

Instruction Manual



FKS 255-1300



Imprint

Product identification

Format circular saw	Item number
FKS 255-1300 - 230V	5902035
FKS 255-1300 - 400V	5902036

Manufacturer

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

Fax:	0049 (0) 951 96555 - 55
E-Mail:	info@holzstar.de
Internet:	www.holzstar.de

Indications regarding to the operating instructions

Original operating instructions

Edition: 17.03.2021 Version: 2.06 Language: English

Author: FL

Indications regarding the copyright

Copyright © 2021 Stürmer Maschinen GmbH, Hallstadt, Germany.

The contents of these operating instructions is the sole property of the company Stürmer Maschinen GmbH. Passing on as well as copying of this document, the use and distribution of this content are prohibited if not explicitly permitted. Contraventions are liable to compensation.

Subject to technical modifications and error.

Contents

1 Introduction	3
1.1 Copyright	. 3
1.2 Customer service	.3
1.3 Limitation of liability	.ອ ອ
2 Salety	3
2.1 Symbol explanation	.3 4
2.3 Personal requirements	.5
2.4 Personal protective equipment	. 5
2.5 Safety markings on the machine	.6
2.6 General safety instructions	.6
2.7 Safety devices	. /
3 Internaea use	o
3.1 Residual fisk	.8 0
4 Technical Dala	0
5 Transport Dackaging Storage	.9 0
5 Hallsport, Fackaging, Storage	9
5.2 Packaging	.9 10
5.3 Storage	.11
6 Description of the device	.11
6.1 Machine	. 11
6.2 Scope of delivery	. 11
6.3 Accessories	.11
7 Installation and connection	.11
7.1 Requirements for the installation site	.11
7.3 Setting up the format circular saw	. 12
7.4 Connection of the suction system	. 16
7.5 Electrical connection	. 16
8 Operation of the Format circular saw	16
8.1 Selection of the saw blade	. 17
8.2 Installation of a new saw blade	. 18 19
9 Care Maintenance and Repair	21
9 1 Care after the end of work	21
9.2 Maintenance and Repair	.22
10 Troubleshooting	.23
11 Disposal, Recycling of old equipment	.24
11.1 Decommission	.24
11.2 Disposal of electrical equipment	. 24
11.3 Disposal of lubricants	.24
11.4 Disposal via municipal collection points	.24
12 Spare parts	24
12.1 Ordening spare parts	. 24 25
13 Electrical circuit diagrams	.28
14 EC-Declaration of Conformity	.29



1 Introduction

You have made a good choice by purchasing a Format circular saw from HOLZSTAR.

Carefully read the operating instructions prior to commissioning.

They describe correct commissioning, intended use and safe as well as efficient operation and maintenance of your Format circular saw.

The operating instructions form part of the Format circular saw. Keep these operating instructions at the installation location of your Format circular saw. Also observe the local accident prevention regulations and general safety regulations for the use of the panel saw.

1.1 Copyright

The contents of these operating instructions are protected by copyright. Their application is permitted within the context of the use of the Format circular saw. Any further use shall not be permitted without written consent by the manufacturer.

For the protection of our products, we shall register trademark, patent and design rights, as this is possible in individual cases. We strongly oppose any infringement of our intellectual property.

1.2 Customer service

Please contact your specialist retailer if you have any questions regarding your Format circular saw or require any technical information. Your specialist retailer will be happy to support you with specialist advice and information.

Germany:

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

Repair-Service:

Fax:	0951 96555-111
Email:	service@stuermer-maschinen.de
Internet:	www.holzstar.de

Spare parts ordering:

Fax:	0951 96555-119
Email:	ersatzteile@stuermer-maschinen.de

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

1.3 Limitation of liablility

All information and instructions has been compiled on the basis of the state-of-the-art, valid standards and guidelines as well as our many years of expertise and experience.

The manufacturer shall not be liable for damage in the following cases:

- Non-observance of these operating instructions
- Unintended use
- Deployment of untrained staff
- Conversions at one's own responsibility
- Technical modifications
- Use of unauthorised spare parts

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

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 valid at the time of the conclusion of the contract apply.

2 Safety

This section provides an overview of all important safety packages for personal protection as well as safe and reliable operation. The sections on individual service life phases contain additional, specifically applicable safety information.

2.1 Symbol explanation

Safety Instructions

Safety instructions in these operating instructions have been highlighted with symbols. Safety instructions are indicated by signal terms that express the degree of risk involved.



DANGER!

This combination of symbol and signal term indicates a directly dangerous situation which may cause death or serious injury if not averted.





WARNING!

This combination of symbol and signal term indicates potentially hazardous situations which may cause death or serious injury if not averted.



CAUTION!

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



ATTENTION!

This combination of symbol and signal term indicates a potentially hazardous situation which may cause minor or light injuries if it is not averted.



Т

NOTE!

This combination of symbol and signal term indicates a potentially dangerous situation which may cause material damage or harm the environment if it is not averted.

Tips and recommendations

Tips and recommendations

This symbol highlights useful tips and recommendations as well as information for efficient and reliable operation.

Observe the safety information in these operating instructions to minimise the risk of personal injury as well as material damage and prevent hazardous situations.

2.2 Responsibility of the Operator

The operator is the person who operates the machine for commercial or commercial purposes himself or leaves it to a third party for use or application and bears legal product responsibility during operation for the protection of the user, the personnel or third parties.

Obligations of the operator:

If the machine is used in the commercial sector, the operator of the machine is subject to the legal obligations for occupational safety. Therefore, the safety instructions in this operating manual as well as the safety, accident prevention and environmental protection regulations applicable to the area of application of the machine must be observed. The following applies in particular:

- The operator must inform himself about the applicable occupational health and safety regulations and determine additional hazards in a hazard assessment which are caused by the special working conditions at the place of use of the machine.
 These must be implemented in the form of operating instructions for the operation of the machine.
- During the entire period of use of the machine, the operator must check whether the operating instructions issued by him correspond to the current state of the rules and regulations and, if necessary, adapt them.
- The operator must clearly regulate and define the responsibilities for installation, operation, trouble-shooting, maintenance and cleaning.
- The operator must ensure that all persons handling the machine have read and understood these instructions. In addition, he must train the personnel at regular intervals and inform them about the dangers.
- The operator must provide the personnel with the necessary protective equipment and instruct them to wear the required protective equipment in a binding manner.

Furthermore, the operator is responsible for ensuring that the machine is always in perfect technical condition. The following therefore applies:

- The operator must ensure that the maintenance intervals described in these instructions are observed.
- The operator must have all safety devices regularly checked for operability and completeness.



2.3 Personal requirements

The various tasks described in this manual place different demands on the qualifications of the persons entrusted with these tasks.

WARNING!

Danger in case of insufficient qualification of the staff!

Insufficiently qualified persons can not assess the risks involved in handling the machine and expose themselves and others to the risk of serious or fatal injuries.

- Have all works only performed by qualified persons.
- Keep insufficiently qualified persons 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 if it is indicated in these instructions and if the operating company expressively commissioned the operator.

Electrician:

Due to their professional training, knowledge and experience as well as knowledge of the relevant standards and regulations, the electrician is in a position to carry out work on electrical installations and to recognize and avoid possible dangers independently.

Qualified personnel:

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

Personal protective equipment is intended to protect the health and safety of persons at work. Staff must wear the personal protective equipment indicated in individual sections of these operating instructions when carrying out the different tasks on the machine.

The personal protective equipment is described in the following section:



Hearing protection

Hearing protection protects against hearing damage caused by noise.



Eye protection

Protective glasses protect the eyes against projected parts and splashes of liquid.



Dust mask

The dust mask protects the respiratory tract from wood chips and wood dust.



Protective gloves

The protective gloves are used to protect the hands from sharp-edged components, as well as against friction, abrasions or deeper injuries.



Safety shoes

The safety shoes protect the feet from bruising, falling parts and slipping on slippery surfaces.



Protective clothing

Protective clothing is tight-fitting work clothing, with no protruding parts, with low tear resistance.



2.5 Safety markings on the machine

The following safety markings are attached to the panel saw (Fig. 1), which must be observed and followed.



Fig. 1: Safety signs

If safety labels on the machine are damaged or missing, this can cause errors, personal injury and material damage. The safety symbols attached to the machine must not be removed. Damaged safety symbols must be replaced immediately.

As soon as the signs are not clearly visible and comprehensible at first glance, the machine must be stopped until new signs have been attached.

2.6 General safety instructions

This machine is equipped with various safety devices designed to protect both the operator and the machine. However, this can not yet cover all safety aspects and thus the responsibility of the operator. Before putting the machine into operation, you must read this chapter and fully understand it. In addition, the operator must also consider other aspects of the hazard in terms of environmental conditions and material.

Please note the following:

Before connecting the device to the mains, make sure that all safety devices are in place. If possible, check their operation. If it is necessary to remove the doors or protective covers, switch off the switch and pull the plug out of the socket.

- The non-return devices must be freely movable and their function must be checked regularly (several times a day).
- Do not connect the appliance to the power supply if the protective cover has been removed.

- To avoid improper operation, familiarize yourself with the location of the switches before turning on the machine.
- Memorize the position of the emergency stop switch so that you can use it immediately at any time.
- Be careful not to touch any switches while the machine is in operation.
- Never touch a rotating tool with your hands or other objects.
- If you are not working on the machine, turn off the machine at the switch and unplug the appliance from the power outlet.
- Before cleaning and maintenance work, switch off the machine and unplug the power cord from the power outlet. Do not switch on the machine until all covers that have been removed for maintenance purposes have been replaced.
- Do not modify the machine in any way that could endanger its safe operation.
- If you are in doubt about the correctness of your procedure, contact a responsible person.
- Do not neglect to carry out regular inspections in accordance with the instructions for use.
- Check and ensure that no user-caused malfunctions occur on the machine.
- When the work is finished, set the machine so that it is ready for another work cycle.
- If there is a power failure, switch the machine off immediately.
- Do not contaminate or damage the safety devices.
- Modify or remove the safety devices.
- Keep the work area clear. Overcrowded areas and work benches cause injuries.
- Consider the surroundings of the work area.
- Do not expose tools to rain.
- Do not use tools in damp or wet environments or near flammable liquids or gases.
- Ensure that the work area is well lit.
- Do not work under the influence of drugs or alcohol or when you are tired.
- Take care not to damage the electrical cables to avoid injury from electric shock.
- Maintenance work on electrical parts of the device may only be carried out by a qualified person.
- Always use the appropriate tool for the specified work, which complies with the machine specifications. The tools, knife blocks, must comply with EN 847-1.
- Replace blunt tools as soon as possible, as blunt tools can cause injury or damage.
- Never use the tools at speeds higher than the manufacturer's recommended rated speeds.



- Check regularly that the safety covers are properly installed and undamaged. Repair or replace damaged covers immediately.
- Ensure that there are no nails, screws or other objects in the workpieces to be machined.
- Never use tools that are deformed, broken or blunt.
- Do not use compressed air to clean the machine or remove chips.
- Before starting work, remove objects such as rings, watches, bracelets, ties, etc., as they may get caught on various parts of the machine and become entangled.
- Protect and fasten your hair in such a way that catching by moving parts on the machine is avoided.
- Wear shoes that are recommended or required by the health and safety regulations of all countries.
- Always wear the necessary safety equipment (safety goggles, apron, safety shoes, hearing protection, etc.).
- Wear a helmet if there are obstacles above your head in the working area.
- Always wear a protective mask while working on material that generates dust during the process.
- Never wear loose work clothes.
- Only use original HOLZSTAR spare parts and accessories.

2.7 Safety devices

Motor circuit breaker

There is a thermal protection switch In the motor of the format circular saw which automatically switches off the motor in case of thermal overload.

After removing the cause of the overload and waiting until the motor has cooled down completely, the machine can be started again.

The cover protection switch is located under the inner cover, which must be removed when changing the saw blade. If the cover is not fitted, the switch prevents the engine from starting.

Workpiece kickback protection



Fig. 2: Work piece kick-back protection

If required, the workpiece kick-back guard can be mounted on the sliding carriage to prevent the workpiece from kicking back.

Riving Wedge

The splitting wedge prevents a workpiece from being caught by the rising teeth and being thrown against the operator. The splitting wedge must always be fitted during operation.



Fig. 3: Splitting wedge and chip hood

Chip hood

The chip hood protects against accidental contact with the saw blade and against flying chips. The chip hood must always be fitted during operation.



3 Intended use

The circular saw FKS 255-1300 format is used for sawing with versatile adjustable angles of boards and strips. The processing of solid wood, chipboard, panels and profiles is possible. In compliance with the safety instructions, the operating conditions for the saw blade used must be observed. Firewood must not be processed.

The machine must be operated with a suitable extraction system.

It is suitable for private use, not for industrial use.

It is equipped with a single saw blade, which is fixed during the cutting process.

The main features of the machine are:

- The saw blade can be raised and lowered through the table.
- The saw blade can be inclined for angle cutting.
- The machine has an additional, manually operated sliding table.

Intended use also includes compliance with all information in this manual. Any use going beyond the intended use or any other use is considered misuse.



WARNING!

Danger of misuse!

Misuse of the circular saw format can lead to dangerous situations.

Stürmer Maschinen GmbH assumes no liability for design and technical changes to the circular saw format. Claims of any kind due to damage due to improper use are excluded.

3.1 Residual risk

The machine is built according to the state of the art and the recognized safety rules. Nevertheless, individual residual risks can arise when working.

- Risk of injury to fingers and hands from the rotating saw blade if the workpiece is improperly guided.
- Injuries caused by the workpiece being thrown away if improperly held or guided, such as working without a stop.
- Health risks from noise. The permissible noise level is exceeded when working. Be sure to wear personal protective equipment such as hearing protection.
- Injuries from a defective saw blade. Check the saw blade regularly and before each use for integrity.
- Danger from electricity if improper electrical connection cables are used.
- When using special accessories, the operating instructions included with the special accessories must be observed and read carefully.
- Furthermore, despite all the precautions taken, there may not be any obvious residual risks.

4 Technical Data

FKS 255-1300	230 V	400 V
Length	1320 mm	1320 mm
Width/depth	1750 mm	1750 mm
Height	1120 mm	1120 mm
Weight	155 kg	155 kg
Supply voltage	230 V	400 V
Max. cutting width with rip fence	610 mm	610 mm
Max. cross cut width left from saw blade	845 mm	845 mm
Saw blade angle	90 – 45°	90 – 45°
Max. cutting height 90°	80 mm	80 mm
Max. cutting height 45°	54 mm	54 mm
Saw blade Ø	254 mm	254 mm
(Main) saw blade speed	4000 min⁻¹	4000 min⁻¹
Ø Extraction port diameter	100 mm	100 mm
Saw blade protection extrac- tion port diameter	30 mm	30 mm
Trimming frame length	1250 mm	1250 mm
Sliding carriage length	600 mm	600 mm
Sliding carriage width	460 mm	460 mm
Table length	790 mm	790 mm
Table width	350 mm	350 mm
Work height	835 mm	835 mm
Drive motor output	1,5 kW	1,5 kW
Absorbed power drive motor	2 kW	2,1 kW
Motor speed	2800 min⁻¹	2800 min ⁻¹
Sound pressure level	83,7 dB(A)	83,7 dB(A)

The operating conditions for noise measurement correspond to Annex B of ISO 7960.

The figures given are emission values and not necessarily safe working levels. While there is a correlation between emission and exposure values, this cannot be used reliably to determine whether further precautions are necessary. Factors that affect the actual level of worker exposure include the characteristics of the work space, other sources of noise, etc. H. The number of machines and other related processes. The permissible level of exposure can also vary from country to country. However, this information will enable the user of the machine to better assess the danger and risk.



Environmental conditions

The machine must be operated in a workshop environment where the temperature does not exceed + 40 $^{\circ}$ C and does not fall below + 5 $^{\circ}$ C. The relative humidity of the environment is 30% to 95%, non-condensing. The height above sea level is up to 1000 m.

4.1 Type plate

Formatkreiss Format circula	äge ar saw		₫ (€
Typ Type	FKS 255-1300/230V	Serien-Nr. Serial no.	
Artikel-Nr. Item no.	5902035	Baujahr Year of manufacture	
Motorleistung Motor power	1,5 kW	Netzanschluss Power connection	230 V
Gewicht Weight	155 kg	Aufnahmeleistung Power consumption	2,0 kW
Drehzahl Saw blade speed	4000 1/min	Schallldruckpegel Sound pressure level	83,7 dB
Max. Sägeblattd Max. saw blade di	ameter 25	4 mm	
	zstar i _{tar.de}	Stürmer Maschinen Gr DrRobert-Pfleger-Str. Deutschland / Germa	nbH 26, 96103 Hallstadt ny

Fig. 4: Type plate FKS 255-1300

5 Transport, Packaging, Storage

5.1 Delivery and transport

Delivery

During transport or storage of the machine, measures must be taken to protect the machine from excessive vibration and moisture. Check the Format circular saw for visible transport damage after delivery. If you discover any damage to the Format circular saw, 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:

For shipping, the boxed unit is delivered on a pallet so that it can be transported by forklift or pallet truck. The machine is secured on a pallet with four hexagon screws.

- Step 1: Prepare a stacker or hand pallet truck with sufficient capacity.
- Step 2: Place the forks under the machine in the pallet.

Transport by crane:

If you use a crane (Fig. 5) or a similar hoist, proceed as follows:

- Step 1: Attach the lifting equipment of the crane to the attachment points of the circular table saw (Fig.5).
- Step 2: Attach the lifting gear to a crane hook with the required capacity.
- Step 3: Loosen the four screws that secure the machine to the pallet.
- Step 4: Lift the machine off the pallet with the crane and place it where it will be used.

Step 5: Push and position the machine to the exact place of use using several.



DANGER!

The machine must not be installed in potentially explosive areas. Make sure that the floor area around the machine is level, well maintained and free of liquids.



Fig. 5: Possibility to transport the machine with a crane

5.2 Packaging

All used packaging materials and packaging aids of the panel saw 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.



5.3 Storage

Thoroughly clean the panel saw in a dry, clean and frostfree environment. Cover the machine with a protective tarpaulin.

Ambient temperature range: -25 ° C to +55 ° C.

6 Description of the device

6.1 Machine

Illustrations in these operating instructions may differ from the original.



Fig. 6: Format circular saw FKS 255-1300

- 1 Sliding table
- 2 Workpiece kick-back protection
- 3 Saw blade guard with suction hood
- 4 Suction hose
- 5 Stop
- 6 Workpiece hold-down clamp
- 7 ON / OFF switch
- 9 Hand wheel for adjusting the saw blade inclination
- 10 Emergency Off button
- 11 Swivel joint Sliding carriage

6.2 Scope of delivery

- Trimming shoe
- Eccentric Clamp
- Angle stop -45° to 45
- HM saw blade 254 x 30 x 3.0 mm Z40

6.3 Accessories

- Saw blade 254x30x3mm Z40 Item number: 5912026

7 Installation and connection

7.1 Requirements for the installation site

The format circular saw must be set up on a flat and solid base to ensure stability. It must be ensured that there is sufficient freedom of movement for working. The installation site should meet the following criteria:

- The substrate must be level, firm and vibration-free.
- Altitude of the working site: max. 1000 m;
- Max. ambient temperature: + 40 °C
- Min Ambient temperature: + 5 °C
- Relative humidity of the ambient air: 30% to 95%.
- The substrate must not allow lubricants to pass through.
- The installation or working area must be dry and well ventilated.
- No machines that produce dust and chips should be operated near the machine.
- Sufficient space must be available for the operating personnel, for material transport and for adjustment and maintenance work.
- The installation site must have good lighting.
- An extraction device must be available with a min. extraction capacity of 570 m3/h, min. 20 m/s flow velocity at the extraction connection; hose diameter 100 mm, max. hose length 4 m.
- Fasten the machine to the floor and fix the machine feet with expansion bolts.

7.2 Space requirement



Fig. 7: Space requirement



7.3 Setting up the format circular saw



ATTENTION!

Risk of injury due to a machine that is not stable!

Check the stability of the machine after it has been set up on a stable surface.



ATTENTION!

Some metal parts can be sharp-edged. Check all metal parts to avoid injury.



CAUTION!

Note the weight of the machine! The machine may only be set up by two people. Check the equipment accordingly for sufficient dimensioning and load-bearing capacity.



DANGER!

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

Make the machine ready for operation with the following steps:

Assembly of the sliding table

Step 1: Place the sliding table on the saw and release the middle nut (Fig.8) of the guide.



Fig. 8: Guide carrier sliding table

Step 2: Insert the sliding table into the sliding carrier at the front and rear of the saw and tighten the previously loosened nut.



Fig. 9: Mount the sliding carrier

Assemble workbenches



The workbench is heavy. Worry

For safety's sake, sufficient aids and support.

Step 1: Screw the angle for the assembly of the side extension table with 4 hexagon screws and washers to the working table of the saw.





Fig. 10: Mount the workbench

Step 2: Loosely screw on the lateral extension table on the side of the saw table, align and center it, and then tighten the screws underneath the table. Check the centering at the corners and the flat alignment of the surface on the main table with the aid of wooden blocks and spirit level, then tighten all screws of the worktable.





Fig. 11: Mount extension table

Step 3: Unscrew the 3 screws (Fig.11) on the workbench of the saw to assemble the butt table. Now mount the table to the saw and tighten the screws again.





Fig. 12: Mount rear extension table

Mount the measuring scale

Step 1: Mount the measuring scale to the holes on the front of the machine using the screws. Make sure the scale is up.



Fig. 13: Mount measuring scale

Mount the stop guide rail

Step 1: Insert 4 M10x80 hex bolts into the main table and the extension tables. Loosely screw on 2 nuts on each hexagon screw

Step 2: Screw the four screws into the stop guide rail approx. 4 - 5 turns



Fig. 14: Mount the stop guide rail

Mount rip fence

Step 1: Loosen the star knobs of the rip fence and push the carrier onto the guide rail.



Fig. 15: Sliding the carrier onto the guide rail

Step 2: Using the handle, loosen the screw to guide the parallel stop and slide the parallel stop into the screw of the carrier.



Fig. 16: Mount rip fence on carrier

Step 3: Tighten all handles to securely lock the rip fence.





Fig. 17: Tighten rip fence

Mount the swivel arm

Step 1: Screw the swivel arm to the machine housing using 4 hexagon screws. The swivel arm must be aligned horizontally.



Fig. 18: Mount the swivel arm

Step 2: Place the sliding table support (A) in the swivel arm and hand-tighten the nuts. The institution has yet to be set up. After aligning, tighten the nuts.



Fig. 19: Mount the sliding table bracket

Step 3: Mount the sliding table support (A) on the sliding carriage. Fasten the sliding table support to the slide using the 2 screws. Fasten the slide to the saw using the 2 clamping levers and screws.



Fig. 20: Mount the sliding carriage on the sliding table support

Step 4: Place the telescopic stop on the sliding carriage and fasten it using the clamping levers.



Fig. 21: Mount the telescopic stop

Step 5: Insert the support leg into the guide on the sliding carriage support and screw it on.



Fig. 22: Mount the support leg



Assemble extraction supports and protective devices

Step 1: Screw on the suction nozzle at the bottom on the back of the machine with 4 Phillips screws.



Fig. 23: Mount the suction connection

Step 2: screw on the saw blade guard.



Fig. 24: Mount the saw blade guard

Step 3: Screw on the hose guide on the back of the steel table with 2 M6x20 hexagon screws and spacers.



Fig. 25: Mount the hose guide

Mount suction hoses





Fig. 26: Mount suction hoses

- Step 1: Attach the 30mm suction hose to the saw blade guard with a hose clamp, then insert the hose into the hose guide. Make sure that the hose runs freely and there is enough distance to the work surface.
- Step 2: Attach the other end of the suction hose to the suction connection on the machine housing using a hose clamp.
- Step 3: Fasten the 100 mm suction hose with a hose clamp to the suction connection on the machine housing. Fasten the other end of the suction hose to the suction nozzle of the suction system with a hose clamp.



Fig. 27: Mount suction hoses



7.4 Connection of the suction system



DANGER!

Use the machine only with the suction system connected and switched on.

Extraction equipment is required for the machine to function properly:

- with a minimum capacity of 570 mm3 / h and minimum air speed in the lines equal to 20 m / s for dry particles.
- with a minimum capacity of 790 mm3 / h and minimum air speed in the lines equal to 28 m / s for wet particles.
- The hose connector or pipe for connecting the output should be conductive and electrostatically grounded (resistance less than 106 Ω).

Switch off the machine drive and the suction system at the same time!

Use flexible suction hoses with a diameter of 100 mm and 30 mm for suction on the saw blade guard.

7.5 Electrical connection



DANGER!

Danger to life from electric shock!

There is a risk to life if you come into contact with live components. Switched-on electrical components can make uncontrolled movements and cause serious injuries.



DANGER!

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



DANGER!

The three phases must be connected so that the saw blade moves according to the cutting direction shown on the housing.

When connecting the power supply, make sure that the characteristics (voltage, mains frequency, fuse) match the information on the rating plate and for the motor.

Step 1: Check that the circular saw format is switched off.

Step 2: Connect the machine to the mains and check the direction of motor rotation. If the direction of rotation is wrong, two phases must be exchanged.



Fig. 28: Change motor direction of rotation (400 V model)

Damaged power supply cables must be replaced immediately by the responsible specialist. Operation with damaged cables is dangerous and prohibited. This machine must be connected to the protective conductor (earthing). Check that the socket is properly grounded.

8 Operation of the Format circular saw

Check that the machine is working properly before using the machine for one work cycle.

Danger!

Danger to life from electric shock!

There is a risk to life if you come into contact with live components. Switched-on electrical components can make uncontrolled movements and cause serious injuries.

- Unplug the power cord before making any adjustments to the machine.



WARNING!

Risk of death!

There is a risk to life for the operator and other people if they do not adhere to the following rules.

- The circular saw format may only be operated by a trained and experienced person.
- The operator must not work when under the influence of alcohol, drugs or medication.
- The operator is not allowed to work if he is tired or suffers from concentration-impairing illnesses.
- The circular saw format may only be operated by one person. Other people must stay away from the work area during operation.

CAUTION! Health hazard!

Wood dust and shavings can damage the lungs when inhaled. The machine may only be operated with a suitable extraction system.







Wear a dust mask!



Wear safety shoes!



Wear protective clothing!

- Make sure that the electrical cables are not damaged, so that injuries caused by leakage (electric shocks) are avoided.
- Regularly check that the safety covers are correctly installed and are not damaged. Repair damaged covers immediately or have them replaced by a qualified person.
- Do not operate the device with the cover removed.
- Do not use saw blades that are distorted, broken, or blunt.
- Always use the saw blade that is suitable for the work required and that complies with the machine specifications. The tools must comply with EN 847-1: 2005.
- Replace blunt saw blades as soon as possible as blunt saw blades can cause injury or damage.
- Never use the saw blades at speeds higher than those recommended by the manufacturer.
- Before changing or adjusting the tools, stop all functions of the machine and pull the plug out of the socket.
- Do not remove or otherwise interfere with safety devices such as covers, limit switches.
- When handling parts, ask about your capabilities for help from a qualified person.
- It is not recommended to work on the machine during a storm.

With the sliding table of the sliding table saw, large-format workpieces can be cut without the stresses that would result from sawing over a stationary table. In addition, the saw can be used as a normal table saw to cut smaller workpieces.

Sawing process

- Step 1: Guide the workpiece slowly and evenly in the direction of the saw blade.
- Step 2: Hold the workpiece as it feeds to the saw blade and use the table to get support. Always use a push stick and keep your hand away from the saw blade.

8.1 Selection of the saw blade

Before performing an application on a table saw, it is important to consider the selection of the saw blade. Many different types of sheets are available. The machine is delivered with a good multi-purpose saw blade. A saw blade with a different tooth pattern may be required for special applications.

A table saw can be equipped with two different types of saw blade:

- A alternating bevel saw blade.
- A triple-comb toothed saw blade.

Select the correct saw blade for the job, depending on the type of material and the cut to be made, see table below.



Fig. 29: Saw blade selection

Saw blade selection			
Saw blade type	Application		
24 teeth Chopping with alterna- ting bevel and positive rake angle.	Suitable for deeply tea- ring softwood		
30 teeth Chopping with alterna- ting bevel and positive rake angle.	Suitable for deeply crac- king hardwood		



Saw blade selection		
Saw blade type	Application	
36 teeth Chopping with alterna- ting bevel and positive rake angle.	General purpose, suitable for tearing and cross cutting soft and hardwood.	
40 teeth alternating hooks with positive rake angles	Suitable for cross cutting soft and hardwood.	
40 teeth with kickback protection Alternating hooks with semi-positive ticks	Suitable for cross cutting soft and hardwood, of- fers protection against kickback.	
80 teeth Chopping with alterna- ting bevel and positive rake angle.	Suitable for cross cutting and gives a fine surface on artificial plate mate- rial and laminate.	
80 teeth Three-chip saw blade	Suitable for cross cutting. A fine surface is created on artificial board mate- rial and laminate. Three- chip saw blades reduce material breakout.	



WARNING!

Risk of death!

Consider the following when working with saw blades:

- Never use a damaged or deformed saw blade, throw it immediately into the scrap metal.
- Only have blunt saw blades sharpened by qualified specialists.

Components of the saw unit:

- Worktable
- Sawblade
- Table stakes
- Handwheel for height adjustment
- Handwheel for settings
- Parallel guide
- Sliding table with carpentry square.
- Cover for the removal of the wood splinters with connection for the suction system.



NOTE!

Procedure in the event of vibrations of the saw blade:

- Examine it for a defect.
- Replace if necessary.

Working rules:

- When sawing workpieces in length, use the parallel guide stop.
- To saw narrower workpieces in length, use a push stick to push them.
- When working on workpieces with a large surface area or when sawing the width of the table, please use the adjustable carpenter's square.
- Never take the workpiece off the table without completing the operation.
- Only make adjustments to the cutting height and the square of the carpenter when the machine is disconnected from the mains.
- Press the workpiece evenly without impact during the sawing process.
- In order to improve the saw quality and avoid having to cut the piece again, you have to mount the saw blade in such a way that several teeth (min. 2) cut at the same time. If this is not possible, you will need to use a saw blade with finer teeth.



Fig. 30: Necessary number of teeth in the procedure

- Always use a well-sharpened saw blade with no defects.
- Clean the saw blades with the appropriate means.
- Clean the saw blades with a metal brush.

8.2 Installation of a new saw blade

Make sure that the mounting diameter of the saw blade corresponds to the diameter of the mounting axis. Never install a saw blade with a mounting diameter larger than the axis diameter of the machine mounting.

8.3 Basic applications of the sliding table saw

If the wood is cut with the grain direction, use the rip fence for this application.



Fig. 31: Longitudinal cutting of the workpiece



Cutting across the grain

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



Fig. 32: Cutting across the grain

Cut the beveled edge

If a beveled (angled) edge to the workpiece is required, proceed as follows:

Step 1: Swivel the saw blade to the desired angle.

Step 2: Saw the workpiece through in one cut.



Fig. 33: Cut the beveled edge

Working with the diagonal fence

The diagonal stop can be mounted on the left or right side of the saw blade in the T-slot.



Fig. 34: Diagonal cut with the diagonal stop



Fig. 35: Diagonal cut with the diagonal stop

Workpiece support

With a circular saw format, good workpiece support is essential. An additional support should always be used if the workpiece protrudes over the table. Roller stands are ideal for this purpose and should be used on both the infeed and outfeed side of the machine. A rip fence, cross fence or miter fence should be used to support the workpiece during the cutting process. A push bar should always be used when making cuts of less than 300 mm in length or the last 300 mm of a longer cut. The front hand should never be closer than necessary to the front of the saw and the hands should never be in line with the saw blade.

A push stick should always be used to remove the cut piece between the saw blade and the fence.



Adjusting the saw blade protection

The saw blade guard should be adjusted so that it reaches as close as possible to the workpiece.



Fig. 36: Saw blade protection

Saw blade height adjustment

Lifting and lowering must be adjusted so that the saw blade guard is as close as possible to the workpiece. However, the teeth should always project beyond the top of the workpiece. Lifting and lowering is done by means of the handwheel on the back of the machine.

Adjusting the inclination of the saw blade



DANGER!

Parts of the body or objects within the adjustment range can be caught by the running saw blade! Only adjust the saw blade inclination when the saw blade is stationary and the mains plug is pulled out.

To obtain a bevelled edge, the saw blade must be inclined. To do this, carry out the following steps:

Step 1: Unlock the locking knob and turn the handwheel until the saw blade is positioned as desired.



Fig. 37: Setting options of the saw blade

Kickback

Kickback can occur when the material dips into the saw blade. As soon as the wood is behind the centre of the saw blade, the teeth move upwards in the direction of the user. If the wood catches up with these upward moving teeth, the wood will kick back.



Fig. 38: Correct adjustment of the guide stop

The way to avoid kickback is to prevent the wood from closing on the saw blade. To do this, the fence must be correctly adjusted. If the auxiliary fence is set too far forward, it can push the wood into the saw blade and cause a kickback.

By adjusting the auxiliary fence in front of the centre of the saw blade, the wood has room to move when the cut is made.

The kickback is now much less likely, as the wood is not forced into the upward moving saw blade.



Fig. 39: Correct adjustment of the guide stop





Fig. 40: Incorrect adjustment of the guide stop

ON / OFF Switch

Switch on - press the green "I" button.

Switch off - press the red key "O".



Fig. 41: ON / OFF Switch FKS 255-1300



DANGER!

When the machine is switched off, the saw blade must come to a standstill within 10 seconds. Never brake the saw blade by lateral pressure.

9 Care, Maintenance and Repair



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.

- Before starting any cleaning or maintenance work, switch off the machine and disconnect the power plug.

- Maintenance and repair must be performed by a qualified person. Do not perform any maintenance work before you have thoroughly familiarized yourself with the maintenance instructions.
- Before you start servicing, always turn off the switch and unplug it from the wall outlet. A possibility of accidentally turning on the machine by another person is thus avoided.
- Even if the machine is stopped, the power supply is not interrupted. Always remove the plug from the socket.
- Keep your fingers away from belts and pulleys.
- Never remove, obstruct or obstruct safety devices such as covers or limit switches.
- Do not turn the unit on until all removed covers have been reinstalled after service.
- Always keep the maintenance area, including the workplace, clean.
- Maintenance must be carried out by qualified personnel in accordance with the instructions and instructions of the machine manufacturer.
- Carefully and completely read the operating instructions regarding maintenance.
- Only use original spare parts.
- Use only specified types of lubricating oil and grease or equivalents.
- If a strap in the harness used is longer than prescribed, replace the entire set completely.
- Do not use compressed air to clean the machine or to remove chips.

It is important that the sheet selected for the work process is in good condition. Any accumulation of wood resin near the teeth of the saw blade will cause the workpiece to stop or stick. These deposits should be removed after cleaning with benzine. It is also recommended to coat the saw blade with silicone spray. Do not use the saw blade with traces of oil, as this will attract dirt. Never try to clean a moving saw blade. The saw must be stopped, the saw blade removed and the resin removed with a suitable scraper. The replacement blade and fasteners must comply with EN847-1: 2005 and EN847-3: 2004.

9.1 Care after the end of work



CAUTION!

Health hazard!

Wood dust and chips can damage the lungs when inhaled.

When emptying the collection container and cleaning the dust extraction, wear a dust mask.







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 socket
- Step 2: Empty and clean the suction device.
- Step 3: Vacuum the machine off sawdust and sawdust and clean with a dry cloth and / or compressed air (wear protective goggles!). In particular, the guide rails must be kept clean.Step 4: Alle unlackierten Metalloberflächen mit etwas Antirostspray einsprühen.
- Step 5: Check the machine for damage to the safety devices and saw blade. If necessary, carry out the repair or arrange for it, observing the safety instructions.
- Step 6: Check the machine components regularly and replace if necessary:
 - Loose screws and nuts
 - Worn or damaged switches
 - Worn or damaged saw blade
 - Worn or damaged blade guard
- Step 7: Every 3 months, check the drive belts monthly for daily use, replace them if worn or damaged.



NOTE!

The bearings are closed and pre-lubricated. They are maintenance-free for the normal life of the machine. The bearing surfaces should always be kept clean to ensure proper operation of the saw.

9.2 Maintenance and Repair

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

If the panel saw 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.

9.2.1 Blade change



Wearing safety gloves!



DANGER!

The saw blade has the dimensions 254 x 30 x 3 mm (outer diameter, inner diameter, thickness).



DANGER!

Whenever the saw blade thickness is changed, an appropriately dimensioned ripper and a suitable auxiliary saw blade must be fitted.

- Step 1: Unplug the power cord from the wall outlet.
- Step 2: Set the saw blade tilt angle to 0° (90° to the saw table) and move the saw blade up as far as possible.
- Step 3: Push the sliding table outwards as far as possible.
- Step 4: Loosen the locking mechanism on the saw blade guard and remove the saw blade guard.
- Step 5: Loosen the three screws and remove the insert from the table.
- Step 6: Remove the protective plate.

As long as the protective plate has not been moved back to its original position, the machine cannot be switched on.



Fig. 42: Unscrew the saw blade

- Step 7: Place the pivot pin in the locating hole behind the saw blade.
- Step 8: Use a wrench to turn the nut clockwise to loosen it.



At this point the pivot pin should turn with the saw blade and press firmly against the spindle housing to form an anchor against which it can be turned.

- Step 9: Remove the nut, washer and bushing from the saw blade spindle.
- Step 10: Now remove the saw blade from the spindle.
- Step 11: Place the new saw blade on the spindle and make sure it is firmly seated on the hub.
- Step 12: Replace the bushing, washer and nut and turn the nut counterclockwise with a wrench to tighten it.

10 Troubleshooting

No errors will occur if the machine is used properly and maintained properly.

If the suction hose is blocked with chips, the machine should be switched off and the chips removed before handling.

Switch off the machine immediately if a workpiece becomes jammed!

A blunt saw blade often causes the electric motor to heat up excessively. If the machine vibrates too much, check the adjustment and anchoring, and possibly also the clamping and balancing of the tools used. At this point, the turning pin should have turned with the saw blade and be pressed firmly against the spindle housing to form an anchorage for turning against it.

- Step 13: Reposition the table insert and retighten the corresponding screws to secure it.
- Step 14: Reassemble the sliding table and secure it by sliding the Sliding table stop.

Fault	Possible causes
The machine does not work	It is necessary to check the electrical wiring and the connection to the po- wer supply.
The machine power is too low	The saw blade is not sharp enough.
	A too thick chip removal is selected. The width and hardness of the wood should be considered.
	The drive belt is not strong enough.
	The motor does not operate at full drive power. Contact the service department.
The machine vibrates	The saw blade is not sharp enough or is incorrectly adjusted.
	Asymmetrical tool.
	The machine is not standing on solid ground or is not sufficiently secured.
	Exhaust system clogged
The workpiece is knocked back by the saw blade.	Fences not correctly aligned or defective saw blade
Poor surface after the cutting process	The saw blade is not sharp enough or is incorrectly adjusted.



11 Disposal, Recycling of old equipment

In your own interests and in the interests of the environment, please ensure that all components of the machine are disposed of in the proper and approved way.

11.1 Decommission

Disused devices must be taken out of service immediately in order to prevent later misuse and endangering the environment or people.

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

11.2 Disposal of electrical equipment

Please note that electrical appliances contain a variety of recyclable materials as well as environmentally harmful components. Make sure that these components are disposed of separately and properly. In case of doubt, please contact your municipal waste disposal. If necessary, the help of a specialized waste management company can be used for the treatment.

11.3 Disposal of lubricants

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

11.4 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.

12 Spare parts



DANGER!



Risk of injury due to incorrect spare parts!

The use of incorrect or faulty replacement parts can be dangerous to the operator and cause damage and malfunction.

- Only original spare parts from the manufacturer or replacement parts approved by the manufacturer must be used
- In case of doubt, always contact the manufacturer.



Tips and recommendations

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

12.10rdering spare parts

The spare parts can be obtained from the dealer or directly from the manufacturer. The contact details are in chapter 1.2 Customer Service. Specify the following key data for inquiries or when orde-ring spare parts:

- Device type
- Item number
- Position number
- Construction year
- Amount
- Desired shipping method (post, freight, sea, air, express)
- Delivery address

Spare parts orders without details given above can not be considered. If the shipping method is missing, shipping will be at the discretion of the supplier. Information on the device type, article number and year of manufacture can be found on the type plate, which is attached to the device.

Example

The engine for the Format circular saw FKS 255-1300 230V must be ordered. The engine has the number 33 in the spare parts drawing 2. By ordering spare parts, send a copy of the spare parts drawing (2) with the marked part (engine) and marked positon number (33) to the dealer or spare parts department and provide the following information:

- Type of device: Format circular saw FKS 255-1300 230V
- Item number: 5902035
- Drawing number: 2
- Position number: 33



12.2 Spare parts drawings FKS 255-1300

The following drawings should help to identify necessary spare parts in case of service. To order, send a copy of the parts drawing with the marked components to your authorized dealer.

Spare parts drawing 1



Fig. 43: Spare parts drawing 1 Format circular saw FKS 255-1300 (230 V and 400V)



Spare part drawing 2



Fig. 44: Spare parts drawing 2 Format circular saw FKS 255-1300 (230 V and 400V)

Spare parts drawing 3



Fig. 45: Spare parts drawing 3 Format circular saw FKS 255-1300 (230 V and 400V)



Spare parts drawing 4



Fig. 46: Spare parts drawing 4 Format circular saw FKS 255-1300 (230 V and 400V)



13 Electrical circuit diagrams

Electrical circuit diagram 230 V Model



Fig. 47: Electrical circuit diagram FKS 255-1300 (230 V)

Electrical circuit diagrams 400 V Modell



Fig. 48: Electrical circuit diagram FKS 255-1300 (400 V)



14 EC-Declaration of Conformity

According to Machinery Directive 2006/42/EG Anhang II 1.A

Manufacturer/distributor: hereby declares that the follwoing product	Stürmer Maschinen GmbH DrRobert-Pfleger-Str. 26 D-96103 Hallstadt	
Product group:	Holzstar® Wood working machines	
Type of machine:	Format circular saw	
Designation of the machine*:	□ FKS 255-1300 - 230 V □ FKS 255-1300 - 400 V	Item number*: ☐ 5902035 ☐ 5902036
Serial number*:		
Year of manufacture*:	20* please fil	I in according to the information on the type plate

complies with all relevant provisions of the above-mentioned Directive and the other Directives applied (hereafter) - including their amendments in force at the time of the declaration.

Relevant EU directives:	2014/30/EU	EMC - Directive
	2011/65/EU	RoHS - Directive
	2012/19/EU	WEEE - Directive

The following harmonized standards have been applied:

DIN EN 1870-19:2014-03	Safety of woodworking machines - Circular sawing machines - Part 19: Circular saw benches (with and without sliding table) and building site saws
DIN EN 60204-1/A1:2009-10	Safety of machinery - Electrical equipment of machines - Part 1: General requirements
DIN EN 55014-1:2018-08	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission
DIN EN 55014-2:2016-01	Electromagnetic compatibility - Requirements for household appliances , electric tools and similar apparatus - Part 2: Immunity - Product family standard
DIN EN 61000-3-2:2015-03	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current \leq 16 A per phase)
DIN EN 61000-3-3:2014-03	Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection
Responsible for documentation:	Kilian Stürmer, Stürmer Maschinen GmbH,

Dr.-Robert-Pfleger-Str. 26, D-96103 Hallstadt

Hallstadt, 08.02.2021

Kilian Stürmer Manager





www.holzstar.de