

Manual

GRIMAX

Belt Grinding Machines

50 – 75 – 100 - 150



EU declaration of conformity



Industrivej 3-9
DK-9460 Brovst, Danmark
Tlf.: 98 23 60 88
Fax: 98 23 61 44

hereby declares that

GRIMAX Belt Grinding Machine

is manufactured in accordance with the provisions of:

- **Directive 2006/42/EC** of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast). Short title: Machinery Directive.

Also on accordance with:

- **Directive 2014/35/EU** of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits (recast). Short title: 'Low Voltage (LVD) Directive'.
- **Directive 2014/30/EU** of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast). Short name: 'Electromagnetic Compatibility (EMC) Directive'.

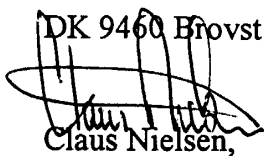
DK 9460 Brovst

Claus Nielsen,
Producent



Table of Contents

1. TRANSPORT & HANDLING	4
1.1 TRANSPORT	4
1.2 HANDLING	4
1.3 PLACING	4
2. DIRECTIONS	5
2.1 OPERATION	5
2.2 SAFETY RULES FOR STATIONARY POWER TOOLS.	5
2.3 MAINTENANCE	7
3. SPARE PARTS LIST	8
3.1 DRAWING OF BELT GRINDING MACHINE WITHOUT EXHAUST SYSTEM	8
3.2 SPARE PARTS LIST FOR BELT GRINDING MACHINE WITHOUT EXHAUST SYSTEM	9
3.3 DRAWING FOR BELT GRINDING MACHINE WITH EXHAUST SYSTEM	10
3.4 SPARE PARTS LIST FOR BELT GRINDING MACHINE WITH EXHAUST SYSTEM	11
4. TECHNICAL DATA	13
4.1 TECHNICAL SPECIFICATIONS	13
4.2 DIMENSIONS	13
4.3 CIRCUIT DIAGRAMS	14
4.4 PRESSURE DIAGRAM	20
5. WARRANTY	21
5.1 GUARANTEE	21

1. Transport & Handling

1.1 Transport

The GRIMAX belt grinding machine is packed in protective wrapping and delivered on a pallet with the following measures: 120 x 80 x 120 cm

1.2 Handling

The machine can easily be transported on the pallet on which it is delivered.

1.3 Placing

Mounting of the belt grinder must take place on a firm and level ground. The machine must be fastened to the ground by means of the four fittings which are used to fasten the belt grinder to the pallet.

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).

Eye shields, suction hose and perhaps dust bag must be mounted before use. The clamps for mounting the suction hose are placed in the dust bag. The eye shields (A) must be mounted into the eye shield fitting (see *fig.: 1.1*).

The tool rest (B) must be mounted at a distance of minimum 2 mm from the belt, and the handle (C) must be fastened. Turn the contact wheel by your hand and adjust the belt by means of the handle (D) until it runs just on the contact wheel (E). It must be controlled that the spark box (F) is properly fastened. The wanted working height is adjusted by means of the (G).

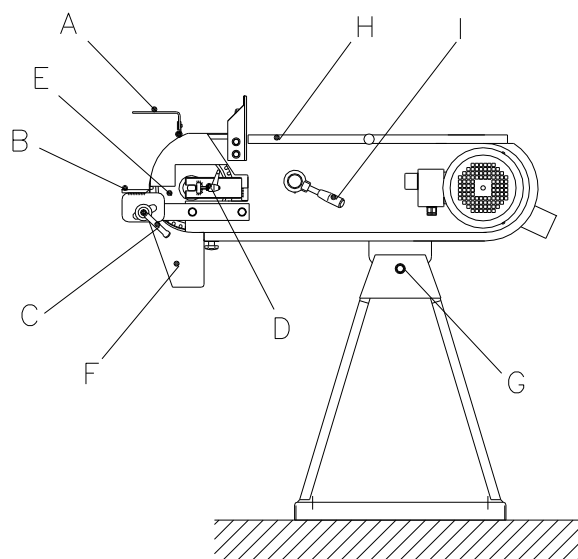


Fig.: 1.1








2. Directions

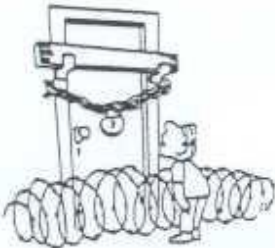









2.1 Operation

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

2.2 Safety rules for stationary power tools.

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

<p>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</p>	<p>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.</p> 
<p>2. Keep guard in place and in working order.</p> 	<p>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 accommodate a two-prong receptacle, the adapter wire must be attached to a known ground. Never remove the third prong.</p> 
<p>4. Remove adjusting keys and wrenches. Form habit of checking to see that keys and adjusting wrenches is removed before turning it on.</p> 	<p>5. Cluttered areas and benches invite accidents.</p> 
<p>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.</p> 	<p>6. Keep children away. All visitors should be kept in a safe distance from work area.</p> 

<p>8. Make workshop kidproof with padlocks, master switches, or by removing starter keys.</p> 	<p>9. Don't force tool. It will do the job better and be safer at the rate for which it was designed.</p> 
<p>10. Use right tool. Don't force tool or attachment to do a job it was not designed for.</p> 	<p>11. Wear proper apparel. Wear no loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.</p> 
<p>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.</p> 	<p>13. Secure works. Use clamps or vise to hold works, when practical. It's safer than using your hands and it frees both hands to operate tool.</p> 
<p>14. Don't overreach. Keep proper footing and balance at all times.</p> 	<p>15. Maintain tools with care. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.</p> 
<p>16. Disconnect tools before servicing and when changing accessories such as grinding wheels, polishing mops, grinding belts, blades, bits, cutters, etc.</p> 	<p>17. Reduce the risk of unintentional starting. Make sure switch is in off position before plugging in.</p> 
<p>18. Use recommended accessories. Consult owner's manual for recommended accessories. Use of improper accessories may cause risk of injury to persons.</p>	

2.3 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.

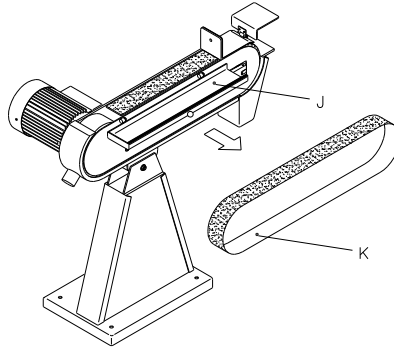


Fig.: 2.2

When changing the belt it is released by turning the handle (I) in anti-clock-wise direction (see *fig.: 2.1*), the cover (J) is opened and the worn-down belt (K) is removed by driving the belt against the direction of rotation, and the belt is removed from the machine by the drive wheel. The new belt is fitted. It must be checked that the direction of the arrows on the back side of the belt correspond to the direction of rotation. Fasten the handle (I) again and bring it into alignment with the handle (D).

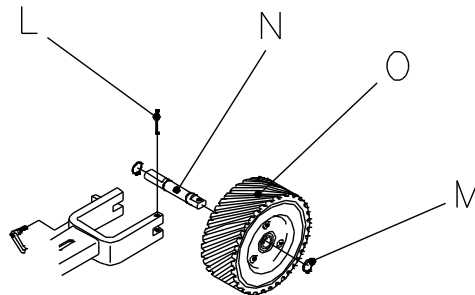


Fig.: 2.3

To change the contact wheel remove the grinding belt, tool rest and spark arrester. Use a 6 mm mandrel to hammer out the pin (L). Now the contact wheel with axle and bearings can be taken out. One of the lock rings (M) and the axle (N) can be taken out. The new contact wheel (O) is fitted in in reverse order.

3. Spare Parts List

3.1 Drawing of Belt Grinding Machine without Exhaust system

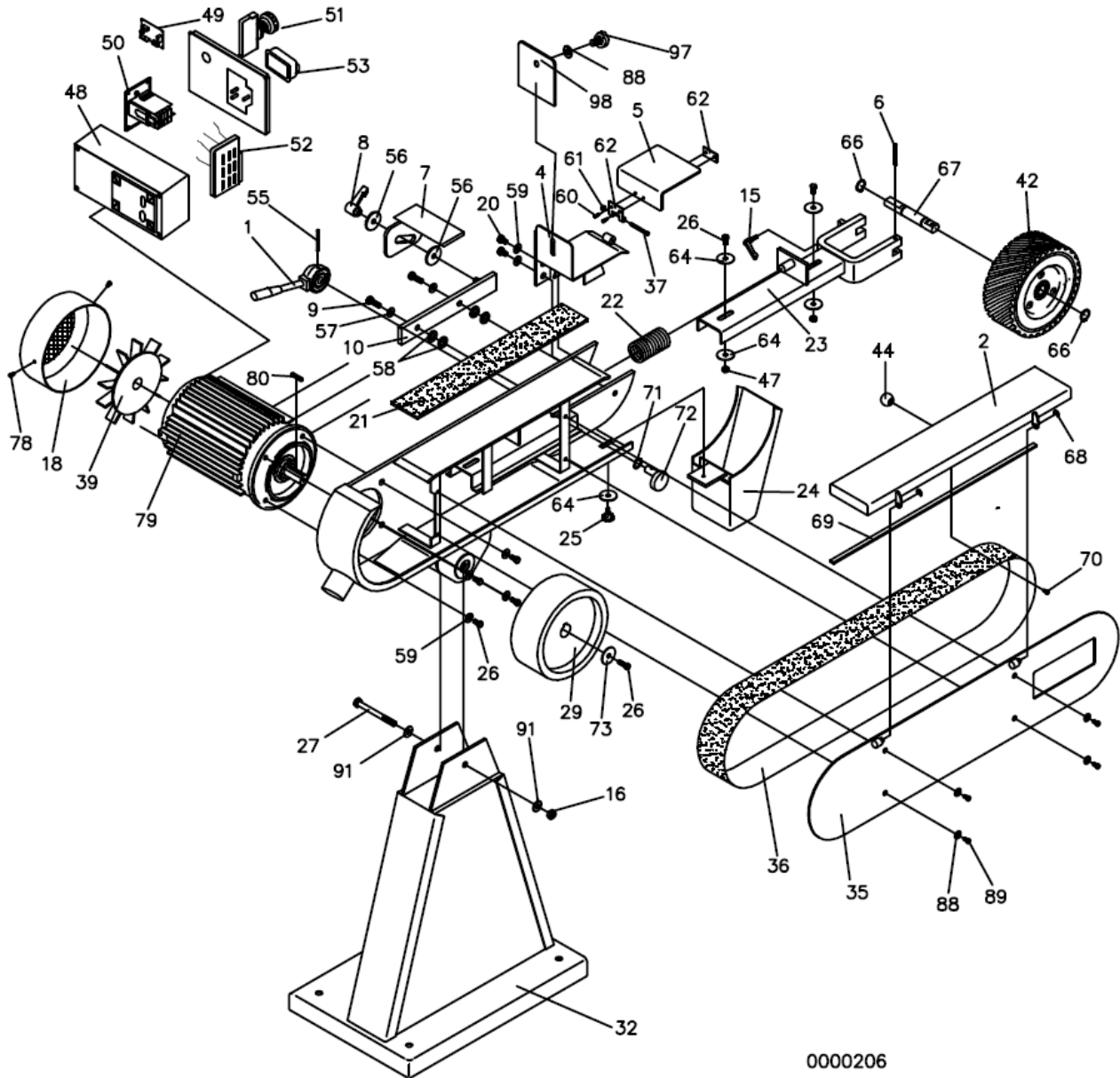


Fig.: 3.1

3.2 Spare Parts List for Belt Grinding Machine without Exhaust System

When ordering spare parts please state machine type and serial number together with item number and description of the part according to this list.

Item No.	Description	Part Number			
		50-2000	75-2000	100-2000	150-2000
1	Belt Release Handle	0102267	0102267	0102267	0102267
2	Belt guard	1055931	0239202	0239302	0239502
4	Grinding stop / Cover Blue	1055636	0880002	4532342	4532344
5	Eye shield	0233605	0233605	0233705	0233705
6	Split pin \varnothing 6x50 mm	0233050	0233050	0233050	0233050
7	Tool rest	1055634	0233207	0233307	0233507
8	Handle for tool rest	0233808	0233808	0233808	0233808
9	Bolt M10x25	0300134	0300134	0300134	0300134
10	Support for tool rest	0239373	0239373	0239373	0239373
15	Handle M6x25	0233025	0233025	0233025	0233025
18	Fan cover for motor	2031017	-	-	-
20	Screw M8x12	0300144	0300144	0300144	0300144
21	Graphite pad	0233022	0233221	0233321	0233521
22	Spring 5,5x43x125x11 mm	0102265	0102265	0102265	0102265
23	Cradle for contact wheel	1055629	0110223	0110323	0110523
24	Spark arrester	1055638	0101224	0101324	0101524
25	Star Handle \varnothing 32 M6x16	0233806	0233806	0233806	0233806
26	Screw M8x20	0233020	0233020	0233020	0233020
27	Bolt M12x100	4567832	4567832	4567832	4567832
29	Drive wheel	5020024	-	-	-
32	Base without exhaust system	0239832	0239832	0239832	0239832
35	Side panel	6549081	6549081	6549081	6549081
36	Grinding belt	-	-	-	-
37	Screw M6x45 CH	0950614	0950614	0950614	0950614
39	Fan wheel for motor	0995704	-	-	-
42	Contact wheel with bearings	1532150	1535005	1535004	1535007
44	Ball handle M6x \varnothing 25	0331662	0331662	0331662	0331662
47	Lock nut M8	0928644	0928644	0928644	0928644
48	Switch comp.	-	-	-	-
49	Brake Module (Additional)	0188845	0188845	0188845	0188845
50	Thermo relay	-	-	-	-
51	Emergency stop comp.	0188892	0188892	0188892	0188892
52	Relay w/0-volt release coil	-	-	-	-
53	Start/stop protection cover	0188893	0188893	0188893	0188893
55	Split pin \varnothing 4x50 mm	0102266	0102266	0102266	0102266
56	Disc 10x45x4	0860327	0860327	0860327	0860327
57	Disc 10mm	0101491	0101491	0101491	0101491
58	Disc 10mm	2323212	2323212	2323212	2323212
59	Disc 8mm	5437850	5437850	5437850	5437850
60	Screw M4x8	0100425	0100425	0100425	0100425
61	Lock nut M6	0951406	0951406	0951406	0951406
62	Hinge mounting for eye shields	0921475	0921475	0921475	0921475
64	Disc 8mm	6540981	6540981	6510981	6540981
66	Lock ring \varnothing 20	0311262	0311262	0311262	0311262
67	Shaft	0233051	0233251	0233351	0233551
68	Lock ring \varnothing 7	0915720	0915720	0915720	0915720
69	Rubber list 657 mm	1055860	1055860	1055860	1055860
70	Screw M6x12	0930612	0930612	0930612	0930612
71	Wave spring 14x0.3x21	0102268	0102268	0102268	0102268
72	Eccentric for 8 mm motor sheet	0752262	0752262	0752262	0752262
73	Disc 8mm	6540981	6540981	6510981	6540981
78	Screw M4x5	0737620	0737620	0737620	0737620
79	Motor	2030038	-	-	-
80	Parallel key	0110071	-	-	-
88	Disc 6mm	0737631	0737631	0737631	0737631
89	Screw M6x10	0110089	0110089	0110089	0110089
91	Disc 8mm	0105167	0105167	0105167	0105167
97	Star M6	0233807	0233807	0233807	0233807
98	Rest for surface grinding	1055679	1055680	1055681	1055682

3.3 Drawing for Belt Grinding Machine with Exhaust System

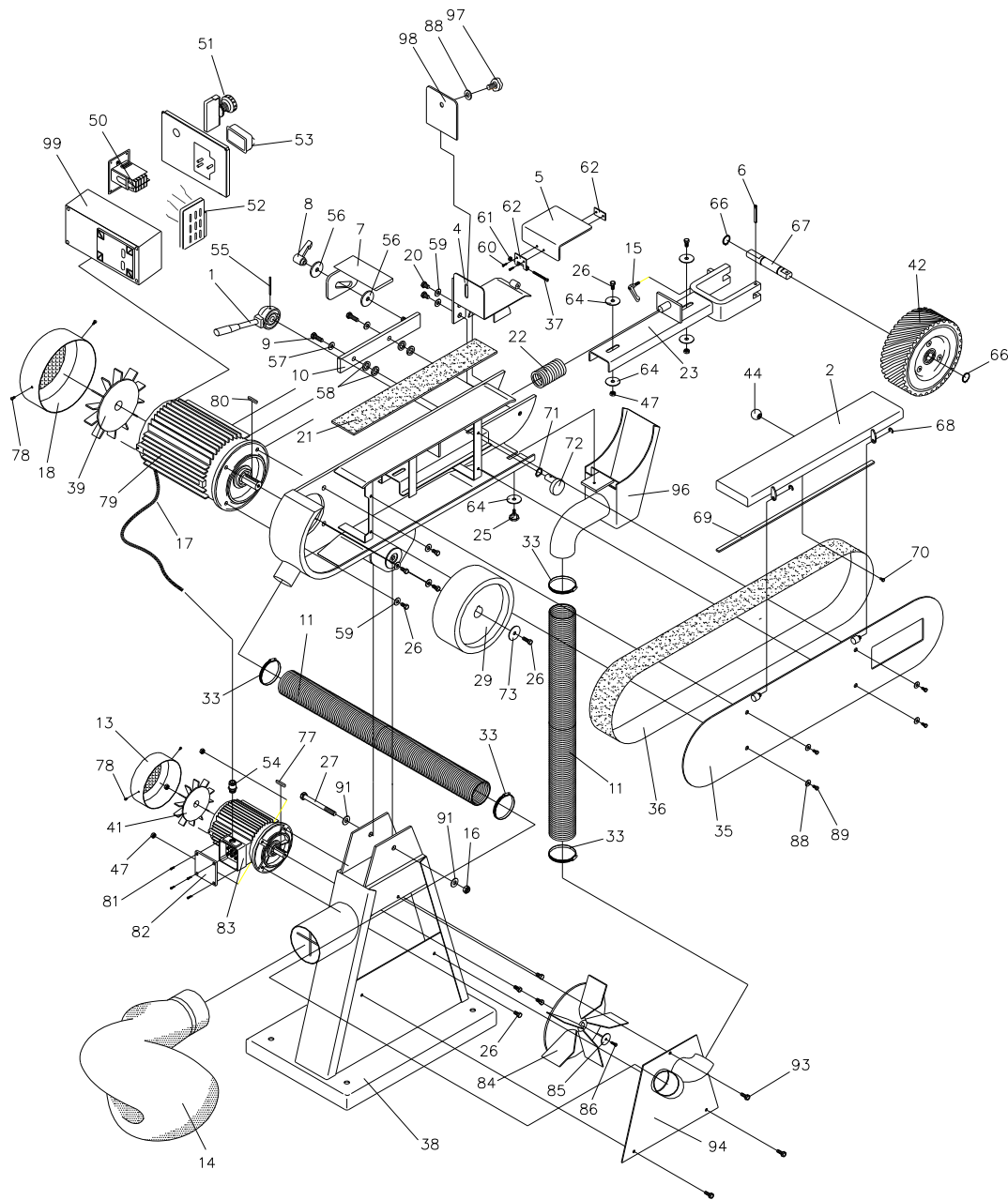


Fig.: 3.2

3.4 Spare parts List for Belt Grinding Machine with Exhaust System

When ordering spare parts please state machine type and serial number together with item number and description of the part according to this list.

Item No.	Description	Part Number			
		75X-2000	75X-2000	100X-2000	150X-2000
1	Belt release handle	0102267	0102267	0102267	0102267
2	Belt guard	1055931	0239202	0239302	0239502
4	Grinding stop/Cover Blue	1055636	0880002	4532342	4532344
5	Eye shield	0233605	0233605	0233705	0233705
6	Split pin $\varnothing 6 \times 50$ mm	0233050	0233050	0233050	0233050
7	Tool rest	1055634	0233207	0233307	0233507
8	Handle for tool rest	0233808	0233808	0233808	0233808
9	Screw M10x25	0300134	0300134	0300134	0300134
10	Support for tool rest	0104373	0104373	0104373	0104373
11	Suction hose $\varnothing 63$	7891011	7891011	7891011	7891011
13	Fan cover for exhaust motor	2075180	2075180	2075180	2075180
14	Dust bag	0811793	0811793	0811793	0811793
15	Handle M6x25	0233025	0233025	0233025	0233025
16	Lock nut M12	0105166	0105166	0105166	0105166
17	Cable	0963084	0963084	0963084	0963084
18	Fan cover for motor	2031017	-	-	-
20	Screw M8x12	0300144	0300144	0300144	0300144
21	Graphite pad	0233022	0233221	0233321	0233521
22	Spring 5,5x43x125x11 mm	0102265	0102265	0102265	0102265
23	Fork for contact wheel	1055629	0101224	0101324	0101524
25	Star handle $\varnothing 32$ M6x16	0233806	0233806	0233806	0233806
26	Screw M8x20	0233020	0233020	0233020	0233020
27	Bolt M12x100	4567832	4567832	4567832	4567832
29	Drive wheel	5020024	-	-	-
33	Hose strap 58-75 mm	0233058	0233058	0233058	0233058
35	Side plate for GRIMAX	6549081	6549081	6549081	6549081
36	Grinding belt	-	-	-	-
37	Screw M6x45 CH	0950614	0950614	0950614	0950614
38	Dust extractor	0239853	0239853	0239853	0239853
39	Fan wheel for motor	-	-	-	-
41	Fan wheel for exhaust motor	2031015	2031015	2031015	2031015
42	Contact wheel with ball bearings	1535005	1535005	1535004	1535007
44	Ball handle M6x $\varnothing 25$	0331662	0331662	0331662	0331662
47	Lock nut M8	0928644	0928644	0928644	0928644
50	Thermo relay	-	-	-	-
51	Emergency stop comp.	0188892	0188892	0188892	0188892
52	Relay w/0-volt release coil	-	-	-	-
53	Start/stop protection	0188893	0188893	0188893	0188893
55	Split pin $\varnothing 4 \times 50$ mm	3454351	3454351	3454351	3454351
56	Disc 10x45x4	0860327	0860327	0860327	0860327
57	Disc 10mm	0101491	0101491	0101491	0101491
58	Disc 10mm	2323212	2323212	2323212	2323212
59	Disc 8mm	5437850	5437850	5437850	5437850
60	Screw M4x8	0100425	0100425	0100425	0100425
61	Lock nut M6	0951406	0951406	0951406	0951406
62	Hinge mounting for eye shields	0921475	0921475	0921475	0921475
64	Disc 8mm	6540981	6540981	6540981	6540981
66	Lock ring $\varnothing 20$	0311262	0311262	0311262	0311262
67	Shaft	0233051	0233251	0233351	0233551
68	Lock ring $\varnothing 7$	0915720	0915720	0915720	0915720
69	Rubber strip 657 mm	1055860	1055860	1055860	1055860
70	Screw M6x12	0930612	0930612	0930612	0930612
71	Wave spring 14x0.3x21	0102268	0102268	0102268	0102268
72	Eccentric for 8 mm motor sheet	0752262	0752262	0752262	0752262
73	Disc 8mm	6540981	6540981	6540981	6540981
77	Parallel key 36x6x6	0110077	0110077	0110077	0110077
78	Screw M4x5	0737620	0737620	0737620	0737620
79	Motor	2030038	-	-	-
80	Parallel key	0110071	-	-	-
81	Screw M4x12	0737610	0737610	0737610	0737610
82	Cover for terminal box	0110082	0110082	0110082	0110082
83	Exhaust motor 0.5HP	2030040	2030040	2030040	2030040
84	Fan wheel large 250 mm	0995704	0995704	0995704	0995704
85	Disc 5mm	0233030	0233030	0233030	0233030
86	Screw M5x30	0331786	0331786	0331786	0331786
88	Disc 6mm	0737631	0737631	0737631	0737631
89	Screw M6x10	0110089	0110089	0110089	0110089
91	Disc 12mm	0105167	0105167	0105167	0105167

93	Screw Taptite M6x16	0910616	0910616	0910616	0910616
94	Side plate for base	0239128	0239128	0239128	0239128
96	Spark box with exhaust system	1055643	0239252	0239352	0239552
97	Star M6	0233807	0233807	0233807	0233807
98	Rest for surface grinding	1055679	1055680	1055681	1055682
99	Switch comp.	-	-	-	-

4. Technical Data

4.1 Technical Specifications

Model	50/50X	75/75X	100/100X	150/150X
Grinding belt	50x2000	75x2000	100x2000	150x2000
Motor 3x380-440 V 50 Hz *	3,6 HK	4,1 HK 4,8 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.	2800	2800	2800	2800
Amp	10.6/6.1	10.6/6.1	10.6/6.1	10.6/6.1
Cos	0,91	0,91	0,91	0,91
Belt speed (m/s)	30/34	30	30	30
Contact wheel	Ø200x50	Ø200x75	Ø200x100	Ø200x150
Grinding surface	540 mm	540 mm	540 mm	540 mm
Fan motor (only X-model)	0,5 HK	0,5 HK	0,5 HK	0,5 HK
Weight without fan/with fan	85 kg/111 kg	85 kg /111 kg	90 kg/ 116 kg	114 kg /140 kg

* 5,5 HP motor available.

4.2 Dimensions

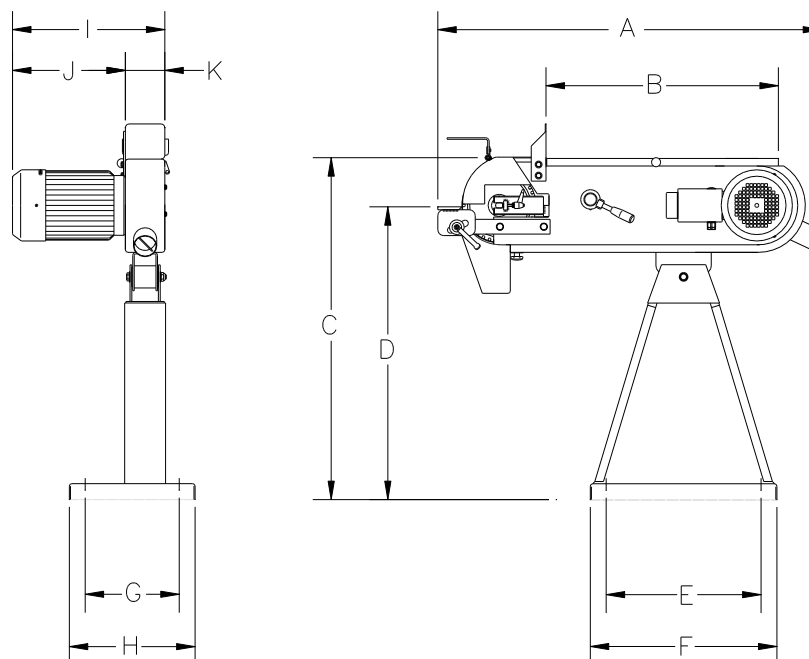


Fig.: 4.2

Model	A	B	C	D	E	F	G	H	I	J	K
50	995	660	890	780-1070	420	506	255	341	392	306	86
75	995	660	890	780-1070	420	506	255	341	413	306	107
100	995	660	890	780-1070	420	506	255	341	439	306	133
150	995	660	890	780-1070	420	506	255	341	491	306	185

4.3 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 are the following kinds of circuit diagrams:

- One velocity grinder without brakes see Fig. 4.3.1 and 4.3.2
- One velocity grinder with brakes see Fig. 4.3.3 and 4.3.4
- Two velocity grinder with no brakes see Fig. 4.3.5 and 4.3.6

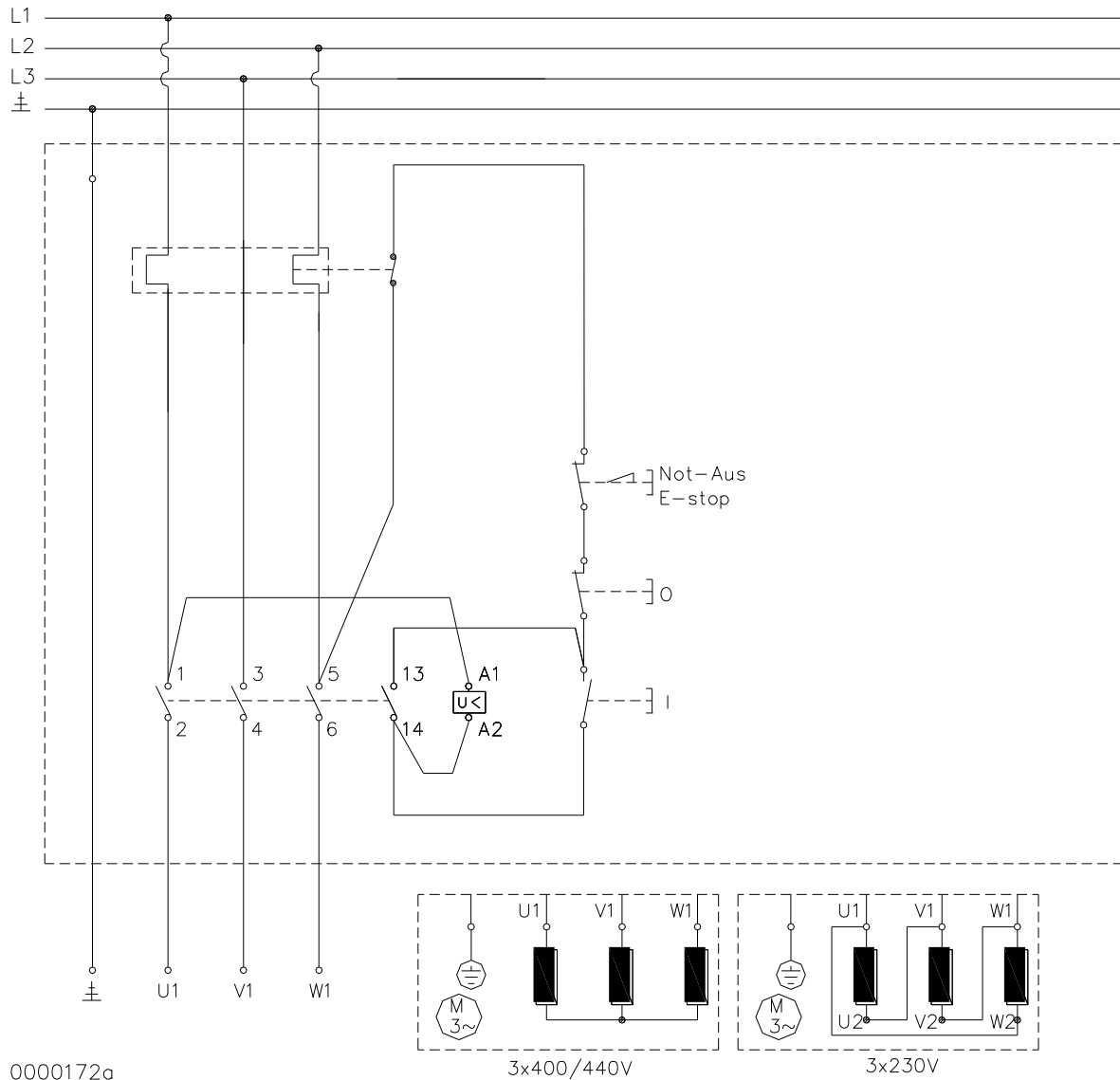


Fig. 4.3.1.: Diagram of belt grinder with no exhaustmotor.

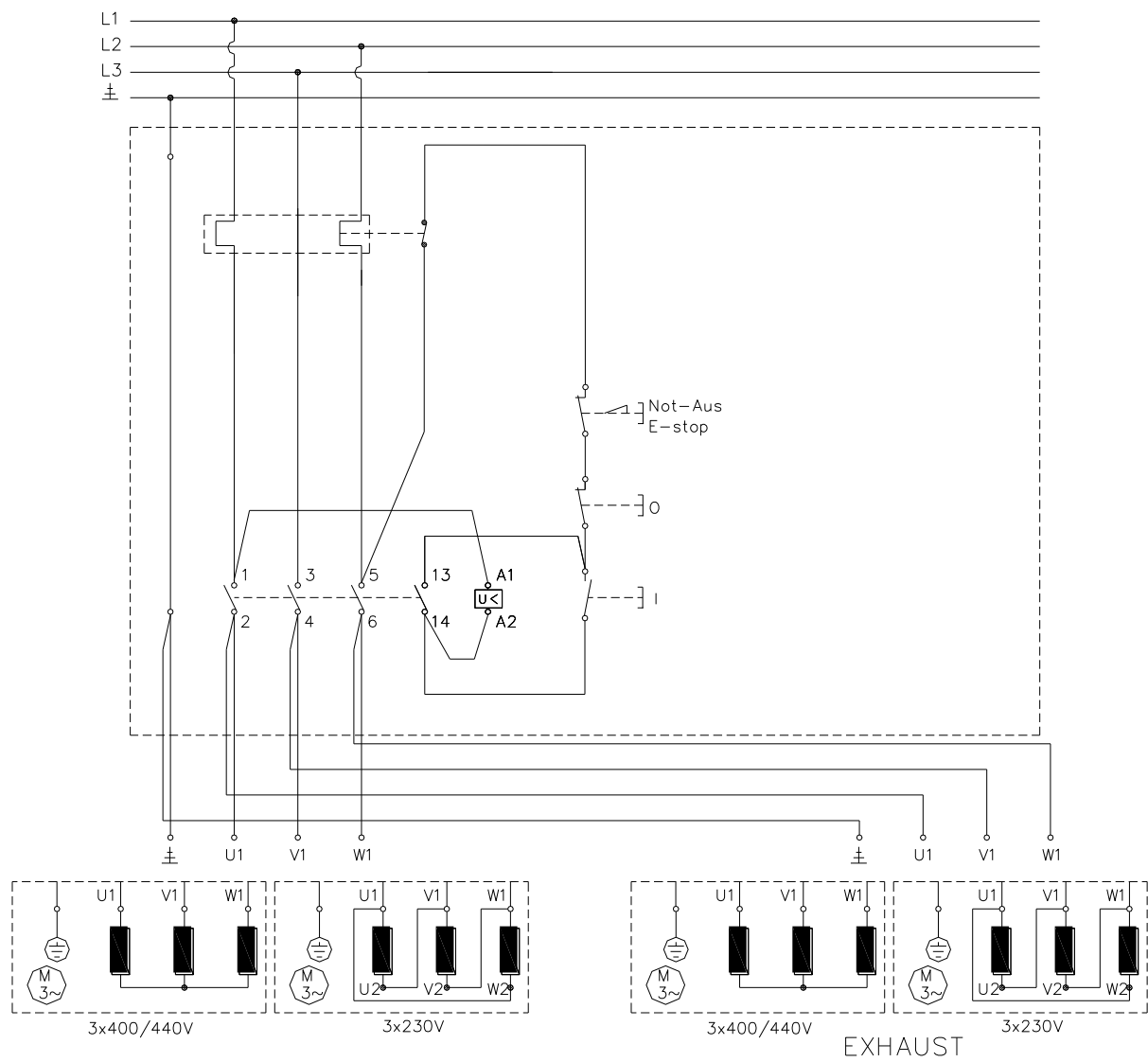


Fig. 4.3.2.: Diagram of belt grinder with exhaustmotor.

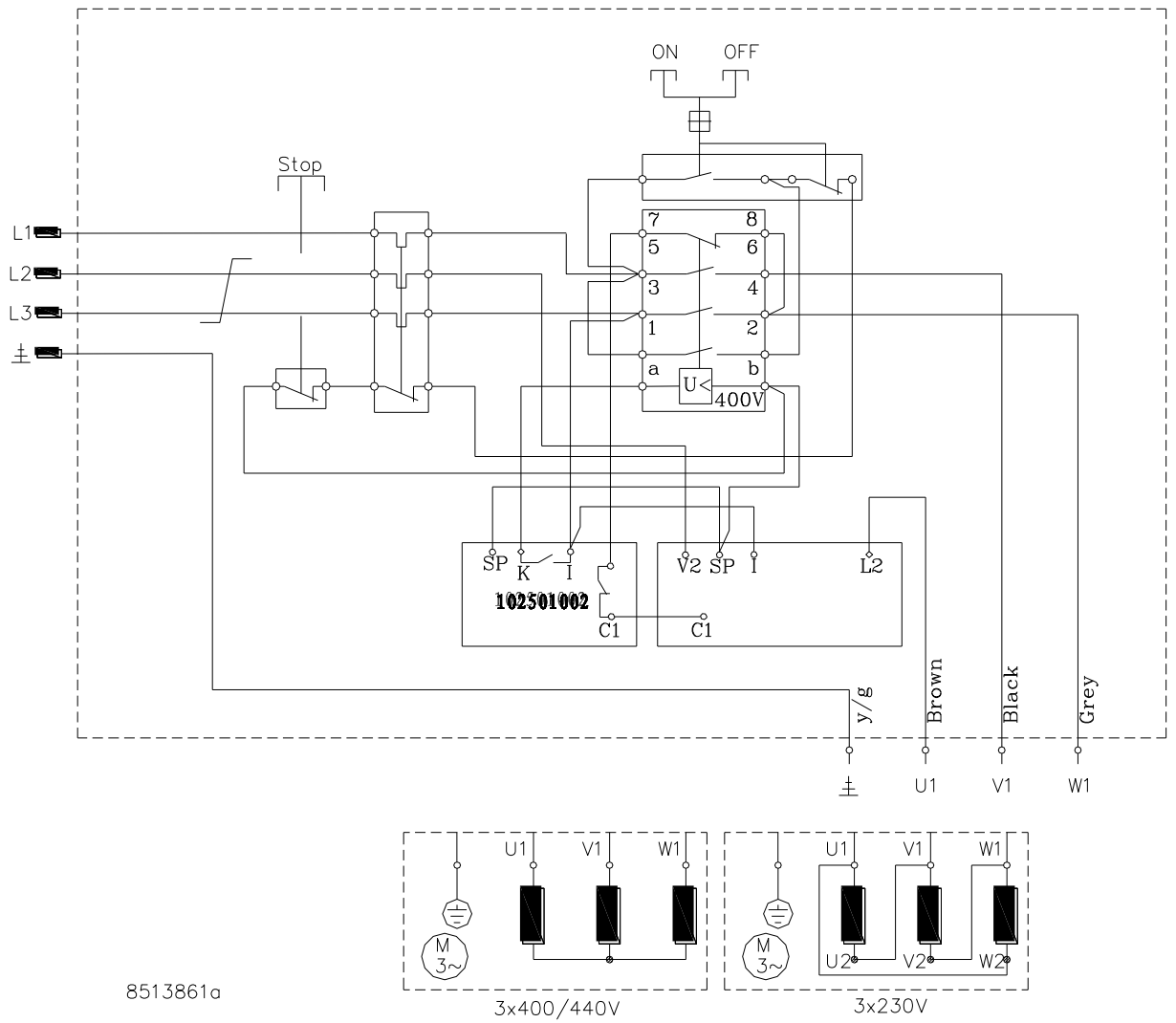


Fig.: 4.3.3 Diagram of belt grinder with brake and no exhaustmotor.

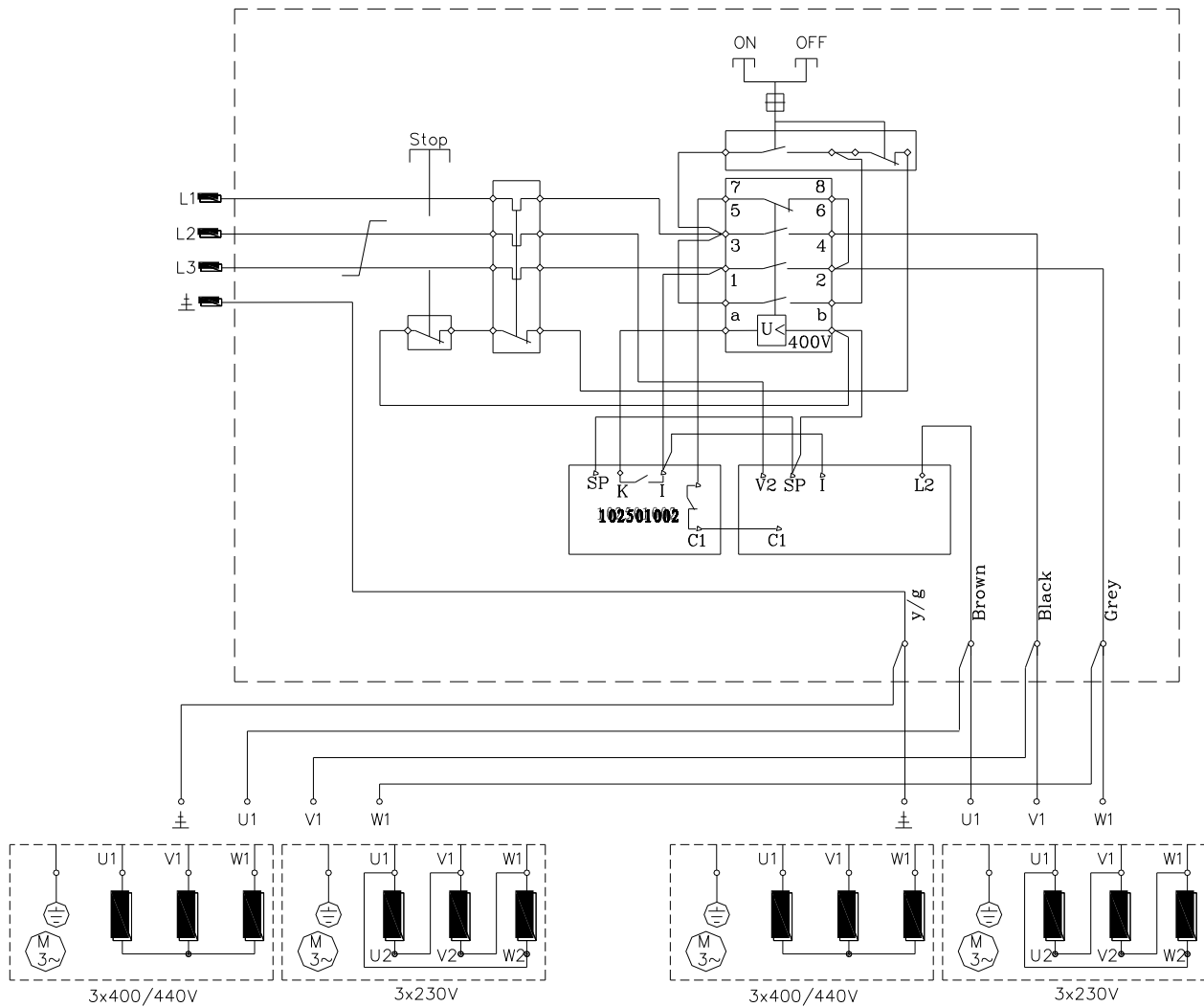


Fig.: 4.3.4 Diagram of belt grinder with brake and exhaustmotor.

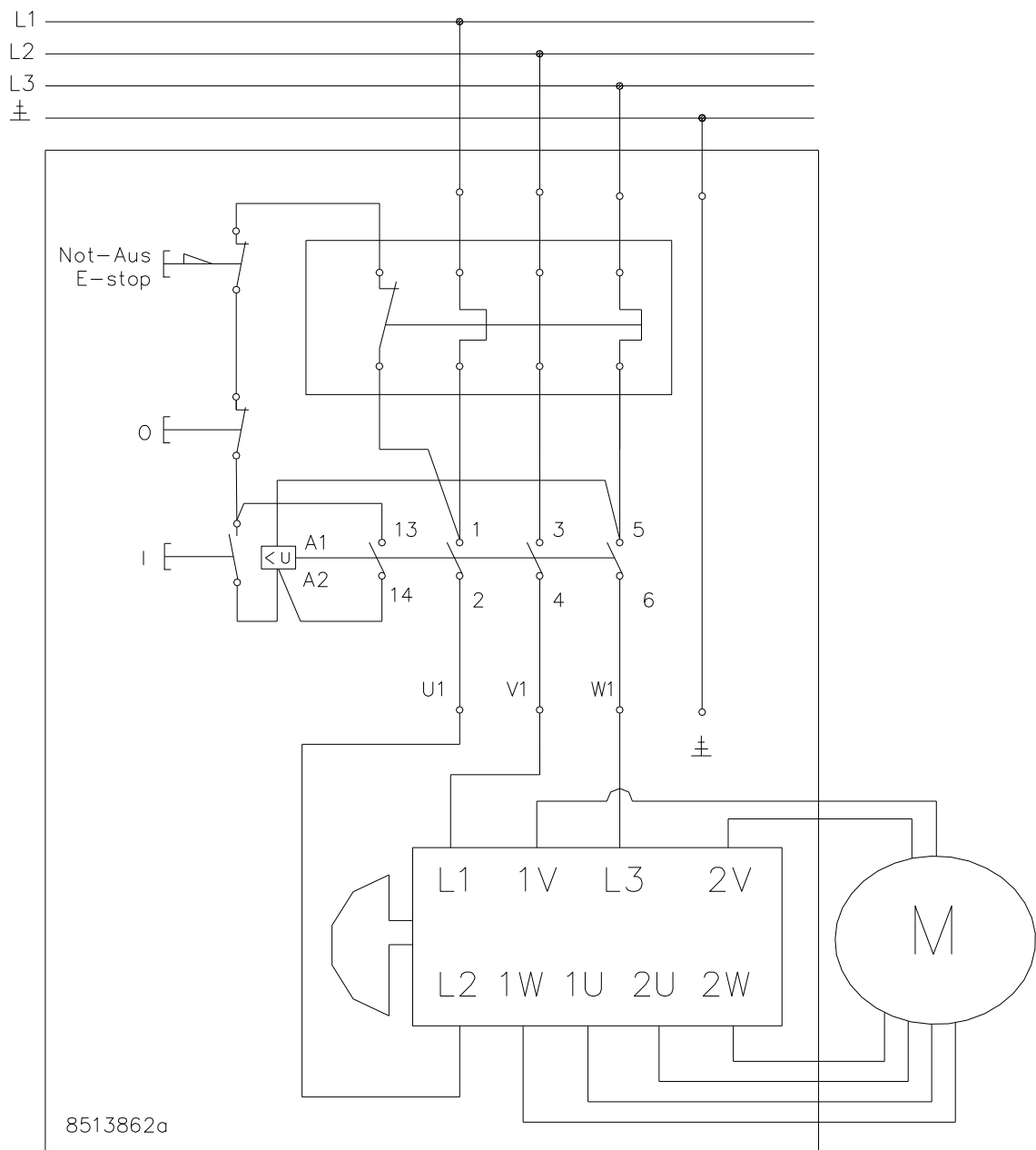


Fig.: 4.3.5 Diagram of belt grinder with two velocities and no exhaustmotor.

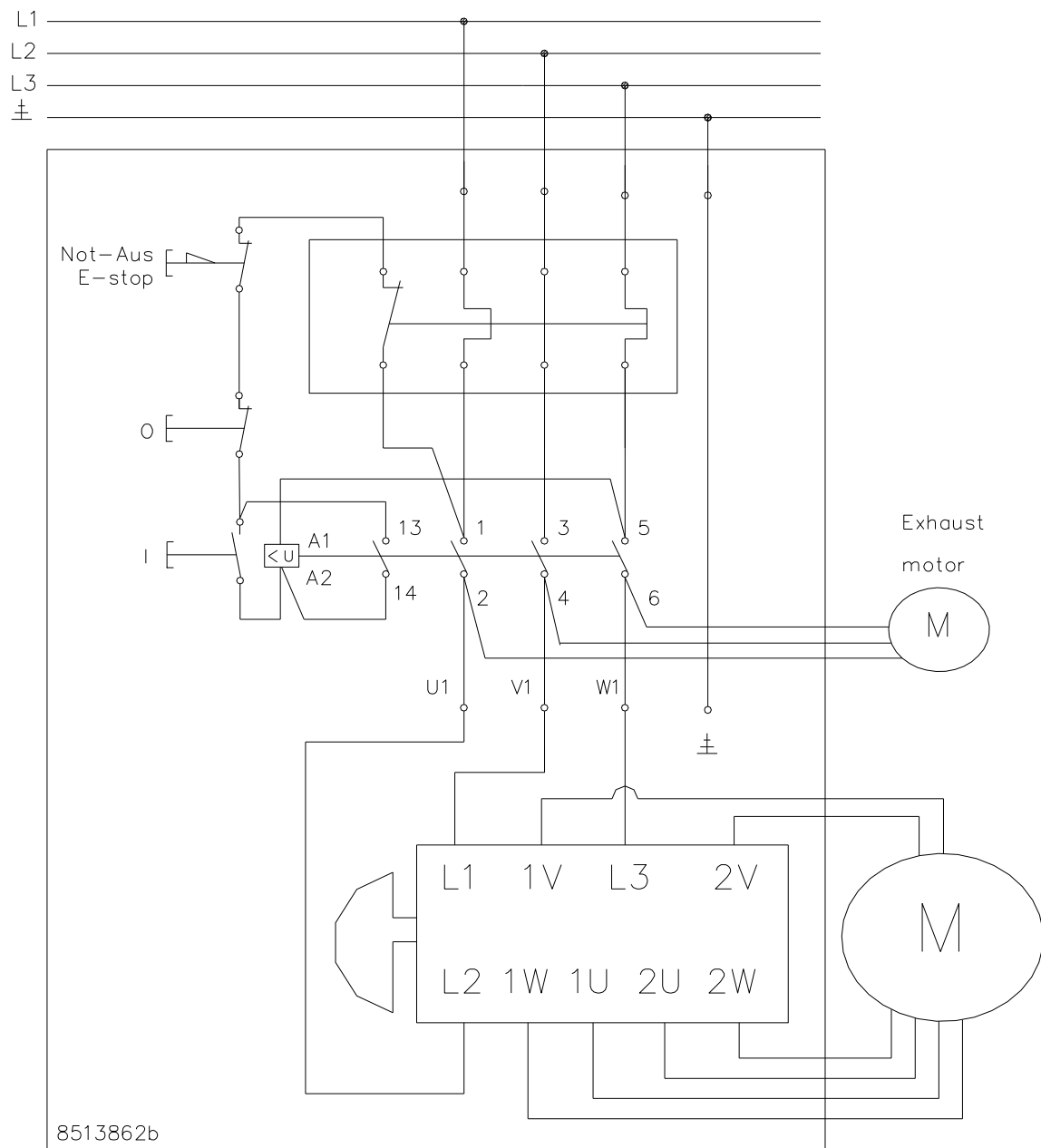
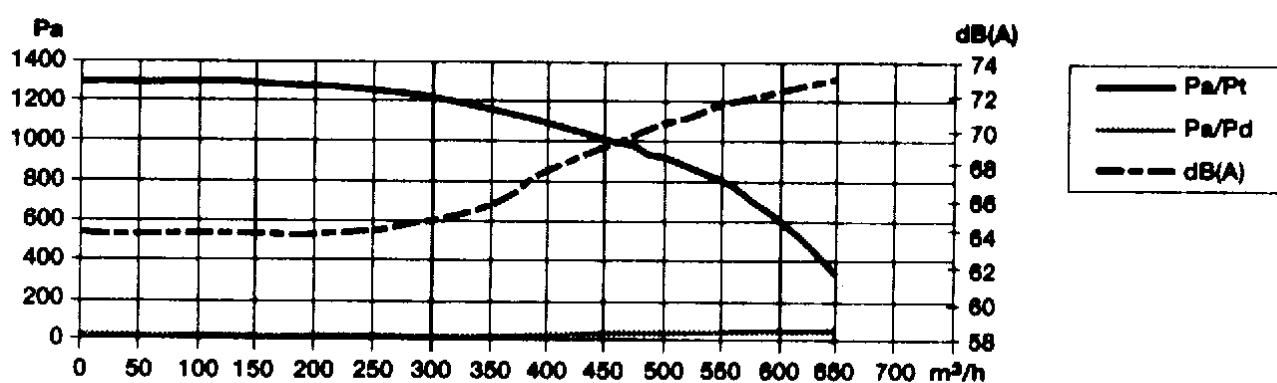


Fig.: 4.3.6 Diagram of belt grinder with two velocities and exhaustmotor.

4.4 Pressurediagram

The fan is especially developed for belt grinders. It can set up a pressure up to 1300 Pa and a air flow from 0 to 650 m³/hour. It is constructed of 1,5 mm steel plate and is spot welded. It has a 3-phase motor 3x230/400 V and 1x230V 50/60 Hz, 2800 r.p.m. . The fan is enclosed in Class IP 54.



LIMITED WARRANTY

Industrial Tool & Machinery Sales (hereinafter referred to as ITMS) will, within twelve (12) months from the original date of purchase, repair or replace any goods found to be defective in materials or workmanship.

This warranty is void if the item has been damaged by accident, neglect, improper service or other causes not arising out of defects in materials or workmanship. This warranty does not apply to machines and/or components which have been altered, changed, or modified in any way, or subjected to overloading or use beyond recommended capacities and specifications. Worn componentry due to normal wear and tear is not a warranty claim. Goods returned defective shall be returned prepaid freight to ITMS or agreed repair agent, which shall be the buyer's sole and exclusive remedy for defective goods. ITMS accepts no additional liability pursuant to this guarantee for the costs of travelling or transportation of the product or parts to and from ITMS or the service agent or dealer, such costs are not included in this warranty.

Our goods come with guarantees which cannot be excluded under the Australian Consumer Law. You are entitled to replacement or refund for a major failure and to compensation for other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

THE MANUFACTURER RESERVES THE RIGHT TO MAKE IMPROVEMENTS AND MODIFICATIONS TO DESIGN WITHOUT PRIOR NOTICE.

PRODUCTS IMPORTED AND DISTRIBUTED NATIONALLY BY:



INDUSTRIAL TOOL & MACHINERY SALES

18 BUSINESS ST, YATALA QLD 4207

T: 07 3287 1114 E: sales@industrialtool.com.au

F: 07 3287 1115 W: www.industrialtool.com.au