

# **Instruction manual**

\_\_\_\_ Edge milling machine

\_\_\_\_\_ KSO 750 230 V

\_\_\_\_\_ KSO 750 400 V



KSO 750



## **Imprint**

#### **Product identification**

Edge sanding machine Item number

KSO 750 400V 5900750 KSO 750 230V 5900751

#### Manufacturer

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#### Indications regarding the operating instructions

Genuine operating instructions according to DIN EN ISO 20607:2019

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#### Indications regarding the copyright

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#### 1 Introduction

You have made a good choice by purchasing the HOLZ-STAR edge sanding machine.

# Read the operating instructions carefully before commissioning.

The operating instructions are an important part and must be kept near the edge sanding machine and accessible to every user.

They provide information on the proper commissioning, the intended use and the safe and efficient operation and maintenance of the edge sanding machine.

In addition, observe the local accident prevention regulations and general safety regulations for the area of application of the eedge sanding machine.

Illustrations in these operating instructions are for basic understanding and may differ from the actual design.

#### 1.1 Copyright

The contents of these instructions are copyright. Their application is admissible in the frame of the device. An application beyond the described application is not allowed without written approval of the manufacturer.

Any other use is not permitted without the written consent of the manufacturer. Passing on and copying of this document, exploitation and communication of its contents are prohibited unless expressly permitted. Violations will result in liability for damages.

We apply for trademark, patent and design rights to protect our products, insofar as this is possible in individual cases. We emphatically oppose any infringement of our intellectual property.

#### 1.2 Customer service

Please contact your dealer if you have questions on the machine or if you need technical advice. They will help you with specialist information and expert advice.

Stürmer Maschinen GmbH Dr.-Robert-Pfleger-Str. 26 D-96103 Hallstadt

#### Repair service:

Fax: +49 (0) 951 96 555 - 55

E-Mail: service@stuermer-maschinen.de

Internet: www.holzstar.de

#### Spare parts orders:

Fax: 0951 96555-119

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We are always interested in valuable experience and knowledge gained from using the application, which then could be shared and be valuable to develop our products even further.

#### 1.3 Limitation of liability

All information and notes in these operating instructions were summarised taking the applicable standards and rules, the state-of-the-art and our long-term knowledge and experiences into consideration.

In the following cases the manufacturer is not liable for damages:

- Non-observance of the operating instructions,
- Inappropriate use
- Use of non-expert and non-expert personnel,
- Unauthorised modifications
- Technical changes,
- Use of not allowed spare parts.

The actual scope of delivery may deviate from the explanations and presentations described here in case of special models, when using additional ordering options or due to latest technical modifications.

The obligations agreed in the delivery contract, the general terms and conditions as well as the delivery conditions of the manufacturer and the legal regulations at the time of the conclusion of the contract are applicable.

#### 2 Safety

This paragraph will give you an overview of all important safety packages for the protection of the people using it well as for a safe and undisturbed operation. Other task-based safety notes are included in the individual chap-ters.



#### 2.1 Symbol explanation

#### Safety instructions

The safety notes in these operating instructions are highlighted by symbols. The safety notes are introduced by signal words which express the concern of the risk.



#### **DANGER!**

This combination of symbol and signal word indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

#### **WARNING!**

This combination of symbol and signal word indicates a potentially hazardous situation which, if not avoided, will result in death or serious injury.

#### **CAUTION!**

This combination of symbol and signal word indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

#### ATTENTION!

This combination of symbol and signal word indicates a possibly hazardous situation which, if not avoided, may result in damage to property and the environment.



#### NOTE!

This combination of symbol and signal words indicates a possibly dangerous situation which may lead to property and environmental damages if they are not avoided

#### Tips and recommendations



#### Tips and recommendations

This symbol highlights useful tips and recommendations as well as information for an efficient and trouble-free operation.

It is necessary to observe the safety notes quoted in these operating instructions in order to reduce the risks for personal injuries and damages to property.

#### 2.2 Obligations of the operating company

The operating company is the person who operates the machine for business or commercial reasons by herself, or leaves it to a third party for use or application, and who bears the legal product responsibility for the protection of the user, the staff or for third parties.

#### Obligations of the operating company:

If the edge sanding machine is used for commercial purposes, the op-erating company must comply with the legal working safety regulations. Therefore, the safety notes in this op-erating manual, as well as the safety, accident preven-tion and environment protection regulations applying for the area of application of the machine must be met. The following applies in particular:

- The operating company must be informed about the applying industrial safety regulations and further analyse hazards resulting from the special working conditions at the place of use machine.
   She must implement these in form of operating manuals for the operation machine.
- During the entire lifetime of machine, the operating company must verify whether the operating manuals prepared by her correspond to the current status of the regulations, and must adapt these if necessary.
- The operating company must unambiguously regulate and determine the responsibilities for installation, operation, troubleshooting, maintenance and cleaning.
- The operating company must ensure that all persons who work with the edge sanding machine, have read and un-derstood this manual. Furthermore she must in-struct the staff in regular intervals and inform them about the hazards.
- The operator must provide the personnel with the necessary protective equipment and bind the wearing of necessary protective equipment.

Furthermore the operating company is responsible to keep the edge sanding machine always in a technically flawless state. Thus, the following applies:

- The operator must ensure that the maintenance intervals described in this manual are kept.
- The operator must have all safety devices checked regularly for their good working order and their integrity.



#### 2.3 Qualification of personnel

The different tasks described in this manual represent different requirements to the qualification of the persons entrusted with these tasks.



#### **WARNING!**

# Danger in case of insufficient qualification of the staff!

Insufficiently qualified persons cannot estimate the risks while using machine and expose themselves and others to the danger of severe injuries.

- Have all works only performed by qualified persons.
- Keep insufficiently qualified persons and children out of the working area.

Only persons reliable working procedures can be expected from, are allowed to perform all works. Persons the responsiveness of which is affected by e. g. drugs, alcohol or medication, are not allowed to work with the machine.

The qualifications of the personnel for the different tasks are mentioned below:

#### Operator:

The operator is instructed by the operating company about the assigned tasks and possible risks in case of improper behaviour. Any tasks which need to be performed beyond the operation in the standard mode must only be performed by the operator if it is indicated in these instructions and if the operating company expressively commissioned the operator.

#### **Electrical specialist:**

Due to his professional training, knowledge and experience as well as his knowledge of respective standards and regulations the electrical specialist is able to perform works on the electrical system and to recognise and avoid any possible dangers himself.

#### Specialist staff:

Due to their professional training, knowledge and experience as well as their knowledge of relevant regulations the specialist staff is able to perform the assigned tasks and to recognise and avoid any possible dangers themselves.

#### Manufacturer:

Certain works may only be performed by specialist personnel of the manufacturer. Other personnel is not authorized to perform these works. Please contact our customer service for the execution of all arising work.

#### 2.4 Personal protective equipment

The personal protective equipment serves to protect persons against impairments of safety and health while working. The staff has to wear personal protective equipment while performing different works on and with grinding system which are indicated in the individual paragraphs of these instructions.

The personal protective equipment is explained in the following paragraph:



#### **Hearing protection**

The hearing protection protects the ears against damages of hearing due to noise.



#### **Head protection**

The industrial hel-met protects the head against falling objects and bumping into fixed objects.



#### Eye protection

The protective goggles protect the eyes against parts flying off and splashes of liquids.



#### **Breathing protection**

The breathing protection serves for protecting the respiratory passages and the lung against the intake of dust particles.



#### **Protective gloves**

The protective gloves serve to protect the hands against sharp components as well as against friction, abrasions or deep injuries.



#### Safety boots

The safety boots protect the feet against crushes, falling parts and slipping over on slippery underground.



#### Protective clothes

The protective clothes are tight clothes of little tensile strength.



#### 2.5 Safety signs on the Machine

The following safety signs and notes are applied on the grinding system (fig. 1), which need to be observed and followed.



Fig. 1: Safety signs: 1 Warning of dangers I 2 Warning of dangerous electrical voltage I 3 Crushing hazard warning for upper limbs I 4 Ground symbol I 5 No Touching I 6 Safety instructions

Damaged or missing safety symbols at the machine may lead to errors with personal and material damages. The safety symbols which are applied on the machine must not be removed. Damaged safety symbols must be replaced immediately.

The machine must be put out of operation from the moment when the labels are unable to be recognized and understood at first glance, until new labels are attached.

#### 2.6 Safety devices

#### 2.6.1 Electrical connection



#### **WARNING!**

# Danger due to insufficient qualification of persons!!

All electrical connections must be made by a qualified professional to avoid the risk of personal injury from improperly performed work.

The cables must be connected directly to the machine without intermediate points. For a safe working operation, the grounding must be checked (see wiring diagram). If the motor overloads, it automatically switches off. After a cooling time of approx. 2 minutes, the thermal protection switch on the motor terminal box can be pressed in again.

#### Motor protection switch

The engine of the Edge milling machine has a thermal protection switch that automatically shuts off the engine in case of thermal overload.

After eliminating the cause of the overload and waiting for the engine to cool down completely, the engine can be restarted.

#### 2.6.2 Direction of rotation of the motor

After completing the electrical connection, start the machine and check the direction of rotation of the motor.

- Press start button
- Check the direction of rotation of the drive

#### 2.7 Danger zones

Persons under the age of 16 are strictly prohibited from operating the machine (EU Directive). The operator must have read these operating instructions and understood the dangers he is exposed to in case of misuse of the machine. For illegible or unrecognizable passages of this manual contact the manufacturer or dealer.

The machine owner is responsible for staffing the machine with qualified operators.



Fig. 2: Danger area

1 Danger area



#### 2.8 Workspace



#### **DANGER!**

Before using for the first time, the following points should be carefully checked:

- Is the work area around the machine free?
- Are the switches on the control panel functional?

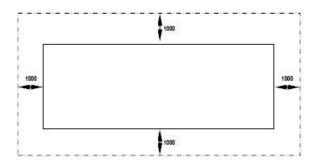


Fig. 3: Workspace

#### 2.8.1 Personal protection

During operation safety glasses, gloves and head protection should be worn.



#### **DANGER!**

- Caution is advised for people who are in the work area
- Switch off the machine if it is not immediately continued.

#### 2.9 Safety data sheets

You can obtain safety data sheets for dangerous goods 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.

# 2.10 Regulations for safety and accident prevention

The following instructions are to be followed by the operating personnel. The customer must ensure that the operator has read and understood both these items and the operating instructions for safety reasons.

- Before operating the machine, read the operating instructions.
- Never touch rotating or moving parts.
- Always report electrical faults to an electrician.
- Always keep work clothes, long hair, jewelery etc. away from the machine.
- Switch off machine when work is interrupted.
- Wear suitable safety clothing (accident prevention shoes, safety glasses, etc.).
- Check safety devices for correct function before starting work.
- Read and understand safety instructions attached to the machine.
- Perform regular maintenance.
- Do not overload the machine.
- In the event of abnormal operation of the machine, inform the supervisor immediately.
- The edge grinding machine may only be used by one person to be served. Other people must stay away from the work area during operation.
- Never change the electrical system.
- Never remove mechanical or electrical safety de-
- Special attention is needed during transport or reconstruction; The transport regulations must be followed.



#### 3 Intended Use

The edge sanding machine KSO 750 is used exclusively for sanding wood and wood-like materials (wood fiber board, chipboard, plywood boards, laminated and non-laminated boards, etc.). It must be connected to a suitable extraction system.

Proper use also includes compliance with all information in this manual. Any use beyond the intended use or otherwise is considered misuse.

#### 3.1 Reasonably foreseeable misuse

Any use beyond the intended use or any other use is considered misuse.

#### Possible misuses can be:

- Installation of spare parts and use of accessories and equipment not approved by the manufacturer.
- Use of the edge sanding machine outside the power limits specified in the chapter "Technical data".
- Use of the edge sanding machine with materials other than wood (e.g. the processing of metal).
- Use of the edge sanding machine with parameters that are not permitted for processing wood.
- Machining of several workpieces at the same time in one operation.
- Machining of oversized workpieces.
- Modifications to the machine or the use of modified tool systems.
- Use of the edge sanding machine in areas where there are aggressive or flammable substances in the air (the edge sanding machine is not explosion-proof as standard).
- Operating the edge sanding machine without the protective devices provided.
- Failure to observe signs of wear and damage.
- Service work by untrained or unauthorised personnel.
- Use of the edge sanding machine for industrial use.

Misuse of the edge sanding machine can lead to dangerous situations.

Stürmer Maschinen GmbH accepts no liability for design and technical modifications to the edge sanding machine.

Claims of any kind for damage due to improper use are excluded.

#### 3.2 Residual risks

Even if all safety instructions are observed and the compressor is used according to the instructions, there are still residual risks, which are listed below:

- Impairment of hearing during prolonged work without hearing protection or if this is defective.
- Electrical hazard due to contact with parts and high voltage (direct contact) or with parts under high voltage due to a defect in the unit (indirect contact).
- Heat build-up on components can cause burns and other injuries.
- Risk of injury to fingers and hands from the tool or workpiece, e.g. when changing tools.
- Danger of inhaling wood dust (if necessary, use an extraction system in accordance with legal requirements).
- Risk of injury to the eye from flying parts, even with safety goggles.
- Risk of the machine tipping over due to insufficient safety measures.



#### 4 Technical Data

Туре	KSO 750 230V/400V
Motor output 230 V / 50Hz	2,2 kW
Motor output 400 V / 50Hz	2,2 kW
Sanding belt dimensions	2270 x 150 mm
Circumferential belt speed	16,3 m/sek.
Table height min./max.	970/1050 mm
Table height adjustment	80 mm
Longitudinal table dimensions	750 x 250 mm
Transverse table dimensions	300 x 250 mm
Cross table height (min./max.)	980/1110 mm
Cross-table height adjust- ment	130 mm
Grinding surface (graphite)	820 x 170 mm
Grinding roller diameter aggregate	110 mm
Extraction port Ø	100 mm
Inclination of the grinding unit	0° - 90°
Workpiece stop	499 x 178 x 69 mm
Dimensions in mm(LxBxH)	1300 x 750 x 1200
Weight	120 kg

#### 4.1 Type plate



Fig. 4: Type plate

#### 5 Transport, Packaging, Storage

#### 5.1 Delivery and transport

#### **Delivery**

Check the Edge milling machine for visible transport damage after delivery. If you discover any damage to the Edge milling machine, immediately report it to the transport company or the dealer.

#### **Transport**

Improper transport is accident-prone and can cause damage or malfunctions for which we do not grant any liability or guarantee.

Transport the scope of delivery secured against shifting or tilting with a sufficiently dimensioned industrial truck to the installation site.



#### **WARNING!**

Severe or fatal injuries may occur if parts of the machine tumble or fall down from the forklift truck, pallet truck or from the transport vehicle. Follow the instructions and information on the transport box.

Note the total weight of the machine. The weight of the machine is indicated in the "Technical data" of the machine. When the machine is unpacked, the weight of the machine can also be read on the rating plate.

Only use transport devices and load suspension gear that can hold the total weight of the machine.



#### **WARNING!**

The use of unstable lifting and load suspension equipment that might break under load can cause severe injuries or even death. Check that the lifting and load suspension gear has sufficient load-bearing capacity and that it is in perfect condition.

Observe the accident prevention regulations issued by your Employers Liability Insurance Association or other competent supervisory authority, responsible for your company.

Fasten the loads properly.



#### General risks during internal transport



#### **WARNING: DANGER OF TIPPING**

The device may be lifted unsecured by a maximum of 2cm

Employees must be outside the danger zone, the reach of loads.

Warn employees and, if necessary, advise employees of the hazard.

Devices may only be transported by authorized and qualified persons. Act responsibly during transport and always consider the consequences. Refrain from daring and risky actions.

Gradients and descents (e.g. driveways, ramps and the like) are particularly dangerous. If such passages are unavoidable, special caution is required.

Before starting the transport check the transport route for possible danger points, unevenness and disturbances as well as for sufficient strength and load capacity.

Danger points, unevenness and disturbance points must be inspected before transport. The removal of danger spots, disturbances and unevenness at the time of transport by other employees leads to considerable dangers.

Careful planning of internal transport is therefore essential.

#### Transport with a forklift / pallet truck:

The edge sanding machine can be transported with a forklift or pallet truck if it is firmly mounted on a pallet.

#### Transport by crane:

Step 1: Attach 2 ropes with sufficient carrying capacity to the crane hook and to the points of the edge grinding machine suitable for transport.

NOTE: Check the aid accordingly for sufficient dimensioning and load capacity.

Step 2: Carefully lift and transport the edge sanding machine with the crane.

#### 5.2 Packaging

All packaging materials and packaging aids used by the Edge milling machine are recyclable and must always be recycled.

Packing components made of cardboard are crushed to waste paper collection.

The foils are made of polyethylene (PE) and the upholstery parts made of polystyrene (PS). You can hand over

these substances to a recycling center or to the disposal company responsible for you.

The packaging material must not get into the hands of children, as some plastic packaging may present a suffocation hazard when used as a toy.

#### 5.3 Storage

The Edge milling machine must be thoroughly cleaned before being stored in a dry, clean and frost-free environment. Cover the machine with a protective tarpaulin.

#### 6 Description

Illustrations in this manual may differ from the original

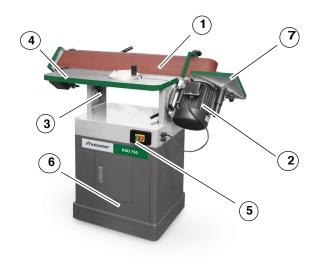


Fig. 5: Edge sanding machine

- 1 Sanding belt
- 2 Engine
- 3 Clamping screw for height adjustment of the workbench
- 4 Work table
- 5 ON and OFF buttons
- 6 Substructure with frame
- 7 Outrigger table



#### 7 Specification and standard equipment

- With oscillating sanding belt for a good removal rate, a clean sanding pattern and a longer service life of the sanding belt
- Including as standard from -45 ° to + 45 ° infinitely adjustable miter fence and workpiece stop
- Spring-loaded clamping device ensures a uniform belt tension
- Robust gray cast iron work table with T-slots, for a stable machine stand when working
- Quick and easy sanding belt change via quick clamping system
- Infinitely tiltable grinding unit (0  $^{\circ}$  to 90  $^{\circ}) for vertical and horizontal grinding$
- With height-adjustable grinding table
- Table height adjustment
- With height-adjustable additional table for contour grinding
- Grinding sole with graphite coating as standard for a longer service life of the sanding belt
- With lockable storage option in the standard substructure



#### **WARNING!**

Do not use profiles in excess of the specification thickness. Use the machine only for the intended purpose.

### 8 Setting up and connection

#### 8.1 Requirements for the installation site

The Edge milling machine must be set up stable on a level and firm ground. It is important to ensure that there is enough freedom of movement to work. On each side there must be at least 1 m distance from the wall to the edge sanding machine. The site should meet the following criteria:

- The substrate must be level, firm and vibration-free.
- The substrate must not let any lubricant through.
- The installation or work area must be dry and well ventilated.
- Do not operate machines that cause dust and chips near the machine.
- There must be sufficient space for the operating personnel, for material transport as well as for adjustment and maintenance work.
- The site must have good lighting.
- There must be a suction device with min. 1800  $\,$  m  $^3$  / h extraction capacity, min. 25 m / s flow velocity at the suction connection; Hose diameter 100 mm, max. Hose length 4 m.

#### 8.2 Setting up the edge milling machine



#### **CAUTION!**

- Pay attention to the weight of the machine!
  The machine may only be set up by two persons.
- Check the stability of the machine after placing it on stable ground.

To ensure sufficient stability of the machine, it should be screwed to the ground. There are 4 holes on the machine housing for this purpose

Follow these steps to get the machine up and running:

#### Mount side table

- Step 1: Screw the side table carrier E to the motor housing D with the two screws F.
- Step 2: Insert the side table into the carrier and clamp it with the clamping screw G in the desired height.

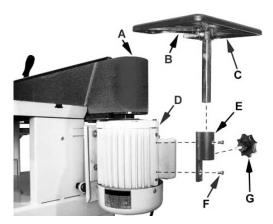


Fig. 6: Mounting the side table

#### Mount suction hoses



#### Tips and recommendations

The extraction device for chips and dust must have a capacity of at least 1800  $\rm m^3$  / h. at a flow rate of 25 - 30 m / s.

- Step 1: Attach the 100 mm suction hose with hose clamps to the side suction connection on the machine housing. Attach the other end of the suction hose to the intake manifold of the extraction system with hose clamps.
- Step 2: After setting, remove the grease from the bare metal parts, which has been applied for protection. Use usual solvents. No water, no nitrolic solvents or similar use!



#### 8.3 Electrical connection

# 19

#### **DANGER!**

#### Danger to life due to electric shock!

There is danger to life when in contact with live components. Switched on electrical components can cause uncontrolled movements and lead to serious injuries.

Disconnect the power plug before working on the machine.

All work on the electrical installation may only be carried out by a qualified electrician.

When making electrical connections, make sure that the characteristics (voltage, mains frequency, protection) match those on the rating plate and for the engine.

Step 1: Check that the Edge milling machine is off.

Step 2: Connect the machine to the mains and check the direction of motor rotation.

400 V machine: The three phases must be connected so that the sanding belt moves according to the arrows on the housing.

If the direction of rotation is wrong, two phases must be exchanged.

#### 8.4 Mount or change the sanding belt



#### **DANGER!**

#### Danger of electrocution!

There is danger to life when in contact with live components. Switched on electrical components can cause uncontrolled movements and lead to serious injuries.

Disconnect the power plug before working on the machine.

Step 1: Switch off the machine, disconnect it from the power supply and secure it against being switched on again.

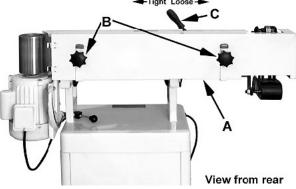


Fig. 7: Table height adjustment

- Step 2: Loosen the belt tensioner with the tension lever C to release the sanding belt.
- Step 3: Loosen or remove the grip screws B and open or remove the sanding belt cover A.
- Step 4: Remove the sanding belt, clean the belt rollers and insert the new sanding belt. Observe direction arrows on the sanding belt! Then align the sanding belt and tension slowly.

  Check the direction of the sanding belt! Corresponding markings (arrows) are located on the back of the sanding belt.
- Step 5: Turn on the edge sanding machine for a short time and check the tape run. The sanding belt must run in the middle of the roll. If necessary, readjust the sanding belt with the adjusting screw for the roller.
- Step 6: Close or mount the cover A and fix it with the handle screws B.

#### 8.5 Adjusting the tape run

The oscillating device ensures perfect straight-line running of the sanding belt. If it is still necessary to adjust the straight-line travel, proceed as follows.

Step 1: Switch off the machine, disconnect it from the power supply and secure it against being switched on again.

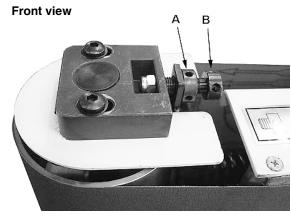


Fig. 8: Adjustment of the tape run

- Step 2: Insert the supplied adjustment tool into hole A (Fig. 8) and turn it away from the adjuster to release the adjuster.
- Step 3: Use the adjusting screw B to correct the tape running direction.
- Step 4: Lock the adjusting device by inserting the supplied adjusting tool into hole A (Fig. 8) and turning it towards the adjuster.
- Step 5: Turn on the machine and check the tape run.



#### 8.6 Adjusting the table height

Step 1: Disconnect the machine from the mains.

Step 2: Loosen the clamping screw A (Fig. 9).



Fig. 9: Table height adjustment

Step 3: Bring the table to the desired height.

Step 4: Secure the adjusted position by tightening the clamping screw A.

#### 8.7 Suction connection

You can connect a suction device to the extraction nozzle. The substructure can be used as a storage option.

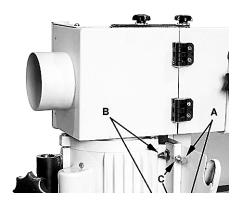


Fig. 10: Suction connection

# 9 Operation of the edge sanding machine

The following personal protective equipment must be worn when working on the edge sanding machine:













The explanation of the pictograms can be found in Chapter 2.4 "Personal protective equipment"..

- Step 1: Move the worktable to the desired position.
- Step 2: Slowly tension the sanding belt.
- Step 3: Turn on the edge sanding machine for a short time and check the tape run. The sanding belt must run in the middle of the roll. If necessary, readjust the belt run for the sanding belt.
- Step 4: Adjust the sanding belt and the stop to the desired position or angle. If necessary, readjust the position of the worktable.
- Step 5: Switch on the machine and the extraction and carry out the grinding process.
- Step 6: After completing the grinding process, press the red STOP button and switch off the extraction system.

  Disconnect the power plug of the edge grinder.

#### 9.1 Starting the Machine

The following steps can be used to start the machine and perform the editing process:

- Make sure the electrical connection is correct
- Press the start button



Fig. 11: Start the machine



#### 9.2 Grinding process

Rules for sanding with the edge sanding machine:

The grinding process may only be performed by qualified personnel experienced on these machines. The work-piece feed is done by hand. The edge grinding machine KSO 750 can be used for edge grinding, surface grinding and hollow grinding. The oscillation of the sanding belt ensures even sanding belt stress and prevents grinding grooves on the workpiece. Due to the infinitely tiltable sanding unit, the edge sanding machine for a variety of grinding operations such. B. vertical and horizontal grinding used.

#### **Edge grinding**

To do this, place the grinding unit vertically.

Close the roller cover, if necessary. The miter ruler can be used to guide the workpiece and as a grinding stop.

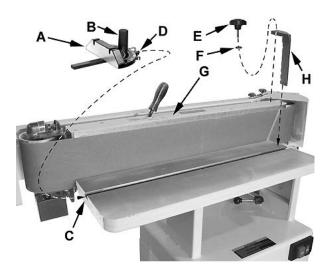




Fig. 12: Edge grinding

#### Surface grinding

To do this, place the grinding unit horizontally. The grinding table now serves as a stop surface.

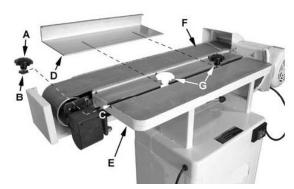




Fig. 13: Surface grinding

#### **Hollow grinding**

Mount the outrigger table in working position. After completing the hollow grinding, remove the outrigger table.



Fig. 14: Hollow grinding



#### DANGER!

It is very important that this manual be read and understood by operating personnel and other persons handling the machine before operating the machine. Always keep sufficient distance to the grinding drive. Never reach under the grinding drive.



#### **Before Work**

- Start your work with a coarse sanding paper and gradually change to finer grits.
- The optimal inclination of the workpiece can be adjusted.
- Clean sandpaper regularly with a brush.
- Replace damaged and worn abrasive belts immediately

#### Sandpaper selection

Choosing the right abrasive grain is extremely important for optimizing the grinding performance.

Always grind first with a coarse grain and then gradually change to finer grits. Skip at most one grain level.

Too fine grains and worn abrasive belts can cause burn marks on the workpiece.

- Grain 60: surface grinding
- Grain 80: surfaces and light calibration, most common grain size
- Grain 100 and 120: surfaces and fine sanding
- Korn150, 180 and 220: only fine sanding

#### 9.3 Adjust grinding angle

The grinding unit can be swiveled 90 ° from vertical to horizontal. To pivot, loosen the clamp lever and tighten again.

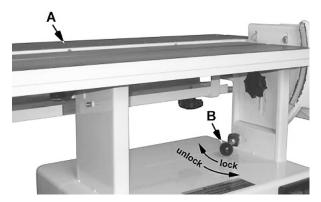


Fig. 15: Adjust grinding angle

- Step 1: Disconnect the machine from the mains.
- Step 2: Release the lock for the angle adjustment by loosening the clamping lever B (Fig.15).
- Step 3: Swivel the grinding unit at the desired angle (from 90 ° to 45 °) and lock it with lever B after reaching the desired angle.
- Step 4: Reset the running of the grinding belt.
- Step 5: Adjust the table height to the appropriate position to the sanding belt

#### 10 Care, maintenance and repair



#### Danger!

# Danger to live due to electrical voltage!

Contact with live components can be fatal. Activated electrical components can execute uncontrolled movements and cause serious injuries.

- Switch off the machine before carrying out cleaning and maintenance work and unplug the power cord.
- Connections and repairs of electrical equipment may only be performed by a qualified electrician.

#### 10.1 Cleaning after work



#### NOTE!

Never use harsh cleaning agents for cleaning. This can lead to damage or destruction of the device.

- Step 1: Disconnect the power plug from the power outlet.
- Step 2: Empty and clean the suction device.
- Step 3: Clean the machine from sawdust and sawdust.
- Step 4: Spray all unpainted metal surfaces with some anti-rust spray.
- Step 5: Check the machine for damage to the safety devices and the sanding belt. If necessary, carry out the repair or arrange for it, observing the safety instructions.

#### 10.2 Maintenance and Repair

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

If the Edge milling machine does not work properly, contact a dealer or our customer service. The contact details can be found in chapter 1.2 Customer Service.

All protection and safety equipment must be reinstalled immediately after completion of repair and maintenance work.





#### NOTE!

- Check the abrasive belt regularly for errors. Replace a damaged sanding belt immediately.
- Check the correct setting of the tape guide at regular intervals. Relax the sanding belt during longer work breaks. Clean the machine at regular intervals.
- Check the adequate function of the extraction daily.
   Replace damaged safety equipment immediately.
   Reinstall all protective equipment immediately.
- Connections and repairs of the electrical equipment may only be carried out by a qualified electrician

#### **Functional test**

The edge milling machine is delivered ready to use.

Before each use, a functional test should be carried out.

The sanding belt has to be tensioned.

- Step 1: Manually move the sanding belt, making sure it is centered on the roller. If necessary, readjust the sanding belt with the ribbon adjustment screw.
- Step 2: Turn on the edge sanding machine for a short time and check the tape again.
- Step 3: Switch off the edge sanding machine again.

The edge sanding machine is ready for operation.

#### Sanding belt

The abrasive belt is a wearing part, which has to be regularly checked for faults and replaced when worn.

#### Replace a damaged abrasive belt immediately!

The belt is equipped with an automatic tensioning mechanism. This eliminates a regular tensioning of the tape.

#### Tape guide

Check the tape guide at regular intervals for the correct setting. If the edge sanding machine is not used for a long time, the sanding belt has to be relaxed.

#### **Suction**

Check the suction daily for its adequate function. If the extraction system does not work or only to a limited extent, it must be repaired again. Only then may be put into operation on the edge grinding machine.

#### Movable parts

All moving parts must be cleaned after 50 hours of operation with a soft brush. Clean the edge sanding machine with a strong stream of compressed air. Then apply a thin layer of oil or grease to the moving parts. Lubricate the slide rails with grease.

### 11 Troubleshooting

Fault	Possible causes	Removal
The edge grinding machine stops during operation.	<ul> <li>1.1 The on / off switch is damaged.</li> <li>1.2 The on / off switch line is damaged.</li> <li>1.3 The relay is damaged.</li> <li>1.4 The engine is defective.</li> <li>2.1 The fuses are defective.</li> <li>2.2 Backup has triggered.</li> </ul>	Have the edge grinder checked by an electrician and replace the damaged parts.      Wait for the engine to cool and remove the cause of the overload. Then switch on the fuse and restart.
The edge sanding machine does not start.	One or more power phases have failed.	Lets check qualified personnel that all 3 phases are live.
The edge sanding machine slows down when sanding.	The workpiece is pressed too tightly against the grinding surface by the user.	Reduce the contact pressure.
The sanding belt runs off the rollers.	The grinding belt run is set incorrectly.	Adjust the sanding belt run correctly (see "Assembly and settings").
The wood gets dark or burns while working.	The sanding belt is worn or added with sanding dust.     Excessive contact pressure is applied to the workpiece on the grinding surface.	Change the sanding belt.     Reduce the contact pressure.



# 12 Disposal instructions / recycling facilities

Dispose of your device in an environmentally friendly, by not disposing of waste in the environment but professionally.

Please take the packaging and later the old appliance does not just go away, but discard them in accordance with the relevant of your city / municipality or by the waste disposal company established guidelines.

#### 12.1 Decommission

Discarded appliances are immediately professionally decommission, in order to avoid any later misuse and the threat to the environment or people.

- Step 1: Remove all environmentally hazardous fluids from the old device.
- Step 2: If necessary, dismantle the machine into manageable and usable assemblies and components.
- Step 3: Guide the machine components and operating materials to the appropriate disposal routes.

#### 12.2 Disposal of new equipment packaging

All used packaging materials and packaging aids of the machine are recyclable and must always be recycled. The packaging wood can be sent for disposal or recycling. Packaging components made of cardboard can be crushed for waste paper collection.

The foils are made of polyethylene (PE) or the upholstery parts made of polystyrene (PS). These substances can be reused after processing if they are passed on to a recycling center or to the disposal company responsible for them. Only pass on the packaging material in such a way that it can be directly recycled.

#### 12.3 Disposal of lubricants



#### DANGER!

Please pay attention to an environmentally friendly disposal of the used lubricants. Observe the disposal instructions of your municipal disposal companies.

Spent coolant lubricant emulsions and oils should not be mixed together, as only non-mixed waste oils without pretreatment are usable.

The disposal instructions for the lubricants used are provided by the lubricant manufacturer. If necessary, ask for the productspecific data sheets.

#### 12.4 Disposal of electrical appliances

Electrical appliances 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 the municipal waste disposal service.

If necessary, call on the help of a specialised waste disposal company for processing.

#### 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 appliances).



The symbol on the product or its packaging indicates that this product should not be treated as normal household waste, but must be returned to a collection point for the recycling of

electrical and electronic equipment. By helping to properly dispose of this product, you are protecting the environment and the health of others. Environment and health are endangered by improper disposal. Material recycling helps to reduce the consumption of raw materials. For more information about recycling this product, contact your local community, municipal waste management, or the shop where you purchased the product.



#### 13 Spare Parts



#### **DANGER!**

# Danger of injury by the use of wrong spare parts!

Dangers may result for the user and damages as well as malfunctions may be caused by using wrong or damaged spare parts.

- Only use original spare parts of the manufacturer or spare parts admitted by the manufacturer.
- Always contact the manufacturer in case of uncertainties.



#### Tips and recommendations

Using non-approved spare parts voids the manufacturer's warranty.

#### 13.1 Ordering spare parts

The spare parts may be purchased with the authorised dealer.

Indicate the following basic information for spare part orders:

- Type of device
- Serial number
- Quantity
- Designation
- Required mode of dispatch (mail, freight, sea, air, express)
- Address of dispatch

Spare part orders which do not include the above indications may not be taken into consideration. If the indications regarding the mode of dispatch are missing, the product is dispatched at the discretion of the supplier.

Information on the device type, item number and year of manufacture can be found on the nameplate, which is attached to the unit.

#### Example

The drive roller for the Edge milling machine KSO 750 400V must be ordered. The drive roller has the number 142 in the spare parts drawing 1.

By ordering spare parts, send a copy of the spare parts drawing (1) with the marked part (drive roller) and marked position number (142) to the dealer and provide the following information:

Type of device: Edge sanding machine

KSO 750 400V

Item number: **5900750** 

Drawing number: 1
Position number: 142

The following drawing is intended to help in case of service, to identify necessary spare parts.



#### 13.2 Spare parts drawing KSO 750

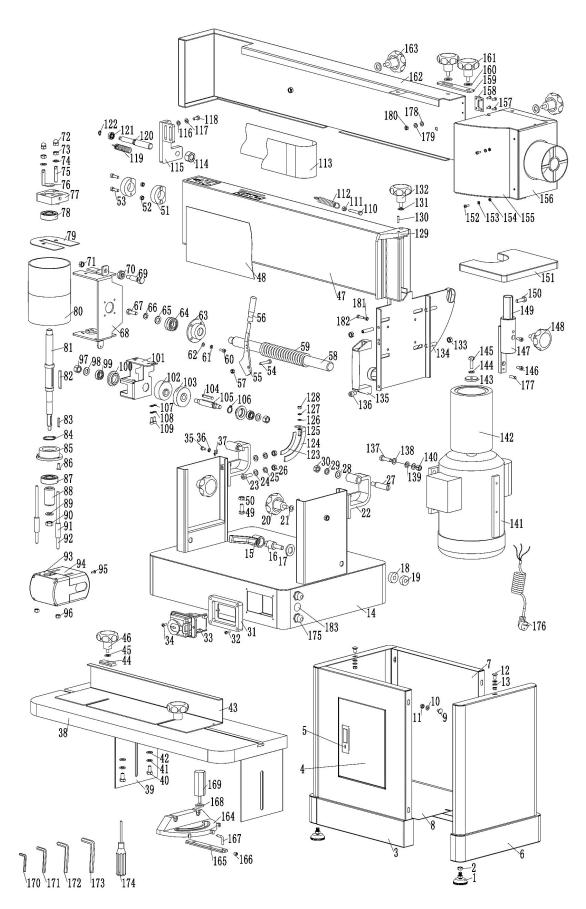


Fig. 16: Spare parts Drawing



## 14 Electrical Schematic

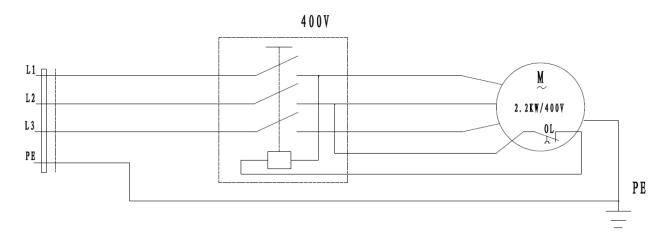


Fig. 17: Electrical Schematic 400 V

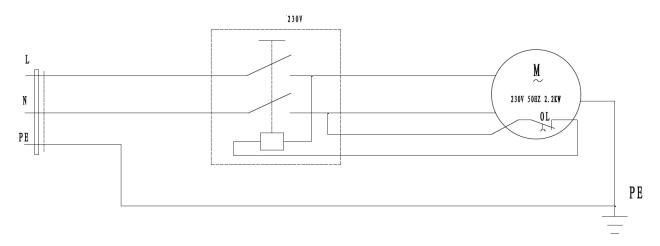


Fig. 18: Electrical Schematic 230 V



# 15 EC - Declaration of Conformity

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

Manufacturer / distributor:	Stürmer Maschinen GmbH DrRobert-Pfleger-Str. 26 D-96103 Hallstadt			
hereby declares that the following product				
Product Group:	Holzstar® Wood working machines			
Machine type:	Edge sanding machine			
Designation of the machine *:  ☐ KSO 750 400 V  ☐ KSO 750 230 V	Item number *: 5900750 5900751			
Serial Number*:				
Year of manufacture*:	20  * please fill in according to the information on the type plate			
corresponds to all the relevant provisions of the inclu-ding their amendments current at the time	e abovementioned Directive and other Directives applied (below) - of the declaration.			
Relevant EU Directive:	2014/30/EU EMC-Directive 2012/19/EU WEEE-Directive			
The following harmonized standards were a	pplied:			
DIN EN ISO 12100-1:2011-03	Safety of machinery. General principles for design Risk assessment and risk reduktion			
DIN EN 60204-1:2019-06	Safety of machinery - Electrical equipment of machines - Part 1: General requirements			
Responsible for documentation:	Kilian Stürmer, Stürmer Maschinen GmbH, DrRobert-Pfleger-Str. 26, D-96103 Hallstadt			
Hallstadt, den 04.10.2023				

Kilian Stürmer Manager

CE

















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