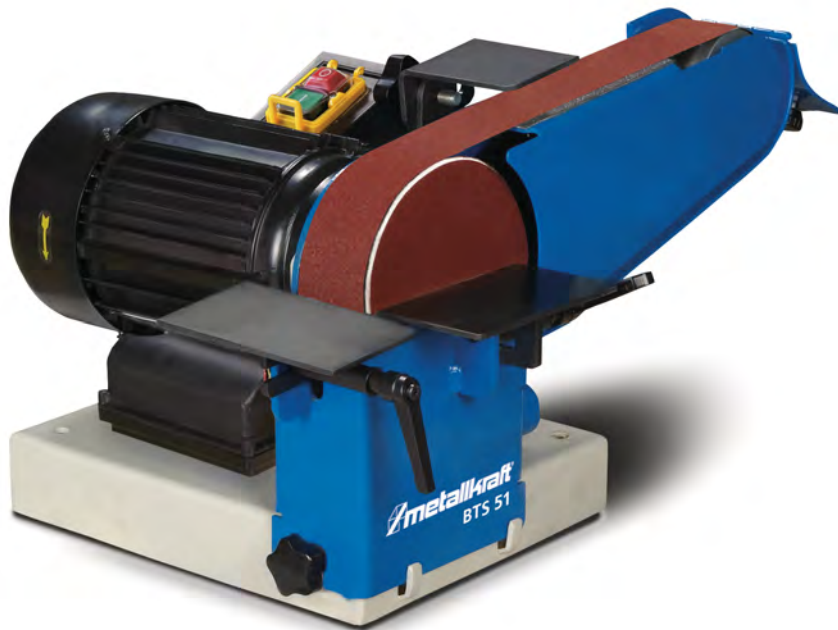


# Operating Instructions

## \_\_\_\_\_ Belt and Disc Grinding Machine

\_\_\_\_\_ BTS 51



BTS 51

BTS 51

## Imprint

### Product identification

Belt and Disc Grinding Machine	Item number
BTS 51	3700051

### Manufacturer

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### Indications regarding the copyright

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## 1 Introduction

You have made a good choice by purchasing the METALLKRAFT belt and disc sander.

Read the operating instructions carefully before commissioning. These are an important part and must be kept near the machine and accessible to every user.

The operating instructions inform you about the proper start-up, the intended use as well as the safe and efficient operation and maintenance of the belt and disc grinder.

In addition, observe the local accident prevention regulations and general safety regulations for the area of application of the belt and disc grinder.

### 1.1 Copyright

The contents of these instructions are protected by copyright and are the sole property of Stürmer Maschinen GmbH. Their use is permitted within the scope of use of the belt and disc sander. Any other use is not permitted without the written consent of the manufacturer.

Passing on as well as duplication of this document, utilization and communication of its contents are forbidden, as far as not expressly permitted. Violations will result in liability for damages. We register 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.

#### Germany:

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

#### Repair service:

Fax: 0049 (0)951 96555-111  
Email: service@stuermer-maschinen.de

#### Spare part orders:

Fax: 0049 (0)951 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 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 untrained staff,
- 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 chapters.

### 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 words indicates a possibly dangerous situation which may lead to minor or light injuries if they are not avoided.

### **ATTENTION!**

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.



### **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 operator is the person who operates the machine himself for commercial purposes or lets a third party use or apply it and who bears the legal product responsibility for the protection of the user, personnel or third parties during operation.

### **Obligations of the operating company:**

If the machine is used for commercial purposes, the operating company must comply with the legal working safety regulations.

Therefore, the safety notes in this operating manual, as well as the safety, accident prevention 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 the machine. She must implement these in form of operating manuals for the operation the machine.
- During the entire lifetime of the 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 machine, have read and understood this manual. Furthermore she must instruct the staff in regular intervals and inform them about the hazards.
- The operator must provide the necessary protective equipment to the staff and order the use of the necessary protective equipment in a binding way.

Furthermore the operating company is responsible to keep the 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 the 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 expressly 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 the appliance which are indicated in the individual paragraphs of these instructions.

The personal protective equipment is explained in the following paragraph:



#### Eye protection

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



#### Ear protection

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



#### Breathing protection

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



#### Suitable 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 under-ground.



#### Protective clothes

The protective clothes are tight clothes of little tensile strength.

## 2.5 General safety notes

### Please observe the following points:

- Use the protective devices and securely fix them. Never work without protective devices and make sure that they are working properly.
- Always keep the machine and its working environment proper. Provide for sufficient illumination.
- Generally secure your workpiece while working using suitable clamping devices. Provide for sufficient supporting surface.
- The design of The Belt and Disc Grinding Machine must not be modified and it must not be used for any other purposes than the processes intended by the manufacturer.
- Never work under the influence of diseases resulting in concentration disorders, over fatigue, drugs, alcohol or medications.
- Keep children and persons who are not familiar with the Belt and Disc Grinding Machine away from your working environment.
- Do not pull at the mains cable in order to pull the mains connector from the power socket. Protect the cable against heat, oil and sharp edges.



- Immediately remove any disturbances which influence the safety.
- Protect the Belt and Disc Grinding Machine against humidity (risk of short circuits).
- Do not switch on the machine until immediately before starting machining. Do not leave the running machine unattended.
- If the power cord is damaged, shut down the machine immediately and have it replaced by a qualified electrician.
- Before each use of the Belt and Disc Grinding Machine, make sure that no parts are damaged. Immediately replace damaged parts in order to avoid sources of danger.
- Do not overcharge the Belt and Disc Grinding Machine! It is working better and safer in the specified power range. Use the correct grinding belt! Make sure that the grinding belt is not damaged.
- Only use original spare parts and accessories in order to avoid possible dangers and risks of accidents.

## 2.6 Safety signs on the Belt and Disc Grinding Machine

The following safety signs and notes are applied on the Belt and Disc Grinding Machine (fig. 1), which need to be observed and followed.



Fig. 1: Safety signs -  
1 Mandatory sign | 2 Warning sign | 3 Earth symbol

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.

## 3 Intended use

The belt and disc grinder is intended exclusively for grinding and deburring various metallic, cold and non-flammable materials. The belt and disc grinder must not be operated in potentially explosive atmospheres.

Intended use also includes compliance with all the information in these instructions.

### 3.1 Reasonably foreseeable misuse

Any use beyond or different from the intended use is considered misuse.

Possible misuses can be:

- Use of the belt and disc grinder with materials other than metal (e.g. machining of wood).
- Use of the belt and disc grinder with parameters that are not permitted for the machining of metal.
- Operating the belt and disc grinder without the functioning, intended protective devices.
- Bridging or changing the protective devices.
- Failure to observe the maintenance instructions.
- Non-observance of wear and damage marks.
- Service work by untrained or unauthorized personnel.
- Maintenance work on an unsecured machine.
- Careless handling of the belt and disc grinding machine during operation.
- Installation of spare parts and use of accessories and operating equipment not approved by the manufacturer.
- Machining of several workpieces simultaneously in one operation.
- Machining of oversized workpieces.
- Modifications to the machine or the use of modified tool systems.

Incorrect use of the belt and disc grinder can lead to dangerous situations. Stürmer Maschinen GmbH accepts no liability for design and technical modifications to the belt and disc grinder.

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

### 3.2 Residual risks

Even if all safety regulations are observed and the machine is used in accordance with the regulations, 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 of the device (indirect contact).
- Heat generation on components can lead to burns and other injuries.
- Risk of injury to fingers and hands from the tool or workpiece, e.g. when changing tools.
- Danger of inhaling dust (if necessary, use an extraction system in accordance with the legal requirements).
- Risk of injury to the eye from flying parts, even with protective goggles.

## 4 Technical data

### 4.1 Table

Technical data	Model BTS 51
Motor power (230 V/50 Hz)	750 W
Motor speed	2800 rpm
Belt speed	22 m/sec.
Grinding disc diameter	150 mm
Grinding arm inclination angle	50°
Drive wheel diameter	152 x 50 mm
Contact wheel diameter	75 x 50 mm
Grinding belt dimensions	1000 x 50 mm
Suction socket diameter	38mm
Graphite support dimensions	160 x 60 x 1.5 mm
Dimensions of the machine L x W x H (maximum)	410 x 500 x 520 mm
Weight	20 kg

### 4.2 Type plate



Fig. 2: Type plate BTS 51

### 4.3 Dimensions

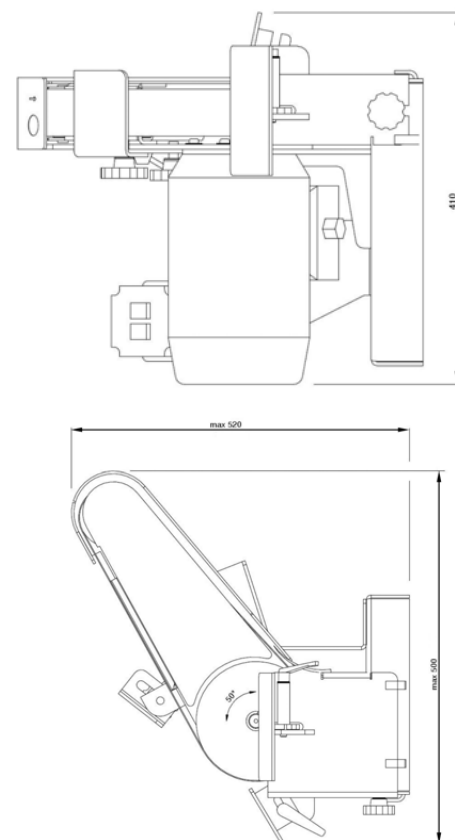


Fig. 3: Dimensions

## 5 Transport, packaging, storage

### 5.1 Delivery and transport

#### Delivery

Check if there are any visible transportation damages after delivery of the Belt and Disc Grinding Machine. If the Belt and Disc Grinding Machine shows any damages, immediately inform the carrier or the distributor.

#### Transport

The Belt and Disc Grinding Machine may only be transported in upright position and with the motor switched off.



#### NOTE !

Protect the Belt and Disc Grinding Machine against humidity.

### 5.2 Packaging

All used packaging materials and packaging aids of the appliance are recyclable and generally need to be transported to the material recycling.

Crush the packaging material made of cardboard and supply it to the waste paper collection.

The films are made of polyethylene (PE) and the upholstery parts are made of polystyrene (PS). These materials have to be delivered to a recycling station of the responsible dumping company.

### 5.3 Storage

The Belt and Disc Grinding Machine must be stored thoroughly cleaned in a dry, clean and frost-free environment.

## 6 Description of the device

### 6.1 Image

The illustrations in these operating instructions serve the general comprehension and may deviate from the actual type.

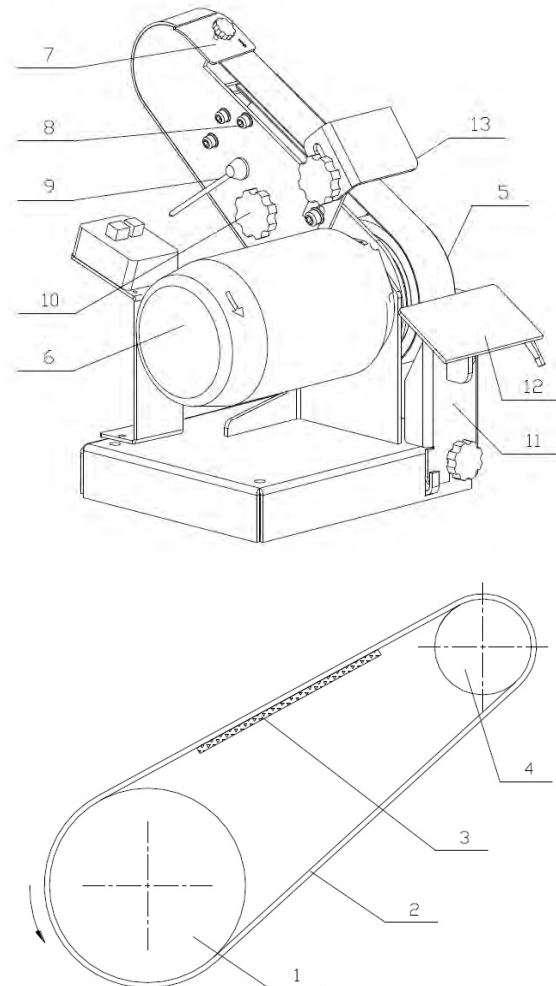


Fig. 4: Description of BTS 51

- 1 Drive disc
- 2 Grinding belt
- 3 Graphite support
- 4 Wheel
- 5 Contact wheel / disc grinding surface
- 6 Motor
- 7 Protective cover of contact wheel
- 8 Fastening screws
- 9 Locking lever
- 10 Grinding belt operation adjustment screw
- 11 Spark arrester
- 12 Workpiece support table
- 13 Workpiece support table



## 6.2 Scope of delivery

- BTS 51
- 1x Grinding belt grain 1000 x 50 mm K80
- 1x Grinding disc grain Ø150mm, K80, Velcro
- Velcro support Ø 150 mm
- Operating manual

## 6.3 Optional accessories

- Graphite support
- Grinding belt 1000 x 50 mm K40
- Grinding belt 1000 x 50 mm K60
- Grinding belt 1000 x 50 mm K80
- Grinding belt 1000 x 50 mm K100
- Velcro support Ø 150 mm
- Velcro grinding disc Ø 150 mm K60
- Velcro grinding disc Ø 150 mm K80
- Velcro grinding disc Ø 150 mm K100
- Velcro grinding disc Ø 150 mm K120
- Velcro grinding disc Ø 150 mm K150
- Velcro grinding disc Ø 150 mm K180

## 7 Installation and erection

In order to attain good functionality as well as a long durability of the Belt and Disc Grinding Machine the installation site should fulfil certain criteria.

- The Belt and Disc Grinding Machine must only be installed and operated in a dry, frost-free and well-ventilated place.
- Avoid places nearby machines generating chips or dust.
- The installation site must be free from vibrations also at a distance of presses, planing machines, etc.
- The substructure has to be appropriate for the work. Also make sure that the floor has sufficient load bearing capacity and is level.
- Any parts sticking out such as support tables etc. have to be secured by measures taken by the customer if necessary in order to avoid endangerment of persons.
- Provide sufficient space for the staff preparing and operating the machine and transporting the material.
- Also consider that the machine is accessible for setting and maintenance works.
- The installation site must have adequate lighting (see workplace regulations and DIN EN 12464).
- The humidity should not exceed 60%, and the measured room temperature should be in the range of 0 °C - 40 °C as a maximum.



### NOTE!

After erection, remove the grease from the blank metal parts which has been applied for protection.

- Use normal solvents for this.
- Do not use water, nitro solvents, or similar!



### Tips and recommendations

In order to ensure a secure standing, it is recommended to fix the machine on a stable, level surface (e. g. workbench) using the bores in the machine base.

## 8 Adjustments and commissioning

### 8.1 Grinding belt running characteristics

The running characteristics of the grinding belt can be adjusted with the grinding belt adjustment screw [fig. 5; 10]. Check the grinding belt running characteristics by light movement by hand in grinding direction.

If necessary, change the grinding belt running characteristics by turning the adjustment screw clockwise or counter clockwise. Subsequently move the grinding belt again by hand and check for proper running characteristics. Change the running characteristics again if necessary.

### 8.2 Grinding belt change



### DANGER!

#### Electric shock is life-threatening!

Disconnect the mains plug before you start any works on the machine.

- Step 1: Loosen the fixing screws and remove the spark arrester completely with both workpiece supports.
- Step 2: Now loosen the tension of the grinding belt by turning tensioning lever in clockwise direction [Fig. 4; 9].
- Step 3: Remove the old grinding belt carefully.
- Step 4: Install the new grinding belt and align it.
- Step 5: Finally tension the grinding belt by turning the tensioning lever in counter clockwise direction.



### Tips and recommendations

The grinding unit can be swivelled slightly upwards in order to facilitate the changing of the grinding belt.

- Unscrew the clamping screws for this.
- Move to grinding belt back and forth in order to facilitate its installation.
- When the grinding belt is introduced, it must be ensured that the arrow direction (see inner side of grinding belt) matches the arrow direction on the housing.



### NOTE!

Only use grinding belts of the size 1000 mm x 50 mm. For your own safety, verify the belt dimensions and check the belt for possible workmanship defects prior to installation. Always select the grinding belt according to the material to be worked.

- Select grinding belts with flushing ends. Grinding belts with a connection in rotation direction may fail when the rotation direction is changed.

## 8.3 Changing the Grinding Wheel

Step 1: Loosen the fixing screws and remove the spark arrester completely with both workpiece supports.

Step 2: Replace the grinding disc by a new part and reattach the spark arrester.



Fig. 5: Changing the grinding wheel

## 8.4 Grinding arm inclination adjustment

The following steps must be performed in order to adjust the inclination of the grinding arm.

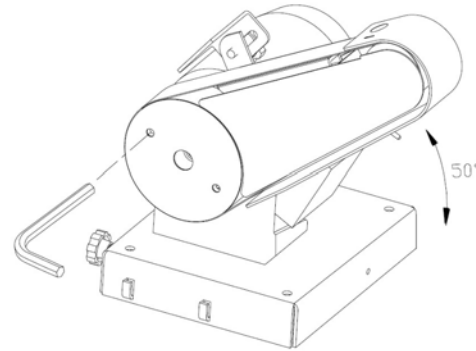


Fig. 6: Grinding belt inclination adjustment

Step 1: Loosen the fixing screws and remove the spark arrester completely with both workpiece supports.

Step 2: Remove the grinding disc.

Step 3: Loosen the 4 screws which serve for fixing the motor with a hexagon key of the size 4.

Step 4: Turn the grinding belt housing to the required angle and tighten the 4 screws again.

Step 5: Reattach the grinding disc and subsequently tighten the spark arrester.

## 8.5 Adjusting the workpiece support

Step 1: Loosen the clamping lever screw of the corresponding workpiece support.

Step 2: Set the workpiece support to the right position or swivel it away.

Step 3: Tighten the workpiece support again with the clamping lever screw.

# 9 Operation



### WARNING!

### Danger to life!

There is danger to life for the operator and for other persons if they do not comply with the following rules.

- The operator must not work if he is under the influence of alcohol, drugs or medication.
- The operator must not work if he is overworked or suffers from fatigue and difficulties in concentrating.
- The Belt and Disc Grinding Machine may only be operated by one person. Other persons must not enter the working area during operation.



### **DANGER!**

#### **Danger of injury!**

Never put your hands into any openings (e. g. between grinding belt and housing) of the machine, as long as it is connected to the mains!



#### **Use ear protection!**



#### **Use protective glasses!**



#### **Use breathing protection!**



#### **Use protective gloves!**



#### **Use protective boots!**



#### **Wear protective clothes!**

Step 1: Check mains plug and cable prior to start of work.

Step 2: Check whether the workpiece support tables are firmly tightened.

Step 3: Check whether the correct grinding belt with the correct grain size is installed.

Step 4: Check the belt running characteristics by advancing the belt manually, and check the belt tension, readjust if necessary.

Step 5: Connect the extraction unit to the extraction connection. An extraction spout with a diameter of 38 mm for the connection of an extraction unit is located on the right side below the working table at the spark arrester.

## **9.1 Starting the machine**

Step 1: Start the extraction unit.

Step 2: Start the grinding belt motor, press the green START button for this.

## **9.2 Level grinding with the grinding belt**

Step 1: Check whether the workpiece support table is properly installed and tightened.

Step 2: Press the workpiece with both hands towards the grinding belt and the safety stop.



### **Tips and recommendations**

For better material removal the workpiece can be moved slightly from side to side.

## **9.3 Face grinding (edge grinding in vertical grinding position)**

Step 1: Bring the grinding arm to vertical position (see section 8.4). Use the workpiece stop as a support.

Step 2: Hold the workpiece tightly with both hands and exert a light pressure to the grinding belt.



### **Tips and recommendations**

For better material removal the workpiece can be moved slightly from side to side.

## **9.4 Grinding of curved workpieces**

Step 1: Hold the workpiece tightly with both hands.

Step 2: Grind the inner curves only at the front workpiece support.

## **9.5 Grinding of round parts and faces at the grinding disc**

Step 1: Hold the workpiece tightly with both hands to the workpiece support and work with light pressure onto the workpiece against the grinding disc in grinding direction.



### **DANGER!**

#### **Danger of injury!**

Grind curved parts always only on the left, downward-running side of the grinding disc, because otherwise the workpiece may be pushed upwards and fly off.



### **NOTE!**

The edge of the workpiece must be positioned in a way that a maximum gap of 2 mm results in order to prevent a pinching of workpieces or fingers between table and grinding disc.

## 9.6 Switching the machine off

Step 1: Press the red STOP button in order to switch the machine off.

Step 2: Switch off the extraction unit.

Step 3: Disconnect the mains plug of the grinding machine.

## 10 Care, maintenance and repair



### Tips and recommendations

In order that the Belt and Disc Grinding Machine is always in good operating status, it is necessary to regularly perform care and maintenance works.



### **WARNING!** **Danger in case of insufficient qualification of the staff!**

Insufficiently qualified persons cannot estimate the risks while performing repair work at the appliance and expose themselves and others to the danger of severe injuries.

Have all maintenance works only performed by qualified persons.



### **DANGER!** **Electric shock is life-threatening!**

There is a danger of life in case of contact with current running through components.

- Always disconnect the mains plug before you start cleaning and maintenance works.
- Connections and repairs of the electrical equipment may only be carried out by specialized electrical staff.



### **NOTE!**

After maintenance, repair and cleaning works, check if all claddings and protective equipment are properly reassembled to the machine and that there are no more tools inside or in the working area of the appliance.

Damaged protection devices and machine parts must be properly repaired or replaced by an acknowledged specialist workshop.

## 10.1 Cleaning and lubrication of the machine



### **ATTENTION!**

- It is indispensable to switch the machine off and to pull off the mains plug before performing cleaning and maintenance work!
- Never use solvents or cleaning solutions to clean plastic parts or lacquered surfaces. The surface may be dissolved and consequential damage may occur.

The Belt and Disc Grinding Machine should generally be cleaned after every use.

Regularly remove the spark arrester and check whether the interior of the grinding machine must be cleaned.

Brush or wipe all open machine parts in regular intervals using a broom or a cloth.



### **ATTENTION!**

- Never remove chips or grinding dust with bare hands. Danger of injuries due to sharp-edged chips.
- Never remove chips or grinding dust with a compressed air blow gun. This can lead to eye injury and may damage machine parts.

Treat blank metallic working surfaces with anti-rust spray. Lubricate all moving parts and bearings once per month.

If necessary, replace the graphite support at the level grinding area.

## 11 Disposal, recycling of used devices

For environmental benefits it is necessary to ensure that all components of the machine are only disposed of by the provided and allowed means.

### 11.1 Decommissioning

Immediately decommission used machines in order to avoid later misuse and endangering of the environment or of persons.

- Dispose of all environmentally hazardous operating materials of the used device.
- If required, disassemble the machine into easy-to-handle and usable components and parts.
- Supply the machine components and operating materials to the provided disposal routes.

## 11.2 Disposal of electrical devices

Electrical devices include numerous recyclable materials as well as environmentally hazardous components.

These components must be disposed of separately and professionally. In case of doubt, please contact your municipal waste management company.

For the recycling process, please request the assistance of a specialized waste disposal centre if required.

## 11.3 Disposal of lubricants

The manufacturer of the lubricant makes the disposal instructions for the used lubricants available. If applicable, ask for the product-specific data sheets.

## 12 Troubleshooting



### NOTE!

Contact your nearest Metallkraft dealer if you are unable to solve the problems with your machine. Please take the following information from the machine or from the operating manual so that we can help you in the best possible way.

- Machine type
- Serial number of the machine
- Year of manufacture
- Exact error description



### ATTENTION!

Stop your work with the machine immediately if one of the following faults occur. Switch the machine off and pull off the mains plug before you start troubleshooting. Otherwise, severe injuries may occur. All repair and replacement works may only be performed by qualified and trained specialist personnel.

Fault	Possible cause	Remedy
The machine doesn't start.	<ol style="list-style-type: none"> <li>1. The mains plug is defective.</li> <li>2. Supply cables defective.</li> <li>3. Switch defective.</li> <li>4. Motor defective.</li> </ol>	<ol style="list-style-type: none"> <li>1. Connect the mains plug.</li> <li>2. Call a service engineer.</li> <li>3. Call a service engineer.</li> <li>4. Call a service engineer.</li> </ol>
The belt is not running centrically.	<ol style="list-style-type: none"> <li>1. The belt operation is not adjusted.</li> <li>2. Bearing damage in the contact roll.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust the belt operation.</li> <li>2. Remove the contact roll.</li> </ol>
The belt contacts the housing at the level grinding area.	<ol style="list-style-type: none"> <li>1. The graphite layer is worn.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace the graphite layer.</li> </ol>
Poor grinding result.	<ol style="list-style-type: none"> <li>1. Wrong grinding belt.</li> <li>2. Worn grinding belt.</li> </ol>	<ol style="list-style-type: none"> <li>1. Install the correct grinding belt.</li> <li>2. Change the grinding belt.</li> </ol>



## 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

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

### 13.1 Ordering spare parts

The spare parts may be purchased directly with the manufacturer.

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 unit type, item number and year of manufacture can be found on the type plate attached to the machine.

### Example

The Engine for the Belt and Disc Grinding Machine BTS 51 must be ordered. The Engine has the number 13 in the spare parts drawing 1.

By ordering spare parts, send a copy of the spare parts drawing (1) with the marked part (Engine) and marked position number (13) to the dealer or spare parts department and provide the following information:

- Type of device: **Belt and Disc Grinding Machine BTS 51**
- Item number: **3700051**
- Drawing number: **1**
- Position No.: **13**

## 13.2 Spare parts drawing

In case of service, the following drawing shall help to identify the necessary spare parts. If necessary, send a copy of the parts drawing with the marked components to your authorised dealer.

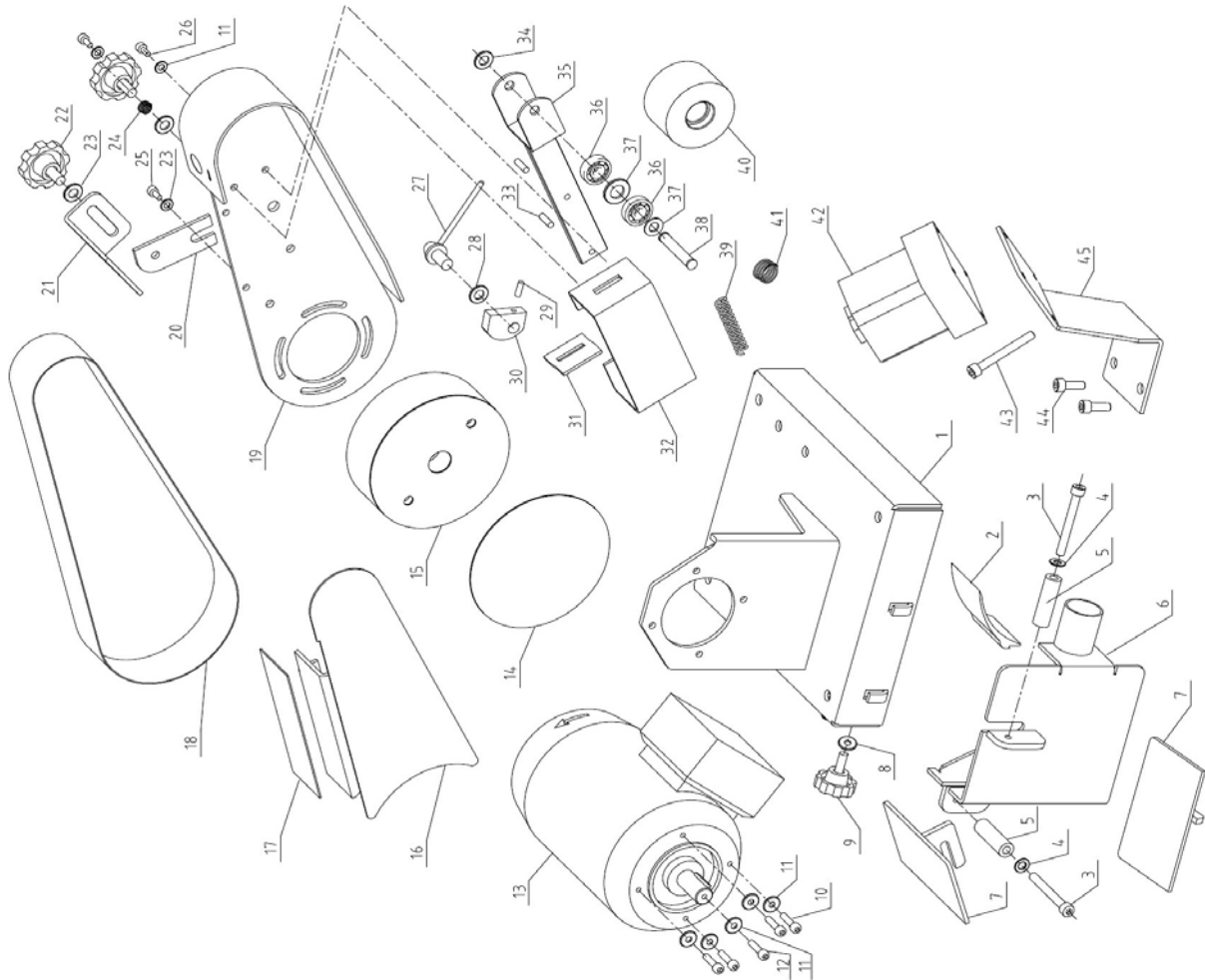


Fig. 7: Spare parts drawing BTS 51

## 14 Electrical wiring diagram

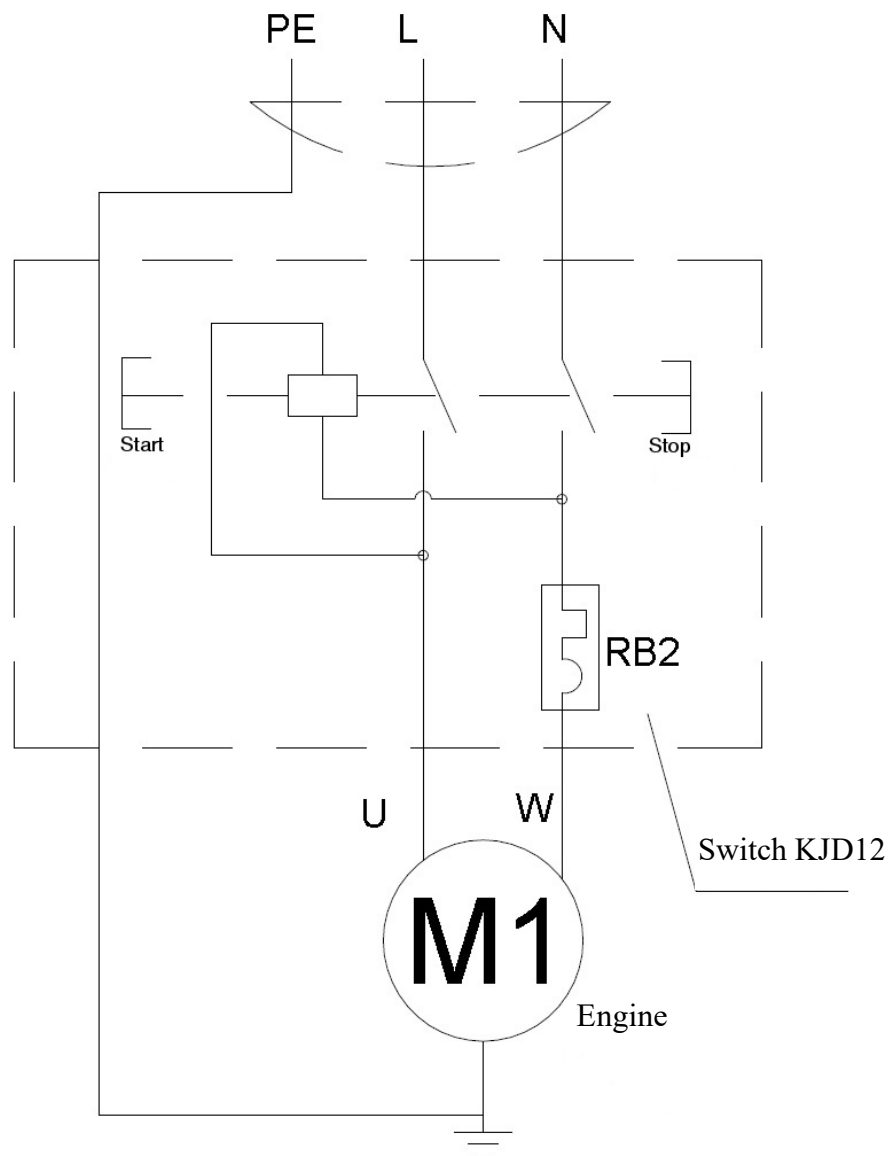


Fig. 8: Electrical wiring diagram BTS 51

## 15 EC - Declaration of Conformity

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

**Manufacturer / distributor:** Stürmer Maschinen GmbH  
Dr.-Robert-Pfleger-Straße 26  
D-96103 Hallstadt

hereby declares that the following product (hereinafter)

**Product group:** Metallkraft® Metallbearbeitungsmaschinen

**Type of machine:** Belt and Disc Grinding Machine

**Designation of the machine:** BTS 51

**Item number:** 3700051

**Serial number\*:** \_\_\_\_\_

**Year of manufacture\*:** 20\_\_\_\_

\*fill in these fields according to the information on the type plate

due to its design and construction, as well as in the version placed on the market by us, complies with the relevant, fundamental safety and health requirements of the EC directives (hereinafter).

**Applicable EU directives:** 2014/30/EU EMC-Directive

**The following harmonized standards were applied:**

DIN EN ISO 12100:2011-03 Safety of machinery - General principles for design - Risk assessment and risk reduction

DIN EN 60204-1:2019-06 Safety of machinery - Electrical equipment of machines - Part 1: General requirements

**Responsible for documentation:** Kilian Stürmer, Dr.-Robert-Pfleger-Str. 26, D-96103 Hallstadt

Hallstadt, 24.05.2022



Kilian Stürmer  
Manager



