

Operating Instructions

— Metal belt grinding machine

— MBSM 75-20, MBSM 75-20 AS

— MBSM 150-20, MBSM 150-20 AS



MBSM 150-20 AS

MBSM-SERIES

Imprint

Product identification

Metallkraft

Metal belt grinding machine

Model	Item number
MBSM 75-20	3712075
MBSM 75-20 AS	3712076
MBSM 150-20	3712150
MBSM 150-20 AS	3712151

Manufacturer

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

Fax: 0 951 96555 - 55

E-Mail: info@metallkraft.de
Internet: www.metallkraft.de

Indications regarding the operating instructions

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1 Introduction

With the purchase of the METALLKRAFT metal belt grinder you have made a good choice.

Read the operating instructions carefully before commissioning

This is an important component and must be kept close to the machine and accessible to all users.

The operating instructions inform you about the proper commissioning, the intended use as well as the safe and efficient operation and maintenance of the metal belt grinder.

In addition, observe the local accident prevention regulations and general safety regulations for the area of application of the metal belt 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 framework of the use of the metal belt grinder. Any further use is not permitted without the written consent of the manufacturer.

Forwarding and duplication of this document, utilization and communication of its contents are prohibited unless expressly permitted. Infringements oblige you to pay damages. We register trademark, patent and design rights to protect our products, insofar as this is possible in individual cases. We strongly oppose any infringement of our intellectual property.

1.2 Customer service

Please contact your dealer if you have questions concerning your Plate rolling 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: 0951 96555-111
E-Mail: service@stuermer-maschinen.de

Spare part orders:

Fax: 0951 96555-119
E-Mail: 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 while taking applicable standards and rules, the state-of-the-art technology 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 inexperienced staff,
- unauthorized 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 section provides an overview of all important safety packages for the protection of operating personnel as well as for safe and fault-free operation. Other task-based safety notes are included in the paragraphs of the individual phases of life.

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 dangerous situation that will result in death or serious injuries if it is not avoided.

WARNING!

This combination of symbol and signal word indicates a possibly dangerous situation that will result in death or serious injuries if it is not avoided.

CAUTION!

This combination of symbol and signal word indicates a possibly dangerous situation which can lead to minor or light injuries if it is not avoided.

ATTENTION!

This combination of symbol and signal word indicates a possibly dangerous situation that can lead to property and environmental damage if it is not avoided.



NOTE!

This combination of symbol and signal words indicates a potentially dangerous situation which may lead to material or environmental damage if not avoided.



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 written in these operating instructions in order to reduce the risk of personal injuries and damages to property.

2.2 Obligations of the operating company

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

Obligations of the operating company:

If the 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 Requirements to staff

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 vacuum cleaner and expose themselves and others to the danger of severe or lethal 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 behavior. 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.

Electrically qualified person:

Electrically qualified person is due to their professional training, knowledge and experience as well as knowledge of the relevant standards and regulations, in a position to carry out work on the electrical systems and to independently recognize and avoid possible dangers.

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 recognize 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 member has to wear personal protective equipment while performing different tasks on and with the machine which are indicated in the individual paragraphs of these instructions.

The personal protective equipment is explained in the following paragraph:



Eye Protection

The Eye protection protect the eyes from flying parts and liquid splashes.



Ear protection

The Hearing protection protects ears from hearing damage caused by noise.



Head protection

The industrial helmet protects the head against falling objects and knocking against fixed objects.



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

Safety boots protect the feet from being crushed, falling parts and slipping over on slippery ground.



Protective clothes

Protective clothes are made of a tightly fitted fabric without the protruding parts of low tear strength.

2.5 General safety instructions

For protection against flying sparks there is a protection pane mounted at the housing above the contact wheel.

The on-off switch unit is combined with an emergency stop switch.

2.6 Safety identifications

The following safety identifications have been attached to the workshop press (Fig. 1) which must be observed.



Fig. 1: Safety labels I1 General mandatory sign! | 2 Read the operating instructions! | 3 Wear eye protection! | 4 Wear ear protection! | 5 Pull out the main plug! | 6 Operation with tie forbidden | 7 general warning sign | 8 Wear head protection | 9 Wear protective clothing | 10 Wear hand protection | 11 Wear foot protection | 12 Wear a mask | 13 Operation with long hair forbidden | 14 Warning about rotating machine parts, danger of catching | 15 Danger high voltage.

The safety markings and instructions attached to the workshop press must not be removed. Damaged or missing safety markings can lead to malfunctions, personal injury and material damage. They have to be replaced immediately.

If the safety markings are not immediately recognizable and comprehensible, the workshop press must be taken out of operation until new safety markings have been affixed.

2.7 Safety regulations



ATTENTION!

Before starting, using, servicing or performing any other work on the machine, read the operating and maintenance instructions carefully. Handling and working with the machine is only permitted for persons who are familiar with the handling and operation of the machine.

- Check the correct pickup of the workpiece before switching on the machine!
- When working with the machine never bring your hands near rotating parts!
- Do not remove the sharp-edged chips by hand; Use a hand brush or swarf hook!
- Use the protective device and mount them securely. Don't work without protective device and keep them functional. Check the functionality before starting work.
- Always keep the machine and its working environment clean. Ensure adequate lighting.
- In principle, secure your workpiece when working with suitable clamping devices. Make sure there is sufficient contact surface.
- The machine must not be modified in its design and should not be used for purposes other than those specified by the manufacturer.
- Never work under the influence of concentration-disturbing illnesses, fatigue, drugs, alcohol or medicines.
- Remove tool keys and other loose parts from the machine after installation or repair before turning on.
- Observe all safety and hazard warnings on the machine and keep them in perfect readable condition.
- Keep children and people unfamiliar with the machine away from your work environment, machine, and tools.
- The machine may only be used, equipped and maintained by persons who are familiar with it and have been informed about the dangers.
- During maintenance, armament and maintenance work, always switch off the machine! In addition, pull out the mains plug or disconnect the machine from the power supply!
- Do not pull on the mains lead to pull the plug out of the socket. Protect the cable from heat, oil and sharp edges.
- Make sure the main power switch is in the "OFF" position when connecting the machine to the power supply to prevent it from switching on accidentally.

- Wear tight-fitting work clothes, safety glasses, safety shoes and ear protection. Tie long hair together. When working, do not wear watches, bracelets, chains, rings or gloves (rotating parts!).
- Wear a dust mask in dusty working conditions.
- Wear a face protection.
- Ensure a secure footing and ensure sufficient balance when working. Never work in a bent position, but always stand upright.
- Read the instructions carefully. Familiarize yourself with the application possibilities, the limitations of the tool and the potential dangers.
- All machine tools with their own electrical connection must have their own ground connection. When using an adapter to adapt a 2-pin connector, the adapter must always have a ground. Never remove the 3rd pin.
- Disruptions that affect safety are eliminated immediately.
- Never leave the machine unattended in operation and remain with the machine until the tool is completely stopped. Then pull out the mains plug to protect against unintentional switching on.
- Protect the machine against moisture (danger of short circuit!).
- Maintain the tool carefully. The work is best done with clean and sharp tools. Follow the instructions for lubrication and replacement of spare parts.
- Never use power tools and machines near flammable liquids and gases (risk of explosion!).
- Before each use of the machine, make sure that no parts are damaged. Damaged parts must be replaced immediately to avoid any danger!
- Do not overload the machine! You work better and safer in the specified performance range. Use the right tool! Make sure the tools are not dull or damaged.
- Only use original spare parts and accessories in order to avoid possible danger and accident risks.

2.8 Safety data sheets

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

3 Intended Use

The machine is designed for grinding angular metal and metal-like workpieces and can be used universally for craft businesses, workshops and DIY.

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

3.1 Reasonably foreseeable misuse

Any use that goes beyond the intended use or is different is deemed to be misuse.

Possible misuse can be:

- Using the metal belt sander for materials other than metal (e.g. wood).
- Modifications to the machine or accessories.
- Maintenance work on an unsecured machine
- Failure to observe the signs of wear and damage.
- Service work by untrained or unauthorized personnel.
- Use of accessories or spare parts that are not approved by the manufacturer.
- Misuse of the machine
- Operating the metal belt grinder if the operating instructions have not been read and understood in full.
- Conscious or careless handling of the metal band grinding machine during operation.
- The use of an incompletely assembled machine.

Misuse of the metal grinder can lead to dangerous situations. Stürmer Maschinen GmbH assumes no liability for constructive or technical changes to the metal grinding machine. Claims of any kind due to damage due to improper use are excluded.

3.2 Residual risks

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

- Risk of injury to the upper limbs (e.g. hands, fingers).
- Risk of injury from tripping over cables
- Hearing impairment when working for a long time without hearing protection or when it is inadequate.
- Electrical hazard from contact with parts and high voltage (direct contact) or with parts that are under high voltage due to a defect in the metal belt grinder (indirect contact).
- Heat development on components can lead to burns and other injuries
- Danger from breakage or workpieces being thrown out
- Risk of injury to the eye from flying parts, even with protective goggles
- Hearing impairment when working for a long time without hearing protection or when it is defective

4 Technical Data

4.1 Table

Designation	MBSM 75-20	MBSM 75-20 AS	MBSM 150-20	MBSM 150-20 AS
Grinding width max. [mm]	75	75	150	150
Contact wheel [mm]	200	200	200	200
Sanding belt length [mm]	2000	2000	2000	2000
Sanding belt width [mm]	75	75	150	150
Belt velocity of circulation(s) [m/s]	30	30	30	30
Nominal width of the outer suction socket [mm]	60	60	60	60
Emission sound pressure level at the workplace L _p (idle without suction) dB (A)	80	80	80	80
Engine power suction [kW]		0,37		0,37
Suction power without dust bag / hose [m³/h]		540		540
Dimension and weight				
Length [mm]	490	490	527	527
Width/depth [mm]	995	995	995	995
Height [mm]	1025	1025	1025	1025
Weight [kg]	85	111	114	140
Drive power				
Main engine [kW]	3	3	3,6	3,6
Electrical connection				
Connection voltage [V]	400	400	400	400
Phase (n)	3	3	3	3
Current type	AC	AC	AC	AC
Mains frequency [Hz]	50	50	50	50
Specialist info				
Protection class	IP 54	IP 54	IP 54	IP 54

4.2 Noise level

The noise level of the metal belt grinding machine is at 85 dB (A), measured in accordance with the applicable regulations of the employers' liability insurance association.



WARNING!

It should be noted that the duration of the sound exposure, the type and nature of the work area and other machines that are in operation at the same time affect the noise level in the workplace.

4.3 Type Plate


Metallbandschleifer Belt grinding machine for metal			
Typ Type	MBSM 75-20	Serien-Nr. Serial no.	
Artikel-Nr. Item no.	3712075	Baujahr Year of manufacture	
Netzanschluss Power supply	400 V	Schalldruckpegel Sound pressure level	80 db(A)
Motorleistung Engine power	3 kW	Schutzklasse IP Protection class	54
Gewicht Weight	85 kg		
 Stürmer Maschinen GmbH Dr.-Robert-Pfleger-Str. 26, 96103 Hallstadt Deutschland / Germany			

Fig. 2: Type plate MBSM 75-20

5 Transport and Package

5.1 Delivery and transport

Check the Plate rolling Machine on delivery for any visible transportation damage. If you notice any damage to the device please report this immediately to the carrier or dealer.

The grinding machine is delivered on a pallet in protective packaging with the following dimensions: L: 120 W: 80 D: 120 cm.

The metal belt grinding machine is delivered on a pallet. This can also be used as an internal transport foundation.

Remove the machine from its packaging and remove all protective films. Make sure that the machine is not set up or put into operation in a damp or wet environment.



NOTE!

For a safe stand, it is recommended to fix the machine on a stable surface (preferably concreted) using the holes provided in the machine base.



WARNING!

Danger to life due to falling load.

If the weight of the device is not observed during transport, the machine may tip over or crash.



NOTE!

Protect the metal belt grinding machine against moisture.

The machine may only be transported standing and with the engine switched off.

Transport

The machine may only be transported standing up and only with the motor switched off.

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 unit is mounted on a pallet so that it can be transported by forklift or pallet truck.

5.2 Packaging

All used packaging materials and packaging aids are recyclable and should be taken to a materials recycling depot to be disposed of.

The delivery packaging is made of cardboard, so please dispose carefully by having it chopped up and given to the recycling collection

The film is made of polyethylene (PE) and the cushioned parts of polystyrene (PS). Deliver these substances to a collection point for recyclable materials or to the waste disposal company which looks after your region.

6 Assembly

The grinding machine must be securely fastened on a suitable and level surface. For clamping the grinder to the floor, use the same four holes that has been attached to the pallet.

The machine is equipped with a zero voltage relay. The zero voltage relay ensures automatic shutdown of the machine in case of power failure during operation. The machine is factory-fitted for the tension for which it was ordered.

The electrical connection to the mains may only be made by an authorized electrician.

Step 1: Plug the power plug into the socket.

Step 2: Check whether the motor or motors have the correct direction of rotation.

Step 3: Mount the eye protection, suction hose and possibly the dust bag before operating the machine.

The hose clamps for mounting the suction hoses can be found in the dust bag.

Mount the eye protection (A) on the eye protection fitting.

Step 4: Check that the grinding system (B) is at a distance of min. 2 mm from the belt, and that the handle (C) is tightened.

Step 5: Turn the contact disc by hand and adjust the band with the handle (D) until it is running straight on the contact disc.

Step 6: Check that the spark box (F) is properly tightened. Adjust the working height by loosening or tensioning the bolt (G).

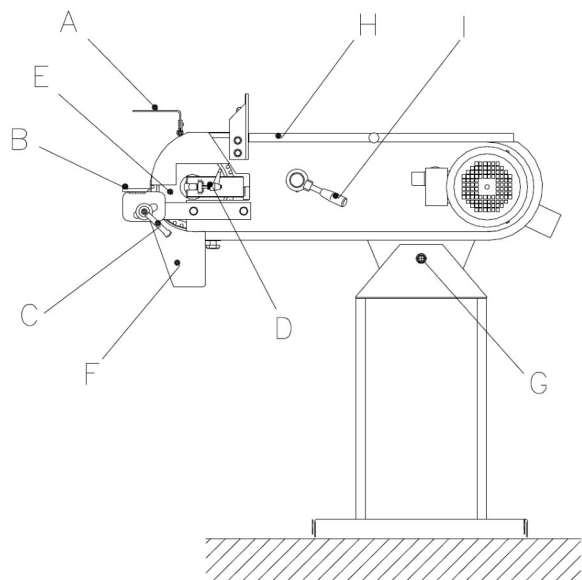


Fig. 3: Device description for the montage

- A Eye protection
- B Grinding plant
- C Handle for tensioning the band
- D Handle for adjusting the band
- E Contact disk
- F Spark box
- G Clamping bolt
- H Cover
- I Lever for relieving the band

7 Description of the Device

7.1 Illustration

Illustrations in this operating manual serve the general understanding and may deviate from the actual design.



Fig. 4: Description of the device

- 1 Machine base
- 2 Locking the angle adjustment / clamping bolt
- 3 Electro motor 400 V ~ 50 Hz
- 4 Switching box / ON-OFF Switch
- 5 Lever for relieving the tape
- 6 EMERGENCY-Switch
- 7 Eye protection
- 8 Workpiece stop
- 9 Contact disk
- 10 START-Button
- 11 EMERGENCY-Switch
- 12 STOP-Button

Model	A	B	C	D	E
75	995	660	1025	830-970	430
100	995	660	1025	830-970	430
150	995	660	1025	830-970	430

Model	F	G	H	I	J	K	L
75	506	270	341	490	295	107	55
100	506	270	341	510	295	133	55
150	506	270	341	527	295	185	55

Fig. 5: Overview table of the dimension

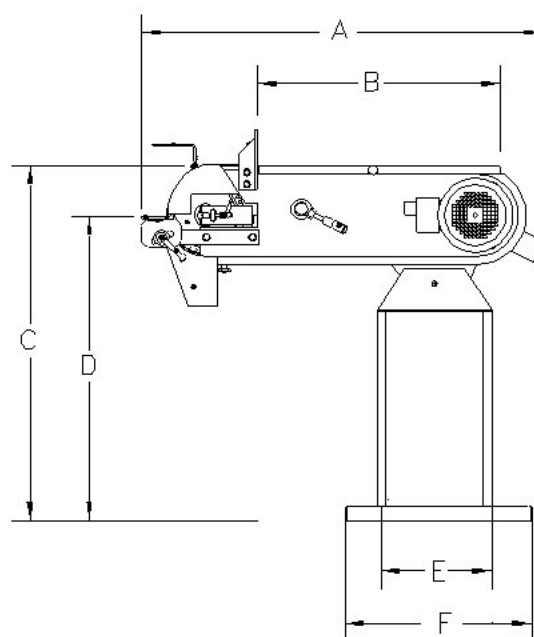
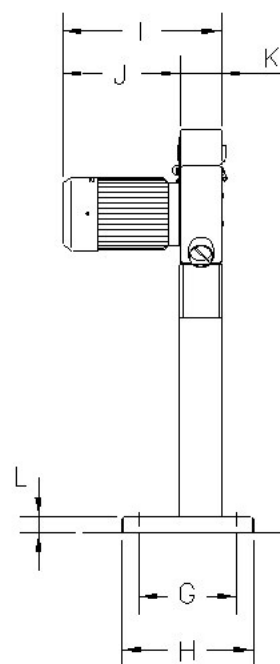


Fig. 6: Dimension

7.2 Accesories

- Sanding belt K60

8 Settings



ATTENTION!

Before intervening on the machine, it must be disconnected from the power supply. Handling and working with the machine is only permitted for persons who are familiar with the handling and operation of the machine.

To achieve good machine performance and long life, the site should fulfill the following criteria.

- The device may only be installed and operated in dry, ventilated rooms.
- Avoid places near chips or dust generating machines.
- The place of installation must be vibration-free, ie away from presses, planing machines, etc..
- Provide enough space for set-up and operating personnel and material transport.
- Also consider the accessibility for adjustment and maintenance work.
- The installation site must have adequate lighting (see Workplace Ordinance and DIN EN 12464).

9 Operation of the Machine

9.1 General information



ATTENTION!

Rotating parts! Get to work with reason. Pay attention to what you do. Pay special attention to the rotating parts. Wear tight-fitting clothing. Make sure that hair or clothing is not caught by rotating parts! Wear a hairnet. When working with the machine no jewelry may be worn.



ATTENTION!

Risk of injury!

Flying chips and parts to be thrown off! Be sure to wear eye protection! Protect your eyes from flying chips and other splinters.

Before each start of work the following tests have to be carried out:

- Check all cables and plugs.
- Check whether the workpiece supports are aligned and tightened.
- Note that there are different grit sizes of the abrasive for different work.
- Before starting the machine, make sure that the sanding belt can rotate freely and that it is not braked or blocked by any workpiece.
- Lubricate regularly according to item Maintenance.
- **Prior to commissioning, the center run of the sanding belt must always be checked by manual feed!**

9.2 Surface grinding with grinding belt

After adjustment and connection the grinding machine is ready to use. The grinding can be done on the surface grinding table:

Step 1: Plug the power plug into the socket.

Step 2: Open the lid (H, Fig.3).

Step 3: Check that the EMERGENCY STOP switch is unlocked.

Step 4: Switch on the sanding belt motor by pressing the START button (item 10, Fig. 4).

Step 5: Grind the workpiece on the surface grinding table.

Step 6: After finishing work, switch off the belt grinder by pressing the STOP button (Pos.12, Fig.4).

Step 7: Disconnect the power plug.

The life of a new sanding belt will be significantly extended if you apply the sanding with light pressure.



ATTENTION!

Do not work with too much pressure, otherwise the sanding belt wears too fast. Do not put your fingers in contact with the sanding belt.

9.3 Grinding on the workpiece

The grinding can be done on the contact disc (E, Fig.3).

Step 1: Plug the power plug into the socket.

Step 2: Open the lid (H, Fig. 3).

Step 3: Check that the EMERGENCY STOP switch is unlocked.

Step 4: Switch on the sanding belt motor by pressing the START button (Position 10, Fig. 4).

Step 5: Place the workpiece on the contact disc and hold the workpiece firmly with both hands during grinding.

Step 6: After finishing work, switch off the belt grinder by pressing the STOP button (Pos.12, Fig.4).

Step 7: Unplug the power plug.



ATTENTION!

The edge of the workpiece supports must be positioned so that a distance of max. 1 mm exists. This will prevent jamming of workpieces or fingers between the table and sanding belt.

10 Notes for the Grinding Process

When grinding, pay attention to the safety instructions and use the protective devices on the machine as well as your personal protective equipment (protective goggles, ear protection, safety shoes, etc.).

Special reference to situations that may cause damage to persons, the machine and / or the environment or may lead to financial loss:

- Make sure that the gap between the work table and the sanding belt is not too large. Especially with thin workpieces there is a risk that the workpiece will enter the gap!
- Since the machine has no clamping facility, it is important that your workpiece is supported on the work table over the entire surface and can be held fast!
- Make sure the abrasives are in good condition and replace used abrasives in a timely manner. Only with perfect tools you can achieve a good grinding quality!

11 Care, Maintenance and Overhaul/Repair



WARNING!

Always disconnect the machine from the power supply before starting any cleaning, maintenance or servicing work!

Oil, grease and cleaning agents are hazardous to the environment and must not be dumped into wastewater or normal household waste.

Dispose of these funds in an environmentally friendly way. The cloths soaked in oil, grease or detergent are easily flammable. Collect the cleaning rags or cleaning wool in a suitable, closed container and dispose of them in an environmentally friendly way - do not throw in household waste!

11.1 Cleaning

Basically, the machine should be cleaned after each use. With the machine off, remove the chips and dust from the cooling holes of the motor with a hand brush or brush. Cleaning with compressed air is not allowed, as the fine chips can easily fly into the eyes and cause injuries.

For the disposal of chips we refer to the local regulations.



ATTENTION!

RISK OF INJURY!

Do not remove the chips with bare hands. There is a risk of cuts due to sharp-edged chips!

11.2 Maintenance

Empty the sparking box and the dust bag regularly and check whether the suction device and hoses need to be cleaned. If the edges of the contact disc are rounded, or if the slideway is defective, they must be replaced. This also applies to the sanding pad at the planing table.

11.3 Sanding belt change

When changing the band, relieve the band by turning the lever (I, Fig.3) counterclockwise.

Step 1: Open the lid (H, Fig.3) and the side plate (L, Fig.3).

Step 2: Remove the worn tape (K, Fig. 7) by slowly pushing the tape against the direction of rotation while at the same time pulling it sideways off the drive wheel.

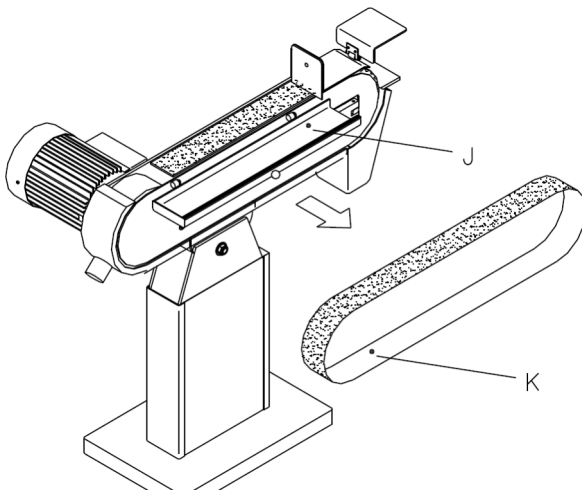


Fig. 7: Change of the sanding belt

Step 3: Put on the new band, but check that the arrows on the inside of the band point in the direction of rotation.

Step 4: Clamp the band with the lever (I, Fig. 3) and trim it with the lever for straight running (D, Fig.3).

Change of the contact disk

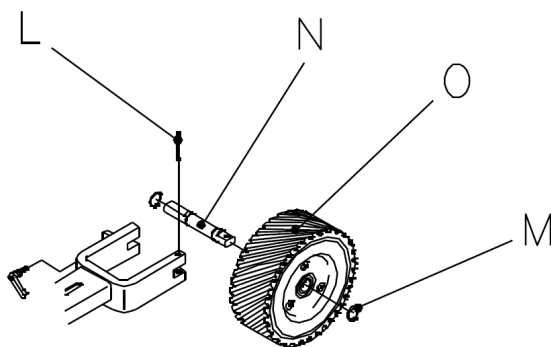


Fig. 8: Contact disk

Step 1: Before changing the contact disc, remove the belt, the grinding system and the spark box.

Step 2: Press the pin (M) out with a 6 mm mandrel.

Step 3: Pull out the contact disk with axle and bearing.

Step 4: Then remove a circlip (P) and the axle (N) can be removed.

Step 5: Now the new contact disc (O) has to be mounted in reverse order.



ATTENTION!

The grain size of the abrasives must be selected according to the requirements.



ATTENTION!

When inserting the sanding belt, make sure that the direction of the arrow (see sanding belt inside) matches the direction of the arrow on the housing.

11.4 Maintenance

As a result of wear, it may happen that maintenance work must be carried out on the machine.



WARNING!

Maintenance work may only be carried out by qualified personnel with mechanical knowledge.

11.5 Storage

Store the machine thoroughly cleaned in a dry, clean and frost-free environment.

12 Troubleshooting, Possible Causes and Measures



ATTENTION!

If one of the following errors occurs, stop working with the machine immediately. Before you begin troubleshooting, turn off the machine and unplug the power cord. It could lead to serious injuries. All repairs or replacement work may only be carried out by qualified and trained specialist personnel.



NOTE!

If you can not solve the problems with your machine yourself, then please contact your nearest METALLKRAFT dealer. Please write down the following information from the machine or the operating instructions in advance to help you with your problem in the best possible way.

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

Troubleshooting	Possible causes	Measures
Engine does not start.	Damaged on / off switch. Damaged on / off switch line. Relay damaged. Engine defective. Fuses are defective.	Have the machine checked by an electrician and replace the damaged parts.
Machine slows down while working.	It is worked with too much pressure.	Apply less pressure on the work-piece.
Low service life of the abrasives.	Sanding belt with too fine grain.	Use sanding belt with coarser grain size.
Poor surface pattern.	Sanding belt with coarse grain.	Use sanding belt with finer grain size.
Grinding angle does not fit.	Adjusted angle at the work table or at the angular stop do not fit.	Check the angle and readjust if necessary.
Grinding wheel runs optically non circular.	Sanding belt is not properly installed.	Center the grinding wheel to the middle.
Sanding belt runs off the drive pulleys.	Sanding belt is not placed correctly.	Readjust the track of the sanding belt.

13 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.

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 disposal company can be used for the treatment.

13.1 Decommissioning

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

- Unplug the power plug.
- Cut the connection cable.
- Dispose of all environmentally hazardous operating materials of the used device.
- If existing, remove batteries and rechargeable batteries.
- 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.

13.2 Disposal of electrical devices

Please ensure that the electrical components are properly disposed of in accordance with legal regulations.

The device contains electrical and electronic components and must not be disposed of as household waste. According to European Directive 2012/19 / EC on waste electrical and electronic equipment and its transposition into national law, used electric tools and electrical machines must be collected separately and recycled in an environmentally sound manner.

As a machine operator, you should obtain information about the authorized collection or disposal system that is valid for you. Please ensure that the batteries and / or rechargeable batteries are properly disposed of in accordance with legal regulations. Please throw only discharged batteries into the collection boxes at retailers or municipal waste disposal companies. These components must be separated and properly disposed of. In case of doubt, contact municipal waste management. If necessary, the help of a specialized waste disposal company can be used for the treatment.

13.3 Disposal of lubricants



ATTENTION!

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

Used coolant emulsions and oils should not be mixed with each other as only non-mixed waste oils are usable without pretreatment. The disposal instructions for the lubricants used are provided by the lubricant manufacturer. If necessary, ask for the product-specific data sheets.

13.4 Disposal via municipal collecting 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 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.

14 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.



Loss of warranty

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

1.1 Spare parts order

Spare parts are available from authorised retailers.

Always quote the following key data with your spare parts orders:

- Device type
- Article number
- Position number
- Year of manufacture
- Quantity
- Desired shipping type (post, freight, sea, air, express)
- Shipping address

Spare parts orders without the aforementioned data cannot be taken into account. The supplier shall determine the shipping type if no relevant data was provided. Information about the device type, article number and year of manufacture can be found on the type plate. The type plate is mounted on the device.

Example

The foot for the metal belt grinding machine MBSM 75-20 must be ordered. The foot has the number 32 in the spare parts drawing 1.

By ordering spare parts, send a copy of the spare parts drawing (1) with the marked part (foot) and marked position number (32) to the dealer or spare parts department and provide the following information:

- Type of device: **Metal belt grinding machine MBSM 75-20**
- Item number: **3712075**
- Drawing number: **1**
- Position number: **32**

14.1 Spare part 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 authorized dealer.

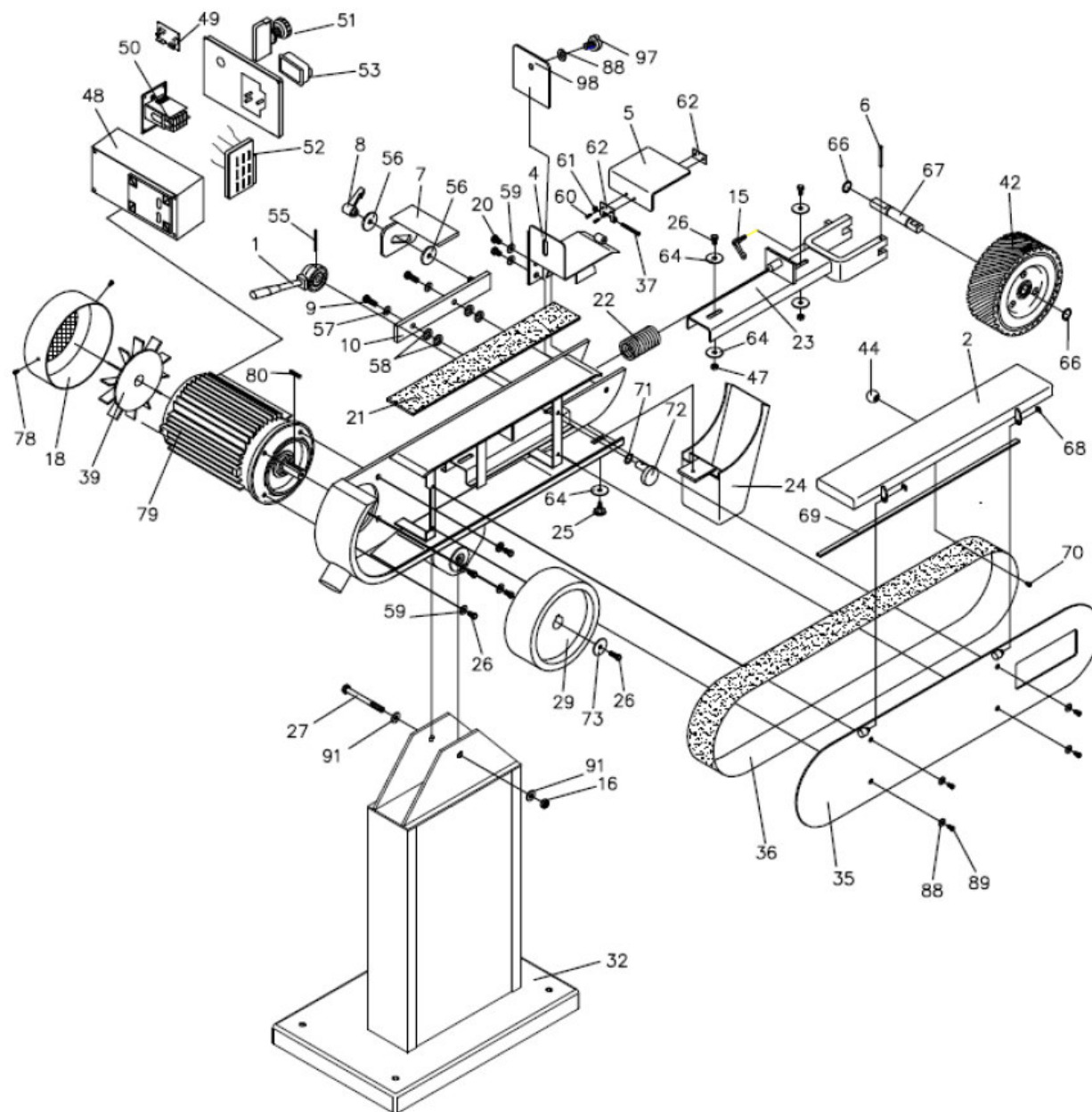


Fig. 9: Spare part drawing of the model MBSM 75-20 and MBSM 150-20

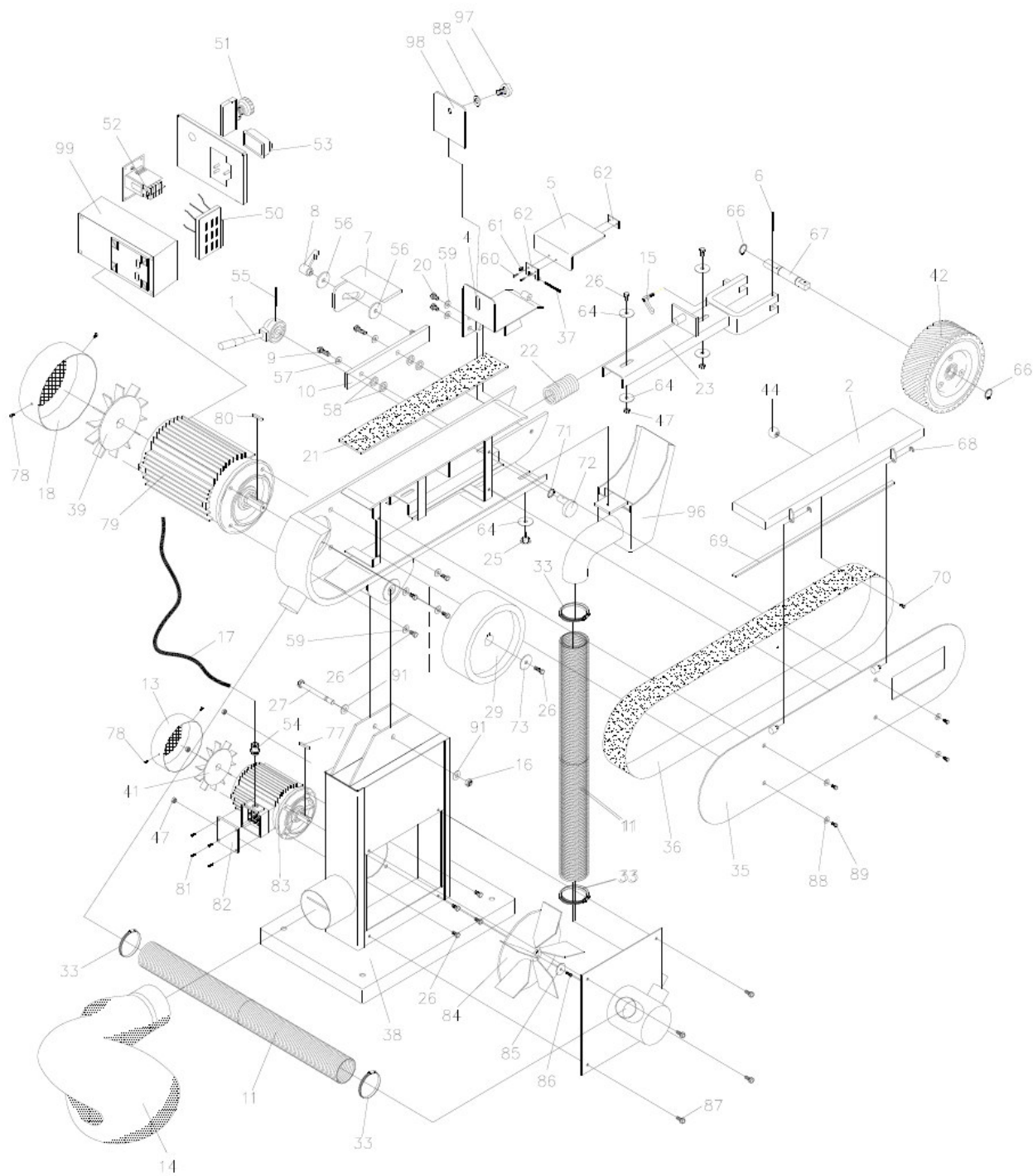


Fig. 10: Spare part drawing of the model MBSM 75-20 AS and MBSM 150-20 AS

15 Electrical Circuit Diagrams

Electrical circuit diagram MBSM 75-20 and MBSM 150-20

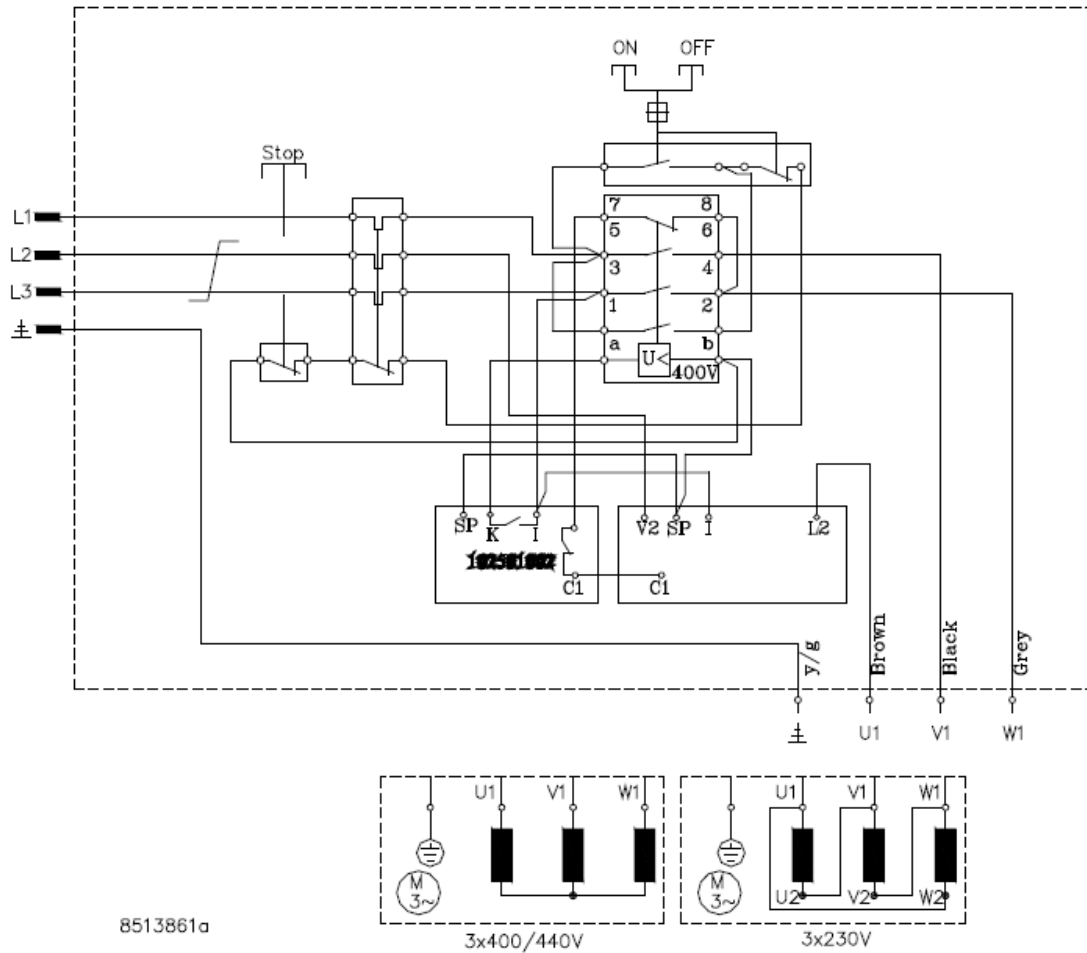


Fig. 11: Electrical circuit diagram MBSM 75-20 and MBSM 150-20

Electrical circuit diagram MBSM 75-20 AS and MBSM 150-20 AS

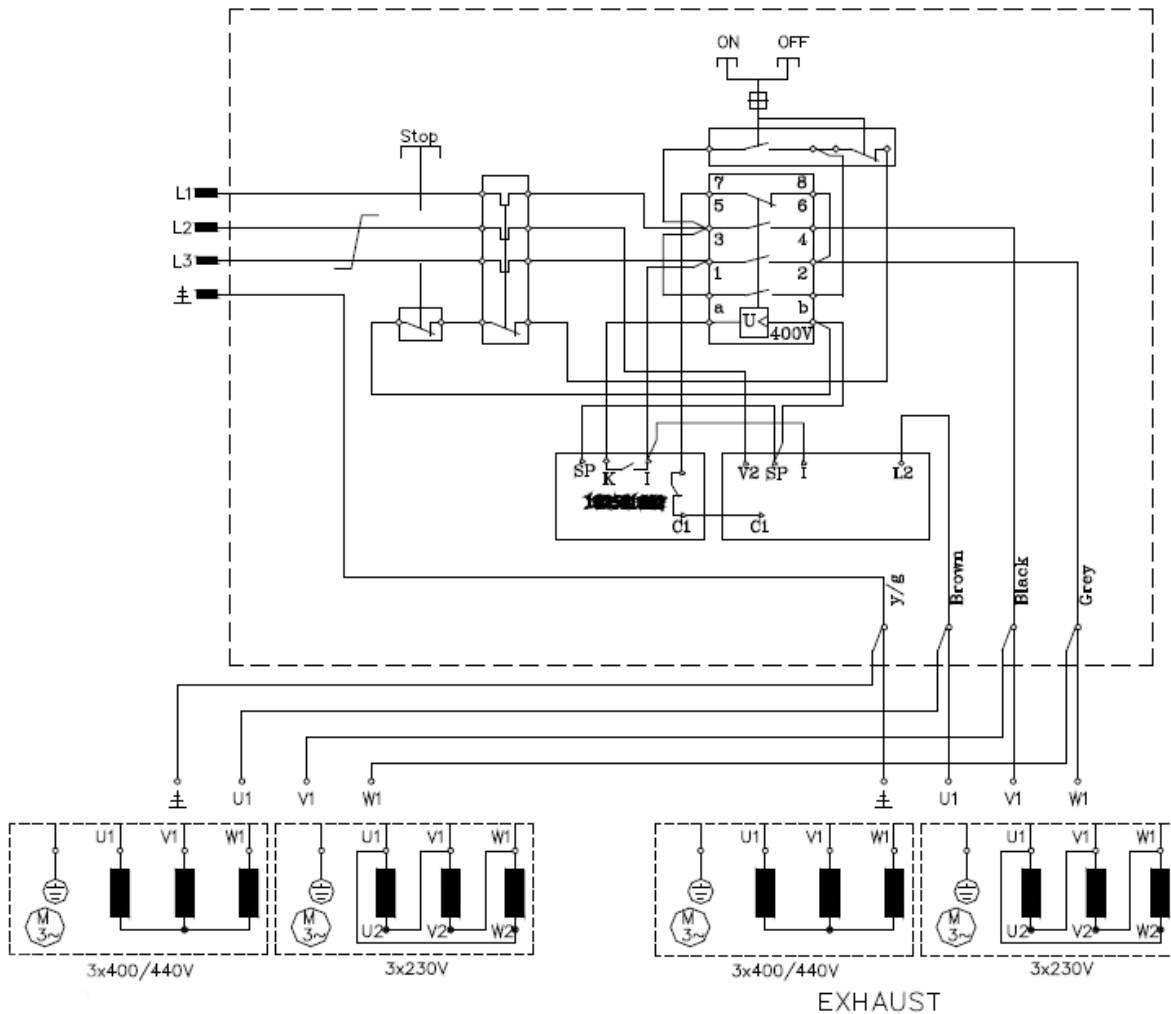


Fig. 12: Electrical circuit diagram MBSM 75-20 AS and MBSM 150-20 AS

16 Pressure Diagram

The fan is specially designed for belt sanders. It achieves a pressure of up to 1300 Pa and an air volume of 0 to 540 m³ / h. The fan is made of a 1.5 mm thick steel plate and is spot-welded. It is available in 3x230 / 400V and 1x230V 50/60 Hz, 2800 U.M. The ventilation closes in class IP 54. It is available in 3x230 / 400V and 1x230V 50/60 Hz, 2800 U.M. The ventilation closes in class IP 54.

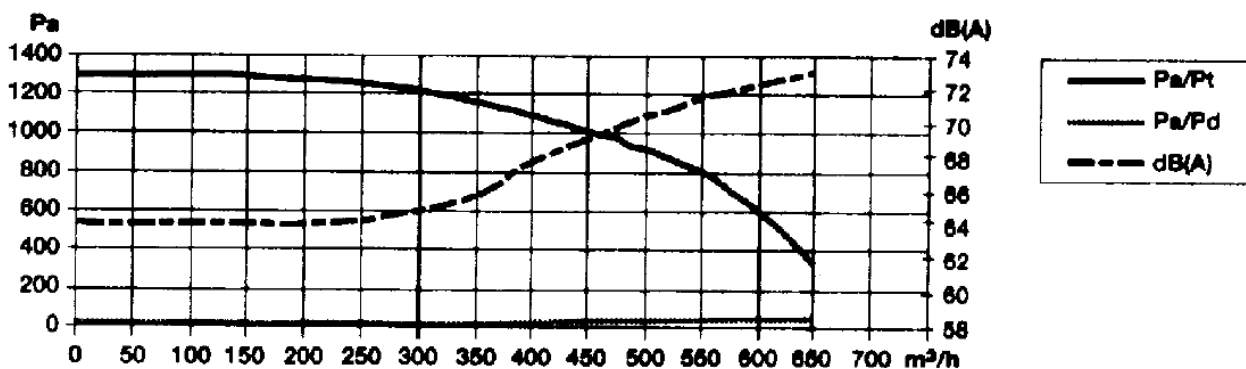


Fig. 13: Pressure diagram

17 EC Declaration of Conformity

According to machine directive 2006/42/EC Annex II 1.A

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

herewith declares that the following product

Product group: Metallkraft® Metallbearbeitungsmaschinen

Machine type: Metal belt grinding machine

Designation of machine*: **Item number:**

<input type="checkbox"/> MBSM 75-20	3712075
<input type="checkbox"/> MBSM 75-20 AS	3712076
<input type="checkbox"/> MBSM 150-20	3712150
<input type="checkbox"/> MBSM 150-20 AS	3712151

Serial number*: _____

Year of manufacture*: 20____

* fill in these fields using the information on the nameplate

corresponds, on the basis of its design and construction, as well as the version that we have put into circulation, with the relevant fundamental health and safety requirements of (subsequent) EC guidelines.

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 (ISO 12100:2010)

DIN EN 60204-1:2019-06 Safety of machines - Electrical equipment of machines -
Part 1: General requirements (IEC 60204-1: 2016, modified)

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

Hallstadt, Oct. 20th 2021



Kilian Stürmer
Managing Directors



