



**AUDION ELEKTRO®**

**Audionvac**

**VMS 123-153-153V-153VCB-163-163B**



---

## **MANUAL**

---

VMS 123 t-m 163B ENG. Rev.11



---

All rights reserved. Nothing from this edition is allowed to be copied and/or made public by means of print, photo copy or any other way without previous written permission of AUDION ELEKTRO.

AUDION ELEKTRO reserves the right to change spare parts and/or specifications without previous notice. Contents of this manual can also be changed without previous warning.

AUDION ELEKTRO cannot be hold responsible for eventual damage caused by specifications deviating from the standard model.

Although extreme care has been exercised during writing this manual, AUDION ELEKTRO will not accept any liability for eventual errors in this manual and/or for the consequences of (mis)interpretation of the contents.

AUDION ELEKTRO is not responsible for damage or problems which result from the use of other than the original spare parts.

If this manual has not been supplied with instructions for certain repairs, adjustments and maintenance, you should contact your dealer of AUDION ELEKTRO.

---

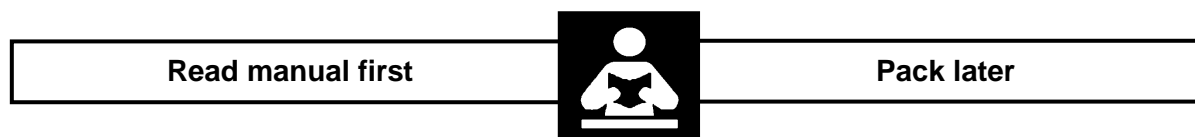
## Contents

1	Precautions.....	6
1.1	Explanation of the clip arts .....	6
1.2	Prohibitions .....	7
2	Installation .....	8
2.1	Description of the workplace .....	8
2.2	Checking the oil level .....	8
2.3	Connecting to the power supply .....	8
2.4	Operating the machine .....	8
2.5	Turning off the machine .....	9
3	Programming .....	10
3.1	Programming with open lid.....	12
3.1.1	Remarks about gas flush option .....	12
3.1.2	Remarks about seal time setting .....	12
3.2	Programming with open lid in case of a sensor option.....	13
3.3	Programming with closed lid .....	14
3.4	Programming seal 1-2 option .....	15
3.5	Special functions on request .....	16
3.5.1	Multi-cycle control.....	16
3.5.2	Gas plus function.....	17
3.5.3	Expansion reduction (for fresh meat product) .....	17
4	Maintenance .....	18
4.1	Regular maintenance .....	19
4.2	Maintenance of the vacuum pump .....	19
4.2.1	Conditioning program .....	19
4.2.2	Changing /filling oil .....	20
4.2.3	Oil replacement alarm .....	21
4.2.4	Changing exhaust filter.....	21
4.3	Maintenance of the seal bar .....	21
4.3.1	Removing the seal bar.....	21
4.3.2	Replacing the PTFE .....	21
4.3.3	Replacing the seal wire .....	22
4.4	Silicone rubber .....	22
4.5	Lid rubber.....	22
5	Problem solving .....	23
6	To discard the AUDIONVAC .....	24
7	Conditions of guarantee .....	24
7.1	Liability.....	24
7.2	Guarantee .....	24
8	Recommended spare parts.....	26
9	Technical specifications .....	32
10	Pneumatic diagram .....	Appendix A1
11	Electrical diagrams and index sheets .....	Appendix B1
12	Exploded view machine .....	Appendix C1
13	Exploded view seal bar .....	Appendix C6
14	Exploded view pump.....	Appendix C9

## INTRODUCTION

With the purchase of this vacuum chamber machine you will be able to pack a great variety of products. To use the vacuum chamber machines Audion made sure that all the machines, from the smallest to the biggest model, fulfill the greatest demands. Besides the superior quality of the machines they are all very easy to handle.

The machines are qualified for sealing Polyethylene (PE), Polypropylene (PP), Polyethylene/Polyamide (PEPA) or combinations of all the above. We recommend to use the proper materials for the Audionvac machines only.



The manual consists of two parts. In the first part, the user manual, all important information will be discussed like safety precautions or programming the machine. Also maintenance and possible solutions for eventual problems are discussed. The final section of the first part will discuss the guarantee and liability. In the second part, the technical part, all technical data, the pneumatic diagram, the electrical diagram and the exploded views will be discussed.

Make sure, during unpacking, all data on the identification plate are right (Fig. 1.1) and record the information you found on the identification plate in figure 1.1

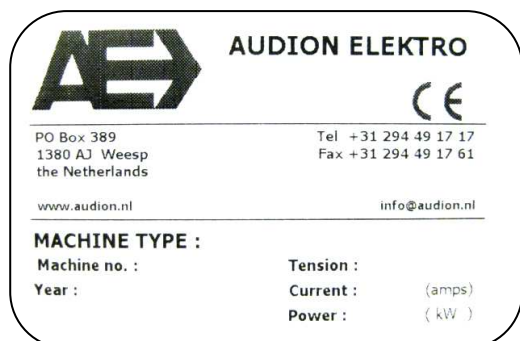


Figure 1.1: Identification plate











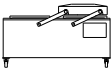







The Audionvac is packed in a box. We advise you to store the box so you can transport the Audionvac, if necessary, safely in the future.



## PART I: USER MANUAL

## 1 Precautions

### 1.1 Explanation of the clip arts

	Break contact between plug and socket
	The socket
	Identification plate with Voltage(V), Frequency(Hz) and Consumption(W)
<b>OK</b>	O.K.
	Fluid
	Long period
	Do not continue, this is dangerous
	Contact <b>Audion Elektro BV</b> or your dealer
	Watch out!
	Reparation/ Maintenance
	<b>Audion Elektro BV</b>
	Symbol for your Audionvac machine
	Temperature meter with boundary conditions
	Empty
	Oil replacement
	Gas-spring of the lid
	Oil level glass
	Vacuum meter
	Tension of the springs

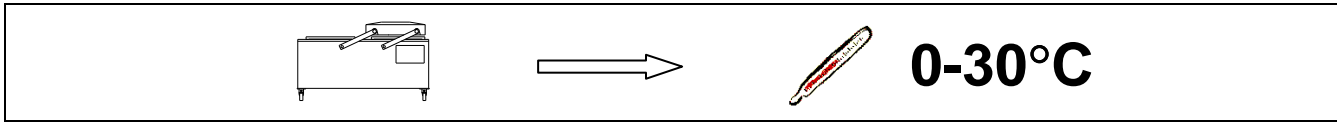
## 1.2 Prohibitions



## 2 Installation

### 2.1 Description of the workplace

Place the machine on a firm and stable table. The ambient surround temperature is 0 – 30 degrees Celsius. Do not place the machine in an environment exposed to direct sunlight, extreme temperatures, humidity, dust or sand, mechanical shocks and vibrations. Always leave room free around the machine.



The surrounding temperature must lie between 0-30 degrees Celsius

### 2.2 Checking the oil level

Before turning on the machine, check the oil level glass. It is possible that a table model is delivered without having pump filled with oil. If there is no oil in the pump, fill the vacuum pump with the oil supplied with the machine. See § 4.2.2 for instruction. The oil level must lie between the signs: "MIN" and "MAX". The oil reservoir must be filled up to **80%**. A little less oil is better than a bit more. In practice this means that the oil in the oil reservoir must not be higher than 2mm above the measurement point in the middle of the measurement-glass.



When the oil reservoir is empty it must be filled with oil first

### 2.3 Connecting to the power supply

Make sure to check the specification of the machine and the power supply before making the electrical connection. The power supply must have an earth connection and fused max. 16 Amp - (230V). In case of other voltages, see § 11 electrical diagrams and index sheets. Open the lid and press in the ON/OFF switch (fig. 3.1, pos. 11). If the machine is connected to a three phase power supply, close the lid and check the pump rotating direction.



Make sure the voltage, consumption and frequency of the power supply are the same as on the identification panel

### 2.4 Operating the machine

Place in or take away the insert plates from the chamber, so the bag is properly placed on the seal bars. If the machine is equipped with gas flush option, place the bag around the gas nozzles.

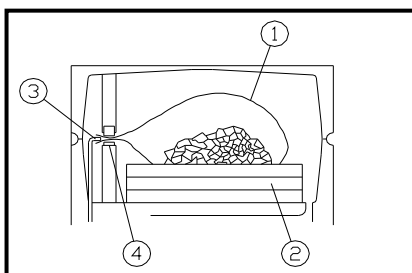
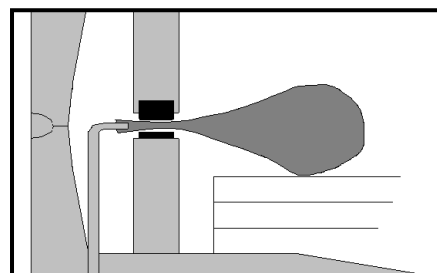


Figure 2.4: Bag inside chamber

- 1: Vacuum bag
- 2: Insert plates
- 3: Gas nozzle
- 4: Seal bar

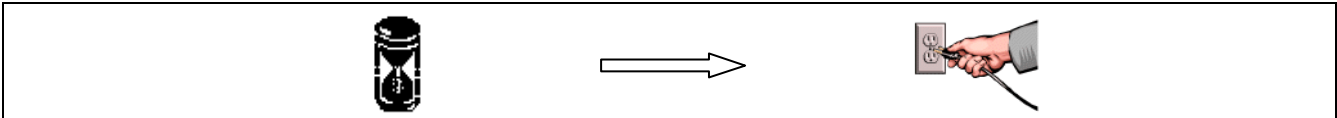




Select a program on the control panel and close the lid. After the vacuuming and sealing process the machine releases vacuum and the lid opens automatically. Check the vacuum and the produced seal. Increase vacuum time if the vacuum is too weak. If the seal is not strong enough, increase the sealing time. Decrease the sealing time if the seal is melting. Find out the appropriate settings by trial and error.

## **2.5 Turning off the machine**

After finishing the operation, press out the ON/OFF switch. Clean the chamber and close the lid. If the machine will not be used for a long period, disconnect the power cable from the power supply.



When the machine is not being used for a longer period, shut off the power supply

## 3 Programming

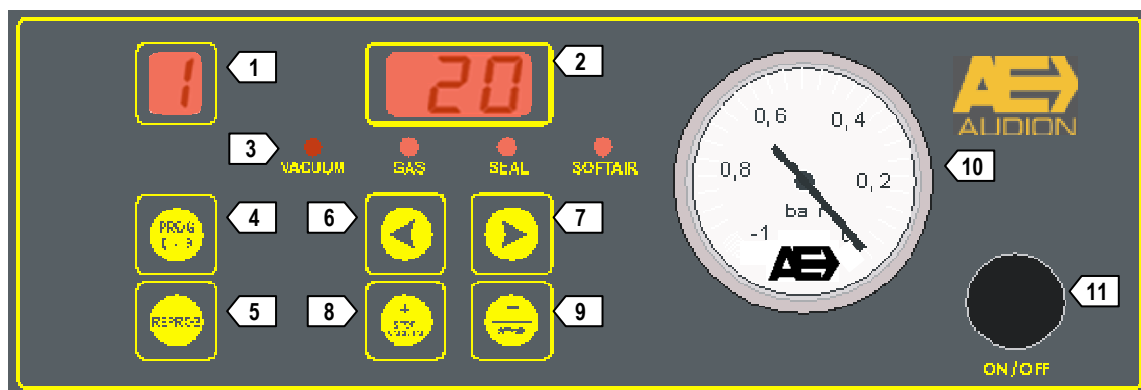


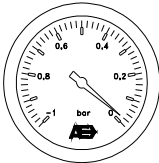



Figure 3.1: Control panel

	<p><b>Display (1):</b> This display shows the program number of the active program. When the program contains active gas flush setting, a dot will be indicated in the lower right hand corner.</p>
	<p><b>Display (2):</b> In this display you can see the process times in seconds. When the machine has sensor control, the figure shows the vacuum level of the chamber in percentage. If Vacuum Plus Time is activated in sensor control, a dot will be indicated in the lower right hand corner when the relevant program is selected.</p>
	<p><b>Process LED (3):</b> During the setting of programs or during the actual use of the machine, the LED of the active process turns on.</p>
	<p><b>Programming button (4):</b> With this button you can select the program. Programs 1 - 9 can be re-programmed to desired packaging conditions. The program 0 is for servicing purpose and cannot be changed.</p>
	<p><b>Re-Programming button (5):</b> This button is being used to change the settings of a program; and to save the new settings.</p>
	<p><b>Function select button (6 &amp; 7):</b> These buttons are used to select the processes in a program (vacuum, gas, seal or soft-air).</p>

	<p><b>Combination button [+]/[vacuum stop] (8):</b> During programming, this button increases a setting value. For instance a longer vacuuming time. During operation, this button has the function to stop vacuuming process immediately and skip to the next process (gas or seal).</p>
	<p><b>Combination button [-]/[stop] (9):</b> During programming, this button decreases a setting value. For instance a shorter vacuuming time. During operation, this button has the function to stop the whole cycle. The machine decompresses the chamber and the lid will open.</p>
	<p><b>Vacuum meter (10):</b> The vacuum meter shows the level of vacuum inside the chamber. The maximum level of vacuum is about 99.95 percent and the vacuum meter points at '-1'. When the pressure inside the chamber is equal to the outside atmosphere, the vacuum meter points at '0'.</p>
	<p><b>ON/OFF switch (11):</b></p>

## 3.1 Programming with open lid

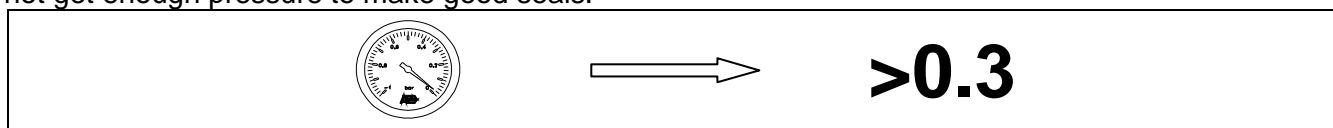
1)	Open the lid	
2)	Turn the machine on	
3)	Select program	
4)	Press <b>[REPROG]</b> to enter programming mode.	
5)	Select process	
6)	Set parameters with <b>[+]</b> and <b>[-]</b> buttons. <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div>VACUUM</div> <div>0 – 99 sec.</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div>GAS (*1)</div> <div>0 – 99 sec.</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div>SEAL</div> <div>0 – 6.0 sec.</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div>SOFTAIR</div> <div>0 – 99 sec.</div> </div>	
7)	Press <b>[REPROG]</b> to save the setting.	

(\*1) Gas flush is an option. When the option is not installed, the process cannot be selected.

### 3.1.1 Remarks about gas flush option

When gas flush is activated in a program, the display (1) shows a dot next to the program number.

The maximum gas flush setting is 99 seconds, but make sure not to let the chamber decompression level become lower than “0,3”. If the chamber decompression level is lower than that, the seal bars do not get enough pressure to make good seals.



The percentage of vacuum has to be at least 30%.

It is not allowed to use gas mixture containing more than 25% of oxygen due to the risk of explosions.



Never use gas mixes containing over 25% of Oxygen.

### 3.1.2 Remarks about seal time setting

Do not operate the machine continuously in short cycles while the sealing time is set longer. The seal transformer shuts down when it is heated up too much. The maximum sealing time available for continuous operation is 10 % of the production cycle (for example, 2.5 seconds sealing time for 25 seconds cycle time).

## 3.2 Programming with open lid in case of a sensor option

1)	Open the lid	
2)	Turn the machine on	
3)	Select program	
4)	Press <b>[REPROG]</b> to enter programming mode.	
5)	Select process 	
6)	Set parameters with <b>[+]</b> and <b>[-]</b> buttons. VACUUM 0 – 99 % VACUUM PLUS TIME (*2) 0 – 99 sec. GAS (*1) OFF, 30 – 99 % SEAL 0 – 6.0 sec. SOFTAIR 0 – 99 sec.	
7)	Press <b>[REPROG]</b> to save the setting.	

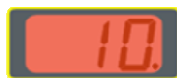
(\*1) Gas flush is an option. When the option is not installed, the process cannot be selected. The value to be set for gas flush in percentage is the final decompression level of the chamber after flushing gas. For example, 60% gas flush means 39% of the chamber is filled with gas. When gas flush is activated in a program, the display (1) shows a dot next to the program number.



(\*2) Vacuum plus time is an extra vacuum time (in seconds) after reaching 99% vacuum. The function is disabled when the vacuum is set to 98% or lower. When the function is enabled, a dot will be shown on the lower right hand corner of the display.











vacuum (%)



vacuum plus time (sec.)

(\*3) It is not possible to store conflicting values. For example, gas cannot be set to 60% while vacuum is set only to 50%.

### 3.3 Programming with closed lid

1)	Open the lid	
2)	Turn the machine on	
3)	Select program 	
4)	Press <b>[REPROG]</b> to enter programming mode.	
5)	Close the lid.	
6)	<p>The machine starts to vacuum. Press <b>[STOP VACUUM]</b> when the vacuum has reached to the sufficient level. If full vacuum is required, wait for 5 seconds after the vacuum meter reaches “-1”, then press <b>[STOP VACUUM]</b>.</p> <p>If the machine has the sensor control and 99% vacuum is set, the machine starts counting vacuum plus time (see § 3.2). Press <b>[STOP VACUUM]</b> again after sufficient vacuum plus time.</p>	 
7)	<p>The machine starts to flush gas into the chamber. (*1) Press <b>[STOP]</b> when sufficient gas has been inserted.</p> <p>The minimal gas level allowed to set is “0,3” on the vacuum meter. When the chamber decompression level is lower than that, the seal bars do not get enough pressure to make good seals.</p>	 
8)	The machine ventilates the chamber and finishes the programming (*2). The setting is stored in the program.	

(\*1) Gas flush is an option. When the option is not installed, the process cannot be selected.

(\*2) Seal time and soft air time cannot be set with closed lid programming.

## 3.4 Programming seal 1-2 option

For vacuum packaging thick shrink bag with cut-off seal, seal 1-2 is recommendable. Seal 1-2 is an option that allows to set sealing times independently for two sealing wires. For example, sealing wire can be set at 2,5 seconds and cut-off wire at 3,5 seconds. In this way, the bag can be sealed and trimmed without having melted seal.

When programming with seal 1-2 option, 2 figures can be entered in seal process. The first figure is the seal time and the second figure is the cutting time.

1)	Open the lid	
2)	Turn the machine on	
3)	Select program	
4)	Press <b>[REPROG]</b> to enter programming mode.	
5)	Select process 	
6)	Set parameters with <b>[+]</b> and <b>[-]</b> buttons. VACUUM                      0 – 99 sec. GAS (*1)                    0 – 99 sec. SEAL 1 (*2)                0 – 6.0 sec. SEAL 2 (*3)                0 – 6.0 sec. SOFTAIR                    0 – 99 sec.	
7)	Press <b>[REPROG]</b> to save the setting.	

(\*1) Gas flush is an option. When the option is not installed, the process cannot be selected.

(\*2) SEAL 1 is the sealing time for the sealing wire.

(\*3) SEAL 2 is the sealing time for the cutting wire.

### 3.5 Special functions on request

The following functions are useful for certain special applications. Contact Audion or your local dealer if you wish to have these functions enabled.

#### 3.5.1 Multi-cycle control

The multi-cycle control option is used for packaging applications which require very low oxygen rests in package. The operation of the multi-cycle control is automatically repeating vacuum and gas flush processes with a maximum of 5 times each before proceeding to seal function. Multi-cycle control is also useful for packaging products containing air inside, which require rest times between vacuum cycles to let air out of itself.

1)	Open the lid	
2)	Turn the machine on	
3)	Select program	
4)	Press <b>[REPROG]</b> to enter programming mode.	
5)	Select process (for standard timer control) <div style="display: flex; flex-direction: column; align-items: center;"> <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">vacuum 1  </div> <div style="border: 1px solid black; padding: 5px; text-align: center;">gas 1  </div> <div style="border: 1px solid black; padding: 5px; text-align: center;">vacuum 2  </div> <div style="border: 1px solid black; padding: 5px; text-align: center;">gas 2  </div> </div> <div style="margin: 5px 0;">↓</div> <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">vacuum 3  </div> <div style="border: 1px solid black; padding: 5px; text-align: center;">gas 3  </div> <div style="border: 1px solid black; padding: 5px; text-align: center;">vacuum 4  </div> <div style="border: 1px solid black; padding: 5px; text-align: center;">gas 4  </div> </div> <div style="margin: 5px 0;">↓</div> <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">vacuum 5  </div> <div style="border: 1px solid black; padding: 5px; text-align: center;">gas 5  </div> <div style="border: 1px solid black; padding: 5px; text-align: center;">seal  </div> <div style="border: 1px solid black; padding: 5px; text-align: center;">softair  </div> </div> </div>	
6)	Set parameters with <b>[+]</b> and <b>[-]</b> buttons. VACUUM (1 – 5)      0 – 99 sec. GAS (1 – 5)        0 – 99 sec. SEAL                  0 – 6.0 sec. SOFTAIR             0 – 99 sec.	
7)	Press <b>[REPROG]</b> to save the setting.	

(\*1) 5 sub-cycles of vacuum and gas are described on the display as in below, with relevant values.

Sub-cycles (1) (2) (3) (4) (5)

(\*2) If a process is set to OFF, the rest will be skipped and the cycle goes to the seal process directly.



(\*3) In case of combining sensor control with multi-cycles, when the vacuum is set to 99%, the vacuum plus time is shown directly after that process. A dot will be shown on the right hand bottom corner if vacuum plus time (see § 3.2) is activated.

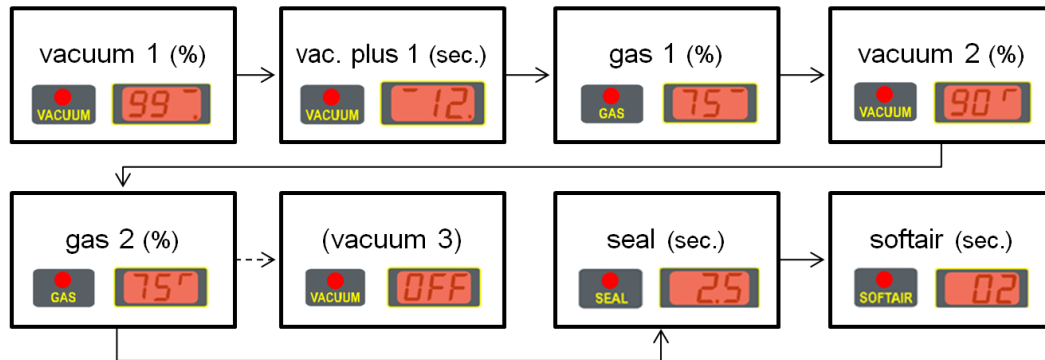


Figure 3.2: Process diagram for sensor control

### 3.5.2 Gas plus function

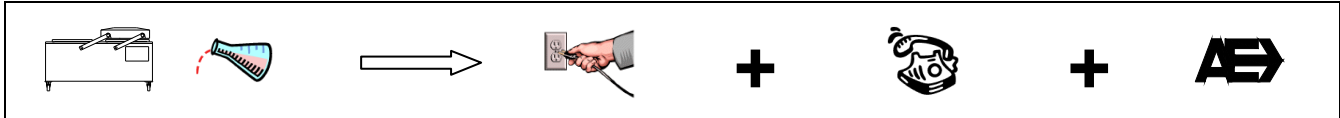
The gas plus function is an extra gas flushing time during the closing of the seal bars, allowing to put more gas inside the bag to make ballooning packages. This function is available only when the machine is equipped with the gas flush option.

### 3.5.3 Expansion reduction (for fresh meat product)

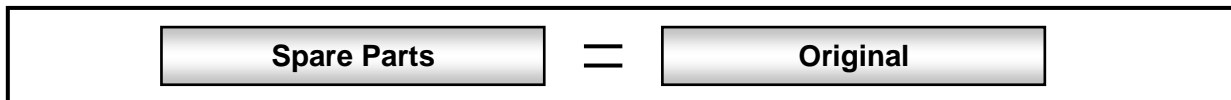
Expansion reduction is used to prevent bubbles appearing in the bag after vacuum packaging large piece of fresh meat. The bubbles are created by the gas trapped inside the cell of meat, which comes out of the meat due to low surrounding pressure. The gas stays inside the bag as the de-gassing occurs during sealing and cooling process. By using the expansion reduction, the decompression level in the chamber can be reduced by allowing external air to flow in for a short time (0.1 – 1.0 second) together with the closing of the seal bars, and it prevents the de-gassing of the meat, leaving no gas bubbles in the bag.

#### 4 Maintenance

The Audionvac is a relatively simple machine which needs very little maintenance. There are a few reparations you can do by yourself. For all the other reparations please contact your local dealer or Audion Elektro BV. The schedule mentioned in § 4.1 is for normal use of the machine. When the machine is being used intensively or under extreme circumstances it is necessary to do more frequent maintenance.



When fluid enters the machine take socket out and call Audion Elektro BV.



Only use original parts recommended by Audion Elektro BV.

In case the control panel needs to be removed, use the panel opening tools supplied with the machine. Insert the tools in the slots under the panel frame, lift and pull them out carefully.



Figure 4: Removing control panel

## 4.1 Regular maintenance

Daily maintenance	
Vacuum chamber and insert plates	Clean the lid, insert plates and chamber with a damp cloth. Treat the rubber strip in the lid with talk powder. <b>Warning!</b> The transparent lid should never be treated with synthetic cleaner as it weakens the material
Vacuum pump	Run the conditioning program "C" after you cleaned the machine
Weekly maintenance	
Seal bar	Check the condition. Repair if necessary
Rubber strip on the lid	Check the condition; replace if necessary
Oil reservoir	Check the oil level; replenish if necessary (see § 4.2.2)
Half year maintenance	
Oil reservoir	Change the oil (see § 4.2.2)
One year maintenance	
Vacuum hose and pipes	Check the condition. Repair if necessary because a leak means vacuum loss
Silicone rubber of the press bar	Check the condition. A bad rubber can lead to a bad seal. Replace if necessary
Exhaust filter in the pump	Check the condition. Replace if necessary. <b>Warning:</b> If oil spray is at any time visible, replace the exhaust filter immediately. Do not wait until the 5-year maintenance check. This prevents damage to the pump.
Springs on the lid	Check the condition. Look for corrosion. Replace if necessary
Five year maintenance	
Gas springs on the lid	If these have not been replaced, they should be now. If the machine has been exposed to aggressive materials, then the spring should be replaced more often.
Electrical wiring	Let your dealer check these and repair if necessary

## 4.2 Maintenance of the vacuum pump

For optimal functioning of the vacuum chamber machine, the vacuum pump needs to be maintained periodically. If the machine is used regularly, it is advisable to fully inspect the pump once a year. Contact Audion or the supplier for advice and further information.

### 4.2.1 Conditioning program



If the machine is not used continuously for a certain time, the vacuum pump does not reach the ideal temperature. The moisture contained in the air sucked by the pump stays in the oil, and may lead to condensation inside the pump, which can eventually cause corrosion.

To keep the pump and oil in good condition, there is a pump conditioning program available in the control system, besides the 10 operation programs. The conditioning program repeats vacuum and de-vacuum processes continuously for 15 minutes. During the program, the pump and oil warm up and reach the operation temperature. The moisture and contaminants in the pump will be absorbed by oil and gets evaporated / filtered.

To start the conditioning program, press **[PROG]** button until “C” is shown on the display (1) and close the lid. The program runs automatically for 15 minutes and the display (2) shows the remaining time. When the program is finished, the lid opens and the display (1) shows “C”. The program can be interrupted at any time with the **[STOP]** button, however, do not abort the program unless necessary as it is important to complete the full cycle for a good maintenance. Run the conditioning program at least once a week. Also it is advisable to run it before replacing the oil, and before the using the machine for the first time after a long period the machine has not been used.

## 4.2.2 Changing /filling oil

The level and quality of oil must be checked every week. Fill up the oil if the level is too low. Replace the oil if it is turbid. Replace all the oil at least once every 6 months.

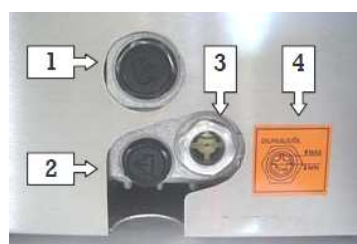


Figure 4.2: Oil plugs and level glass

- 1 : Oil filling plug
- 2 : Oil draining plug
- 3 : Oil level glass
- 4 : Oil level indicating sticker

### Replacing the oil

- Turn off the machine.
- Place an oil pan underneath the draining area.
- Loosen the oil drain plug (fig. 4.2 pos. 2) and drain the oil.
- In case the oil drain plug is behind the back plate, remove the back plate.
- When there is no oil drain plug present, the oil level glass (fig. 4.2 pos. 3) functions as drain plug.
- Close the oil drain plug.
- For further instructions see: “filling oil reservoir”

### Filling oil reservoir

- Turn off the machine.
- Unscrew oil filling plug (fig. 4.2 pos. 1).
- In case the oil filling plug is behind the back plate, remove the back plate.
- Pour in new oil and let the oil level stabilize after every little bit.
- Repeat this until the oil level has reached the right level (look at the oil level glass).
- Close the oil filling plug

MODEL	PUMP CAPACITY	PUMP TYPE	STANDARD OIL			EXHAUST FILTER	
			Type	Article No.	Liters	Article No.	Q'ty
VMS 123	016 m³/h	50-60 Hz.	VG 32	160-1550621	0.40	160-2050274	1
VMS 153; 163	021 m³/h	50-60 Hz.	VG 32	160-1550621	0.40	160-2050276	1

## 4.2.3 Oil replacement alarm



Oil replacement alarm is a function to remind the operator to change the oil of the vacuum pump. After a certain time the machine had been used, the [oil] sign is shown on the display.

The default setting of this function is OFF. To activate the oil replacement alarm, press the function select button 6 (fig. 3.1) for 3 seconds. The display (2) shows "OFF". Using [+] and [-] buttons, the alarming time can be set between 10 and 990 hours (per 10 hours).

While the [oil] is shown, the machine can still be used as usual but the sign will be shown again when the machine is restarted. Replace the oil as early as possible and reset the alarming time. To reset the alarm, deactivate the function once by setting to OFF and press [REPROG] button. Press the function select button 6 for 3 seconds and set the appropriate alarming time again.

## 4.2.4 Changing exhaust filter

The exhaust filter absorbs and filters oil vapours. When the exhaust filter is saturated, the maximum vacuum level cannot be achieved. Refer to the table in § 4.2.2 for the type of the exhaust filter.



Figure 4.2a

- Remove the cover of the exhaust filter (fig. 4.2a).
- Remove the tensioner (fig. 4.2b).
- Remove the exhaust filter (fig. 4.2c).
- Make sure to remove the gasket (fig. 4.2d).
- Place the new exhaust filter, tension it, and put the cover on.



Figure 4.2b



Figure 4.2c



Figure 4.2d

## 4.3 Maintenance of the seal bar

The maintenance of the seal bar consists of:

- Cleaning the PTFE and controlling the PTFE for burned places.
- Check the seal wire and replace when necessary

### 4.3.1 Removing the seal bar

- Switch off the machine.
- Pull the seal bar out of the machine.

### 4.3.2 Replacing the PTFE

When the PTFE is worn out, has burned marks or wrinkled it must be replaced.

- Remove the seal bar (as in § 4.3.1) and carefully remove the PTFE.
- Check the seal wire. When it is damaged directly replace it (see § 4.3.3)
- Remove all grease from the seal bar.
- Cut a piece of PTFE tape to length and place it evenly on the sealing bar. Rub the PTFE tape until the sealing wire can be seen clearly trough the tape. Cut off the ends of tape.

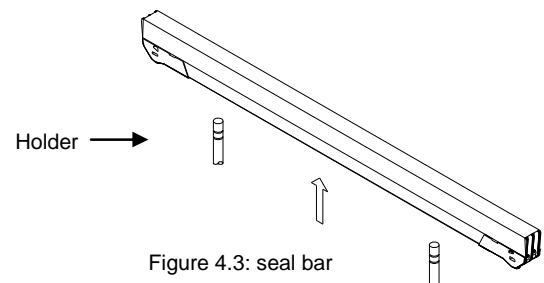


Figure 4.3: seal bar

## 4.3.3 Replacing the seal wire



Figure 4.3a



Figure 4.3b



Figure 4.3c

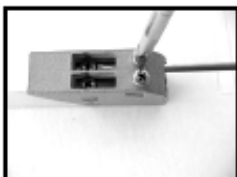


Figure 4.3d



Figure 4.3e



Figure 4.3f

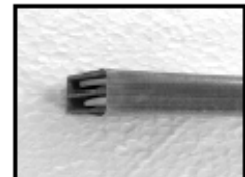


Figure 4.3g

- Remove the seal bar and PTFE (fig. 4.3a).
- Loosen the screws at both sides of the seal bar (fig. 4.3b) and remove the seal wire(s).
- Remove the old PTFE and clean the seal bar (fig. 4.3c).
- Cut the new seal wire with an extra 15 cm length.
- Place the seal wire in the clamp on the sealing bar and tighten the screws (fig. 4.3d).
- Put the sealing bar in a bench vice, with the sealing wire facing down and tighten the sealing wire (fig. 4.3e).
- Stick the other end of the sealing wire into the clamp and tighten the clamp enough to hold the wire. First, use pliers to tighten the sealing wire, then use a wrench to tighten the screws of the clamp. The end of the sealing wire that stick out must be cut off (fig. 4.3f).
- Cut a piece of PTFE tape with a length of the seal bar + 5 cm.
- Place the new PTFE over the seal bar (fig. 4.3g).
- Put the seal bar back into the machine.

## 4.4 Silicone rubber

When the silicone rubber has been damaged it has to be replaced. A damaged rubber results in a bad seal.

- Take the rubber out of the silicone holder.
- Cut the new rubber as long as the old rubber.
- Push the new rubber into the pressure.

## 4.5 Lid rubber

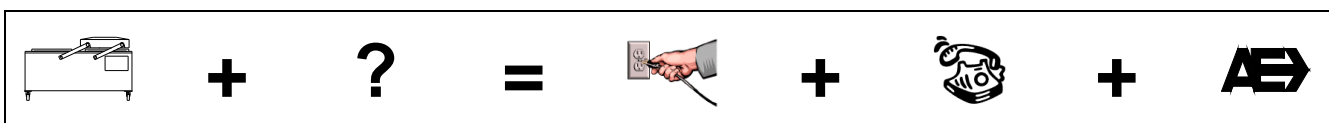
The lid rubber prevents leaking of the chamber. The rubber should only be cleaned with a damp towel. Synthetic detergents could have the rubber being dried out. Regularly treat the rubber with talcum powder. When the lid rubber is in a bad condition it should be replaced.

- Pull the rubber out of the lid.
- Cut the new rubber as long as the old rubber.  
(Cut straight to prevent leaking.)
- Push the new rubber into the lid.  
(Start in the middle of the backside).



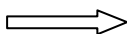
Figure 4.4: Silicone rubber & lid rubber

## 5 Problem solving



For questions please disconnect the power and contact your dealer or Audion Elektro BV.

Problem	Possible cause	Solution
The machine does not work.	<ul style="list-style-type: none"> <li>The plug is not inserted in the wall socket.</li> <li>The fuse in the wall socket is melted.</li> <li>Internal error</li> </ul>	<ul style="list-style-type: none"> <li>Insert the plug in the socket.</li> <li>Replace the melted cartridge.</li> <li><b>WARNING:</b></li> <li>To prevent fire and/or other irreparable damage, replace fuses with fuses of the same type and ampere.</li> </ul>
The vacuum bag has not sealed correctly.	<ul style="list-style-type: none"> <li>The vacuum bag has not been placed correctly over the sealing beam.</li> <li>The sealing time is too high or too low.</li> <li>The silicone rubber in the counter beam is damaged or worn out.</li> <li>The PTFE tape is damaged.</li> <li>The opening of the vacuum bag is obstructed.</li> </ul>	<ul style="list-style-type: none"> <li>Place the vacuum bag tightly and evenly over the sealing beam. Make sure the opening of the vacuum bag is always inside the vacuum chamber.</li> <li>Adjust the sealing time higher or lower as needed.</li> <li>Replace the silicone rubber.</li> <li>Replace the PTFE tape.</li> <li>Clear the opening of the vacuum bag of any obstructions and make sure it remains clear when filling.</li> </ul>
The lid does not open automatically.	<ul style="list-style-type: none"> <li>The gas damper is not working.</li> </ul>	<ul style="list-style-type: none"> <li>Contact your dealer or Audion Elektro B.V.</li> </ul>
Vacuum pump makes a lot of noise	<ul style="list-style-type: none"> <li>Pump rotates the wrong way</li> <li>No oil in the pump</li> <li>Pump is defect</li> </ul>	<ul style="list-style-type: none"> <li>Please connect the pump according to schedule</li> <li>Fill the pump with oil</li> <li>Contact your dealer or Audion Elektro B.V.</li> </ul>
The vacuum is insufficient.	<ul style="list-style-type: none"> <li>The vacuum time is too short.</li> <li>There is not enough oil in the vacuum pump.</li> <li>The ventilation opening on the back of the vacuum chamber is sealed off by a vacuum bag.</li> <li>The lid rubber strip is worn out.</li> <li>The oil is dirty and needs replacing.</li> </ul>	<ul style="list-style-type: none"> <li>Lengthen the vacuum time</li> <li>Check the oil level and replenish oil as needed. In order for the vacuum pump to work correctly, the pump must be filled with the right type of oil. Contact your dealer.</li> <li>Place the vacuum bag closer to the sealing beam.</li> <li>Replace the lid rubber strip.</li> <li>Replace the oil with the prescribed oil type.</li> </ul>
Insufficient vacuum in the package.	<ul style="list-style-type: none"> <li>Vacuum bag is of a substandard quality.</li> <li>The product has hard protuberances.</li> <li>The space between the sealing beam and the counter beam is too small (this space should be at least 5 mm).</li> </ul>	<ul style="list-style-type: none"> <li>Use a higher quality vacuum bag.</li> <li>Inspect the product and remove any parts sticking out.</li> <li>Loosen the safety screws on the sealing beam and push the sealing beam into the lowest position. Retighten the screws.</li> </ul>
Machine vacuums too slowly	<ul style="list-style-type: none"> <li>The suction filter of the pump is clogged.</li> </ul>	<ul style="list-style-type: none"> <li>Contact your dealer or Audion Elektro B.V.</li> </ul>





## 6 To discard the AUDIONVAC

In accordance with the directive 2002/96/CE, the logo below indicates that the equipment concerned is not to be disposed of as ordinary waste at the end of its useable life.

The equipment is to be delivered to a suitable depot that will dispose of the equipment in a proper way in accordance with the legislation on this subject, or to the supplier of new equipment in case of replacement.

The owner of the equipment is responsible for proper disposal of the equipment.

For further information we advise you to contact your local waste facility.



**Appropriate disposal of Waste of Electric and Electronic Equipment prevents unnecessary pollution of the environment and negative influence on general health.**

## 7 Conditions of guarantee

For official conditions, we refer to Dutch version.

### 7.1 Liability

- 1) We exclude any liability as far as it has not been arranged by law.
- 2) Our liability will never exceed the amount of the order.
- 3) Subject to the general valid regulations of the law, we are not obliged to any compensation of damage of which kind ever, directly or indirectly, under which company damage, to movables and immovables or to persons, both to the opposite party as to third parties.
- 4) In no way we are liable for damage arisen from or caused by the supplied or by the unsuitability of this for the purpose for which the opposite party has purchased the machine.

### 7.2 Guarantee

- 1) With due observance of the restrictions stated hereafter, we allow 12 months of guarantee to the products supplied by us. This guarantee is restricted to the occurring manufacture errors and does not imply interruptions caused by any form of wear spare parts subject to use.
- 2) To spare parts or enclosures obtained from third persons we do not give longer guarantee than this third supplier does.
- 3) Guarantee expires if the opposite party and/or third parties associated make improper use of the supplied.
- 4) Guarantee also expires if the opposite party and/or third parties associated execute activities and/or modifications to the supplied.
- 5) In case we replace spare parts to fulfill our guarantee engagement, the spare parts replaced become property of AUDION ELEKTRO
- 6) In case the opposite party does not come up completely, partially or does not come up in time to the obligations arisen from the engagement closed between the parties, we are not obliged to guarantee as long as the situation continues





## PART 2: TECHNICAL MANUAL

## 8 Recommended spare parts

### Spare parts list for VMS123

Description	Size / Specification	Part numbers	Quantity per machine
PTFE tape	0.40 m	160-1416621	-
Seal wire (double seal 3.5mm width)	0.50 m	160-1416111	-
Seal wire (cut-off seal 1.1mm width)	0.50 m	160-1416121	-
Seal wire (8mm width)	0.50 m	160-1416136	-
Silicone rubber	0.35 m	160-1431311	-
Lid rubber (lip 5.5mm)	1.75 m	160-1431326	-
Seal bar (double seal)	net seal length 340mm	160-1411227	1
Seal bar (cut-off seal)	net seal length 340mm	160-1411237	1
Seal bar (8mm seal)	net seal length 340mm	160-1411726	1
Seal cylinder		160-1397119	2
Membrane for seal cylinder	80mm dia.	160-2042516	2
Gas spring	370N	160-1921311	2
Micro switch		160-2011576	1
Valve block (seal & de-vac)		160-1391140	1
Soft air valve		160-1391181	1
Gas valve (option)		160-1391132	(1)
PCB	digital 10 programs	160-1341202	1
Sensor PCB (option)		160-1341192	(1)
Panel complete (consists of parts with *)		160-2011357	1
Panel holder + panel sheet *		160-2011334	(1)
ON/OFF switch *		160-1331117	(1)
Vacuum meter *	63mm dia.	160-1921217	(1)
Panel opening tool		160-1441226	2
Magnetic switch	BG09T4A	160-1332118	2
Control transformer		160-1334122	1
Exhaust filter		160-2050274	1

		110V-1P-60Hz	230V-1P-50Hz	
Main fuse	15A	160-1343132	-	1
	10A	-	160-1343125	2
Seal transformer	10V 500VA	160-1334127	160-1334128	1
Vacuum pump	16m3/h 0.55kw	160-1542716	160-1542711	1

Seal bar configuration



## Spare parts list for VMS153

Description	Size / Specification	Part numbers	Quantity per machine
PTFE tape	0.47 m	160-1416621	-
Seal wire (double seal 3.5mm width)	0.57 m	160-1416111	-
Seal wire (cut-off seal 1.1mm width)	0.57 m	160-1416121	-
Seal wire (8mm width)	0.57 m	160-1416136	-
Silicone rubber	0.42 m	160-1431311	-
Lid rubber (lip 5.5mm)	1.90 m	160-1431326	-
Seal bar (double seal)	net seal length 410mm	160-1411321	1 / (2)
Seal bar (cut-off seal)	net seal length 410mm	160-1411326	1 / (2)
Seal bar (8mm seal)	net seal length 410mm	160-1411731	1 / (2)
Seal cylinder		160-1397121	2 / (4)
Membrane for seal cylinder	80mm dia.	160-2042516	2 / (4)
Gas spring	385N	160-1921312	2
Micro switch		160-2011576	1
Valve block (seal & de-vac)		160-1391149	1
Soft air valve		160-1391181	1
Gas valve (option)		160-1391132	(1)
PCB	digital 10 programs	160-1341202	1
Sensor PCB (option)		160-1341192	(1)
Panel complete (consists of parts with *)		160-2011357	1
Panel holder + panel sheet *		160-2011334	(1)
ON/OFF switch *		160-1331117	(1)
Vacuum meter *	63mm dia.	160-1921217	(1)
Panel opening tool		160-1441226	2
Magnetic switch	BG09T4A	160-1332118	2
Control transformer		160-1334122	1
Exhaust filter		160-2050276	1

		110V-1P-60Hz	230V-1P-50Hz	
Main fuse	15A	160-1343132	-	1
	10A	-	160-1343125	2
Seal transformer	15V 700VA	160-1334126	160-1334130	1 / (2)
Vacuum pump	21m3/h 0.9KW	160-1543221	-	1
	21m3/h 0.75KW	-	160-1543111	1

### Seal bar configuration



1 seal bar (standard)



2 seal bars (option)

## Spare parts list for VMS153V

Description	Size / Specification	Part numbers	Quantity per machine
PTFE tape	0.47 m	160-1416621	-
Seal wire (double seal 3.5mm width)	0.57 m	160-1416111	-
Seal wire (cut-off seal 1.1mm width)	0.57 m	160-1416121	-
Seal wire (8mm width)	0.57 m	160-1416136	-
Silicone rubber	0.42 m	160-1431311	-
Lid rubber (lip 5.5mm)	1.90 m	160-1431326	-
Seal bar (double seal)	net seal length 410mm	160-1411321	1
Seal bar (cut-off seal)	net seal length 410mm	160-1411326	1
Seal bar (8mm seal)	net seal length 410mm	160-1411731	1
Seal cylinder		160-1397121	2
Membrane for seal cylinder	80mm dia.	160-2042516	2
Micro switch		160-2011576	1
Valve block (seal & de-vac)		160-1391149	1
Soft air valve		160-1391181	1
Gas valve (option)		160-1391132	(1)
PCB	digital 10 programs	160-1341202	1
Sensor PCB (option)		160-1341192	(1)
Panel complete (consists of parts with *)		160-2011357	1
Panel holder + panel sheet *		160-2011334	(1)
ON/OFF switch *		160-1331117	(1)
Vacuum meter *	63mm dia.	160-1921217	(1)
Panel opening tool		160-1441226	2
Magnetic switch	BG09T4A	160-1332118	2
Control transformer		160-1334122	1
Exhaust filter		160-2050276	1

		110V-1P-60Hz	230V-1P-50Hz	
Main fuse	15A	160-1343132	-	1
	10A	-	160-1343125	2
Seal transformer	15V 700VA	160-1334126	160-1334130	1
Vacuum pump	21m3/h 0.9KW	160-1543221	-	1
	21m3/h 0.75KW	-	160-1543111	1

Seal bar configuration



## Spare parts list for VMS153VCB

Description	Size / Specification	Part numbers	Quantity per machine
PTFE tape	0.47 m	160-1416621	-
Seal wire (bi-active 5mm width)	0.57 m	160-1416131	-
Lid rubber (lip 5.5mm)	1.90 m	160-1431326	-
Seal bar (bi-active lid side)	net seal length 410mm	160-1411343	1
Seal bar (bi-active chamber side)	net seal length 410mm	160-1411346	1
Seal cylinder		160-1397128	2
Membrane for seal cylinder	110mm dia.	160-2042521	2
Micro switch		160-2011576	1
Valve block (seal & de-vac)		160-1391149	1
Soft air valve		160-1391181	1
Gas valve (option)		160-1391132	(1)
PCB	digital 10 programs	160-1341202	1
Sensor PCB (option)		160-1341192	(1)
Panel complete (consists of parts with *)		160-2011357	1
Panel holder + panel sheet *		160-2011334	(1)
ON/OFF switch *		160-1331117	(1)
Vacuum meter *	63mm dia.	160-1921217	(1)
Panel opening tool		160-1441226	2
Magnetic switch	BG09T4A	160-1332118	2
Control transformer		160-1334122	1
Exhaust filter		160-2050276	1

		110V-1P-60Hz	230V-1P-50Hz	
Main fuse	15A	160-1343132	-	1
	10A	-	160-1343125	2
Seal transformer	15V 700VA	160-1334126	160-1334130	1
Vacuum pump	21m3/h 0.9KW	160-1543221	-	1
	21m3/h 0.75KW	-	160-1543111	1

Seal bar configuration



## Spare parts list for VMS163

Description	Size / Specification	Part numbers	Quantity per machine
PTFE tape	0.47 m	160-1416621	-
Seal wire (double seal 3.5mm width)	0.57 m	160-1416111	-
Seal wire (cut-off seal 1.1mm width)	0.57 m	160-1416121	-
Seal wire (8mm width)	0.57 m	160-1416136	-
Silicone rubber	0.42 m	160-1431311	-
Lid rubber (lip 5.5mm)	2.10 m	160-1431326	-
Seal bar (double seal)	net seal length 410mm	160-1411321	1 / (2)
Seal bar (cut-off seal)	net seal length 410mm	160-1411326	1 / (2)
Seal bar (8mm seal)	net seal length 410mm	160-1411731	1 / (2)
Seal cylinder		160-1397121	2 / (4)
Membrane for seal cylinder	80mm dia.	160-2042516	2 / (4)
Gas spring	500N	160-1921326	2
Micro switch		160-2011576	1
Valve block (seal & de-vac)		160-1391149	1
Soft air valve		160-1391181	1
Gas valve (option)		160-1391132	(1)
PCB	digital 10 programs	160-1341202	1
Sensor PCB (option)		160-1341192	(1)
Panel complete (consists of parts with *)		160-2011357	1
Panel holder + panel sheet *		160-2011334	(1)
ON/OFF switch *		160-1331117	(1)
Vacuum meter *	63mm dia.	160-1921217	(1)
Panel opening tool		160-1441226	2
Magnetic switch	BG09T4A	160-1332118	2
Control transformer		160-1334122	1
Exhaust filter		160-2050276	1

		110V-1P-60Hz	230V-1P-50Hz	
Main fuse	15A	160-1343132	-	1
	10A	-	160-1343125	2
Seal transformer	15V 700VA	160-1334126	160-1334130	1 / (2)
Vacuum pump	21m3/h 0.9KW	160-1543221	-	1
	21m3/h 0.75KW	-	160-1543111	1

### Seal bar configuration



1 seal bar (standard)



2 seal bars (option)

## Spare parts list for VMS163B

Description	Size / Specification	Part numbers	Quantity per machine
PTFE tape	0.47 m	160-1416621	-
Seal wire (bi-active 5mm width)	0.57 m	160-1416131	-
Lid rubber (lip 5.5mm)	2.10 m	160-1431326	-
Seal bar (bi-active upper)	net seal length 410mm	160-1411341	1
Seal bar (bi-active lower)	net seal length 410mm	160-1411346	1
Seal cylinder		160-1397128	2
Membrane for seal cylinder	110mm dia.	160-2042521	2
Gas spring	900N	160-1921331	2
Micro switch		160-2011576	1
Valve block (seal & de-vac)		160-1391149	1
Soft air valve		160-1391181	1
Gas valve (option)		160-1391132	(1)
PCB	digital 10 programs	160-1341202	1
Sensor PCB (option)		160-1341192	(1)
Panel complete (consists of parts with *)		160-2011357	1
Panel holder + panel sheet *		160-2011334	(1)
ON/OFF switch *		160-1331117	(1)
Vacuum meter *	63mm dia.	160-1921217	(1)
Panel opening tool		160-1441226	2
Magnetic switch	BG09T4A	160-1332118	2
Control transformer		160-1334122	1
Exhaust filter		160-2050276	1

		110V-1P-60Hz	230V-1P-50Hz	
Main fuse	15A	160-1343132	-	1
	10A	-	160-1343125	2
Seal transformer	15V 700VA	160-1334126	160-1334130	1
Vacuum pump	21m3/h 0.9KW	160-1543221	-	1
	21m3/h 0.75KW	-	160-1543111	1

Seal bar configuration



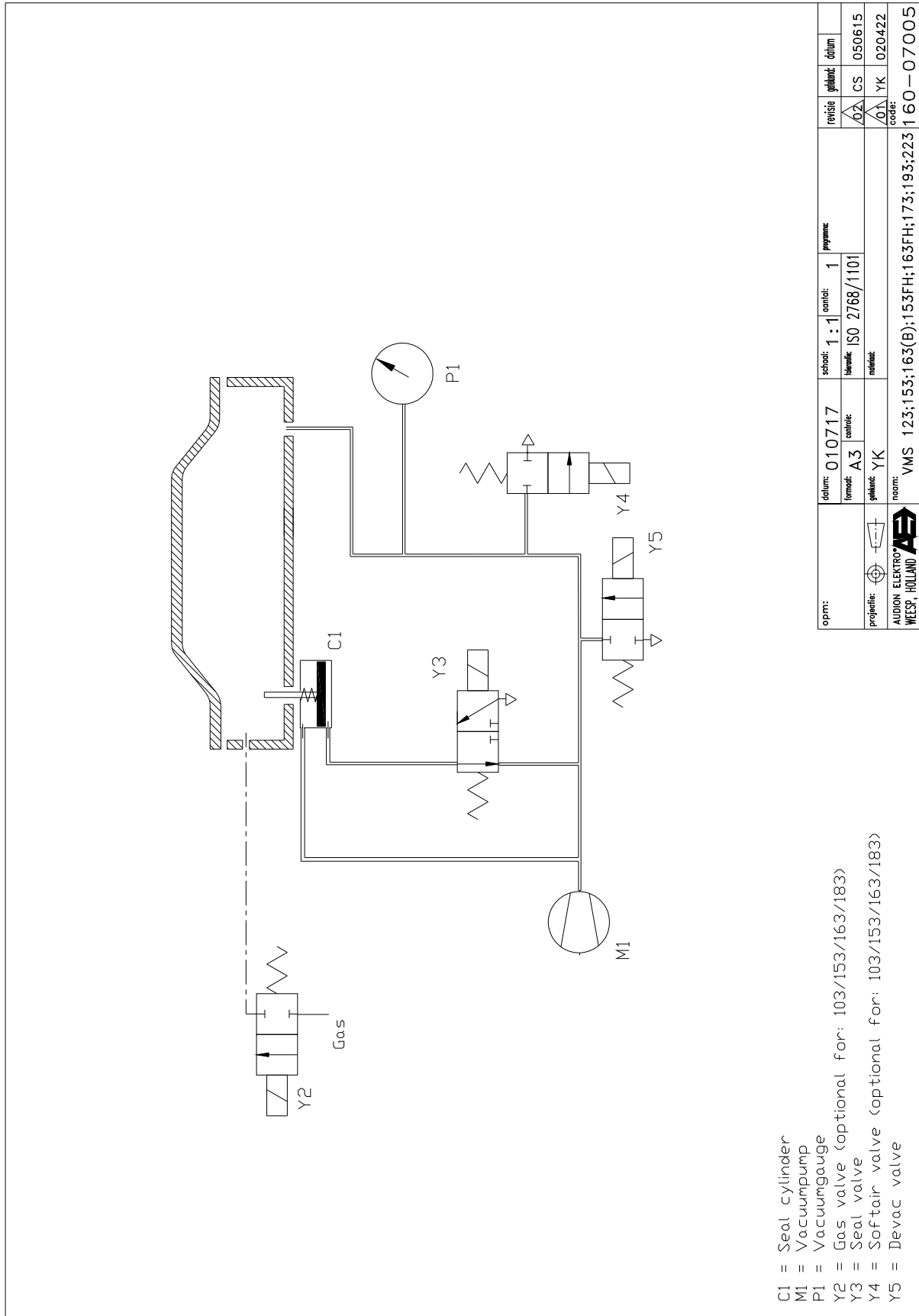
## 9 Technical specifications

TYPE	VMS 123	VMS 153	VMS 153V	VMS 153VCB	VMS 163	VMS 163B
Machine size (L x W x H) in mm.	450x525x385	490x525x445	490x650x750	490x650x750	490x610x445	490x610x445
Effective chamber size in mm.	340x370	410x370 410x320			410x460 410x410	410x460 410x410
Net. Sealing bar length in mm.	1x 340	1x 410 2x 410	1x 380	1x 380	1x 410 2x 410	1x 410 2x 410
Chamber height in mm.						
Absolute chamber size in mm.	350x420x150	420x420x180			420x500x180	420x500x180
Tabletop model	X	X	X	X	X	X
Floor model						
Double chamber						
Stainless steel housing	X	X	X	X	X	X
Stainless steel chamber	X	X	X	X	X	X
Flat transparent lid			X	X		
High transparent lid	X	X			X	
Flat aluminum lid with window						X
Pump capacity in m³/h	16 m³/h	21 m³/h	21 m³/h	21 m³/h	21 m³/h	21 m³/h
Max. product size (WxDxH) mm.			380x80x270	380x80x280		
Capacity / min.	Ca. 2	Ca. 2	Ca. 2	Ca. 2	Ca. 2	Ca. 2
Voltage, phase and frequency	230V-1-50Hz.	230V-1-50Hz.	230V-1-50Hz.	230V-1-50Hz.	230V-1-50Hz.	230V-1-50Hz.
Power	0.55 kW	0.75/1.0 kW	0.75/1.0 kW	0.75/1.0 kW	0.75/1.0 kW	0.75/1.0 kW
Control	Digital	Digital	Digital	Digital	Digital	Digital
Packed size (L x W x H)						
Number of gas pipes (optional)	2	2	2	2	2	2





## 10 Pneumatic diagram



## 11 Electrical diagrams and index sheets

The electric diagrams shown in this manual are basic/concept drawings. The details of the electric components are described in the index sheets.

Find the correct index sheet and the electric drawings by:

- machine model (VMS 123, 153, ...)
- seal configuration (1 seal bar, 2 seal bars)
- voltage (110V, 230V, ...)

Model, seal configurations, voltage

VMS 153(V) – 163 (1 seal bar) 230V - 1P - 50Hz

Control diagram	002-PCB	Revision (From - Until)	0 (01-01-2011 => )
Main circuit diagram	011	Seal configuration	Front
Machine serie	VMS 153(V) - VMS 163	Seal type	Double / Cut-off / 8mm
Power (V~/Hz)	230-150		
Pump capacity	0.21 m³/h		

<b>Main electrical supply:</b>			
L1	Phase 1		
N	Neutral		
PE	Ground connection		

<b>Overload devices:</b>			
Fuse main entrance	F1, F2	Part number:	160-1343125
		Specification:	10 Amp, Slow
		Size:	5 x 20 mm
Fuse seal transformer	F4	Part number:	160-1343129
		Specification:	5 Amp Slow
		Size:	5 x 20 mm
Fuse control transformer	F6	FT	130 °C
		Part number:	160-1343128
		Specification:	2.5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
		Part number:	160-1343127
		Specification:	0.5 Amp Slow (6 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
		Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm

<b>Pump:</b>			
Pump type	021 m³/h		
Capacity	0.78 kW		

<b>Transformers:</b>			
Seal transformer	Tr1	Part number:	160-1334130
		Input:	220-230 Volt
		Capacity:	700 VA
		Output:	15 Volt
		ED:	10 %
		Connection:	Stand alone
Used transformers	Tr1	Part number:	160-1334122
Control transformer	Tb1	Input:	220-230 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %

<b>Sealbars:</b>			
Used sealbars	R1	Connection:	Stand alone

<b>Contactors:</b>			
Pump	K1		
Seal	K2		

<b>Switches:</b>			
Control switch ON/OFF	S2	Part number:	160-1331117

<b>Microswitches:</b>			
Switch start cycle	MS1	Electrical connections:	2

<b>Valves:</b>			
Gas valve	Y2		
Seal valve	Y3		
Soft-air valve	Y4		
Decompression valve	Y5		

Index sheet

Concept diagram for PCB

Concept diagram for circuit



## VMS 123 100V - 1P - 50/60Hz

Control diagram	002-PCB	Revision (From - Until)	0 (01-01-2011 => )
Main circuit diagram	009	Seal configuration	Front
Machine serie	VMS 123	Seal type	Double / Cut-off / 8mm
Power (V/~ /Hz)	100-1-50/60		
Pump capacity	016 m³/h		

**Main electrical supply:**

L1	Phase 1
N	Neutral
PE	Ground connection

**Overload devices:**

Fuse main entrance	F1	Part number:	160-1343132
		Specification:	15 Amp, Slow
		Size:	6,3 x 32mm
Fuse seal transformer	F4	Part number:	160-1343137
		Specification:	6,3 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm

**Pump:**

Pump type	016 m³/h
Capacity	0,55 kW

**Transformers:**

Seal transformer	Tr1	Part number:	160-1334127
		Input:	100 Volt
		Capacity:	500 VA
		Output:	10 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	100 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %

**Sealbars:**

Used sealbars	R1	Connection:	Stand alone
---------------	----	-------------	-------------

**Contactors:**

Pump	K1
Seal	K2

**Switches:**

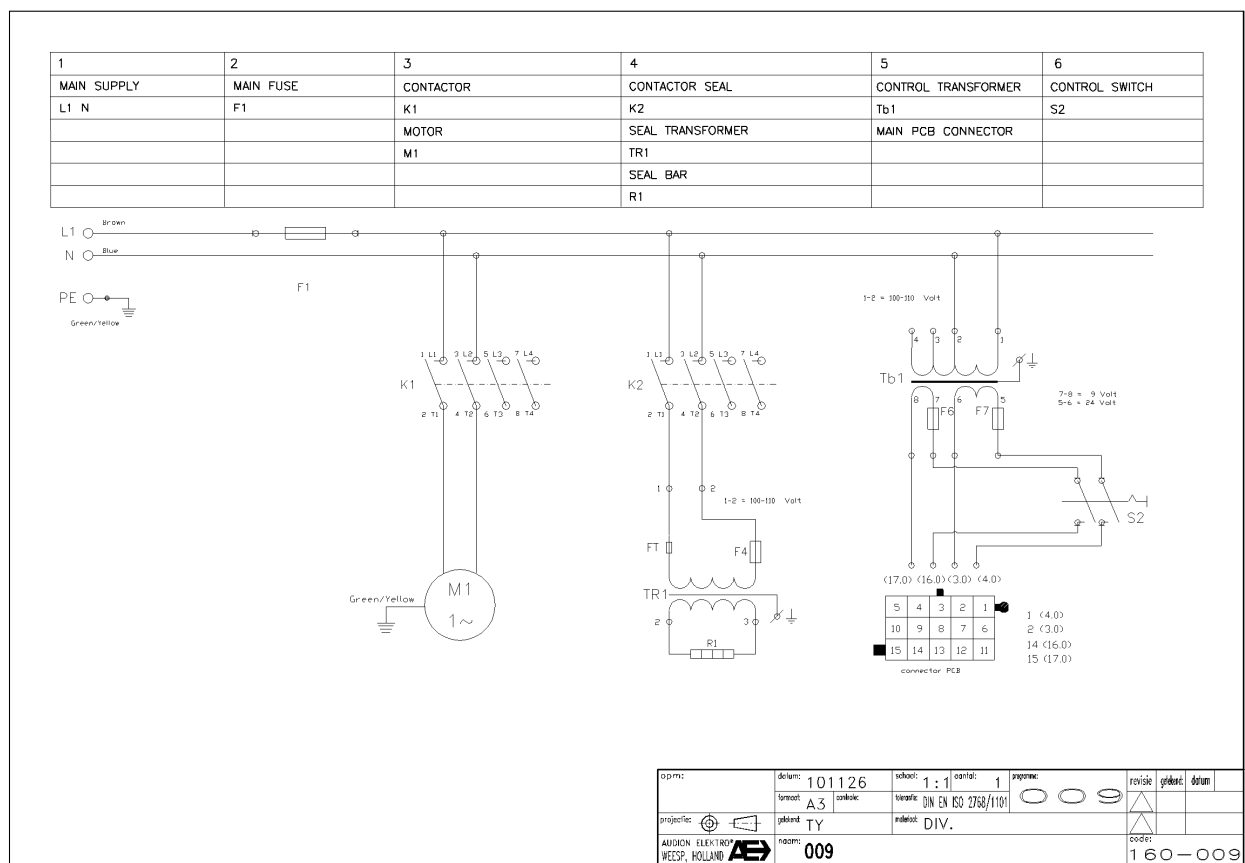
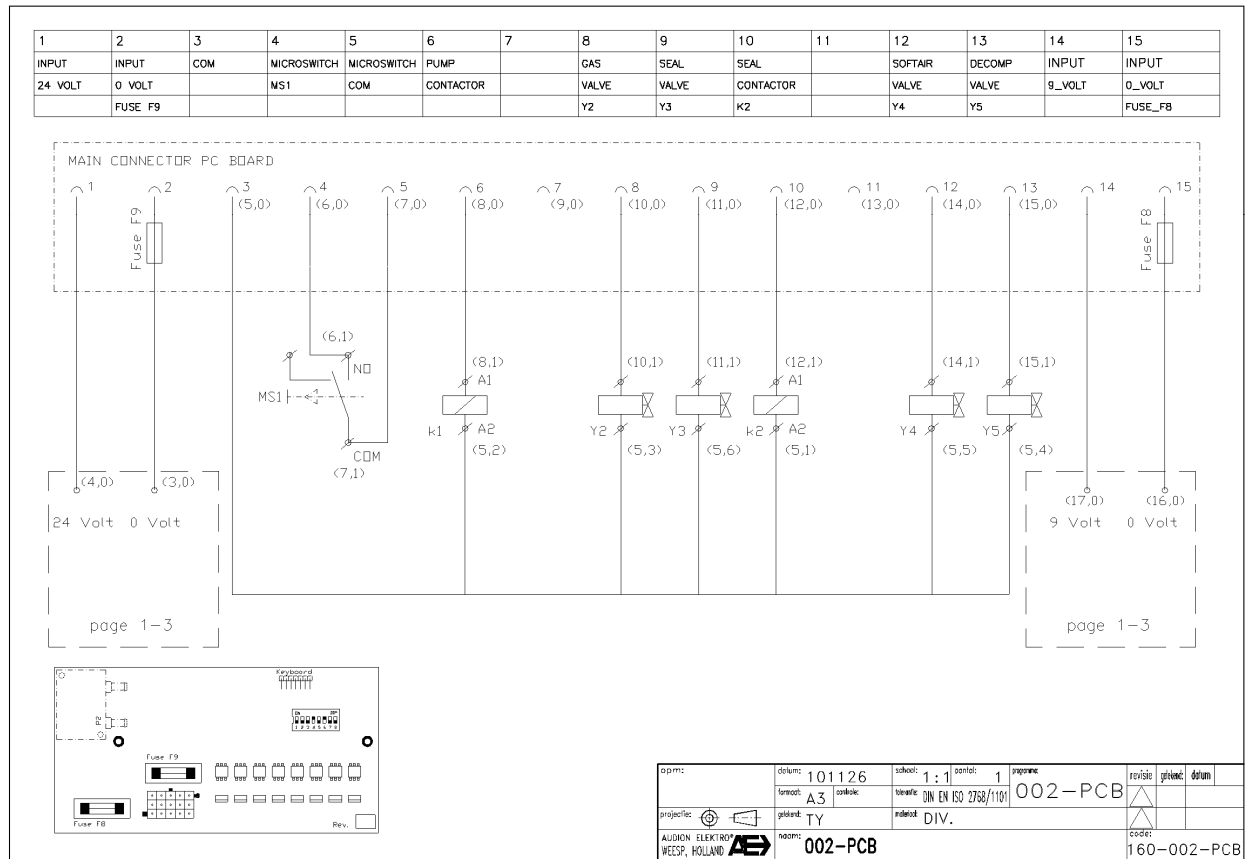
Control switch ON/OFF	S2	Part number:	160-1331117
-----------------------	----	--------------	-------------

**Microswitches:**

Switch start cycle	MS1	Electrical connections:	2
--------------------	-----	-------------------------	---

**Valves:**

Gas valve	Y2
Seal valve	Y3
Soft-air valve	Y4
Decompression valve	Y5





## VMS 123 110V - 1P - 50/60Hz

Control diagram	002-PCB	Revision (From - Until)	0 (01-01-2011 => )
Main circuit diagram	009	Sealconfiguration	Front
Machine serie	VMS 123	Seal type	Double / Cut-off / 8mm
Power (V/~ /Hz)	110-1-50/60		
Pomp capacity	016 m³/h		

**Main electrical supply:**

L1	Phase 1
N	Neutral
PE	Ground connection

**Overload devices:**

Fuse main entrance	F1	Part number:	160-1343132
		Specification:	15 Amp, Slow
		Size:	6,3 x 32mm
Fuse seal transformer	F4	Part number:	160-1343137
		Specification:	6,3 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm

**Pump:**

Pump type	016 m³/h
Capacity	0,55 kW

**Transformers:**

Sealtransformer	Tr1	Part number:	160-1334127
		Input:	110 Volt
		Capacity:	500 VA
		Output:	10 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	110 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %

**Sealbars:**

Used sealbars	R1	Connection:	Stand alone
---------------	----	-------------	-------------

**Contactors:**

Pump	K1
Seal	K2

**Switches:**

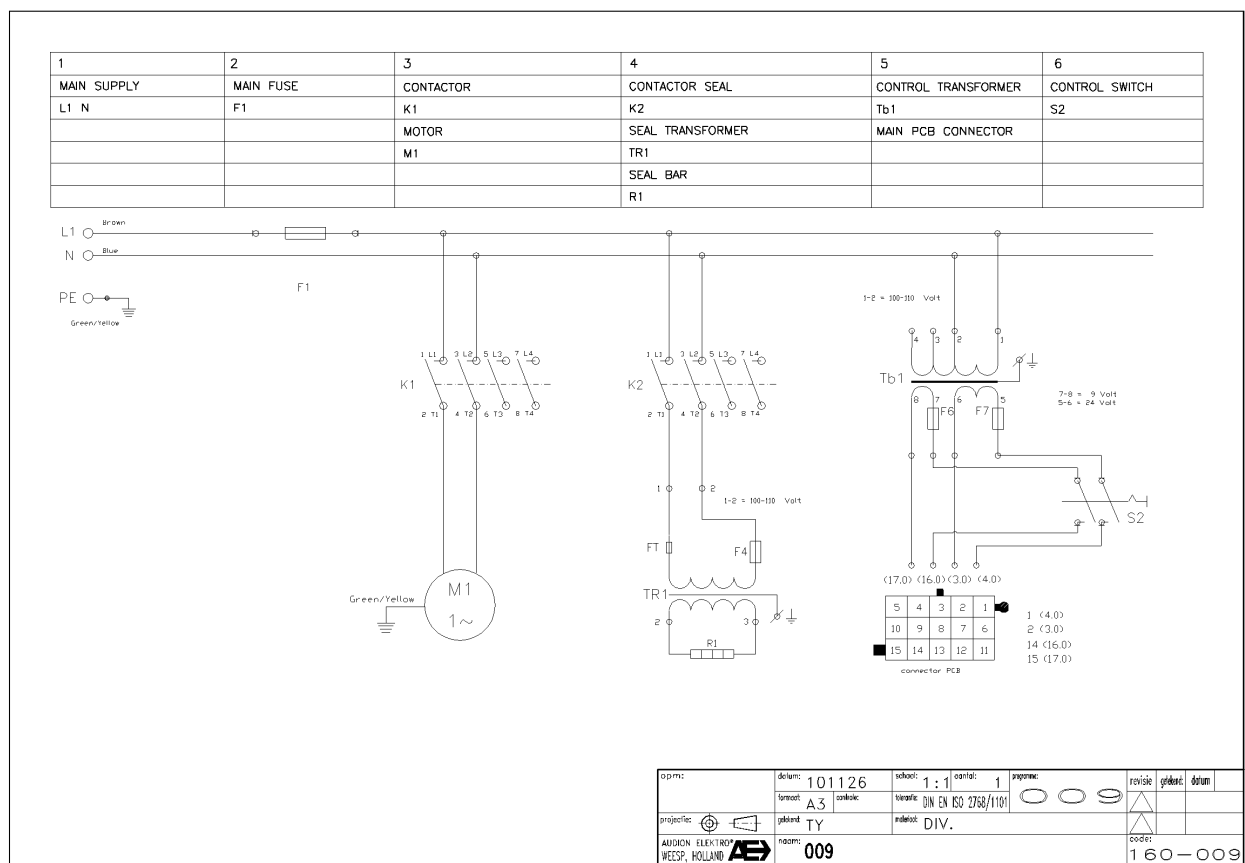
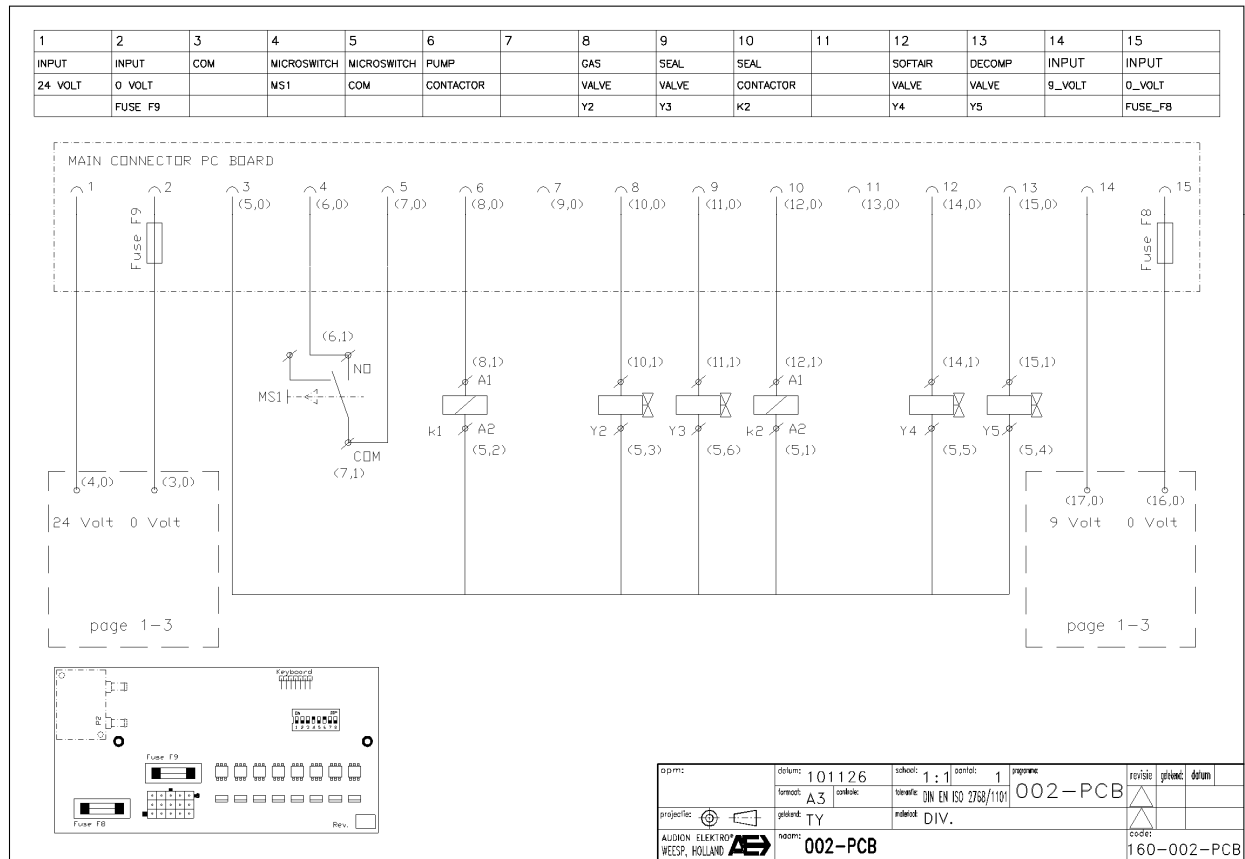
Control switch ON/OFF	S2	Part number:	160-1331117
-----------------------	----	--------------	-------------

**Microswitches:**

Switch start cycle	MS1	Electrical connections:	2
--------------------	-----	-------------------------	---

**Valves:**

Gas valve	Y2
Seal valve	Y3
Soft-air valve	Y4
Decompression valve	Y5





## VMS 123 220/230V - 1P - 50/60Hz

Control diagram	002-PCB	Revision (From - Until)	0 (01-01-2011 => )
Main circuit diagram	011	Sealconfiguration	Front
Machine serie	VMS 123	Seal type	Double / Cut-off / 8mm
Power (V/~ /Hz)	220/230-1-50/60		
Pomp capacity	016 m³/h		

**Main electrical supply:**

L1	Phase 1
N	Neutral
PE	Ground connection

**Overload devices:**

Fuse main entrance	F1, F2	Part number:	160-1343125
		Specification:	10 Amp, Slow
		Size:	5 x 20 mm
Fuse seal transformer	F4	Part number:	160-1343138
		Specification:	3,15 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm

**Pump:**

Pump type	016 m³/h
Capacity	0,55 kW

**Transformers:**

Sealtransformer	Tr1	Part number:	160-1334128
		Input:	220-230 Volt
		Capacity:	500 VA
		Output:	10 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	220-230 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %

**Sealbars:**

Used sealbars	R1	Connection:	Stand alone
---------------	----	-------------	-------------

**Contactors:**

Pump	K1
Seal	K2

**Switches:**

Control switch ON/OFF	S2	Part number:	160-1331117
-----------------------	----	--------------	-------------

**Microswitches:**

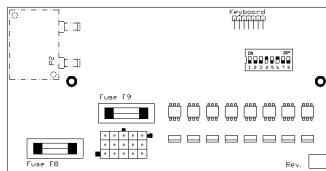
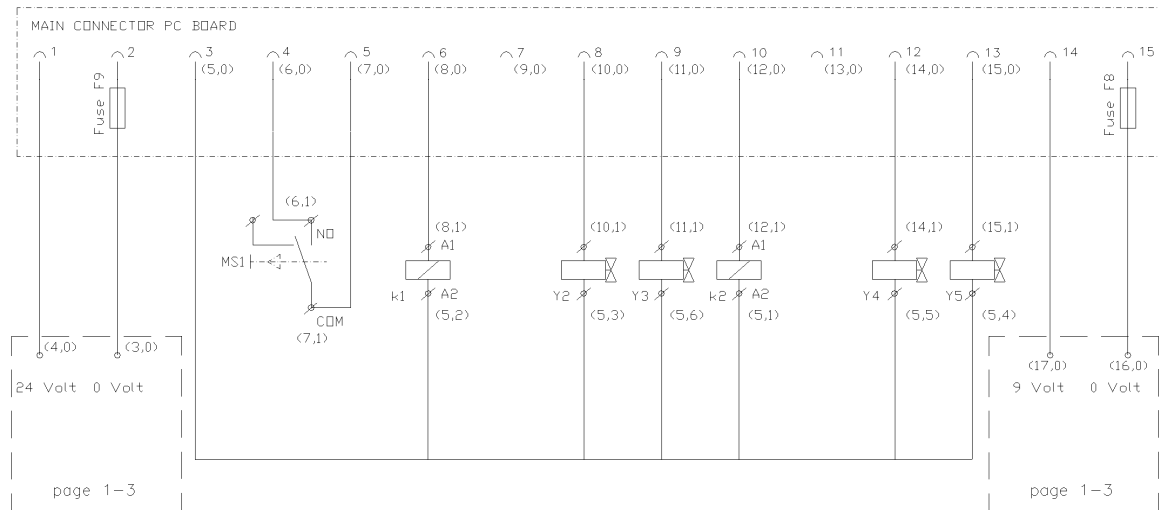
Switch start cycle	MS1	Electrical connections:	2
--------------------	-----	-------------------------	---

**Valves:**

Gas valve	Y2
Seal valve	Y3
Soft-air valve	Y4
Decompression valve	Y5



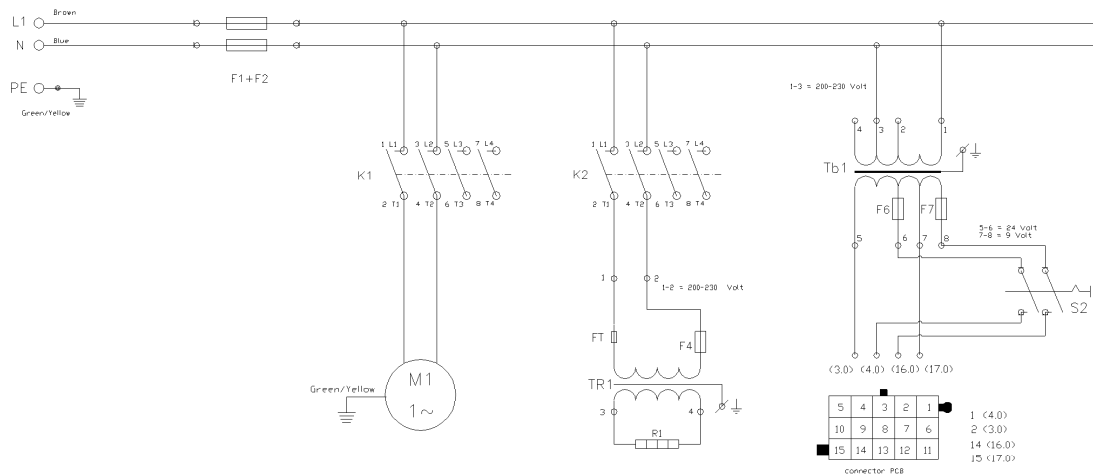
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
INPUT	INPUT	COM	MICROSWITCH	MICROSWITCH	PUMP		GA5	SEAL	SEAL		SOFTAIR	DECOMP	INPUT	INPUT
24_VOLT	0_VOLT		MS1	COM	CONTACTOR		VALVE	VALVE	CONTACTOR		VALVE	VALVE	g_VOLT	0_VOLT
	FUSE_F9						Y2	Y3	K2		Y4	Y5		FUSE_FB



opm:	datum: 101126	school: 1:1	posit: 1	programma	revisie	gemaakt	datum
	formaat: A3	ontwerp:	titel: DIN EN ISO 2768/1101	002-PCB			
projectie: 	gelaat: TY	reductie:	DIV.				
AUDION ELEKTRO MEES, HOLLAND 	naam: 002-PCB				code:		
					160-002-PCB		

This publication, or parts thereof, may not be reproduced in any form, by any method, for any purpose.

1	2	3	4	5	6
MAIN SUPPLY	MAIN FUSE	CONTACTOR	CONTACTOR SEAL	CONTROL TRANSFORMER	CONTROL SWITCH
L1 N	F1+F2	K1	K2	Tb1	S2
		MOTOR	SEAL TRANSFORMER	MAIN PCB CONNECTOR	
		M1	TR1		
			SEAL BAR		
			R1		



opm:	delen:	101126	schied:	1:1	pagina:	1	revisie	gemaakt:	datum:
	formaat:	A3	categorie:	kleur:	DIN EN ISO 2768/101	01	1		
projectief:	gemaakt:	TY	revisie:	DIV.					
AUDISON ELEKTRO WESPE, HOLLAND	naam:	011					code:	160-01	1

This publication, or parts thereof, may not be reproduced in any form, by any method, for any purpose.



VMS 153(V) – 163 (1 seal bar) 110V - 1P - 50/60Hz

Control diagram	002-PCB	Revision (From - Until)	0 (01-01-2011 => )
Main circuit diagram	009	Sealconfiguration	Front
Machine serie	VMS 153(V) - VMS 163	Seal type	Double / Cut-off / 8mm
Power (V~/Hz)	110-1-50/60		
Pump capacity	021 m³/h		

**Main electrical supply:**

L1	Phase 1
N	Neutral
PE	Ground connection

**Overload devices:**

Fuse main entrance	F1	Part number:	160-1343132
		Specification:	15 Amp, Slow
		Size:	6,3 x 32 mm
Fuse seal transformer	F4	Part number:	160-1343126
		Specification:	10 Amp Fast
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm

**Pump:**

Pump type	021 m³/h
Capacity	0,9 kW

**Transformers:**

Sealtransformer	Tr1	Part number:	160-1334126
		Input:	110 Volt
		Capacity:	700 VA
		Output:	15 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	110 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %

**Sealbars:**

Used sealbars	R1	Connection:	Stand alone
---------------	----	-------------	-------------

**Contactors:**

Pump	K1
Seal	K2

**Switches:**

Control switch ON/OFF	S2	Part number:	160-1331117
-----------------------	----	--------------	-------------

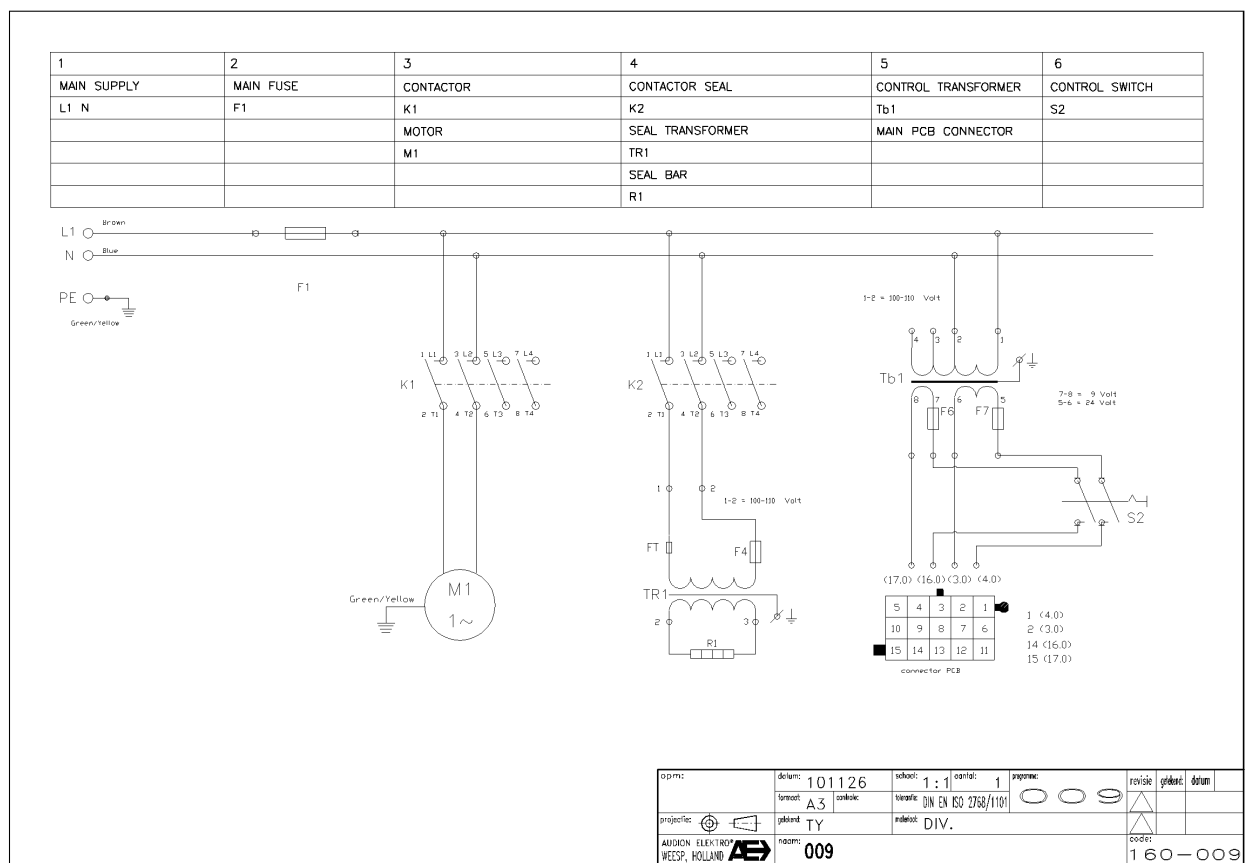
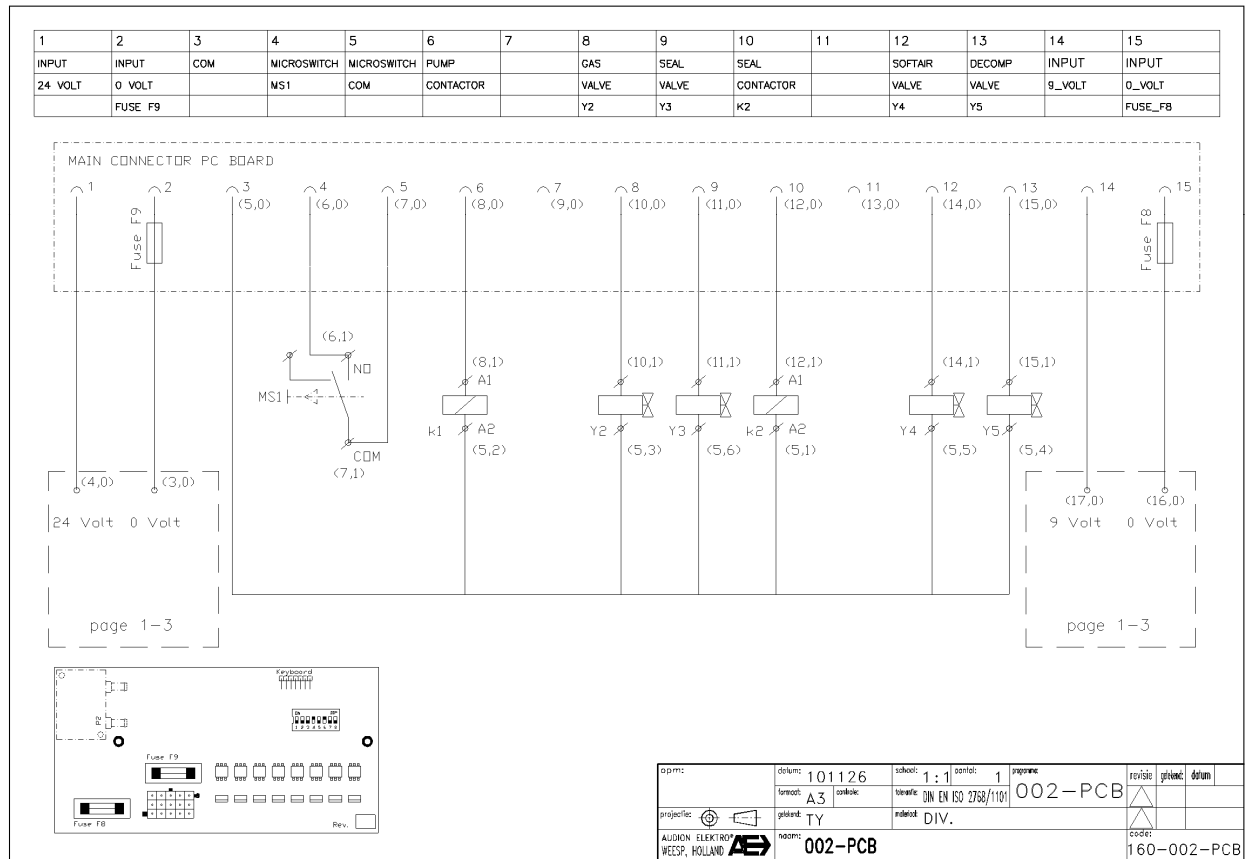
**Microswitches:**

Switch start cycle	MS1	Electrical connections:	2
--------------------	-----	-------------------------	---

**Valves:**

Gas valve	Y2
Seal valve	Y3
Soft-air valve	Y4
Decompression valve	Y5

## VMS 153(V) – 163 (1 seal bar) 110V - 1P - 50/60Hz





## VMS 153(V) – 163 (1 seal bar) 200V - 3P - 50/60Hz

Control diagram	002-PCB	Revision (From - Until)	0 (01-01-2011 => )
Main circuit diagram	013	Seal configuration	Front
Machine serie	VMS 153(V) - VMS 163	Seal type	Double / Cut-off / 8mm
Power (V~/Hz)	200-3-50/60		
Pump capacity	021 m³/h		

**Main electrical supply:**

L1	Phase 1
L2	Phase 2
L3	Phase 3
PE	Ground connection

**Overload devices:**

Fuse main entrance	F1, F2, F3	Part number:	160-1343125
		Specification:	10 Amp, Slow
		Size:	5 x 20 mm
Fuse seal transformer	F4	Part number:	160-1343129
		Specification:	5 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm

**Pump:**

Pump type	021 m³/h
Capacity	0,75 kW

**Transformers:**

Seal transformer	Tr1	Part number:	160-1334130
		Input:	200 Volt
		Capacity:	700 VA
		Output:	15 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	200 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %

**Sealbars:**

Used sealbars	R1	Connection:	Stand alone
---------------	----	-------------	-------------

**Contactors:**

Pump	K1
Seal	K2

**Switches:**

Control switch ON/OFF	S2	Part number:	160-1331117
-----------------------	----	--------------	-------------

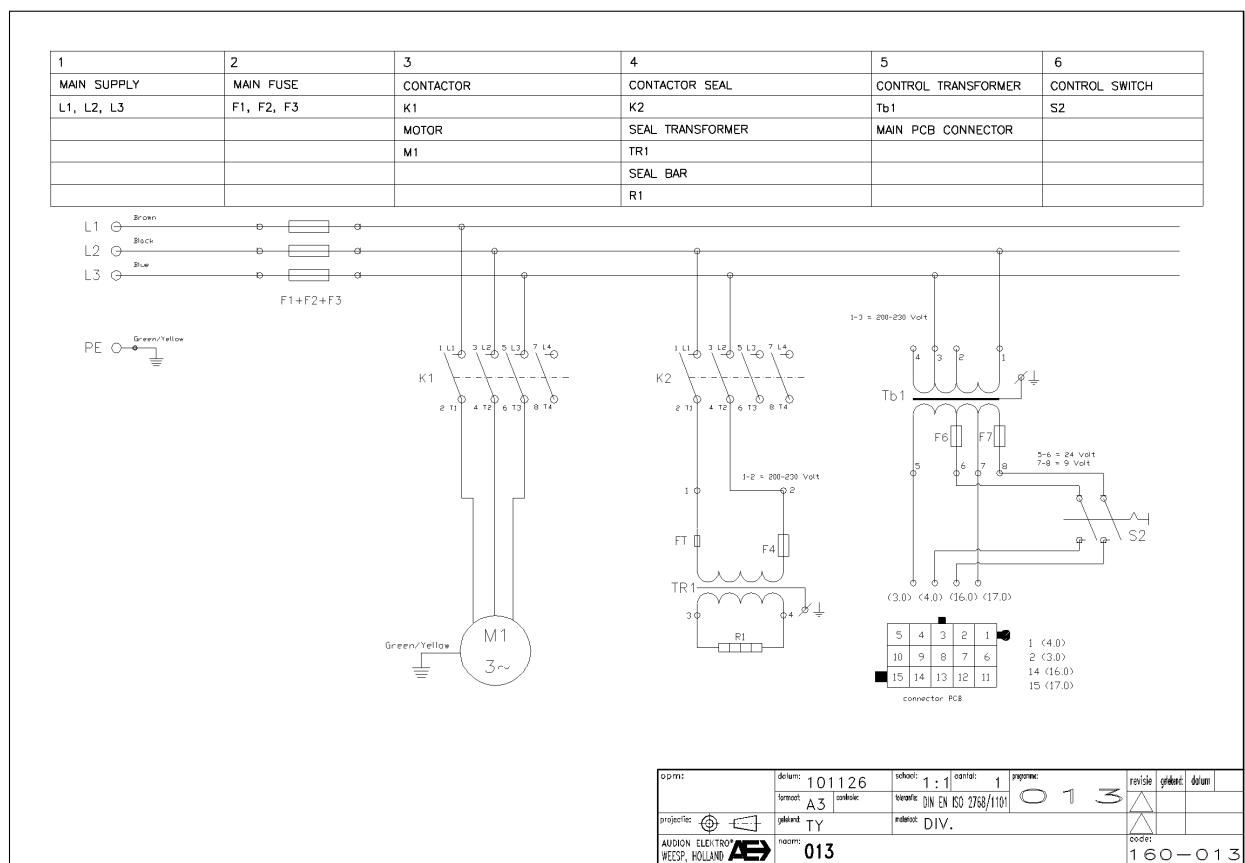
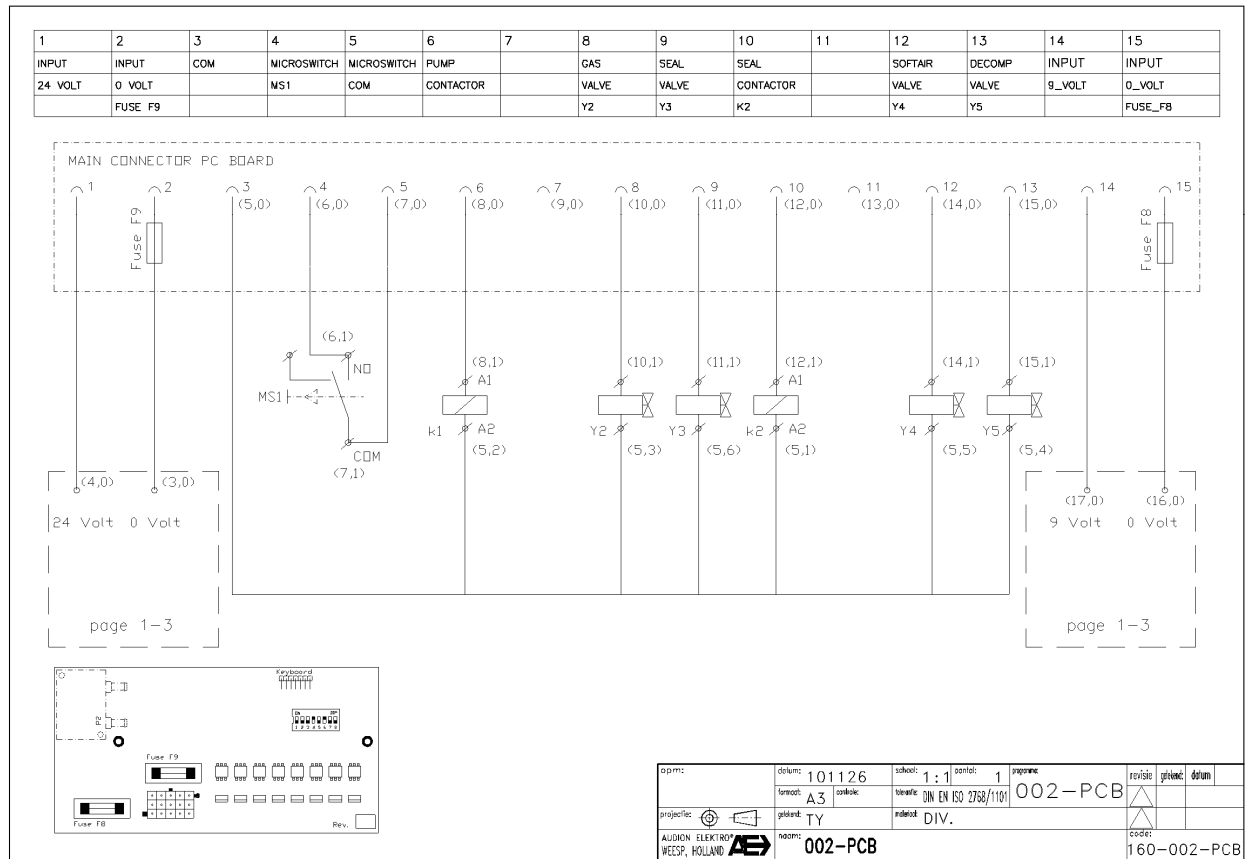
**Microswitches:**

Switch start cycle	MS1	Electrical connections:	2
--------------------	-----	-------------------------	---

**Valves:**

Gas valve	Y2
Seal valve	Y3
Soft-air valve	Y4
Decompression valve	Y5

## VMS 153(V) – 163 (1 seal bar) 200V - 3P - 50/60Hz





## VMS 153(V) – 163 (1 seal bar) 220V - 1P - 60Hz

Control diagram	002-PCB	Revision (From - Until)	0 (01-01-2011 => )
Main circuit diagram	011	Seal configuration	Front
Machine serie	VMS 153(V) - VMS 163	Seal type	Double / Cut-off / 8mm
Power (V~/Hz)	220-1-60		
Pump capacity	021 m³/h		

**Main electrical supply:**

L1	Phase 1
N	Neutral
PE	Ground connection

**Overload devices:**

Fuse main entrance	F1, F2	Part number:	160-1343125
		Specification:	10 Amp, Slow
		Size:	5 x 20 mm
Fuse seal transformer	F4	Part number:	160-1343129
		Specification:	5 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm

**Pump:**

Pump type	021 m³/h
Capacity	0,95 kW

**Transformers:**

Seal transformer	Tr1	Part number:	160-1334130
		Input:	220 Volt
		Capacity:	700 VA
		Output:	15 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	220 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %

**Sealbars:**

Used sealbars	R1	Connection:	Stand alone
---------------	----	-------------	-------------

**Contactors:**

Pump	K1
Seal	K2

**Switches:**

Control switch ON/OFF	S2	Part number:	160-1331117
-----------------------	----	--------------	-------------

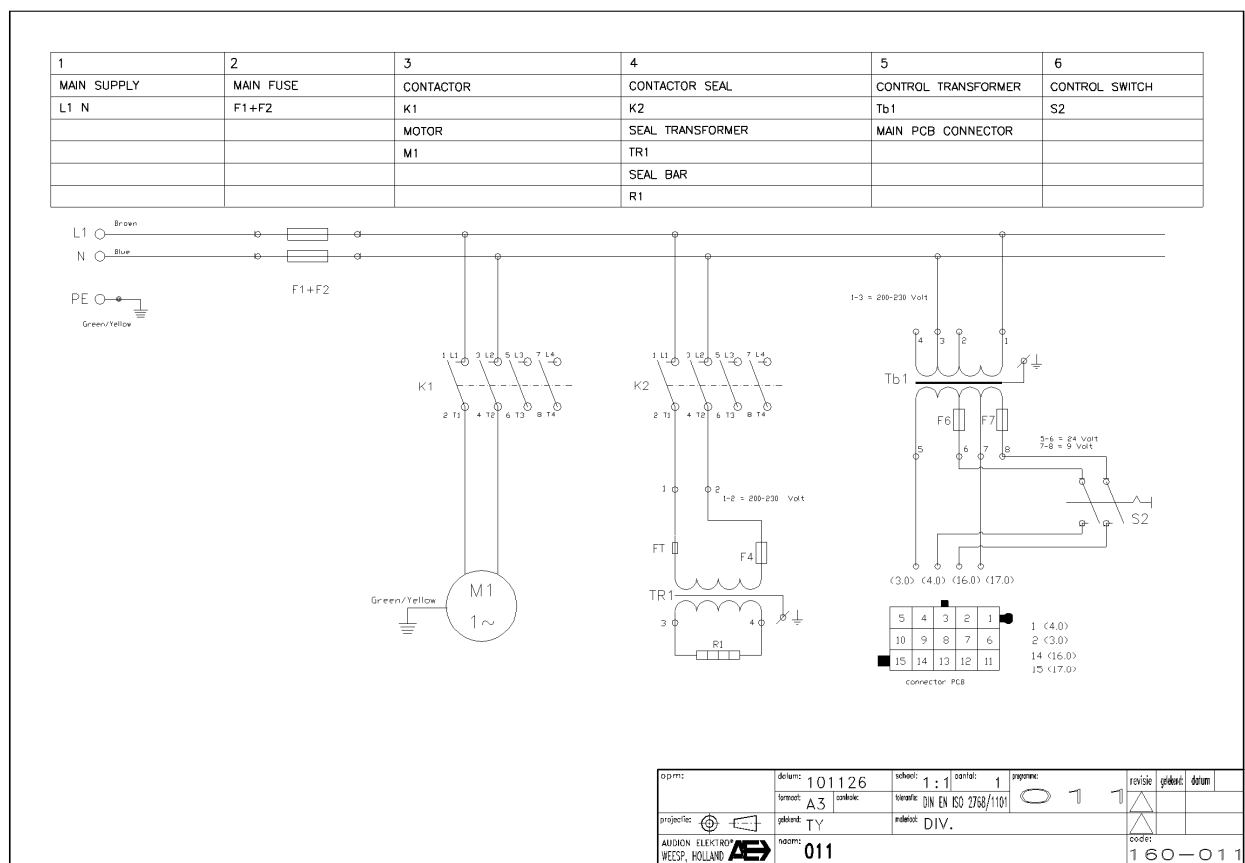
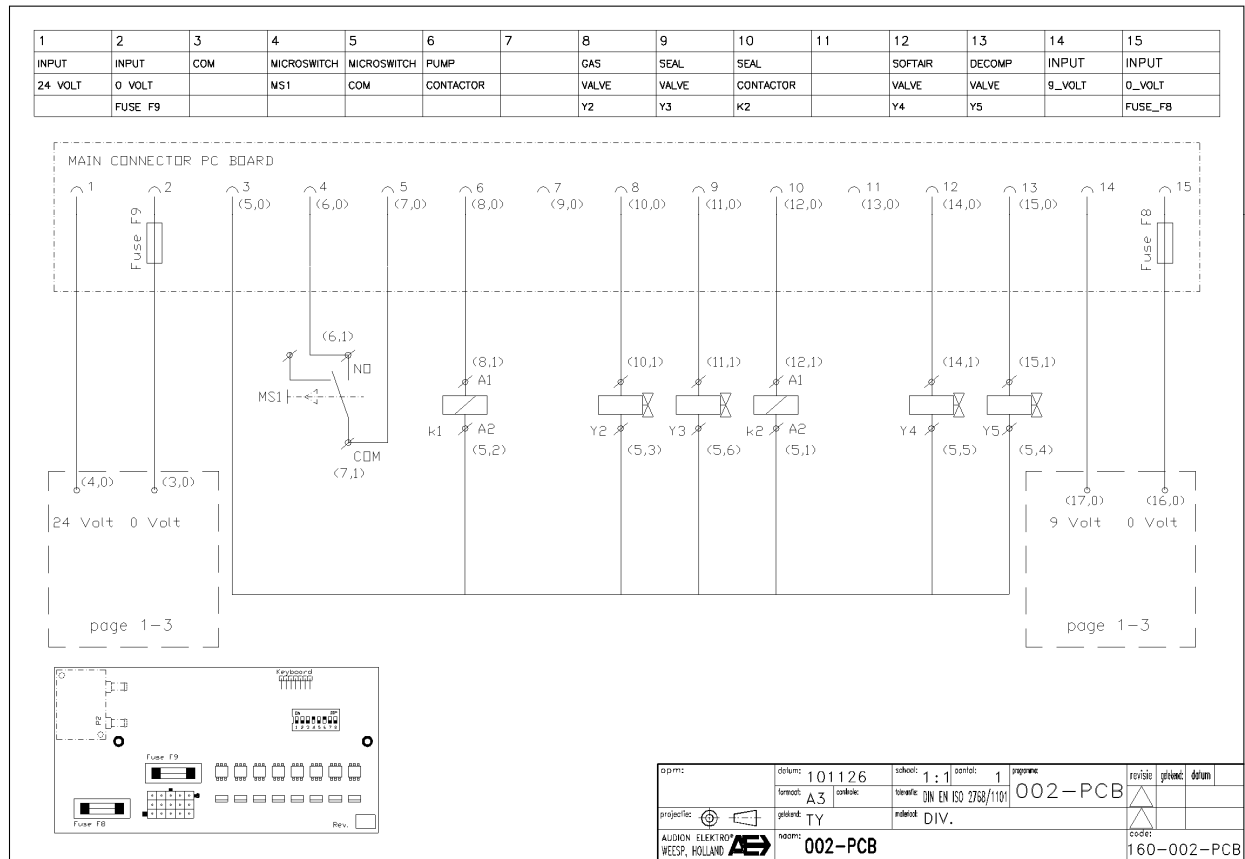
**Microswitches:**

Switch start cycle	MS1	Electrical connections:	2
--------------------	-----	-------------------------	---

**Valves:**

Gas valve	Y2
Seal valve	Y3
Soft-air valve	Y4
Decompression valve	Y5

## VMS 153(V) – 163 (1 seal bar) 220V - 1P - 60Hz





VMS 153(V) – 163 (1 seal bar) 230V - 1P - 50Hz

Control diagram	002-PCB	Revision (From - Until)	0 (01-01-2011 => )
Main circuit diagram	011	Sealconfiguration	Front
Machine serie	VMS 153(V) - VMS 163	Seal type	Double / Cut-off / 8mm
Power (V/~Hz)	230-1-50		
Pump capacity	021 m³/h		

**Main electrical supply:**

L1	Phase 1
N	Neutral
PE	Ground connection

**Overload devices:**

Fuse main entrance	F1, F2	Part number:	160-1343125
		Specification:	10 Amp, Slow
		Size:	5 x 20 mm
Fuse seal transformer	F4	Part number:	160-1343129
		Specification:	5 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm

**Pump:**

Pump type	021 m³/h
Capacity	0,75 kW

**Transformers:**

Sealtransformer	Tr1	Part number:	160-1334130
		Input:	220-230 Volt
		Capacity:	700 VA
		Output:	15 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	220-230 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %

**Sealbars:**

Used sealbars	R1	Connection:	Stand alone
---------------	----	-------------	-------------

**Contactors:**

Pump	K1
Seal	K2

**Switches:**

Control switch ON/OFF	S2	Part number:	160-1331117
-----------------------	----	--------------	-------------

**Microswitches:**

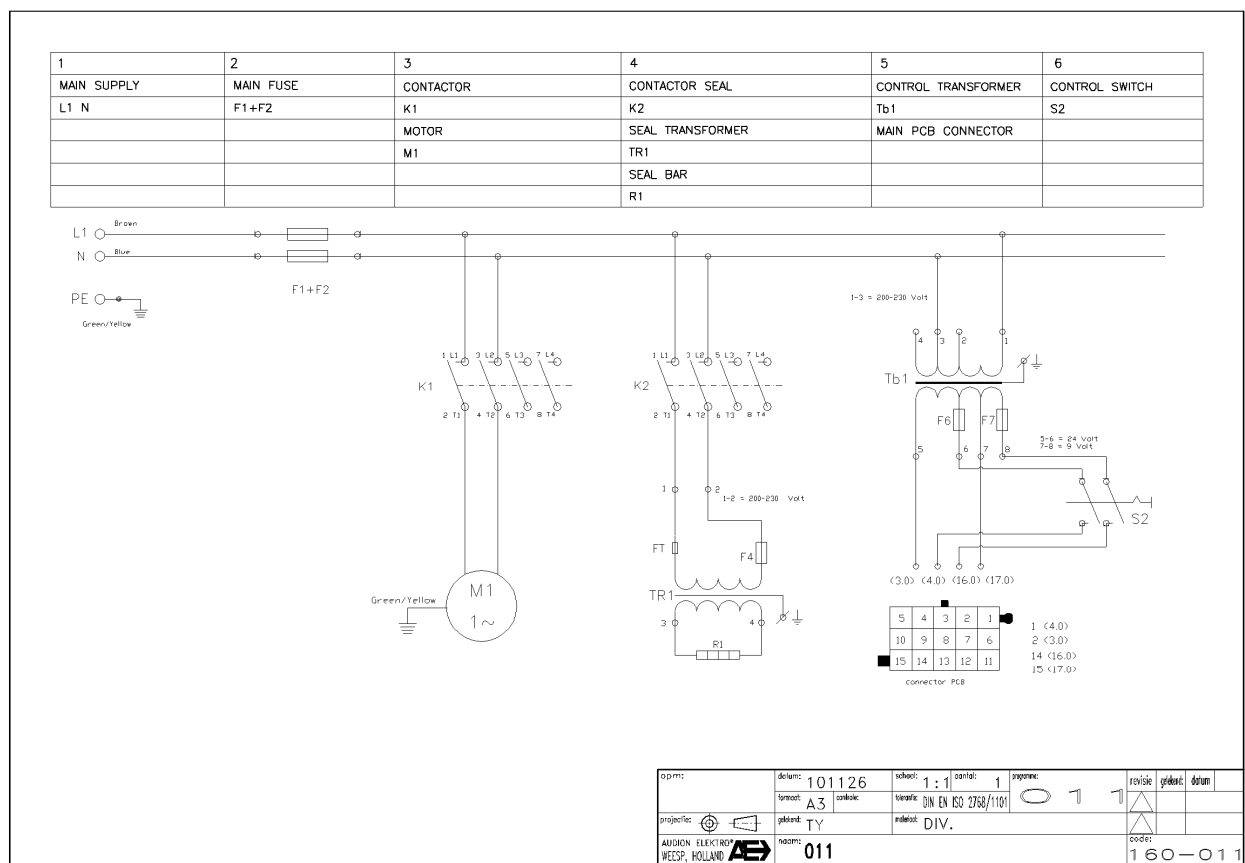
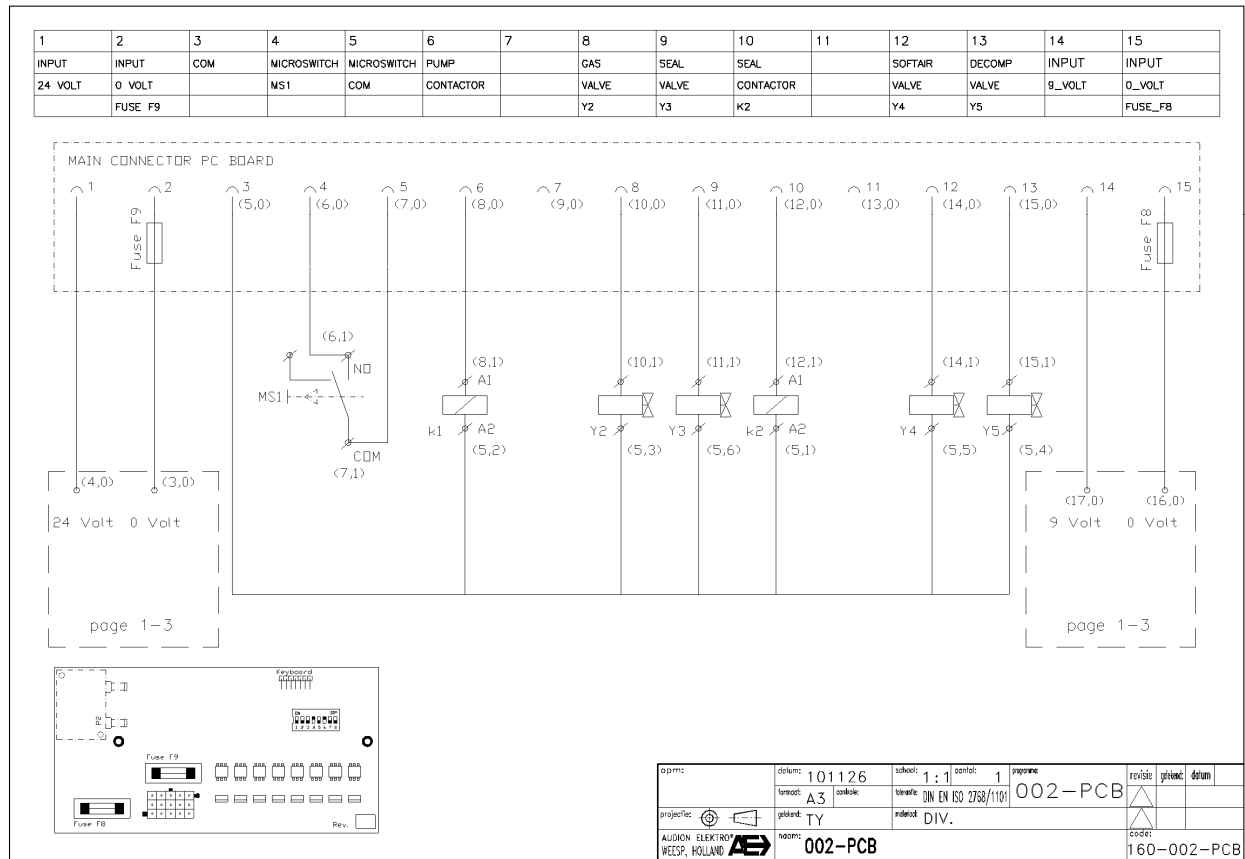
Switch start cycle	MS1	Electrical connections:	2
--------------------	-----	-------------------------	---

**Valves:**

Gas valve	Y2
Seal valve	Y3
Soft-air valve	Y4
Decompression valve	Y5



## VMS 153(V) – 163 (1 seal bar) 230V - 1P - 50Hz





## VMS 153(V) – 163 (1 seal bar) 230V - 3P - 50Hz

Control diagram	002-PCB	Revision (From - Until)	0 (01-01-2011 => )
Main circuit diagram	013	Seal configuration	Front
Machine serie	VMS 153(V) - VMS 163	Seal type	Double / Cut-off / 8mm
Power (V/~ /Hz)	230-3-50		
Pump capacity	021 m³/h		

**Main electrical supply:**

L1	Phase 1
L2	Phase 2
L3	Phase 3
PE	Ground connection

**Overload devices:**

Fuse main entrance	F1, F2, F3	Part number:	160-1343125
		Specification:	10 Amp, Slow
		Size:	5 x 20 mm
Fuse seal transformer	F4	Part number:	160-1343129
		Specification:	5 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm

**Pump:**

Pump type	021 m³/h
Capacity	0,75 kW

**Transformers:**

Seal transformer	Tr1	Part number:	160-1334130
		Input:	220 - 230 Volt
		Capacity:	700 VA
		Output:	15 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	220 - 230 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %

**Sealbars:**

Used sealbars	R1	Connection:	Stand alone
---------------	----	-------------	-------------

**Contactors:**

Pump	K1
Seal	K2

**Switches:**

Control switch ON/OFF	S2	Part number:	160-1331117
-----------------------	----	--------------	-------------

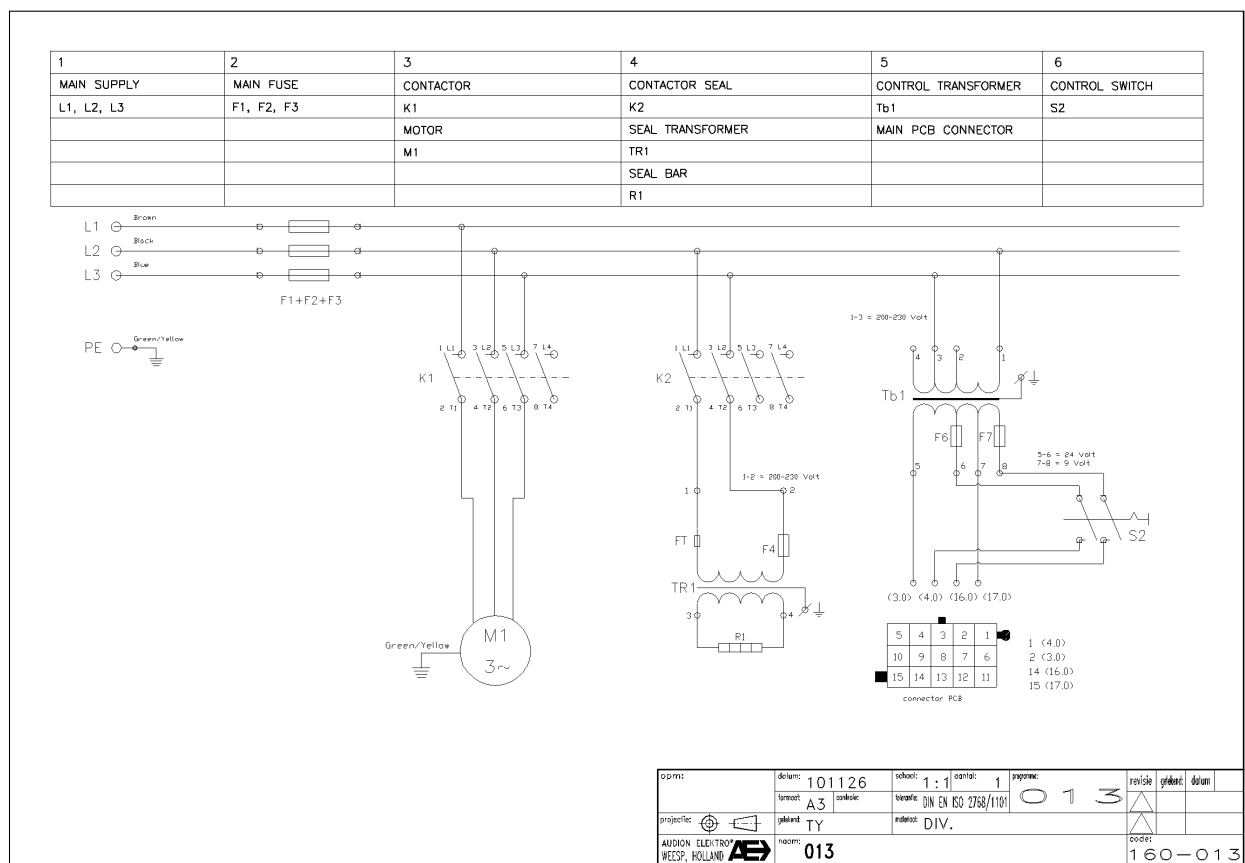
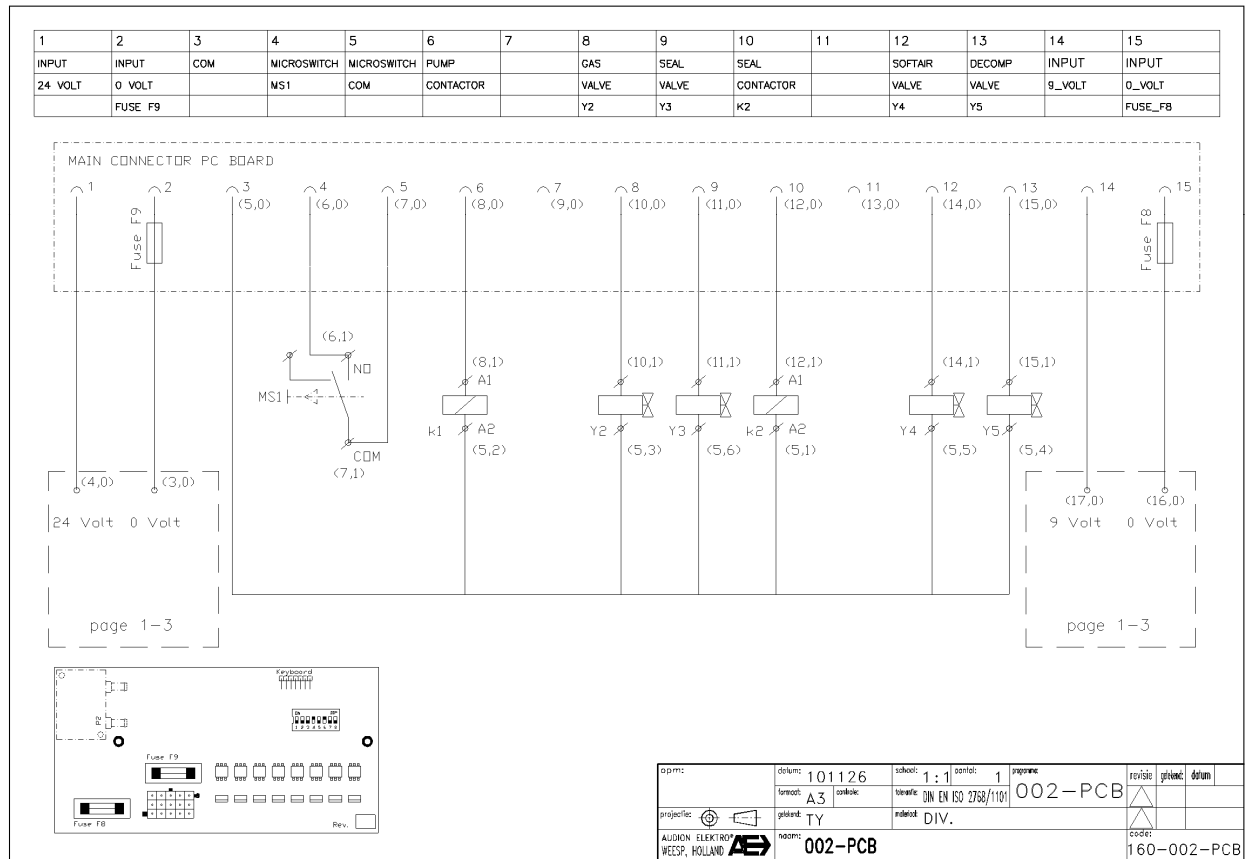
**Microswitches:**

Switch start cycle	MS1	Electrical connections:	2
--------------------	-----	-------------------------	---

**Valves:**

Gas valve	Y2
Seal valve	Y3
Soft-air valve	Y4
Decompression valve	Y5

## VMS 153(V) – 163 (1 seal bar) 230V - 3P - 50Hz





## VMS 153(V) – 163 (1 seal bar) 400V - 3P - 50Hz

Control diagram	002-PCB	Revision (From - Until)	0 (01-01-2011 => )
Main circuit diagram	015	Seal configuration	Front
Machine serie	VMS 153(V) - VMS 163	Seal type	Double / Cut-off / 8mm
Power (V~/Hz)	400-3-50		
Pump capacity	021 m³/h		

**Main electrical supply:**

L1	Phase 1
L2	Phase 2
L3	Phase 3
PE	Ground connection

**Overload devices:**

Fuse main entrance	F1, F2, F3	Part number:	160-1343125
		Specification:	10 Amp, Slow
		Size:	5 x 20 mm
Fuse seal transformer	F5	Part number:	160-1343134
		Specification:	2,5 Amp Slow
		Size:	6,3 x 32mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm

**Pump:**

Pump type	021 m³/h
Capacity	0,75 kW

**Transformers:**

Seal transformer	Tr1	Part number:	160-1334137
		Input:	400 Volt
		Capacity:	600 VA
		Output:	20 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	400 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %

**Sealbars:**

Used sealbars	R1	Connection:	Stand alone
---------------	----	-------------	-------------

**Contactors:**

Pump	K1
Seal	K2

**Switches:**

Control switch ON/OFF	S2	Part number:	160-1331117
-----------------------	----	--------------	-------------

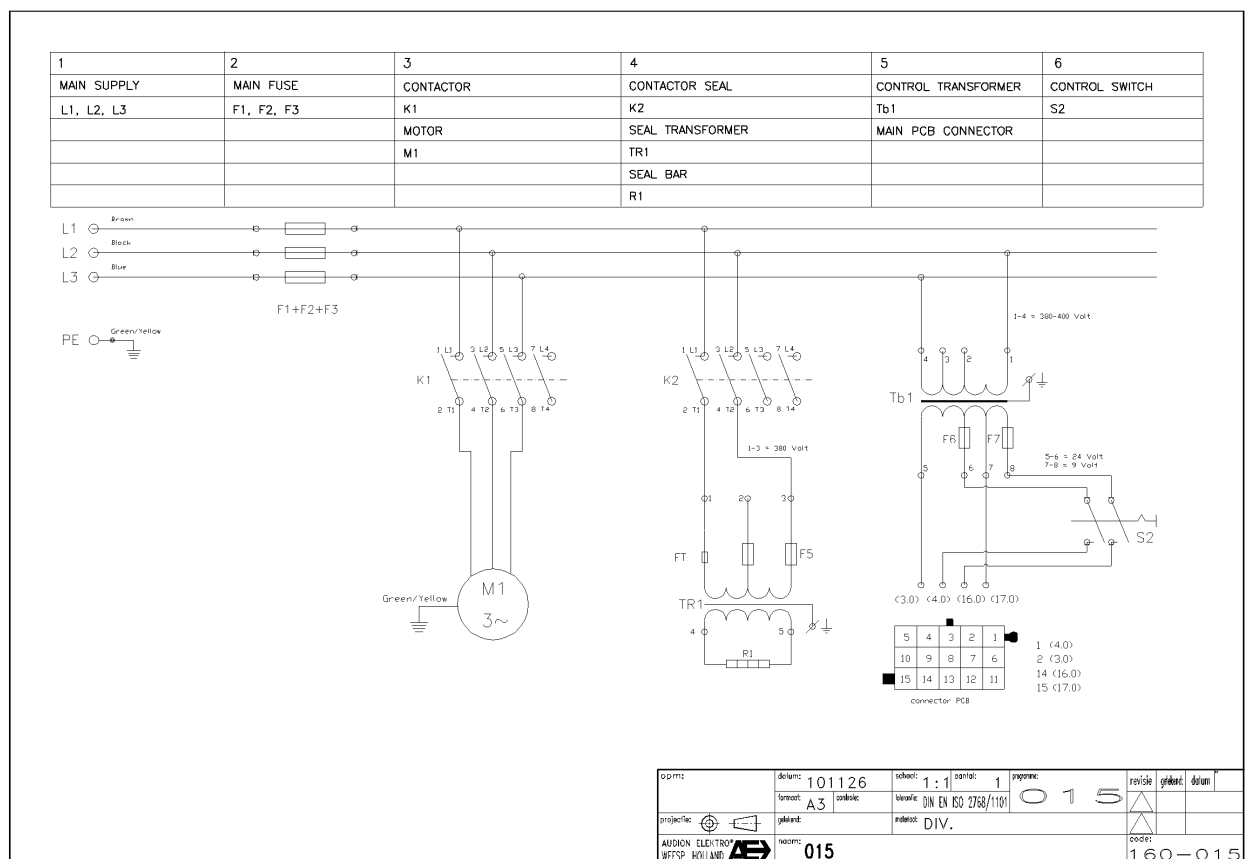
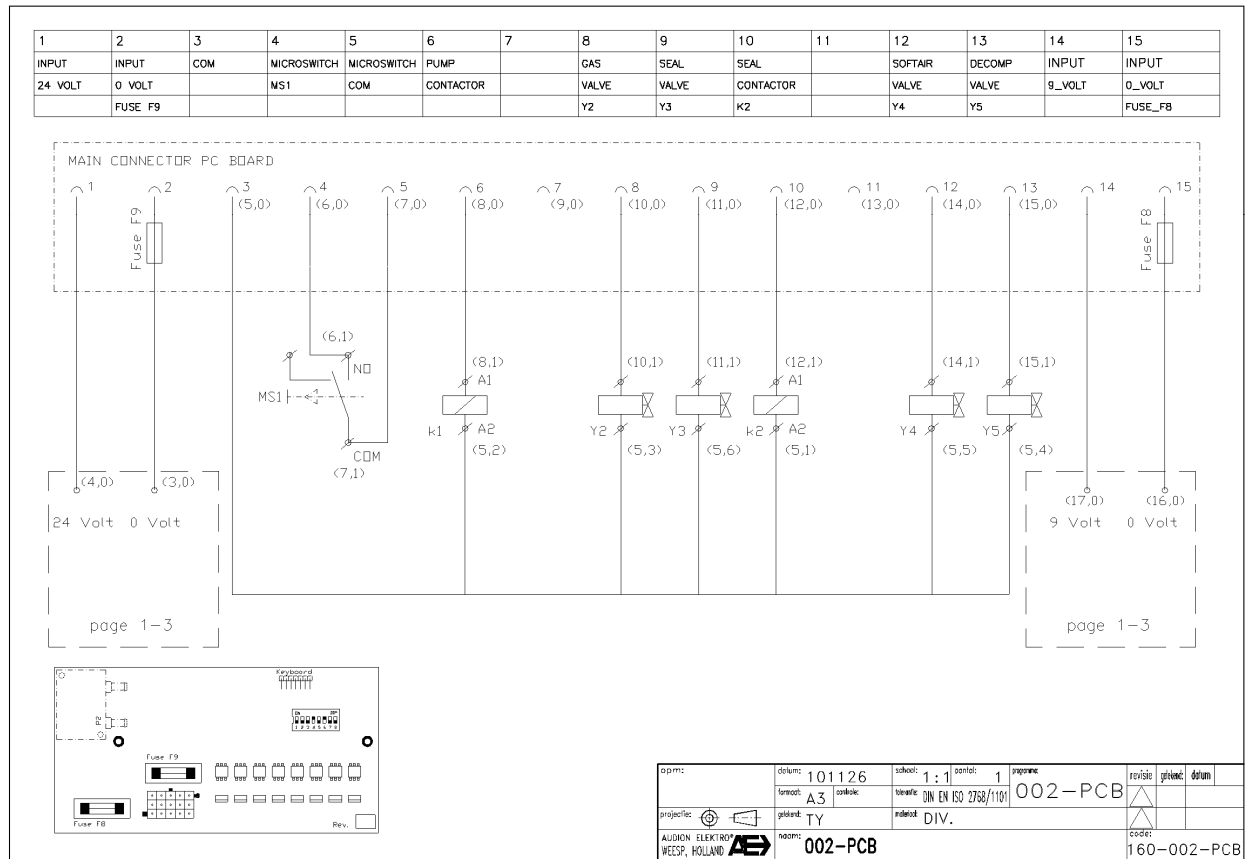
**Microswitches:**

Switch start cycle	MS1	Electrical connections:	2
--------------------	-----	-------------------------	---

**Valves:**

Gas valve	Y2
Seal valve	Y3
Soft-air valve	Y4
Decompression valve	Y5

## VMS 153(V) – 163 (1 seal bar) 400V - 3P - 50Hz





VMS 153 – 163 (2 seal bars) 110V - 1P - 50/60Hz

Control diagram	002-PCB	Revision (From - Until)	0 (01-01-2011 => )
Main circuit diagram	025	Seal configuration	Front and Rear
Machine serie	VMS 153 - VMS 163	Seal type	Double / Cut-off / 8mm
Power (V~/Hz)	110-1-50/60		
Pump capacity	021 m <sup>3</sup> /h		

**Main electrical supply:**

L1	Phase 1
N	Neutral
PE	Ground connection

**Overload devices:**

Fuse main entrance	F1	Part number:	160-1343132
		Specification:	15 Amp, Slow
		Size:	6,3 x 32 mm
Fuse seal transformer	F4	Part number:	160-1343126
		Specification:	10 Amp Fast
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm

**Pump:**

Pump type	021 m <sup>3</sup> /h
Capacity	0,9 kW

**Transformers:**

Seal transformer	Tr1	Part number:	160-1334126
		Input:	110 Volt
		Capacity:	700 VA
		Output:	15 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
	Tr2	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	110 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %

**Sealbars:**

Used sealbars	R1, R2	Connection:	Stand alone
---------------	--------	-------------	-------------

**Contactors:**

Pump	K1
Seal	K2

**Switches:**

Control switch ON/OFF	S2	Part number:	160-1331117
-----------------------	----	--------------	-------------

**Microswitches:**

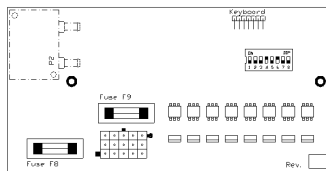
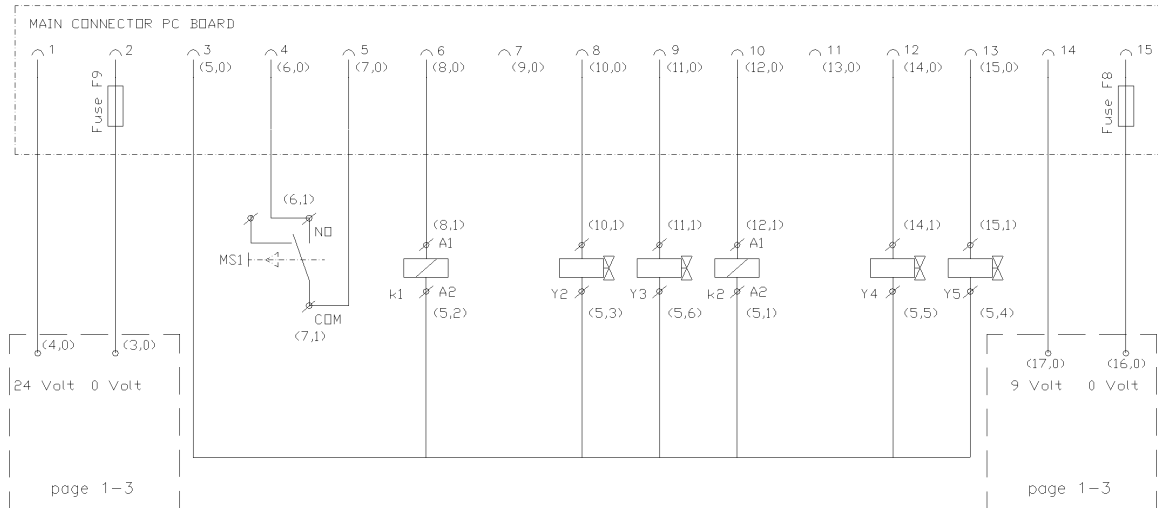
Switch start cycle	MS1	Electrical connections:	2
--------------------	-----	-------------------------	---


**Valves:**

Gas valve	Y2
Seal valve	Y3
Soft-air valve	Y4
Decompression valve	Y5

VMS 153 – 163 (2 seal bars) 110V - 1P - 50/60Hz

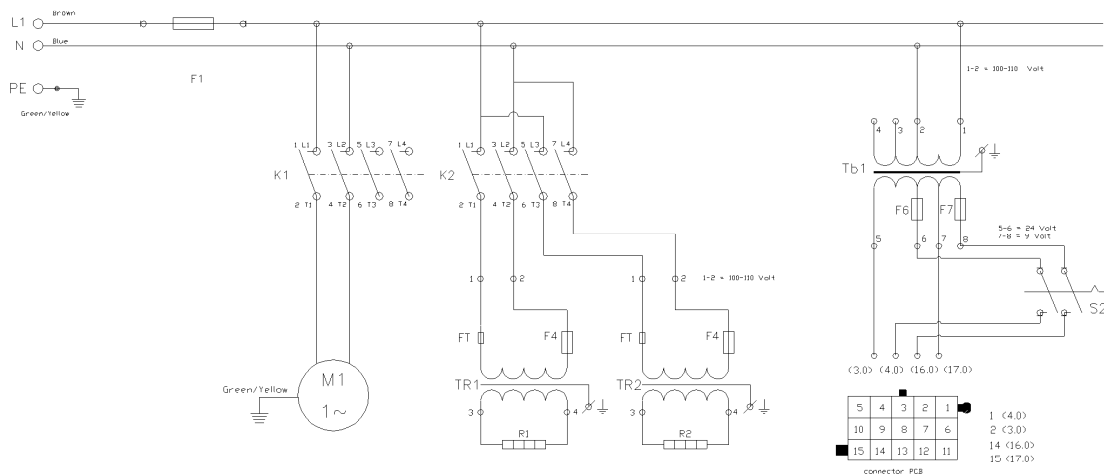
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
INPUT	INPUT	COM	MICROSWITCH	MICROSWITCH	PUMP		GAS	SEAL	SEAL		SOFTAIR	DECOMP	INPUT	INPUT
24_VOLT	0_VOLT		MS1	COM	CONTACTOR		VALVE	VALVE	CONTACTOR		VALVE	VALVE	g_VOLT	0_VOLT
	FUSE_F9						Y2	Y3	K2		Y4	Y5		FUSE_FB





ppm:	dekm:	101126	school:	1:1	toets:	1	programma:		revisie:		gemaakt:		datum:	
	formaat:	A3	colours:		telefoon:	002-PCB								
projectief:		gemaakt:	TY		inleid:	DIV.								
AUDION ELECTRON WEESP, HOLLAND		naam:	002-PCB							code:	160-002-PCB			

This publication, or parts thereof, may not be reproduced in any form, by any method, for any purpose.

1	2	3	4	5	6	7
MAIN SUPPLY	MAIN FUSE	CONTACTOR	CONTACTOR SEAL	SEAL TRANSFORMER	CONTROL TRANSFORMER	MAIN SWITCH
L1 N	F1	K1	K2	TR2	Tb1	S2
		MOTOR	SEAL TRANSFORMER	SEAL BAR		
		M1	TR1	R2		
			SEAL BAR			
			R1			



o.p.m:	datum: 101126	schied: 1:1	o.p.m.t: 1	prognose:	revisie	gemaakt:	datum:
type:	A3	cascode:	telefoon:	DIN EN ISO 2768/1/10	025		
projectief:	 	gemaakt:	TY	model:	DIV.		
AUDISON ELECTRONIC WEESEP. HOLLAND		naam:	025			code:	160-025

This publication, or parts thereof, may not be reproduced in any form, by any method, for any purpose.



## VMS 153 – 163 (2 seal bars) 200V - 3P - 50/60Hz

Control diagram	002-PCB	Revision (From - Until)	0 (01-01-2011 => )
Main circuit diagram	029	Sealconfiguration	Front and Rear
Machine serie	VMS 153 - VMS 163	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	200-3-50/60		
Pomp capacity	021 m³/h		

**Main electrical supply:**

L1	Phase 1
L2	Phase 2
L3	Phase 3
PE	Ground connection

**Overload devices:**

Fuse main entrance	F1, F2, F3	Part number:	160-1343125
		Specification:	10 Amp, Slow
		Size:	5 x 20 mm
Fuse seal transformer	F4	Part number:	160-1343129
		Specification:	5 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm

**Pump:**

Pump type	021 m³/h
Capacity	0,75 kW

**Transformers:**

Sealtransformer	Tr1	Part number:	160-1334130
		Input:	200 Volt
		Capacity:	700 VA
		Output:	15 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
	Tr2	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	200 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %

**Sealbars:**

Used sealbars	R1 , R2	Connection:	Stand alone
---------------	---------	-------------	-------------

**Contactors:**

Pump	K1
Seal	K2

**Switches:**

Control switch ON/OFF	S2	Part number:	160-1331117
-----------------------	----	--------------	-------------

**Microswitches:**

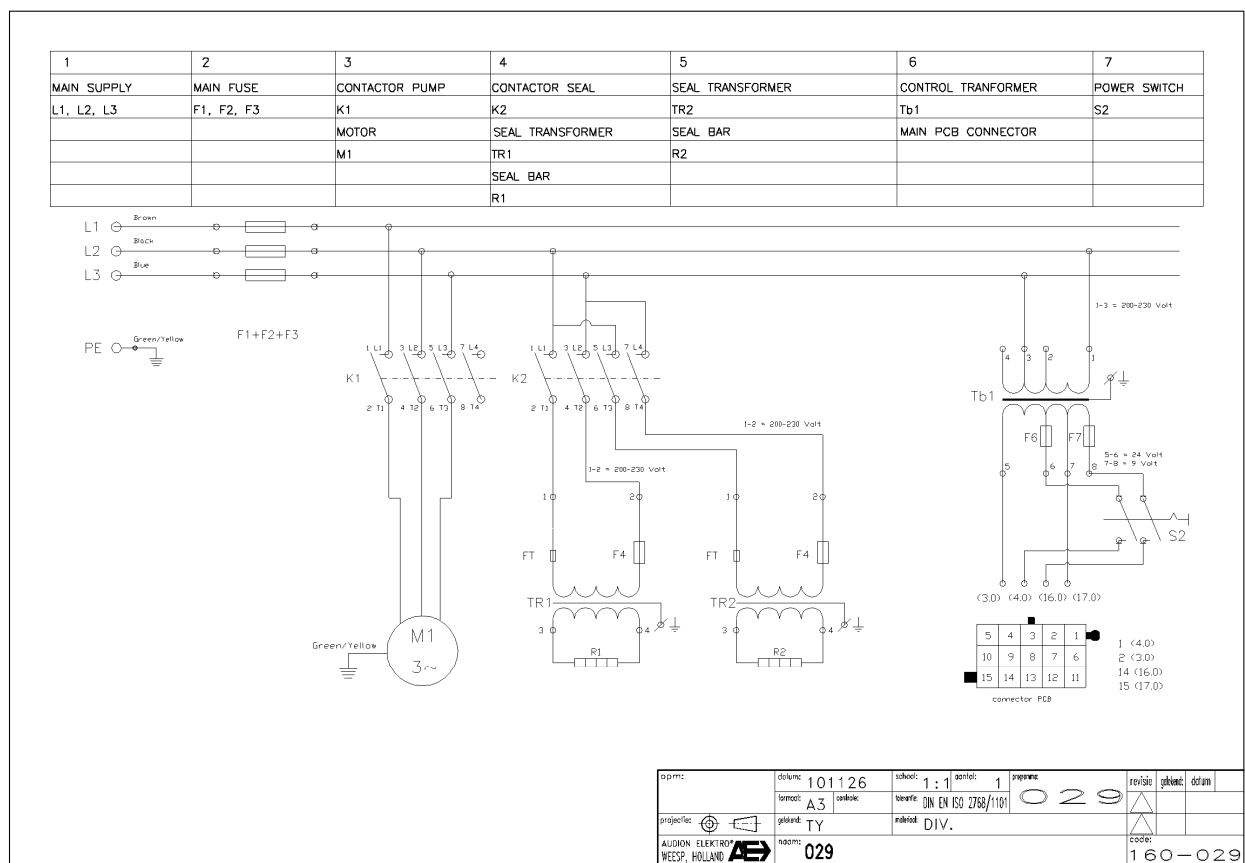
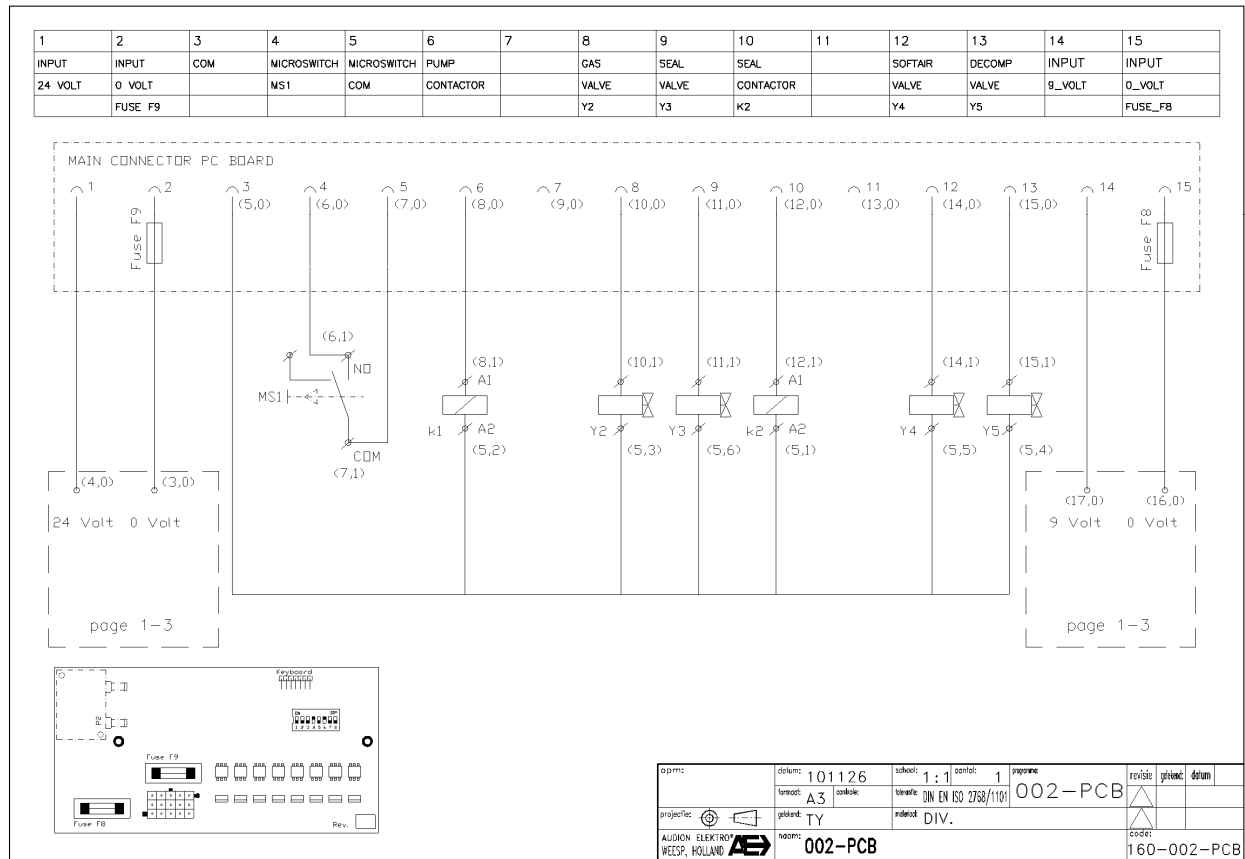
Switch start cycle	MS1	Electrical connections:	2
--------------------	-----	-------------------------	---

**Valves:**

Gas valve	Y2
Seal valve	Y3
Soft-air valve	Y4
Decompression valve	Y5



## VMS 153 – 163 (2 seal bars) 200V - 3P - 50/60Hz





## VMS 153 – 163 (2 seal bars) 220V - 1P - 60Hz

Control diagram	002-PCB	Revision (From - Until)	0 (01-01-2011 => )
Main circuit diagram	027	Sealconfiguration	Front and Rear
Machine serie	VMS 153 - VMS 163	Seal type	Double / Cut-off / 8mm
Power (V/-/Hz)	220-1-60		
Pump capacity	021 m³/h		

**Main electrical supply:**

L1	Phase 1
N	Neutral
PE	Ground connection

**Overload devices:**

Fuse main entrance	F1, F2	Part number:	160-1343125
		Specification:	10 Amp, Slow
		Size:	5 x 20 mm
Fuse seal transformer	F4	Part number:	160-1343129
		Specification:	5 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm

**Pump:**

Pump type	021 m³/h
Capacity	0,95 kW

**Transformers:**

Sealtransformer	Tr1	Part number:	160-1334130
		Input:	220 Volt
		Capacity:	700 VA
		Output:	15 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
	Tr2	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	220 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %

**Sealbars:**

Used sealbars	R1 , R2	Connection:	Stand alone
---------------	---------	-------------	-------------

**Contactors:**

Pump	K1
Seal	K2

**Switches:**

Control switch ON/OFF	S2	Part number:	160-1331117
-----------------------	----	--------------	-------------

**Microswitches:**

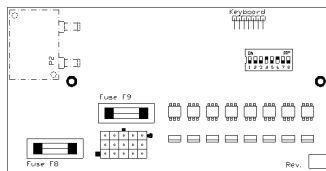
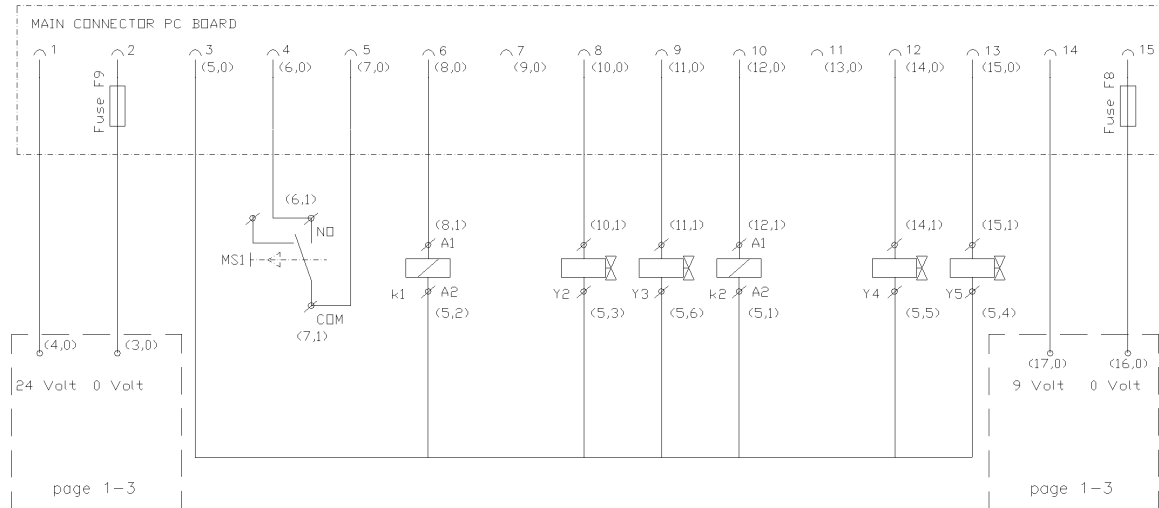
Switch start cycle	MS1	Electrical connections:	2
--------------------	-----	-------------------------	---

**Valves:**

Gas valve	Y2
Seal valve	Y3
Soft-air valve	Y4
Decompression valve	Y5

VMS 153 – 163 (2 seal bars) 220V - 1P - 60Hz

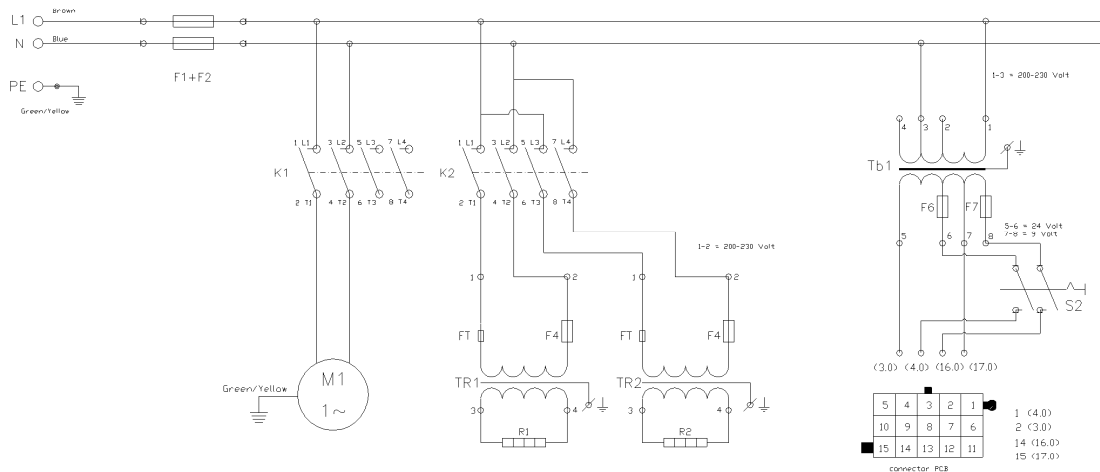
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
INPUT	INPUT	COM	MICROSWITCH	MICROSWITCH	PUMP		GA5	SEAL	SEAL		SOFTAIR	DECOMP	INPUT	INPUT
24_VOLT	0_VOLT		MS1	COM	CONTACTOR		VALVE	VALVE	CONTACTOR		VALVE	VALVE	g_VOLT	0_VOLT
	FUSE_F9						Y2	Y3	K2		Y4	Y5		FUSE_FB



opm:	datum: 101126	school: 1:1	posit: 1	programma	revisie	gemaakt	datum
	formaat: A3	ontwerp:	titel: DIN EN ISO 2768/1101	002-PCB			
projectie: 	grootte: TY	referentie:	DIV.				
AUDION ELEKTRO MEES, HOLLAND 	naam: 002-PCB				code:		
					160-002-PCB		

This publication, or parts thereof, may not be reproduced in any form, by any method, for any purpose.

1	2	3	4	5	6	7
MAIN SUPPLY	MAIN FUSE	CONTACTOR	CONTACTOR SEAL	SEAL TRANSFORMER	CONTROL TRANSFORMER	CONTROL SWITCH
L1 N	F1, F2	K1	K2	TR2	Tb1	S2
		MOTOR	SEAL TRANSFORMER	SEAL BAR		
		M1	TR1	R2		
			SEAL BAR			
			R1			



ppm:	datum: 101126	zoboh: 1:1	posetil: 1	preprava:	revizor:	sklad:	datum:
	formet: A3	osobite:	temate: DIN EN ISO 2768/101	027	△		
projektor: 	gledali: TY	reditelj: DIV.					
AUDION ELEKTRO WESS, HOLLAND 	namo: 027				code:		
						160-027	

This publication, or parts thereof, may not be reproduced in any form, by any method, for any purpose.



## VMS 153 – 163 (2 seal bars) 230V - 1P - 50Hz

Control diagram	002-PCB	Revision (From - Until)	0 (01-01-2011 => )
Main circuit diagram	027	Seal configuration	Front and Rear
Machine serie	VMS 153 - VMS 163	Seal type	Double / Cut-off / 8mm
Power (V/~ /Hz)	230-1-50		
Pump capacity	021 m³/h		

**Main electrical supply:**

L1	Phase 1
N	Neutral
PE	Ground connection

**Overload devices:**

Fuse main entrance	F1, F2	Part number:	160-1343125
		Specification:	10 Amp, Slow
		Size:	5 x 20 mm
Fuse seal transformer	F4	Part number:	160-1343129
		Specification:	5 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm

**Pump:**

Pump type	021 m³/h
Capacity	0,75 kW

**Transformers:**

Seal transformer	Tr1	Part number:	160-1334130
		Input:	220-230 Volt
		Capacity:	700 VA
		Output:	15 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
	Tr2	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	220-230 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %

**Sealbars:**

Used sealbars	R1 , R2	Connection:	Stand alone
---------------	---------	-------------	-------------

**Contactors:**

Pump	K1
Seal	K2

**Switches:**

Control switch ON/OFF	S2	Part number:	160-1331117
-----------------------	----	--------------	-------------

**Microswitches:**

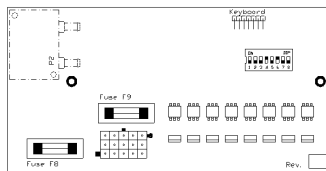
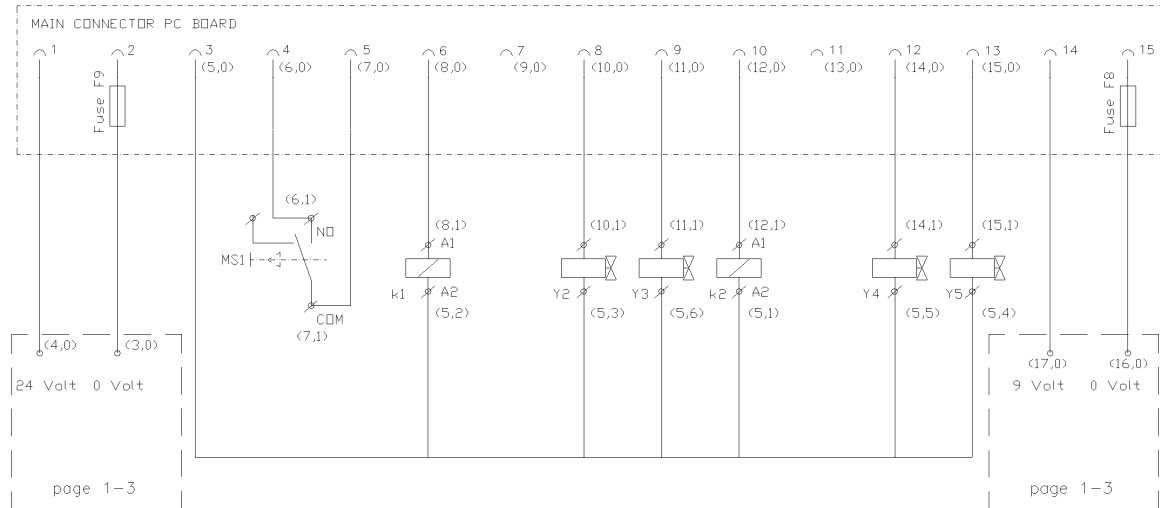
Switch start cycle	MS1	Electrical connections:	2
--------------------	-----	-------------------------	---

**Valves:**

Gas valve	Y2
Seal valve	Y3
Soft-air valve	Y4
Decompression valve	Y5

VMS 153 – 163 (2 seal bars) 230V - 1P - 50Hz

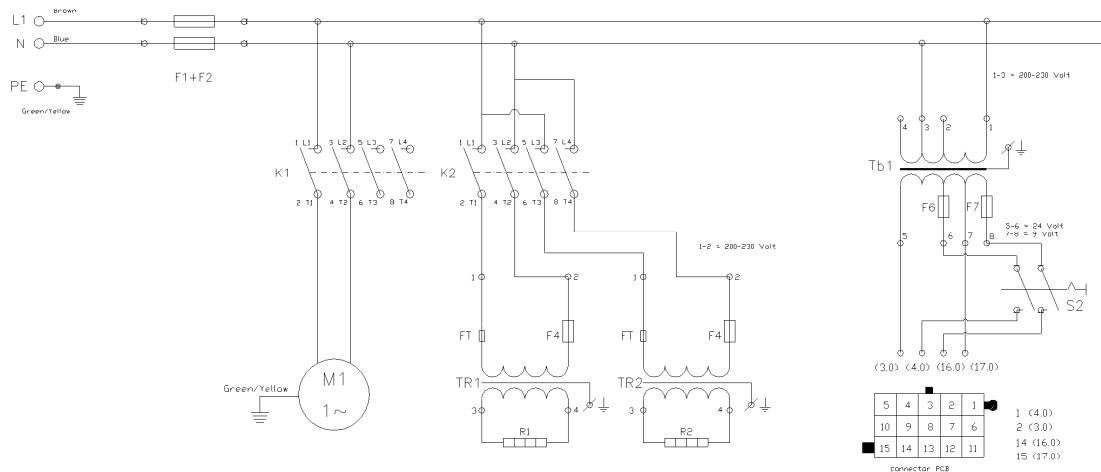
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
INPUT	INPUT	COM	MICROSWITCH	MICROSWITCH	PUMP		GAS	SEAL	SEAL		SOFTAIR	DECOMP	INPUT	INPUT
24_VOLT	0_VOLT		MS1	COM	CONTACTOR		VALVE	VALVE	CONTACTOR		VALVE	VALVE	g_VOLT	0_VOLT
	FUSE_F9						Y2	Y3	K2		Y4	Y5		FUSE_FB



opm:	datum: 101126	school: 1:1	posit: 1	programma	revisie	gemaakt	datum
	formaat: A3	ontwerp:	titel: DIN EN ISO 2768/1101	002-PCB			
projectie: 	gemaakt: TY	revisie:	DIV.				
AUDION ELEKTRO MEES, HOLLAND 	naam: 002-PCB				code:		
						160-002-PCB	

This publication, or parts thereof, may not be reproduced in any form, by any method, for any purpose.

1	2	3	4	5	6	7
MAIN SUPPLY	MAIN FUSE	CONTACTOR	CONTACTOR SEAL	SEAL TRANSFORMER	CONTROL TRANSFORMER	CONTROL SWITCH
L1 N	F1, F2	K1	K2	TR2	Tb1	S2
		MOTOR	SEAL TRANSFORMER	SEAL BAR		
		M1	TR1	R2		
			SEAL BAR			
			R1			



ppm:	datum: 101126	zoboh: 1:1	posetil: 1	preprava:	revizor:	sklad:	datum:
	formet: A3	stavba:	stavba: DIN EN ISO 2768 / M	027	Δ		
projektor: 	grobost: TY	radost: DIV.					
AUDION ELEKTRO WESS, HOLLAND 	namo: 027				code:		
						160-027	

This publication, or parts thereof, may not be reproduced in any form, by any method, for any purpose.



## VMS 153 – 163 (2 seal bars) 230V - 3P - 50Hz

Control diagram	002-PCB	Revision (From - Until)	0 (01-01-2011 => )
Main circuit diagram	029	Sealconfiguration	Front and Rear
Machine serie	VMS 153 - VMS 163	Seal type	Double / Cut-off / 8mm
Power (V/~ /Hz)	230-3-50		
Pomp capacity	021 m³/h		

<b>Main electrical supply:</b>	
L1	Phase 1
L2	Phase 2
L3	Phase 3
PE	Ground connection

<b>Overload devices:</b>			
Fuse main entrance	F1, F2, F3	Part number:	160-1343125
		Specification:	10 Amp, Slow
		Size:	5 x 20 mm
Fuse seal transformer	F4	Part number:	160-1343129
		Specification:	5 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm

<b>Pump:</b>	
Pump type	021 m³/h
Capacity	0,75 kW

<b>Transformers:</b>			
Sealtransformer	Tr1	Part number:	160-1334130
		Input:	220 - 230 Volt
		Capacity:	700 VA
		Output:	15 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
	Tr2	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	220 - 230 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %

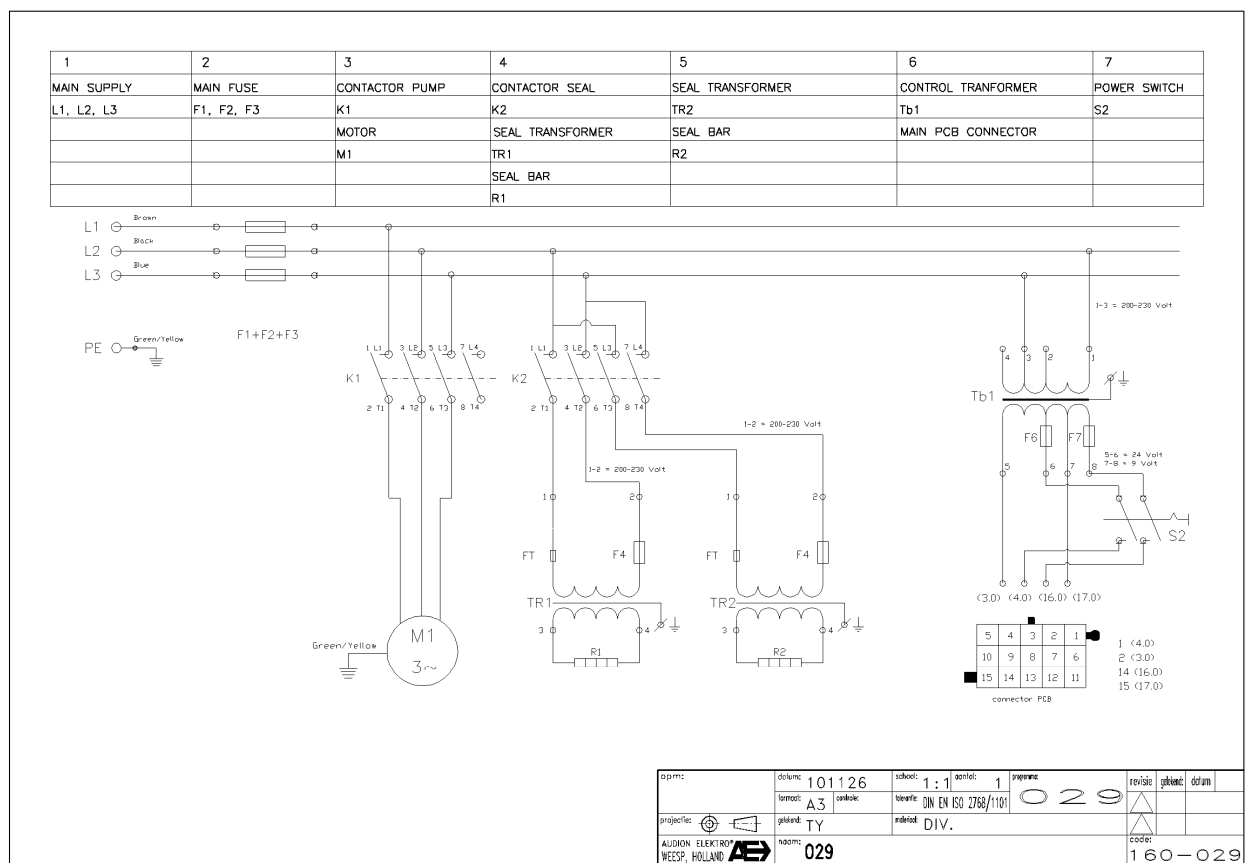
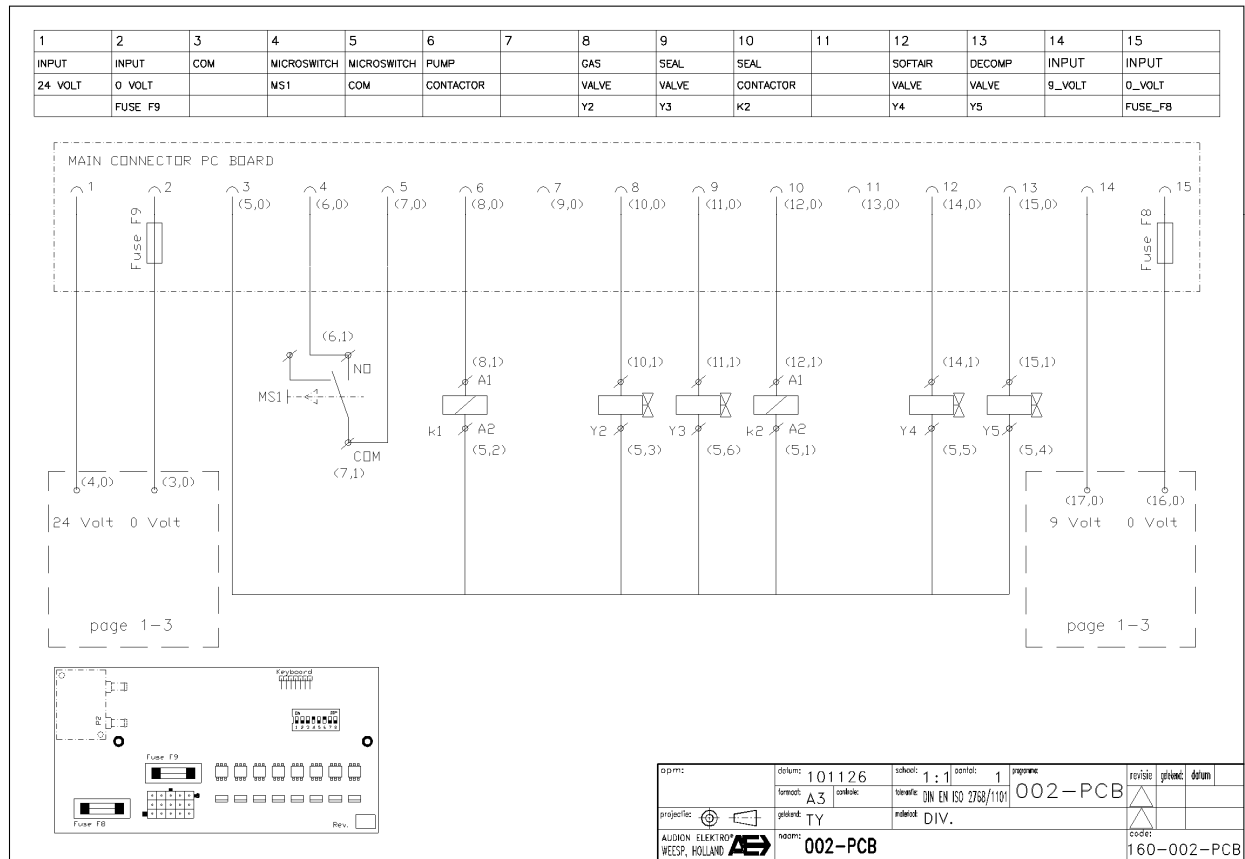
<b>Sealbars:</b>			
Used sealbars	R1 , R2	Connection:	Stand alone

<b>Contactors:</b>	
Pump	K1
Seal	K2

<b>Switches:</b>			
Control switch ON/OFF	S2	Part number:	160-1331117
<b>Microswitches:</b>			
Switch start cycle	MS1	Electrical connections:	2

<b>Valves:</b>	
Gas valve	Y2
Seal valve	Y3
Soft-air valve	Y4
Decompression valve	Y5

## VMS 153 – 163 (2 seal bars) 230V - 3P - 50Hz





## VMS 153 – 163 (2 seal bars) 400V - 3P - 50Hz

Control diagram	002-PCB	Revision (From - Until)	0 (01-01-2011 => )
Main circuit diagram	032	Sealconfiguration	Front and Rear
Machine serie	VMS 153 - VMS 163	Seal type	Double / Cut-off / 8mm
Power (V/~ /Hz)	400-3-50		
Pomp capacity	021 m³/h		

<b>Main electrical supply:</b>	
L1	Phase 1
L2	Phase 2
L3	Phase 3
PE	Ground connection

<b>Overload devices:</b>			
Fuse main entrance	F1, F2, F3	Part number:	160-1343125
		Specification:	10 Amp, Slow
		Size:	5 x 20 mm
Fuse seal transformer	F5	Part number:	160-1343134
		Specification:	2,5 Amp Slow
		Size:	6,3 x 32mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm

<b>Pump:</b>	
Pump type	021 m³/h
Capacity	0,75 kW

<b>Transformers:</b>			
Sealtransformer	Tr1	Part number:	160-1334137
		Input:	400 Volt
		Capacity:	600 VA
		Output:	20 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
	Tr2	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	400 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %

<b>Sealbars:</b>	
Used sealbars	R1, R2
Connection:	Stand alone

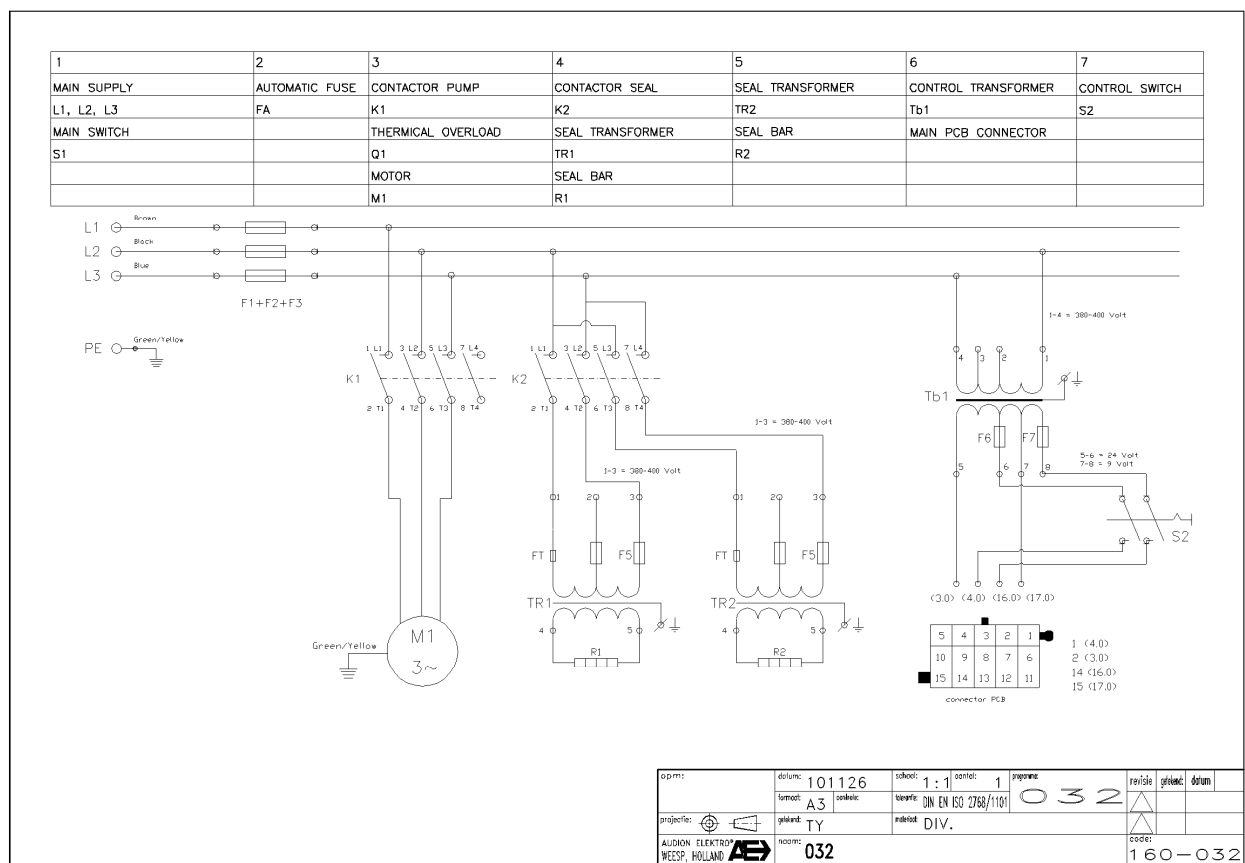
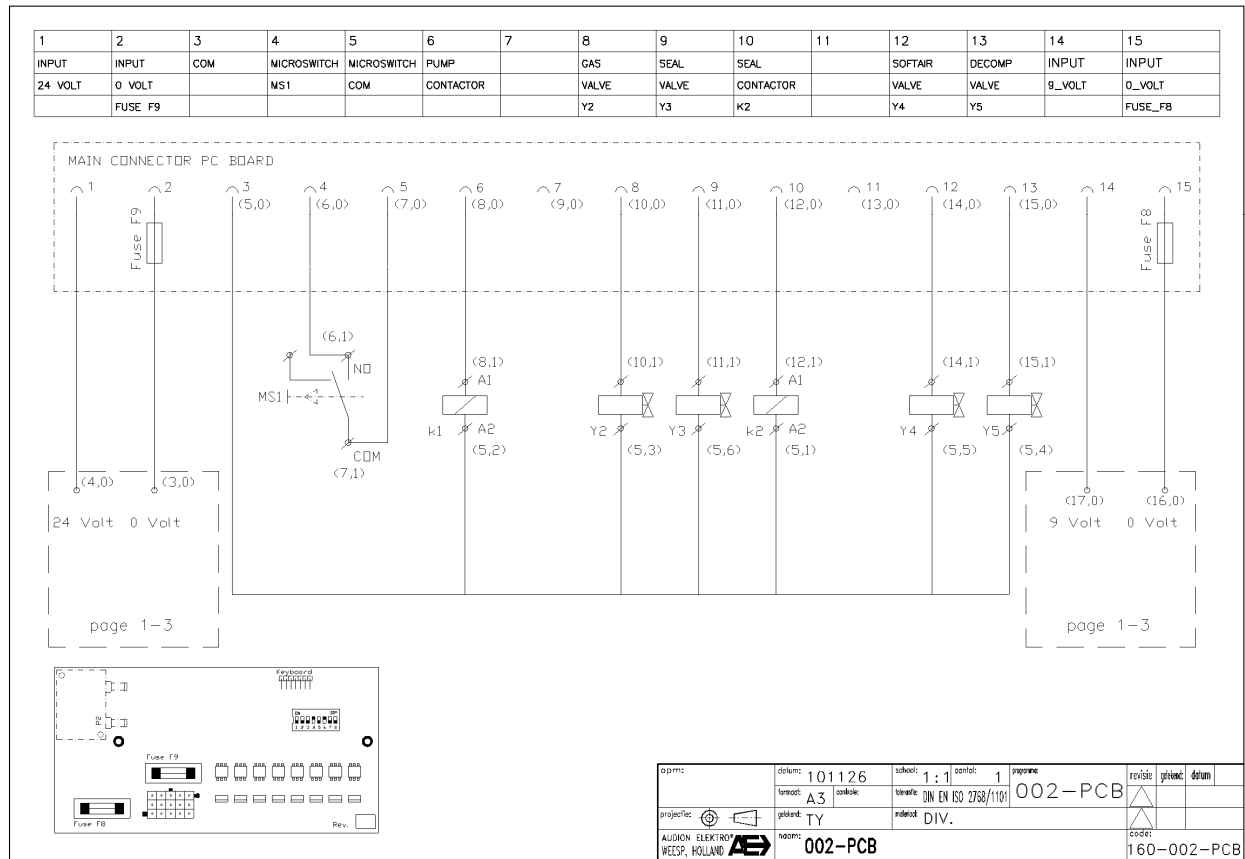
<b>Contactors:</b>	
Pump	K1
Seal	K2

<b>Switches:</b>	
Control switch ON/OFF	S2
Part number:	160-1331117
<b>Microswitches:</b>	
Switch start cycle	MS1
Electrical connections:	2

<b>Valves:</b>	
Gas valve	Y2
Seal valve	Y3
Soft-air valve	Y4
Decompression valve	Y5



## VMS 153 – 163 (2 seal bars) 400V - 3P - 50Hz





## VMS 153 VCB 110V - 1P - 50/60Hz

Control diagram	002-PCB	Revision (From - Until)	0 (01-01-2011 => )
Main circuit diagram	025	Seal configuration	Front
Machine serie	VMS 153 VCB	Seal type	Bi-active
Power (V~/Hz)	110-1-50/60		
Pump capacity	021 m³/h		

**Main electrical supply:**

L1	Phase 1
N	Neutral
PE	Ground connection

**Overload devices:**

Fuse main entrance	F1	Part number:	160-1343132
		Specification:	15 Amp, Slow
		Size:	6,3 x 32 mm
Fuse seal transformer	F4	Part number:	160-1343126
		Specification:	10 Amp Fast
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm

**Pump:**

Pump type	021 m³/h
Capacity	0,9 kW

**Transformers:**

Seal transformer	Tr1	Part number:	160-1334126
		Input:	110 Volt
		Capacity:	700 VA
		Output:	15 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
	Tr2	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	110 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %

**Sealbars:**

Used sealbars	R1, R2	Connection:	Stand alone
---------------	--------	-------------	-------------

**Contactors:**

Pump	K1
Seal	K2

**Switches:**

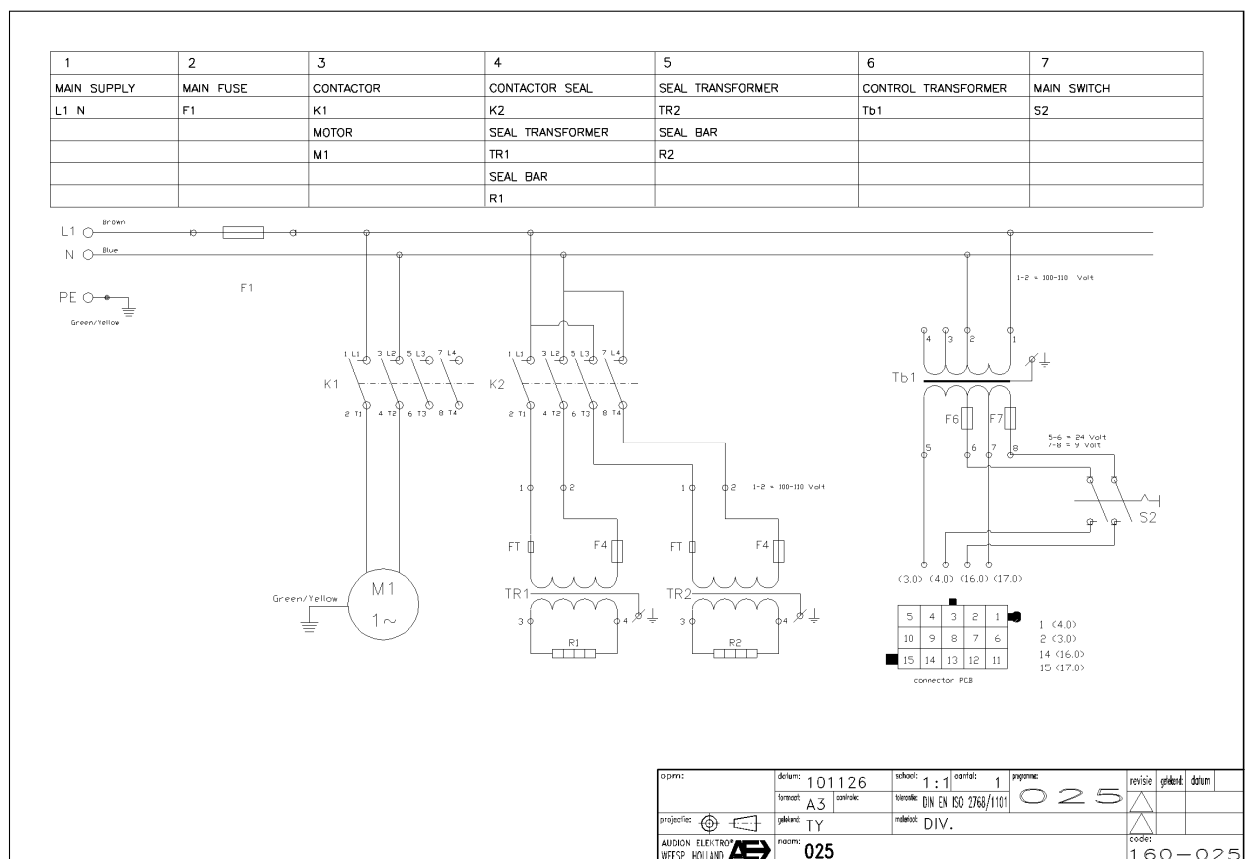
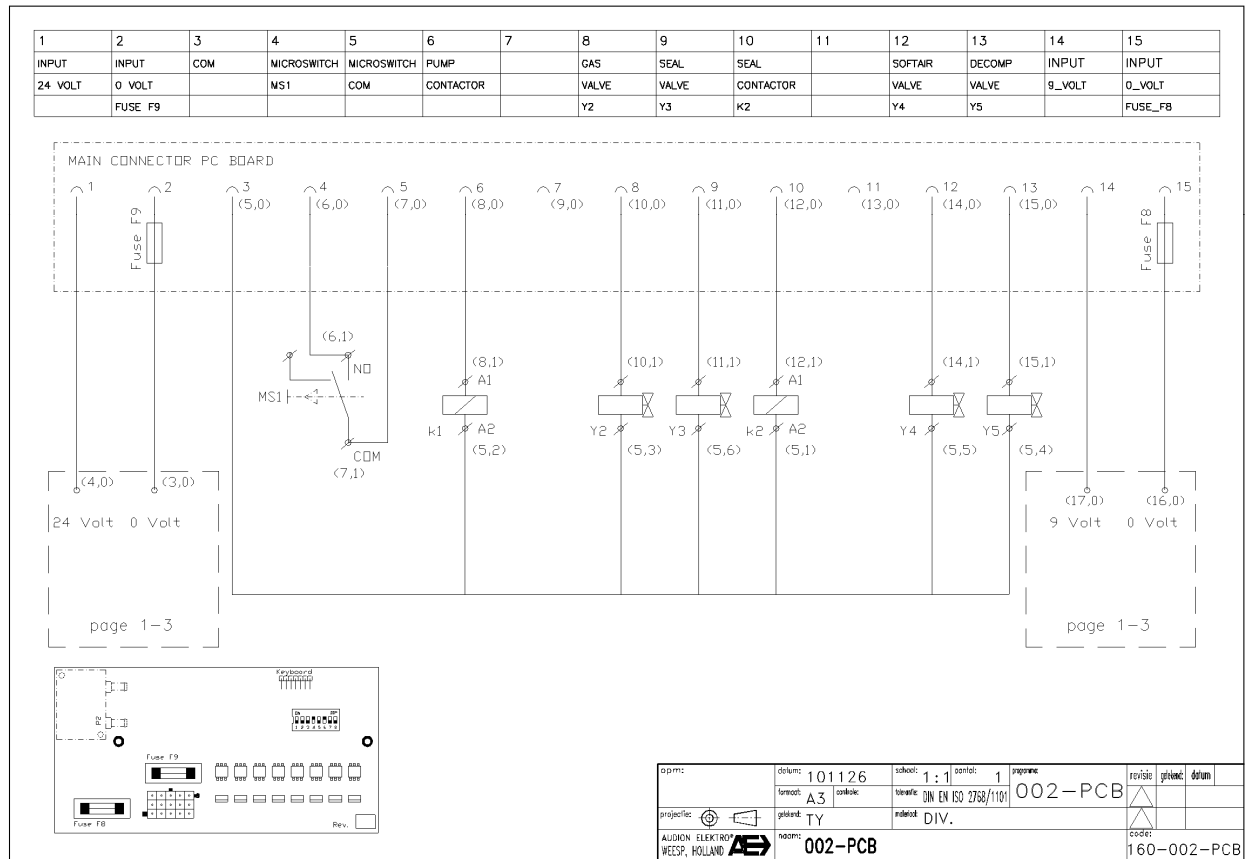
Control switch ON/OFF	S2	Part number:	160-1331117
-----------------------	----	--------------	-------------

**Microswitches:**

Switch start cycle	MS1	Electrical connections:	2
--------------------	-----	-------------------------	---

**Valves:**

Gas valve	Y2
Seal valve	Y3
Soft-air valve	Y4
Decompression valve	Y5





VMS 153 VCB 220V - 1P - 60Hz

Control diagram	002-PCB	Revision (From - Until)	0 (01-01-2011 => )
Main circuit diagram	027	Sealconfiguration	Front
Machine serie	VMS 153 VCB	Seal type	Bi-active
Power (V/~/Hz)	220-1-60		
Pump capacity	021 m³/h		

**Main electrical supply:**

L1	Phase 1
N	Neutral
PE	Ground connection

**Overload devices:**

Fuse main entrance	F1, F2	Part number:	160-1343125
		Specification:	10 Amp, Slow
		Size:	5 x 20 mm
Fuse seal transformer	F4	Part number:	160-1343129
		Specification:	5 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm

**Pump:**

Pump type	021 m³/h
Capacity	0,95 kW

**Transformers:**

Sealtransformer	Tr1	Part number:	160-1334130
		Input:	220 Volt
		Capacity:	700 VA
		Output:	15 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
	Tr2	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	220 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %

**Sealbars:**

Used sealbars	R1, R2	Connection:	Stand alone
---------------	--------	-------------	-------------

**Contactors:**

Pump	K1
Seal	K2

**Switches:**

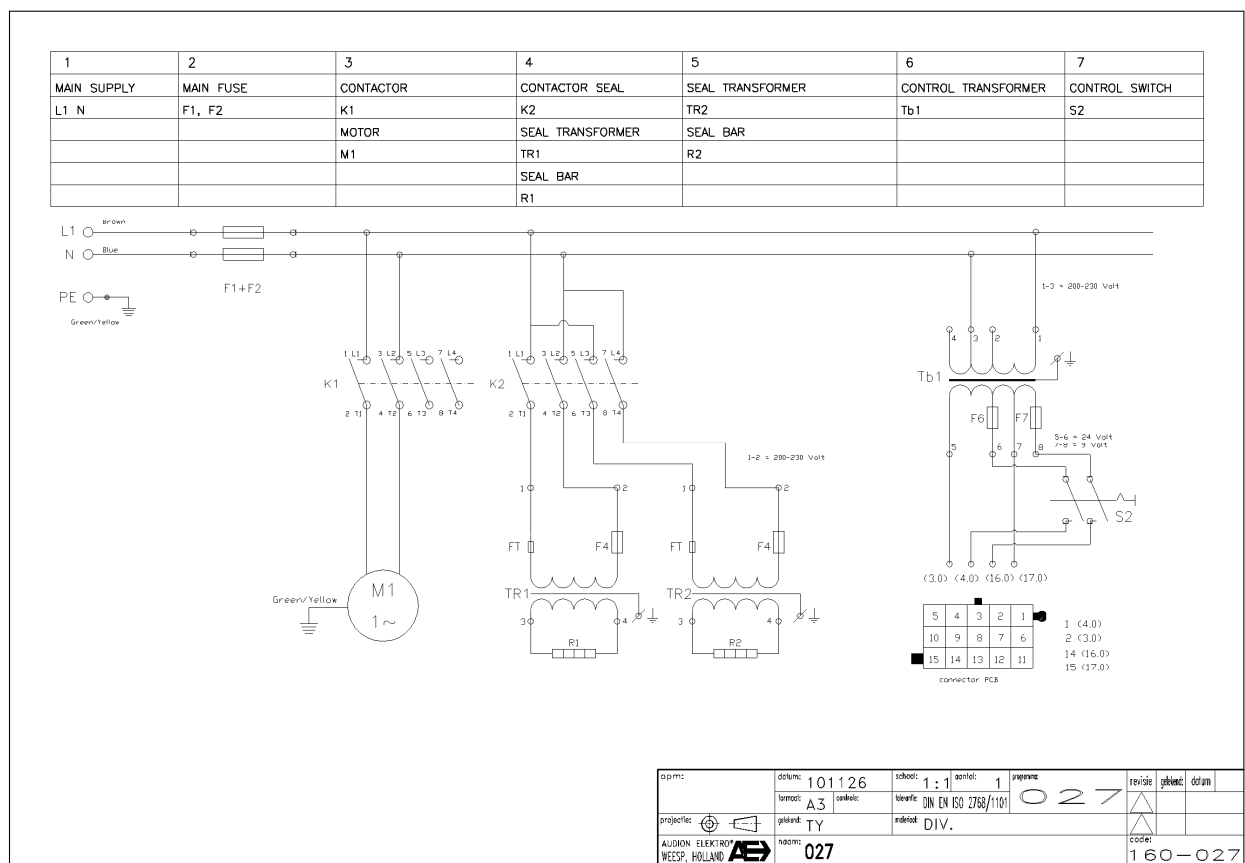
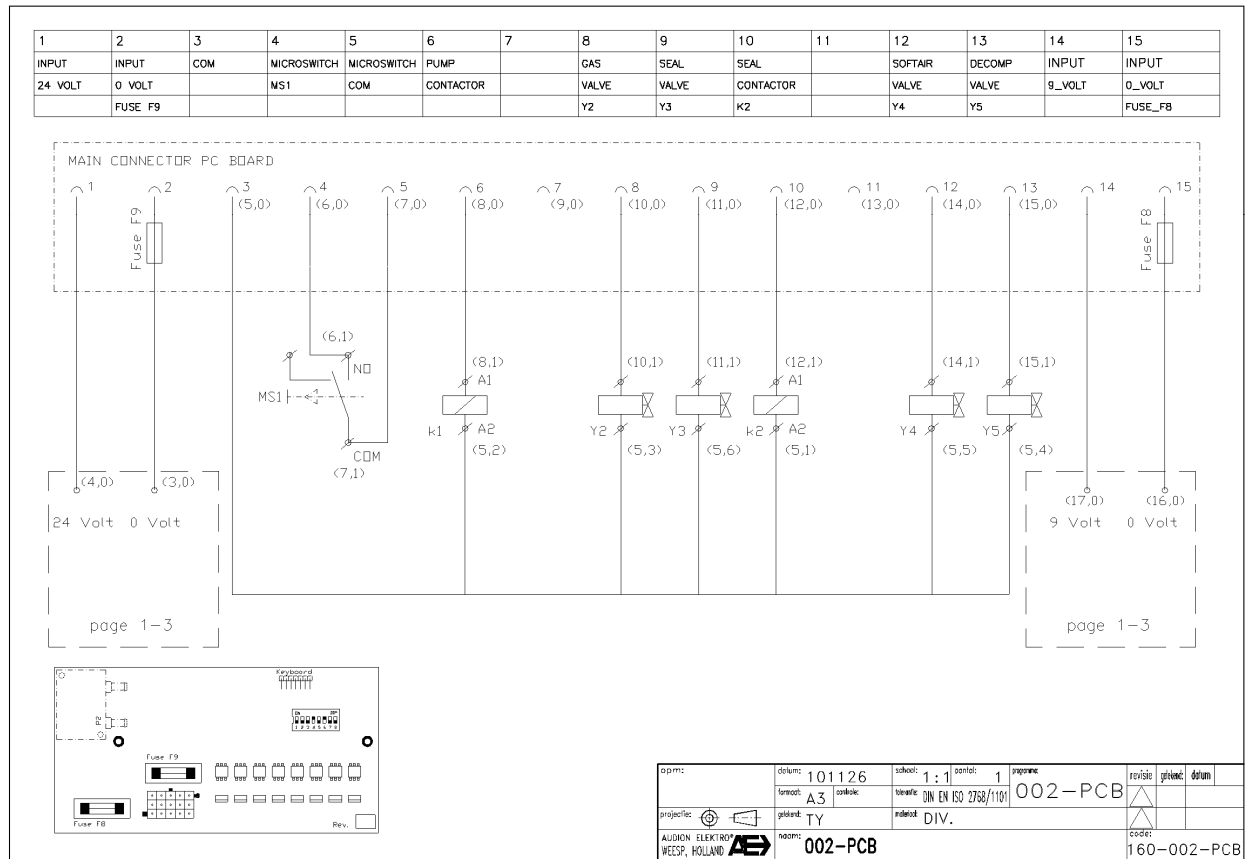
Control switch ON/OFF	S2	Part number:	160-1331117
-----------------------	----	--------------	-------------

**Microswitches:**

Switch start cycle	MS1	Electrical connections:	2
--------------------	-----	-------------------------	---

**Valves:**

Gas valve	Y2
Seal valve	Y3
Soft-air valve	Y4
Decompression valve	Y5





## VMS 153 VCB 230V - 1P - 50Hz

Control diagram	002-PCB	Revision (From - Until)	0 (01-01-2011 => )
Main circuit diagram	027	Seal configuration	Front
Machine serie	VMS 153 VCB	Seal type	Bi-active
Power (V/~ /Hz)	230-1-50		
Pump capacity	021 m³/h		

<b>Main electrical supply:</b>	
L1	Phase 1
N	Neutral
PE	Ground connection

<b>Overload devices:</b>			
Fuse main entrance	F1, F2	Part number:	160-1343125
		Specification:	10 Amp, Slow
		Size:	5 x 20 mm
Fuse seal transformer	F4	Part number:	160-1343129
		Specification:	5 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm

<b>Pump:</b>	
Pump type	021 m³/h
Capacity	0,75 kW

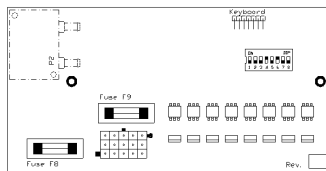
<b>Transformers:</b>			
Seal transformer	Tr1	Part number:	160-1334130
		Input:	220-230 Volt
		Capacity:	700 VA
		Output:	15 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
	Tr2	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	220-230 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %

<b>Sealbars:</b>			
Used sealbars	R1, R2	Connection:	Stand alone

<b>Contactors:</b>	
Pump	K1
Seal	K2

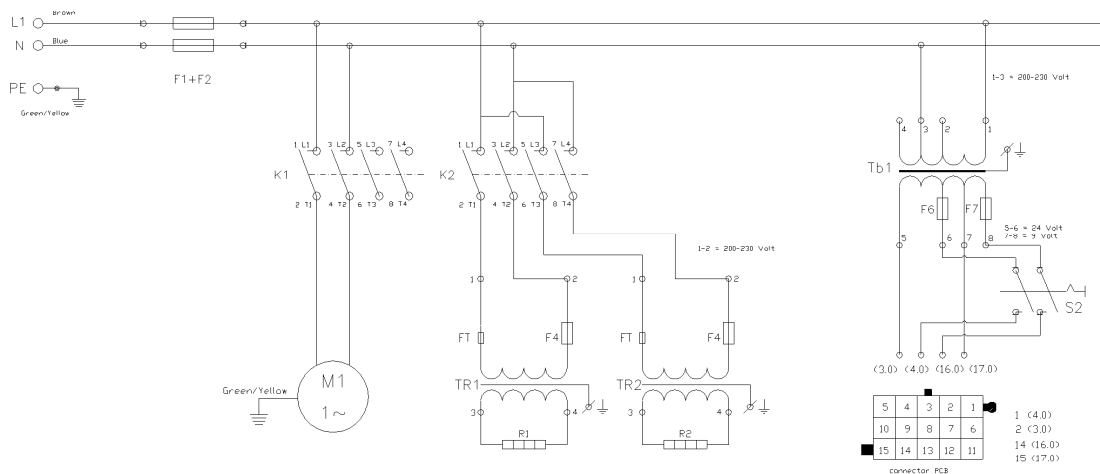
<b>Switches:</b>			
Control switch ON/OFF	S2	Part number:	160-1331117
<b>Microswitches:</b>			
Switch start cycle	MS1	Electrical connections:	2

<b>Valves:</b>	
Gas valve	Y2
Seal valve	Y3
Soft-air valve	Y4
Decompression valve	Y5



opm:	datum: 101126	school: 1:1	posit: 1	programma	revisie	gemaakt	datum
	formaat: A3	ontwerp:	titel: DIN EN ISO 2758/1101	002-PCB			
projectie: 	gelaat: TY	referentie:	DIV.				
AUDION ELEKTRO MEES, HOLLAND 	naam: 002-PCB				code:		
						160-002-PCB	

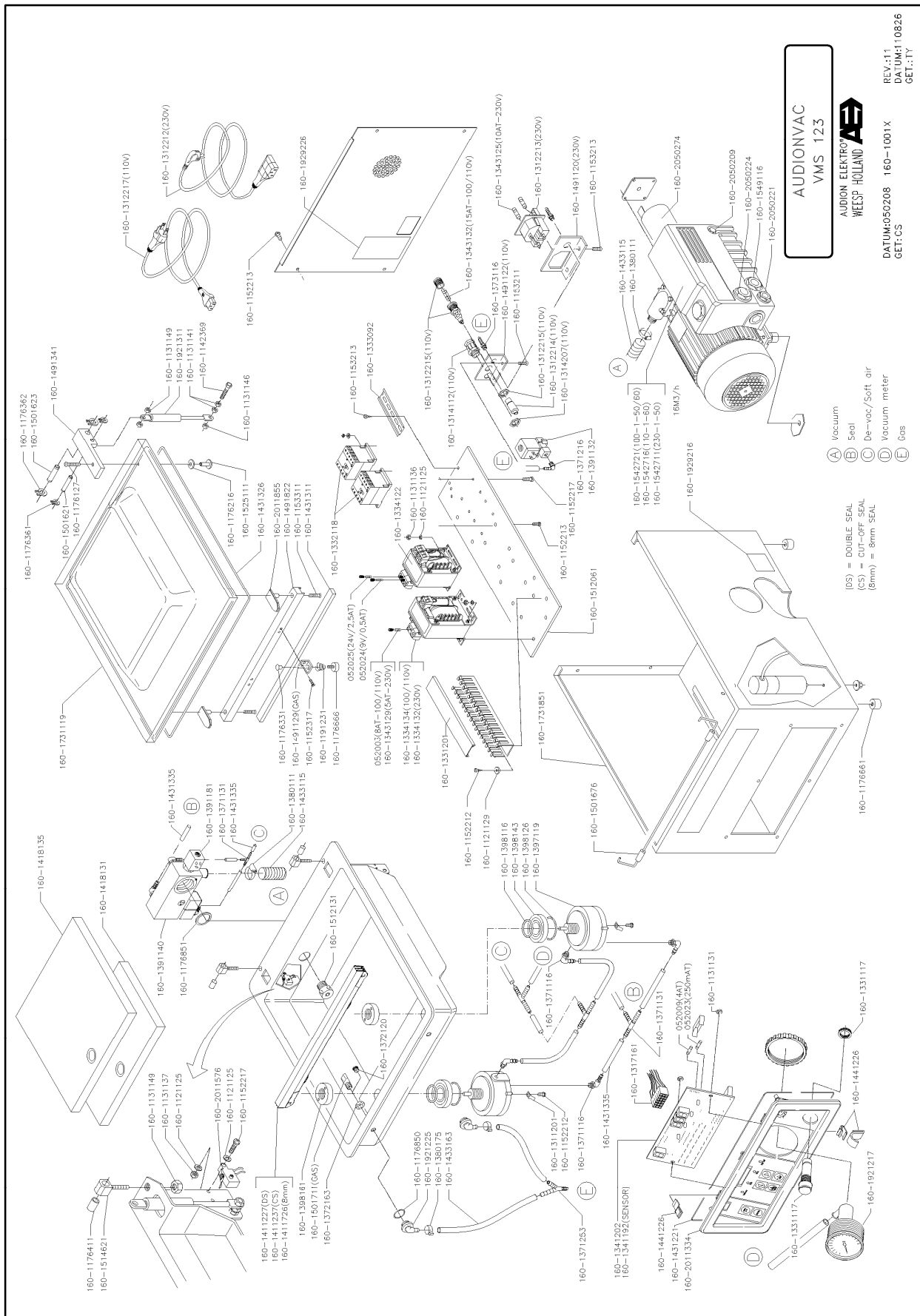
1	2	3	4	5	6	7
MAIN SUPPLY	MAIN FUSE	CONTACTOR	CONTACTOR SEAL	SEAL TRANSFORMER	CONTROL TRANSFORMER	CONTROL SWITCH
L1 N	F1, F2	K1	K2	TR2	Tb1	S2
		MOTOR	SEAL TRANSFORMER	SEAL BAR		
		M1	TR1	R2		
			SEAL BAR			
			R1			



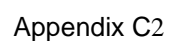
ppm:	datum: 101126	zoboz: 1:1	protisil: 1	preprava:	reviz:	sklad:	doim:
	formet: A3	ovisice:	temet: DIN EN ISO 2768/101	027	△		
projektor: 	gledali: TY	reditelj: DIV.					
AUDION ELEKTRO WESS, HOLLAND 	namo: 027				code:		
						160-027	

Appendix B37

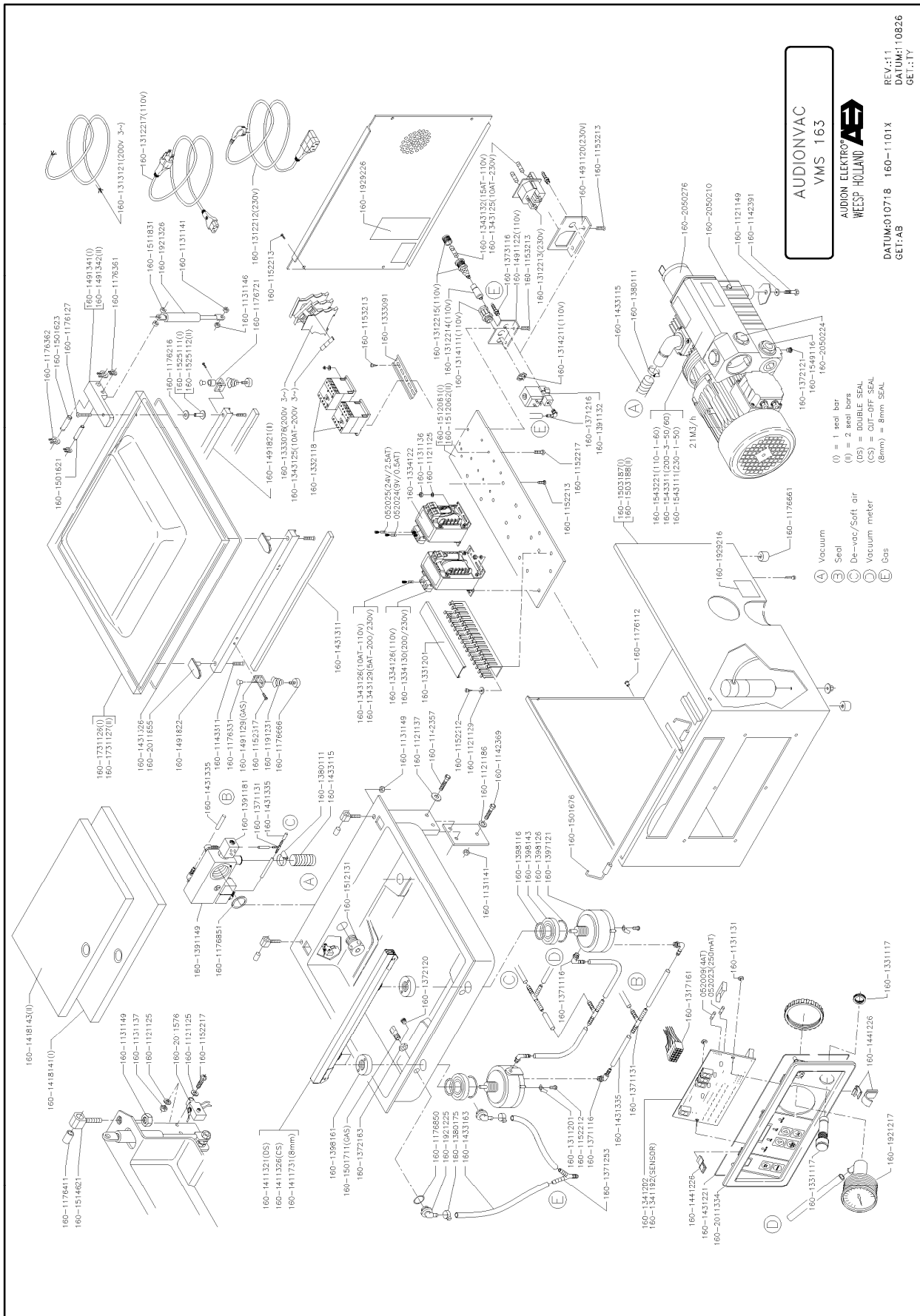
## Appendix C1

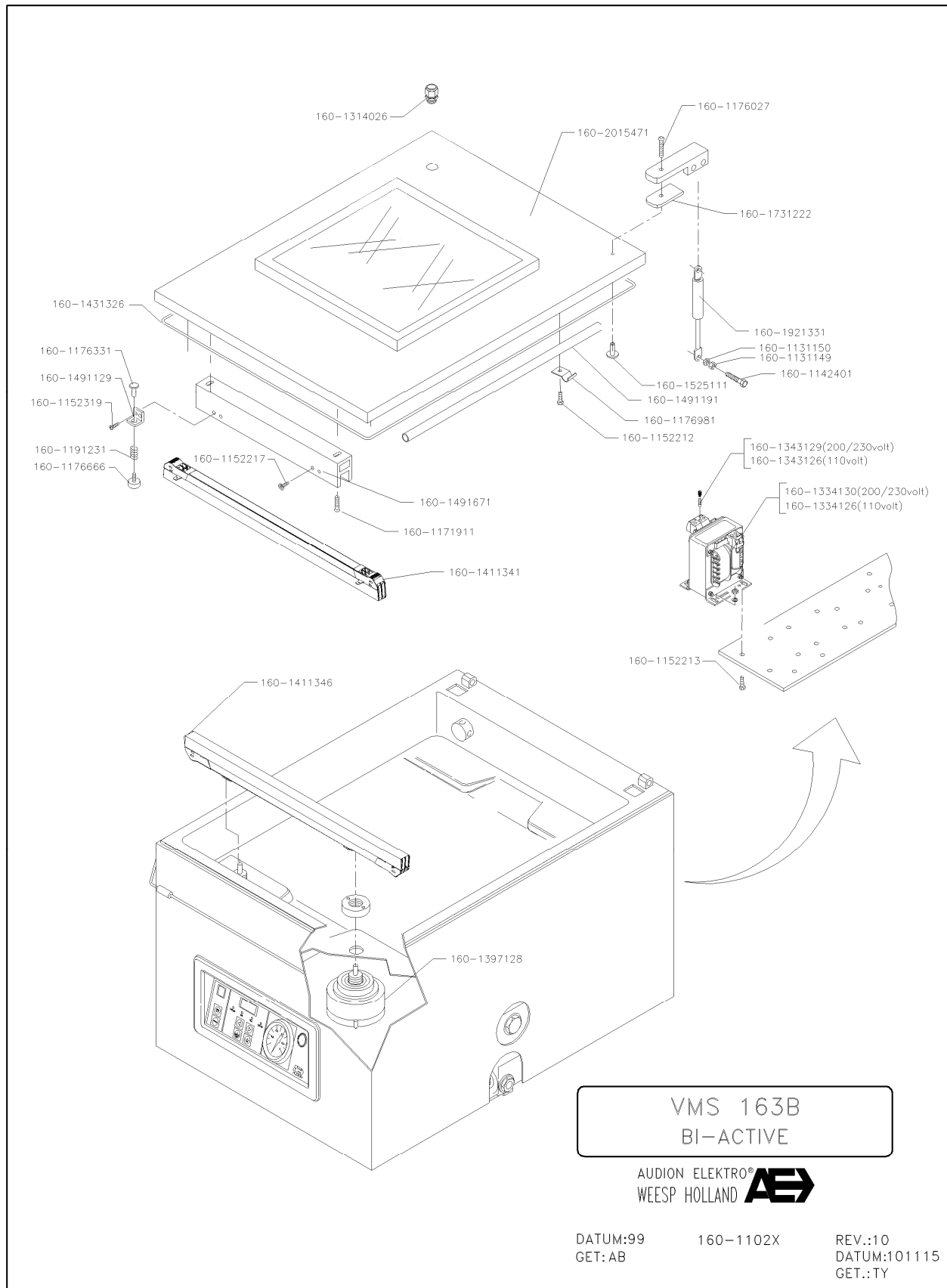




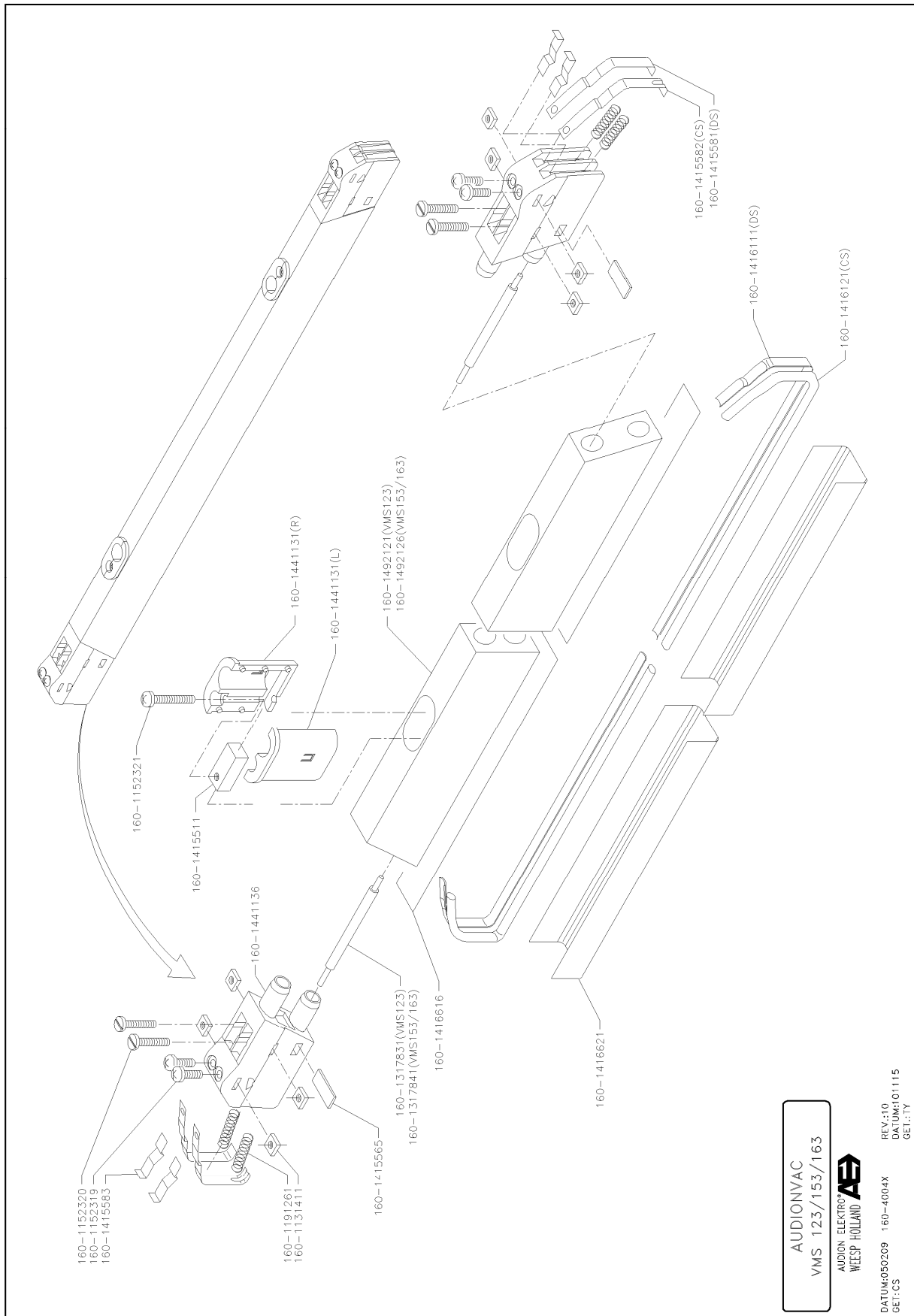


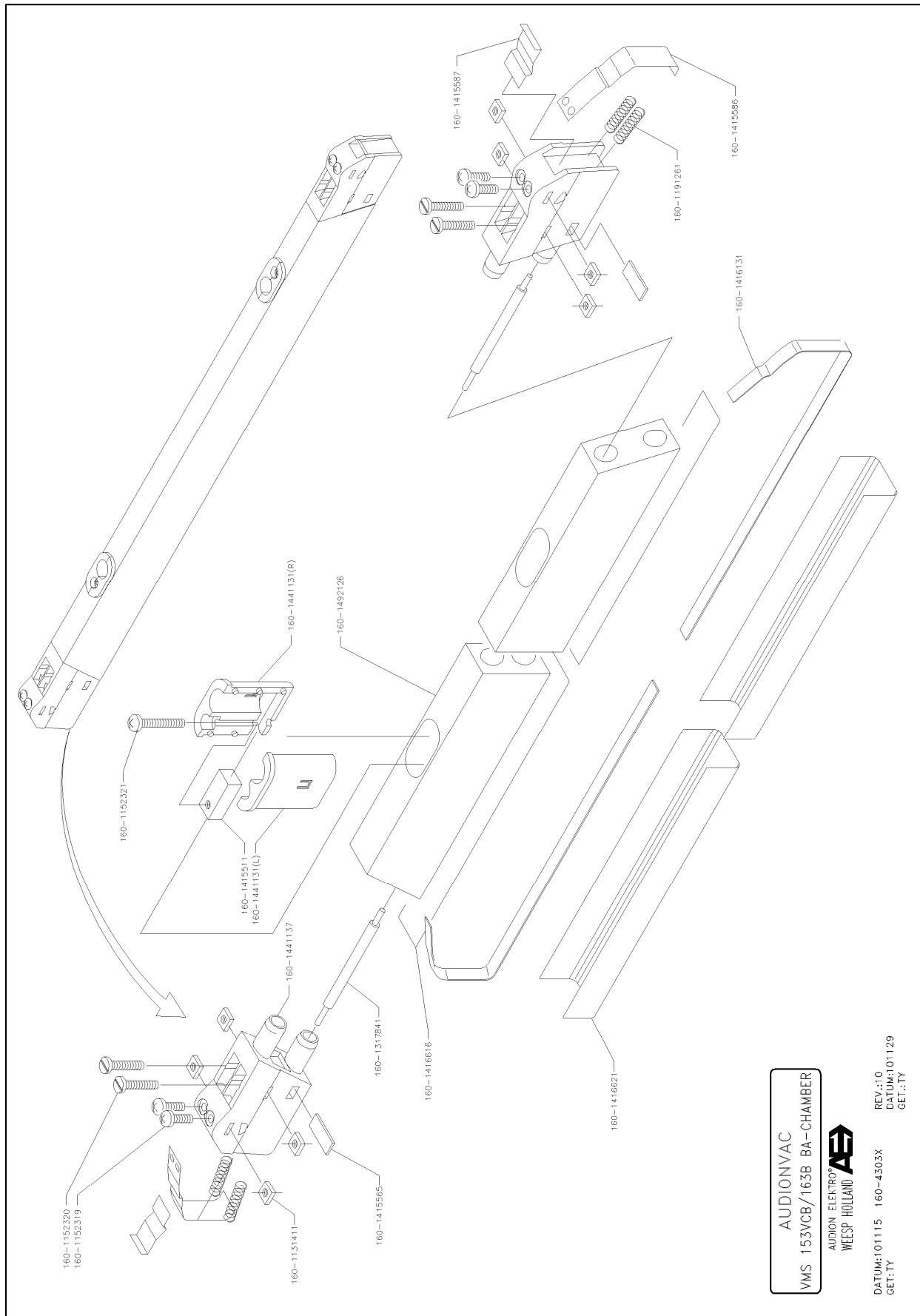


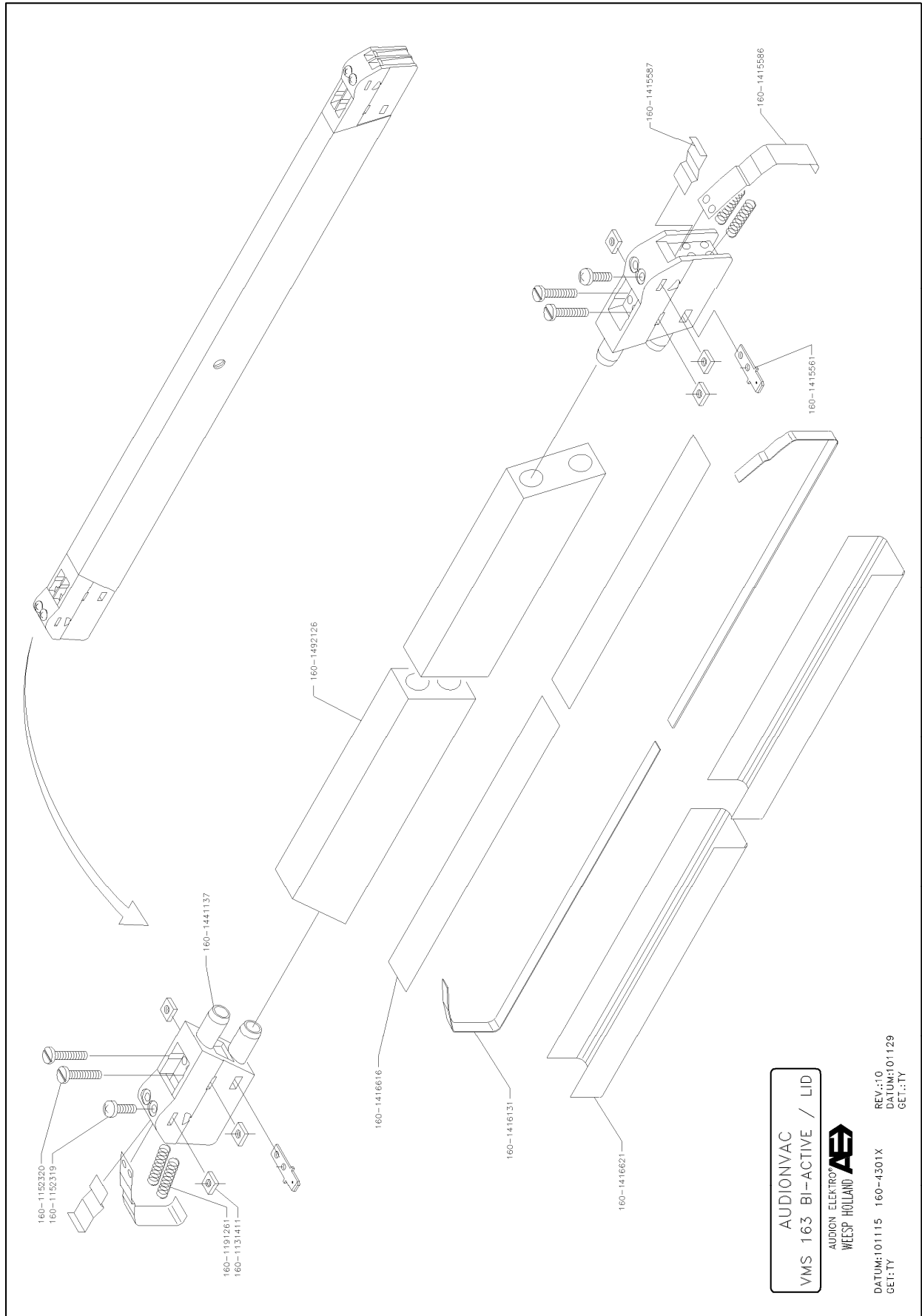




## 13 Exploded view seal bar



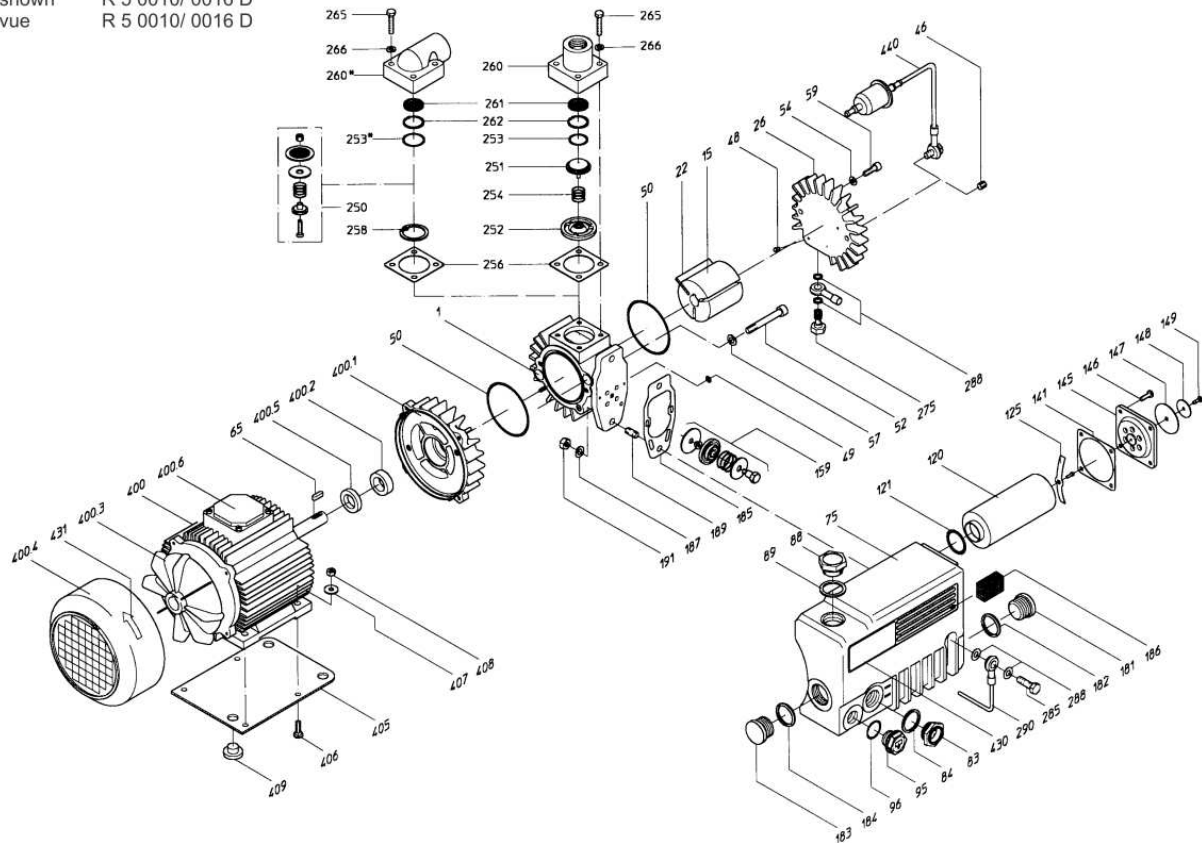




## 14 Exploded view pump

VMS 123 (016 m<sup>3</sup>/h)

abgebildet R 5 0010/ 0016 D  
shown R 5 0010/ 0016 D  
vue R 5 0010/ 0016 D





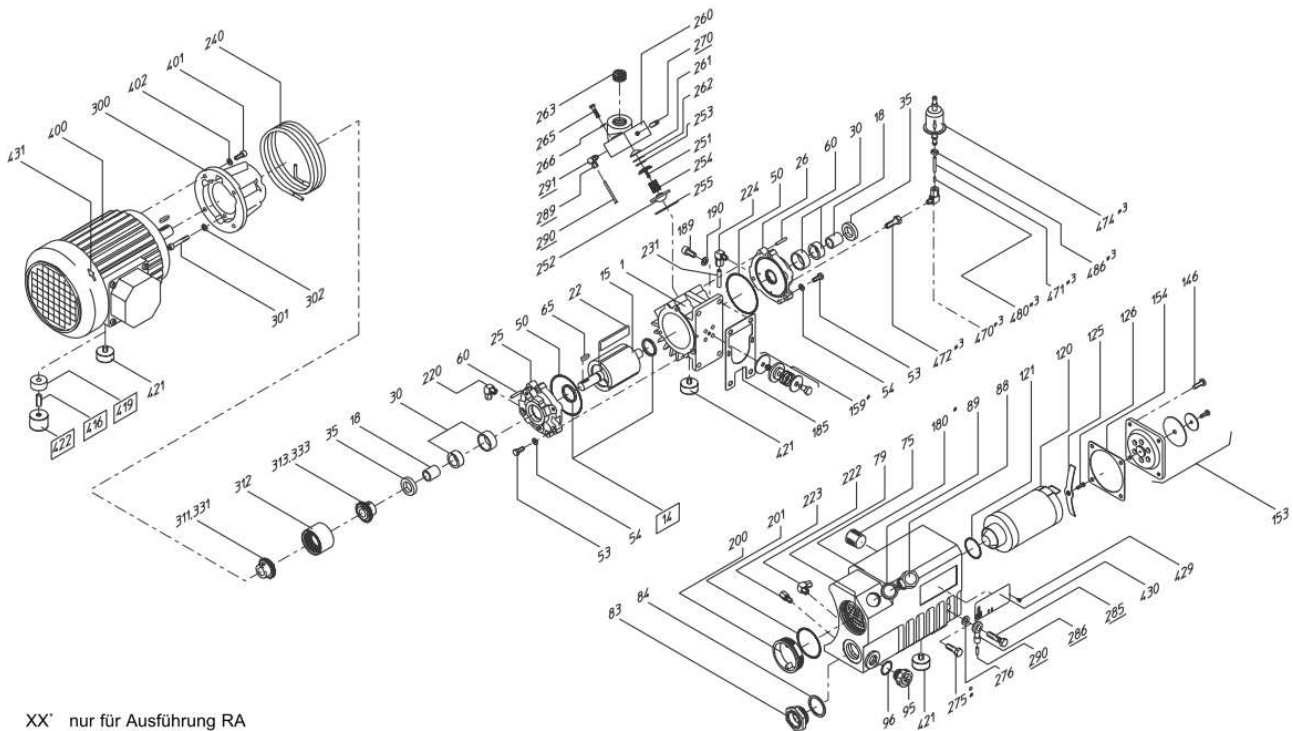
Teilenummern Ersatzteile Part numbers spare parts Numéro de pièce					
Pos.	Teil	Part	Pièce	R 5 0010 D	R 5 0016 D
1	Zylinder	Cylinder	Cylindre	0223 105 266	0223 105 130
15	Rotor	Rotor	Rotor	0210 105 135	0210 105 135
22	Schieber	Vane	Palette	0724 105 206	0724 105 206
26	Zylinderdeckel	Cylinder cover	Couvercle du cylindre	0233 105 883	0233 105 883
46	Verschlußschraube	Plug	Vis de fermeture	0415 000 041	0415 000 041
48	Gewindestift	Socket set screw	Vis sans tête	0414 000 099	0414 000 099
49	O-Ring	O-ring	Joint torique	0486 000 623	0486 000 623
50	O-Ring	O-ring	Joint torique	0486 000 564	0486 000 564
52	Zylinderschraube	Cylinder cover screw	Vis à tête cylindrique	0413 000 460	0413 000 460
54	Federring	Lock washer	Rondelle élastique	0432 000 059	0432 000 059
57	Federring	Lock washer	Rondelle élastique	0432 000 062	0432 000 062
59	Zylinderschraube	Cylinder cover screw	Vis à tête cylindrique	0413 000 320	0413 000 320
65	Passfeder	Shaft key	Clavette	0434 107 003	0434 107 003
75	Ölabscheider	Oil separator	Séparateur d'huile	0266 105 132	0266 105 132
83	Ölschauglas	Oil sight glass	Voyant d'huile	0583 000 001	0583 000 001
84	Ölschauglasdichtung	Oil sight glass seal	Joint du voyant d'huile	0480 000 271	0480 000 271
88	Verschlußschraube	Plug	Vis de fermeture	0710 000 001	0710 000 001
89	Dichtring	Sealing ring	Joint	0482 000 020	0482 000 020
95	Verschlußschraube	Plug	Vis de fermeture	0710 000 010	0710 000 010
96	O-Ring	O-ring	Joint torique	0486 000 505	0486 000 505
120	Luftentölelement	Exhaust filter	Filtre d'échappement	0532 105 216	0532 105 216
121	O-Ring	O-ring	Joint torique	0486 000 509	0486 000 509
125	Filterfeder	Spring	Ressort de filtre	0947 000 719	0947 000 719
141	Abscheiderdeckeldichtung	Separator gasket	Joint plat	0480 000 103	0480 000 103
145	Abluftdeckel	Exhaust cover	Couvercle d'échappement	0710 102 212	0710 102 212
146	Zylinderschraube	Cylinder cover screw	Vis à tête cylindrique	0413 000 313	0413 000 313
147	Gummischeibe	Rubber plate	Rondelle caoutchouc	0482 000 031	0482 000 031
148	Kotflügelscheibe	Washer	Rondelle	0431 000 169	0431 000 169
149	Ejot-Schraube	Tapping screw	Vis autotaraudeuse	0416 000 173	0416 000 173
159	Abluftventil	Exhaust valve	Clapet de décharge	0916 000 696	0916 000 696
181	Verschlußschraube	Plug	Vis de fermeture	0415 000 022	0415 000 022
182	Dichtring	Sealing ring	Anneau d'étanchéité	0484 000 067	0484 000 067
183	Verschlußschraube	Plug	Vis de fermeture	0415 000 022	0415 000 022
184	Dichtring	Sealing ring	Anneau d'étanchéité	0484 000 067	0484 000 067
185	Dichtung	Seal	Joint	0480 105 735	0480 105 735
186	Schaumstoff	Foam	Elastomère alvéolaire	0532 113 272	0532 113 272
187	Federring	Lock washer	Rondelle élastique	0432 000 013	0432 000 013
189	Stiftschraube	Stud	Goujon	0412 000 208	0412 000 208
191	Sechskantmutter	Hexagon nut	Ecrou hexagonal	0420 000 007	0420 000 007
250	Ventileinsatz	Valve case	Insert de soupape	0916 117 449	0916 117 449
251	Ventilteller	Valve disk	Tête de soupape	0711 000 002	0711 000 002
252	Ventilführung	Valve guide	Guide de soupape	0711 000 001	0711 000 001
253	O-Ring	O-ring	Joint torique	0486 000 561	0486 000 561
253.1	O-Ring	O-ring	Joint torique	0486 000 767	0486 000 767
254	Druckfeder	Compression spring	Ressort de clapet	0435 000 052	0435 000 052
256	Saugflanschdichtung	Inlet flange seal	Joint de bride d'aspiration	0480 000 216	0480 000 216
258	Sicherungsring	Guard ring	Circlip	0432 000 549	0432 000 549
260	Saugflansch, vertikal	Inlet flange, vertical	Bride d'aspiration vertical	0246 102 208	0246 102 208
260.1	Saugflansch, horizontal	Inlet flange, horizontal	Bride d'aspiration horizontale	0246 107 770	0246 107 770
261	Sieb	Screen	Tamis	0534 000 056	0534 000 056
262	Sicherungsring	Retaining ring	Circlips	0432 000 526	0432 000 526
265	Sechskantschraube	Hexagon head screw	Vis à tête hexagonale	0410 000 030	0410 000 030
266	Federring	Lock washer	Rondelle ressort	0432 000 009	0432 000 009
270	Verschlußschraube	Plug	Vis de fermeture	0415 000 002	0415 000 002
271	Dichtring	Sealing ring	Anneau d'étanchéité	0484 000 029	0481 000 029
275	Ölrücklaufventil	Oil return valve	Clapet de retour d'huile	0916 106 679	0916 106 679
285	Ölrücklaufschraube	Oil return screw	Vis de retour d'huile	0916 105 801	0916 105 801
288	Dichtring	Sealing ring	Anneau d'étanchéité	0484 000 017	0484 000 017
290	Ölleitung	Oil line	Tubulure d'huile	0931 105 649	0931 105 649
400*)	Elektromotor (50, 60 Hz)	Motor (50, 60 Hz)	Moteur électrique (50, 60 Hz)	0611 106 227	0612 106 231
400.1*)	Deckel	Motor endplate	Flasque côté accouplement	0283 106 063	0283 105 394
400.2*)	Kugellager	Ball bearing	Roulement à billes	0473 106 739	0473 106 739
400.3*)	Lüfterflügel	Fan blade	Ailettes de ventilateur	0648 106 740	0648 106 741
400.4*)	Elektromotorhaube	Motor fan cover	Capot ventilateur moteur	0648 106 742	0648 106 743
400.5*)	Wellendichtring	Shaft seal	Joint d'étanchéité	0487 106 744	0487 106 744
400.6*)	Klemmkasten	Terminalbox	Bornier	0648 106 746	0648 106 746
405	Platte	Plate	Plaque	0320 105 805	0320 105 805
406	Flachrundschrabe	Truss head screw	Boulon à tête bombée	0416 105 891	0416 105 891
407	Scheibe	Washer	Rondelle	0431 000 021	0431 000 021
408	Sechskantmutter	Hexagon nut	Ecrou hexagonal	0420 000 005	0420 000 005
409	Gummischeibe	Rubber plate	Plaque en caoutchouc	0730 106 187	0730 106 187
430	Typenschild	Nameplate	Plaque signalétique	0565 102 562	0565 102 562
431	Richtungspfeil	Arrow label	Flèche sens de rotation	0565 000 003	0565 000 003
440	Gasballast	Gas ballast	Lest d'air	0916 106 678	0916 106 678

\*= bei Bestellung bitte Motorendaten und Maschinenummer angeben

\*= if ordering, please state motor data and serial number of pump

\*= en cas de commande, veuillez spécifier les dates de moteur et les numéros de pompes

## VMS 153(V/VCB) / 163(B) (021 m³/h)



XX' nur für Ausführung RA  
version RA only  
sur version RA uniquement

XX° nur für Ausführung RB  
version RB only  
sur version RB uniquement

XX nur für Ausführung RC  
version RC only  
sur version RC uniquement

XX nur für R5 0012 B  
only for R5 0012 B  
seulement pour R5 0012 B

XX<sup>3</sup> Gasballast Einzelteile  
components gas ballast  
composants du lest d'air

abgebildet R 5 0021 B (50 Hz)  
shown R 5 0021 B (50 Hz)  
vue R 5 0021 B (50 Hz)

Teilenummern Ersatzteile Part numbers spare parts Numéro de pièce					
Pos.	Teil	Part	Pièce	R 5 0012 B	R 5 0021 B
1	Zylinder RA	Cylinder RA	Cylindre RA	0223 000 062	0223 000 062
1	Zylinder RB	Cylinder RB	Cylindre RB	0223 000 005	0223 000 005
1	Zylinder RC	Cylinder RC	Cylindre RC	0223 000 005	0223 000 005
14	Ring	Ring	Bague	0710 000 710	-
15	Rotor	Rotor	Rotor	0210 000 053	0210 000 029
18	Innenring	Sleeve	Portée axe rotor	0472 509 993	0472 509 993
22	Schieber	Vane	Palette	0722 515 895	0722 515 895
25	Zylinderdeckel A-Seite	A-endplate	Flasque A	0233 000 004	0233 000 004
26	Zylinderdeckel B-Seite	B-endplate	Flasque B	0233 000 005	0233 000 005
26	Zylinderdeckel B-Seite für Gasballast	B-endplate for gas ballast	Flasque B pour lest d'air	0233 000 124	0233 000 124
30	Gleitlager	Sleeve bearing	Palier	0947 501 331	0947 501 331
35	Wellendichtung	Shaft seal	Joint d'étanchéité	0487 000 002	0487 000 002
50	O-Ring	O-ring	Joint torique	0486 000 564	0486 000 564
53	Sechskantschraube	Hexagon head screw	Vis à tête hexagonale	0410 000 022	0410 000 022
54	Federring	Spring lock washer	Rondelle élastique	0432 000 010	0432 000 010
60	Kegelstift	Taper pin	Goupille conique	0437 000 005	0437 000 005
65	Paßfeder	Shaft key	Clavette	0434 516 118	0434 516 118
75	Ölabscheider RA	Oil separator RA	Séparateur de brouillard d'huile RA	0266 000 108	0266 000 108
75	Ölabscheider RB	Oil separator RB	Séparateur de brouillard d'huile RB	0266 000 087	0266 000 087
75	Ölabscheider RC	Oil separator RC	Séparateur de brouillard d'huile RC	0266 000 087	0266 000 087
79	Demister	Demister	Dévésiculateur	0534 000 258	0534 000 258
83	Ölschauglas	Oil sight glass	Voyant d'huile	0583 000 006	0583 000 006
84	Ölschauglasdichtung	Oil sight glass seal	Joint	0480 000 231	0480 000 231
88	Verschlußschraube	Plug	Vis de fermeture	0710 000 009	0710 000 009
89	Dichtring	Sealing ring	Joint	0482 000 020	0482 000 020
95	Verschlußschraube	Plug	Vis de fermeture	0710 000 010	0710 000 010
96	O-Ring	O-ring	Joint torique	0486 000 505	0486 000 505
120	Luftentölelement	Exhaust filter	Filtre d'échappement	0532 000 510	0532 000 510
121	O-Ring	O-ring	Joint torique	0486 000 512	0486 000 512
125	Filterfeder	Spring	Ressort de filtre	0947 000 718	0947 000 718



Teilenummern Ersatzteile Part numbers spare parts Numéro de pièce					
Pos.	Teil	Part	Pièce	R 5 0012 B	R 5 0021 B
126	Zylinderschraube	Cylinder cover screw	Vis à tête cylindrique	0413 000 116	0413 000 116
146	Linsensenkschraube	Raised cheese head screw	Vis à tête bombé	0413 000 807	0413 000 807
153	Abluftdeckel	Exhaust cover silencer	Couvercle d'échappement	0947 508 095	0947 508 095
154	Dichtung	Seal	Joint	0480 000 112	0480 000 112
159	Abluftventil	Exhaust valve	Clapet de décharge	0916 000 696	0916 000 696
180	Verschlußschraube	Socket pipe plug	Bouchon	0415 000 039	0415 000 039
185	Abscheiderdichtung	Separator gasket	Joint plat	0480 000 104	0480 000 104
189	Zylinderschraube	Cylinder cover screw	Vis à tête cylindrique	0413 000 423	0413 000 423
190	Federring	Spring lock washer	Rondelle élastique	0432 000 012	0432 000 012
200	Tankverschlußdeckel	Drum plug	Bouchon	0415 000 200	0415 000 200
201	O-Ring	O-ring	Joint torique	0486 000 521	0486 000 521
220	Winkeleinschraubverschraubung	Elbow stud fitting	Coude mâle	0441 000 145	0441 000 145
222	Winkeleinschraubverschraubung	Elbow stud fitting	Coude mâle	0441 000 103	0441 000 103
223	Gerade Einschraubverschraubung	Straight stud fitting	Union mâle	0441 000 004	0441 000 004
224	Winkelverschraubung	Elbow stud fitting	Coude mâle	0441 000 102	0441 000 102
231	Ölleitung	Oil tube	Tube d'huile	0327 000 005	0327 000 005
240	Kühlschlange	Cooling spiral	Serpentin	0522 000 009	0522 000 009
251	Ventilteller	Valve plate	Clapet d'aspiration	0711 000 002	0711 000 002
252	Ventilführung	Guide for valve plate	Guide de clapet d'aspiration	0711 000 001	0711 000 001
253	O-Ring	O-ring	Joint torique	0486 000 561	0486 000 561
254	Druckfeder	Compression spring	Ressort de clapet	0435 000 052	0435 000 052
255	O-Ring	O-ring	Joint torique	0486 000 635	0486 000 635
260	Saugflansch RA	Inlet flange RA	Bride d'aspiration RA	0246 000 543	0246 000 543
260	Saugflansch RB	Inlet flange RB	Bride d'aspiration RB	0246 000 543	0246 000 543
260	Saugflansch RC	Inlet flange RC	Bride d'aspiration RC	0246 000 542	0246 000 542
261	Saugsieb	Inlet screen	Tamis d'aspiration	0534 000 056	0534 000 056
262	Seeger-Ring	Retaining ring for bores	Circlips intérieur	0432 000 526	0432 000 526
263	Filterscheibe	Filter washer	Rondelle de filtre	0537 000 022	0537 000 022
265	Sechskantschraube	Hexagon head screw	Vis à tête hexagonale	0410 000 027	0410 000 027
266	Federring	Lock washer	Rondelle ressort	0432 000 010	0432 000 010
270	Verschlußschraube	Socket pipe plug	Bouchon	0415 000 041	0415 000 041
275	Ölrücklaufventil	Oil return valve	Clapet de retour d'huile	0916 514 949	0916 514 949
276	Dichtring	Sealing ring	Joint	0484 000 017	0484 000 017
285	Hohlschraube	Hollow-core screw	Vis creuse	0416 000 117	0416 000 117
286	Ringanschlußstück	Connection piece	Pièce de connexion	0947 000 707	0947 000 707
289	Bing-Düse	Extruder die	Tuyère	0460 500 220	0465 000 119
290	Leitungsrohr	Tube	Tuyau	0327 000 120	0327 000 120
291	Winkeleinschraubverschraubung	Elbow stud fitting	Coude mâle	0441 000 120	0441 000 120
300	Motorflansch	Motor flange	Flasque de moteur	0247 000 003	0247 000 003
301	Zylinderschraube	Cylinder cover screw	Vis à tête cylindrique	0413 000 371	0413 000 371
302	Federring	Spring lock washer	Rondelle élastique	0432 000 010	0432 000 010
311	Kupplung (WS Motor)	Coupling (single-phase motor)	Accouplement (moteur monophasé)	0512 000 404	0512 000 186
311	Kupplung (DS Motor)	Coupling (three-phase motor)	Accouplement (moteur triphasé)	0512 000 186	0512 000 186
312	Kupplung (WS Motor)	Coupling (single-phase motor)	Accouplement (moteur monophasé)	0512 000 107	0512 000 002
312	Kupplung (DS Motor)	Coupling (three-phase motor)	Accouplement (moteur triphasé)	0512 000 002	0512 000 002
313	Kupplung (WS Motor)	Coupling (single-phase motor)	Accouplement (moteur monophasé)	0512 000 402	0512 000 185
313	Kupplung (DS Motor)	Coupling (three-phase motor)	Accouplement (moteur triphasé)	0512 000 185	0512 000 185
331	Gewindestift	Socket set screw	Vis sans tête	0414 512 870	0414 512 870
333	Gewindestift	Socket set screw	Vis sans tête	0414 512 870	0414 512 870
400	Elektromotor (50 Hz)	Motor (50 Hz)	Moteur électrique (50 Hz)	0611 102 989	0613 000 083
400	Elektromotor (60 Hz)	Motor (60 Hz)	Moteur électrique (60 Hz)	0612 000 221	0613 000 083
400.1	Klemmbrett (50 Hz)	Terminal board (50 Hz)	Bornier (50 Hz)	0648 107 978	0648 505 256
400.1	Klemmbrett (60 Hz)	Terminal board (60 Hz)	Bornier (60 Hz)	0648 507 988	0648 505 256
400.2	Klemmkasten (50 Hz)	Terminal box (50 Hz)	Boîte à borne (50 Hz)	0648 107 977	0648 507 913
400.2	Klemmkasten (60 Hz)	Terminal box (60 Hz)	Boîte à borne (60 Hz)	0648 507 989	0648 507 913
400.3	Lüfterflügel (50 Hz)	Fan (50 Hz)	Ventilateur (50 Hz)	0648 000 340	0648 507 914
400.3	Lüfterflügel (60 Hz)	Fan (60 Hz)	Ventilateur (60 Hz)	0648 507 990	0648 507 914
400.4	Elektromotorhaube (50 Hz)	Motor fan cover (50 Hz)	Capot ventilateur (50 Hz)	0648 102 865	0648 507 915
400.4	Elektromotorhaube (60 Hz)	Motor fan cover (60 Hz)	Capot ventilateur (60 Hz)	0648 507 991	0648 507 915
401	Zylinderschraube	Cylinder cover screw	Vis à tête cylindrique	0413 000 342	0413 000 342
402	Federring	Lock washer	Rondelle ressort	0432 000 010	0432 000 010
416	Stiftschraube	Stud	Boulon fileté	0412 000 206	-
419	Distanzring	Distance ring	Entretoise	0460 506 444	-
421	Schwingmetallpuffer	Rubber foot	Support élastique	0561 000 030	0561 000 030
422	Schwingmetallpuffer	Rubber foot	Support élastique	0561 000 001	-
429	Zylinderblechschraube	Head tapping screw	Vis à tête cylindrique	0418 000 015	0418 000 015
430	Typenschild	Nameplate	Plaque signalétique	0565 000 081	0565 000 081
431	Drehrichtungspfeil	Arrow label	Flèche sens de rotation	0565 000 003	0565 000 003
470	Winkeleinschraubverschraubung	Stud elbow fitting	Coude mâle	0441 000 114	0441 000 114
471	Rohr	Tube	Tube	0754 000 055	0754 000 055
472	Gasballastventil	Gas ballast valve	Soupape de lest d'air	0916 000 300	0916 000 300
474	Filter	Filter	Filtre	0531 000 100	0531 000 100
480	Einsteckhülse	Transfer cone	Cone de remplacement	0438 000 001	0438 000 001
486	Schlauchklemme	Tube clip	Pince pour tuyaux souples	0573 502 998	0573 502 998





AUDION ELEKTRO®



**EC-DECLARATION OF CONFORMITY**

AUDION ELEKTRO B.V., located at the Hogeweyselaan 235 in  
Weesp, The Netherlands

herewith declares that the

**AUDIONVAC TABLETOP MODEL**

**Type:**

**VMS 43 ; VMS 53 ; VMS 93 ; VMS 113 ; VMS 123 ; VMS 133 ; VMS 153 (V)  
(VCB) ; VMS 163 (B)**

- is in conformity with the provisions of the following EEC directives:  
2006/95/EEG Low Voltage Directive ; 2006/42/EC Machine Directive ;  
2004/108/EG EMC-Directive ;

- and that the following (parts/clauses of) harmonized standards have been  
applied:

NEN-EN-ISO 12100-1/2; NEN-EN-ISO 13857; NEN-EN-ISO 13732-1; NEN-EN-IEC 60204-1; NEN 5509; NEN-EN-IEC 61558-1; NEN-EN-IEC 61558-2-6; NEN-EN-IEC 61558-2-6;

Weesp 21-1-2011

E.Tangelder

Director

PGR160A

**AUDION ELEKTRO**

Hogeweyselaan 235,  
1382 JL Weesp, Holland  
Tel : +31(0)294 491717  
Fax: +31(0)294 491761  
E-mail: [export@audion.nl](mailto:export@audion.nl)  
E-mail: [holland@audion.nl](mailto:holland@audion.nl)  
Website: [www.audion.com](http://www.audion.com)

Represented by