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Manual

HM TAS 75-75X & 150-150X
Belt Grinding Machines



CE

UK

EU declaration of conformity

HM Machinery A/S
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hereby declares that

HM TAS Belt Grinding Machine are manufactured in accordance with the provisions of the European Parliament and Council Directive 2006/42 / EC of 17 May 2006

And also in accordance with:

- Low Voltage
- EUROPEAN PARLIAMENT AND COUNCIL DIRECTIVE 2014/35 / EU of 26 February 2014

- EMC
- EUROPEAN PARLIAMENT AND COUNCIL DIRECTIVE 2014/30 / EU of 26 February 2014

DK 9460 Brovst
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Producent

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1. Transport & Handling

1.1 Handling

The machine is delivered in a wooden case. The machine should be placed on a level surface and secured by bolts through the four base plate holes.

Check the following functions:

A) The Belt moves freely.
B) The Belt does not touch the grinding supports.

1.2 Connection to electricity supply

The TAS belt grinder has to be wired in by a competent electrician. The 3,0 kW motor is supplied with an Overload Protection Switch and no - voltage release for direct connection to 3 x 400/415 V or 3 x 230 V, 50/60 Hz. The connection is only to be done with a 4-core cable (1,5 mm^2) short cable with plug, making a total electric interruption possible. Fuse 16A (Please see enclosed electrical data sheet).
The machine is provided with no-volt release protection switch and connected for the wanted voltage (V). The electrical connection must be performed by an authorized electrician, and it is important to control that the motor (and ventilator) has the correct direction or rotation (please see the arrow on the motor).

1.3 Belt tracking

When first starting the machine, the Belt may not run centrally on the Contact Wheel.
This is corrected by turning the tracking Adjuster (6):

Clockwise	-	Belt moves towards the left.
Anticlockwise	-	Belt moves towards the right.

2. Directions

Eye protection and earplug are to be worn at all times.

After adjustment and connection the belt grinding machine is ready for use. The grinding can take place by the contact wheel (3)- see fig. 2.1 or on the surface grinding table by opening the cover (5). The lifetime of a new belt is prolonged if the grinding starts with a light pressure.

2.1 Contact Grinding

When grinding against the Contact Wheel (3), ensure that the Belt Guard (5) is closed. The operator faces the Contact Wheel (3) and holds the material to work up, with both hands. Hands must be placed away from the place to be grinded, as the material will be warm during the operation. The material is pushed against the Belt, resting on the grinding support (2), if necessary. The material is turned and grinded on the required surfaces.

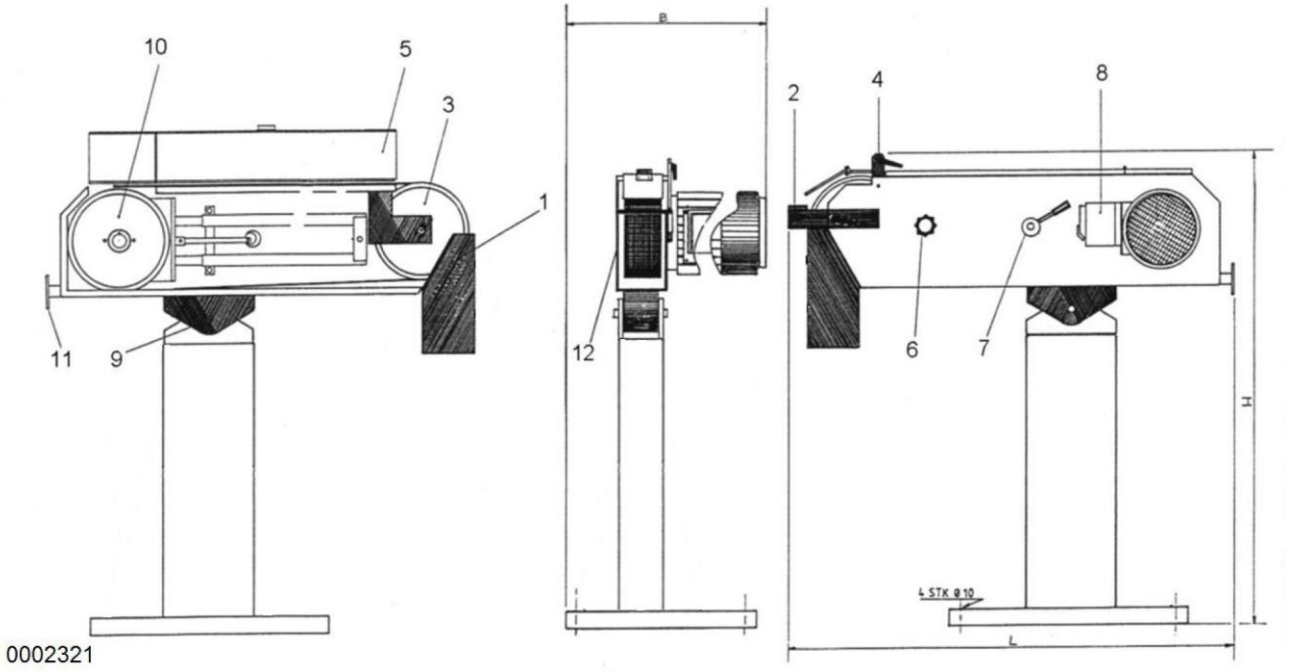


Fig. 2.1 The TAS Belt Grinder View.

1.	Spark trap	7.	Belt tension release lever
2.	Front work support	8.	Overload protection switch
3.	Contact wheel	9.	Clamp for angle & height adjustment
4.	Top work support	10.	Steering roller
5.	Belt guard	11.	Flange for motorised exhaust
6.	Tracking adjuster	12.	Side cover

2.2 Surface Grinding

The operator faces the open belt guard (5) during surface grinding. The material is held with both hands and is pushed hard against the top work support (4). To optimise surface grinding the grinding foundation under the belt has to be clean.

2.3 Changing the belt

a) Switch of the machine.
b) Ensure the Belt is at a complete standstill.
c) Remove the Spark Trap (1)
d) Open the Side Cover (12) by turning the handle.
e) Slacken the Belt by moving the Belt Tension Release Lever (7) downwards.
f) Replace the Belt. Note correct direction of rotation of the belt.
g) Tighten the Belt by moving the Belt Tension Release Lever (7) upwards.
h) Close Side Cover (12) and re - mount Spark Trap (1).

2.4 Height adjustment

Loosening clamp no. 9 with an Allen key can do height- and angle adjustment.

2.5 Maintenance

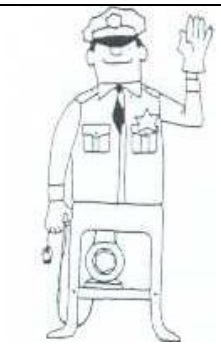
Empty the spark box with regular intervals and control if the suction canals need a cleaning. The dust bag has to be emptied after use. The contact wheel should be replaced when the edges have been worn round or the tyre has been damaged. The graphite pad on the surface grinding table is changed as required.

Frequent cleaning, if necessary with compressed air so that wheel swarf is removed. Normal maintenance of the contact wheel and the steering roller. A commendable surface grinding can only be obtained when using a completely clean grinding foundation. Otherwise this must be renewed. The belt must be replaced as required, compare "Changing the belt". Spark trap must be emptied frequently.

2.6 Safety rules for stationary power tools

Follow them to achieve best results and full benefit from your new machine.

The good craftsman respects the tools with which he works. He knows they represent years of constantly improved design. He also knows that they are dangerous if misused. This is the theme of a new safe-use program for stationary power tools. The safety rules are based on approved practices in industrial and home shops



1. Know your power tool. Read the owner's manual carefully. Learn its applications and limitations, as well as the specific potential hazards peculiar to this tool.



2. Keep guard in place and in working order.



3. Ground all tools. If tool is equipped with three-prong plug, it should be plugged into a three-hole electrical receptacle. If an adapter is used to accomodate a two-prong receptacle, the adapter wire must be attached to a known ground. Never remove the third prong.



4. Remove adjusting keys and wrenches. Form habit of checking to see that keys and adjusting wrenches is removed before turning it on.



5. Cluttered areas and benches invite accidents.



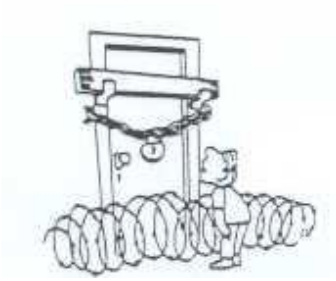
6. Avoid dangerous environment. Don't use power tools in damp or wet locations or expose them to rain. Keep your work area well lighted.



6. Keep children away. All visitors should be kept in a safe distance from work area.



8. Make workshop kid proof with padlocks, master switches, or by removing starter keys.

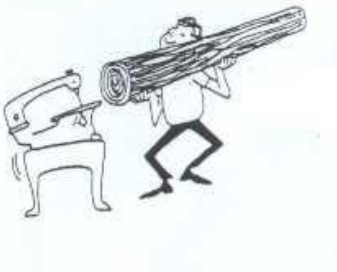


9. Don't force tool. It will do the job better and be safer at the rate for which it was designed.

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10. Use right tool. Don't force tool or attachment to do a job it was not designed for.



11. Wear proper apparel. Wear no loose clothing, gloves, neckties, rings, bracelets, or other jewellery which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.



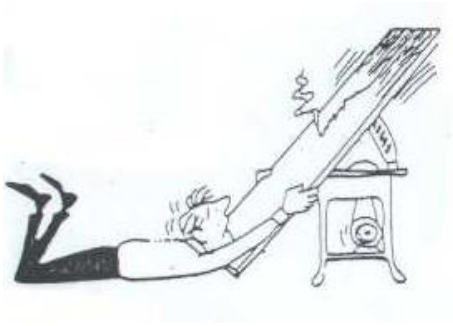
12. Always use safety glasses. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses. They are **NOT** safety glasses.



13. Secure works. Use clamps or vice to hold works, when practical. It's safer than using your hands and it frees both hands to operate tool.



14. Don't overreach. Keep proper footing and balance at all times.



15. Maintain tools with care. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.



16. Disconnect tools before servicing and when changing accessories such as grinding wheels, polishing mops, grinding belts, blades, bits, cutters, etc.

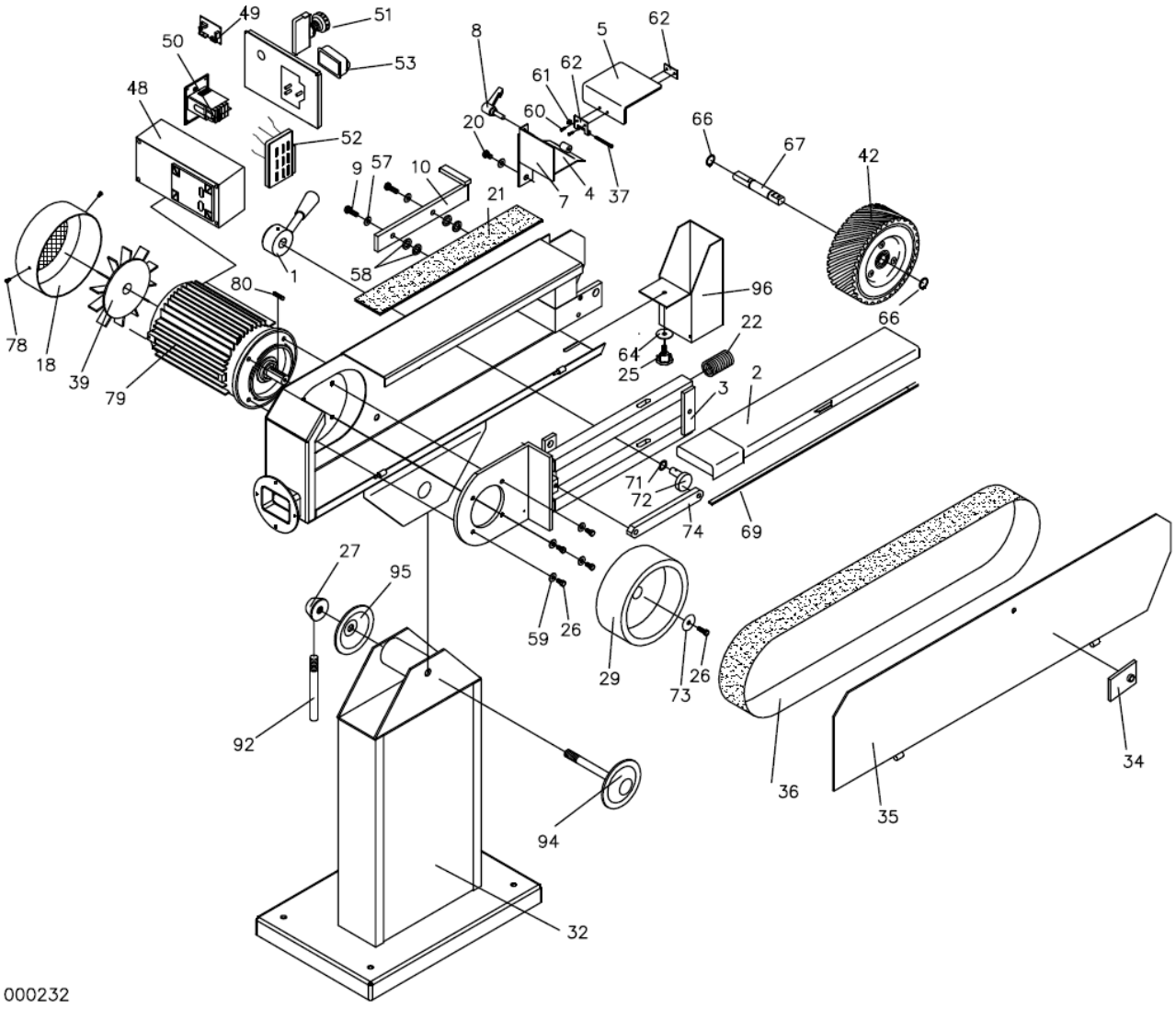


17. Reduce the risk of unintentional starting. Make sure switch is in off position before plugging in.

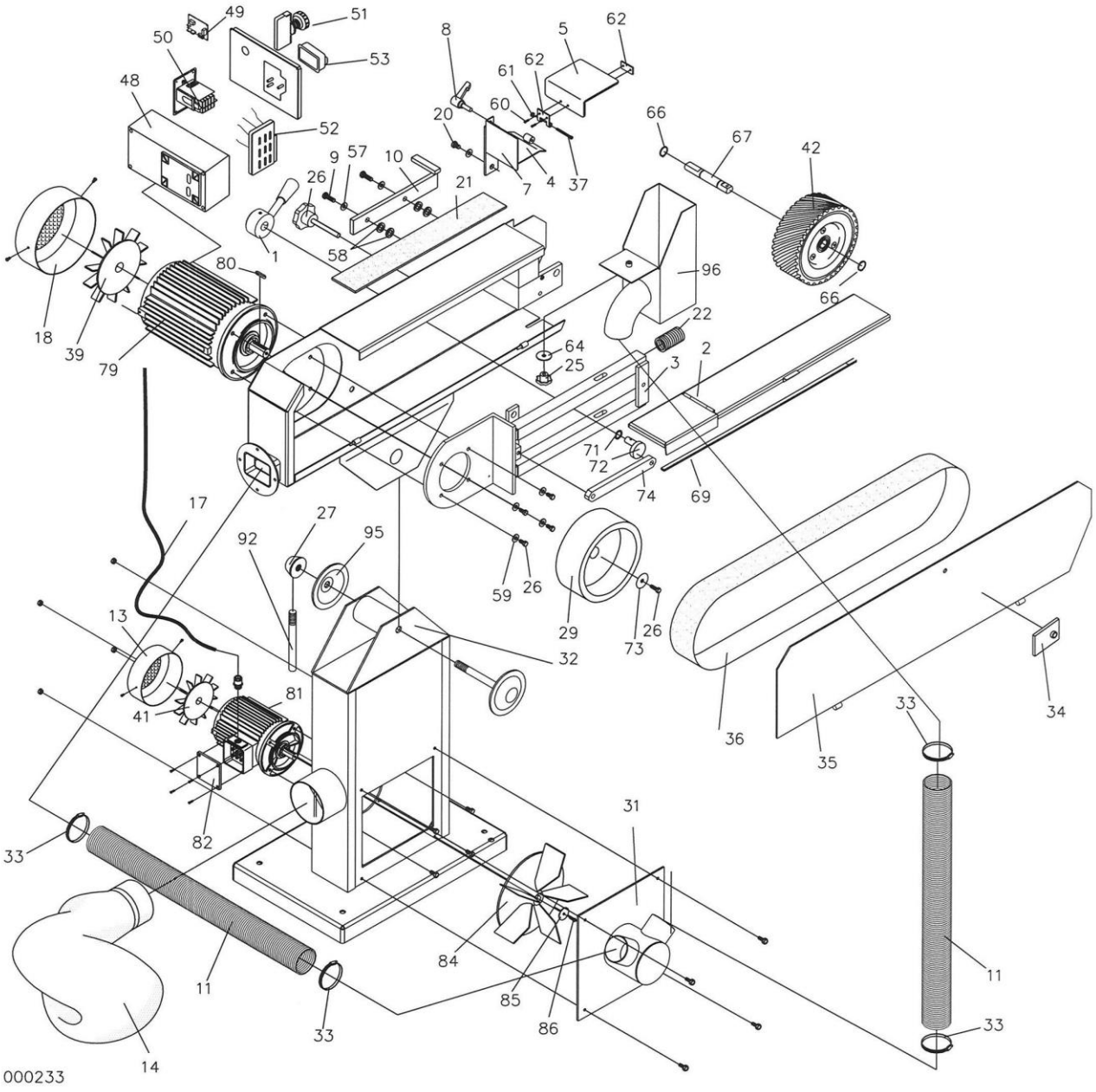


18. Use recommended accessories. Consult owner's manual for recommended accessories. Use of improper accessories may cause risk of injury to persons.

3. Spare parts



Exploded view of the TAS Belt Grinder with no exhaust.



Exploded view of the TAS Belt Grinder with exhaust.

3.1 Spare parts list

The parts of a TAS Belt grinder corresponding to fig. 3.1.
When ordering spare parts please state machine type and serial number together with item number and description of the part according to this list.

Pos.	Benævnelse dk	75	75X	150	150X
1	Belt tension release lever	10103036	10103036	10103036	10103036
2	Belt Cover	10103050	10103050	10103250	10103250
3	Telescope	10103038	10103038	10103038	10103038
4	Shield and fitting of eye protection				
5	Eye Protection Glass	0233650	0233650	0233750	0233750
7	Adjustable angular plane	10103052	10103052	10103252	10103252
8	Handle for grinding plane	0233808	0233808	0233808	0233808
9	Screw				
10	Grind facility	10103059	10103059	10103259	10103259
14	Dust bag		0811793	-	0811793
18	Fan cover f/motor HM	10103027	10103027	10103027	10103027
20	Screw				
21	Graphite sanding pads	1056669	1056669	1056123	1056123
22	Spring for telescope	10102825	10102825	10102825	10102825
25	Star knob M8				
27	Handle knob for Socket	4567832	4567832	0233034	0233034
29	Drive wheel	10103035	10103035	10103235	10103235
32	Socket	1140081		1140081	
34	Lock for side cover	10103060	10103060	10103060	10103060
35	Side cover	1010305310	1010305310	1010305310	1010305310
36	Sanding belt	-	-	-	-
37	Screw M6x45 CH				
38	Socket	-	0233858	-	0233858
39	Fan Blade HM f/motor	10103006	10103006	10103006	10103006
41	Blade f/exhaust alu.	-	10103004	-	10103004
42	Contact Wheel with bearings	1535005	1535005	1535007	1535007
48	Switch Comp.	-	-	-	-
49	Brake Module (extra)	0188845	0188845	0188845	0188845
50	Thermo relay	-	-	-	-
51	Emergency stop comp.	0188892	0188892	0188892	0188892
52	Relay w/0-voltage coil	-	-	-	-
53	Protection cover f/start–stop	0188893	0188893	0188893	0188893
57	Disc				
58	Cover Disc				
59	Disc 8mm	5437850	5437850	5437850	5437850
60	Screw M4x8	0100425	0100425	0100425	0100425
61	Lock nut M6	0951406	0951406	0951406	0951406
62	Brackets for eye protection	0921475	0921475	0921475	0921475
66	Locking Ring				
67	Axle	10103022	10103022	10103222	10103222
68	Locking Ring				
69	Sealing Strip	10102826	10102826	10102826	10102826
71	Wave spring				
72	Ekscentrik f/8 mm motorplate	10103037	10103037	10103037	10103037
73	Cover Disc				
74	Pull Rod for telescope	3200108	3200108	3200108	3200108
78	Motor protection	1010308010	1010308010	1010308010	1010308010
79	Motor	2030075	2030075	2030017	2030017
80	Rib	0110090	0110090	0110071	0110071
81	Motor f/exhaust TAS	-	10103006	-	10103006
92	Håndtag for sokkel	0233032	0233032	0233032	0233032
94	Clamp Disc with Axle	0233038	0233038	0233038	0233038
95	Clamp Disc	0233036	0233036	0233036	0233036
96	Glute Box	1140017	1056003	1140018	1056004

4. Technical Data

4.1 Technical Specifications

Model	75	75X	150	150X
Grinding belt	75x2000	75x2000	150x2000	150x2000
Motor 3x380-440V 50Hz	4,1 HK	4,1 HK	4,8 HK	4,8 HK
Class	IEC 34-1	IEC 34-1	IEC 34-1	IEC 34-1
IP Class	54	54	54	54
r/min.	2860	2860	2860	2860
Ampere	10.6/6.1	10.6/6.1	10.6/6.8	10.6/6.8
Cos φ	0,91	0,91	0,91	0,91
Belt speed	34 m/s	34 m/s	34 m/s	34 m/s
Contact wheel	Ø200x75	Ø200x75	Ø200x150	Ø200x150
Drive Wheel	75x225mmx ø24mm	75x225mmx ø24mm	150x225x ø28mm	225x150x ø28mm
Fan motor	-	0,5 HK	-	0,5 HK
Working Height (mm)	475-1240	475-1240	475-1240	
Weight	60 kg	80 kg	80 kg	100 kg
W x H x L (fig. 2.1) (mm)	500x1010x1000	500x1010x1000	560x1010x1000	560x1010x1000

4.2 Dimensions

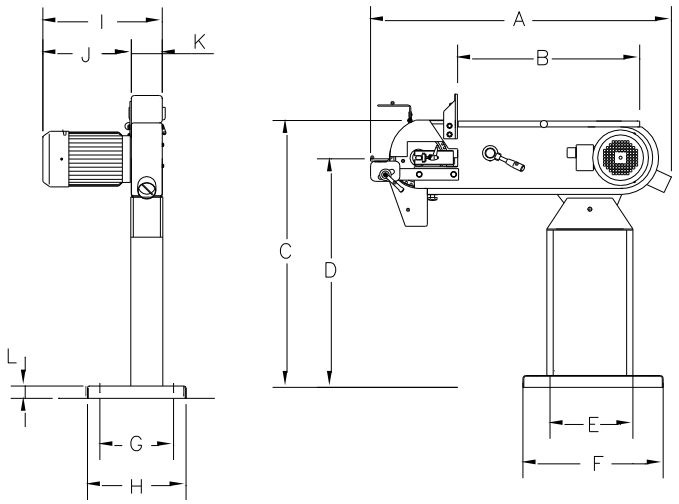


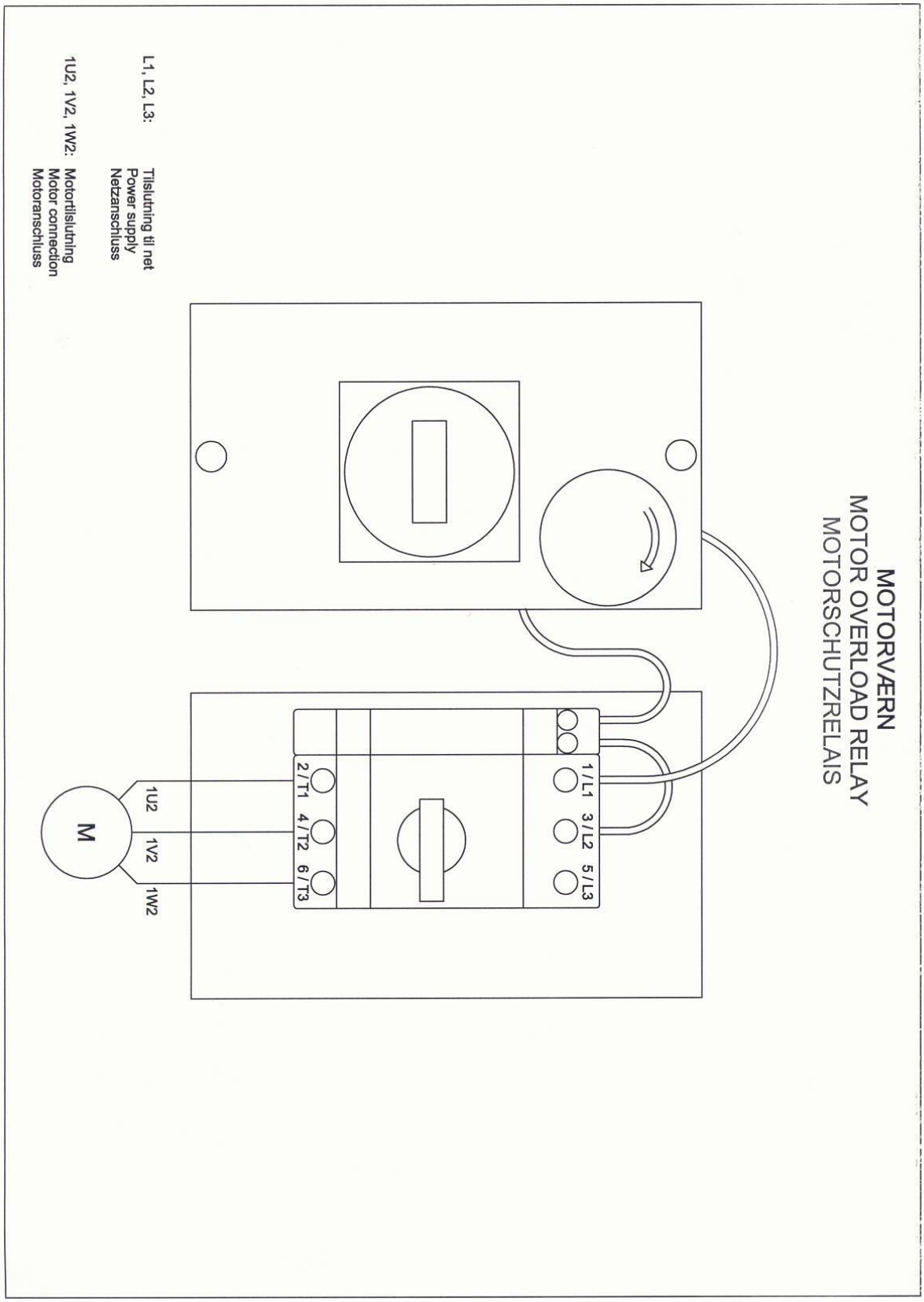
Fig.: 4.2

Model	A	B	C	D	E	F	G	H	I	J	K	L
75/75X	995	660	1025	830-970	430	506	270	341	490	295	107	55
150/150 X	995	660	1025	830-970	430	506	270	341	527	295	185	55

4.3 Noise level measurement for Belt Grinders:

The noise level for TAS belt grinding machine has been measured to 80 dB(A) according to the measuring instruction in the note 561 from the Work Inspection Department on device of technical aids.

4.4 Motor overload relay



4.5 Circuit diagrams

Belt grinding machines can be connected to 3 x 400/440 V, 50/60 cycles and to 3 x 230 V 50/60 cycles. There is three kinds of circuit diagrams:

1. One velocity grinder without brakes see 4.3.1 and 4.3.2
2. One velocity grinder with brakes see 4.3.3 and 4.3.4
3. Two velocity grinder with no brakes see 4.3.5 and 4.3.6

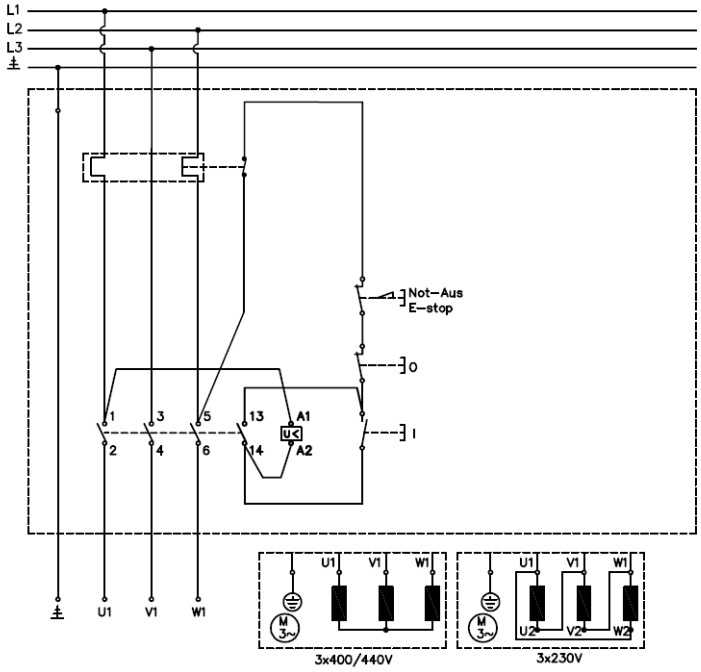


Fig. 4.5.1.: Diagram of belt grinder with no exhaust motor.

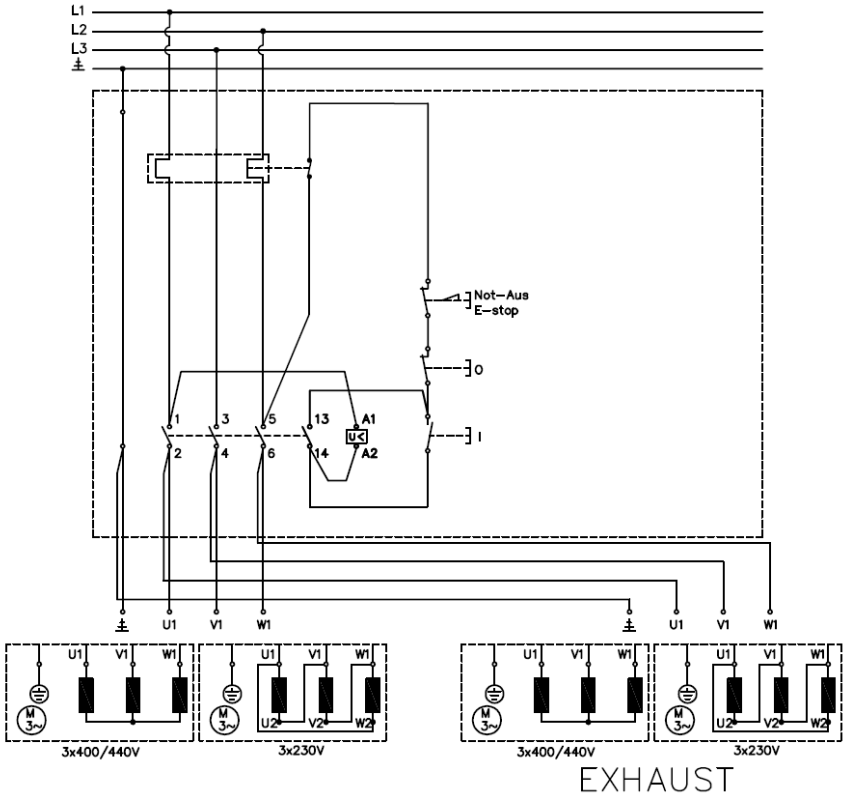


Fig. 4.5.2.: Diagram of belt grinder with exhaust motor.

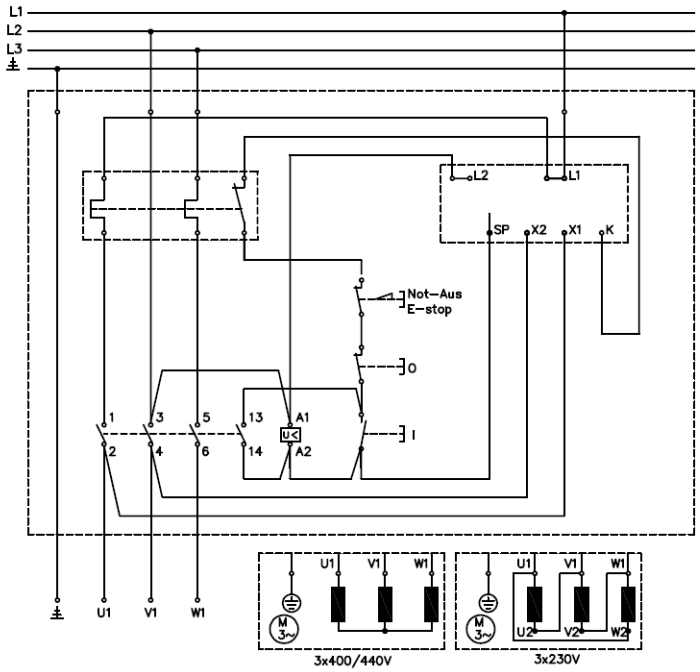


Fig.: 4.5.3 Diagram of belt grinder with brake and no exhaust motor.

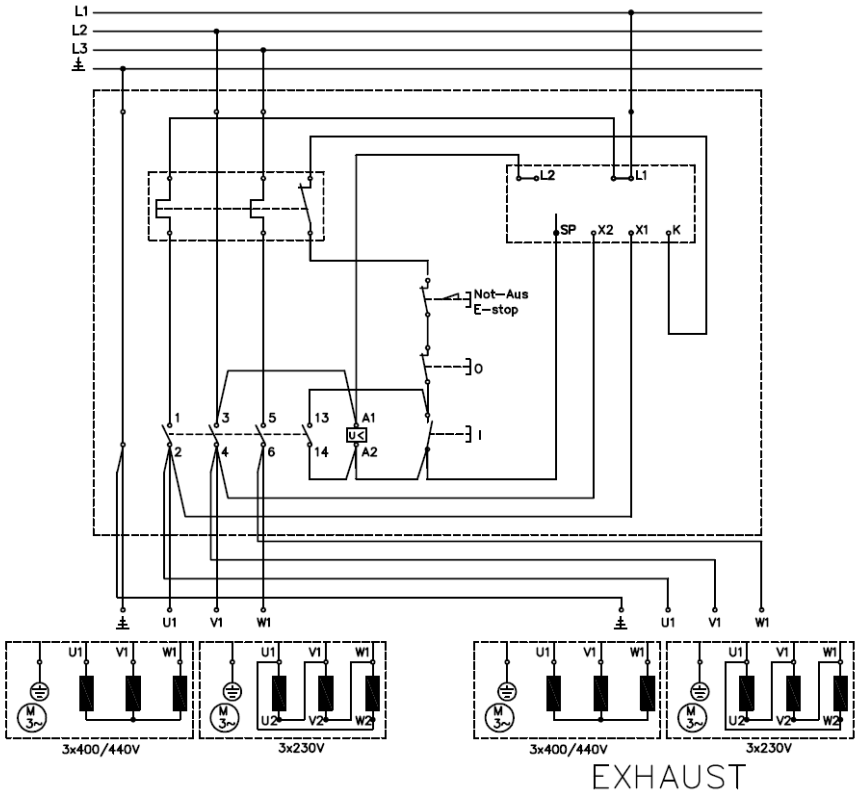


Fig.: 4.5.4 Diagram of belt grinder with brake and exhaust motor.

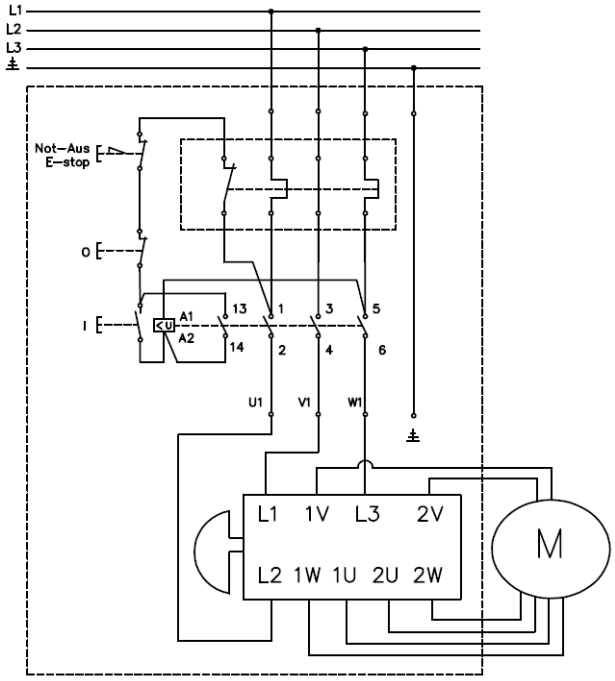


Fig.: 4.5.5 Diagram of belt grinder with two velocities and no exhaust motor.

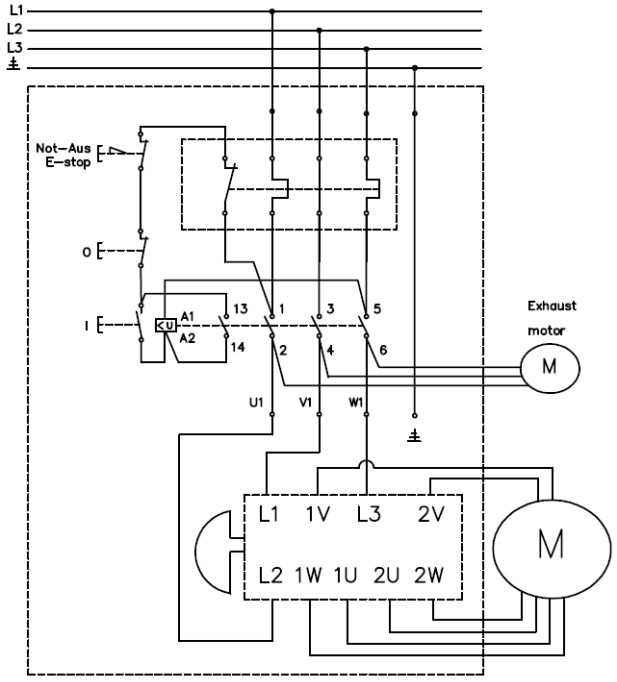


Fig.: 4.5.6 Diagram of belt grinder with two velocities and exhaust motor.

5.0 Warranty

5.1 Guarantee

If within 2 year of purchase this machine supplied by HM Machinery A/S becomes defective due to faulty materials or workmanship we guarantee to repair or replace the machine or defective part or parts free of charge provided that:

1. The product is returned complete to one of our Service Branches or Official Service Agents.
2. The product has not been misused or carelessly handled and in particular has not been used in a manner contrary to the operating instructions.
3. Repairs have not been made or attempted by other than our own Service Staff or the staff of our Official Service Agents.
4. Documentary proof of purchase date is produced when the goods are handed in or sent for repair.
5. Wear parts are not covered by the warranty

HM Machinery A/S offers you five years guarantee on the electrical motor if the motor becomes defective or even burns-out within the first 5 years from date of invoice.