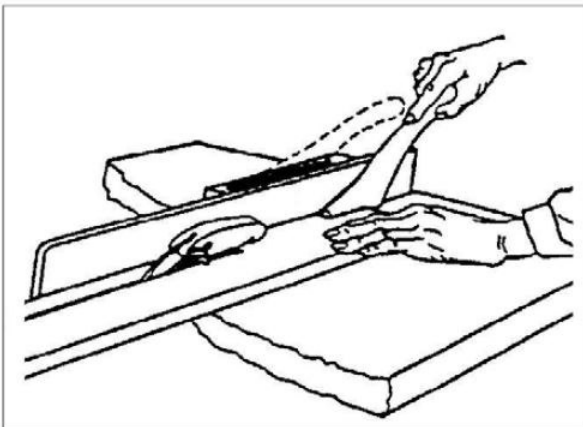


Fig.6-1: slider

6.2.2 Selection of the saw blade

Before any application on a table saw, it's important to consider the saw blade selection. There are many types of saw blades, and it's important to choose the right one for the job. The machine comes with a good general-purpose blade, but specialized applications may require a blade with a different tooth pattern.

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toothting (right)

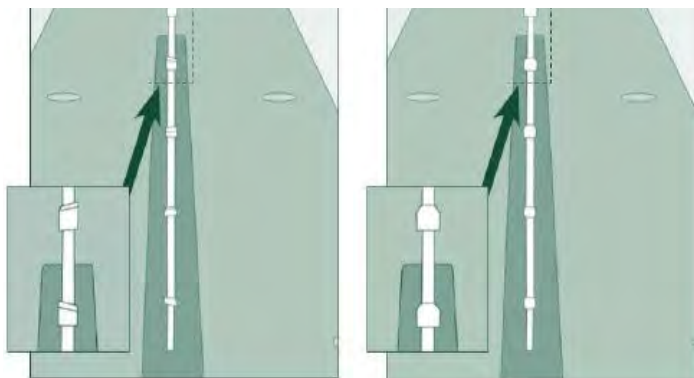


Fig.6-2: Saw blade types

The following table shows different types of saw blades and their corresponding applications:

Type of saw blade	Applications
24 teeth Alternately beveled hook	Ideal for deep splitting of softwoods
30 teeth Alternately beveled hook	Ideal for deep splitting of hardwoods
36 teeth Alternately beveled hook	Universally applicable, suitable for splitting and cross-cutting of soft and hardwoods
40 teeth Alternately beveled hook	Suitable for cross-cutting soft and hard woods
80 teeth Alternately beveled hook	suitable for cross cutting and for processing Plastic sheets and laminates
80 teeth alternating beveled semi-positive Hook	suitable for cross-cutting soft and hard woods, provides protection against kickback
80 teeth Triple toothting	is suitable for cross-cutting and ensures precise finishing on synthetic fiberboard and laminates. Triple Toothting reduces breakouts in the material

6.2.3 Adjusting the height of the saw blade

The height of the saw blade is adjusted by turning the handwheel. The screw is self-locking and does not need to be secured.

Turn right: Raise saw blade Turn left:

Lower saw blade

The cutting height is always adjusted from below to eliminate any possible play. The cutting height is usually selected so that the teeth of the saw blade protrude from the workpiece.

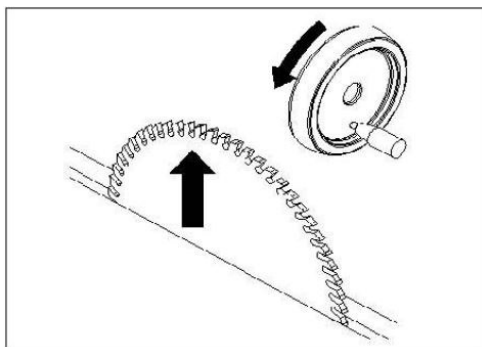


Fig.6-3: Adjust the height of the saw blade

6.2.4 Adjusting the saw blade inclination

The saw blade can be tilted up to 45° to the side by turning the handwheel.

- Turning right: 0° to 45° Turning
- left: 45° to 0°

The scale on the height adjustment dial determines the setting. Once the inclination is set, tighten the locking lever again.

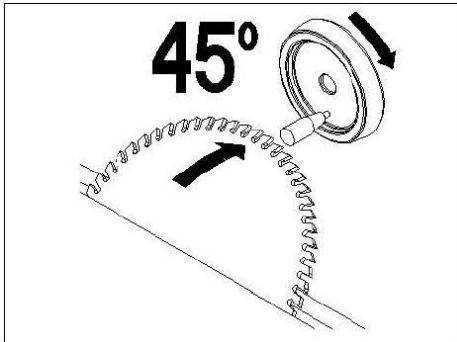


Fig.6-4: Adjusting the saw blade inclination

6.2.5 Typical applications

Columns

If the wood is sawn along the grain, use the parallel stop for this application.

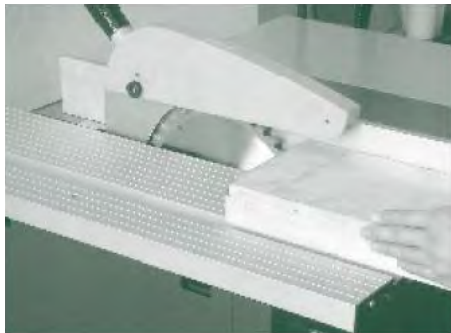


Fig.6-5: Columns

Cross cutting

If the wood is cut across the grain, use either a miter gauge or a sliding table for this application.



Fig.6-6: Cross cutting

Beveled edge

If the workpiece is to have a beveled edge, tilt the sawblade and guide the wood through. When using the parallel stop with the sawblade tilted, the auxiliary stop should be used in the lower position to prevent it from catching on the sawblade when tilting.

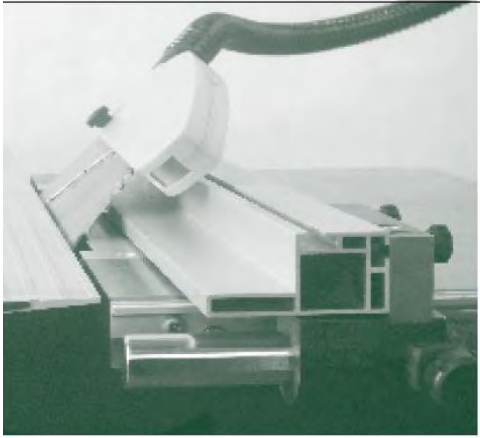


Fig.6-7: Beveled edge

Miter cutting

Lock the miter gauge completely into the T-slot of the sliding plate and press the workpiece onto it using the supplied clamping device for the miter cut.

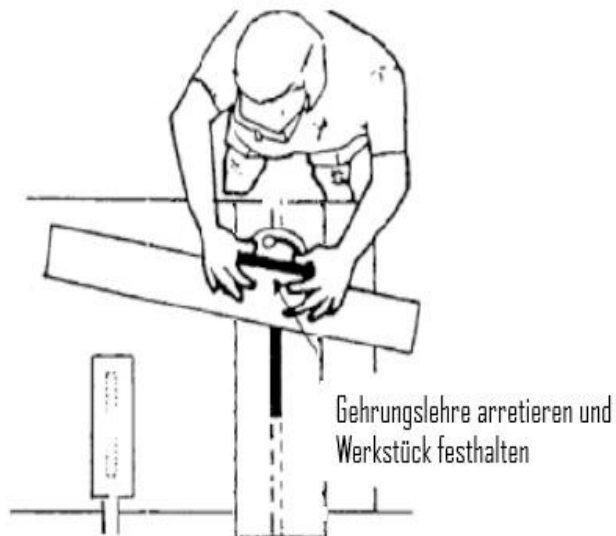


Fig.6-8: Miter cutting

6.3 Milling

6.3.1 Adjusting the milling spindle

Adjust the height of the milling spindle using the handwheel on the left rear side of the frame and secure it with the locking screw.

Choose the appropriate table ring according to the tool used.

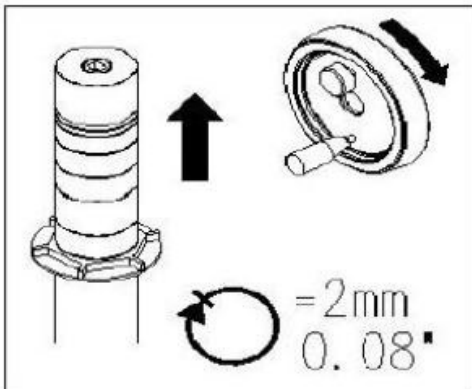


Fig.6-9: Adjusting the milling spindle

6.3.2 Change in speed

This milling machine is equipped with pulleys that allow you to change the spindle speed.

The belt, which is located on the upper pulley as shown in position I, ensures a spindle speed of 1400 rpm.

- To change the spindle speed, loosen the locking handle (A) and swing the motor assembly towards the spindle.
- Adjust the belt to the desired speed and tighten the knob (B).

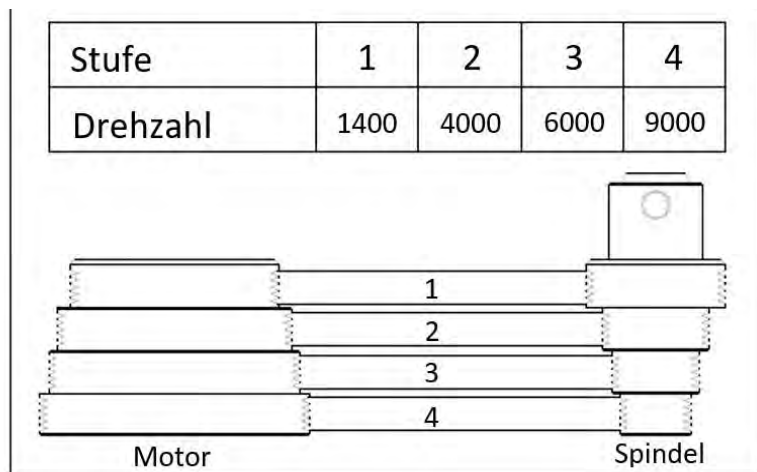
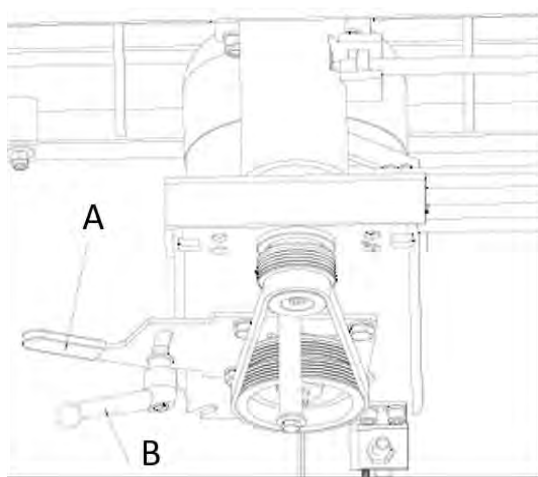


Fig.6-10: Change in speed

6.3.3 Milling in the longitudinal direction

Tool:

Use suitable tools for a given chip removal for manual feeding. **Working cycle:**

During the test run, start work with a workpiece of sufficient length, width, and height. It is necessary to prevent the machine from jamming or to use a kickback protection device adapted to the workpiece dimensions.

Never adjust the stops while the machine is running!

During work, carry out the lateral adjustment of the pressure plates, keep the opening for the tool to be processed as small as possible, lock the pressure plates and adjust the fine adjustment screw to the desired wood removal and lock the position with the clamping screw.

Hold the pressure plates firmly and evenly along the guide stop in contact with the table and stops.

The cutting speed should be more than 40 m/s to reduce the risk of kickback, but must not exceed 70 m/s to reduce the risk of tool damage.

Adequate general or local lighting shall be provided.

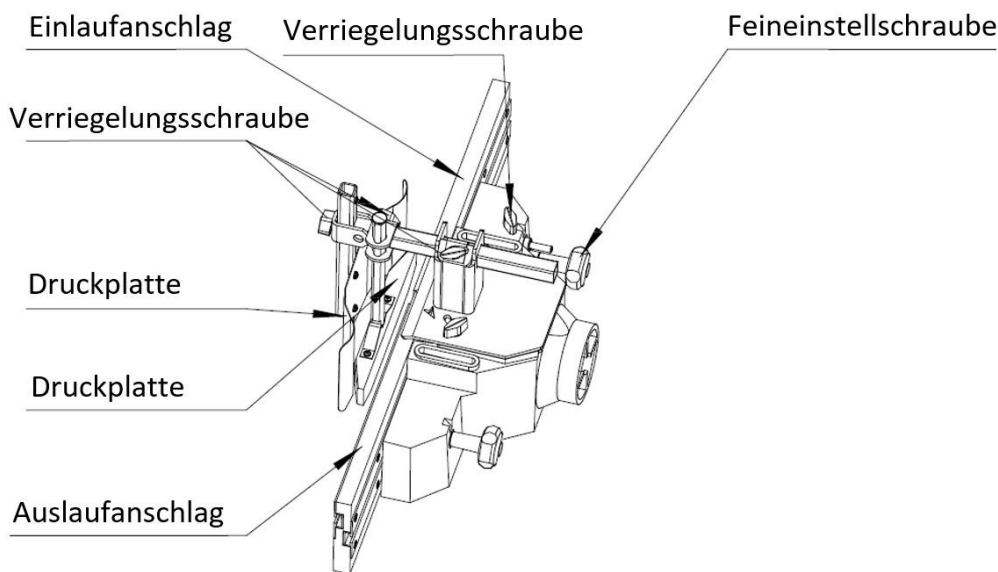


Fig.6-11: Milling unit milling in longitudinal direction

6.3.4 Milling of workpieces with small cross-sections

Tool:

Select suitable tools for manual feeding. **Working cycle:**

Set up the milling machine and place both halves of the stop close to the tool.

Only work the material with a pusher! Choose a pusher size that allows your hand to rest securely on it.

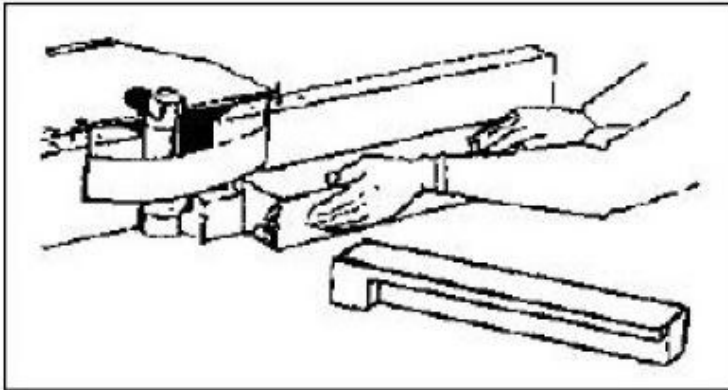


Fig.6-12: Milling workpieces with small cross-sections

6.3.5 Using the stops as a guide

Milling with a stop is the safest and most satisfactory method. This method should always be used when the job allows. Almost all straight work can be performed with the stop.

1. For most jobs where part of the edge of the workpiece is not touched by the cutter,

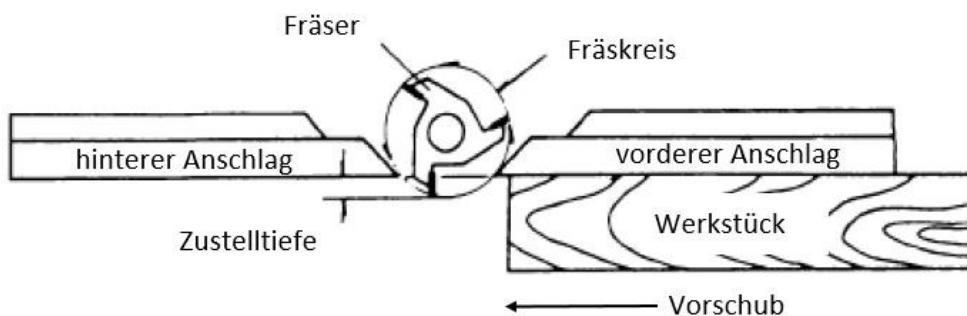
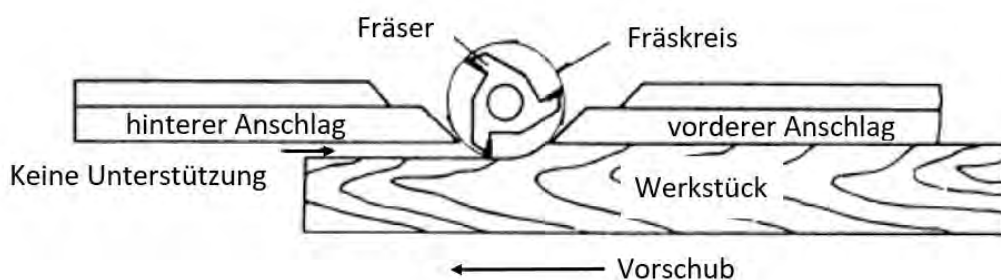


Fig.6-13: Stops in a line

2. When the milling operation removes the entire edge of the workpiece (e.g., when joining or producing a full bead), the formed edge is not supported by the back stop if both stops are in line, as in Figure 6-14. In this case, the workpiece must be milled in the direction shown in Figure 6-14.



3. The front stop should be advanced until it touches the workpiece, as shown in Figure 6-15. The rear stop will then be in line with the cutter circle.

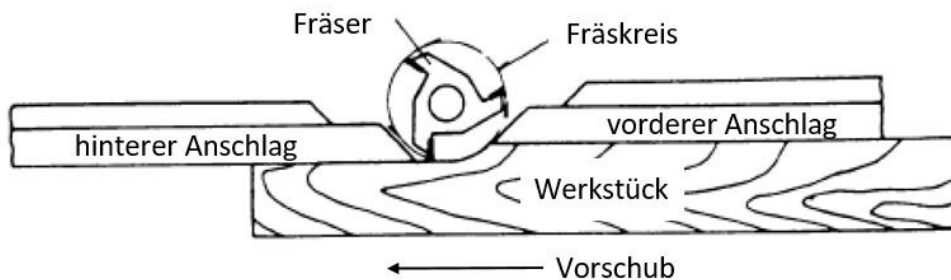


Fig.6-15: Front stop too far back

6.4 Dressing

6.4.1 Adjustment and operation of the protective device

The height adjustment of the knife shaft (Pos. A, Fig. 30) is carried out using a star head screw (Pos. D, Fig. 30).

- Turn right: increases the height of the cover. Turn left:
- decreases the height of the cover.

If you loosen the other star screw (Pos. B, Fig. 30), you can easily move the blade shaft cover lengthwise.

After adjustment, tighten the star screw again. Once the screw (Item D, Fig. 30) is loosened, the cover can be removed from the working position.

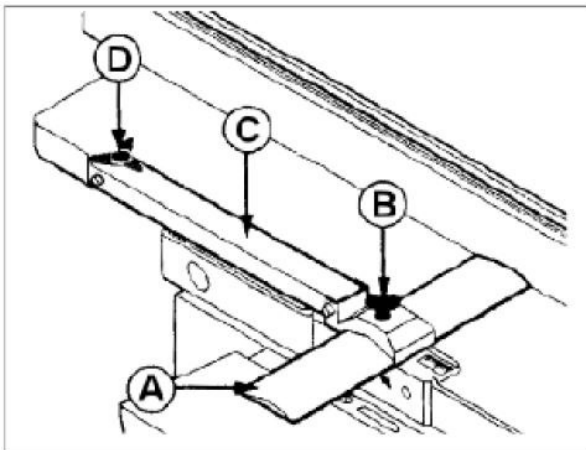


Fig.6-16: Setting and operation of the protective device

6.4.2 Planing

Adjusting the movable table - Adjusting the chip thickness:

- Step 1: Unlock the table using the locking lever on the right side.
- Step 2: Use the rotary knob on the left side to set the desired chip thickness (wood removal).
- Step 3: Secure the table with the locking lever. The size of the set chips can be seen on the scale can be read.

Tilt adjustment of the stop:

- Step 1: Loosen the star screw of the linear guide.
- Step 2: Set the stop to the value of the machined workpiece width.
- Step 3: Tighten the star screw again.
- Step 4: Switch on the feed rollers for thickening with a hand lever on the Thickness planer. Push the lever down and secure it in the lower position.

Planing flat parts

Place the workpiece on the planing table, lift the cover of the knife shaft to the desired height with your left hand and switch on the machine. Push and slide the workpiece over the

Knife shaft, the hand slides over the cover. The workpiece may only be moved with the hands

become, not with the body!

Do not push the workpiece backwards over the knife shaft!

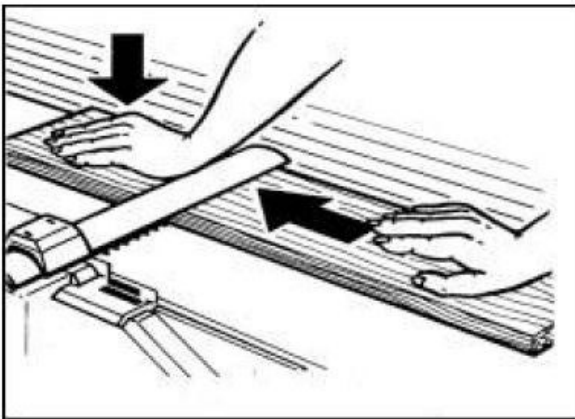


Fig.6-17: Planing flat parts

Planing high parts

When joining workpieces, set the distance between the workpiece and the bridge guard to a maximum of 5 mm. Press the workpiece to be machined against the workpiece stop with one hand and slide it evenly over the cutter block with the other hand.

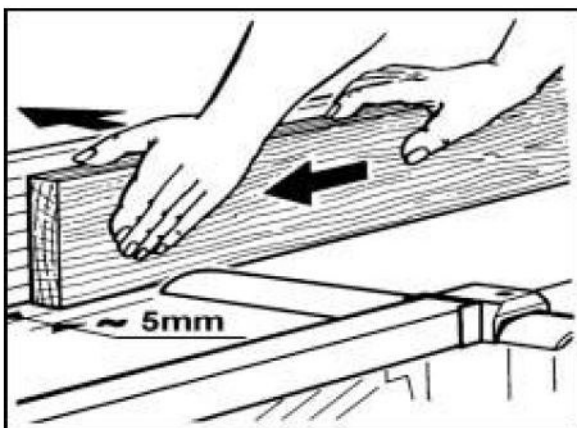


Fig.6-18: Planing high parts

Planing bevelled workpieces

- Adjust the workpiece stop to the desired angle by loosening the handle.
- Press the workpiece to be machined against the workpiece stop with one hand and slide it evenly over the knife shaft with the other hand.

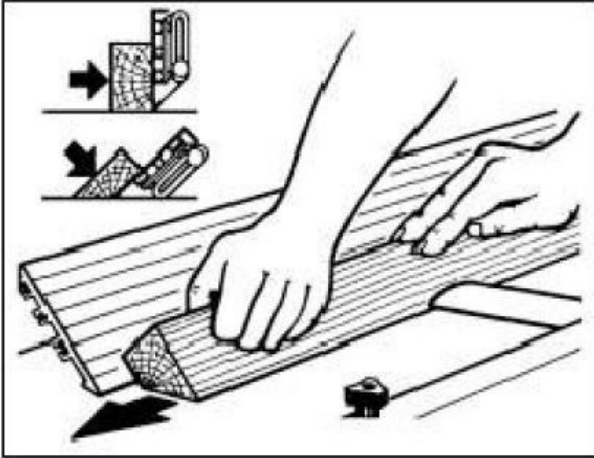


Fig.6-19: Planing beveled workpieces

Planing short workpieces

When planing small and narrow workpieces, always use a pushing aid to avoid the risk of injuring your hands.

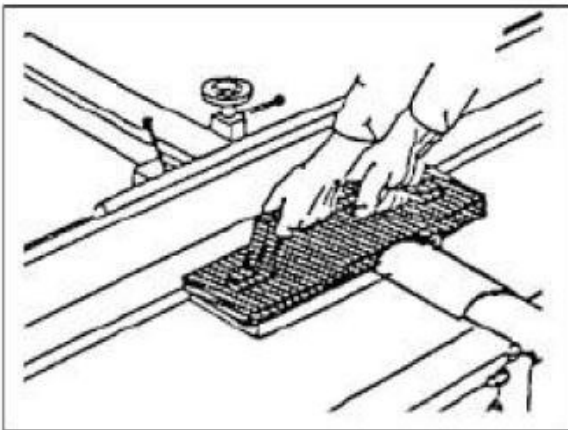


Fig.6-20: Planing short workpieces

Planing thin parts

For planing thin materials, the stop must be upgraded with an auxiliary stop. It must be wider than 60 mm and 20-25 mm high.

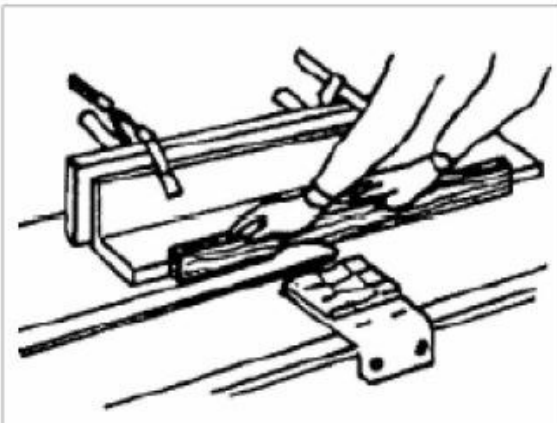


Fig.6-21: Planing thin parts

6.4.3 Thickness planer function

Converting the machine from planing to thicknessing:

- 1. Release both table locks (A) by turning the handles towards the operator and then pulling them away from the machine.
- 2. Lift the table using the handle (B).

Warning! The table is heavy. Be careful when lifting it. Failure to do so could result in serious injury.

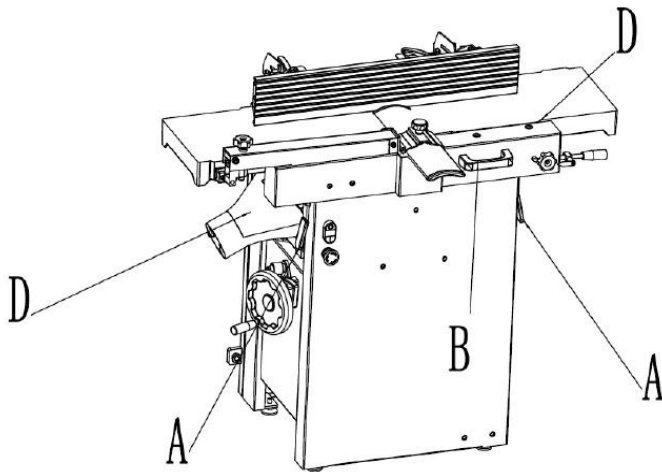


Fig.6-22: Conversion to thickness planer function 1

- When raised, the table should be in the vertical position, as shown in C, Fig. 6-23. The lock (E, Fig. 6-23) must be engaged to prevent the table from accidentally falling forward.
- 3. Turn the dust extractor (D,H) to the right. Be extremely careful not to come into contact with the blades of the cutter block.

Note: The planing table may need to be lowered to provide the clearance required for positioning the extraction device.

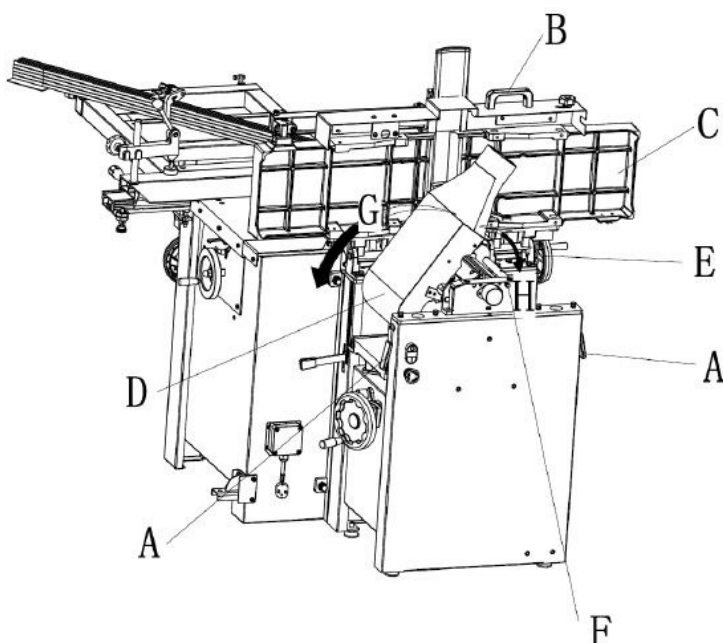


Fig.6-23: Conversion to thickness planer function 2

Converting the machine from thickness planing to jointer: Note:

The following explanations refer to Fig. 6-23.

- 1. Pull the release button (F) and move the dust chute (D, G) to the left. It should be positioned as shown by D.



Warning! The table is heavy. Be careful when lifting it. Failure to do so could result in serious injury.



- 2. Release the lock (E) and rotate the table forward using the tilt handle (B). It should be positioned as shown by C.
- 3. Lock the table (C) by pushing the locking handles (A) towards the machine and turning them downwards (away from the operator).

B
H

ction:

on Fig. 6-24.

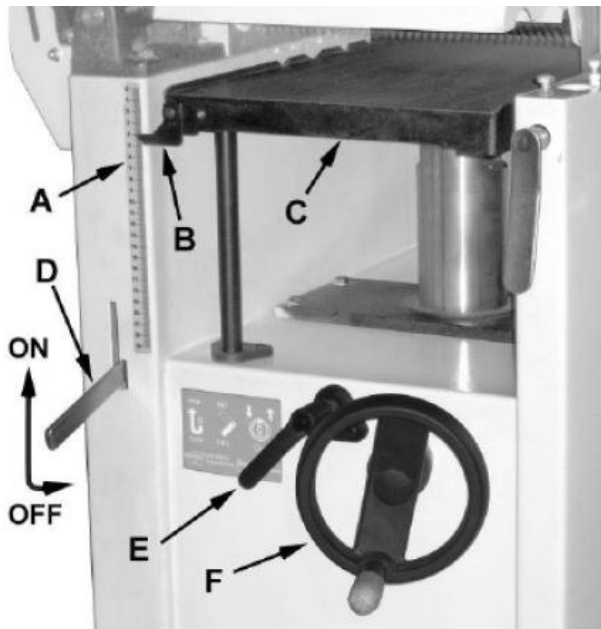


Fig.6-24: Planing function settings

Feed:

Moving the planer feed handle (D) to the upper position engages the planer feed (see arrow). Moving the handle to the lower position disables the feed.

Table lock:

Turn the table lock (E) clockwise to lock the height adjustment handwheel (F) and secure the planer table (C) in the selected position. Turn the table lock (E) counterclockwise to release it and allow table adjustment.

Adjusting the table height:

- 1. Unlock the table lock (E).
- 2. Turn the height adjustment handwheel (F) clockwise to raise the planing table (C) and counterclockwise to lower it.
- 3. Lock the table lock (E). Each turn of the handwheel (F) results in a 4 mm up or down movement of the table (C). A scale on the handwheel column indicates the degree of rotation of the handwheel. A pointer (B) indicates the position of the table relative to the knife shaft on the scale (A) located on the side of the cabinet.

Controls and settings of the dressing function:

Fig. 6-25.

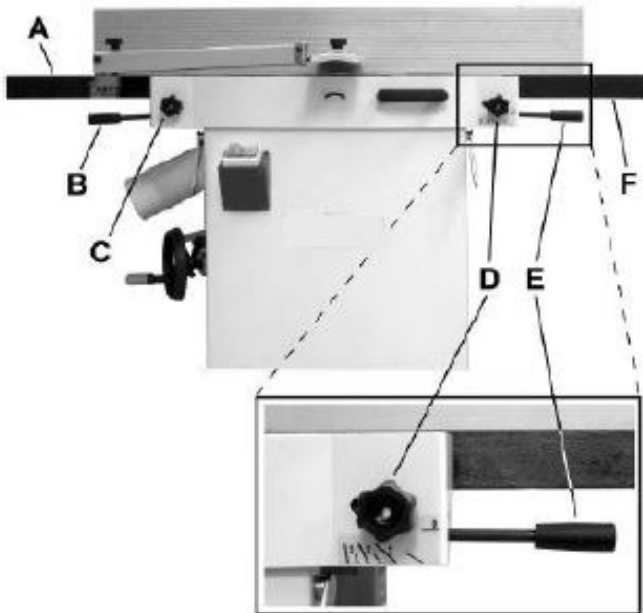


Fig.6-25: Settings of the dressing function

Height adjustment of the outfeed table:

- The height of the discharge table (A) is adjusted using the locking knob (C) and the lifting handle (B). The discharge table is factory-set and should not be adjusted except for specific settings.

Height adjustment of the feed table:

- The locking knob (D) and the lifting handle (E) control the height adjustment of the feed table (F):
 1. Loosen the locking knob (D).
 2. Lift the lifting handle (E) to raise the infeed table for a shallow cut. Lower the handle for a deeper cut.
 3. Tighten the locking knob (D).
- A cutting depth of 1.5 mm or less is recommended.

A notice: The following explanations refer to Fig. 6-26.

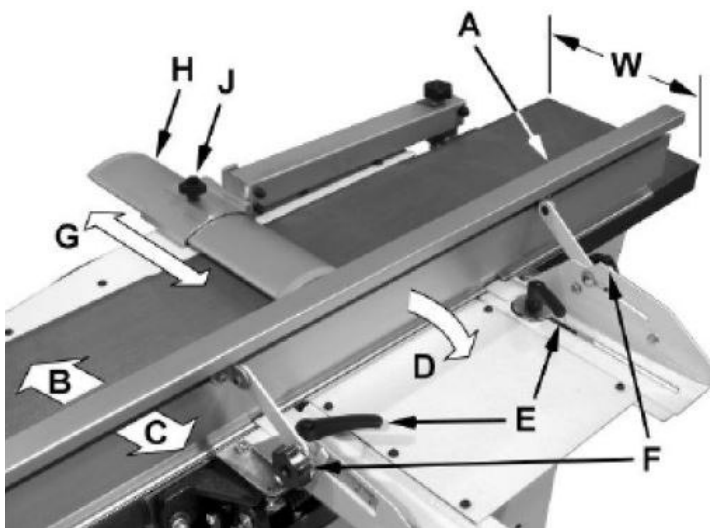


Fig.6-26: Stop

Cutting head protection:

- When correctly positioned, the cutter head guard should rest against the stop (A).

Moving the stop:

- The stop (A) can be moved forward (B) or backward (C) across the width (W) of the table.
- It can be tilted backwards by up to 45 degrees (D).
- Loosen the locking knob (J), slide the stop into position, and then tighten the locking knob again.

During bending, the stop device should be regularly moved to different positions to reduce wear on the cutter heads. This is done in the following order:

- 1. If necessary, loosen the knife shaft guard (H) to allow the stop system to move freely without being obstructed by the guard.
- 2. Loosen the two locking handles (E) of the stop assembly.
- 3. Move the entire stop assembly to the desired position; then retighten the handles (E).
- 4. Readjust and secure the blade shaft guard. Tilt the stop backward:

The stop (A) can be tilted backwards (D) by up to 45° (i.e. for a total angle of 135° from the table surface) as follows:

- 1. Release the locking handles (F).
- 2. Tilt the stop back (A, C) to the desired angle up to 135°. You can also place your beveled reference piece on the table against the stop and adjust the stop so that the angle of the stop matches the bevel of your workpiece.
- 3. Tighten the locking handles (F).
- 4. Readjust and secure the blade shaft guard.

6.4.4 Basic processes in thickness planing

Dust extraction

Before first use, the machine must be connected to a dust extraction system. **Initial commissioning**

- Once assembly and adjustments are complete, the planer can be tested. Turn on the power on the main panel. Press the start button. Keep your finger on the stop button in case a problem occurs. The planer should run smoothly, with little to no vibration or grinding noise. Investigate and correct the cause before continuing operation.
- DO NOT attempt to inspect or adjust the planer while it is running. Wait until the planer is turned off and unplugged and all working parts have stopped.

Changing the operating mode

When changing the operating mode (planer to jointer and back), the machine must be switched off and completely at a standstill.

Correct working position

The operator must be positioned offset from the infeed table:.

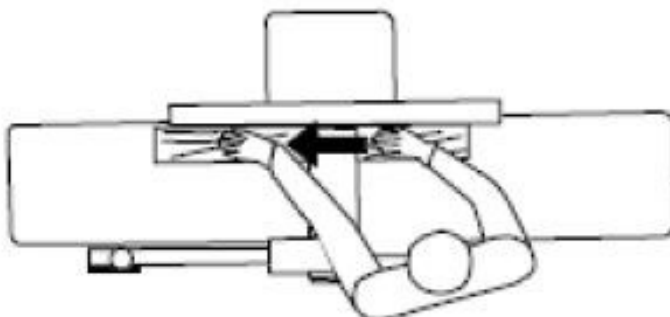


Fig.6-27: Correct working position

Positioning of the hand:

- At the beginning of the cut, the left hand holds the workpiece firmly against the feed table and the stop, while the right hand moves the workpiece in a smooth, even movement towards the knife shaft.
- After the cut, the new surface rests firmly on the outfeed table. The left hand is moved to the outfeed side (Figure 6-27) and presses on this part of the workpiece, maintaining flat contact with the stop.
- The right hand pushes the workpiece forward, and before the right hand reaches the knife shaft, it must be moved to the workpiece on the outfeed table.

Surface treatment

The purpose of planing on a jointer is to produce a flat surface (Figure 6-28). The other side can then be milled to precise final dimensions on a thickness planer, producing a board that is smooth and flat on both sides and parallel to the other.

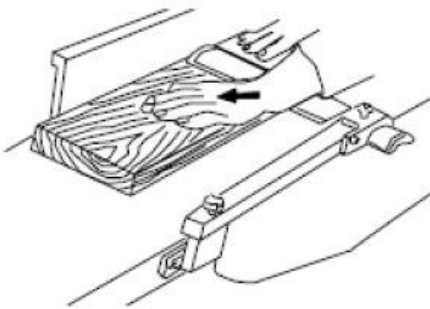


Fig.6-28: Surface treatment

- If the wood to be joined is concave or curved, place the concave side down and make light cuts until the surface is flat.
- Never machine pieces shorter than 30 cm or thinner than 1 cm without using a special workpiece holder.
- Never machine parts thinner than 7 cm without using a pressure block.
- Cuts of approximately 0.15 cm each are recommended, which allows for better control over the material being cut. Multiple repetitions can then be performed to achieve the desired depth.

Direction of the fiber direction

- Avoid feeding the workpiece into the jointer against the grain. This can result in chipped and splintered edges.
- Feed the workpiece with the grain to achieve a smooth surface.

Grouting

Joining (or trimming) is the process of creating a finished, flat edge surface suitable for joinery or finishing (Figure 6-29). It is also a necessary step before cutting the material to length on a table saw.

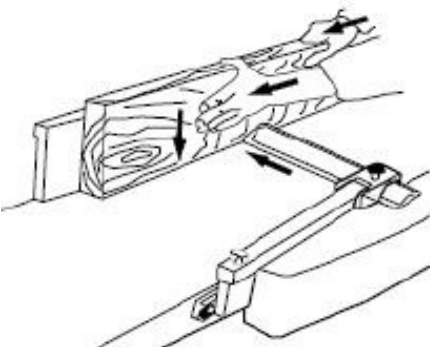


Fig.6-29: Trimming

- Never edge a board that is less than 8 cm wide, less than 0.6 cm thick, or 30 cm long without using a butt block.
- When trimming wood wider than 5 cm, place your fingers over the top of the wood, pulling them back over the stop so that they act as a stop for your hands in case of kickback.
- Position the stop so that only the required portion of the knife block is exposed (move forward). If the workpiece is twice as long as the dresser's infeed or outfeed table, use an infeed or outfeed support.

Trimming:

- 1. Make sure the stop is set to 90°. Check this with a square.
- 2. Check the material for strength and fiber direction
- 3. If the board is curved, place the concave edge down on the infeed table.
- 4. Adjust the feed table to a cut of approximately 1.5 mm.
- 5. Hold the material firmly against the stop and the table and guide the material slowly and evenly over the knife shaft.

Chamfering

Beveling an edge is the same process as jointing edges, except that the stop is tilted at a specific angle. Make sure the material to be beveled is longer than 30 cm, thicker than 0.6 cm, and wider than 2.5 cm.

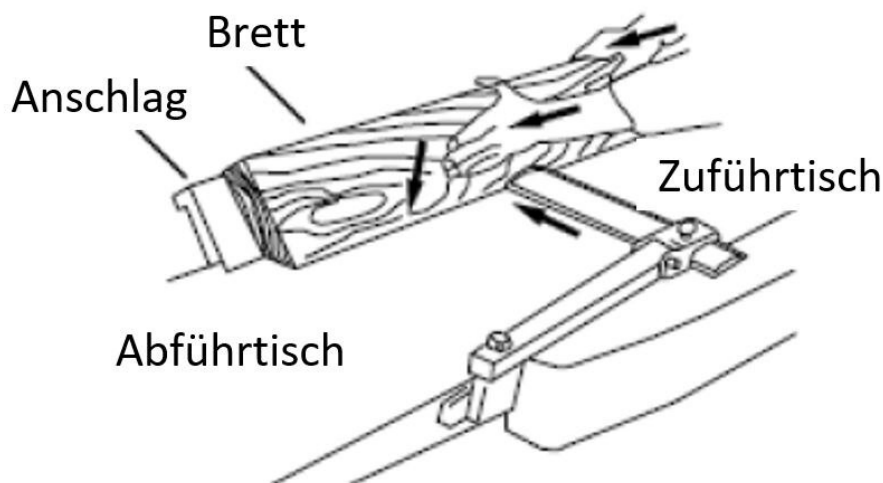


Fig.6-30: Chamfering

- 1. Use a bevel gauge to determine the desired angle. Then adjust the stop to the same angle.
- 2. Check the material for strength and grain direction.
- 3. Adjust the feed table to a cut of approximately 1.5 mm.
- 4. If the board is curved, place the concave edge down on the feed table.
- 5. Feed the material through the cutter block, ensuring that the surface of the material is completely flat against the stop and that the edge is in firm contact with the inlet and outlet has an outfeed table.
- For wood wider than 7.5 cm, hold it with your fingers close to the top edge of the wood, overlapping the board and extending beyond the stop.
- For wood less than 5 cm wide, use beveled pressure blocks and apply pressure toward the stop. Keep your fingers near the top of the pressure block.
- Several repetitions may be required to achieve the full phase.

Thickness planing

Thickness planing is the cutting of wood to a desired thickness, creating a flat surface parallel to the opposite side of the board.

The board thickness that the planer can produce is indicated by the scale and the cutting depth gauge.

Use the gauge to adjust the planer to the desired thickness of the finished workpiece. The cutting depth is adjusted by raising or lowering the planer table (C, Fig. 6-24) with the handwheel (F, Fig. 6-24).

The quality of thickness planning depends on the operator's judgment of the cutting depth.

- The cutting depth depends on the width, hardness, moisture, fiber direction and grain of the wood.
- The maximum wood thickness that can be removed in one pass is 0.3 cm for planing work on workpieces up to 14 cm wide.
- The maximum wood thickness that can be removed in one pass is 0.16 cm for planing on workpieces from 14 cm to 30 cm wide.
- For optimal planing performance, the cutting depth should be less than 0.16 cm.
- The board should be planed with shallow cuts until the workpiece has a flat surface. Once a flat surface is achieved, flip the wood over to create parallel sides.
- Plane the sides alternately until the desired thickness is reached. When half of the total cut has been removed from each side, the board will have a uniform moisture content and won't warp with additional drying.
- The cutting depth should be smaller if the workpiece is wider.
- When planing hardwood, you should make light cuts or plane the wood in thin strips. Make a test cut with a sample piece and check the resulting thickness.
- Check the accuracy of the test cut before working on the finished product.

Preparing the workpiece

Preparing the workpiece

- A thickness planer works best when the wood has at least one flat surface. Use a jointer to create a flat surface.
- Twisted or severely warped boards can jam the planer. Split the wood down the middle to reduce warping.
- The workpiece should be fed into the planer in the same direction as the grain of the wood. Sometimes the wood changes direction in the middle of the board. In such cases, cut the board in half, if possible, to ensure the grain is correct.
- Do not plane boards shorter than 15 cm. When planing short boards, butt them together at the ends to prevent kickback and reduce chipping.

Feeding the workpiece

- The planer is adjusted to the correct height using planer knives mounted in the cutter block and feed and feed rollers.
- The feed of the planer is automatic and varies slightly depending on the type of wood.

Preparation:

- The feed rate is the speed at which the wood moves through the planer. The operator is responsible for aligning the workpiece so that it can be transported properly.
- Raise or lower the roller box to achieve the desired cutting depth.
- The surface the plane produces will be smoother if a shallower cutting depth is used. Stand on the side where the handle is attached.
- Boards longer than 60 cm should be additionally supported by freestanding material stands.

Thickness planing:

- 1. Place the workpiece with the surface to be planed facing up.
- 2. Turn on the planer.
- 3. Turn on the feed.
- 4. Place the board end on the feed roller plate and feed the board into the planer.
- 5. Push the workpiece into the feed side of the planer until the feed roller begins to feed the workpiece forward.
- 6. Release the workpiece and allow the automatic feed to advance the workpiece.
- 7. Do not push or pull on the workpiece. Move backward and pick up the planed wood, grasping it in the same way as when feeding.

To avoid the risk of injury from kickback, do not stand directly in line with the front or rear of the planer.

- 8. Do not touch any part of the board that has not yet passed over the discharge roller.
- 9. Repeat this process for all boards that should have the same thickness.

Avoiding outbreaks

A "breakout" is a depression at one of the two ends of the board caused by an uneven force on the cutter block as the workpiece enters or leaves the planer.

A chipping occurs when the boards are not properly supported or when only one feed roller is in contact with the workpiece at the beginning or end of the cut.

Precautions to avoid feeding errors:

- As the workpiece is fed, push the board up until the feed roller begins to push it forward.
- Pick up the planed board by pushing it upwards when the feed roller loses contact with the board.
- If you are planing more than one board of the same thickness, butt the boards together to avoid tearing.
- Make shallow cuts. Deeper cuts will result in more noticeable fraying.
- Guide the workpiece in the direction of the grain. Workpieces guided against the grain may have splintered edges.

6.4.5 Operation of the long hole drilling device (drilling/chiseling)

Working position

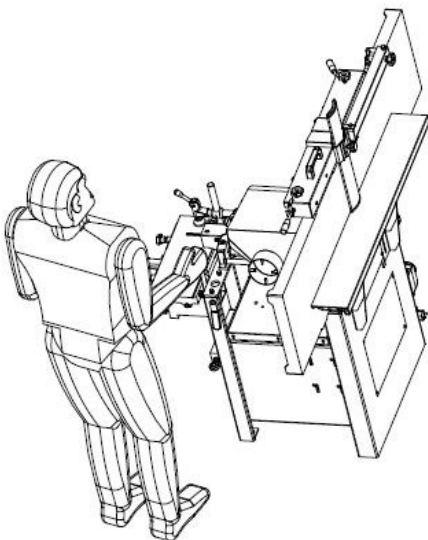
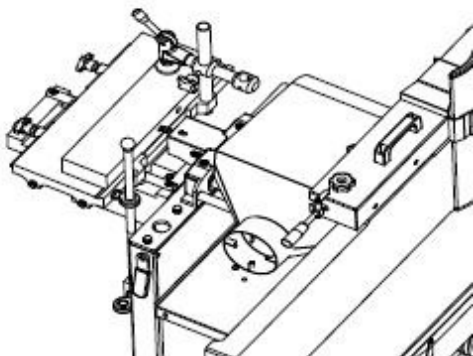


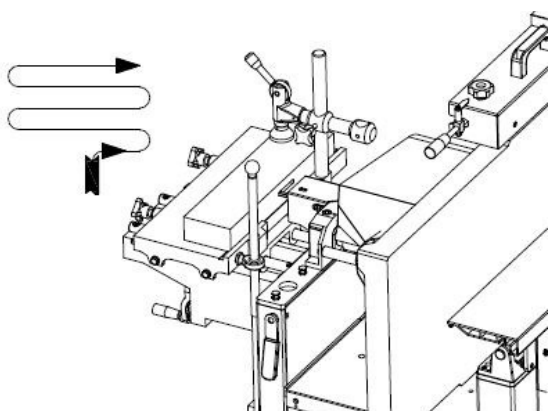
Fig.6-31: Working position when drilling/chiseling

B



A
- n the machine, switch it off and secure it against unintentional

- 2. clamp the drilling tool.
- 3. Place the workpiece against the workpiece stop edge and clamp it.
- 4. Adjust the desired drilling depth using the depth stop, if necessary.
- 5. Turn on the machine
- 6. assume the working position.
- 7. Additionally, hold the workpiece with your left hand and drill a hole.
- 8. When you are finished working, switch off the machine and secure it against accidental restart.



- 1. Before you start any maintenance work on the machine, switch it off and secure it against accidental restart.
- 2. Clamp the chisel tool.
- 3. Place the workpiece against the workpiece stop edge and clamp it.
- 4. Use the longitudinal stops to set the desired chisel limit.
- 5. Turn on the machine
- 6. Assume the working position.
- 7. Additionally, hold the workpiece firmly with your left hand.
 - Plunge the chisel tool a few millimeters into the workpiece and trace the limited path.
 - Then insert the chisel tool a few millimeters into the workpiece and guide it through the limited path.
 - Repeat this process until the depth of the tenon hole is reached.
- 8. When you have finished working, switch off the machine and secure it against accidental restart.

7 Fault table

DANGER:

Only qualified personnel may service and repair the universal multiple combination! Always turn the device off when troubleshooting.



Disturbance	Caused	Fix
Machine does not start	1. No mains voltage, 2. Connection cable defective 3. Circuit breaker tripped	Have the power connection checked by qualified personnel. Let the engine cool down, then start it again.
Too low engine power stung.	1. Power supply is insufficient. 2. Damaged/defective cable windings. 3. Defect in the main switch. 4. Power grid overloaded.	Have the power connection checked by qualified personnel.
The machine performance is too low	1. Tools are blunt. 2. The chips are too big. 3. The V-belt is not tensioned tightly enough. 4. Engine damage.	1. Sharpen tools. 2. Consider the width and hardness of the wood. 3. Adjust the V-belt. 4. Contact specialist personnel.
Strong vibration of the Machine.	1. Machine is standing on an uneven floor surface. 2. Damaged components e.g. belts or planing wave. 3. Loose components such as bolts, screws or nuts.	1. Adjust the leveling feet of the machine. 2. Replace damaged components. 3. Tighten loose components.
The thickness measurement cannot be performed on the machine become	1. Chips too thick. 2. The thicknessing table is dirty.	1. Adjust the thicknessing table to the size of the workpiece using the handwheel. 2. Clean the thicknessing table.
Material collides with the back table	1. The knives or the rear table are incorrectly adjusted.	1. Adjust correctly.
Saw vibrates, saw blade hits	1. Saw blade does not meet specifications. 2. Saw blade not sufficiently secured. 3. Saw blade defective.	1. Check whether the saw blade is suitable for installation based on the specifications in the technical data. 2. Tighten the fastening screw. 3. Check the saw blade for mechanical damage and replace it if necessary.
Visible burn marks on the workpiece	1. Blunt tools 2. Tools damaged	1. Sharpen or replace tools. 2. Replace tools.
Workpiece jumps at Start of planing	1. The planing table is not mounted correctly.	1. Check the planing table and tighten screws if necessary.
Handwheels can be difficult to move	1. Dirt or chips have accumulated in the machine or are blocking the handwheel	1. Clean the machine and oil the bearings
Notch on the back of the workpiece	1. Guides are not parallel.	1. Adjust the guides parallel

8 Care, maintenance and repair

Regular and thorough maintenance of your universal multiple combination is essential for a long service life, good working conditions, and maximum productivity. Ensure that maintenance work is performed regularly.

Warning! Danger if personnel are insufficiently qualified:

Insufficiently qualified persons cannot assess the risks to the user resulting from improper repair work on the universal multiple combination and expose themselves and others to the risk of serious injury.



Have all maintenance work carried out only by qualified personnel.

If maintenance and repair work on this machine is carried out by persons who are not authorized to do so, the warranty claim against the manufacturer will be void.

Daily care and maintenance work:

- Clean the machine after each use. Replace any
- damaged safety devices immediately.

Weekly care and maintenance work:

- Clean the housing and machine surfaces. Clean guards, air vents, and
- motor housing. Check the tools for damage and replace them if
- necessary.

Monthly maintenance work:

- Check the machine's mounting screws and tighten if necessary. Check electrical safety
- devices and guards and replace if necessary.

8.1 Cleaning and care

The machine must always be kept clean. Never use harsh cleaning agents for cleaning. These can damage or destroy components.

- Clean the machine of chips and wood dust with a dry cloth.
- Clean the motor and switches with a dry cloth. Never use water!
- Clean the housing and machine surfaces only with a damp cloth and a mild detergent. Do not use solvents. These could damage the machine's plastic parts. Make sure that no water can enter the machine's interior.
- Spray or oil all unpainted metal surfaces with some anti-rust spray.
- Keep guards, air vents, and motor housings as free of dust and dirt as possible. Wipe them with a clean cloth or blow out dust and dirt with low-pressure compressed air.
- Caution: Wear protective goggles when working with compressed air!
- Empty and clean the suction device.

8.2 Maintenance/Repair

Maintenance and repair work may only be carried out by qualified personnel.

If the universal multiple combination device does not function properly, contact a specialist dealer or our customer service. You can find the contact details in the foreword.

All protective and safety devices must be reinstalled immediately after repair and maintenance work has been completed.

8.2.1 Changing the saw blade

Wear protective gloves!



- Move the saw unit to the highest vertical position using the handwheel.
- Push the sliding table to the lower end position.
- Loosen and remove the saw blade protective cover.
- Insert the locking key into the main shaft so that it can no longer rotate.
- Unscrew the nut by turning it counterclockwise, remove the flange and the old saw blade.
- Before installing the new saw blade, check that its seating surfaces are clean and without any bulges.
- Tighten the saw blade, close and secure the protective cover.

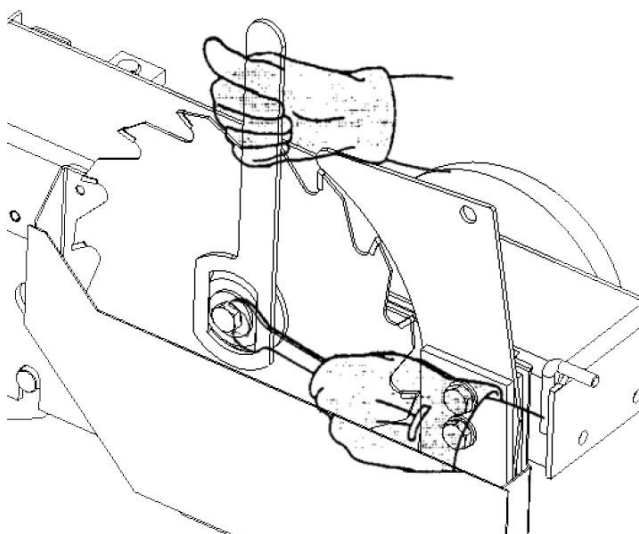


Fig.8-1: Changing the saw blade

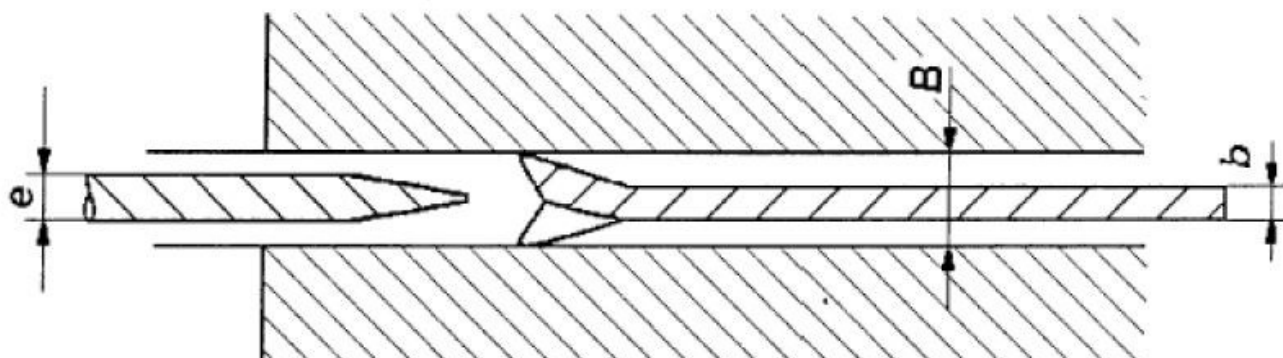
Caution! Before replacing, make sure the saw blade is suitable for use.



- The saw blade should have a diameter of 200 mm.
- Its maximum speed should be higher than the speed of the saw spindle.
- The saw blade should be suitable for manual feeding (MAN marking on the saw blade).

Depends on the saw blade thickness, the tooth width and the riving knife height.

The machine's design principle is based on the use of saw blades with a diameter of 200 mm and a tooth width (kerf) (Item B, Fig. 8-2) of 2.8 mm. The riving knife mounted on the machine is also designed for these saw blade types. The width of the riving knife (Item e, Fig. 8-2) is 2.0 mm. Ensure that the thickness of the saw blade disc (Item b, Fig. 8-2) is at least 0.2 mm less than the width of the riving knife (Item e, Fig. 8-2).



8.2.2 Replacing milling tools

Only use milling tools that are designed for manual feeding and can be clamped firmly and securely.

Only tools that comply with the EN847-1:2005 standard and are marked with MAN may be used.

Always switch off the machine and disconnect it from the power supply when changing tools, making adjustments, or performing cleaning and maintenance work.

The milling spindle is constructed from two segments. The upper part, which clamps the tools, is connected to the main spindle by a screw. This two-piece design allows for easy interchange and the use of spindle diameters of different sizes on a single machine.

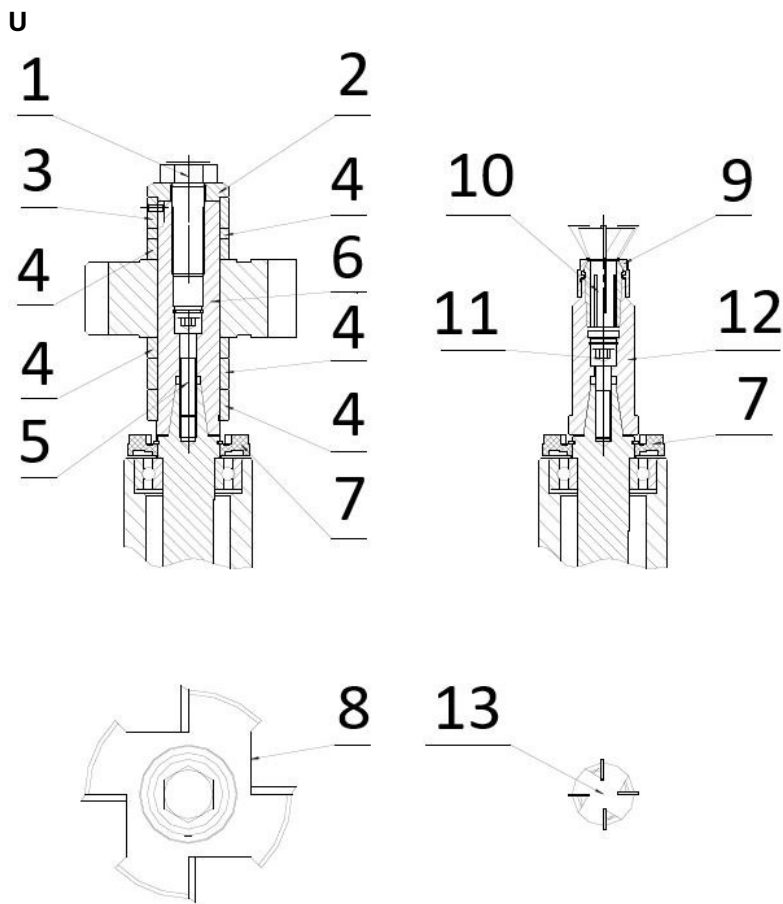


Fig.8-3: Replacing milling tools

Pos.	Designation
1	hexagon screw
2	washer
3	Spacer ring with pin
4	Spacer rings
5	screw
6	spindle
7	Chip deflector
8	Rotary knife shaft
9	Milling machine clamping nut
10	Milling machine collet
11	screw
12	milling spindle
13	Milling cutter insert (12 mm)

Installation and removal of the upper spindle

First, raise the main spindle by turning the handwheel; the higher the better, the better. Slowly rotate the tapered spindle while pushing the locking rod inward. When the lock engages, the rod slides inward approximately 10 mm, locking the spindle.

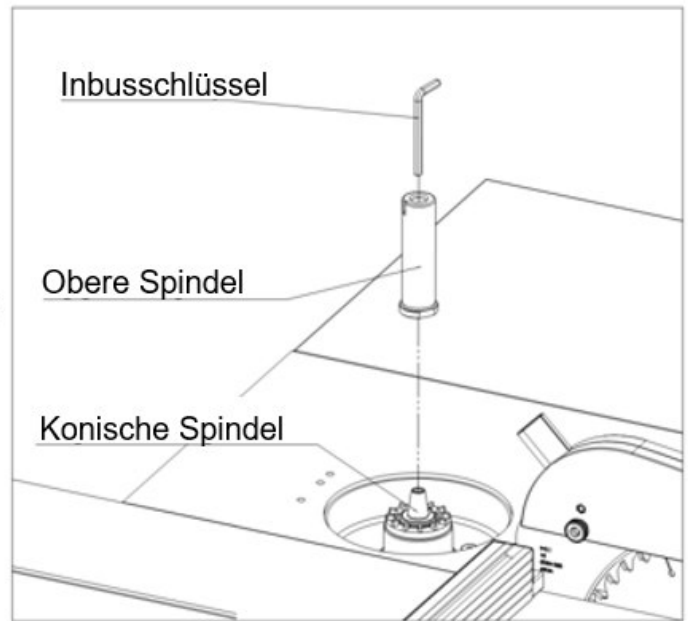
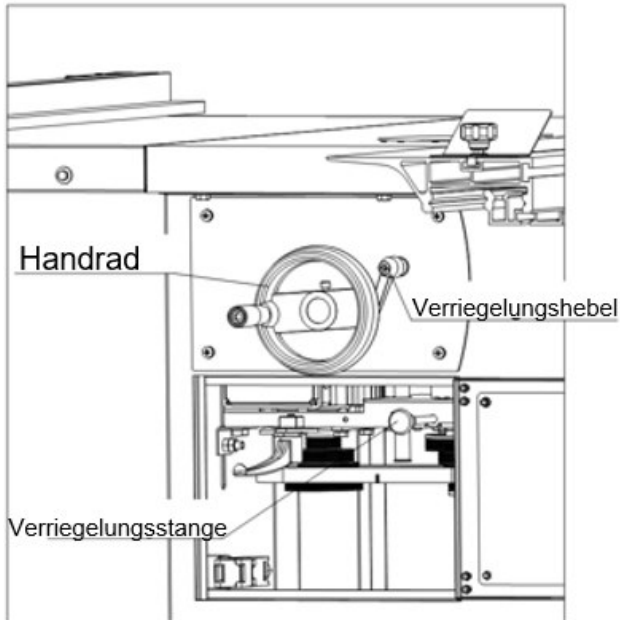


Fig.8-4: Installation and removal of the upper spindle



- With the taper spindle locked, attach the upper spindle.
- Use a flat screwdriver to remove the retaining ring in the center of the upper spindle.
- Place the upper spindle onto the cone and tighten the locking screw by inserting a 6 mm Allen key into the spindle.
- Then tighten the retaining ring onto the head of the retaining screw using the flat screwdriver.
- Caution! Failure to tighten the retaining ring may cause the mandrel and blade shaft to come loose.

Fig.8-5: Remove retaining ring

Mounting a knife shaft (not included):



- The larger of the two table inserts is inserted into the table opening. Always use the smallest table insert the tool allows.
- A wide range of spacers in different widths is available to ensure that the knife shaft can be positioned at the correct height on the spindle.

Fig.8-6: Mounting a knife shaft

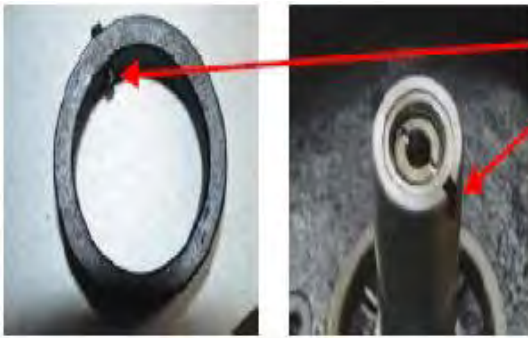


Fig.8-7: Overlaying the sliders

- When stacking the spacer rings, make sure that the spacer ring with the clamping pin is on top of the stack and that the pin engages in the slot of the spindle.
(Not all spacers are required.)

Danger!

Before you place the knife shaft on the spindle, you must engage the spindle lock.



Fig.8-8: Engaging the spindle lock

Verriegelungsbolzen
Obere Kappe
Distanzstück mit Spannstift
Distanzstück
Messerwelle
Distanzstück

- The locking screw must be tightened firmly. Once the stack is firmly seated on the spindle, loosen the spindle locking screw before starting the machine.
- The router is assembled in the same way.
- Finally, pull out the rod to unlock the spindle.
- When installing the milling tools, the guard cover must be opened. Loosen the two locking knobs to open the cover. After installation, close the cover and lock it with the locking knobs.
- To remove the cutter, locking bolt, top cap, and all spacers, proceed in reverse order. Then loosen the retaining screw with a 6 mm Allen key and remove the upper spindle.
- When changing the cutter, check that the middle retaining screw is tightened.

Danger!

Always close the guard cover and lock it securely after installing the tools.



8.2.3 Adjustment of the cutter head edges

Important: Before making the adjustments in this section, the infeed and outfeed tables must be coplanar.

Caution! Cutterhead blades are extremely sharp! Be extremely careful when checking, removing, sharpening, or replacing cutterhead blades. Failure to do so could result in serious injury.



- 1. Disconnect the device from the power source.
- 2. Remove the cutting head guard (B).
- 3. Carefully number each knife blade (C) with a felt-tip pen to distinguish them from each other.

A notice:

To rotate the knife shaft, the knife shaft roller must be rotated. To access this, the plate on the back of the housing must be removed.

- 4. Rotate the knife head (E) and determine the 12 o'clock position of knife number one. The 12 o'clock position is the highest point a knife reaches in the cutting arc.
- 5. Place a straightedge (J) on the outfeed table (F) near the stop (H). One end of the straightedge should rest over the cutting blade (C) near the end of the blade.
Be careful when handling the ruler near the blades to avoid damage.

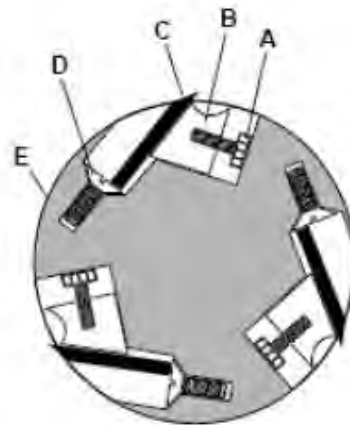
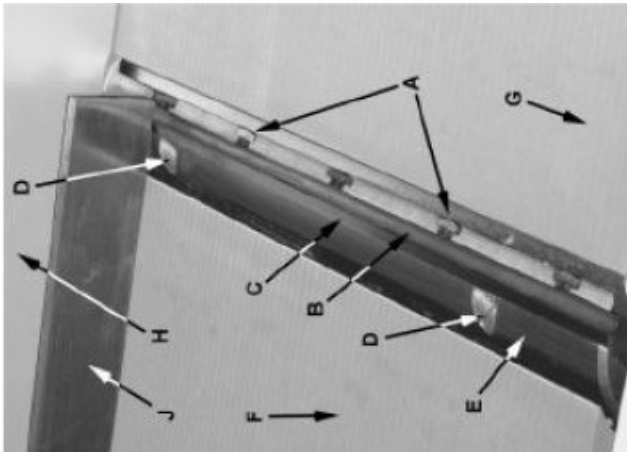


Fig.8-9: Adjustment of the cutter head edges

- Note the position of the knife blade relative to the ruler, then move the ruler to the other side of the table and note the position of the knife blade relative to the ruler again. The first blade must be at the same height at both ends and must also be at the same height as the outfeed table (bottom of the ruler).
- If this is not the case, the setting must be made as follows:
- 6. Slightly loosen the five wedge locking screws (A) by turning them clockwise into the locking rod (B) as seen from the infeed table (G).
- 7. Adjust the blade height by turning the adjusting screws (D) on which the blades rest. To lower the blade, turn the screw clockwise. To raise it, turn the screw counterclockwise.
- 8. When the blade has reached the correct height, tighten the five wedge locking screws (A) alternately.
- Repeat steps 4 to 8 for the second and third blades.

Replacing the cutting blades

- 1. Disconnect the machine from the power source.
- 2. Remove the blade shaft guard

Cutterhead blades are dangerously sharp. Be extremely careful when checking, removing, sharpening, or replacing the blades in the cutterhead. Failure to do so could result in serious injury.

- 3. Turn all five screws (A) clockwise into the locking rod (B), as seen from the insertion table (G).
- 4. Carefully remove the cutting blade (C) and the locking bracket (B).
- 5. Repeat this process for the remaining two knives.
- 6. Thoroughly clean all surfaces of the blade shaft, blade slots and locking rods of dust and deposits.
- 7. Insert the replacement blade (C) into the blade slot, making sure it is facing the correct direction.
- 8. Insert the locking rod (B) and tighten it just enough to secure it.
- 9. Repeat the process for the other two knives.

9 Spare parts

Risk of injury due to the use of incorrect spare parts!

The use of incorrect or faulty spare parts may endanger the operator and cause damage and malfunctions.



Stürmer Maschinen GmbH assumes no liability or guarantee for

Damage and malfunctions resulting from failure to follow these operating instructions. For repairs, use only flawless and suitable tools, original spare parts, or standard parts expressly approved by Stürmer Maschinen GmbH.

The use of unauthorized spare parts will void the manufacturer's warranty.

Information about technical support

Repairs covered by the warranty may only be carried out by service technicians authorized by us.

9.1 Ordering spare parts

Spare parts can be obtained from your dealer.

Send a copy of the spare parts drawing with the marked components to the dealer and state the following:

- Article number
- Model name
- Date of manufacture
- Position numbers of the components and, if applicable, corresponding spare part drawing number
- Quantity
- Desired shipping method (mail, freight, sea, air, express)
- Shipping address

Spare parts orders without the above information cannot be considered. If the shipping method is not specified, shipping will be at the supplier's discretion.

Information about the model type, article number and year of manufacture can be found on the type plate attached to the universal multiple combination.

Example

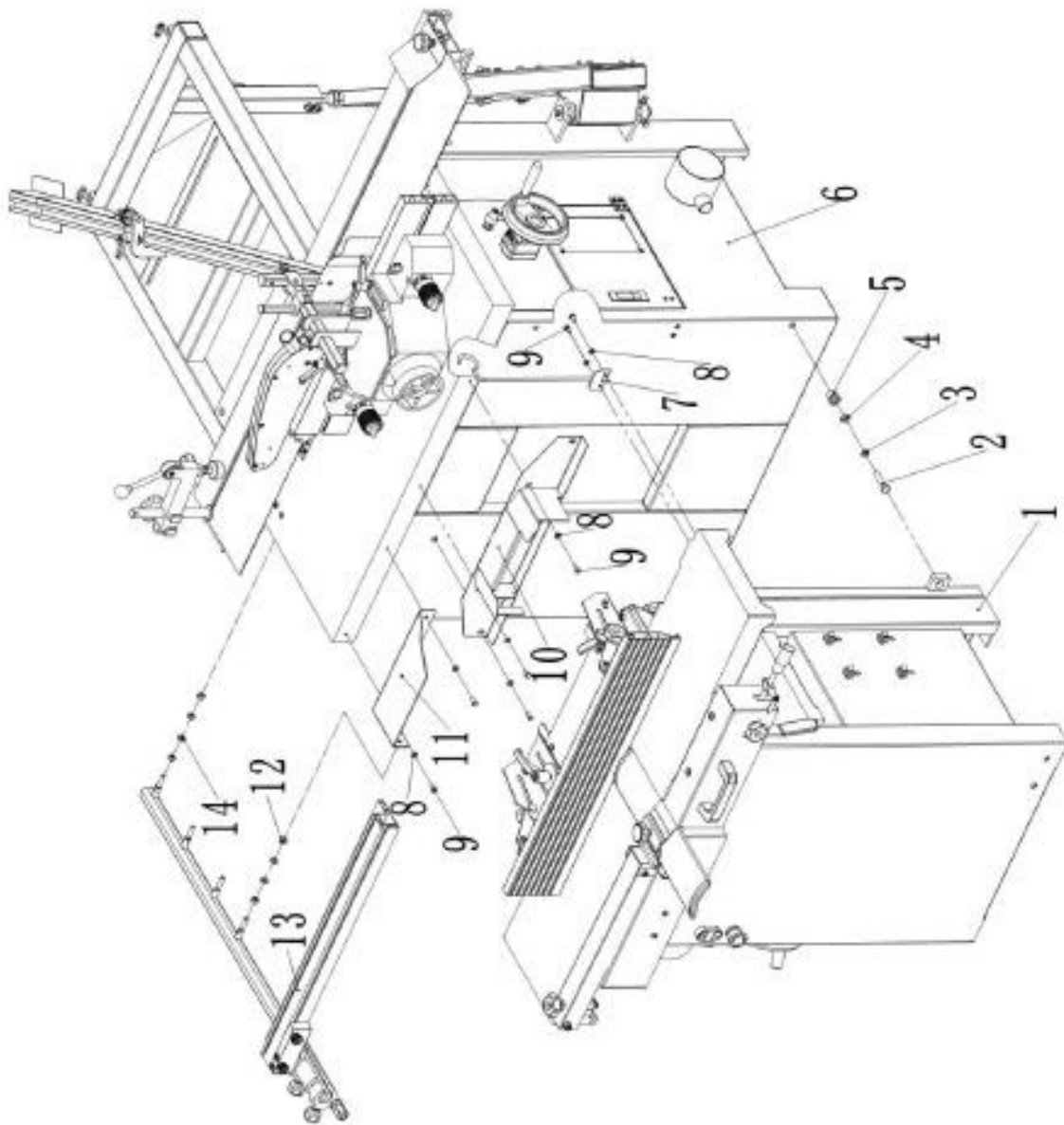
The saw frame for the universal multiple combination UMK 5-260 230V/50Hz/1Ph must be ordered. The saw frame is numbered 13 in the spare parts drawing.

When ordering spare parts, send a copy of the spare parts drawing with the component (engine) and position number (13) marked to the authorized dealer and provide the following information:

- | | |
|-------------------|---------------------------|
| - Article number | 5946025 |
| - Model name | UMK 5-260 230V/50Hz/1Ph 1 |
| - Drawing number | |
| - Position number | 13 |

9.2 Spare parts drawings

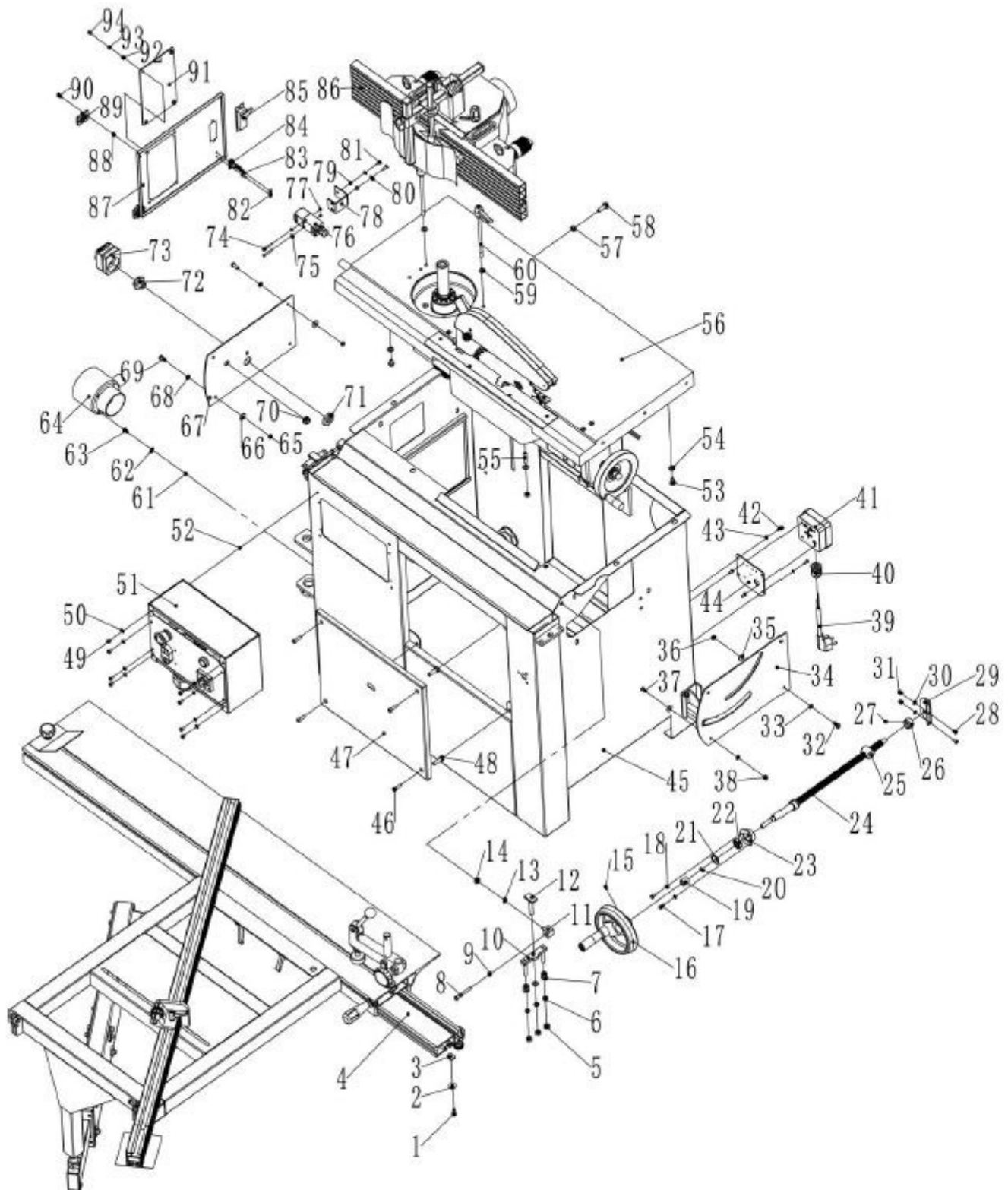
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Pos.	Designation	Crowd		Pos.	Designation	Crowd
1	Planer Thickness planer	1		8	Washer d = 6 mm	12
2	Hexagon screw M10x45	4		9	Hexagon screw M6x12	9
3	Spring washer d = 10 mm	4		10	Cover connection	1
4	Washer d = 10 mm	4		11	Connection table	1
5	hollow bolts	4		12	hexagon nut	8
6	Saw/milling machine	1		13	saw frame	1
7	bracket	1		14	Washer d = 10 mm	8

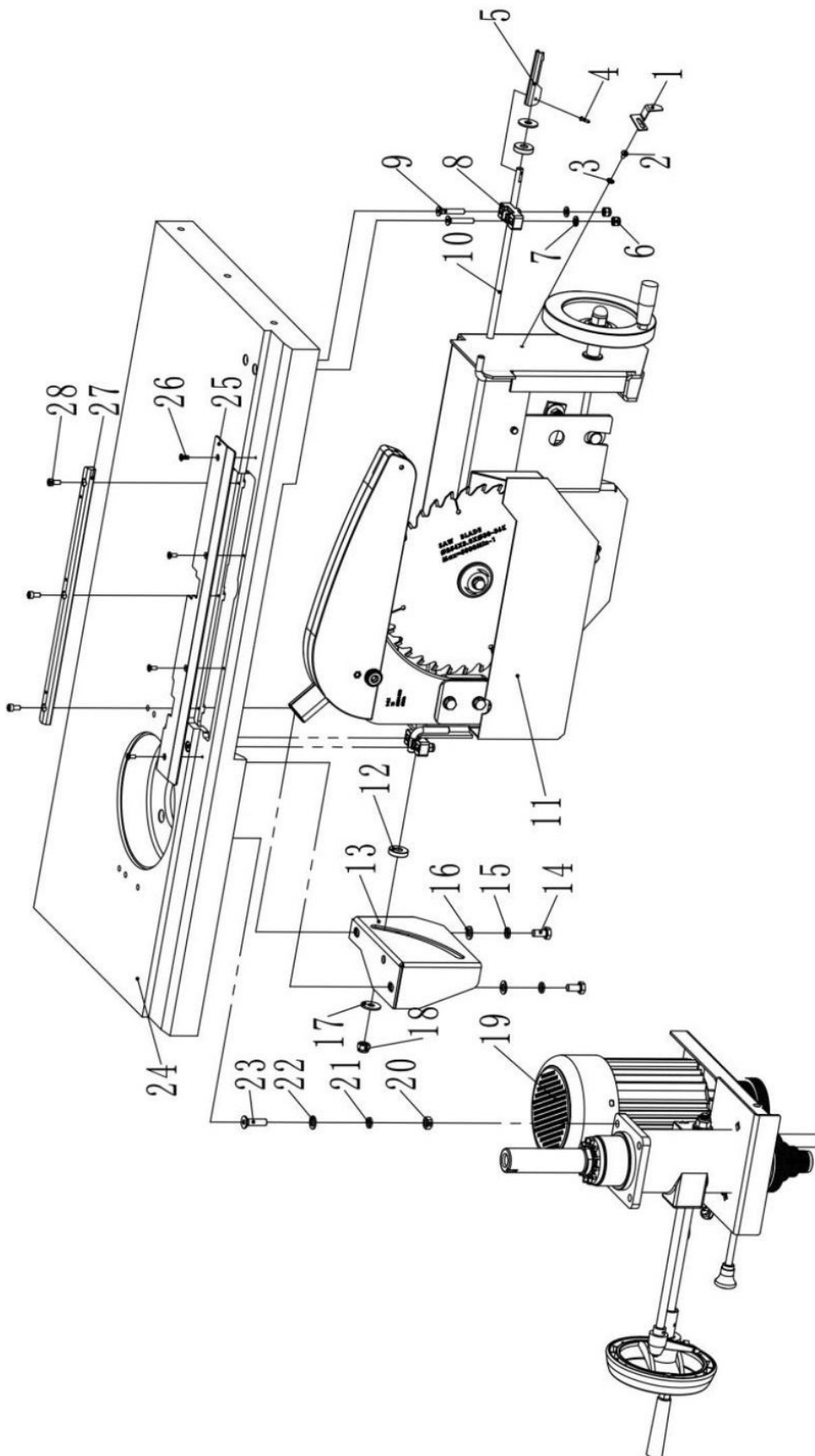
Spare parts drawing 2 saw/milling machine part 1



Spare parts list spare parts drawing 2

Pos.	Designation	Crowd	Pos	Designation	Crowd
1	Screw M6x10	1	2	Washer d = 6 mm	1
3	flat nut	1	4	Sliding table assembly	1
5	Hexagon nut M8	10	6	Spring washer d = 8mm	6
7	Washer d = 8mm	6	8	Hexagon screw M6x50	2
9	Hexagon nut M6	2	10	Adjustment block	2
11	auxiliary block	2	12	T-bolt	2
13	Spring washer d = 8mm	2	14	Hexagon nut M8	2
15	Threaded pin M6x12	1	16	handwheel	1
17	Hexagon screw M5x12	3	18	Washer d = 5 mm	3
19	spacer bushing	1	20	Sealing ring d = 10 mm	1
21	Sealing ring d = 26 mm	1	22	Ball bearing 6000	1
23	storage rack	1	24	threaded shaft	1
25	threaded nut	1	26	limiting socket	2
27	Threaded pin M8x6	2	28	Screw M5x14	2
29	Shaft holder	1	30	Washer d = 5mm	2
31	Hexagonal shut-off screw M5	2	32	Phillips screw M6x16	3
33	Washer d = 6 mm	4	34	Saw cover	1
35	large washer d = 6mm	4	36	Hexagon nut M6	3
37	Screw M6x12	1	38	Cross nut M6	1
39	Plug	1	40	Cable gland M20	1
41	cable box	1	42	Phillips screw M4x10	8
43	Washer d = 4mm	4	44	connector plate	1
45	Saw/Milling Box	1	46	Screw M6x20	4
47	front cover	1	48	Plastic screw M8x25	4
49	Screw M5x8	8	50	Washer d = 5 mm	8
51	switch box	1	52	Hexagon nut M5	4
53	Hexagon screw M8x12	6	54	Washer d = 8mm	8
55	Threaded pin M8x35	2	56	Table	1
57	Hexagon nut M8	1	58	Hexagon flange bolt M8x25	2
59	Large washer d = 8 mm	2	60	locking shaft	2
61	Hexagon nut M5	4	62	Washer s 0 5 mm	4
63	Phillips screw M5x12	4	64	Three-way pipe	1
65	Hexagon nut M6	4	66	Large washer d = 6 mm	4
67	Cover plate milling	1	68	Washer d = 6 mm	4
69	Phillips screw M6x16	4	70	socket	1
71	hexagon nut	1	72	hexagon nut	1
73	Position display	1	74	Phillips screw M6x16	4
75	Washer d = 4 mm	2	76	Microswitch QKS8	1
77	Hexagon nut M4	2	78	switch plate	1
79	Hexagon nut M5	2	80	Washer d = 5 mm	2
81	Screw M5x16	2	82	Key mounting plate	1
83	Phillips screw M4x10	2	84	Key	1
85	door lock	1	86	Output socket	1
87	door	1	88	Hexagon lock nut	8
89	Hinge 30x40	2	90	Screw M5x12	8
91	sight glass	1	92	Hexagon nut M5	4
93	Washer d = 5 mm	4	94	Screw M5x10	4

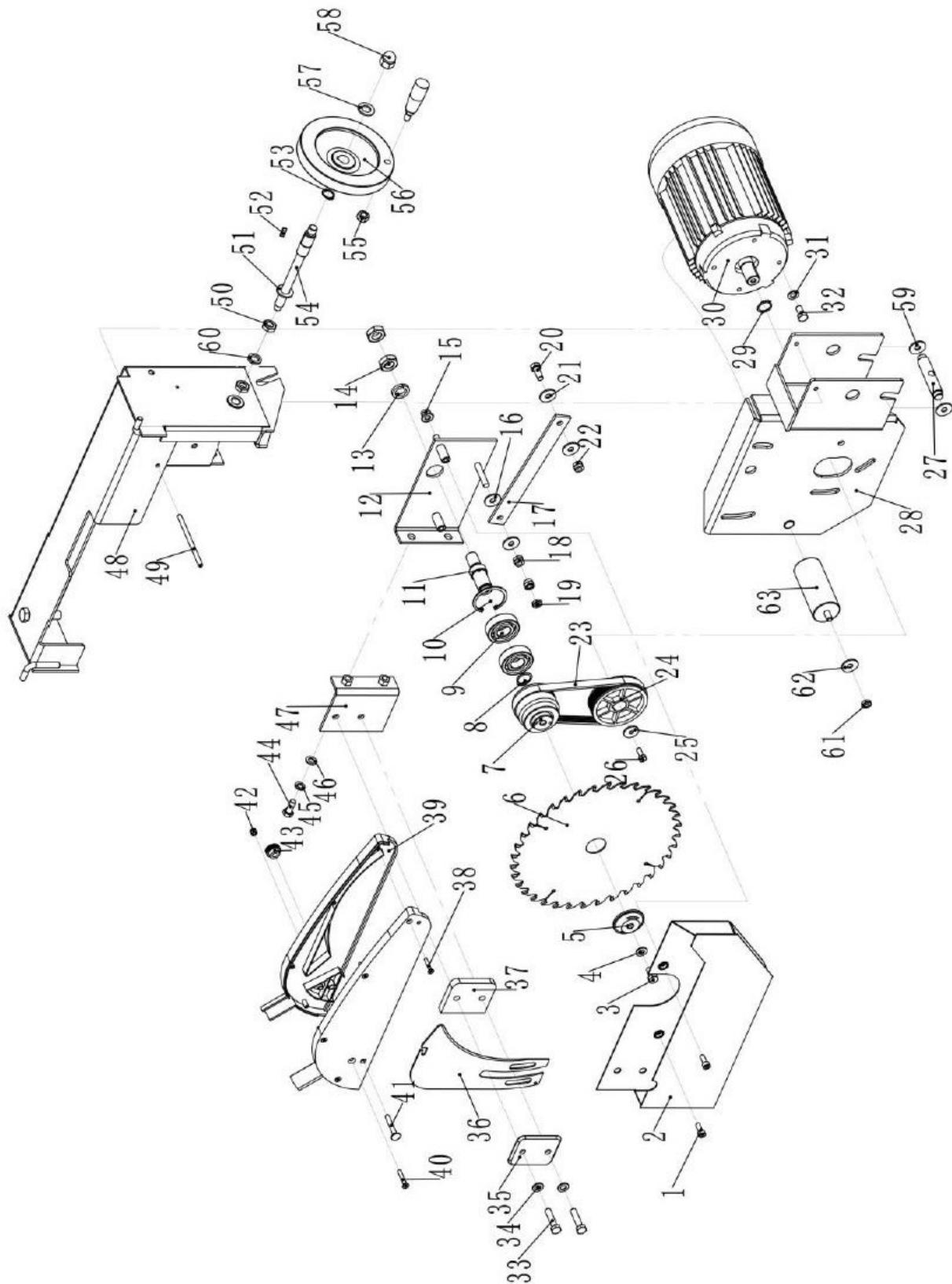
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Away

Spare parts list spare parts drawing 3

Pos.	Designation	Crowd		Pos	Designation	Crowd
1	pointer	1		2	Phillips screw M4x6	1
3	Toothed washer d = 4 mm	1		4	Pin 3x12	1
5	Lockable handle	1		6	Hexagon lock nut M6	4
7	Washer d = 6 mm	4		8	auxiliary block	2
9	Screw M6x35	4		10	Locking shaft	1
11	Saw assembly	1		12	Thick slice	2
13	Inner locking plate	2		14	Hexagon screw M8x16	2
15	Spring washer d = 8 mm	2		16	Washer d = 8 mm	2
17	Large disc d = 8 mm	2		18	Hexagon lock nut M8	2
19	Milling assembly	1		20	Hexagon nut M8	4
21	Spring washer d = 8 mm	4		22	Washer d = 8 mm	4
23	Screw M8x30	4		24	Table	1
25	stop plate	1		26	Screw M4x10	4
27	Mission			28	Screw M5x10	3



Spare parts list spare parts drawing 4

Pos.	Designation	Crowd		Pos	Designation	Crowd
1	Screw M6x16	2		2	Dust collector	1
3	Hexagon screw M8x16	1		4	Washer d = 8 mm	1
5	plate	1		6	saw blade	1
7	driven belt drive			8	Sealing ring d = 20 mm	1
9	Ball bearing 6204	2		10	Sealing ring d = 47 mm	1
11	Saw axis	1		12	parallel plate	1
13	Spring washer d = 16 mm	1		14	thin nut M16	2
15	Hexagon lock nut M8	2		16	large disc d = 8 mm	2
17	connecting plate	1		18	Hexagon lock nut M8	2
19	thin hexagon nut M8	1		20	Hexagon screw M8x20	1
21	Large washer d = 8 mm	2		22	Hexagon lock nut M8	1
23	V-belt 5J482	1		24	Engine pulley	1
25	Very large washer d = 6mm	1		26	Hexagon screw M6x16	1
27	rotating shaft	1		28	Engine frame	1
29	Sealing ring d = 19 mm	1		30	Motor	1
31	Washer d = 8 mm	3		32	Hexagon screw M8x16	3
33	Hexagon screw M8x35	2		34	Washer d = 8 mm	2
35	terminal board	1		36	splitting wedge	1
37	terminal board	1		38	Screw M3.5x25	4
39	Dust collector	1		40	Screw M5x30	1
41	Bolt M6x40	1		42	Hexagon lock nut M5	
43	Locking nut	1		44	Hexagon screw M8x20	2
45	Spring washer d = 8 mm	2		46	Washer d = 8 mm	2
47	parallel plate	1		48	Rotation support	1
49	Pin 8x110	1		50	thin hexagon nut M12	2
51	thin washer d = 12 mm	1		52	Locking bolt 5x15	1
53	Sealing ring d = 16 mm	1		54	screw shaft	1
55	Hexagon nut M8	1		56	handwheel	1
57	Washer d = 12 mm	1		58	Hexagon nut M12	1
59	Washer d = 16 mm	2		60	Spring washer d = 12 mm	2
61	Hexagon nut M8	1		62	Large disc	1
63	capacitor	1				

Spare parts drawing 5 outer table assembly

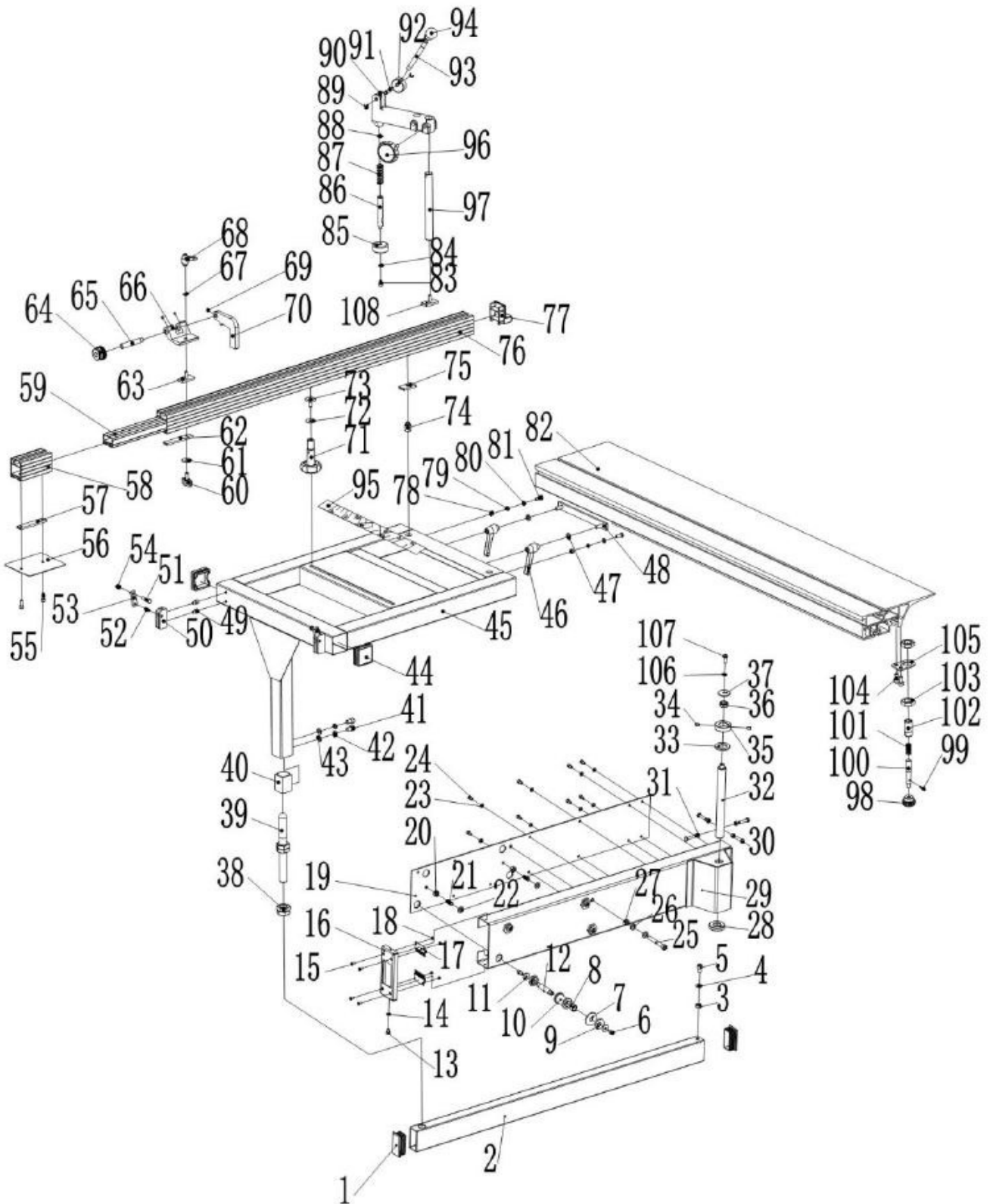


Fig.9-5: Spare parts drawing 5

Spare parts list spare parts drawing 5

Pos.	Designation	Crowd		Pos	Designation	Crowd
1	Lid 30x60	2		2	Telescopic tube	1
3	Hexagon nut M8	1		4	Washer d = 8 mm	1
5	Screw M8x12	1		6	Screw M6x10	8
7	Special washer	4		8	Ball bearing 1241D	8
9	Eccentric nut	8		10	wheel	4
11	Large disc d = 6 mm	8		12	Wave	4
13	Screw M6x8	2		14	Washer d = 5 mm	2
15	Screw M4x10	4		16	End cover	1
17	brush	2		18	Hexagon nut M4	4
19	cover	1		20	Hexagon nut M8	2
21	plastic bolts	2		22	Washer d = 8mm	2
23	Washer d = 5 mm	12		24	Screw M5x8	12
25	Screw M8x60	1		26	Washer d = 8 mm	2
27	Hexagon nut M8	1		28	Press disc	1
29	Bracket for telescopic tube	1		30	Hexagon screw M6x25	4
31	Hexagon nut M6	4		32	Wave	1
33	Washer d = 20 mm	1		34	Threaded pin M6x8	2
35	Press ring	1		36	Bearing GE12E	1
37	Large disc	1		38	thin hexagon nut M20x1.5	4
39	support bar	1		40	connecting block	1
41	Screw M8x12	2		42	Spring washer d = 8 mm	2
43	Washer d = 8 mm	2		44	Lid	2
45	External sliding table	1		46	handle	2
47	Disc d = 8 mm	2		48	clamping plate	1
49	Screw M6x8	4		50	Positive block	2
51	Hexagon screw M6x25	2		52	Spring pin 6x16	2
53	limiting plate	2		54	Hexagon lock nut M6	2
55	Screw M6x16	2		56	mounting plate	1
57	Fixing plate	1		58	Extension bracket for extended ruler	1
59	Main bracket for extended ruler	1		60	Button	1
61	Large washer d = 8 mm	1		62	Fixing plate	1
63	T-bolt	1		64	Setting button	1
65	bolt	1		66	bracket	1
67	Washer d = 6 mm	1		68	small handle	1
69	Threaded pin M5x5	3		70	Position block	1

Pos.	Designation	Crowd		Pos	Designation	Crowd
71	Long handle	1		72	Large disc	1
73	square screw	1		74	turntable	1
75	square nut	1		76	Gate 1200 mm	1
77	Gate protection	1		78	Hexagon nut M6	2
79	Spring washer d = 6 mm	2		80	Disc d = 6 mm	2
81	Hexagon screw M6x16	2		82	Sliding table assembly	1
83	Screw M5x10	1		84	Disc d = 5 mm	1
85	Press rod	1		86	press rod	1
87	Feather	1		88	Sealing ring d = 12 mm	1
89	Sealing ring d = 6 mm	2		90	Press holder	1
91	Pen	1		92	Press wheel	1
93	hand stick	1		94	handknob	1
95	angle ruler	1		96	Locking knob	
97	spindle	1		98	Button	1
99	Spring pin d3x16	1		100	push bar	1
101	Feather	1		102	Support bushing	1
103	Thin nut M16x1.5	2		104	Screw M6x12	2
105	connecting plate	1		106	Spring washer d = 6 mm	1
107	Hexagon screw M6x16	1		108	special screw	1

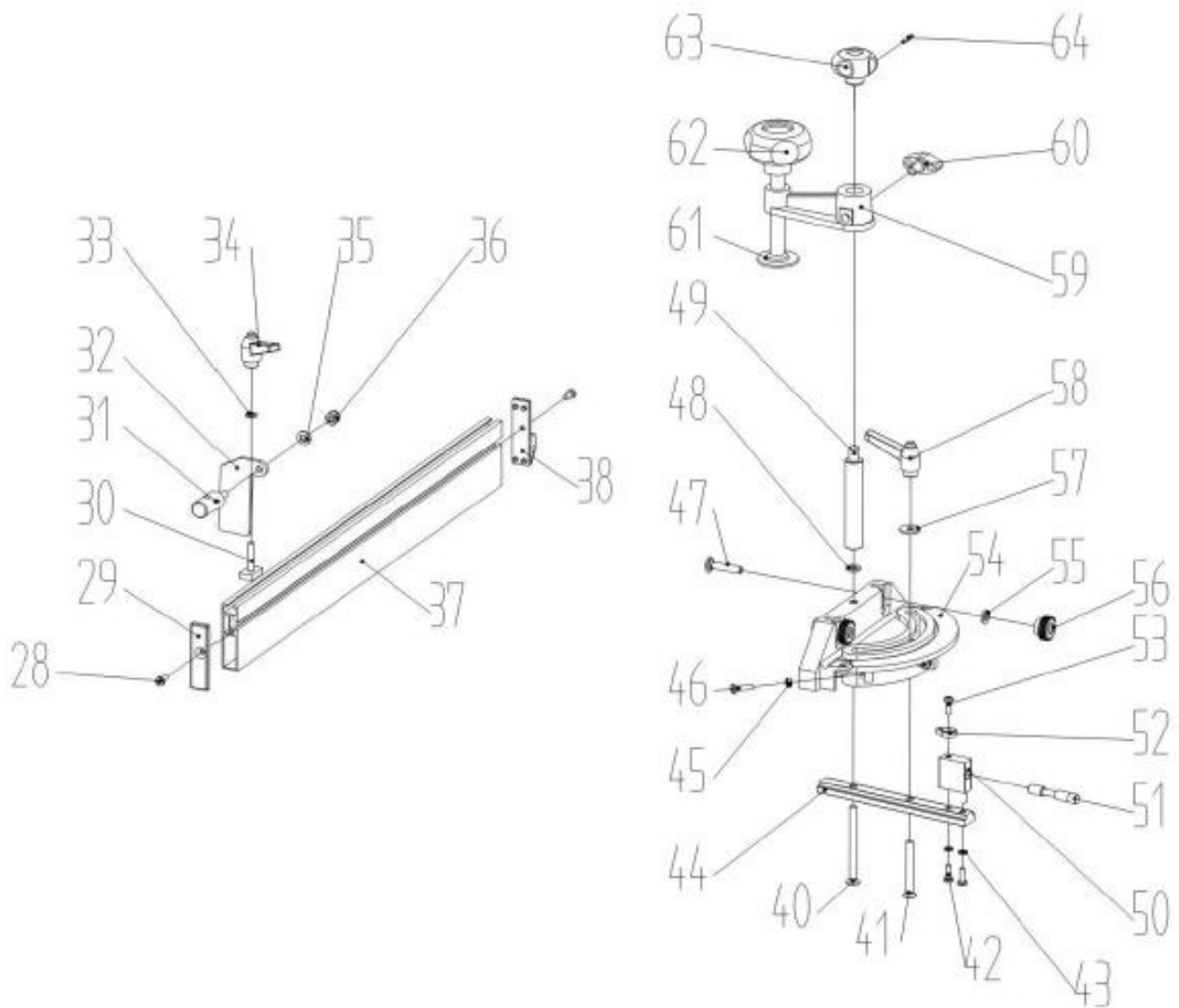


Fig.9-6: Spare parts drawing 6

Spare parts list spare parts drawing 6

Pos.	Designation	Crowd		Pos	Designation	Crowd
				28	Screw M4x10	2
29	Stop insert	1		30	T-screw	1
31	stop bolt	1		32	locking plate	1
33	Disc d = 5 mm	1		34	Small handle	1
35	Disc d = 6 mm	1		36	Hexagon lock nut	1
37	stop	1		38	Stop insert	1
		1		40	Screw M6x70	1
41	Screw M6x50	1		42	Screw M4x12	2
43	Spring washer d = 4 mm	2		44	T-shaped plate	1
45	Hexagon nut M4	3		46	Screw M4x16	
47	Square shoulder bolt M6x30	2		48	Disc d = 6 mm	1
49	Installation shaft	1		50	Solid support	1
51	Grab bar	1		52	pointer	1
53	Screw M4x12	1		54	Miter gauge	1
55	Disc d = 6 mm	2		56	Lock button	2
57	Large disc d = 6 mm	1		58	small handle	2
59	seesaw	1		60	Diamond-shaped handle	1
61	Press plate	1		62	Handle press	1
63	Handle 3x16	1		64	Spring pin 3x16	1

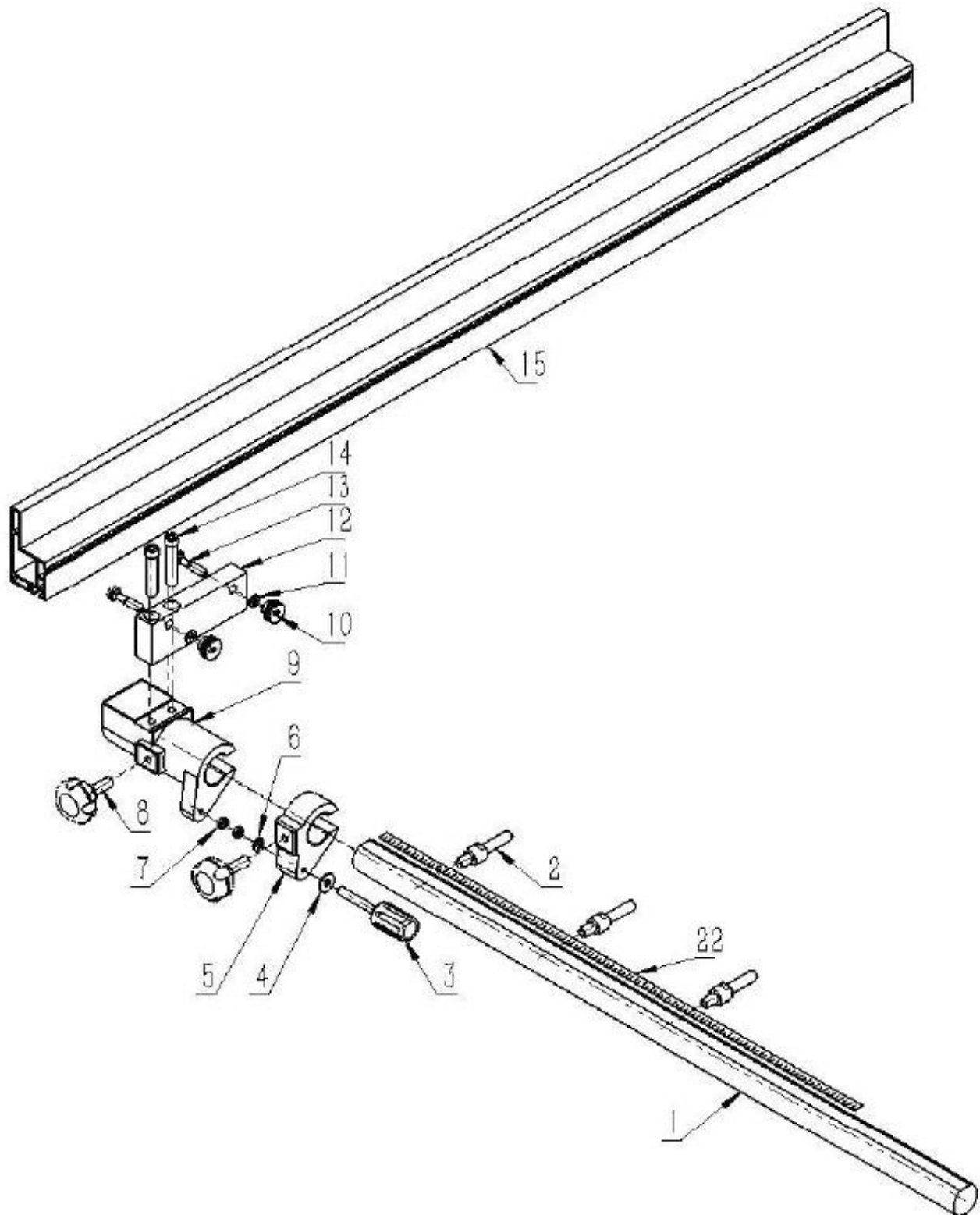


Fig.9-7: Spare parts drawing 7

Spare parts list spare parts drawing 7

Pos.	Designation	Crowd	Pos.	Designation	Crowd
1	guide rail	1	2	double-head screw	4
3	Micro adjustment handle	1	4	Wave washer d = 6 mm	1
5	Micro-adjustment support	1	6	Large disc d = 6 mm	2
7	thin hexagon nut M6		8	Locking handle	2
9	clamp	1	10	Locking button	2
11	large disc d = 6 mm	2	12	connecting plate	1
13	Square shoulder bolt M6x35	2	14	Screw M8x45	2
22	scale	1			

Spare parts drawing 8 milling assembly

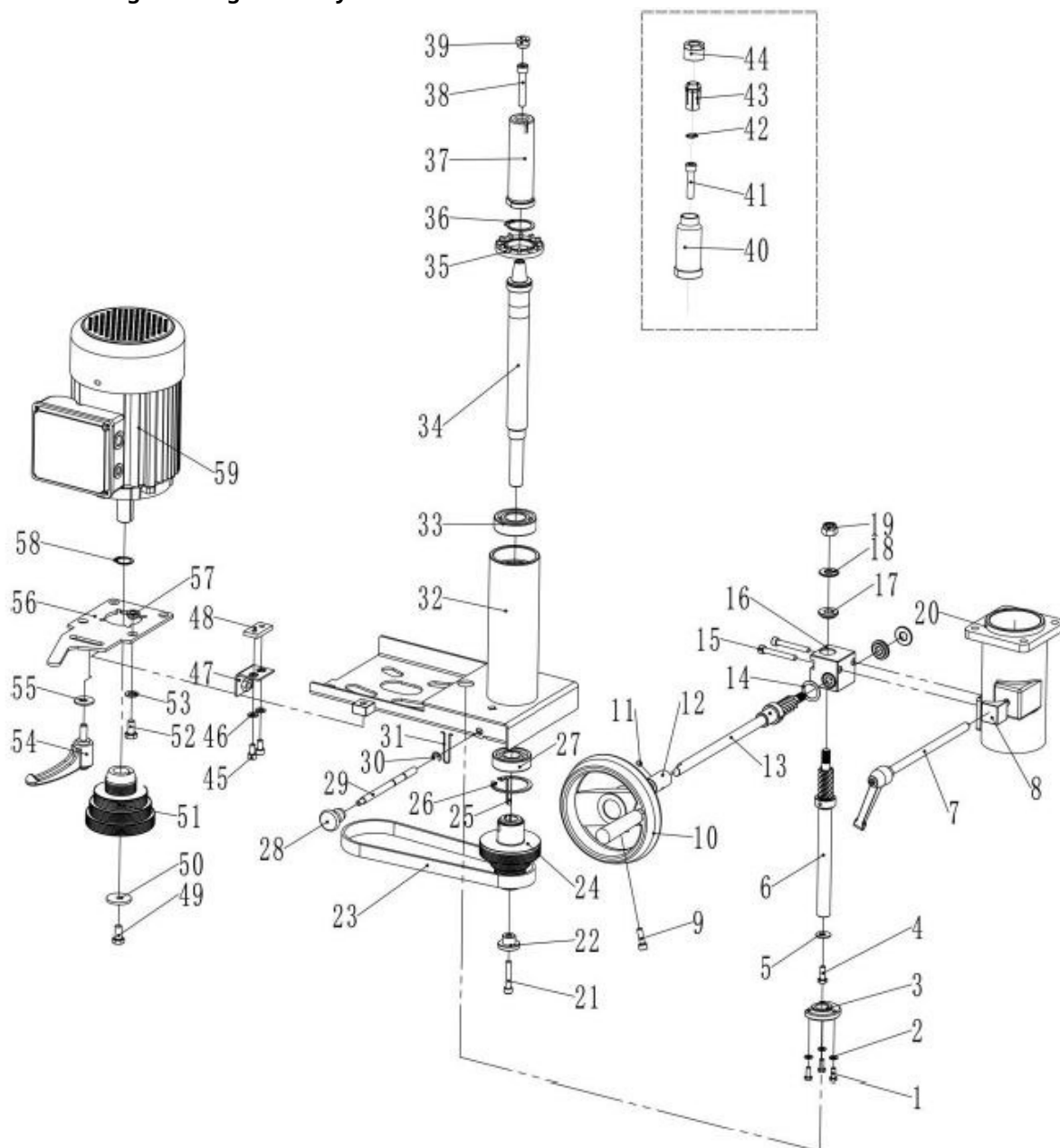


Fig.9-8: Spare parts drawing 8

Spare parts list spare parts drawing 8

Pos.	Designation	Crowd		Pos	Designation	Crowd
1	Hexagon screw M5x12	3		2	Disc d = 5 mm	3
3	nut socket	1		4	Hexagon screw M6x16	1
5	Large disc d = 6 mm	1		6	Gear shaft	1
7	Safety bar	1		8	fuse block	1
9	Screw M6x20	1		10	handwheel	1
11	Threaded pin M6x6	1		12	connecting rod	1
13	Gear shaft	1		14	thin slice	2
15	Screw M6x45	2		16	Gearbox housing	1
17	Gearbox bushing	2		18	Bearing AXK1024	2
19	Hexagon lock nut M10	2		20	Aligned stand	1
21	Screw M6x35	1		22	circular disc	1
23	Belt 5PJ508	1		24	Driven pulley	1
25	Key 5x35	1		26	Sealing ring d = 47 mm	1
27	Warehouse 6204	1		28	handle	1
29	locking bar	1		30	Sealing ring d = 6mm	1
31	spring clip	1		32	Engine frame	1
33	Warehouse 6205	1		34	spindle	1
35	fan cap	1		36	Sealing ring d = 30 mm	
37	Replaceable spindle	1		38	Screw M8x45	1
39	Preventive mother	1		40	Replaceable spindle	1
41	Screw M8x35	1		42	Sealing ring d = 13 mm	1
43	Milling cutter collet	1		44	Milling cutter clamping nut	1
45	Screw M6x14	2		46	Disc d = 6 mm	
47	Angle plate	1		48	plate	1
49	Hexagon screw M6x16-L	1		50	Large disc	1
51	Engine pulley	1		52	Hexagon screw M8x16	4
53	Disc d = 8 mm	4		54	Locking handle	1
55	Large disc d = 8 mm	1		56	turntable	1
57	spacer bushing	4		58	Sealing ring	1
59	Motor	1				

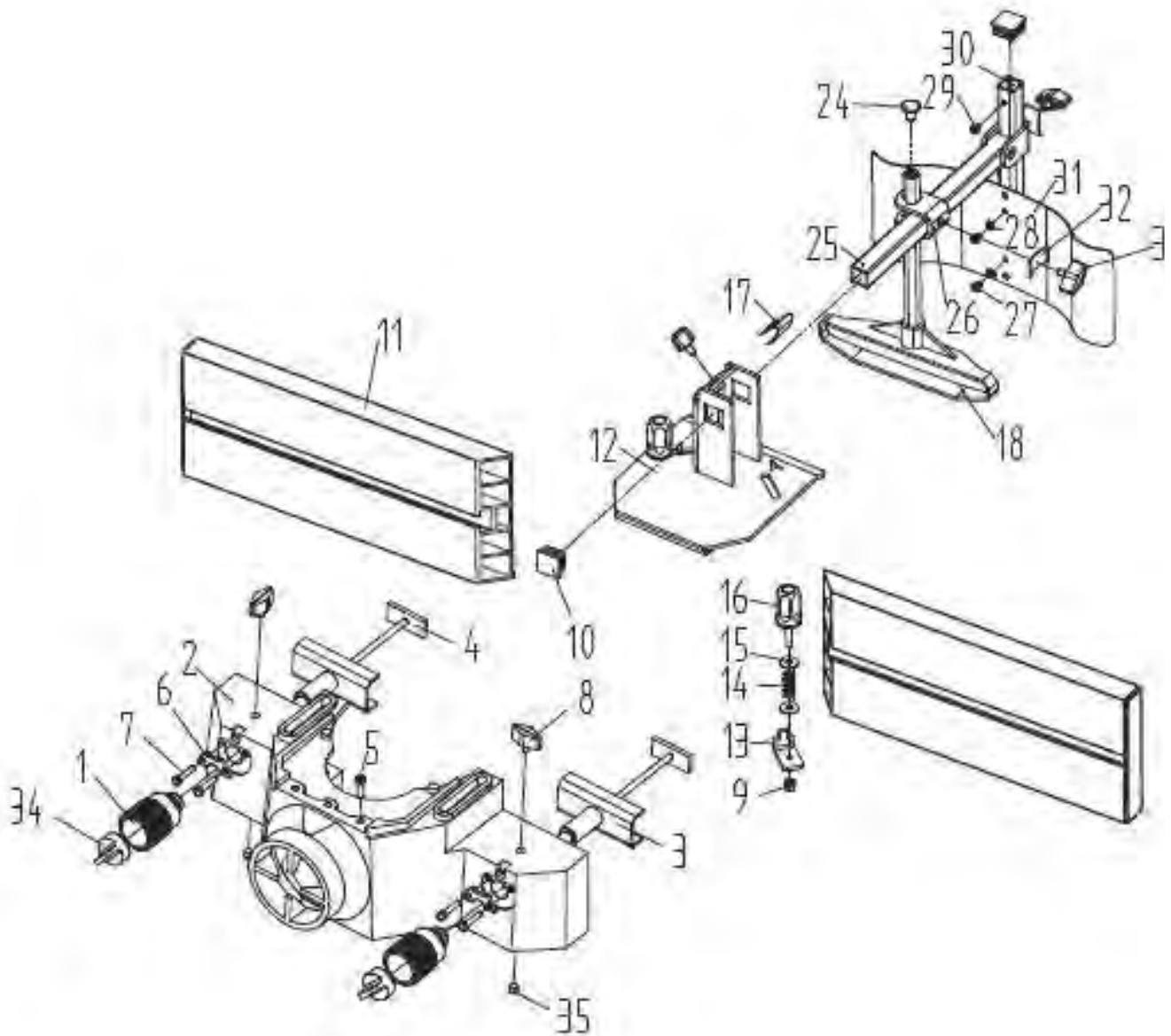


Fig.9-9: Spare parts drawing 9

Spare parts list Spare parts drawing 9

Pos.	Designation	Crowd		Pos	Designation	Crowd
1	Adjustment wheel	2		2	Overload box	1
3	Guide frame	2		4	T-bolt	2
5	Screw M6x10	4		6	metal plate	2
7	Hexagon screw M5x12	4		8	Diamond-shaped handle	3
9	Hexagon lock nut M6	2		10	Square plastic end	3
11	T-rail	2		12	frame	1
13	Locking plate	2		14	Feather	2
15	Large disc d = 6 mm	2		16	handle	2
17	U-shaped cover	2		18	Hexagonal guide head	1
				24	Bolt M8x12	
25	Hexagonal guide head module	1		26	Bent pipe	1
27	Screw M4x6	2		28	Disc d = 4 mm	2
29	Screw M4x6	1		30	standpipe	1
31	Spring guard wide	1		32	Locking plate	2
33	Diamond-shaped handle	2		34	Locking button	2
35	threaded pin	2				

Spare parts drawing 10 Control box assembly

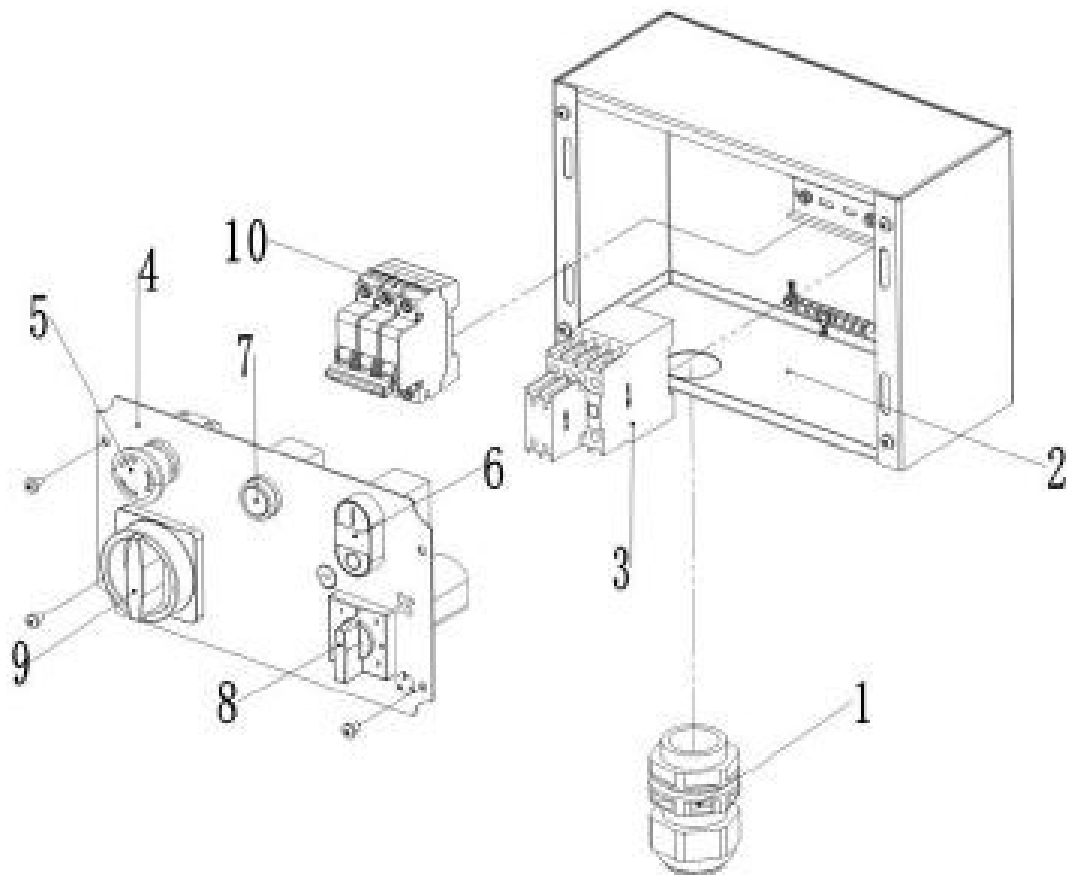


Fig. 9-10: Spare parts drawing 10

Spare parts list spare parts drawing 10:

Pos.	Designation	Crowd		Pos	Designation	Crowd
1	cable gland	1		6	Main switch	1
2	E-Box	1		7	Work light	1
3	Schütz	1		8	Mode switch	1
4	contactor plate	1		9	On/off switch	1
5	Emergency stop switch	1		10	Backup	1

Substitute

unit

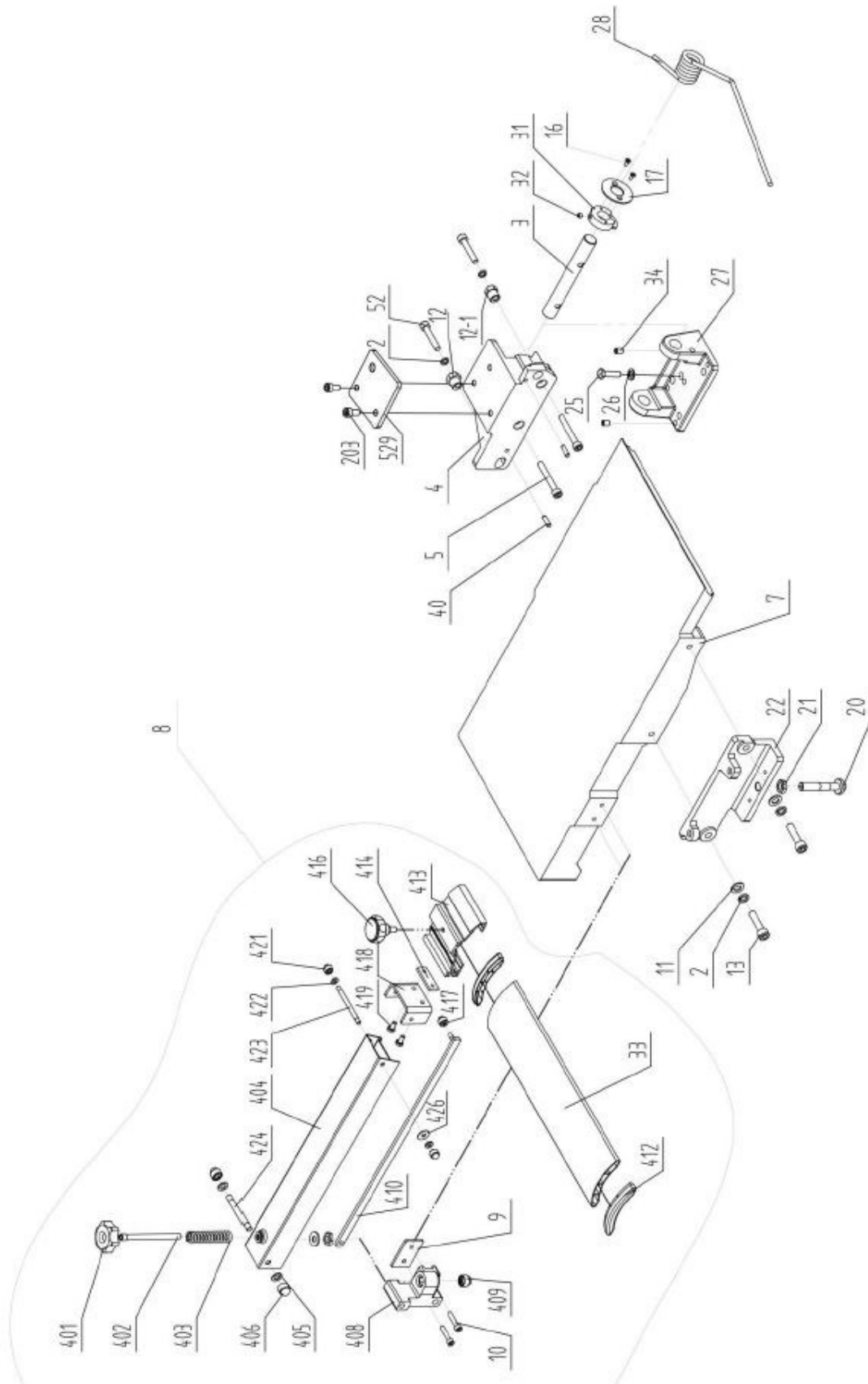


Fig.9-11: Spare parts drawing 11

Spare parts list spare parts drawing 11

Pos.	Designation	Crowd		Pos	Designation	Crowd
2	spring washer	2		3	Shaft of the outfeed table holder	1
4	Outfeed table holder right	1		5	Hexagon screw with Hexagon socket M8x60	2
7	Outfeed table	1		8	Cutting block protection assembly	1
9	plate	1		10	Hexagon screw with Hexagon socket M6x30	2
11	Disc d = 10 mm	2		12	Hexagon socket	1
12-1	Hexagon socket	1		13	Hexagon screw with Hexagon socket M10x40	2
16	screw	2		17	Large disc	1
20	Table locking shaft	1		21	Hexagon nut M12	1
22	Outfeed table holder left	1		25	Hexagon screw M8x30	3
26	Disc d = 8 mm	5		27	Discharge table holder	1
28	Feather	1		31	Large cam wheel for Safety switch	1
32	Grub screw M6x6	1		33	Cutting block protective profile with cap	1
34	Grub screw M8x12	5		40	Pin 6x20	4
52	Hexagon screw M8x45	2		203	Hexagon screw M8x16	2
401	Locking button	1		402	Lead screw	1
403	Feather	1		404	Bracket for protective grille	1
405	Disc d = 8 mm	3		406	Locking nut M8	2
408	Locking support	1		409	Hexagon lock nut M8	1
410	Long wave	1		412	pressed cover	2
413	Cover of the protective plate	1		414	Locking plate	1
416	nylon button	1		417	Locking nut M6	1
418	bracket	1		419	Hexagon screw M6x10	2
421	Locking nut M6	2		422	Nylon washer d = 6 mm	2
423	Wave N6	1		424	Shaft M8	1
426	Disc d = 6 mm	2		529	plate	1

Spare parts drawing 12 planer thickness planer cutting block assembly

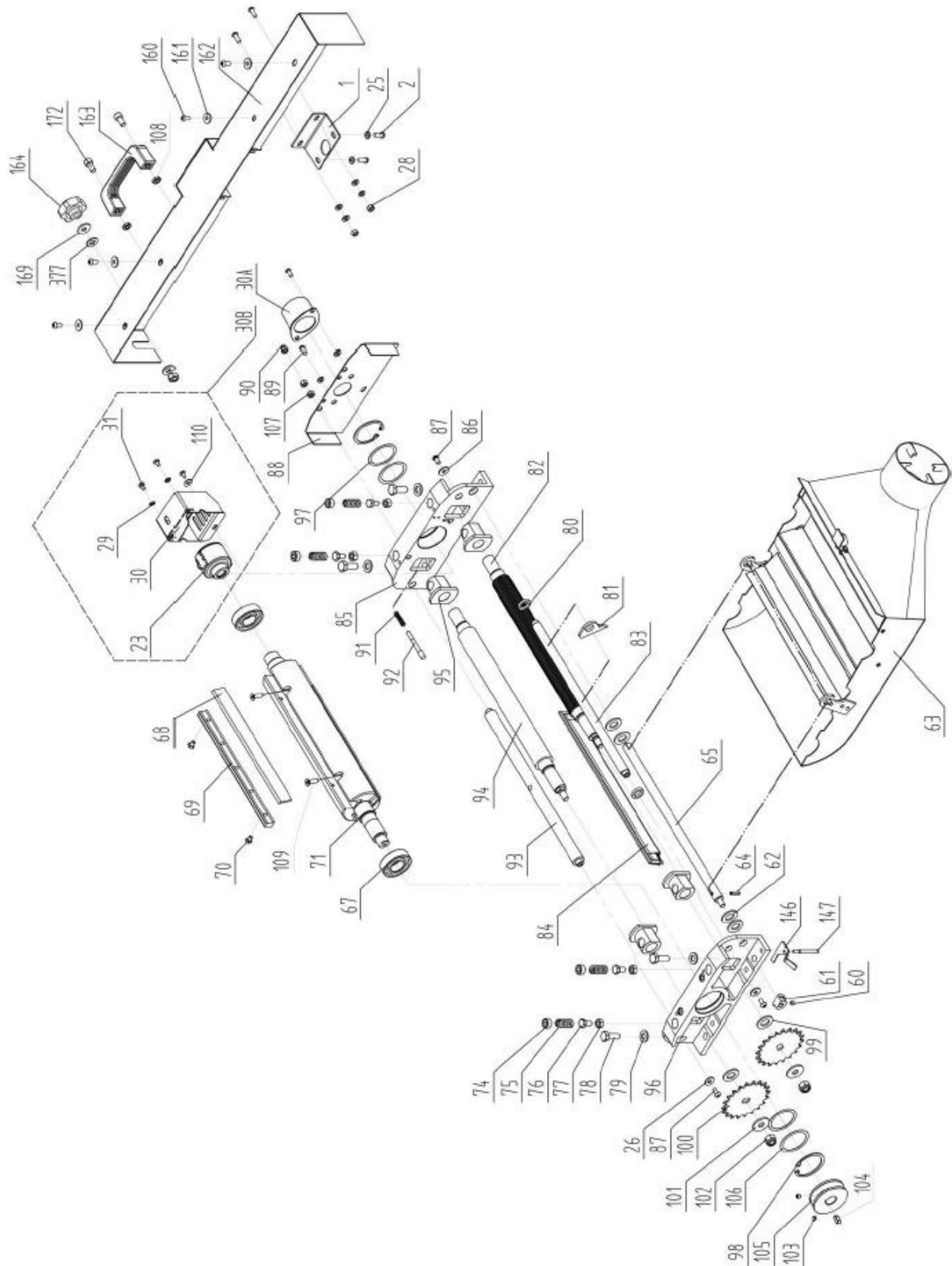
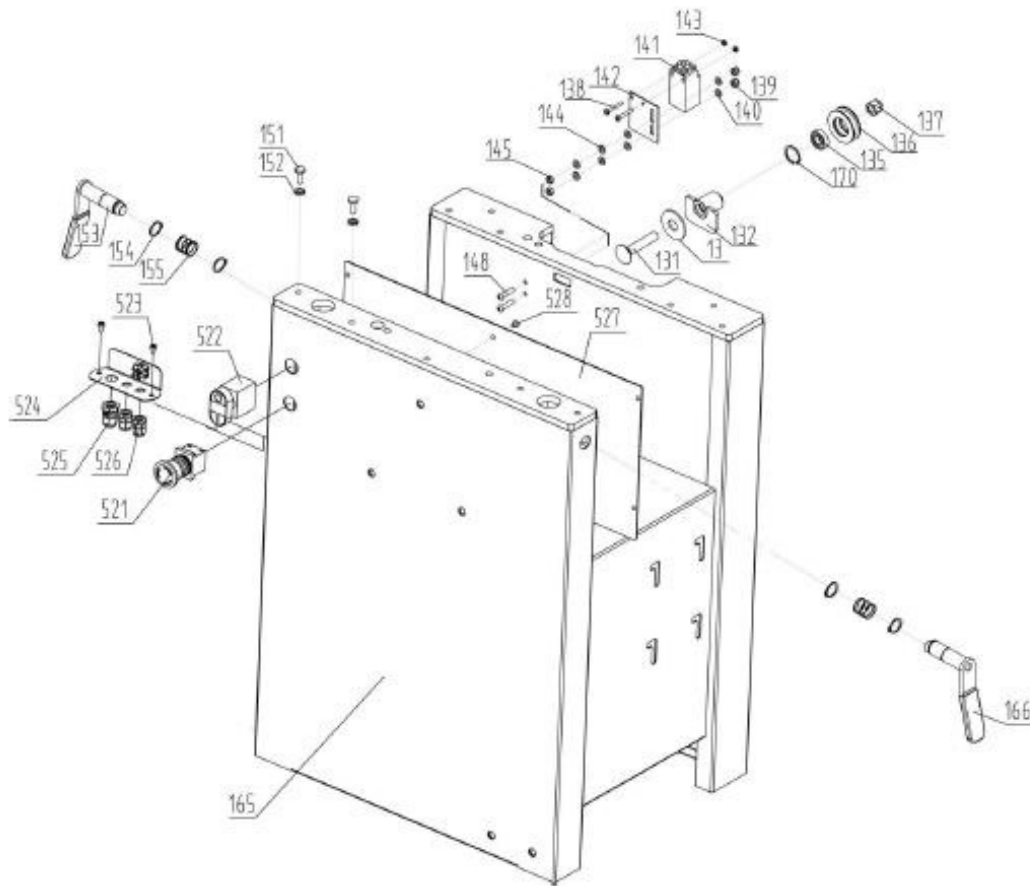


Fig.9-12: Spare parts drawing 12

Spare parts list spare parts drawing 12

Pos.	Designation	Crowd		Pos	Designation	Crowd
1	Housing connecting plate	1		2	Button head screw M6x16	4
23	Planer head	1		25	Disc d = 6 mm	6
26	large disc d = 6 mm	2		28	hexagon nut	2
29	Fixed washer d = 5 mm	2		30	Planer head housing	1
31	Button head screw M5x8	3		30A	Cover of the Knife shaft head	1
60	Hexagon set screw M6x6	1		61	small cam wheel	1
62	Disc d = 14 mm	4		63	Dust catcher assembly	1
64	Pin roll 5x18	1		65	Wave	1
67	Bearing 6205-2Z	2		68	Knife	3
69	Knife locking bar	3		70	Special screw for locking bar	15
71	Cutting block	1		74	screw	4
75	Feather	4		76	Hexagon screw M8x14	4
77	thin hexagon nut M8	4		78	Hexagon screw M10x25	4
79	Disc d = 10 mm	4		80	spacer ring	43
81	Anti-kickback fingers	33		82	Feed roller	1
83	Anti-kickback shaft	1		84	Cutting block cover	1
85	Cutting block holder-left	1		86	Large disc d = 6 mm	2
87	Hexagon socket head cap screw with Hexagon socket M6x12	2		88	cover Cutting block holder	1
89	Button head screw M6x12	2		90	Cap nut M6	1
91	Feather	1		92	Pin stop for dust collector	1
93	support bar	1		94	Outlet roller (rubber)	1
95	Tube (powder metal bushing)	4		96	Cutting block holder-right	1
97	Wave washer D52	2		98	Retaining ring CLP52	2
99	Disc (black) d = 14 mm	2		100	Drive chain sprocket	2
101	large disc d = 10 mm	2		102	Locking nut	2
103	Hexagon set screw M6x6	2		104	Pin 6x16	2
105	spindle pulley	1		106	Disc D52	2
107	Hexagon nut M6	2		108	thin hexagon nut M8	2
109	Hexagon screw M6x20	6		110	large disc d = 5 mm	1
146	Safety rocker switch	1		147	Safety switch rocker shaft	1
160	Button head screw M6x12	4		161	large disc d = 6 mm	4
162	front cover	1		163	handle	1
164	Locking button	1		169	large disc d = 8 mm	1
172	Hexagon screw M8x16	2		377	Nylon disc d = 8 mm	2



Spare parts list spare parts drawing 13

Pos.	Designation	Crowd		Pos.	Designation	Crowd
13	large disc	1		131	Carrying bolt M12x65	1
132	Pipe	1		135	Bearing 6001-2Z	1
136	Chain tensioning wheel	1		137	Locking nut M12	1
138	Button head screw M4x30	1		139	Locking nut M6	2
140	Disc d = 6 mm	2		141	Safety switch	1
142	Safety switch bracket	1		143	Hexagon nut M4	2
144	Disc d = 6 mm	6		145	Hexagon nut M6	2
148	Hexagon socket head cap screw with Hexagon socket M6x25	2		151	special screw	4
152	thin hexagon nut M8	4		153	Locking handle for discharge table	1
154	Retaining ring CLP20	4		155	Feather	2
165	cabinet	1		166	Locking handle for feed table	1
170	Retaining ring CLP28	1		521	Emergency stop switch	1
522	On/off switch	1		523	Hexagon screw M5x8	2
524	E-plate	1		525	Cable gland M16	1
526	Cable gland M12	2		527	Inner cover	1
528	Hexagon screw M5x8	5				

spare part

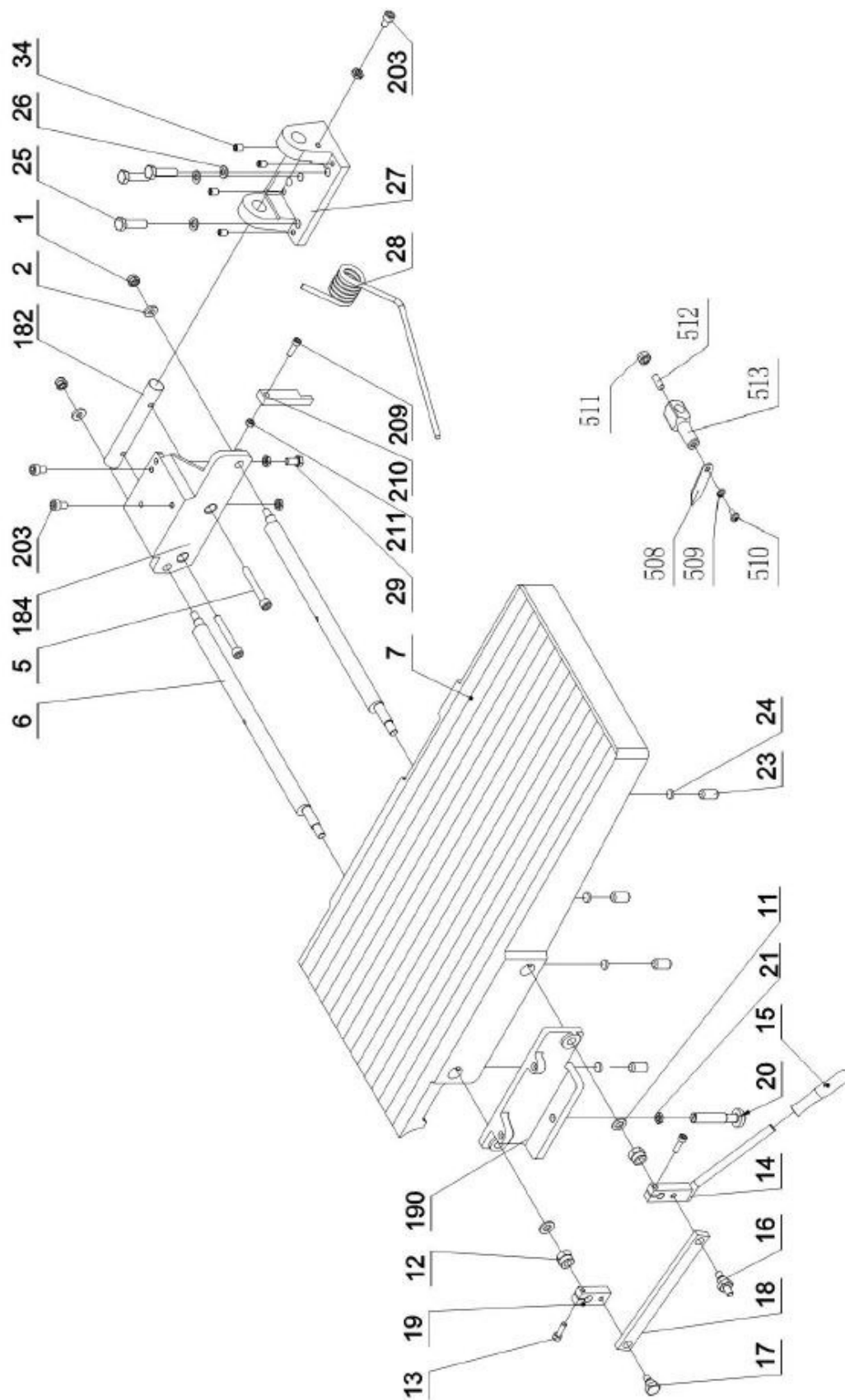


Fig.9-14: Spare parts drawing 14

Spare parts list spare parts drawing 14

Pos.	Designation	Crowd		Pos	Designation	Crowd
1	Locking nut M8	2		2	thick slice	2
5	Cylinder head screw with Hexagon socket M8x60	2		6	Eccentric shaft	2
7	front table	1		11	Disc d = 12 mm	2
12	Hexagon lock nut M12	2		13	Cylinder head screw with Hexagon socket M6x20	2
14	Adjustment handle	1		15	Button	1
16	Mounting screw	1		17	Mounting screw	1
18	Eccentric shaft holder	1		19	Eccentric shaft clamp	1
20	Table locking shaft	1		21	thin hexagon nut M12	1
23	Adjusting screw with hexagon socket M8x10	4		25	Hexagon screw M8x30	3
26	Disc d = 8 mm	3		27	table support	1
28	Feather	1		29	Hexagon screw M8x16	1
34	Adjusting screw with hexagon socket M8x10	5		182	Outfeed table holder shaft	1
184	Feed table bracket right	1		190	Feed table bracket left	1
203	Cylinder head screw with Hexagon socket M8x16	2		209	Cylinder head screw with Hexagon socket M8x35	1
210	Table stop	1		211	thin hexagon nut M8	1
508	Advertisement	1		509	Spring washer H4	1
510	Screw M4x8	1		511	Hexagon nut M6	1
512	Threaded pin M6x16	1		513	support bar	
529	plate	1				

Spare parts drawing 15 Drive and motor of the thickness planer assembly

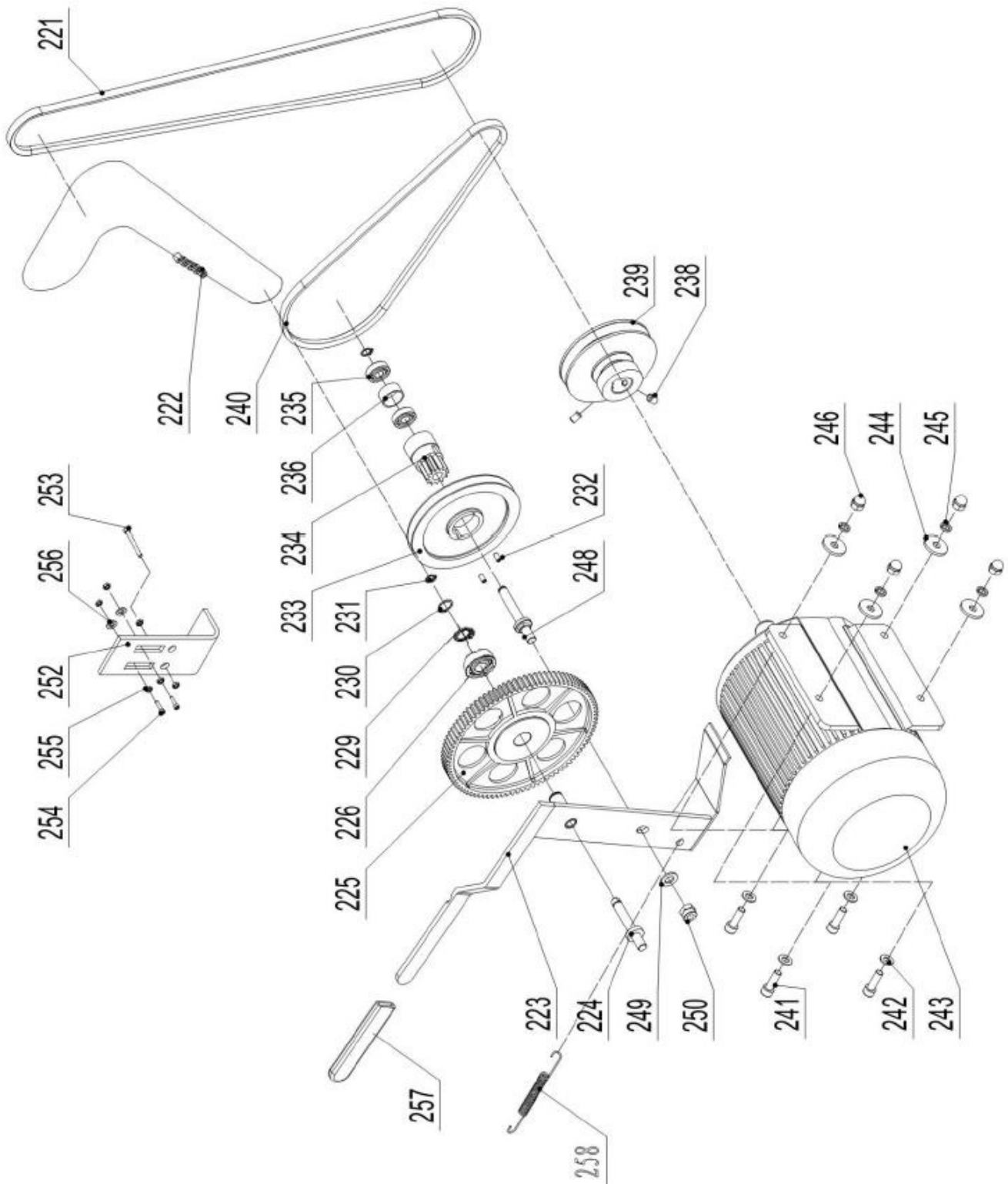


Fig.9-15: Spare parts drawing 15

Spare parts list spare parts drawing 15

Pos.	Designation	Crowd		Pos	Designation	Crowd
221	V-belt for cutting block A1194	1		222	Drive chain 081-86	1
223	Cam wheel holder	1		224	Camshaft	1
225	Plastic gear assembly	1		226	Warehouse 61902	2
229	Retaining ring d = 28 mm	2		230	Retaining ring CLP15	1
231	Retaining ring CLP10	2		232	Hexagon. Adjusting screw with Hexagon socket M5x10	2
233	V-belt pulley for Feed roller	1		234	gear	1
235	Bearing 6000-2Z	2		236	Distance bearings	1
238	Hexagon. Adjusting screw with Hexagon socket M6x12	2		239	Engine pulley	1
240	V-belt for feed roller O-770E	1		241	Cylinder head screw with Hexagon socket M8x25	4
243	Engine 230/50/1 Engine 400/50/3	1		244	Large disc d = 8 mm	4
245	Spring washer d = 8 mm	4		246	Hexagon cap nut M8	4
248	Wave	1		249	Disc d = 10 mm	1
250	Hexagon lock nut M10	1		252	plate	1
253	Hexagon screw M6x60	1		254	Cylinder head screw with Hexagon socket M6x20	2
255	Hexagon nut M6	6		257	rubber handle	1
258	tension spring	1				

Spare parts drawing 16 Thickness planer table assembly

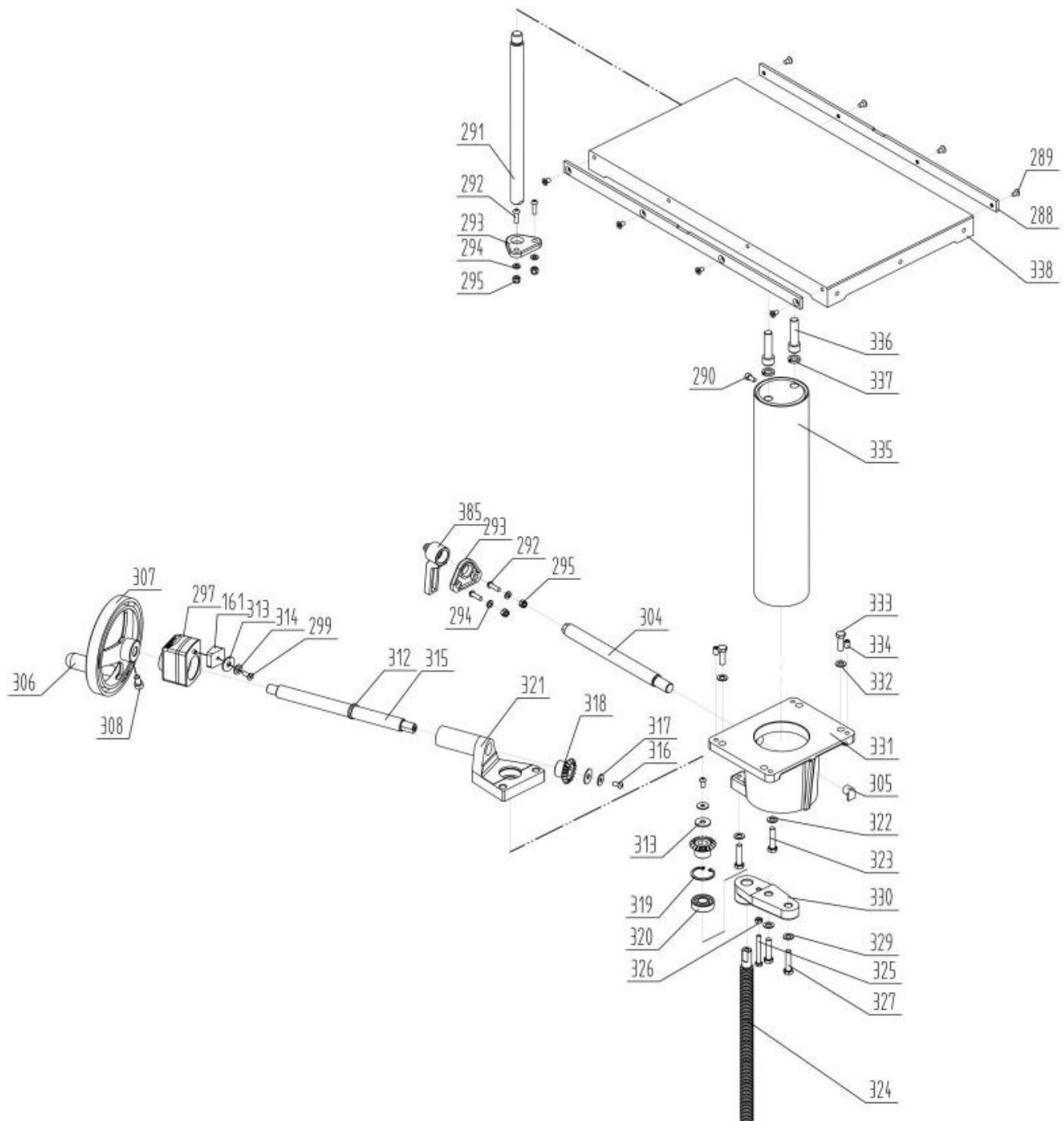


Fig.9-16: Spare parts drawing 16

Spare parts list spare parts drawing 16

Pos.	Designation	Crowd		Pos	Designation	Crowd
161	Location of the indicator	1		288	Long pole	2
289	Screw M6x10	8		290	Hexagon socket screw M6x12	1
291	Thickness planer table guide rail	1		292	Cylinder head screw with Hexagon socket M6x20	4
293	Guide rail bracket	2		294	Disc d = 6 mm	4
295	Hexagon lock nut M6	4		297	Position display	1
299	Screw M6x16	1		304	locking bar	1
305	locking shoe	1		307	Crank handwheel 160	1
308	Cylinder head screw with Hexagon socket M8x16	1		312	Retaining ring CLP20	1
313	large disc d = 8 mm	2		314	Disc d = 6 mm	2
315	Crank rod	1		316	Button head screw M6x12	2
317	large screw d = 6 mm	2		318	bevel gear	2
319	Retaining ring CLP35	2		320	Bearing 6202-2Z	2
321	Bevel gear holder	1		322	Disc d = 8 mm	2
323	Hexagon screw M8x35	2		324	threaded rod	1
325	Hexagon screw M6x50	1		326	Hexagon nut M6	1
327	Hexagon screw M8x35	2		329	Disc d = 8 mm	2
330	Threaded rod holder	1		331	Column support	1
332	Disc d = 8 mm	4		333	Hexagon screw M8x25	4
334	Adjusting screw with hexagon socket M8x12	4		335	column	1
336	Cylinder head screw with Hexagon socket M12x45	2		337	Spring washer d = 12 mm	2
338	Thickness planer table	1		385	Locking handle	1

Spare parts drawing 17 Planer Thicknesser Working stop assembly

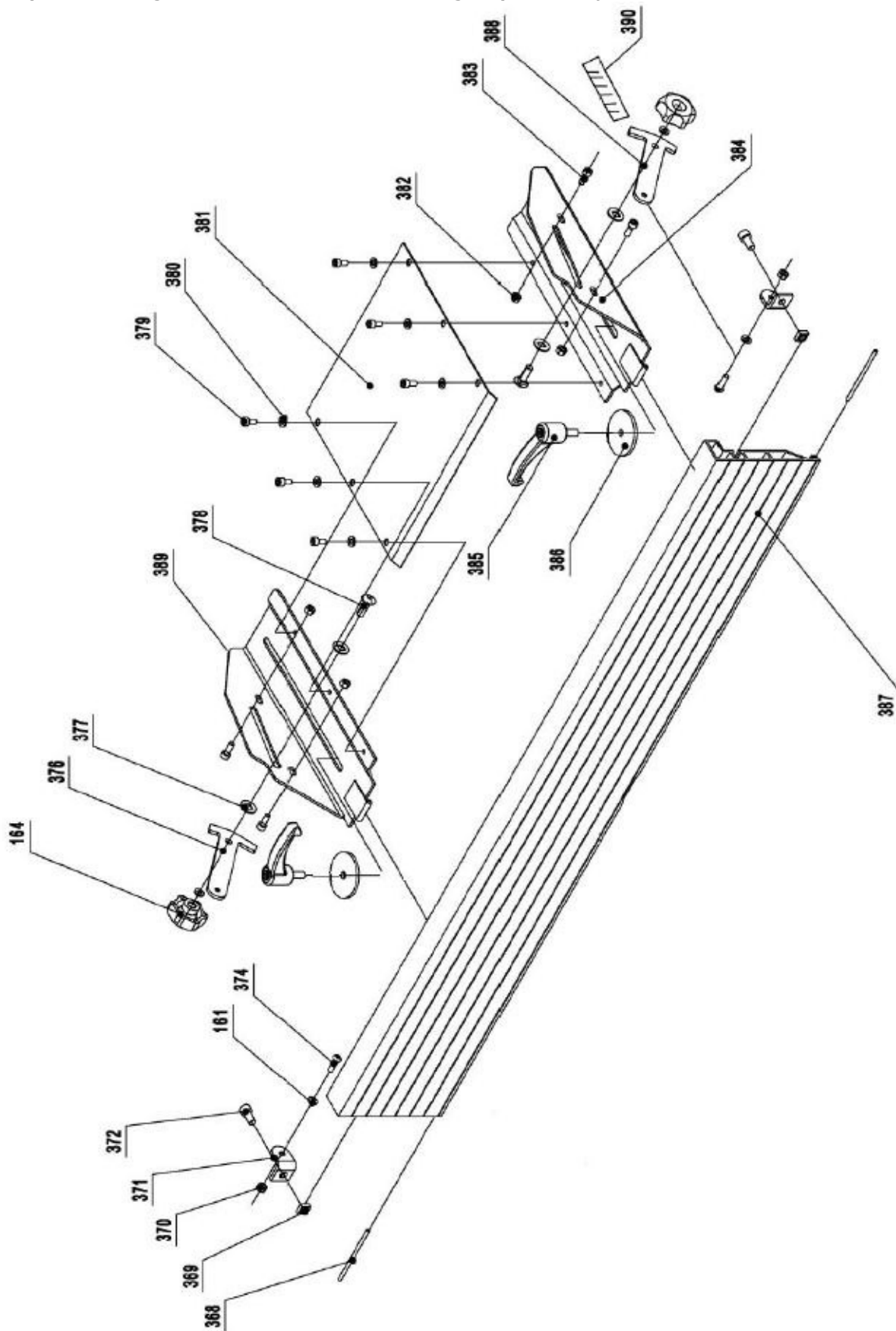
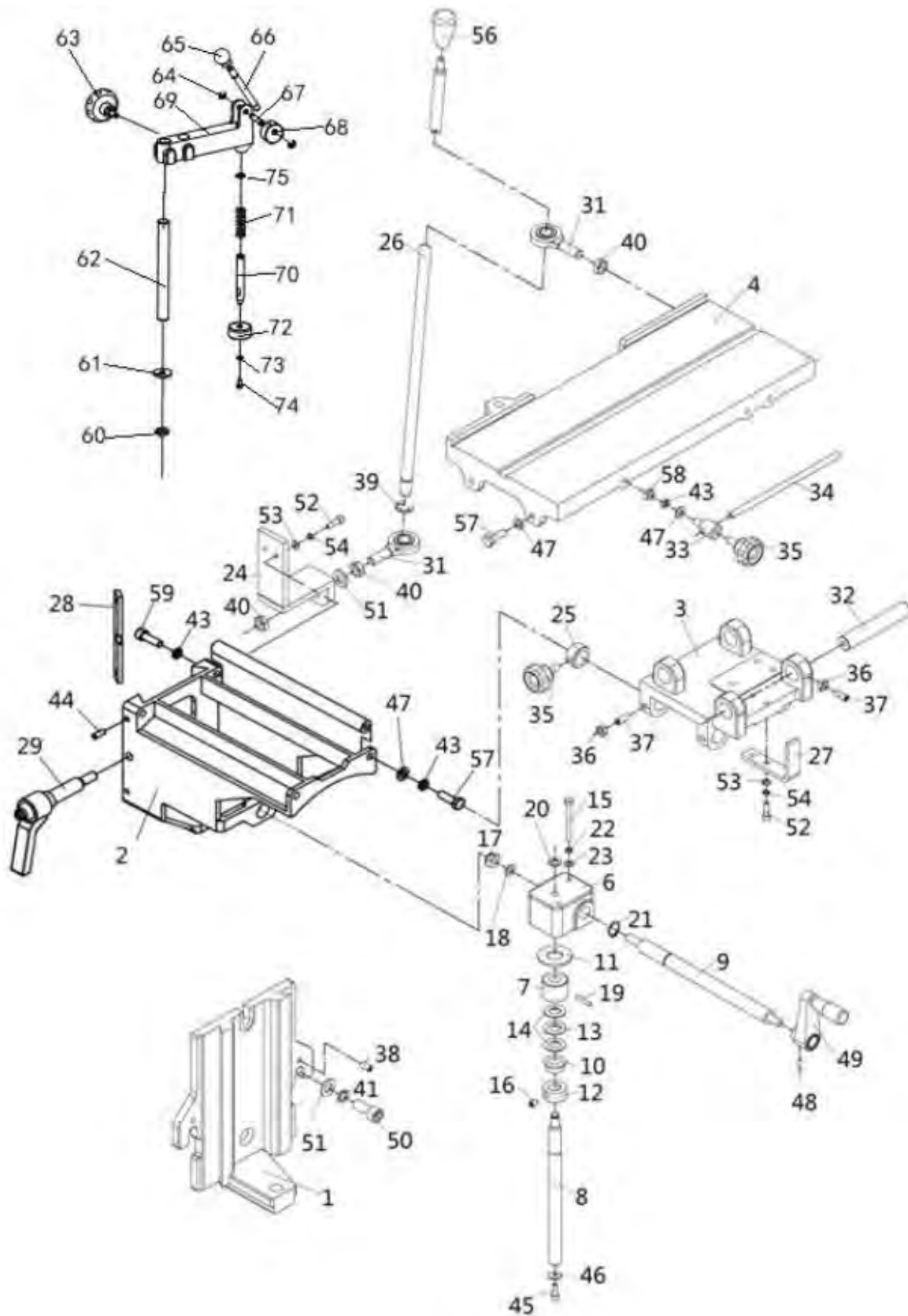


Fig.9-17: Spare parts drawing 17

Spare parts list spare parts drawing 17

Pos.	Designation	Crowd		Pos	Designation	Crowd
161	Large disc d = 6 mm	2		164	Locking button	2
368	Bolt for hinge	2		369	Square nut M8	2
370	Nut M6	2		371	Bracket for mounting the fence	2
372	Cylinder head screw with Hexagon socket M8x16	2		374	Cylinder head screw with Hexagon socket M6x16	2
376	Fence support-right	1		377	Nylon disc	4
378	Carriage bolt M8x25	2		379	Button head screw M6x12	6
380	Disc d = 6 mm	6		381	Cutting block cover	1
382	Hexagon screw M6	4		383	Cylinder head screw with Hexagon socket M6x10	4
384	Fence bracket-left	1		385	Locking handle	2
386	Special disc	2		387	Fence	1
388	Fence support-left	1		389	Fence bracket-right	1
390	Fence scale	1				

He



Away

Spare parts list spare parts drawing 18

Pos.	Designation	Crowd		Pos	Designation	Crowd
1	circuit board	1		2	Lifting bracket	1
3	Cross support	1		4	Table	1
5	guide rod	2		6	gearbox	1
7	Gearbox	1		8	screw shaft	1
9	Gear shaft	1		10	Copper storage	1
11	ring	1		12	Adjustment ring	1
13	Thrust bearing 8102	1		14	Thrust bearing 8102	2
15	Hexagon screw M6x60	2		16	Threaded pin M8x10	2
17	Hexagon lock nut M10	1		18	Disc d = 10 mm	1
19	Spring pin 5x25	1		20	Sealing ring d = 10 mm	1
21	Retaining ring d = 18 mm	1		22	Spring washer d = 6 mm	1
23	Disc d = 6 mm	1		24	bracket	1
25	Adjustment ring	1		26	Control bar	1
27	Sliding stop	1		28	spacer bar	1
29	Locking handle	1		31	Eyelet bearing SA14ES	2
32	guide rail	2		33	Fixed pin	2
34	release rod	2		35	Locking handle	3
36	Thin hexagon nut M8	4		37	Grub screw M8x12	4
38	Threaded pin M8x12	3		40	Hexagon nut M14	2
41	Disc d = 10 mm	2		44	Threaded pin M6x30	
43	Spring washer d = 8 mm	4		46	large disc d = 6 mm	1
45	Cylinder head screw with Hexagon socket M6x12	1		48	Spring pin 5x20	1
47	Disc d = 8 mm	6		50	Hexagon socket screw M10x25	3
49	Handle	1		52	Hexagon socket screw M6x12	
51	disc	2		54	Spring washer d = 6 mm	2
53	Disc d = 6 mm	2		56	Button	1
57	Hexagon screw M8x20	8		58	Hexagon nut M8	
59	Hexagon socket screw M8x20	2		60	Hexagon nut M12	1
61	Spring washer d = 12 mm	1		62	stator shaft	1
63	Locking handle	1		64	"E" ring d = 6 mm	2
65	handknob	1		66	Handbar	1
67	Pen	1		68	wheel	1
69	bracket	1		70	spindle	1
71	Feather	1		72	rod	1
73	Disc d = 5 mm	1		74	Screw M5x10	1
75	"C" ring d = 12 mm	1				

10 Circuit diagrams

10.1 Circuit diagram UM

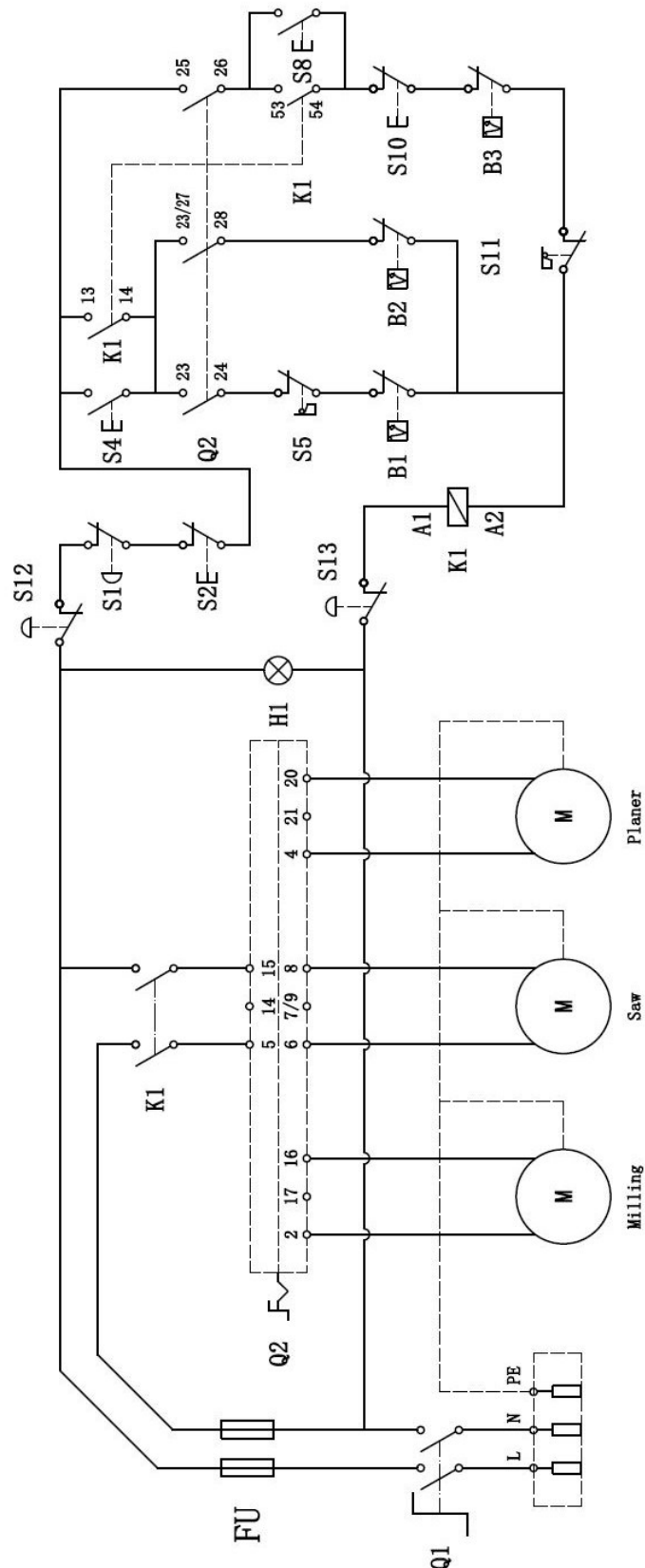


Fig.10-1: Circuit diagram UMK 5-260 230V/50Hz/1Ph

10.2 Circuit diagram

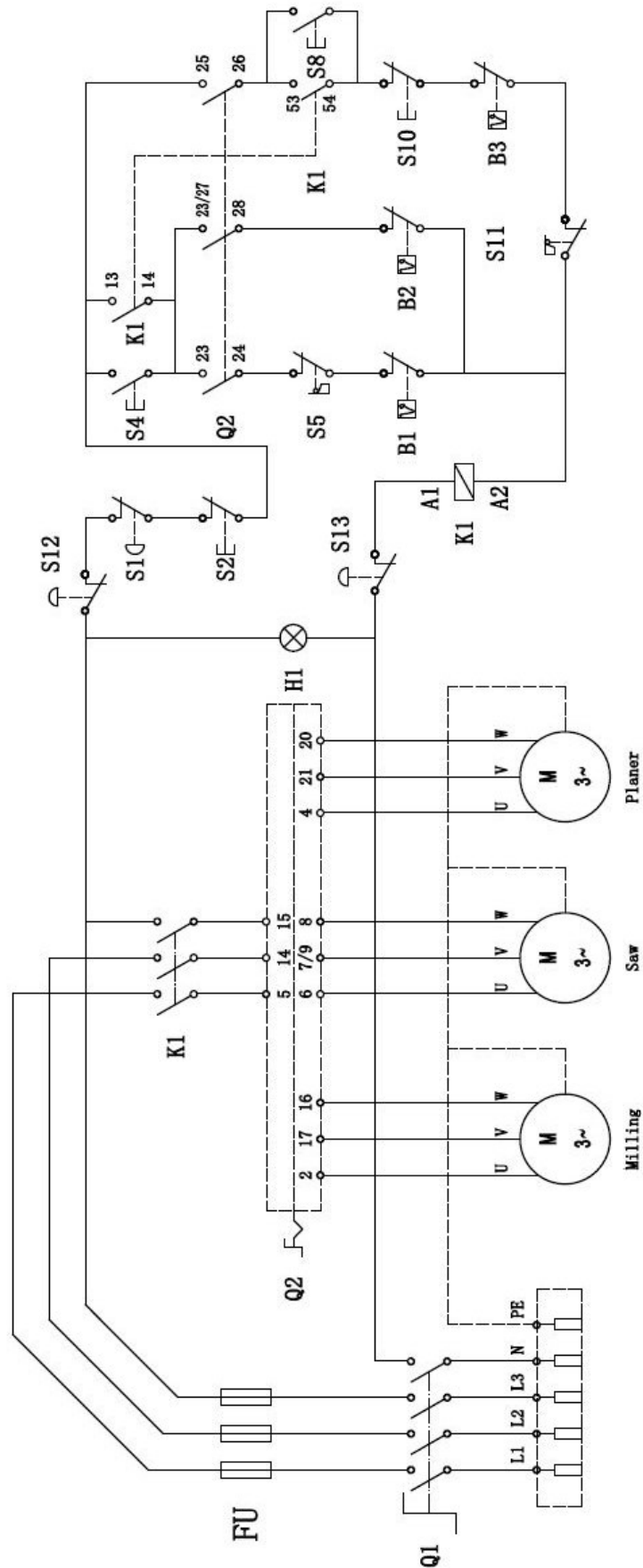
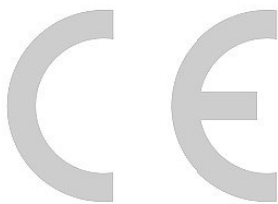


Fig.10-2: Circuit diagram UMK

11 EU declaration of conformity

According to Machinery Directive 2006/42/EC Annex II 1.A

Manufacturer / Distributor:	Stürmer Maschinen GmbH Dr.-Robert-Pfleger-Str. 26 D-96103 Hallstadt	
Product group:	 Metalworking machines	
Type designation:	Universal multiple combination	Article number
Product name: *	☐ UMK 5-260 230V/50Hz/1Ph ☐ UMK 5-260 400V/50Hz/3Ph	5946025 5946026
Serial number: *	_____	
Year of construction: *	20_____	
* Fill in these fields according to the information on the type plate		
complies with all relevant provisions of the above-mentioned Directive and the other standards applied, including any amendments thereto in force at the time of the declaration.		
Relevant EU directives:	2014/30/EU EMC Directive 2011/65/EU RoHS Directive 2012/19EU WEEE Directive	
The following harmonized standards were applied:		
EN ISO 19085-1:2021 EN ISO 19085-11:2020 EN IEC 55014-1:2021 EN IEC 55014-2:2021 EN IEC 61000-3-2:2019 + A1:2021 EN 61000-3-3:2013 + A1:2019 + A2:2021 + A2:2021/AC:2022	Woodworking machines - Safety - Part 1: Common requirements Woodworking machines - Safety - Part 11: Combined machines Electromagnetic compatibility - Requirements for household appliances, electric tools and similar equipment - Part 1: Emission Electromagnetic compatibility - Requirements for household appliances, electric tools and similar equipment - Part 2: Immunity - Product family standard Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic currents (equipment input current ≤ 16 A per phase) Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems for equipment with a rated current ≤ 16 A per phase, not subject to Subject to special connection conditions	
Name and address of the person authorized to compile the technical documentation: Kilian Stürmer, Stürmer Maschinen GmbH, Dr.-Robert-Pfleger-Str. 26, D-96103 Hallstadt		

		
Kilian Stürmer (Managing Director) Hallstadt, 23 May 2025		

12 Attachment

12.1 Copyright

The contents of this manual are protected by copyright and the sole property of Stürmer Maschinen GmbH. Their use is permitted within the scope of the universal multiple combination. Any other use is prohibited without the written permission of the manufacturer. Distribution, reproduction, and use of this document, as well as the disclosure of its contents, are prohibited unless expressly permitted.

Violations will result in compensation for damages.

To protect our products, we register trademark, patent and design rights where possible in individual cases.

We strongly oppose any infringement of our intellectual property rights.

Technical changes reserved at any time.

12.2 Limitation of liability

All information and instructions in the operating instructions have been compiled taking into account the applicable standards and regulations, the state of the art and our many years of knowledge and experience.

In the following cases, Stürmer Maschinen GmbH assumes no liability for damages:

- Failure to follow the operating instructions,
- improper use, use of unqualified and untrained
- personnel, unauthorized modifications,
-
- Technical modifications, use of
- unauthorized spare parts.



The actual scope of delivery may differ from the explanations and illustrations described here in the case of special designs, the use of additional ordering options or due to the latest technical changes.

The obligations agreed in the supply contract, the general terms and conditions as well as the delivery conditions of the manufacturer and the legal regulations valid at the time the contract is concluded apply.

12.3 Storage

DANGER!

Incorrect or improper storage may damage or destroy components of the universal multiple combination. Store the packaged or unpacked parts only under the specified environmental conditions.



Consult your dealer if the machine and accessories need to be stored for longer than three months and under environmental conditions other than those specified.

12.4 Disposal instructions / recycling options:

Please do not simply throw the packaging and later the used product into the environment, but dispose of both properly according to the guidelines established by your city/municipal administration or the responsible waste disposal company.

12.4.1 Decommissioning

CAUTION!

Obsolete equipment must be professionally taken out of service immediately to prevent future misuse and danger to the environment or people.



- Dispose of all environmentally hazardous operating materials from the old device.
- If necessary, disassemble the machine into manageable and recyclable components and assemblies.
- Dispose of the machine components and operating materials in the designated disposal methods.

12.4.2 Disposal of electrical equipment

Electrical devices contain a variety of recyclable materials as well as environmentally harmful components.

These components must be disposed of separately and properly. If in doubt, contact your local waste disposal service.

If necessary, the assistance of a specialised waste disposal company may be required for processing.

12.4.3 Disposal of lubricants

The lubricant manufacturer provides disposal instructions for the lubricants used. If necessary, ask for the product-specific data sheets.

12.5 Disposal via municipal collection points

Disposal of used electrical and electronic equipment (Applicable in the countries of the European Union and other European countries with a separate collection system for these devices).



The symbol on the product or its packaging indicates that this product shall not be treated as normal household waste. Instead, it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment.

By ensuring this product is disposed of correctly, you will help protect the environment and the health of others. Improper disposal of this product can harm the environment and human health. Recycling materials helps reduce the consumption of raw materials. For more information about recycling this product, please contact your local council, your household waste disposal service, or the shop where you purchased the product.

13 Product monitoring

We are obligated to monitor our products even after delivery. Please let us know anything that might be of interest to us:

- Changed setting data.
- Experiences with the universal multiple combination that are important for other users.
- Recurring malfunctions.

Stürmer Maschinen GmbH
Dr.-Robert-Pfleger-Str. 26
D-96103 Hallstadt
Fax: (+49)0951 96555-55
Email: info@holzstar.de

14 Notes



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