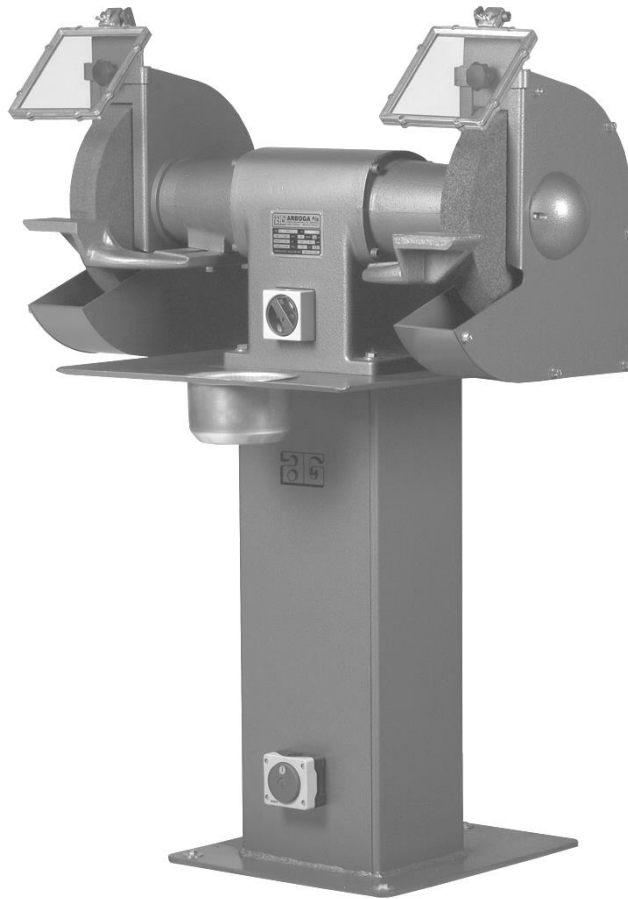




# ARBOGA

**Manual**  
**E 312 - EP 312 – EPB 312- BOP 312**  
**Industrial Grinding Machine**



CE

EN

**INDUSTRIVEJ 3-9 · DK-9460 BROVST · DENMARK**  
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## EC declaration of conformity



### **ARBOGA A/S**

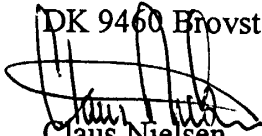
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hereby declares that

**ARBOGA Double Ended Grinders** 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  
  
Claus Nielsen,  
Producent



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# 1 Transport & handling

## 1.1 Transport

E 312 Industrial grinding machine is delivered mounted on a pallet packed in protective wrapping.

## 1.2 Handling

E 312 Industrial grinding machine is portable in the packing in which it is delivered. If the grinding machine is supplied with a pedestal please note that the pedestal is safely secured to the transport pallet.

## 1.3 Placing

Placing of the industrial grinder must take place on a firm and level ground.

Tighten the grinding machine to the floor or the work table by using the four holes used for securing the machine to the pallet.

The wiring of the machine must be performed within the given range on the motor sign.

The machine must be wired according to the Wiring diagram (see section 6.3).

The wiring must be performed by an authorized electrician. Make sure that the motor (and eventually KU 12-exhaust system) has the correct direction of rotation (see the arrow on the cover).

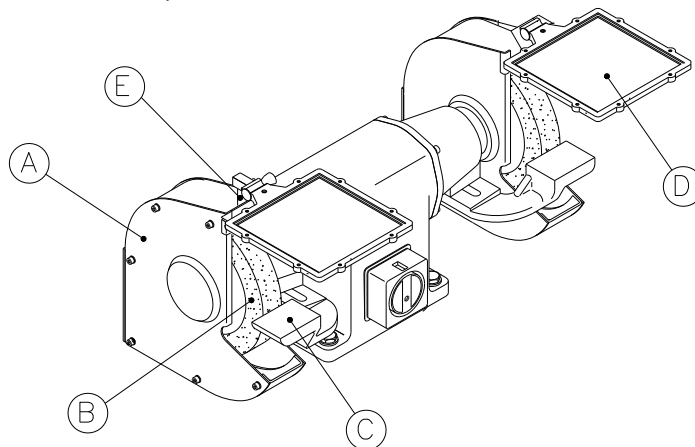


Fig.: 1.1

Control before use that the outer cover (A) (see *fig.: 1.1*) is solidly mounted to the inner cover. The outer cover must be mounted during operation. Only have the outer cover dismounted during changing the grinding wheel. The grinding wheel (B) must be able to rotate freely without being loose. The tool rest (C) must be adjusted to a distance of appr. 2 mm from the grinding wheel.

The eye shield (D) must be clean and adjusted to the right position and the spark arrester (E) is adjusted to a distance of appr. 5 mm from the grinding wheel and lightly tightened.

All these checks and adjustments may only be performed while the machine is disconnected.

First time you start up the machine please let the machine run at max speed for 5 minutes before start grinding. Make sure to stay in a safe distance of the machine during the test run.

## 2 Operator's guide

### 2.1 Operation

After wiring and adjusting of the above is the grinding machine is now ready for use. Slowly lead the work piece to the grinding wheel and avoid uneven grinding. Always grind with a light pressure to avoid destruction of the grinding wheel and not to overload the motor. Let the machine run at max speed before start grinding. Always pursue to grind as close to max speed as possible. Secure the work piece if possible by using a vice or clamps. This is safer than holding the work piece in your hands.

Avoid grinding on the side of the grinding wheel unless grinding on a cup wheel. Do not stop the rotation of the grinding wheel by pressing a work piece against it, let it stop the rotation by itself. It is important to have the work area well lighted.

### 2.2 Safety rules for stationary power tools.

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



The very 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 accommodate 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.**

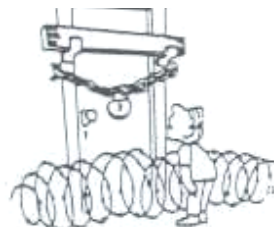
**5. Keep work area clean. Cluttered areas and benches invite accidents.**



**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.**



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



**8. Make workshop kidproof 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.



**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 jewelry 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.



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



**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.



**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.

## 2.3 Maintenance

The grinding machine must be placed in a dry place to avoid the grinding wheels getting moist from damp or rain.

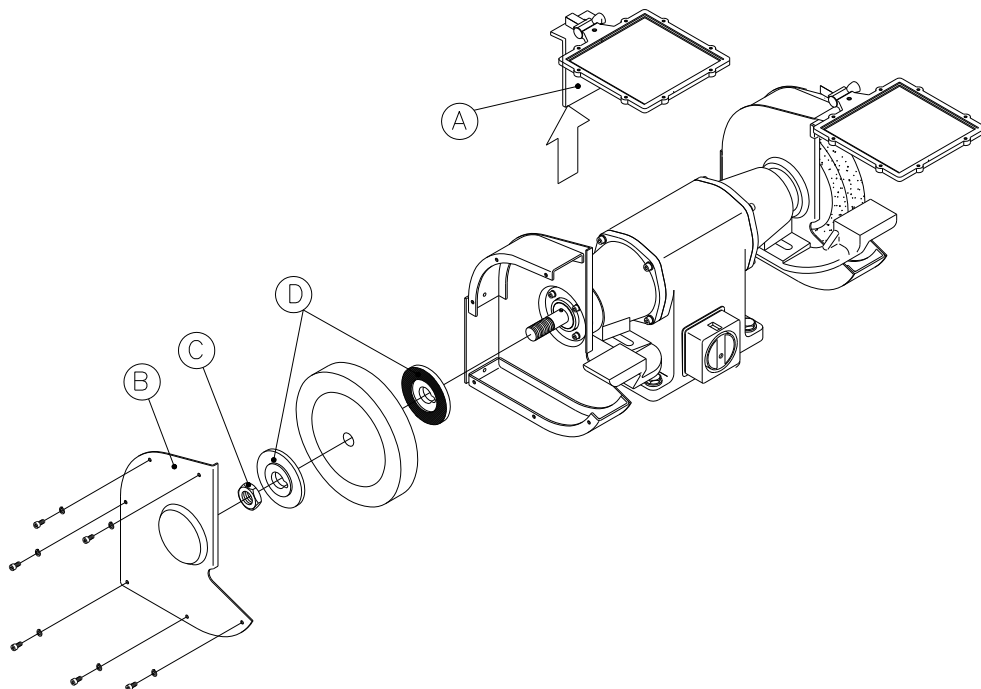
The grinding wheel often gets uneven during use and therefore we recommend that you dress the grinding wheel regularly. When the grinding wheel is worn more than 25%, we recommend that you change it. An uneven grinding wheel causes vibrations which with time destroys the bearings in the machine.

Damaged tool rests, eye shields and covers must be replaced immediately to avoid personal injuries.

When the grinding wheel is to be replaced first the spark arrester (A) (see *fig.: 2.1*) is dismantled and then the outer cover (B) is removed. The nut (C) is unscrewed and the outer flange and the grinding wheel are removed. The new grinding wheel is not to exceed the measures given on the motor sign on the machine. It is important that the hoe dimension is correct.

The grinding wheels are supplied with labels placed around the holes on both sides of the grinding wheel. If these labels are missing or damaged they must be replaced by labels of the same dimensions immediately.

The new grinding wheel is mounted between the two flanges (D) and the nut (C) is screwed back on and tightened. The nut (C) must be tightened enough to hold the grinding wheel firmly tightened but not too tight as this will cause unwanted tensions in the grinding wheel.



*Fig.: 2.1*



## 3 Belt arm

### 3.1 Assembling and mounting of the belt arm

If the grinding machine is mounted with a grinding cover this must be dismantled completely before mounting the belt arm.

Mount the telescope arm (A) on the bearing end shield of the machine and then mount the telescope arm (A) to the box cover (B) by using the fitting for the telescope arm (C) and securing the box cover (B) by screwing a screw through the side plate into the holder for the telescope arm (D). The top roll (E) must be inside the box cover (B).

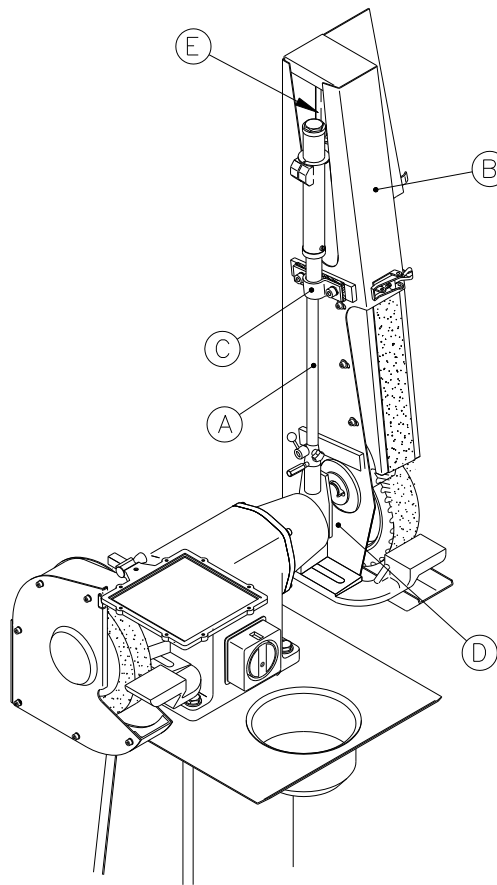


Fig.: 3.1

The fitting for the telescope arm (C) must not be tightened harder than it is still possible to adjust the direction of rotation on the grinding belt.

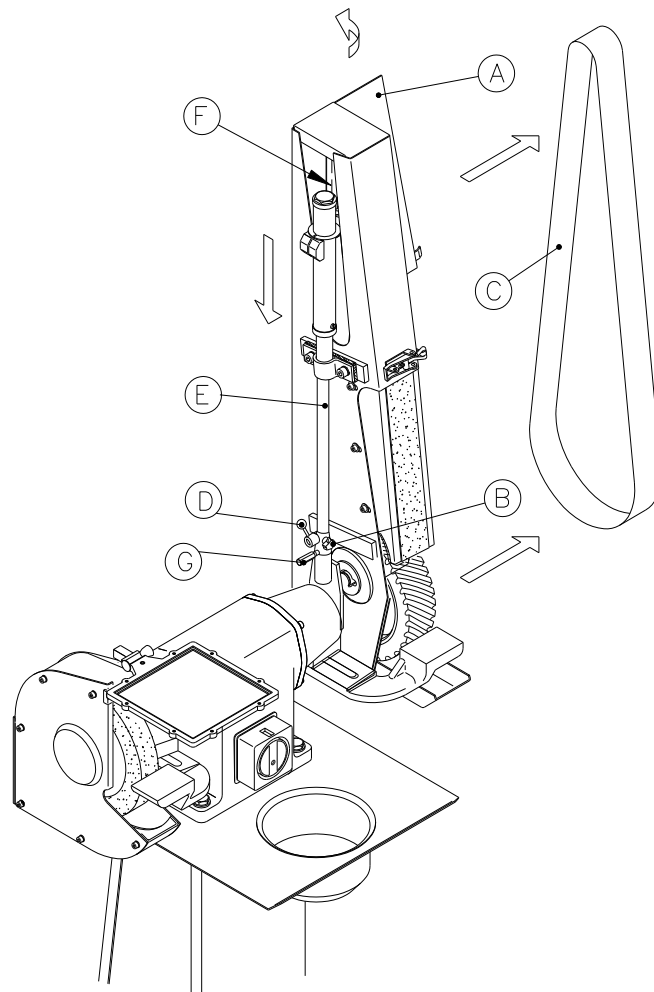
The flanges, contact wheel and the lock reverse nut is mounted (see split drawing of the belt arm for mounting order). Control that the top roll (E) and the contact wheel run parallel. The position of the contact wheel can be adjusted by means on the distance rings supplied.

The top roll (E) can be loosened and adjusted so that it fits the desired grinding belt length.

### 3.2 Changing the grinding belt

When the grinding belt is worn out it must be replaced the following way: The lid cover (A) (see *fig.:* 3.2) on the box cover is opened and the cross handle (B) is loosened and the handle (D) is tilted back. This way there will be no load on the grinding belt (C), so that it can be dismantled and a new belt can be fitted in reverse order. Control that the arrows on the back of the belt correspond to the direction of rotation. When the new grinding belt is mounted it is necessary to adjust for straight run with the handle (G), which is loosened on the telescope arm (E) and the top roll (F) can be turned until the belt runs perfect on the contact wheel. Now tighten the handle (G).

**This adjustment of the grinding belt may only be performed by pulling the belt by the hands and NOT while the machine is running.**



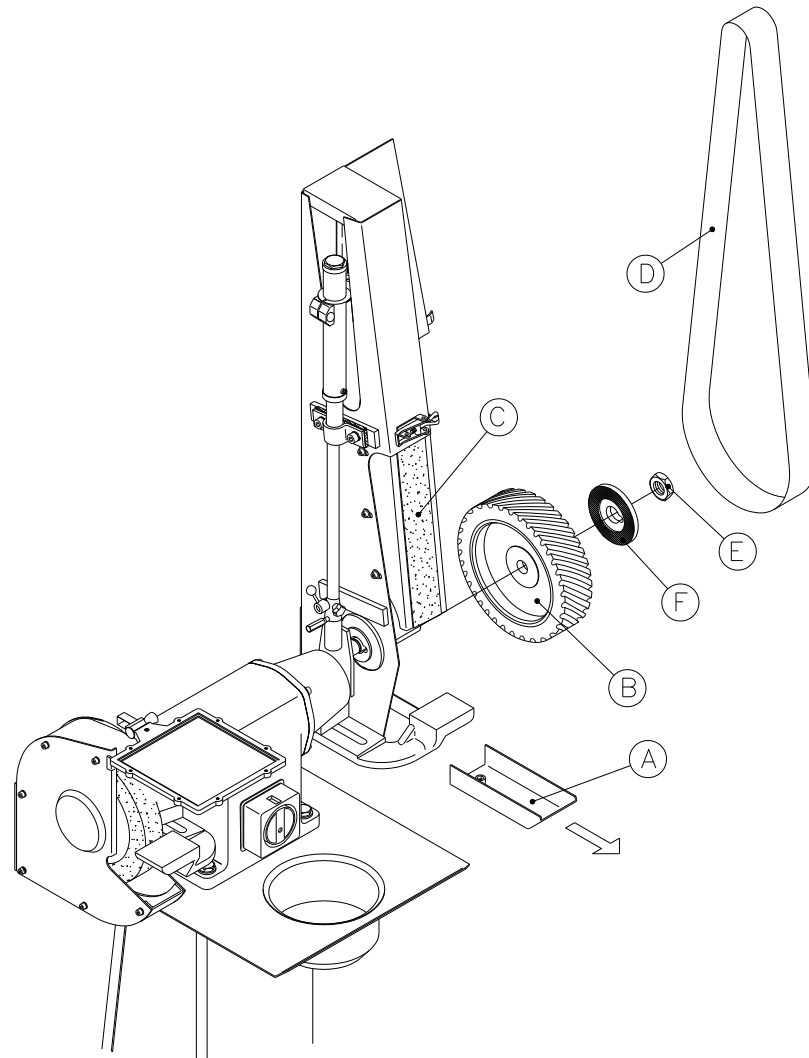
*Fig.:* 3.2

There are many types of grinding belts and therefore very important to choose the correct type. You need to consider the material to be processed and you can vary the grit size, belt material and glue.

In this connection we can mention that there are various contacts wheels with various softness and shapes for different purposes.

### 3.3 Maintenance of the belt arm

Regularly empty the spark arrester (A) (see *fig.:* 3.3) to prevent hot sparks in destroying or deforming the grinding belt and contact wheel. If the machine is supplied with KU 12-exhaust unit regularly check if the suction channels need cleaning. The dust bag is emptied or changed whenever necessary. The contact wheel (B) should be replaced if the edges have been worn round or the lane is defective. Change the graphite pad (C) on the grinding surface when necessary.



*Fig.:* 3.3

When changing the contact wheel the grinding belt (D) is removed as described as above.

The nut (E) is unscrewed and the flange (F) is taken off together with the contact wheel (B). The new contact wheel (B) is mounted in reverse order.

### 3.4 Operating the belt arm

Grinding on the belt arm can take place both at the contact wheel on the grinding surface. It is also possible to dismount the grinding surface and grind on the grinding belt alone. Lead the work piece slowly towards the grinding belt and avoid uneven grinding. Always use a light but firm pressure to avoid destroying the grinding belt and overloading the motor.

## 4 KU 12-exhaust system

### 4.1 Assembling and mounting the KU 12-exhaust unit

The following description on assembling and mounting of the KU 12-exhaust unit. The angle (A) (see *fig.: 4.1*) is first mounted at the back of the EPB 312-machine and then as shown on the KU 12-motor. Dismount the blind stopper at the back of the EPB 312-machine and mount the connector (B). Dismount the switch on the EPB 312-machine without unscrewing the cables. Lead the cable (C) through the connector (B) and mount the protection hose (D) to the connector (B). Mount the cables from the KU 12-exhaust unit on the switch (see the wiring diagram). Mount the switch again. Dismount the blind stoppers on the cover or the belt arm and instead mount the lid (E) with the outlet. Also remember to mount the cork washers (F). To fit the suction hoses (G) and mount these with the straps (H). The KU 12-exhaust unit must before use be mounted with suction hoses on the outlet (I), which then is connected to the central exhaust unit. If the central exhaust unit is not equipped with a cyclone, the exhaust from the KU 12-exhaust unit must be connected to a cyclone which then is connected to the central exhaust. If there is no central exhaust you have to mount dust bags (J) on the outlet (I).

In case the KU 12-exhaust unit is mounted on a EP 312 double grinder the cast pipe bends (K) can be used for mounting the KU 12-exhaust unit to the grinding machine so that the angle (A) and the suction hoses (G) with accessories can be left out.

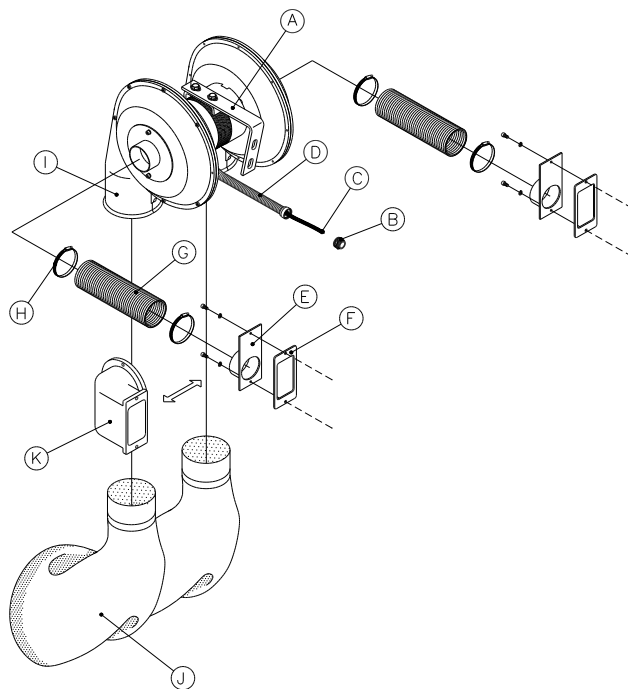


Fig.: 4.1

### 4.2 Maintenance of the KU 12-exhaust unit

Nothing on the KU 12-exhaust unit needs maintenance besides it is necessary to check if the suction hoses are in good condition and if the suction channels need cleaning.

## **5 16-exhaust unit**

### **5.1 *Maintenance of EX-16-exhaust unit***

Nothing on the EX16-exhaust unit needs maintenance except for it is necessary to examine if the suction hoses are in good shape and the suction channels need cleaning. Check and change the dust bag regularly.

## 6 Spare parts list

### 6.1 Machine display of E 312 – EP 312 – EPB 312 – BOP 312

In the following we have illustrated split drawings and belonging spare parts lists.

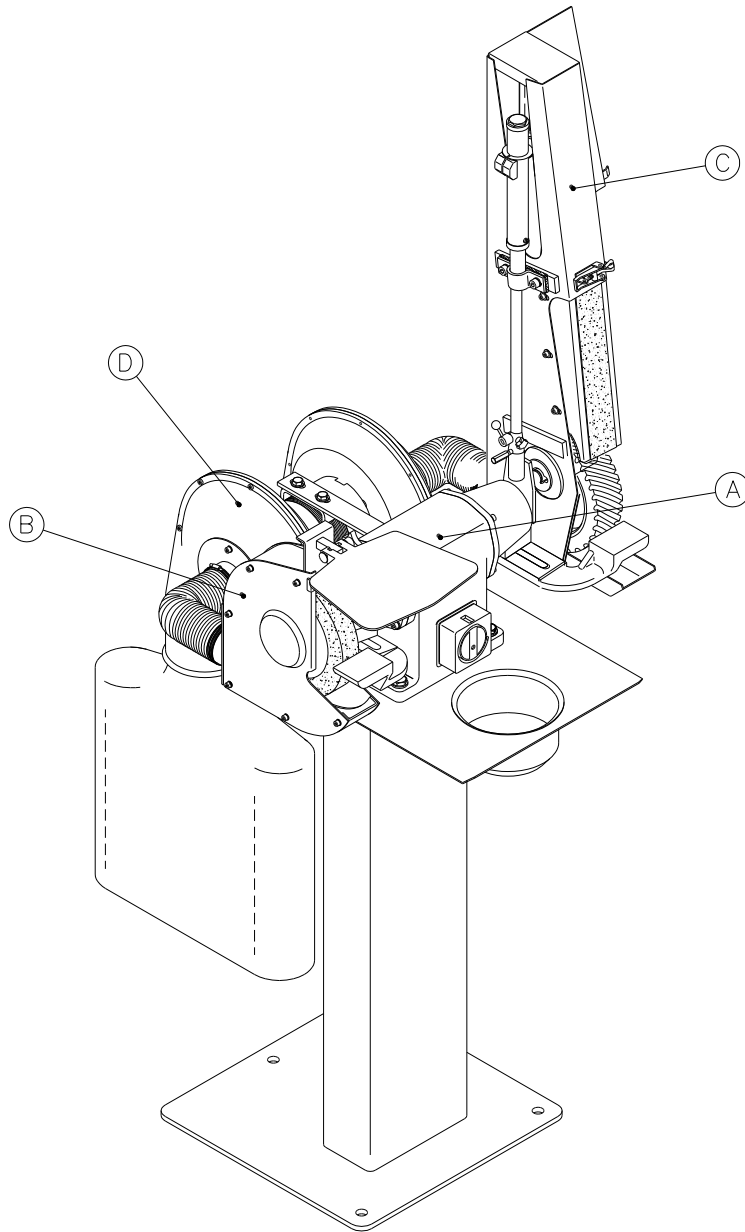


Fig.: 6.1

(A) Motor part, (B) Grinding cover, (C) Belt arm, (D) KU 12-exhaust unit.

## 6.2 Split drawing of E 312 basic model

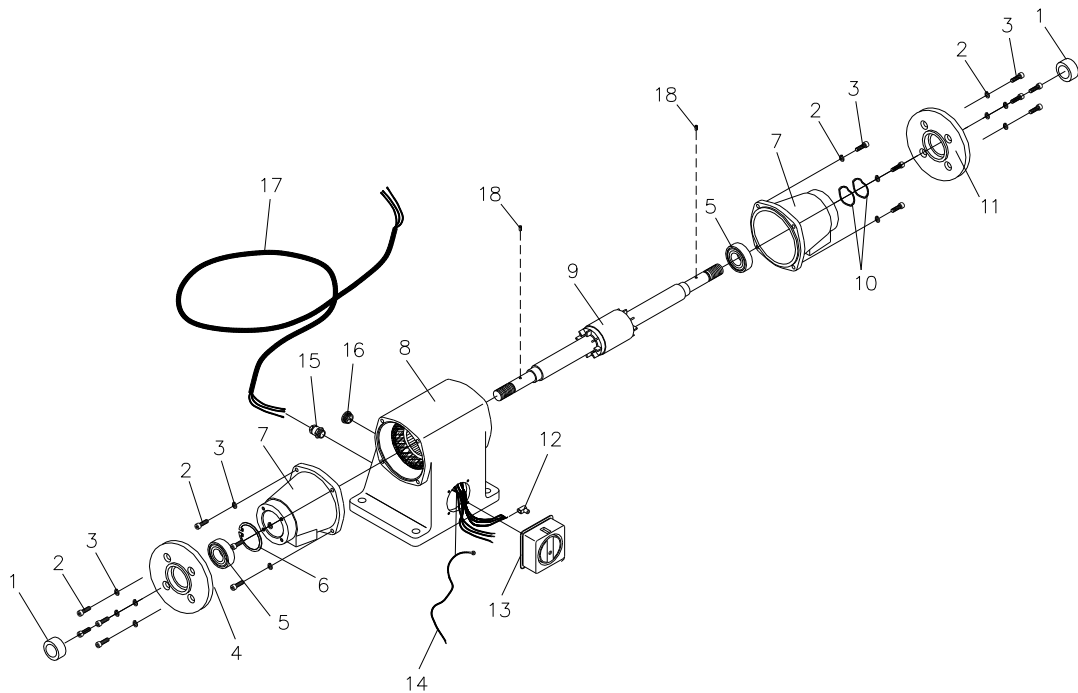


Fig.: 6.2

## 6.3 Spare parts list for E 312

Pos. no	Description	Ident. no
1	Distance bushing E 312	0744522
2	Bolt unbraco M8x16	0120510
3	Spring disc DIM 8Z	0132594
4	End lid cover LEFT	0739650
5	Bearing 6307 2Z	0137979
6	Lock ring int. ø80	0113913
7	Bearing end shield E 312	0739634
8	Stator frame 1400 RPM	0771073
8	Stator frame 2800 RPM	0771074
9	Rotor cpl. 1400 RPM	0766933
9	Rotor cpl. 2800 RPM	0766968
10	Spring wave 79x71x0,5	0100324
11	End lid cover RIGHT	0739669
12	Connecting piece	0114065
13	DISA –switch	0188815
14	Earth cable	1461327
15	Cable lead through PG11	0105154
16	Grey plastic stopper PG 11	0605550
17	Cable1700-6,78-4G 0,75	0963097
18	Cylinder pin ø6x10	0342734



## 6.4 Split drawing of BO 10 basic model

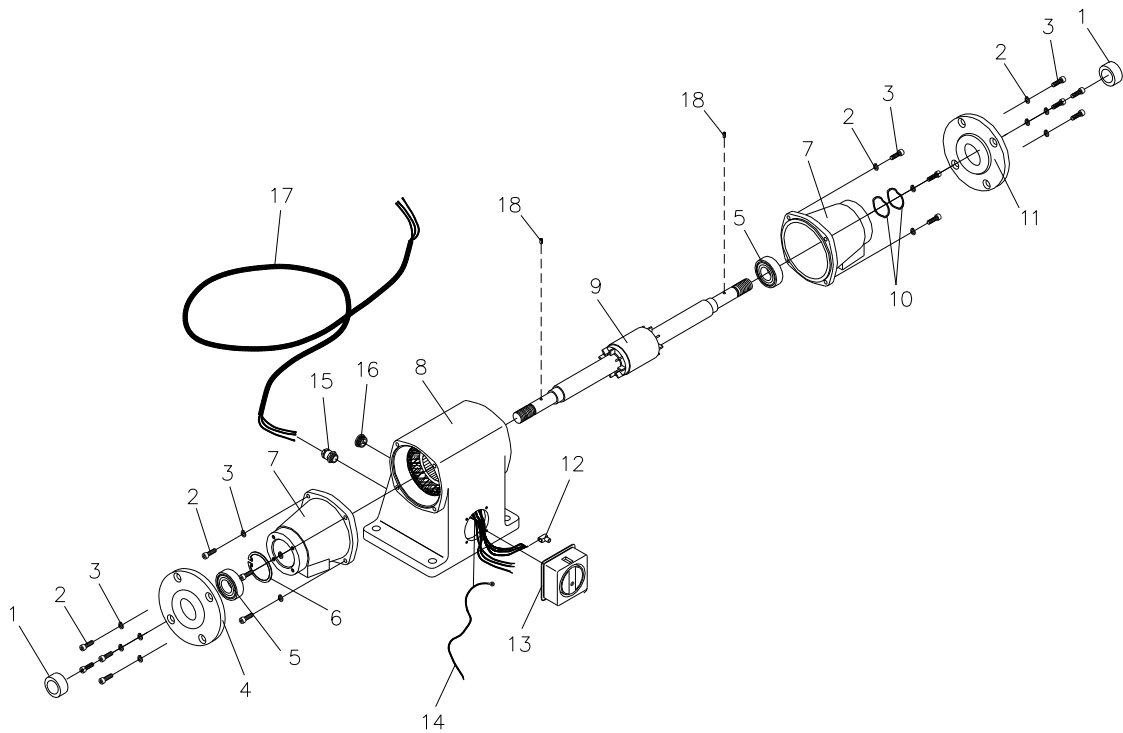


Fig.: 6.3

## 6.5 Spare parts list for BO 10

Pos No	Description	Ident. No
1	Collar bushing BO 10	0744522
2	Bolt unbraco M8x16	0120510
3	Spring disc DIM 8Z	0132594
4	End lid cover LEFT	0743968
5	Ball bearing 6307 2Z	0137979
6	Lock ring int. ø80	0113913
7	Bearing end shield BO 10	0739634
8	Stator frame 1400 RPM	0771073
8	Stator frame 2800 RPM	0771074
8	Stator frame 1400/2800 RPM	0771075
9	Rotor cpl. 1400 RPM	0766941
9	Rotor cpl. 2800 RPM	0766933
10	Spring wave 79x71x0,5	0100324
11	End lid cover RIGHT	0743996
12	Connecting piece	0114065
13	DISA – switch	0188815
14	Earth cable	1461327
15	Cable lead through PG11	0105154
16	Grey plastic stopper PG 11	0605550
17	Cable 1700-6,78-4G 0,75	0963097
18	Cylinder pin ø6x10	0342734



## 6.6 Split drawing of E 312 cover

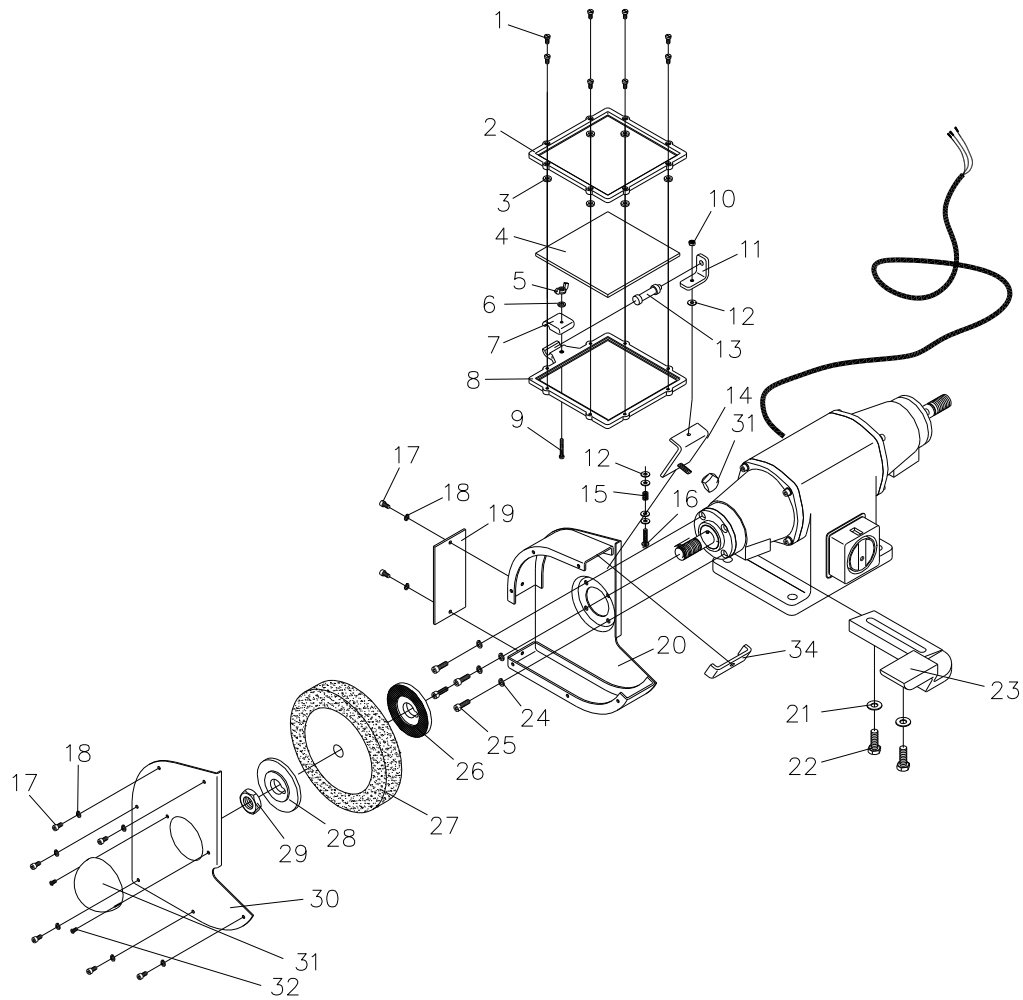
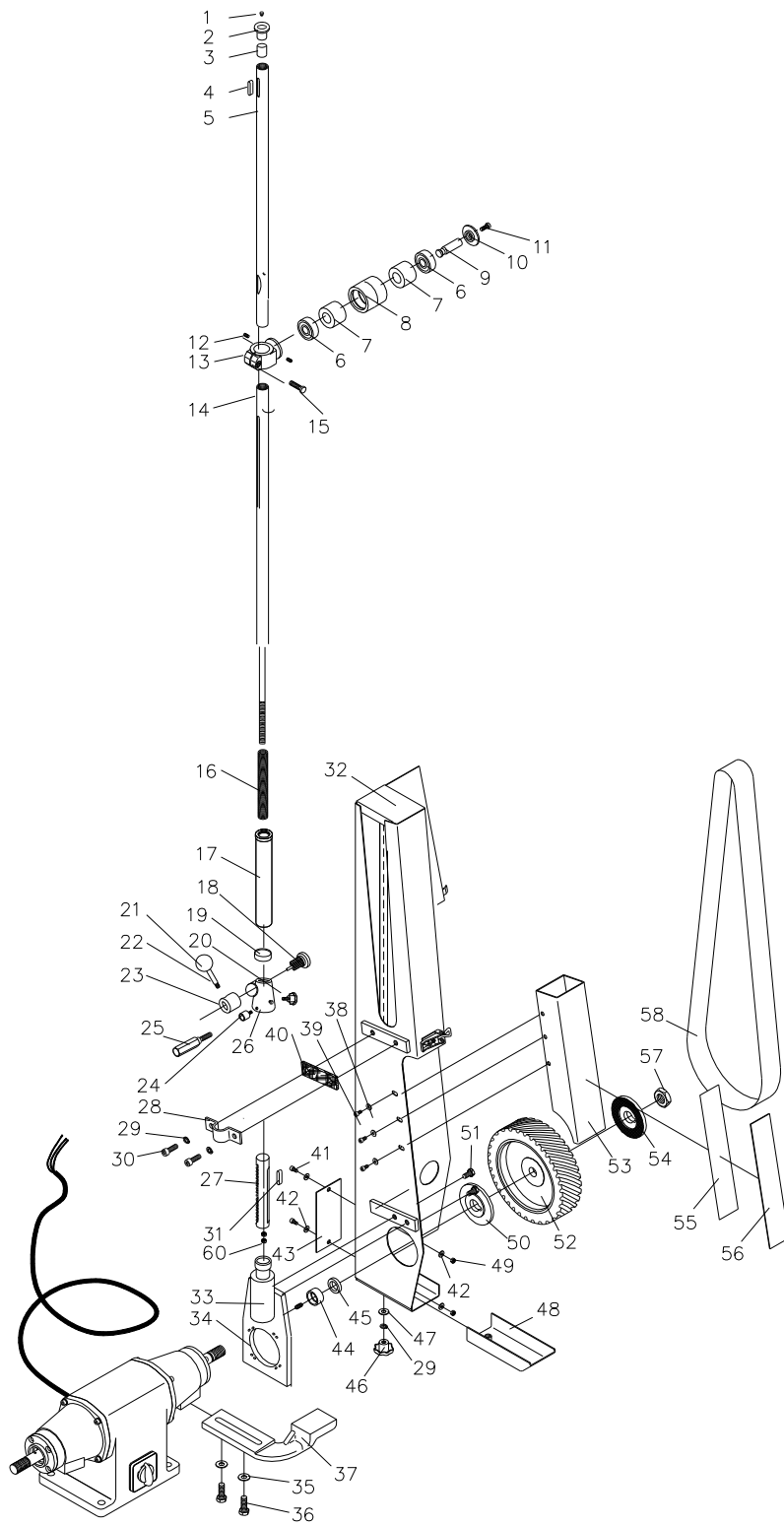


Fig.: 6.4

## 6.7 Spare parts list for E 312 cover

Pos No	Description	Cover L	Cover R
1	Machine screw M4x10	0100425	0100425
2	Frame f/eye shield	0111807	0111807
4	Glas 150x150x6 LEXAN clear	0110389	0110389
5	Wing nut M6 Din 315	0741663	0741663
6	Disc ø6,4x11x1,6	0737631	0737631
7	Holder f/belts t/eye shield	0111808	0111808
8	Frame w/holder	0111806	0111806
9	Machine screw M6x30	0331694	0331694
10	Nut M5	0207927	0207927
11	Angle from ARBOGA eye shield	0110012	0110012
12	Auto disc ø5,2x12,7x0,8	0112700	0112700
13	Shaft f/eye shield ARBOGA	0114351	0114351
14	Angle for eye shield	0110038	0110038
15	Spring 5x10 mm	0112911	0112911
16	Machine screw M5x25 PHJX Z	0112732	0112732
17	Bolt unbraco M8x16 Z	0120510	0120510
18	Spring disc Dim 8 Z	0132594	0132594
19	Lid E 312	0744212	0744212
20	Cover E 312 int.	0744123	0744131
21	Disc13x25x2,5 Z	0101494	0101494
22	Steel set bolt M12x40	7654320	7654320
23	Tool rest	0739707	0739707
24	Spring disc Dim 6 Z	1323060	1323060
25	Bolt unbraco M8x25	0123226	0123226
26	Flange int.	0961507	0961507
27	Grinding wheel	-	-
28	Flange ext.	0961515	0961515
29	Nut 1 ¼" WG	0953296	0953318
30	Cover E 312 ext.	0744182	0744182
31	Angle for eye shield	1443593	1443593
32	Terminal cover MF71	0189421	0189421
33	Taptite M4x10	0737607	0737607
34	Holder f/spark arrester	0744255	0744255

## 6.8 Split drawing of EPB 312 belt arm



*Fig.: 6.5*

## 6.9 Spare parts list for EPB 312 belt arm

Pos. No.	Description	Type number	
		RIGHT	LEFT
1	Grease nipple M6x1	2005973	2005973
2	Stop bar	1055394	1055394
3	Steering gear	9480561	9480561
4	Feather key	9480574-1	9480574-1
5	Pipe for telescope arm	9480560	9480560
6	Ball bearing 6204	1113771	1113771
7	Hub	9480570	9480570
8	Top roll	9480566	9480566
9	Shaft for top roll	9480572	9480572
10	Disc for top roll	9480569	9480569
11	Bolt 3/8" x 1 x1,25 UNC	0206051	0206051
12	Pointed screw M8x12 w/pin	0236027	0236027
13	Holder for top roll	9480565	9480565
14	Pipe for telescope arm	9480562	9480562
15	Steel set bolt M10x35	5465678	5465678
16	Spring	9480577	9480577
17	Pipe holder f/telescope arm	9480564	9480564
18	Rack-and –pinion drive	9480558	9480558
19	Pipe bushing for telescope arm	9480563	9480563
20	Star handle 3/8" x ø50	9480549	9480549
21	Ball knob Din 319-st-40-M10-C	1264660	1264660
22	Lever for ball knob	9480550	9480550
23	Bushing for ball knob	9480557	9480557
24	Bushing for belt release handle	9480552	9480552
25	Belt release handle	9480554	9480554
26	Pipe holder for telescope arm	9480556	9480556
27	Rack-and-pinion	9480559	9480559
28	Fitting for telescope arm	2006741	2006741
29	Spring disc DIM 8 Z	0132594	0132594
30	Bolt M8x25	0231581	0231581
31	Feather key	9480574-2	9480574-2
32	Box cover for belt	1533908	1533886
33	Holder f/cover	0836575	0836575
34	Flange f/belt arm	0110181	0110181
35	Steel set bolt M12x40	7654320	7654320
36	Disc 13x24x2,5	0101494	0101494
37	Tool rest	0739723	0739707
38	Washer 5mm	0112700	0112700
39	Bolt M5x10	0120628	0120628
40	Felt washer	1533916	1533916
41	Pointed screw M8x16	2078210	2078210
42	Spring disc DIM 8	0132594	0132594
43	Lid cover	0744212	0744212
44	Distance piece 55x32x15	0744506	0744506
45	Distance piece 55x32x20	0744514	0744514
46	Cross handle ø40 M8 DIN 6335	1443593	1443593
47	Auto disc 5/16"	0105085	0105085
48	Spark arrester	1533887	1533887
49	Nut M8	0231350	0231350
51	Steel set bolt M8x25	7676512	7676512
52	Contact wheel 250x75x32	1532198	1532198
53	Grinding box	1533907	1533907
54	Flange	0744581	0744581
55	Double sticking tape	1533897	1533897
56	Graphite pad	1533898	1533898
57	Nut WG1 ¼" H	0953318	0953296
58	Grinding belt	-	-





## 6.10 Split drawing of POB 312 belt arm

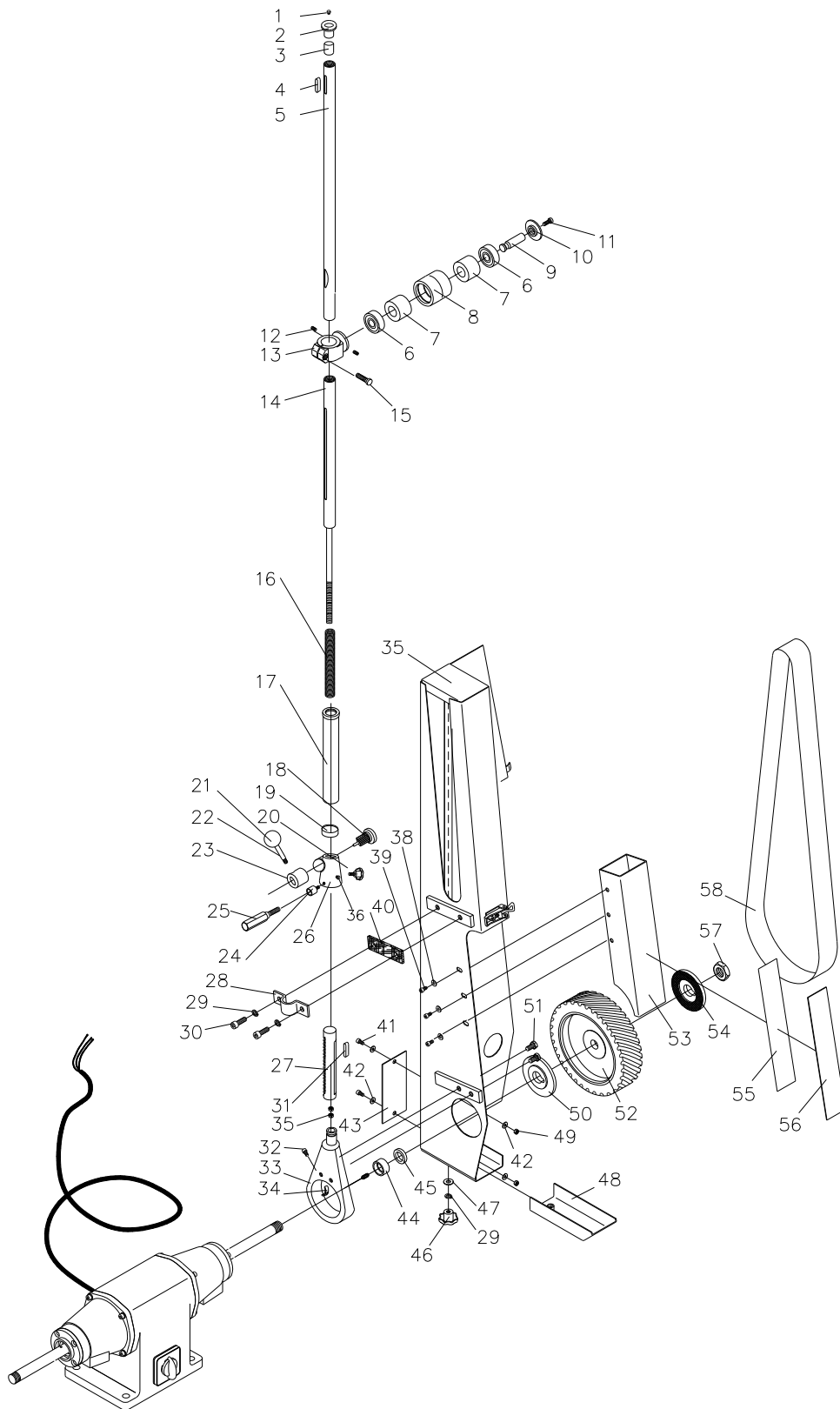


Fig 6.6

## 6.11 Spare parts list for POB 312 belt arm

Pos. No.	Description	Type number	
		RIGHT	LEFT
1	Grease nipple M6x1	2005973	2005973
2	Stop bar	1055394	1055394
3	Pilot protector	9480561	9480561
4	Feather key	9480574-1	9480574-1
5	Pipe for telescope arm	9480560	9480560
6	Bearing 6204	1113771	1113771
7	Hub	9480570	9480570
8	Top roll	9480566	9480566
9	Shaft for top roll	9480572	9480572
10	Disc for top roll	9480569	9480569
11	Bolt 3/8" x 1 x1,25 UNC	0206051	0206051
12	Pointed screw M8x12 w/tap	0236027	0236027
13	Holder for top roll	9480565	9480565
14	Pipe for telescope arm	9480562	9480562
15	Steel set bolt M10x35	5465678	5465678
16	Spring	9480577	9480577
17	Pipe holder for telescope arm	9480564	9480564
18	Rack-and-pinion drive	9480558	9480558
19	Pipe bushing for telescope arm	9480563	9480563
20	Star handle 3/8" x ø50	9480549	9480549
21	Ball knob Din 319-st-40-M10-C	1264660	1264660
22	Bar f/ball knob handle	9480550	9480550
23	Bushing f/ball knob handle	9480557	9480557
24	Bushing f belt release handle	9480552	9480552
25	Belt release handle	9480554	9480554
26	Pipe holder for telescope arm	9480556	9480556
27	Rack-and-pinion	9480559	9480559
28	Fittings for telescope arm	2006741	2006741
29	Spring disc DIM 8 Z	0132594	0132594
30	Bolt M8x25	0231581	0231581
31	Feather key	9480574-2	9480574-2
32	Bolt 1/2" x40	0206049	0206049
33	Holder t/telescope arm	948055-1	948055-1
34	Terminal block	1053517	1053517
35	Box cover for belt	1533908	1533886
36	Nut M10	5438761	5438761
38	Washer 5mm	0112700	0112700
39	Bolt M5x10	0120628	0120628
40	Felt washer	1533916	1533916
41	Pointed screw M8x16	2078210	2078210
42	Spring disc DIM 8	0132594	0132594
43	Lid cover	0744212	0744212
44	Distance piece 55x32x15	0744506	0744506
45	Distance piece 55x32x20	0744514	0744514
46	Cross handle ø40 M8 DIN 6335	1443593	1443593
47	Auto disc 5/16"	0105085	0105085
48	Spark arrester	1533887	1533887
49	Nut M8	0231350	0231350
51	Steel set bolt M8x25	7676512	7676512
52	Contact wheel 250x75x32	1532198	1532198
53	Grinding box	1533907	1533907
54	Flange	0744581	0744581
55	Double sticking tape	1533897	1533897
56	Graphite pad	1533898	1533898
57	Nut Wg 1 1/4" H	0953318	0953296
58	Grinding belt	-	-

## 6.12 Split drawing of KU 12-exhaust unit for EP 312

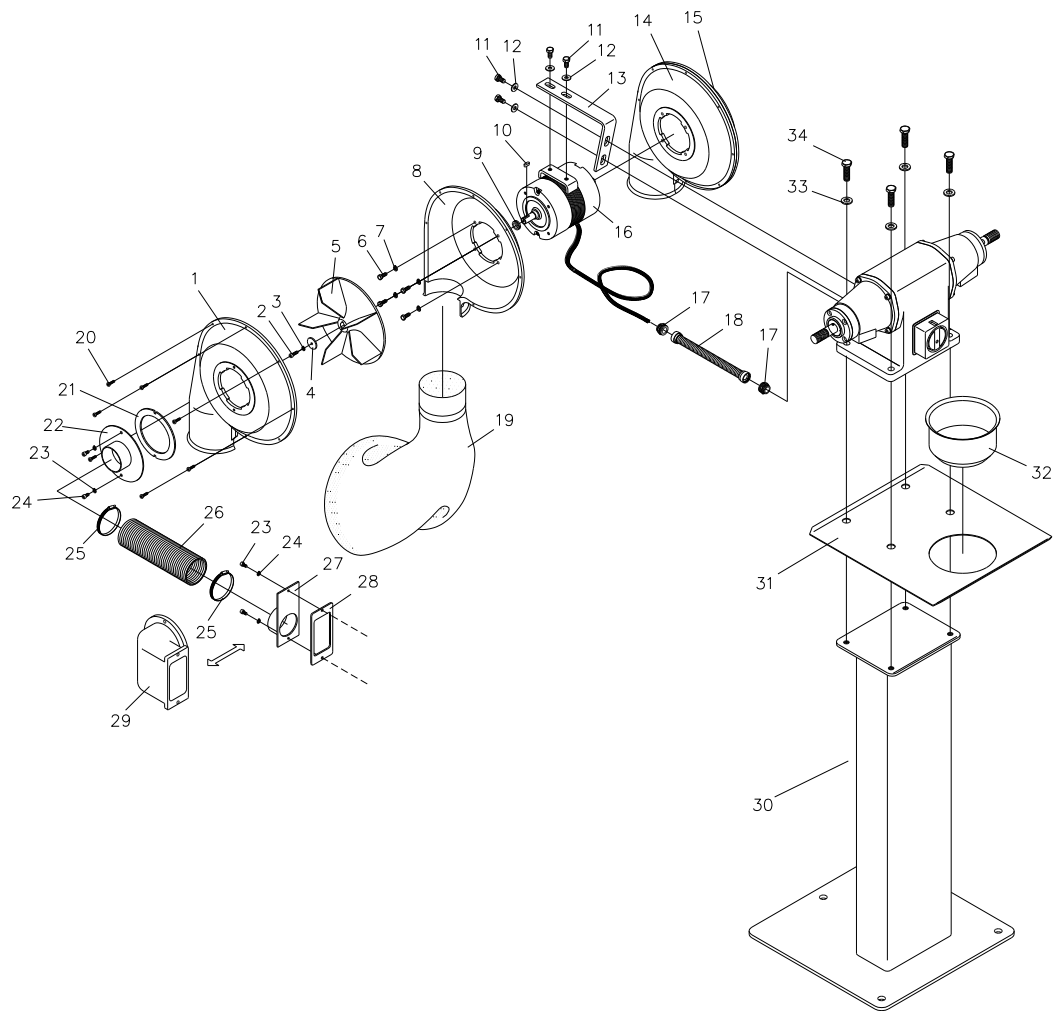


Fig.: 6.7

### 6.13 Spare parts list for KU 12-exhaust unit for EP 312

Pos.no.	Description	KU 12
1	Fan housing – ext - LEFT	0781266
2	Screw M5x16 CH Z	0120626
3	Spring disc DIM 5 Z	0102555
4	Disc ø5.5x26,5x2.5	0920026
5	Fan wheel KU 12 aluminum	0995703
6	Screw M6x16 Z	0110134
7	Spring disc DIM 6 Z	1323060
8	Fan housing – int - LEFT	0785628
9	V-Ring 16A	0654329
10	Spring 5x5x14	0100609
11	Screw M8x16 Z	0120510
12	Auto disc 5/16" Z	0132310
13	Angle for KU 12 holder	2006726
14	Fan housing – int - RIGHT	0781258
15	Fan housing – ext - RIGHT	0785636
16	Electric motor	1043072
17	Threaded bar PG11	0920011
18	Protection hose 18x13 400mm	0920400
19	Dust bag	0811793
20	Screw M4x16 m/pan head	2006480
21	Cork washer 120x9	2006728
22	Outlet	1444190
23	Bolt M8x25 CH Z	0231581
24	Spring disc DIM 8 Z	0132594
25	Strips 68/85	1944266
26	Suction hose	2006731
27	Exhaust connecting pipe	2006718
28	Cork washer	2006729
29	Angle for KU 12	0744719
30	Pedestal for E 312	1065016
31	Table E 312	0771325
32	Water cup	0771333
33	Disc ø13x24x2.5	0101494
34	Screw M12x40 Z	0120839

## 6.14 Split drawing of EX-16-exhaust unit for EPX 312

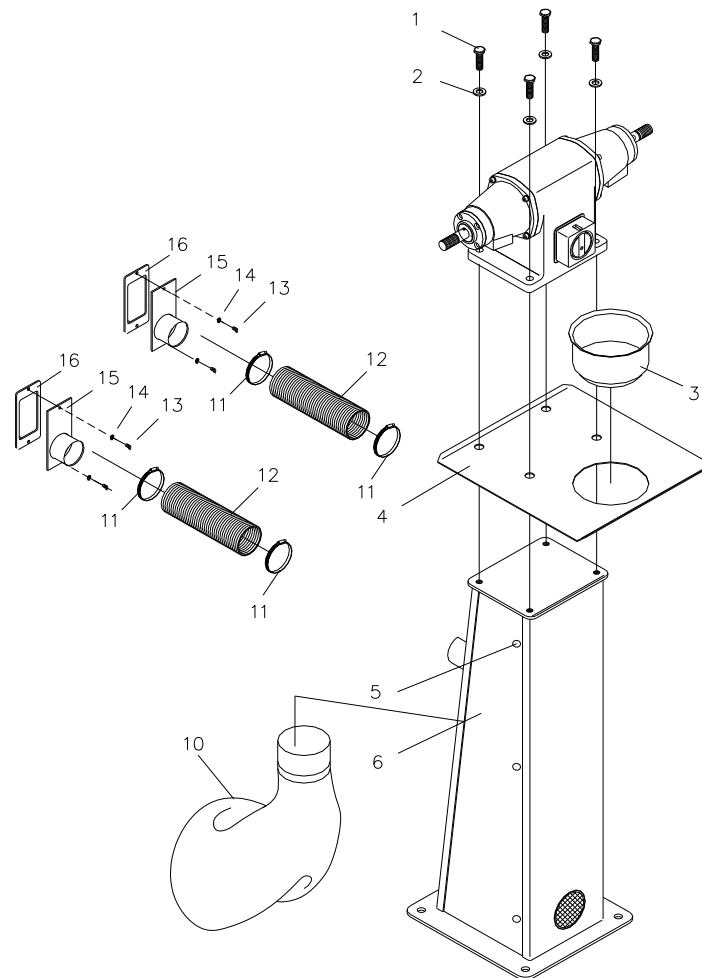


Fig.: 6.7

## 6.15 Spare parts list for EX-16-exhaust unit for EPX 312

Pos. No.	Description	Item no.
1	Screw M12x40 Z	0120839
2	Disc ø13x24x2,5	0101494
3	Water cup	0771333
4	Table	0771330
5	Tap-tite M4x8	1242446
6	Pedestal 3x400	1022344
10	Dust bag	0811793
11	Strips 68/85	1944266
12	Suction hose	2006713
13	Screw M8x25 CH Z	0231581
14	Spring disc Dim 8 Z	0132594
15	Exhaust pipe	2006718
16	Cork washer	2006733

## 7 Technical data

### 7.1 Technical specifications

Model	E 312	EP 312	EPB 312
Grinding belt			75x2000
Motor power in W 1400 RPM	2000	2000	2000
Motor power in W 2800 RPM	2200	2200	2200
Contact wheel	-	-	250x75x32
Grinding wheel	300x50x32	300x50x32	300x50x32
Steel brush	-	250x32x32	250x32x32
IP class	54	54	54
Class	F	F	F
Amp v/ 1400 RPM	4,2/4,0	4,2/4,0	4,2/4,0
Amp v/ 2800 RPM	4,8/4,6	4,8/4,6	4,8/4,6
Cos $\varphi$ v/ 1400 RPM	0,83	0,83	0,83
Cos $\varphi$ v/ 2800 RPM	0,86	0,86	0,86
Weight	100	140	150

The noise level for these machines have been measured to 76 dB(A) in accordance to the measuring device in the AT notification no. 561 on fixture of technical aids.

## 7.2 Dimensions

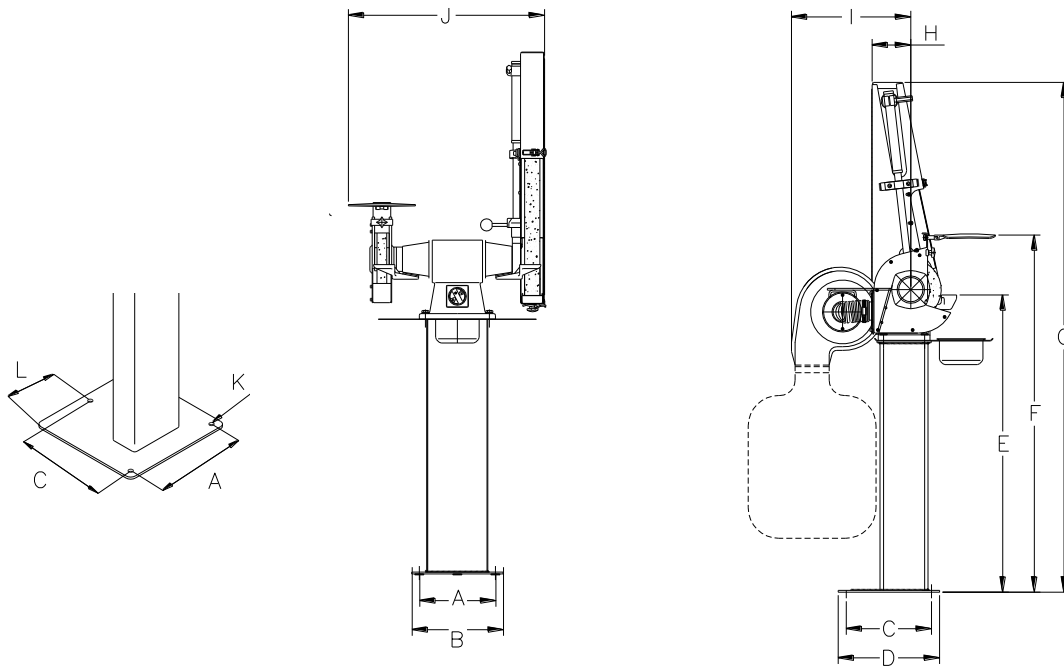


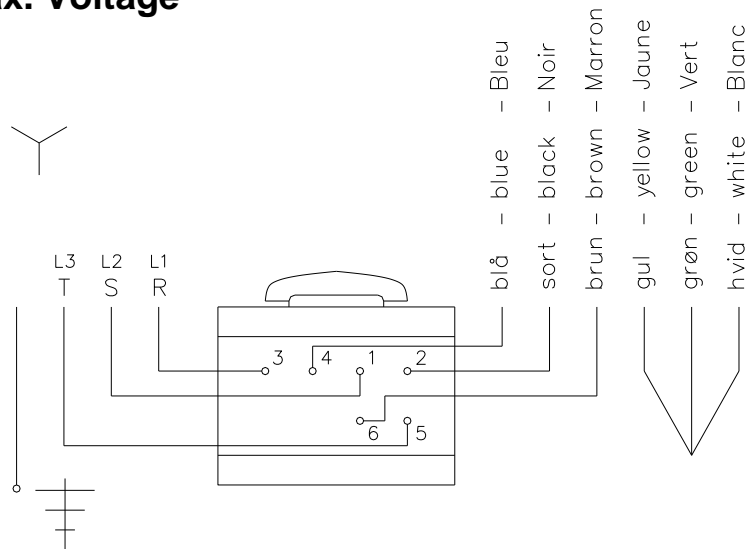
Fig 7.1

Model	A	B	C	D	E	F	G	H	I	J	K	L
E 312	-	-	-	-	-	1200	1850	170	450	870	-	-
EP 312	355	415	340	400	920	1200	1850	170	450	870	ø17	207,5

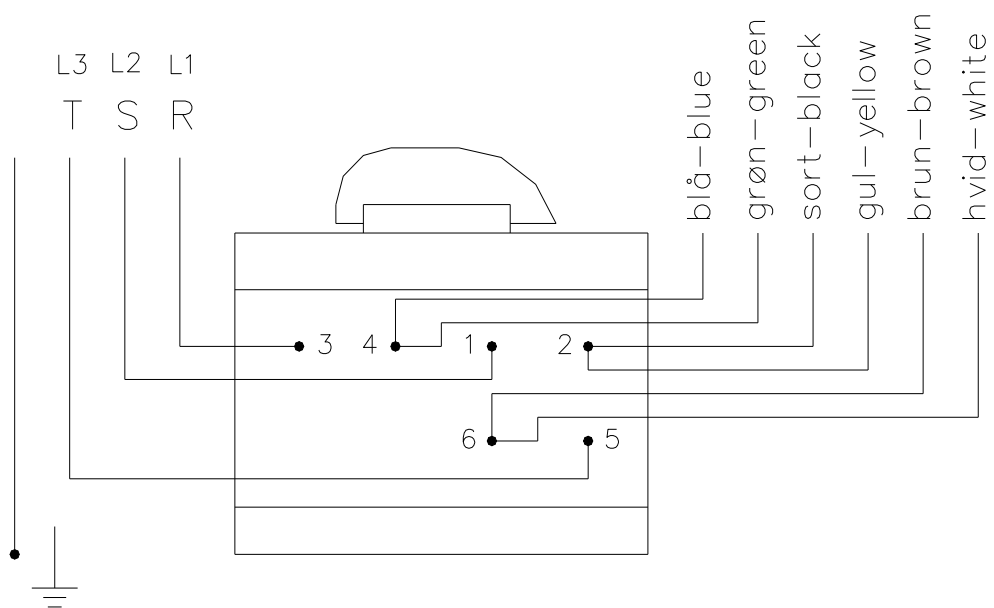
## 7.2 Wiring diagram

E 312, EP 312, EPB 312 , POB 312 industrial grinding machines are delivered as 3x400/440 V - 50/60 Cycles or as 3x230 V - 50/60 Cycles, see the wiring diagrams below.

### Max. Voltage

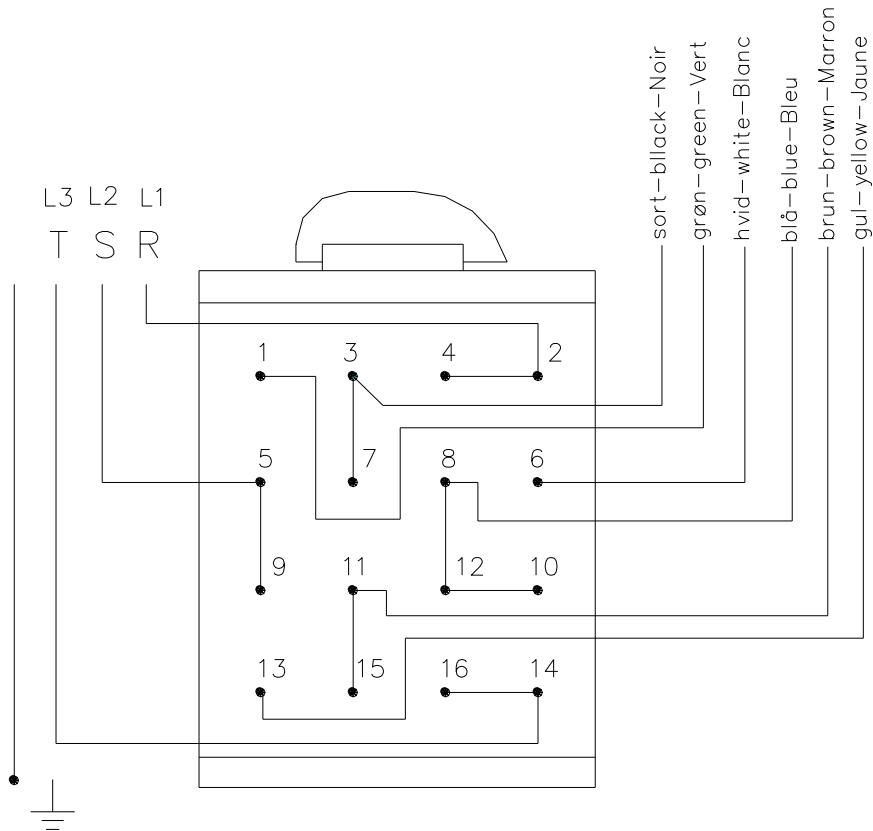


### Min. Voltage





POB 312 polishing machines can also be delivered with two-speed  
 1400/2800 rpm 3 x 400/440V - 50/60 Hz or 3 x 230V - 50/60 Hz.  
 See the wiring diagrammes below. Can NOT be re-wired from min. voltage to  
 max. voltage.



If the voltage supply is switched off it is necessary to turn on the 0-voltage switch (mounted on the back of the machine) by pressing on button 1.

**Also note !!** When using the machine for the first time it is also necessary to turn on the 0-voltage switch by pressing on button 1.

### **7.3 Warranty**

If within 2 year of purchase this machine supplied by ARBOGA 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

**ARBOGA 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.**