80 YEARS Müssel Maschinenbau Marktredwitz since 1932

engineering fabrication servicing

CONVEYOR TECHNIQUE
SPECIALMACHINES
BELTINGTOOLS
COMPONENTS
by

MÜSSEL Maschinenbau GmbH

Operating Instructions

Grinding Machine
ASG 300 and ASG 1000

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Introduction

We would like to congratulate you for having purchased the Müssel-Belting Tools made by Müssel Maschinenbau GmbH and to thank you for the confidence you placed in us.

This operating instruction provides you with important information for the proper and safe use of the grinding machine, **ASG 300, ASG 1000**.

Owing to our experience over decades in the development and the fabrication of finishing tools for conveyor belts and driving belts, these devices have been designed according to the latest state of technique and in compliance with this application. Please find further information on splicing types and finishing parameters in the detailed splicing instructions or in the belt specific technical data sheets of the belt manufacturer.

Please note that the future usage conditions of the conveyor belt have to be considered for the choice and the finishing of splices.

Any liability for errors and printing errors is excluded.

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Contents

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1 General Information

1.1 Name and address of the manufacturer

Müssel Maschinenbau GmbH
Reichelsweiherstraße 8
95615 Marktredwitz
GERMANY

1.2 Identification of the machine

Product designation:	Grinding machine
Serial/Type designation:	ASG 300, ASG 1000
Serial number:	see type label
Year of construction:	see type label

1.3 CE-Declaration

see fixed label

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1.4 Conformity

CONFORMITY

as defined by the requirements of the EU directive
2006/95/CE Low Voltage Directive and
2004/108/CE Electromagnetic Compatibility (EMC) Directive

The manufacturer

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hereby declares that the below indicated device due to its design and its construction as well as in the execution placed on the market complies with the relevant essential health and safety requirements of the EU directive.
This declaration loses its validity upon the machine becoming altered or modified without the manufacturer's approval.

Product designation:	**Grinding machine**
Serial/Type designation:	**ASG 300, ASG 1000**
Serial number:	see type label
Year of manufacture:	see type label

The following harmonized standards were applied:
EN 60204-1 Electrical equipment of machines

The particular operating instructions must be observed.
A CE-label is attached at the device.

Marktredwitz, 01.01.2015	Langner Reinhard (Vice President of Establishment)	i.V.
Place, Date	Name, first name (company function)	Signature

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2 General Safety Instructions

The following document contains important information on serious risks when operating the tool described or important technical information on the tool or processes used. Symbols are used to highlight this important information and indicate as follows:

This symbol is always to be found in connection with an endangerment and its respective signal word.

Signal words hierarchy:

Danger: This signal word is indicating a person endangerment with a high risk level which causes death or serious injury, in case it cannot be avoided.

Warning: This signal word is indicating a person endangerment with a medium risk level, which can cause death or serious injury, in case it cannot be avoided.

Caution: This signal word is indicating an endangerment with a low risk level which can cause a minor or moderate injury, in case it cannot be avoided.

Attention: This signal word is indicating a warning of material and environmental damages.

2.1 Basics

This device has been built as state of the art and according to the fundamental health and safety requirement of the EC machinery directive. However, its usage may result in risks to the body or life of users or third parties, or adverse effects to devices and other property.

The device may only be used in proper technical condition as intended, in a safety- and hazard conscious manner and observing the operating instructions!

Observing the operating instructions and adhering to the inspection and maintenance conditions are also parts of the intended use.

2.2 Organisational Measures

The operating instructions must always be at hand at the place of use of the device!

In addition to the operating instructions, observe and instruct the user in all other generally applicable legal and other mandatory regulations relevant to accident prevention and environmental protection!

The operating instructions must be supplemented by instructions covering the duties involved in supervising and notifying special organizational features, such as job organization, working sequences or the personnel entrusted with the work.

Please only assign trained personnel familiar with the operating instructions of the device.

Check at regular intervals whether the personnel are carrying out the work in compliance with the operating instructions and paying attention to risks and safety factors!

In order to minimize the risk of injury, garments must be close-fitting. Furthermore long hair must be tied back and jewellery -including rings- have to be removed before beginning work.

Observe all safety instructions and warnings attached to the device and see to it that they are always complete and perfectly legible!

If the operating behaviour changes immediately stop the device and report the error to the responsible department/person!

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Never make any modifications, additions or conversions which might affect safety without the supplier´s approval.

Additional mountings or modifications have as consequence that the responsibility for the accordance with the EU-directive has to be assured by the person who carries out the mountings and the modifications.

Spare parts, only from the original equipment, comply with the technical requirements specified by the manufacturer and guarantee the failure-free operation of the device.

2.3 Personnel selection and qualification

The device can only be operated by staff accordingly skilled and instructed.

Work on electrical equipment of the device must be performed by a qualified electrician or trained individuals under the direction and supervision of an electrician according to electro-technical regulations.

2.4 Safety Instructions for specific operating phases

The device can only be operated in a safe and absolutely reliable state. Make sure in particular that all protective and safety-oriented devices are in place and fully functional.

Loosened screws and hose connections must be tightened upon completion of the maintenance and repair work.

2.5 Mobile devices

In case of minor changes of place, please even disconnect the device from any external power supply! Properly reconnect to the mains prior to restarting the device!

Always use hoisting and slinging equipment with sufficient weight bearing capacity for loading!

Position hoisting devices or slinging means only on the load lifting appliances of the device that are provided for this purpose!

Please take the necessary and appropriate measures for making sure that during the transportation no device part may fall in or loosen!

2.6 Safety instructions

The removing of covers or parts of safety-oriented components may increase the risk of accident.

Conversions, maintenance and repair work must be performed by trained, competent and skilled persons.

Because of the risk of burns, make sure the device is always freely accessible and is not covered.

Regularly inspect/check the electrical equipment of a device. Visible faults, such as loose connections, must be immediately rectified.

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3 Product Description

3.1 Components and proper usage

The grinding machine is a portable fitting tool for fabricating (preparing) belting material. The belting material is grounded in a wedge shape.

The grinding machine consists of the following components:

3.2 Mode of operation

Grinding machines of the ASG ... type are used in fabricating belting material for grinding the ends of splice in a wedge shape, for example to prepare wedge splices. The maxim width of belting material that can be worked is 300 mm or 1000 mm with a cut-off angle of 60°, the maximum thickness of material is 8 mm.

For the grinding process, the belt material is affixed on the grinding table and by swaying the belt grinder the wedge-shaped grind is generated.

Note:

When fabricating (preparing) always refer to the appropriate splicing instructions for the belt type to be spliced.

You can find more information on how the grinding machine works in the section "5 Handling".

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3.3 Technical data

		ASG 300	ASG 1000
Belt width max. (at 90°)	mm	300	1000
Belt width max. (at 80°)	mm	270	970
Belt width max. (at 60°)	mm	160	830
Belt thickness max.	mm	8	8
Length	mm	560	560
Width	mm	680	1 165
Height	mm	310	400
Weight (net)	kg	32,0	42,0
Voltage	V	230	230
Capacity	W	1010	1010
Belt speed	m/min	210 - 440	210 - 440
Grinding length	mm	120	120
Dust bag		Standard	Standard

Material number	Designation
710021	ASG 300
710022	ASG 1000

3.4 Accessories

Accessories are not included in the scope of delivery and must be ordered separately!

Material number	Designation
7870017	Double-sided adhesive tape 50 m x 50 mm

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4 Preparing the product for usage

Before operating the tool, the following steps must be carried out each time to ensure the tool works properly. Check the following points:

4.1 Position

Grinding machines and their components may only be put on surfaces that are suitable for fabricating.

The surfaces must also be able to withstand the static load from the weight of the grinding machines and the procedure.

4.2 Utilities

- Grinding belt
- Double-sided adhesive tape

All utilities must be clean!

4.3 Electric installations

The existing mains voltage must be suitable for the tools' operating voltage.

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5 Handling

5.1 General, proper usage

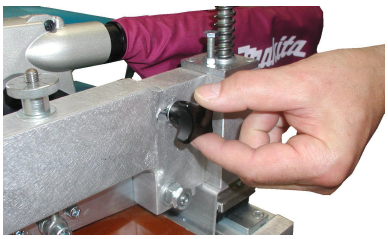
Grinding machines of the ASG ... type are used to fabricate (prepare) belting material, for example to prepare wedge splices. The maximum width of belting material that can be processes is 300 mm or 1000 mm at a cut-off angle of 60°.

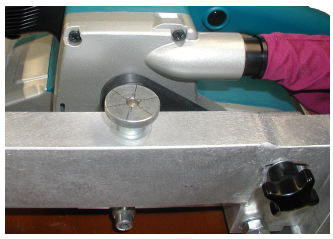
5.2 Adjusting grinding machine

1. Put the grinding machine down on an even pad.

2. Position the belt grinder parallel to the grinding table and adjust them in such a way that the belt grinder is lightly contacting the grinding table.

3. Open the star handle nuts and adjust the belt grinder parallel to the grinding table by means of the adjusting screw.





4. Slightly grind the grinding table off.

5.3 Bevelling the belting material

1. Open the belt grinder by swinging it upwards.

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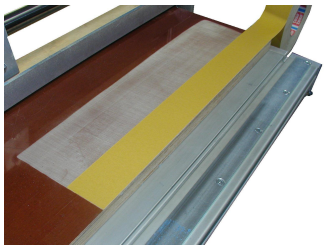
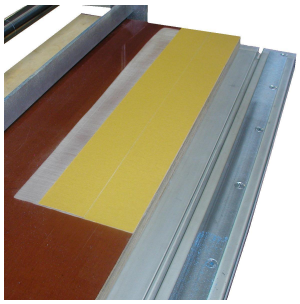
2. Stick the double-sided adhesive tape exactly on the flange of the front cutting edge. Cut the overlaying adhesive tape off!



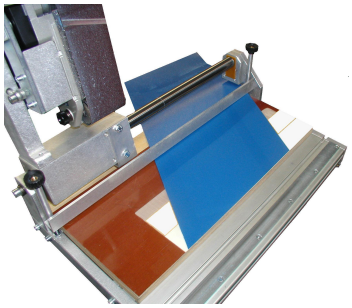
3. Stick a second stripe of double-sided adhesive tape rearward the first stripe.



4. Remove the membrane from the adhesive tape.

5. Loosen the expander by opening the knurled-head-bolt.

6. Please insert the prepared belt material in the grinding machine positioning the carrying side from the top to the backside and flush fit it on double-sided adhesive tape of the front cutting edge.



7. Fix the belting material with the expander.

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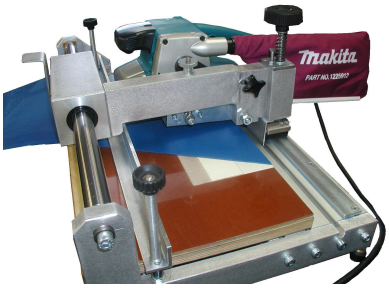
8. Swing the belt grinder ahead considering that the cable connection is located beyond the grinding area.



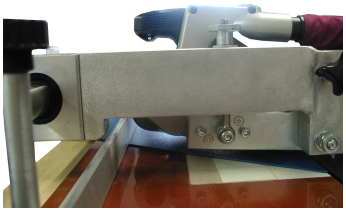
9. Please adjust the belt grinder in such a way that the front belting edge is slightly in contact.

5.4 Bevelling the first end of the splice (carrying side to the top)

1. Switch the belt grinder on.

2. Position the belt grinder so far downwards, so that a wedge-shaped cut is generated.

3. The length of the cut can be shortened or elongated by means of a knurled-head-screw. (cutting angle)



4. Start with the grinding process by swaying the belt grinder crosswise.

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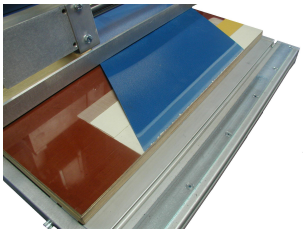
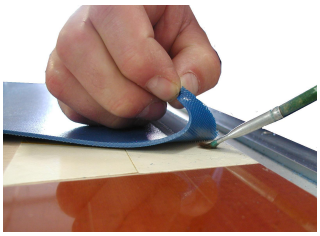
5. The process is completed when a wedge with a thin aspect on the front is generated.



6. Please open the belt grinder by swinging it upwards, loosen the expander and remove the belt.



Note:
It is easier to remove the belt material while using a brush with some ethyl alcohol between the double-sided tape and the belt material.

7. Please clean the dust bag.

5.5 Bevelling the second end of the splice (operation side to the top)

Please recapitulate all the steps already described in points 5.3 und 5.4, however position the operation side to the top!!!

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6 Maintenance work

Before operating the tool, the following maintenance work must be carried out each time to ensure that the tool works properly. If damage is established during maintenance that cannot be rectified on site, the tool must no longer be used and must be sent for repair to the manufacturer.

Check the following each time before use:

- Plug and lead for damage
- Check that body and protective parts are not damaged and function properly
- Dust bag must be clean
- Check the grinding table for cleanliness
- Check grinding belt for wear and tear

Check every twelve months:

According to VDE-guideline 0701/0702 or the appropriate electrical engineering norms in the individual country, electrical tools must be checked every twelve months in each company.

6.1 Wear parts

Materials and parts that are enumerated in the technical instructions as wear parts are excluded from the guarantee.

Material number	Designation
on request	Grinding belts size 80, 533 x 76 mm

7 Disassembling and Disposal

The disassembling in individual components can only be effected by competent staff with a good knowledge of machine building.

Please sort out the machine according to the respective materials (metal, plastics, electronic) and recycle them.

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