

Audionvac

VM 203-303 VMS 193-223-233-333



MANUAL





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		•	oded view pump	



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 carton box with a pallet. 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

8	Break contact between plug and socket
	The socket
A-2000 ELECTION (C C C C C C C C C C C C C C C C C C C	Identification plate with Voltage(V), Frequency(Hz) and Consumption(W)
OK	O.K.
The state of the s	Fluid
	Long period
STOP	Do not continue, this is dangerous
	Contact Audion Elektro BV or your dealer
\triangle	Watch out!
2/6	Reparation/ Maintenance
Æ	Audion Elektro BV
	Symbol for your Audionvac machine
	Temperature meter with boundary conditions
\mathfrak{G}	Empty
	Oil replacement
0000	Gas-spring of the lid
T MAX.	The oil level
	Vacuum meter
+	Tension of the springs



1.2 Prohibitions

Never pack live material.

Don't pack in a clean room environment.

Don't use in an explosive environment.

Don't pack in a medical, sterile environment.

Don't pack pharmaceutical and / or therapeutically products.

Don't use gas-mixtures containing higher concentrations than 25% of oxygen (O2) because danger of explosions.

The pressure unit of the gas bottle, if the machine is gas fit, mustn't be higher than 1 bar. A higher pressure can damage the machine.

The pressure from the compressor, if external sealing pressure must be applicable, mustn't be higher than 1 Bar. A higher pressure can damage the machine.

Only dry compressed air may be used for the external seal pressure.

Don't pack poisonous, corrosive or irritating substances.

Don't pack poisonous, suffocating or irritating gasses.

Don't pack (dangerously) stuffy products.

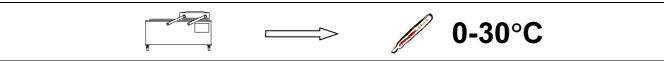
Don't pack explosive materials.



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. The connection must be done by an electrician with proper knowledge. After the machine has been properly connected to the power supply, check that the lid is open and turn the main breaker (fig. 2.3) to "I" position. By pressing in the ON/OFF switch (fig. 3.1, pos. 11) the machine starts up and the pump starts to run. If the pump is not running smooth, check the direction of the rotation.



Figure 2.3: Main breaker



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.

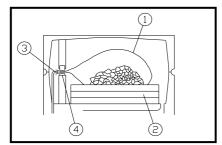
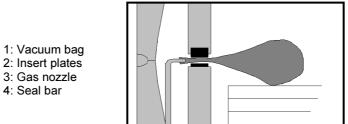


Figure 2.4: Bag inside chamber



8

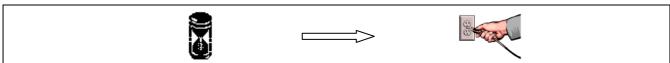




Select a program on the control panel and close the lid. After the vacuuming and sealing process the machine releases vacuum and the lid opens automatically. Check the vacuum and the produced seal. Increase vacuum time if the vacuum is too weak. If the seal is not strong enough, increase the sealing 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 and turn the main breaker to "O" position. 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

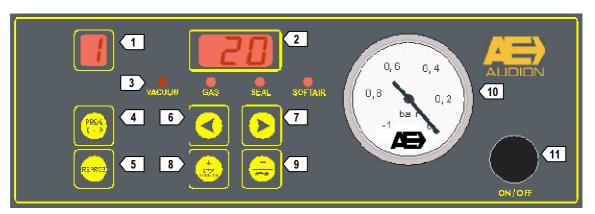
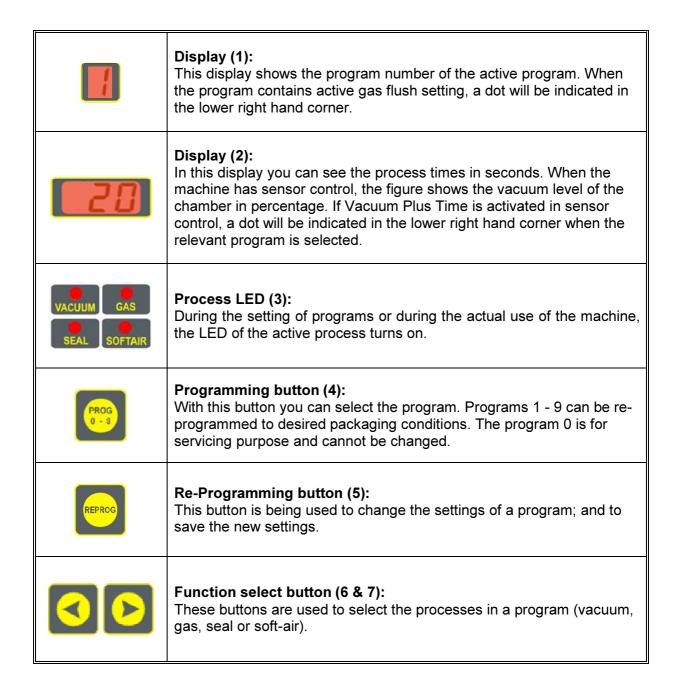


Figure 3.1 : Control panel





+ STOP VACUUM	Combination button [+] and [vacuum stop] (8): 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).
STOP	Combination button [-] and [stop] (9): 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.
0.6 0.4 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	Vacuum meter (10): 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'.
ON/OFF	ON/OFF switch (11):



3.1 Programming with open lid

1)	Open the lid	
2)	Turn the machine on	CALCOTT
3)	Select program	PROG 0 - 3
4)	Press [REPROG] to enter programming mode.	REPROG
5)	Select process VACUUM GAS SEAL SOFTAIR	
6)	Set parameters with [+] and [–] buttons.	T STOP
7)	Press [REPROG] to save the setting.	REPROG

(*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.



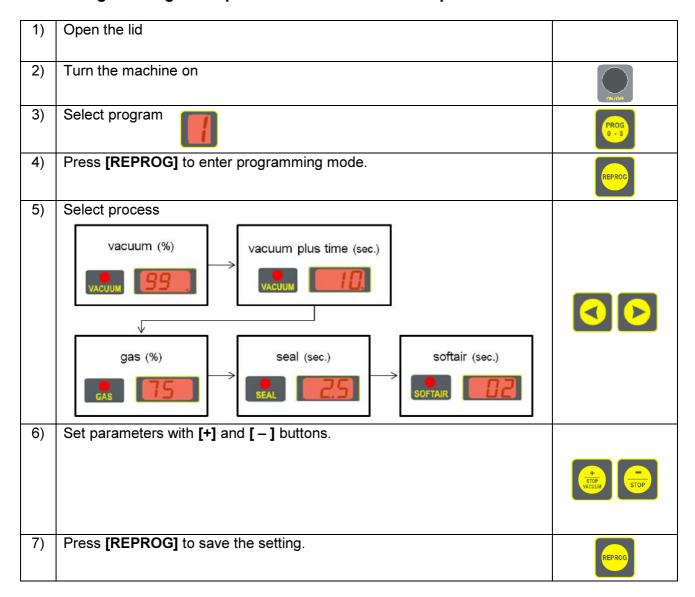
Never use gas mixes containing over 25% of Oxygen.

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) 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.



(*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	OM/ONT
3)	Select program	PROG 0 - 9
4)	Press [REPROG] to enter programming mode.	REPROG
5)	Close the lid.	
6)	The machine starts to vacuum. Press [STOP VACUUM] 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 [STOP VACUUM]. If the machine has the sensor control and 99% vacuum is set, the machine starts counting vacuum plus time (see § 3.2). Press [STOP VACUUM] again after sufficient vacuum plus time.	VACUUM TOP WACUUM
7)	The machine starts to flush gas into the chamber. (*1) Press [STOP] when sufficient gas has been inserted. 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. The machine ventilates the chamber and finishes the programming (*2).	GAS
	The setting is stored in the program.	

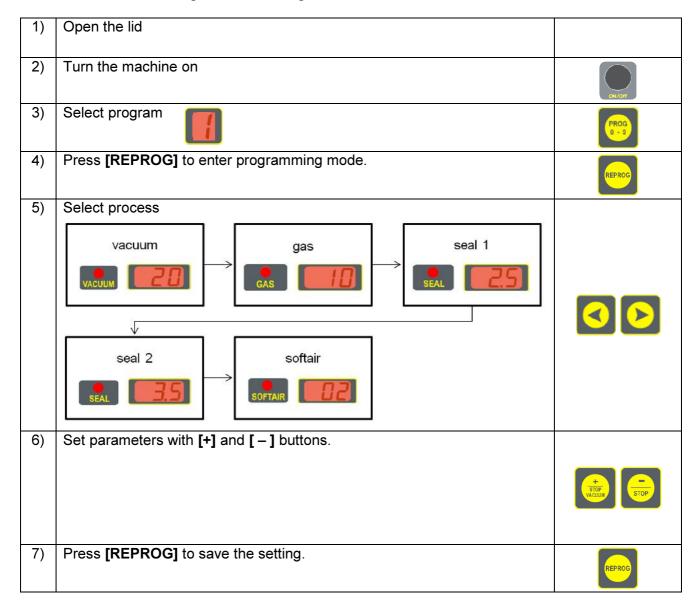
- (*1) Gas flush is an option. When the option is not installed, the process cannot be selected.
- (*2) Seal time and soft air time cannot be set with closed lid programming.



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) 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.

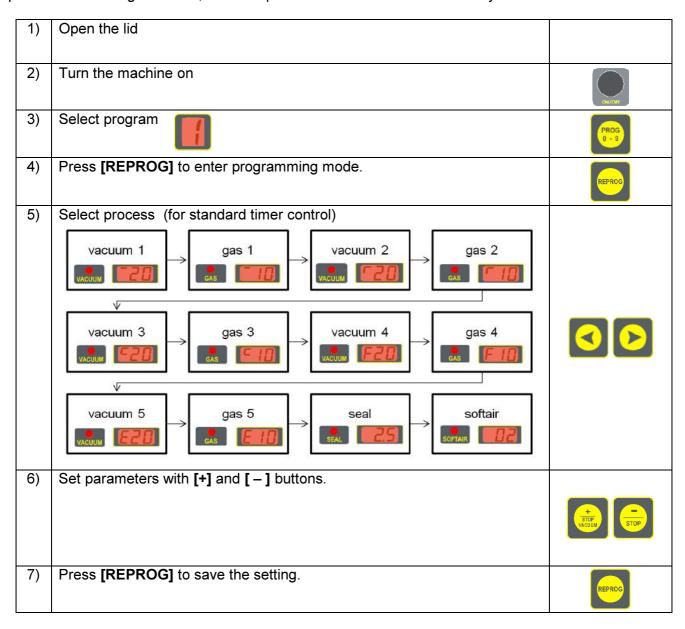


3.5 Special functions on request

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 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 process. Multi-cycle is also useful for packaging products containing air inside, which require rest times between vacuum cycles to let air out of itself.



(*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.



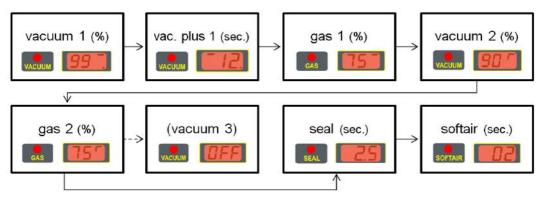


Figure 3.2: Process diagram for sensor control

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.

3.5.4 Sleeper time function

Sleeper time function enables to stop the vacuum pump from idling when a machine stays in stand-by for pre-set time. When the machine is used again by closing the lid, the vacuum pump starts running again automatically. Make sure to run the "Pump Conditioning Program" **every day** when working with this function enabled. (See § 4.2.1)

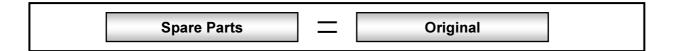


4 Maintenance

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.



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. Warning! 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 and oil filter	Change the oil and the oil filter (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. Warning: 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 devacuum 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.

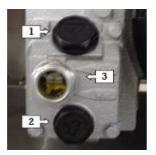


To start the conditioning program, press **[PROG]** button until "C" is shown on the display (1) and close the lid. The program runs automatically for 15 minutes and the display (2) shows the remaining time. When the program is finished, the lid opens and the display (1) shows "C". The program can be 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. Replace the oil filter together (see § 4.2.5).



1 : Oil filling plug2 : Oil draining plug3 : Oil level glass

Figure 4.2: Oil plugs and level glass

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 de 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	PUMP	STANDARD OIL		OIL FILTER		EXHAUST FILTER		
MODEL	CAPACITY	TYPE	Туре	Article No.	Liters	Article No.	Q'ty	Article No.	Q'ty
VM(S) 203; 193; 223; 233	063 m³/h	50 Hz	VG 100	160-1550631	1.0	160-2050201	1	160-2050282	1
VM(S) 203; 193; 223; 233	063 m³/h	60 Hz	VG 100	160-1550631	2.0	160-2050201	1	160-2050281	2
VM(S) 303; 333	100 m³/h	50-60 Hz.	VG 100	160-1550631	2.0	160-2050201	1	160-2050281	2



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

4.2.5 Changing oil filter

The oil filter is mounted on the rear side of the exhaust filter. Replace the oil filter to a new one every time the oil is changed. Refer to the table in § 4.2.2 for the type of the oil filter. Drain the oil according to the instructions in § 4.2.2. Remove the filter by unscrewing and replace with a new one. Fill up the pump with new oil.



Figure 4.2e

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

Before removing the seal bar, always switch off the machine.

VMS 173, VMS 193 and VMS 223 are equipped with seal bars that work with seal cylinders. (fig. 4.3 (1))

Lift the seal bar upwards to remove it.

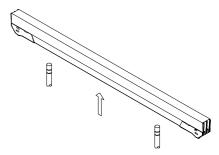


Figure 4.3 (1): Seal bar for seal cylinder type



VM 203, VMS 233, VM 303 and VMS 333 are equipped with seal bars that work with seal bags.

Remove the fixing screw (fig. 4.3 (2) pos.1) and connection terminals (pos. 2) and pull the seal bar out of the holder.



Figure 4.3 (2): Seal bar for seal bag type

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.

4.3.3 Replacing the seal wire



Figure 4.3a

- 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.



Figure 4.3b

- 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).



Figure 4.3c

- 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.

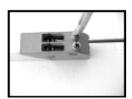


Figure 4.3d



Figure 4.3e



Figure 4.3f



Figure4.3g



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.



Figure 4.4: Silicone rubber & lid rubber

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).



5 Problem solving



+

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

Problem	Possible cause	Solution
The machine does not work.	The plug is not inserted in the wall socket.	Insert the plug in the socket.
	 The fuse in the wall socket is melted. 	Replace the melted cartridge. WARNING:
	Internal error	To prevent fire and/or other irreparable
		damage, replace fuses with fuses of
		the same type and ampere.
The vacuum bag has not sealed correctly.	 The vacuum bag has not been placed correctly over 	Place the vacuum bag tightly and evenly over the sealing beam. Make
Correctly.	the sealing beam.	sure the opening of the vacuum bag is
		always inside the vacuum chamber.
	The sealing time is too high	Adjust the sealing time higher or lower
	or too low. The silicone rubber in the	as needed. Replace the silicone rubber
	The silicone rubber in the counter beam is damaged or	Replace the silicone rubber.
	worn out.	
	 The PTFE tape is damaged. 	Replace the PTFE tape.
	The opening of the vacuum	Clear the opening of the vacuum bag
	bag is obstructed.	of any obstructions and make sure it
The lid does not open automatically.	· The gas damper is not	remains clear when filling. Contact your dealer or
The lid does not open automatically.	working.	Audion Elektro B.V.
Vacuum pump makes a lot of noise	Pump rotates the wrong way	Please connect the pump according to
	N. a. a.	schedule
	No oil in the pumpPump is defect	Fill the pump with oil Contact your dealer or
	1 dilip is delect	Audion Elektro B.V.
The vacuum is insufficient.	The vacuum time is too short.	Lengthen the vacuum time
	There is not enough oil in the	Check the oil level and replenish oil as
	vacuum pump.	needed. In order for the vacuum pump to work correctly, the pump must be
		filled with the right type of oil. Contact
		your dealer.
	The ventilation opening on	Place the vacuum bag closer to the
	the back of the vacuum chamber is sealed off by a	sealing beam.
	vacuum bag.	
	The lid rubber strip is worn	Replace the lid rubber strip.
	out.	
	The oil is dirty and needs replacing	Replace the oil with the prescribed oil type
Insufficient vacuum in the package.	replacing. Vacuum bag is of a	type. Use a higher quality vacuum bag.
manage.	substandard quality.	_ cc agc. quanty fucuum bug.
	The product has hard	Inspect the product and remove any
	protuberances. The space between the	parts sticking out.
	 The space between the sealing beam and the counter 	Loosen the safety screws on the sealing beam and push the sealing
	beam is too small (this space	beam into the lowest position.
	should be at least 5 mm).	Retighten the screws.
Machine vacuums too slowly	The suction filter of the pump	Contact your dealer or
	is clogged.	Audion Elektro B.V.









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.
- 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 VM203

Description	Size / Specification	Part numbers	Quantity per machine
PTFE tape	0.57 m	160-1416621	-
Seal wire (double seal 3.5mm width)	0.67 m	160-1416111	-
Seal wire (cut-off seal 1.1mm width)	0.67 m	160-1416121	-
Seal wire (8mm width)	0.67 m	160-1416136	-
Seal wire (bi-active 5mm width)	0.67 m	160-1416131	-
Silicone rubber	0.52 m	160-1431311	-
Lid rubber (lip 8mm)	2.5 m	160-1431321	-
Seal bar (double seal)	net seal length 510mm	160-1411443	2
Seal bar (cut-off seal)	net seal length 510mm	160-1411444	2
Seal bar (8mm seal)	net seal length 510mm	160-1411781	2
Seal bar (bi-active upper)	net seal length 510mm	160-1411463	2
Seal bar (bi-active lower)	net seal length 510mm	160-1411464	2
Seal bar (seal 1-2)	net seal length 510mm	<mark>160-1411460</mark>	2
Seal bag	440mm	160-1412551	2
Lid spring		160-1191139	2
Microswitch		160-2011576	1
Valve unit (consists of parts with #)		160-2011972	1
Vacuum valve (#)		160-2011961	(1)
De-vac valve (#)		160-2011963	(1)
Softair valve (#)		160-2011969	(1)
Seal valve		160-1391121	1
Gas valve (option)		160-1391153	(1)
Membrane for vacuum valve		160-1391313	(1)
Service kit for vacuum valve		160-2011981	(1)
Membrane for de-vac valve		160-1391313	(1)
Service kit for de-vac valve		160-2011983	(1)
PCB	digital 10 programs	160-1341202	1
Sensor PCB (option)		160-1341192	(1)
Panel complete (consists of parts with *)		160-2011352	1
Panel holder + panel sheet *		160-2011334	(1)
ON/OFF switch *		160-1331117	(1)
Vacuum meter *	63mm dia.	160-1921218	(1)
Panel opening tool set		160-1441226	1
Magnetic switch	BF09T4A	160-1332217	2
Main breaker	25A	160-1331171	1
Control transformer		160-1334122	1
Seal transformer	21.4V 900VA	160-1334143	2
Oil filter		160-2050201	1



Description	Size / Specification	Part numbers		Quantity per machine
		220V-3P-60Hz	400V-3P-50Hz	
The man of males.	9-14A (10A)	160-1332241	-	1
Thermal relay	4-6.5A (4A)	-	160-1332235	1
Automotic fuce	25A	160-1332170	-	1
Automatic fuse	16A	-	160-1332171	1
Vacuum numn	63m3/h 2.2KW	160-1544811	-	1
Vacuum pump	63m3/h 1.5KW	-	160-1544111	1
Expense filter	60Hz	160-2050281	-	2
Exhaust filter	50Hz	-	160-2050282	1

Seal bar configurations

S/S (short / short)



Description	Size / Specification	Part number	Quantity per machine
PTFE tape	0.61 m (short), 0.85 m (long)	160-1416621	-
Seal wire (double seal 3.5mm width)	0.71 m (short), 0.95 m (long)	160-1416111	-
Seal wire (cut-off seal 1.1mm width)	0.71 m (short), 0.95 m (long)	160-1416121	-
Seal wire (8mm width)	0.71 m (short), 0.95 m (long)	160-1416136	-
Seal wire (bi-active 5mm width)	0.71 m (short), 0.95 m (long)	160-1416131	-
Silicone rubber	0.56 m (short), 0.80 m (long)	160-1431311	-
Lid rubber (lip 8mm)	3.00 m	160-1431321	-
Seal bar (short for S/S : double)	net seal length 550mm	160-1411621	2
Seal bar (short for S/S : cut-off)	net seal length 550mm	160-1411626	2
Seal bar (short for S/S : 8mm)	net seal length 550mm	160-1411921	2
Seal bar (short for S/S : bi-active upper)	net seal length 550mm	160-1411627	2
Seal bar (short for S/S : bi-active lower)	net seal length 550mm	160-1411628	2
Seal bar (short for S/S : seal 1-2)	net seal length 550mm	160-1411629	2
Seal bar (short for L/S : double)	net seal length 490mm	160-1411448	1
Seal bar (short for L/S: cut-off)	net seal length 490mm	160-1411449	1
Seal bar (short for L/S : 8mm)	net seal length 490mm	160-1411821	1
Seal bar (short for L/S : bi-active upper)	net seal length 490mm	160-1411468	2
Seal bar (short for L/S : bi-active lower)	net seal length 490mm	160-1411469	2
Seal bar (short for L/S : seal 1-2)	net seal length 490mm	160-1411450	2
Seal bar (long : double)	net seal length 790mm	160-1411445	1 (L/S), 2 (L/L)
Seal bar (long : cut-off)	net seal length 790mm	160-1411446	1 (L/S), 2 (L/L)
Seal bar (long : 8mm)	net seal length 790mm	160-1411811	1 (L/S), 2 (L/L)
Seal bar (long : bi-active upper)	net seal length 790mm	160-1411465	1 (L/S), 2 (L/L)
Seal bar (long : bi-active lower)	net seal length 790mm	160-1411466	1 (L/S), 2 (L/L)
Seal bar (long : seal 1-2)	net seal length 790mm	160-1411447	1 (S/L), 2 (L/L)
Seal bag (short for S/S)	490mm	160-1412601	2
Seal bag (short for L/S)	410mm	160-1412521	1
Seal bag (long)	740mm	160-1412851	1 (L/S), 2 (L/L)
Gas spring	2600N	160-1921339	1
Lid spring (right)		160-1191146	1
Lid spring (left)		160-1191147	1
Microswitch		160-2011576	1
Valve unit (consists of parts with #)		160-2011972	1
Vacuum valve (#)		160-2011961	(1)
De-vac valve (#)		160-2011963	(1)
Softair valve (#)		160-2011969	(1)
Seal valve		160-1391163	1
Gas valve (option)		160-1391153	(1)
Membrane for vacuum valve		160-1391313	(1)
Service kit for vacuum valve		160-2011981	(1)
Membrane for de-vac valve		160-1391313	(1)
	1	160-2011983	- 1



Description	Size / Specification	Part number	Quantity per machine
PCB	digital 10 programs	160-1341202	1
Sensor PCB (option)		160-1341192	(1)
Panel complete (consists of parts with *)		160-2011352	1
Panel holder + panel sheet *		160-2011334	(1)
ON/OFF switch *		160-1331117	(1)
Vacuum meter *	63mm dia.	160-1921218	(1)
Panel opening tool set		160-1441226	1
Magnetic switch	BF09T4A	160-1332217	2
Main breaker	25A	160-1331171	1
Control transformer		160-1334122	1
Exhaust filter		160-2050281	2
Oil filter		160-2050201	1

		220V-3P-60Hz	400V-3P-50Hz	
Thomas	9-14A (13A)	160-1332241	-	1
Thermal relay	4-6.5A (5A)	-	160-1332235	1
Automatic fuse	25A	160-1332181	-	1
	16A	-	160-1332171	1
Seal transformer	21.4V 900VA	160-1334143 (S/S & L/S)	160-1334143 (S/S & L/S)	2
	33.1V 1150VA	160-1334145 (L/L)	160-1334146 (L/L)	2
Vacuum pump	100m3/h 3.0KW	160-1545151	-	1
	100m3/h 2.2KW	-	160-1545111	1

Seal bar configurations

S/S (short / short)

L/L (long / long)

L/S (long / short)

S/L/S (short / long / short)



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Description	Size / Specification	Part numbers	Quantity per machine
PTFE tape	0.37 m (short), 0.94 m (long)	160-1416621	-
Seal wire (double seal 3.5mm width)	0.46 m (short), 1.04 m (long)	160-1416111	-
Seal wire (cut-off seal 1.1mm width)	0.46 m (short), 1.04 m (long)	160-1416121	-
Seal wire (8mm width)	0.46 m (short), 1.04 m (long)	160-1416136	-
Silicone rubber	0.32 m (short), 0.90 m (long)	160-1431311	-
Lid rubber (lip 8mm)	2.9 m	160-1431321	-
Lid (short/short)		160-1761121	1
Lid (short/long)		160-1761123	1
Seal bar (short : double seal)	net seal length 310mm	160-1411221	2 (S/S) / 1 (S/L)
Seal bar (short : cut-off seal)	net seal length 310mm	160-1411231	2 (S/S) / 1 (S/L)
Seal bar (short : 8mm seal)	net seal length 310mm	160-1411721	2 (S/S) / 1 (S/L)
Seal bar (short : seal 1-2)	net seal length 310mm	160-1411232	2 (S/S) / 1 (S/L)
Seal bar (long : double seal)	net seal length 970mm	160-1411456	1 (Long)
Seal bar (long : cut-off seal)	net seal length 970mm	160-1411457	1 (Long)
Seal bar (long : 8mm seal)	net seal length 970mm	160-1411740	1 (Long)
Seal bar (long : seal 1-2)	net seal length 970mm	160-1411453	1 (Long)
Seal bar (long for S/L : double seal)	net seal length 920mm	160-1411439	1 (S/L)
Seal bar (long for S/L : cut-off seal)	net seal length 920mm	160-1411440	1 (S/L)
Seal bar (long for S/L : 8mm seal)	net seal length 920mm	160-1411739	1 (S/L)
Seal bar (long for S/L : seal 1-2)	net seal length 920mm	<mark>160-1411451</mark>	1 (S/L)
Seal bar (long for S/L/S : double seal)	net seal length 870mm	160-1411454	1 (S/L/S)
Seal bar (long for S/L/S : cut-off seal)	net seal length 870mm	160-1411455	1 (S/L/S)
Seal bar (long for S/L/S : 8mm seal)	net seal length 870mm	160-1411738	1 (S/L/S)
Seal bar (long for S/L/S : seal 1-2)	net seal length 870mm	160-1411452	1 (S/L/S)
Seal cylinder (for short seal bar)		160-1397121	4 (S/S) / 2 (S/L)
Seal cylinder (for long seal bar)		160-1397131	3 (S/L)
Membrane for seal cylinder (short bar)	80mm dia.	160-2042516	4 (S/S) / 2 (S/L)
Membrane for seal cylinder (long bar)	110mm dia.	160-2042521	3 (S/L)
Gas spring	500N	160-1921326	2
Microswitch		160-2011576	1
Valve unit (consists of parts with #)		160-2011972	1
Vacuum valve (#)		160-2011961	(1)
De-vac valve (#)		160-2011963	(1)
Softair valve (#)	 	100 2011000	(4)
Seal valve		160-2011969	(1)
		160-1391121	1
Gas valve (option)			
Gas valve (option) Membrane for vacuum valve		160-1391121	1
		160-1391121 160-1391153	1 (1)
Membrane for vacuum valve		160-1391121 160-1391153 160-1391313	1 (1) (1)
Membrane for vacuum valve Service kit for vacuum valve		160-1391121 160-1391153 160-1391313 160-2011981	1 (1) (1) (1)
Membrane for vacuum valve Service kit for vacuum valve Membrane for de-vac valve	digital 10 programs	160-1391121 160-1391153 160-1391313 160-2011981 160-1391313	1 (1) (1) (1) (1)



Description	Size / Specification	Part numbers	Quantity per machine
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 set		160-1441226	1
Magnetic switch	BF09T4A	160-1332217	2
Main breaker	25A	160-1331171	1
Control transformer		160-1334122	1
Oil filter		160-2050201	1

		220V-3P-60Hz	400V-3P-50Hz	
	9-14A (10A)	160-1332241	-	1
Thermal relay	4-6.5A (4A)	-	160-1332235	1
	25A	160-1332181 (S/L)	-	1
Automatic fuse	16A	160-1332171 (S/S)	160-1332171	1
	20V 600VA	160-1334137 (S/S)	160-1334137 (S/S)	1
Seal transformer	24V 1150VA	160-1334159 (S/L)	160-1334160 (S/L)	2
Vacuum numn	63m3/h 2.2KW	160-1544811	-	1
Vacuum pump	63m3/h 1.5KW	-	160-1544111	1
- 1	60Hz	160-2050281	-	2
Exhaust filter	50Hz	-	160-2050282	1

Seal b	oar cor	nfigura	tions
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S/S (short / short)

Long

S/L (short / long)

S/L/S (short / long / short)



Description	Size / Specification	Specification Part numbers	
PTFE tape	0.57 m (short), 0.65 m (long)	160-1416621	-
Seal wire (double seal 3.5mm width)	0.67 m (short), 0.75 m (long)	160-1416111	-
Seal wire (cut-off seal 1.1mm width)	0.67 m (short), 0.75 m (long)	160-1416121	-
Seal wire (8mm width)	0.67 m (short), 0.75 m (long)	160-1416136	-
Silicone rubber	0.52 m (short), 0.60 m (long)	160-1431311	-
Lid rubber (lip 8mm)	2.5 m	160-1431321	-
Lid (short/short)		160-1761116	1
Lid (long)		160-1761111	1
Seal bar (short : double seal)	net seal length 510mm	160-1411431	2
Seal bar (short : cut-off seal)	net seal length 510mm	160-1411436	2
Seal bar (short : 8mm seal)	net seal length 510mm	160-1411735	2
Seal bar (short : seal 1-2)	net seal length 510mm	160-1411432	2
Seal bar (long : double seal)	net seal length 590mm	160-1411421	1
Seal bar (long : cut-off seal)	net seal length 590mm	160-1411426	1
Seal bar (long : 8mm seal)	net seal length 590mm	160-1411734	1
Seal bar (long : seal 1-2)	net seal length 590mm	160-1411427	1
Seal cylinder		160-1397128	2 (long), 4 (S/S)
Membrane for seal cylinder	110mm dia.	160-2042521	2 (long), 4 (S/S)
Gas spring	500N	160-1921326	2
Microswitch		160-2011576	1
Valve unit (consists of parts with #)		160-2011972	1
Vacuum valve (#)		160-2011961	(1)
De-vac valve (#)		160-2011963	(1)
Softair valve (#)		160-2011969	(1)
Seal valve		160-1391121	1
Gas valve (option)		160-1391153	(1)
Membrane for vacuum valve		160-1391313	(1)
Service kit for vacuum valve		160-2011981	(1)
Membrane for de-vac valve		160-1391313	(1)
Service kit for de-vac valve		160-2011983	(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 set		160-1441226	1
Magnetic switch	BF09T4A	160-1332217	2
Main breaker	25A	160-1331171	1
Control transformer		160-1334122	1
Seal transformer	21.4V 900VA	160-1334143	1 (long), 2 (S/S)
Oil filter		160-2050201	1





Description	Size / Specification	Part numbers		Quantity per machine
			,	
		220V-3P-60Hz	400V-3P-50Hz	
The result value	9-14A (10A)	160-1332241	-	1
Thermal relay	4-6.5A (4A)	-	160-1332235	1
Automatic fuse	25A	160-1332170 (S/S)	-	1
	16A	160-1332171 (long)	160-1332171	1
Vacuum pump	63m3/h 2.2KW	160-1544811	-	1
	63m3/h 1.5KW	-	160-1544111	1
Exhaust filter	60Hz	160-2050281	-	2
	50Hz	-	160-2050282	1

S/S	(short /	short)

Long



Description	Size / Specification	Part numbers	Quantity per machine
PTFE tape	0.57 m	160-1416621	-
Seal wire (double seal 3.5mm width)	0.67 m	160-1416111	-
Seal wire (cut-off seal 1.1mm width)	0.67 m	160-1416121	-
Seal wire (8mm width)	0.67 m	160-1416136	-
Seal wire (bi-active 5mm width)	0.67 m	160-1416131	-
Silicone rubber	0.52 m	160-1431311	-
Lid rubber (lip 8mm)	2.50 m	160-1431321	-
Seal bar (double seal)	net seal length 510mm	160-1411443	2
Seal bar (cut-off seal)	net seal length 510mm	160-1411444	2
Seal bar (8mm seal)	net seal length 510mm	160-1411781	2
Seal bar (bi-active upper)	net seal length 510mm	160-1411463	2
Seal bar (bi-active lower)	net seal length 510mm	160-1411464	2
Seal bar (seal 1-2)	net seal length 510mm	<mark>160-1411460</mark>	2
Seal bag	440mm	160-1412551	2
Oil spring		160-1921336	1
Lid spring		160-1191201	2
Microswitch		160-2011576	1
Valve unit (consists of parts with #)		160-2011972	1
Vacuum valve (#)		160-2011961	(1)
De-vac valve (#)		160-2011963	(1)
Softair valve (#)		160-2011969	(1)
Seal valve		160-1391163	1
Gas valve (option)		160-1391153	(1)
Membrane for vacuum valve		160-1391313	(1)
Service kit for vacuum valve		160-2011981	(1)
Membrane for de-vac valve		160-1391313	(1)
Service kit for de-vac valve		160-2011983	(1)
PCB	digital 10 programs	160-1341202	1
Sensor PCB (option)		160-1341192	(1)
Panel complete (consists of parts with *)		160-2011352	1
Panel holder + panel sheet *		160-2011334	(1)
ON/OFF switch *		160-1331117	(1)
Vacuum meter *	63mm dia.	160-1921218	(1)
Panel opening tool set		160-1441226	1
Magnetic switch	BF09T4A	160-1332217	2
Main breaker	25A	160-1331171	1
Control transformer		160-1334122	1
Seal transformer	21.4V 900VA	160-1334143	2
Oil filter		160-2050201	1



Spare parts list for VMS233

Description	Size / Specification	Part no	umbers	Quantity per machine
		220V-3P-60Hz	400V-3P-50Hz	
T	9-14A (10A)	160-1332241	-	1
Thermal relay	4-6.5A (4A)	-	160-1332235	1
Automotic func	25A	160-1332170	-	1
Automatic fuse	16A	-	160-1332171	1
Manusa ausan	63m3/h 2.2KW	160-1544811	-	1
Vacuum pump	63m3/h 1.5KW	-	160-1544111	1
Exhaust filter	60Hz	160-2050281	-	2
Extraust filter	50Hz	-	160-2050282	1

Seal bar configurations





Spare parts list for VMS333

Spare parts list for VMS333			Quantity per
Description	Size / Specification	Part number	machine
PTFE tape	0.61 m (short), 0.85 m (long)	160-1416621	-
Seal wire (double seal 3.5mm width)	0.71 m (short), 0.95 m (long)	160-1416111	-
Seal wire (cut-off seal 1.1mm width)	0.71 m (short), 0.95 m (long)	160-1416121	-
Seal wire (8mm width)	0.71 m (short), 0.95 m (long)	160-1416136	-
Seal wire (bi-active 5mm width)	0.71 m (short), 0.95 m (long)	160-1416131	-
Silicone rubber	0.56 m (short), 0.80 m (long)	160-1431311	-
Lid rubber (lip 8mm)	3.00 m	160-1431321	-
Seal bar (short for S/S : double)	net seal length 550mm	160-1411621	2
Seal bar (short for S/S : cut-off)	net seal length 550mm	160-1411626	2
Seal bar (short for S/S : 8mm)	net seal length 550mm	160-1411921	2
Seal bar (short for S/S : bi-active upper)	net seal length 550mm	160-1411627	2
Seal bar (short for S/S : bi-active lower)	net seal length 550mm	160-1411628	2
Seal bar (short for S/S : seal 1-2)	net seal length 550mm	160-1411629	2
Seal bar (short for S/L : double)	net seal length 490mm	160-1411448	1
Seal bar (short for S/L : cut-off)	net seal length 490mm	160-1411449	1
Seal bar (short for S/L : 8mm)	net seal length 490mm	160-1411821	1
Seal bar (short for S/L : bi-active upper)	net seal length 490mm	160-1411468	2
Seal bar (short for S/L : bi-active lower)	net seal length 490mm	160-1411469	2
Seal bar (short for S/L : seal 1-2)	net seal length 490mm	160-1411450	2
Seal bar (long : double)	net seal length 790mm	160-1411445	1 (S/L), 2 (L/L)
Seal bar (long : cut-off)	net seal length 790mm	160-1411446	1 (S/L), 2 (L/L)
Seal bar (long : 8mm)	net seal length 790mm	160-1411811	1 (S/L), 2 (L/L)
Seal bar (long : bi-active upper)	net seal length 790mm	160-1411465	1 (S/L), 2 (L/L)
Seal bar (long : bi-active lower)	net seal length 790mm	160-1411466	1 (S/L), 2 (L/L)
Seal bar (long : seal 1-2)	net seal length 790mm	<mark>160-1411447</mark>	1 (S/L), 2 (L/L)
Seal bag (short for S/S)	490mm	160-1412601	2
Seal bag (short for S/L)	410mm	160-1412521	1
Seal bag (long)	740mm	160-1412851	1 (S/L), 2 (L/L)
Oil spring		160-1921336	1
Lid spring		160-1191201	2
Microswitch		160-2011576	1
Valve unit (consists of parts with #)		160-2011972	1
Vacuum valve (#)		160-2011961	(1)
De-vac valve (#)		160-2011963	(1)
Softair valve (#)		160-2011969	(1)
Seal valve		160-1391163	1
Gas valve (option)		160-1391153	(1)
Membrane for vacuum valve		160-1391313	(1)
Service kit for vacuum valve		160-2011981	(1)
Membrane for de-vac valve		160-1391313	(1)
Service kit for de-vac valve		160-2011983	(1)
		100 10 11000	4
PCB	digital 10 programs	160-1341202	1



Spare parts list for VMS333

Description	Size / Specification	Part number	Quantity per machine
Panel complete (consists of parts with *)		160-2011352	1
Panel holder + panel sheet *		160-2011334	(1)
ON/OFF switch *		160-1331117	(1)
Vacuum meter *	63mm dia.	160-1921218	(1)
Panel opening tool set		160-1441226	1
Magnetic switch	BF09T4A	160-1332217	2
Main breaker	25A	160-1331171	1
Control transformer		160-1334122	1
Exhaust filter		160-2050281	2
Oil filter		160-2050201	1

		220V-3P-60Hz	400V-3P-50Hz	
The war all relevi	9-14A (13A)	160-1332241	-	1
Thermal relay	4-6.5A (5A)	-	160-1332235	1
Automatic fuse	25A	160-1332181	-	1
Automatic ruse	16A	-	160-1332171	1
Seal transformer	21.4V 900VA	160-1334143 (S/S & S/L)	160-1334143 (S/S & S/L)	2
Seal transformer	33.1V 1150VA	160-1334145 (L/L)	160-1334146 (L/L)	2
Vacuum numn	100m3/h 3.0KW	160-1545151	-	1
Vacuum pump	100m3/h 2.2KW	-	160-1545111	1

Seal bar configurations

S/S (short / short)

L/L (long / long)

S/L (short / long)

L/S (long / short)

S/L/S (short / long / short)



9 Technical specifications

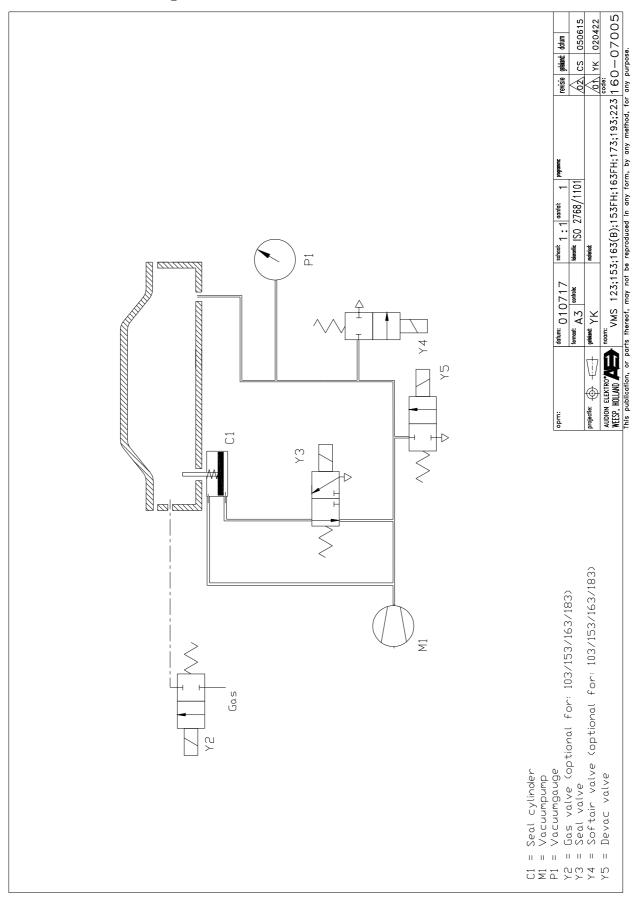
ТҮРЕ	VM 203	VM 303	VMS 193
Machine size (W x D x H) in mm.	680x700x1060	900x820x <mark>1060</mark>	1065x480x960
Effective chamber size in mm.	500x510	790x460 (L/L) 710x550 (S/S) 750x490 (S/L) 710x490 (S/L/S)	970x270 (Long) 890x310 (S/S) 920x270 (S/L) 870x270 (S/L/S)
Net. Sealing bar length in mm.	2x 510	2x 790 (L/L) 2x 550 (S/S) 1x 790 + 1x 490 (S/L) 1x 790 + 2x 490 (S/L/S)	1x 970 (Long) 2x 310 (S/S) 1x 310 + 1x 920 (S/L) 2x 310 + 1x 870 (S/L/S)
Chamber height in mm.			
Absolute chamber size in mm.	610x520x230	820x560x <mark>240</mark>	990x320x100
Tabletop model			
Floor model	х	х	х
Double chamber			
Stainless steel housing	х	Х	Х
Stainless steel chamber			Х
Stainless steel flat working table			
Stainless steel lid			
Aluminum chamber	Х	Х	
Aluminum lid with window	х	Х	
Flat transparent lid			Х
High transparent lid			
Pump capacity in m³/h	63 m³/h	100 m³/h	63 m³/h
Capacity / min.	Ca. 2	Ca. 2	Ca. 2
Voltage, phase and frequency	400V-3-50Hz.	400V-3-50Hz.	400V-3-50Hz.
Power	2.4 - 3.5 kW	3.0 – 5.0 kW	2.4 – 3.1 kW
Control	Digital	Digital	Digital
Packed size (W x D x H)			
Number of gas pipes	3 per sealing bar	3 on the short bar and 4 on the long bar	2 on the short bar and 6 on the long bar



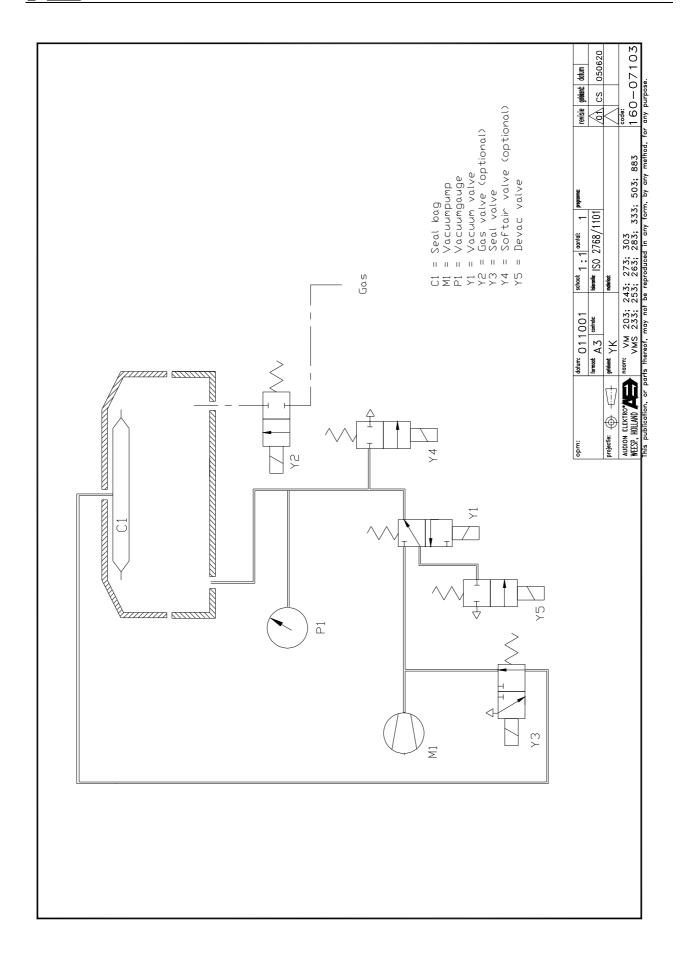
TYPE	VMS 223	VMS 233	VMS 333
Machine size (W x D x H) in mm.	700x <mark>710</mark> x1030	700x730x <mark>1030</mark>	920x <mark>825</mark> x1125
Effective chamber size in mm.	590x475 (Long) 500x510 (S/S)	500x510	790x460 (L/L) 710x550 (S/S) 750x490 (S/L) 710x490 (S/L/S)
Net. Sealing bar length in mm.	1x 590 (Long) 2x 510 (S/S)	2x 510	2x 790 (L/L) 2x 550 (S/S) 1x 790 + 1x 490 (S/L) 1x 790 + 2x 490 (S/L/S)
Chamber height in mm.			
Absolute chamber size in mm.	600x520x200	630x540x200	840x580x200
Tabletop model			
Floor model	х	Х	Х
Double chamber			
Stainless steel housing	х	Х	Х
Stainless steel chamber	х		
Stainless steel flat working table		Х	Х
Stainless steel lid		Х	Х
Aluminum chamber			
Aluminum lid with window			
Flat transparent lid			
High transparent lid	х		
Pump capacity in m³/h	63 m³/h	63 m³/h	100 m³/h
Capacity / min.	Ca. 2	Ca. 2	Ca. 2
Voltage, phase and frequency	400V-3-50Hz.	400V-3-50Hz.	400V-3-50Hz.
Power	2.4 – 3.5 kW	2.4 – 3.5 kW	3.0 – 5.0 kW
Control	Digital	Digital	Digital
Packed size (W x D x H)			
Number of gas pipes (optional)	3 per sealing bar	3 per sealing bar	3 on the short bar and 4 on the long bar



10 Pneumatic diagram













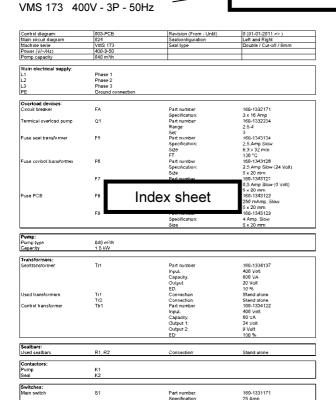
11 Electric diagrams and index sheets

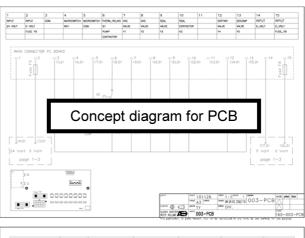
The electric diagrams shown in this manual are basic/concept drawings. The details of the electric components are described in the index sheets.

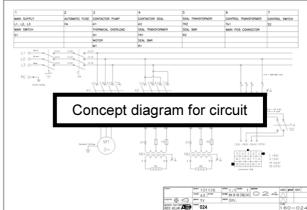
Model, seal configurations, voltage

Find the correct index sheet and the electric drawings by:

- machine model (VMS 173, 193, ...)
- seal configuration (S/S, L/L, ...)
- voltage (230V, 400V, ...)







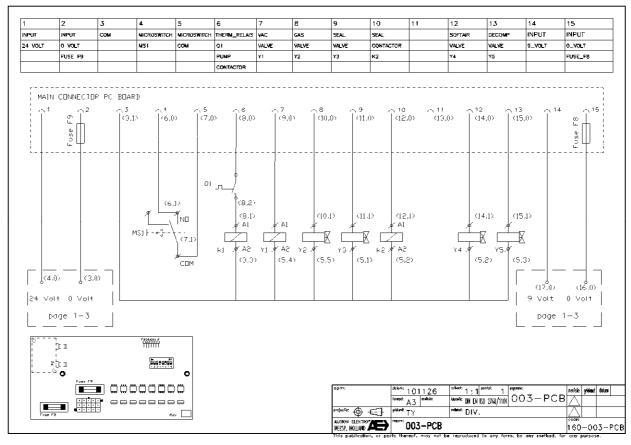


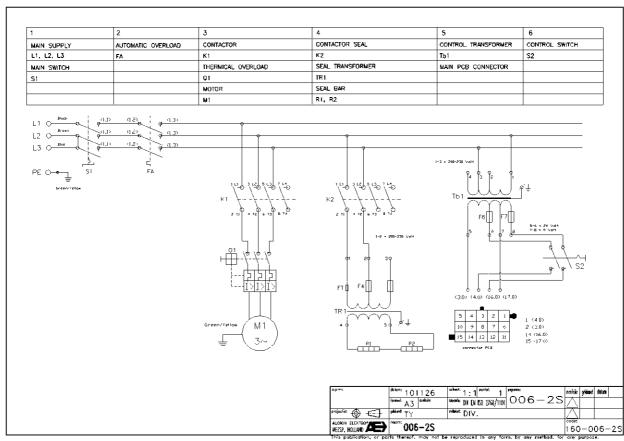
VMS 193 (S/S) 200V - 3P - 50/60Hz

r=	1	1	I
Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	006-28	Sealconfiguration	Left and Right
Machine serie	VMS 193	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	200-3-50/60		
Pomp capacity	063 m³/h		
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE PE	Ground connection		
<u> </u>	Ground Connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332171
		Specification:	3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332241
		Range:	9-14
		Set:	10
Fuse seal transformer	F4	Part number:	160-1343131
		Specification:	4 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
. acc control dansionner	. 5	Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F 7	Part number:	160-1343127
	F1	Specification:	
		Specification: Size:	0,5 Amp Slow (9 Volt) 5 x 20 mm
Fuse PCB	F8	Size: Part number:	5 x 20 mm 160-1343122
ruse FCD	го		
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
1		Specification:	4 Amp, Slow
		Size:	5 x 20 mm
Pump:			
Pump: Pump type	063 m³/h		
	2,2 kW		
Capacity	Z, Z KVV		
Transformers:			
	Tr1	Part number:	160-1334137
Sealtransformer	Tr1	Part number:	160-1334137
	Tr1	Input:	200 Volt
	Tr1	Input: Capacity:	200 Volt 600 VA
	Tr1	Input: Capacity: Output:	200 Volt 600 VA 20 Volt
Sealtransformer		Input: Capacity: Output: ED:	200 Volt 600 VA 20 Volt 10 %
Sealtransformer Used transformers	Tr1	Input: Capacity: Output: ED: Connection:	200 Volt 600 VA 20 Volt 10 % Stand alone
Sealtransformer Used transformers		Input: Capacity: Output: ED: Connection: Part number:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122
	Tr1	Input: Capacity: Output: ED: Connection: Part number: Input:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt
Sealtransformer Used transformers	Tr1	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA
Sealtransformer Used transformers	Tr1	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt
Sealtransformer Used transformers	Tr1	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt
Sealtransformer Used transformers	Tr1	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt
Sealtransformer Used transformers Control transformer	Tr1	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt
Sealtransformer Used transformers Control transformer Sealbars:	Tr1 Tb1	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Sealtransformer Used transformers	Tr1	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt
Sealtransformer Used transformers Control transformer Sealbars: Used sealbars	Tr1 Tb1	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Sealtransformer Used transformers Control transformer Sealbars: Used sealbars Contactors:	Tr1 Tb1 R1, R2	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Sealtransformer Used transformers Control transformer Sealbars: Used sealbars Contactors: Pump	Tr1 Tb1 R1, R2	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Sealtransformer Used transformers Control transformer Sealbars: Used sealbars Contactors: Pump	Tr1 Tb1 R1, R2	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Sealtransformer Used transformers Control transformer Sealbars: Used sealbars Contactors: Pump Seal	Tr1 Tb1 R1, R2	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Sealtransformer Used transformers Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches:	Tr1 Tb1 R1, R2 K1 K2	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Sealtransformer Used transformers Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches:	Tr1 Tb1 R1, R2	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealtransformer Used transformers Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch	Tr1 Tb1 R1, R2 K1 K2	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealtransformer Used transformers Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch	Tr1 Tb1 R1, R2 K1 K2	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealtransformer Used transformers Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF	Tr1 Tb1 R1, R2 K1 K2	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealtransformer Used transformers Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches:	Tr1 Tb1 R1, R2 K1 K2 S1 S2	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealtransformer Used transformers Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches:	Tr1 Tb1 R1, R2 K1 K2	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealtransformer Used transformers Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle	Tr1 Tb1 R1, R2 K1 K2 S1 S2	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealtransformer Used transformers Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves:	Tr1 Tb1 R1, R2 K1 K2 S1 S2 MS1	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealtransformer Used transformers Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve	Tr1 Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealtransformer Used transformers Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	Tr1 Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealtransformer Used transformers Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve	Tr1 Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2 Y3	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealtransformer Used transformers Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	Tr1 Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2	Input: Capacity: Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	200 Volt 600 VA 20 Volt 10 % Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie



VMS 193 (S/S) 200V - 3P - 50/60Hz





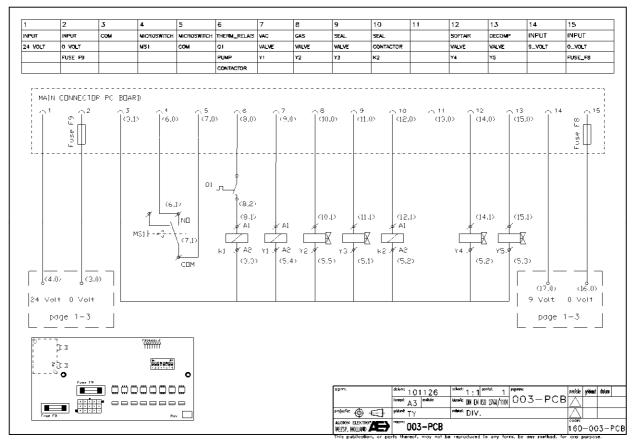


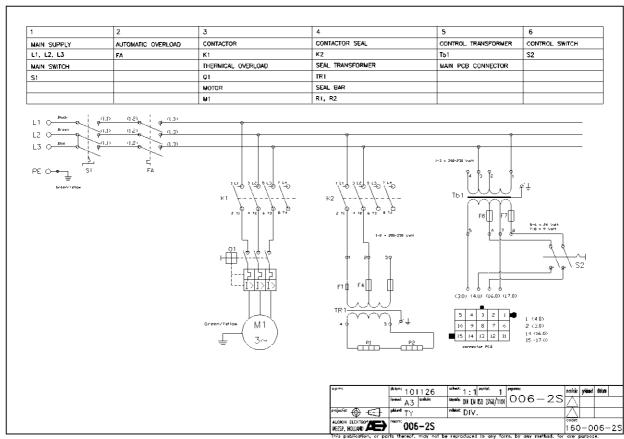
VMS 193 (S/S) 208V - 3P - 60Hz

[O. 1.1.1]	less per	In	[0 (04 04 0044 -)
Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram Machine serie	006-2S VMS 193	Sealconfiguration	Left and Right Double / Cut-off / 8mm
Power (V/~/Hz)	208-3-60	Seal type	Double / Cut-on / omm
Pomp capacity	063 m³/h		
т оттр сараску	000 111 711		L
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
Overload devices:	_ A	B-4	400 4000474
Circuit breaker	FA	Part number: Specification:	160-1332171 3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332241
Terrifical overload pullip	Q(I	Range:	9-14
		Set:	10
Fuse seal transformer	F4	Part number:	160-1343131
		Specification:	4 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)
L		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
	F0	Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification: Size:	4 Amp, Slow 5 x 20 mm
		Size.	5 X 20 IIIIII
Pump:			
Pump type	063 m³/h		
Capacity	2,2 kW		
	·		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334137
		Input:	208-230 Volt
		Capacity:	600 VA
		Output:	20 Volt
Used transformers	Tr1	ED: Connection:	10 % Stand alone
Control transformer	Tb1	Part number:	160-1334122
Control transformer	101	Input:	208-230 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %
Sealbars:			
Used sealbars	R1, R2	Connection:	R1 & R2 - Serie
A 4			
Contactors:	K1		
Pump Seal	K1 K2		
Seal	r\2		
Switches:			
		Part number:	160-1331171
Main switch	S1		
Main switch	S1	Specification:	25 Amp
Main switch Control switch ON/OFF	\$1 \$2		
		Specification:	25 Amp
Control switch ON/OFF Microswitches:	\$2	Specification: Part number:	25 Amp 160-1331117
Control switch ON/OFF		Specification:	25 Amp
Control switch ON/OFF Microswitches: Switch start cycle	\$2	Specification: Part number:	25 Amp 160-1331117
Control switch ON/OFF Microswitches: Switch start cycle Valves:	S2 MS1	Specification: Part number:	25 Amp 160-1331117
Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve	S2 MS1 Y1	Specification: Part number:	25 Amp 160-1331117
Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	S2 MS1 Y1 Y2	Specification: Part number:	25 Amp 160-1331117
Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve	S2 MS1 Y1 Y2 Y3	Specification: Part number:	25 Amp 160-1331117
Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	S2 MS1 Y1 Y2	Specification: Part number:	25 Amp 160-1331117



VMS 193 (S/S) 208V - 3P - 60Hz





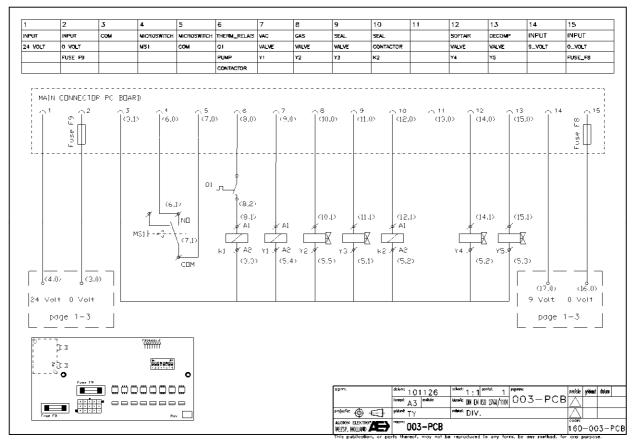


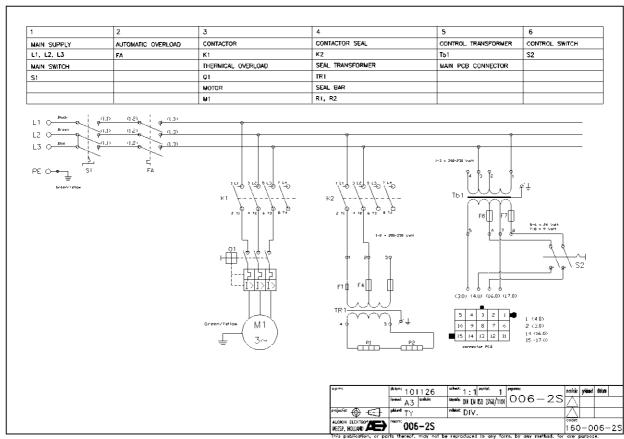
VMS 193 (S/S) 220V - 3P - 60Hz

Control diagram Main circuit diagram Machine serie	Toss Don	D1-1 /E 11 (2)	In (04 04 0044 · ·)
	003-PCB 006-2S	Revision (From - Until)	0 (01-01-2011 =>)
	VMS 193	Sealconfiguration Seal type	Left and Right Double / Cut-off / 8mm
Power (V/~/Hz)	220-3-60	Seal type	Double / Cut-oil / Billill
Pomp capacity	063 m³/h		
i ome capacity	1000 111711		<u>'</u>
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332171
Circuit breaker	18	Specification:	3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332241
,	<u>-</u> .	Range:	9-14
		Set:	10
Fuse seal transformer	F4	Part number:	160-1343131
		Specification:	4 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)
Fuse PCB	F8	Size:	5 x 20 mm 160-1343122
Fuse PCB	F8	Part number:	
		Specification: Size:	250 mAmp, Slow 5 x 20 mm
	F9	Size: Part number:	5 x 20 mm 160-1343123
	ГЭ	Specification:	4 Amp, Slow
		Size:	5 x 20 mm
		OIZE.	3 X 20 Hill
Pump:			
Pump type	063 m³/h		
Capacity	2,2 kW		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334137
		Input:	220 Volt
		Capacity:	600 VA
		Output:	20 Volt 10 %
Used transformers	Tr1	ED: Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
Control transformer	101	Input:	220 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %
		 -	
Sealbars:			
Used sealbars	R1, R2	Connection:	R1 & R2 - Serie
Contactors:			
Pump	K1		
Seal	K2		
0	54	Dort number:	460 4224474
Switches:	S 1	Part number:	160-1331171
Switches: Main switch			
Main switch	92	Specification:	25 Amp
	S2	Specification: Part number:	25 Amp 160-1331117
Main switch Control switch ON/OFF	S2	•	
Main switch Control switch ON/OFF Microswitches:		Part number:	160-1331117
Main switch Control switch ON/OFF	S2 MS1	•	
Main switch Control switch ON/OFF Microswitches: Switch start cycle		Part number:	160-1331117
Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves:		Part number:	160-1331117
Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves:	MS1	Part number:	160-1331117
Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve	MS1 Y1	Part number:	160-1331117
Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	MS1 Y1 Y2	Part number:	160-1331117



VMS 193 (S/S) 220V - 3P - 60Hz





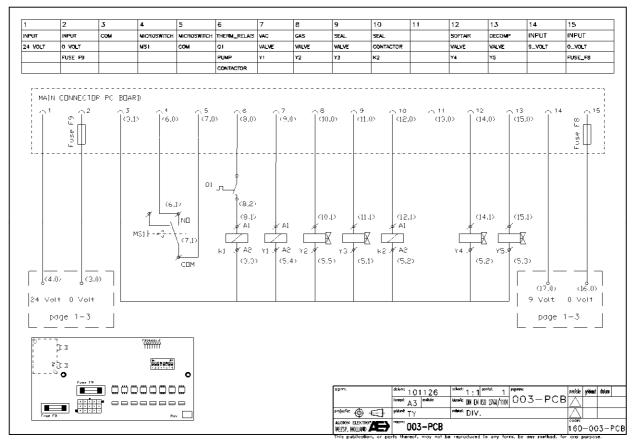


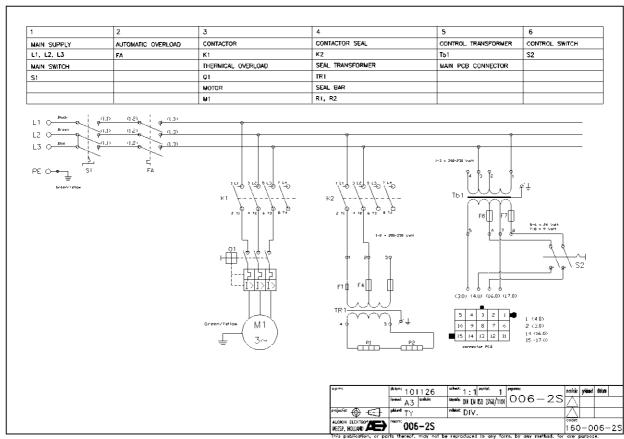
VMS 193 (S/S) 230V - 3P - 50Hz

	1000 000		
Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	006-2S	Sealconfiguration	Left and Right
Machine serie	VMS 193	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	230-3-50		
Pomp capacity	063 m³/h		
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
12	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332171
		Specification:	3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332240
,		Range:	6,3-10
		Set:	7
Fuse seal transformer	F4	Part number:	160-1343131
, and obal transformer	, ,	Specification:	4 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
asc control dansionner	10	Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Size: Part number:	5 x 20 mm 160-1343127
	Γ/		
		Specification:	0,5 Amp Slow (9 Volt)
Fuse PCB	F8	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
1		Specification:	4 Amp, Slow
		Size:	5 x 20 mm
Darmana			
Pump: Pump type	063 m³/h		
Capacity	1,5 kW		
Capacity	1,0 K##		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334137
		Input:	220-230 Volt
		Capacity:	600 VA
		Output:	20 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
Control transformer	161	Input:	220-230 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %
Sealbars:			
Used sealbars	R1, R2	Connection:	R1 & R2 - Serie
Contactors:			
Pump	K1		
Seal	K2		
0			
Switches:	64	Dort number	160 1221171
Main switch	\$1	Part number:	160-1331171
		Specification:	25 Amp
	00	•	
Control switch ON/OFF	S2	Part number:	160-1331117
Control switch ON/OFF	\$2	•	160-1331117
Microswitches:		Part number:	
Control switch ON/OFF Microswitches: Switch start cycle	S2 MS1	•	2
Microswitches: Switch start cycle		Part number:	
Microswitches: Switch start cycle Valves:	MS1	Part number:	
Microswitches: Switch start cycle Valves: Vacuum valve	MS1 	Part number:	
Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	MS1 Y1 Y2	Part number:	
Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve	MS1 Y1 Y2 Y3	Part number:	
Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	MS1 Y1 Y2	Part number:	



VMS 193 (S/S) 230V - 3P - 50Hz





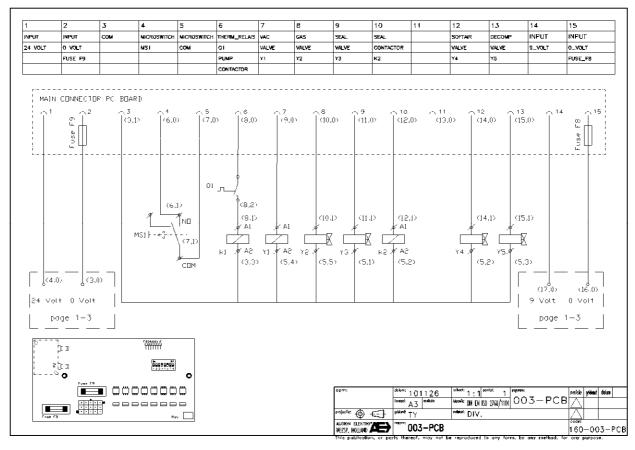


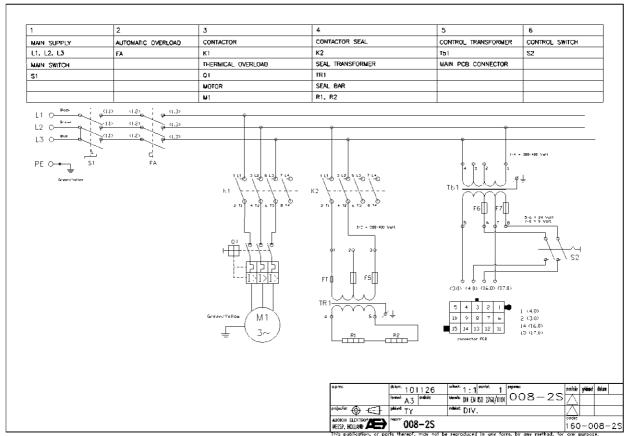
VMS 193 (S/S) 380V - 3P - 60Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	008-28	Sealconfiguration	Left and Right
Machine serie	VMS 193	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	380-3-60		Dodnie, od on one
Pomp capacity	063 m³/h		
1 omp capacity	1000 111 711		
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
FE	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332171
Circuit breaker	10	Specification:	3 x 16 Amp
<u></u>	0.4		
Termical overload pump	Q1	Part number:	160-1332235
		Range:	4-6,5
		Set:	5,5
Fuse seal transformer	F5	Part number:	160-1343134
		Specification:	2,5 Amp Slow
		Size:	6,3 x 32 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
	, 🗸	Specification:	2,5 Amp Slow (24 Volt)
1		,	
ĺ	F.7	Size:	5 x 20 mm
ĺ	F7	Part number:	160-1343127
1		Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
ĺ		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
	1.9		4 Amp, Slow
		Specification:	
		Size:	5 x 20 mm
Pump:			
Pump type	063 m³/h		
Capacity	2,2 kW		
Tues of a una a una			
Transformers:	- 4	D / .	100 100 1107
Sealtransformer	Tr1	Part number:	160-1334137
		Input:	380 Volt
		Capacity:	600 VA
		Output:	20 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	380 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %
0			
Sealbars:	D4 D0	Compostin-:	D4 9 D2 Cari-
Used sealbars	R1, R2	Connection:	R1 & R2 - Serie
Contactors:			
	V.1		
Pump	K1		
Seal	K2		
Cuitabaa			
Switches:	04	Doub ware train	160 1001174
Main switch	S 1	Part number:	160-1331171
		Specification:	25 Amp
Control switch ON/OFF	S2	Part number:	160-1331117
Microswitches:			
Switch start cycle	MS1	Electrical connections:	2
Valves:			
Vacuum valve	Y1		
Gas valve	Y2		
Seal valve	Y3		
Soft-air valve	Y4		
	Y5		
Decompression valve	10		



VMS 193 (S/S) 380V - 3P - 60Hz





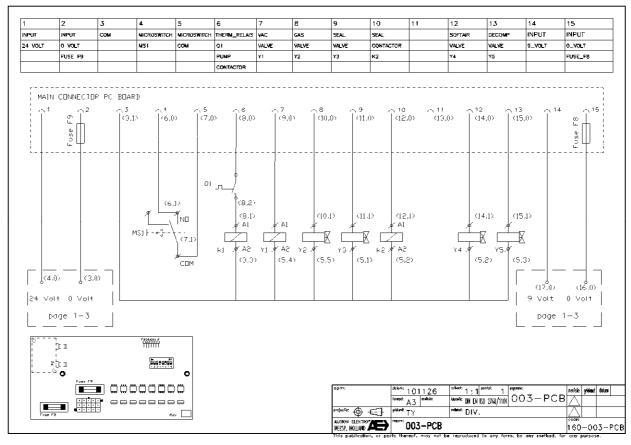


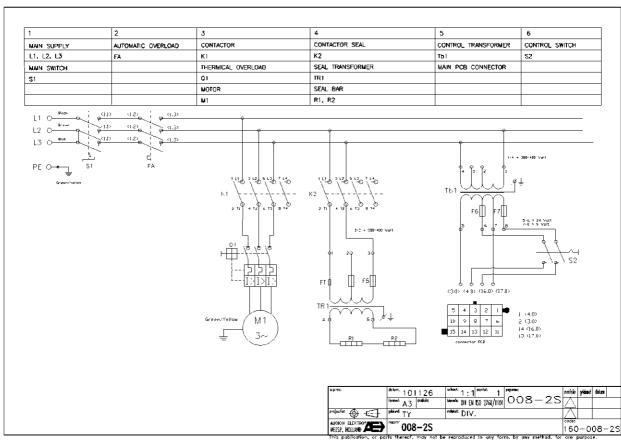
VMS 193 (S/S) 400V - 3P - 50Hz

0 t - 1 - l'	Jose Bob	ID-18-3 (F 11-60)	In (04 04 0044 ->)
Control diagram	003-PCB 008-2S	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram Machine serie	VMS 193	Sealconfiguration Seal type	Left and Right Double / Cut-off / 8mm
Power (V/~/Hz)	400-3-50	Sear type	Double / Cut-off / 8ffifff
Pomp capacity	063 m³/h		
i omp capacity	1000 III /II	<u> </u>	
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332171
Circuit breaker	FA	Specification:	3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332235
Torringar overroad parrip	٠.	Range:	4-6,5
		Set:	4
Fuse seal transformer	F5	Part number:	160-1343134
		Specification:	2,5 Amp Slow
		Size:	6,3 x 32 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
	F0	Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification: Size:	4 Amp, Slow 5 x 20 mm
		312e.	5 X 20 HIIII
Pump:			
Pump type	063 m³/h		
Capacity	1,5 kW		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334137
		Input:	400 Volt
		Capacity:	600 VA 20 Volt
		Output: ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
control transformer	151	Input:	400 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %
Sealbars:			
Used sealbars	R1, R2	Connection:	R1 & R2 - Serie
Contactore			
Contactors: Pump	K1		
Pump Seal	K1 K2		
UEGII	I\Z		
Switches:			
Main switch	S1	Part number:	160-1331171
		Specification:	25 Amp
Control switch ON/OFF	S2	Part number:	160-1331117
Microswitches:	•••		_
Consider to the second constant	MS1	Electrical connections:	2
Switch start cycle			
Valves:	V4		
Valves: Vacuum valve	Y1 V2		
Valves: Vacuum valve Gas valve	Y2		
Switch start cycle Valves: Vacuum valve Gas valve Seal valve	Y2 Y3		
Valves: Vacuum valve Gas valve	Y2		



VMS 193 (S/S) 400V - 3P - 50Hz





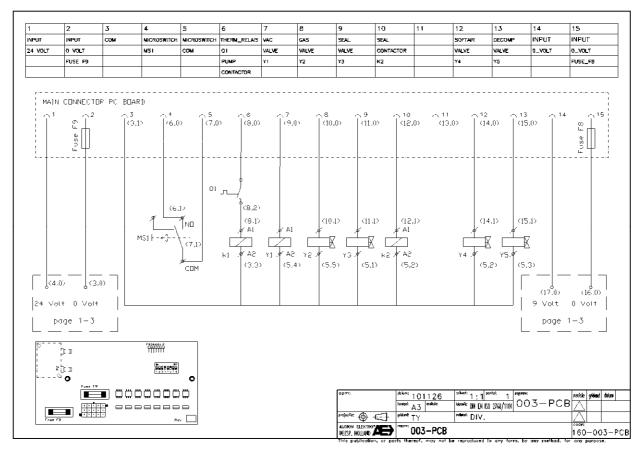


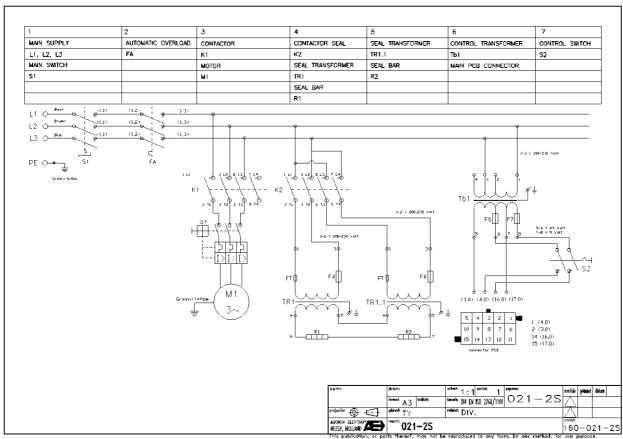
VMS 193 (S/L) 200V - 3P - 50/60Hz

Control diagram	1003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	021-2S	Sealconfiguration	Right and Front
Machine serie	VMS 193	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	200-3-50/60	7,1	
Pomp capacity	063 m³/h		
r omp capacity		l .	
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332181
		Specification:	3 x 25 Amp
Termical overload pump	Q1	Part number:	160-1332241
Tommour overread pump	٠.	Range:	9-14
		Set:	10
Fuse seal transformer	F4	Part number:	160-1343136
ruse seal transformer	F 4		
		Specification:	8 Amp Slow
		Size:	5 x 20 mm
L		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
1		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
1 3331 35	, 0	Specification:	250 mAmp, Slow
		•	
	5 0	Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm
Pump:			
Pump type	063 m³/h		
Capacity	2,2 kW		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334159
		Input:	200 Volt
		Capacity:	1150 VA
		Output:	24 Volt
			∠4 VOIL
		•	
Used transformers	Tr1 & Tr1 1	ED:	10 %
Used transformers	Tr1 & Tr1.1 Th1	ED: Connection:	10 % Serie
Used transformers Control transformer	Tr1 & Tr1.1 Tb1	ED: Connection: Part number:	10 % Serie 160-1334122
		ED: Connection: Part number: Input:	10 % Serie 160-1334122 200 Volt
		ED: Connection: Part number: Input: Capacity:	10 % Serie 160-1334122 200 Volt 60 VA
		ED: Connection: Part number: Input: Capacity: Output 1:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt
		ED: Connection: Part number: Input: Capacity; Output 1: Output 2:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt
		ED: Connection: Part number: Input: Capacity: Output 1:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt
Control transformer		ED: Connection: Part number: Input: Capacity; Output 1: Output 2:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt
Control transformer Sealbars:	Tb1	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer		ED: Connection: Part number: Input: Capacity; Output 1: Output 2:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt
Control transformer Sealbars: Used sealbars	Tb1	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer Sealbars: Used sealbars Contactors:	Tb1 R1, R2	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer Sealbars: Used sealbars	Tb1 R1, R2 K1	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer Sealbars: Used sealbars Contactors:	Tb1 R1, R2	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Sealbars: Used sealbars Contactors: Pump Seal	Tb1 R1, R2 K1	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Sealbars: Used sealbars Contactors: Pump Seal Switches:	Tb1 R1, R2 K1 K2	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Sealbars: Used sealbars Contactors: Pump Seal	Tb1 R1, R2 K1	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Sealbars: Used sealbars Contactors: Pump Seal Switches:	Tb1 R1, R2 K1 K2	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Sealbars: Used sealbars Contactors: Pump Seal Switches:	Tb1 R1, R2 K1 K2	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch	Tb1 R1, R2 K1 K2 S1	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF	Tb1 R1, R2 K1 K2 S1	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches:	Tb1 R1, R2 K1 K2 S1 S2	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF	Tb1 R1, R2 K1 K2 S1	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle	Tb1 R1, R2 K1 K2 S1 S2	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves:	Tb1 R1, R2 K1 K2 S1 S2 MS1	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve	Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve	Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2 Y3	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve Soft-air valve	Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2 Y3 Y4	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve	Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2 Y3	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117



VMS 193 (S/L) 200V - 3P - 50/60Hz





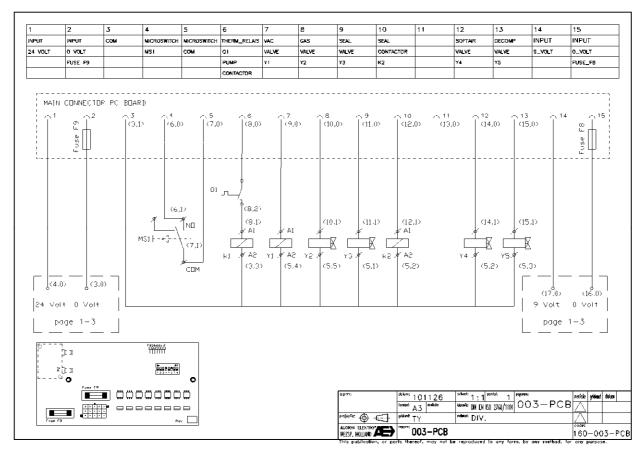


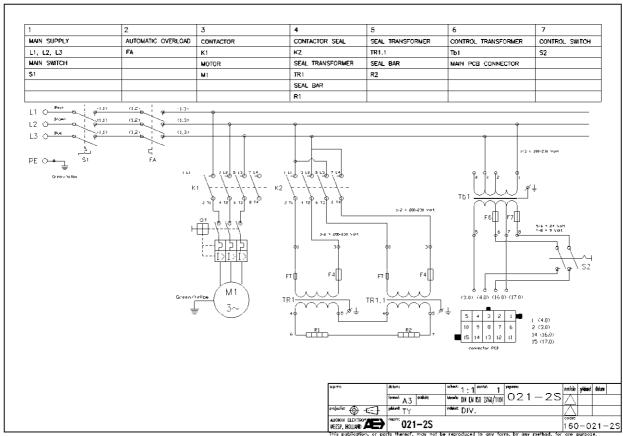
VMS 193 (S/L) 208V - 3P - 60Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	021-28	Sealconfiguration	Right and Front
Machine serie	VMS 193	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	208-3-60		
Pomp capacity	063 m³/h		
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		İ
L3	Phase 3		
PE	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332181
		Specification:	3 x 25 Amp
Termical overload pump	Q1	Part number:	160-1332241
, ,		Range:	9-14
		Set:	10
Fuse seal transformer	F4	Part number:	160-1343136
		Specification:	8 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
1		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
1	F7	Part number:	160-1343127
1		Specification: Size:	0,5 Amp Slow (9 Volt) 5 x 20 mm
Fues DCB	E	Size. Part number:	
Fuse PCB	F8	Specification:	160-1343122 250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
	19	Specification:	4 Amp, Slow
		Size:	5 x 20 mm
		GIZC.	0 X 23 Hill
Pump:			
Pump type	063 m³/h		
Capacity	2,2 kW		
Transformers:	- .	5.4	100 100 1150
Sealtransformer	Tr1	Part number:	160-1334159
		Input:	208-230 Volt 1150 VA
		Capacity: Output:	24 Volt
		ED:	10 %
Used transformers	Tr1 & Tr1.1	Connection:	Serie
Control transformer	Tb1	Part number:	160-1334122
Control transferring	,	Input:	208-230 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %
Sealbars:			
Used sealbars	R1, R2	Connection:	R1 & R2 - Serie
Contostore			
Contactors:	K1		
Pump	K1 K2		
Seal	rv2		
Switches:			
Main switch	S 1	Part number:	160-1331171
1		Specification:	25 Amp
Control switch ON/OFF	S2	Part number:	160-1331117
1			
Microswitches:			
Switch start cycle	MS1	Electrical connections:	2
Valves:			
Vacuum valve	Y1		
Gas valve	Y2		
Seal valve	Y3		
Soft-air valve	Y4		
Decompression valve	Y5		
Becompression valve			



VMS 193 (S/L) 208V - 3P - 60Hz





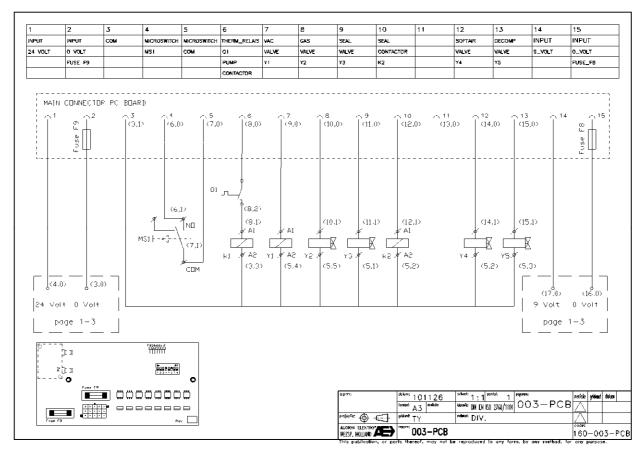


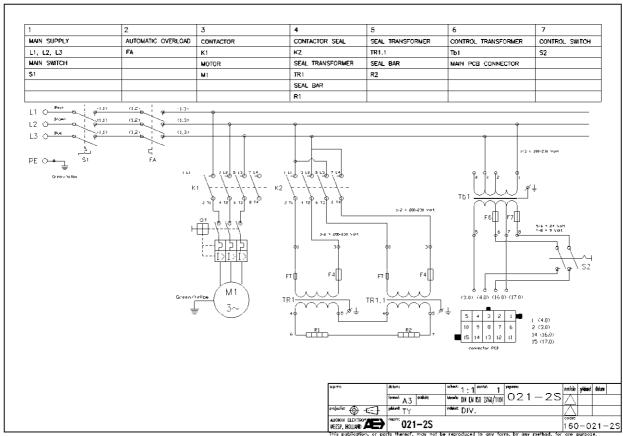
VMS 193 (S/L) 220V - 3P - 60Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	021-28	Sealconfiguration	Right and Front
Machine serie	VMS 193	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	220-3-60		
Pomp capacity	063 m³/h		
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
Overload devices:	5 4	Dout name have	160-1332181
Circuit breaker	FA	Part number: Specification:	
Tamaiaal avadaad uvus	01	Part number:	3 x 25 Amp 160-1332241
Termical overload pump	Q1		9-14
		Range:	
C	F4	Set:	10
Fuse seal transformer	F 4	Part number:	160-1343136
		Specification:	8 Amp Slow
		Size:	5 x 20 mm 130 °C
Construction of the second	Fâ	FT:	
Fuse control transformer	F6	Part number:	160-1343128
1		Specification:	2,5 Amp Slow (24 Volt)
	E7	Size:	5 x 20 mm
1	F7	Part number:	160-1343127
1		Specification:	0,5 Amp Slow (9 Volt)
Funa BCB	го	Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
	50	Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm
Pump:			
Pump type	063 m³/h		
Capacity	2,2 kW		
capacity	2,2 100		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334159
		Input:	220 Volt
		Capacity:	1150 VA
		Output:	24 Volt
		ED:	10 %
Used transformers	Tr1 & Tr1.1	Connection:	Serie
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:	R1 & R2 - Serie
Contactors:			
Pump	K1		
Seal	K2		
lo :: .			
Switches:	04	David wood to com	400 4004474
Main switch	S1	Part number:	160-1331171
Common available Children	00	Specification:	25 Amp
Control switch ON/OFF	\$2	Part number:	160-1331117
Microcuritabase			
Microswitches:	MC1	Electrical connections:	3
Switch start cycle	MS1	Electrical connections:	2
Values			
Valves:	V4		
Vacuum valve	Y1		
Gas valve	Y2		
Seal valve	Y3		
Carl ain calca			
Soft-air valve	Y4		
Soft-air valve Decompression valve			



VMS 193 (S/L) 220V - 3P - 60Hz





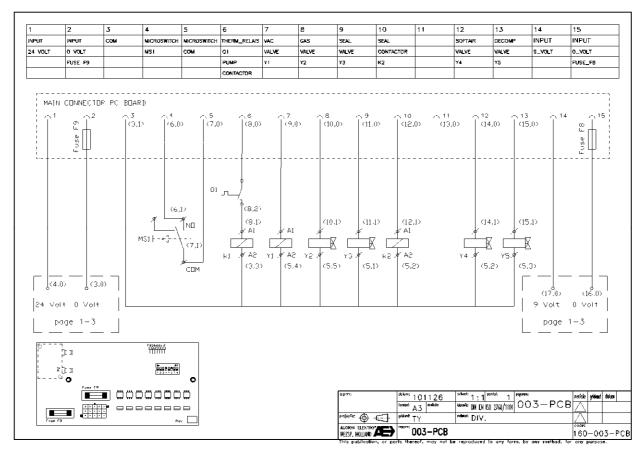


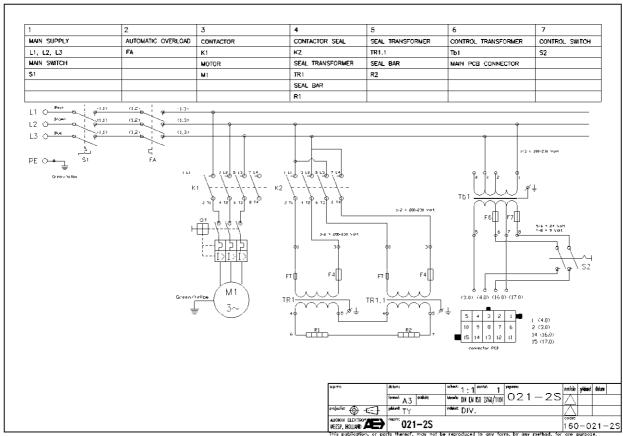
VMS 193 (S/L) 230V - 3P - 50Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	021-28	Sealconfiguration	Right and Front
Machine serie	VMS 193	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	230-3-50		
Pomp capacity	063 m³/h		
Main alastrias arrantu			
Main electrical supply:	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
Overload devices: Circuit breaker	FA	Part number:	160-1332181
Circuit breaker	10	Specification:	3 x 25 Amp
Termical overload pump	Q1	Part number:	160-1332240
<i>'</i> '		Range:	6,3-10
		Set:	7
Fuse seal transformer	F4	Part number:	160-1343136
		Specification: Size:	8 Amp Slow 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: Size:	0,5 Amp Slow (9 Volt) 5 x 20 mm
Fuse PCB	F8	Size: Part number:	5 x 20 mm 160-1343122
1 430 1 05	10	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	063 m³/h		
Capacity	1,5 kW		
=			
Transformers:	Т#1	David musele are	160 4224160
Sealtransformer	Tr1	Part number: Input:	160-1334159 220-230 Volt
		Capacity:	
			TIDU VA
			1150 VA 24 Volt
		Output: ED:	
Used transformers	<u>Tr1_& Tr1.1</u>	Output: ED: Connection:	24 Volt 10 % Serie
Used transformers Control transformer	Tr1 & Tr1.1 Tb1	Output: ED: Connection: Part number:	24 Volt 10 % Serie 160-1334122
		Output: ED: Connection: Part number: Input:	24 Volt 10 % Serie 160-1334122 220-230 Volt
		Output: ED: Connection: Part number: Input: Capacity;	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA
		Output: ED: Connection: Part number: Input:	24 Volt 10 % Serie 160-1334122 220-230 Volt
		Output: ED: Connection: Part number: Input: Capacity: Output 1:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt
Control transformer		Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt
Control transformer Sealbars:	Tb1	Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer		Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt
Control transformer Sealbars:	Tb1	Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer Sealbars: Used sealbars	Tb1 R1, R2 K1	Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer Sealbars: Used sealbars Contactors:	Tb1 R1, R2	Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 %
Sealbars: Used sealbars Contactors: Pump Seal	Tb1 R1, R2 K1	Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 %
Sealbars: Used sealbars Contactors: Pump Seal Switches:	R1, R2 K1 K2	Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal	Tb1 R1, R2 K1	Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches:	R1, R2 K1 K2	Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF	R1, R2 K1 K2 S1	Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches:	R1, R2 K1 K2 S1 S2	Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF	R1, R2 K1 K2 S1	Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle	R1, R2 K1 K2 S1 S2	Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves:	R1, R2 K1 K2 S1 S2 MS1	Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle	R1, R2 K1 K2 S1 S2	Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve	R1, R2 K1 K2 S1 S2 MS1 Y1	Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	R1, R2 K1 K2 S1 S2 MS1 Y1 Y2 Y3 Y4	Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve	R1, R2 K1 K2 S1 S2 MS1 Y1 Y2 Y3	Output: ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	24 Volt 10 % Serie 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117



VMS 193 (S/L) 230V - 3P - 50Hz





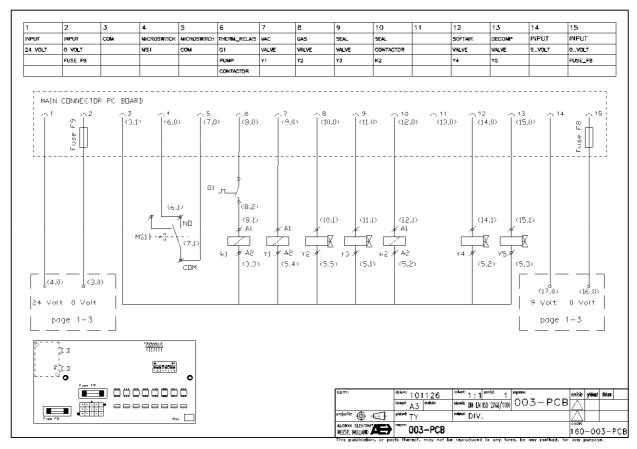


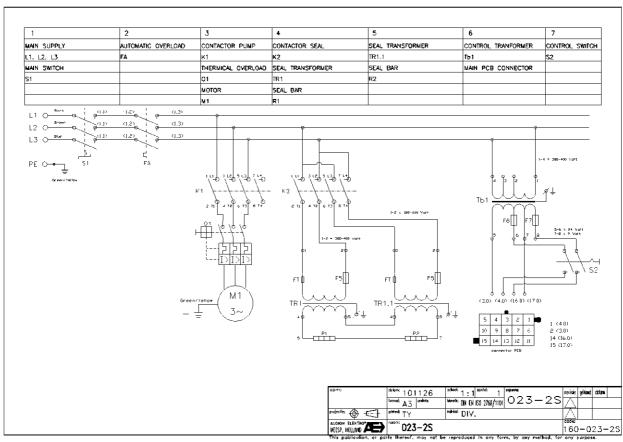
VMS 193 (S/L) 380V - 3P - 60Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	023-28	Sealconfiguration	Right and Front
Machine serie	VMS 193	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	380-3-60	1	
Pomp capacity	063 m³/h	<u> </u>	
T Only capacity	000 III /II	L	
Main electrical supply:			
L1	Phase 1		
12	Phase 2		
L2 L3	Phase 3		
PE	Ground connection		
[FC	Greatia connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332171
Circuit breaker	FA		
Tarminal avertand avera	01	Specification:	3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332235
		Range:	4-6,5
L		Set:	5,5
Fuse seal transformer	F5	Part number:	160-1343133
		Specification:	4 Amp Slow
		Size:	6,3 x 32 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
1		Specification:	2,5 Amp Slow (24 Volt)
1		Size:	5 x 20 mm
1	F7	Part number:	160-1343127
1	• •	Specification:	0,5 Amp Slow (9 Volt)
1		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
use FCB	10		
1		Specification:	250 mAmp, Slow
1		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm
Pump:			
Pump type	063 m³/h		
Capacity	2,2 kW		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334160
		Input:	400 Volt
		Capacity:	1150 VA
		Output:	24 Volt
		ED:	10 %
Used transformers	Tr1 & Tr1.1	Connection:	Serie
Control transformer	Tb1	Part number:	160-1334122
		Input:	400 Volt
1		Capacity:	60 VA
1		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %
[O10			
Sealbars:	D4 D2	Commontion:	D4 9 D2 C
Used sealbars	R1, R2	Connection:	R1 & R2 - Serie
Contactors:			
Pump	K1		
Seal	K2		
Switches:			
	61	Davi susahaw	160 4224474
Main switch	S1	Part number:	160-1331171
la		Specification:	25 Amp
Control switch ON/OFF	S2	Part number:	160-1331117
M			
Microswitches:	****	Charles of	
Switch start cycle	MS1	Electrical connections:	2
N-1			
Valves:			
Vacuum valve	Y1		
Gas valve	Y2		
Seal valve	3.00		
	Y3		1
Soft-air valve	Y3 Y4		



VMS 193 (S/L) 380V - 3P - 60Hz





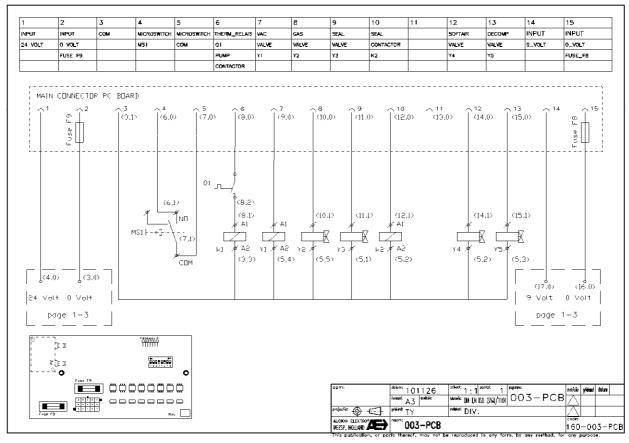


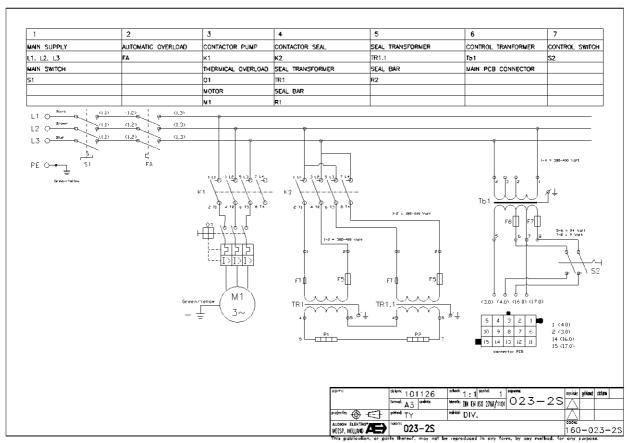
VMS 193 (S/L) 400V - 3P - 50Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	023-28	Sealconfiguration	Right and Front
Machine serie	VMS 193	Seal type	Double / Cut-off / 8mm
	400-3-50	Geal type	Double / Cut-off / Stiffit
Power (V/~/Hz)			
Pomp capacity	063 m³/h	<u> </u>	
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
<u> </u>	Croana Connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332171
		Specification:	3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332235
Transment of the party	- ·	Range:	4-6,5
		Set:	4
Fuse seal transformer	F5	Part number:	160-1343133
ruse seal transformer	FO		
		Specification:	4 Amp Slow
		Size:	6,3 x 32 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
l		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
l	F7	Part number:	160-1343127
	1 7	Specification:	0,5 Amp Slow (9 Volt)
		Specification:	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	063 m³/h		
Capacity	1,5 kW		
Transformers:	_		
Sealtransformer	Tr1	Part number:	160-1334160
ĺ		Input:	400 Volt
		Capacity:	1150 VA
		Output:	24 Volt
l		ED:	10 %
Used transformers	Tr1 & Tr1.1	Connection:	Serie
Control transformers	Tb1		160-1334122
Control transformer	101	Part number:	
		Input:	400 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %
		-	
Sealbars:			
Used sealbars	R1, R2	Connection:	R1 & R2 - Serie
044			
Contactors:	124		
Pump	K1		
Seal	K2		
Switches:			
	64	Davis munch a	160 4221171
Main switch	S 1	Part number:	160-1331171
		Specification:	25 Amp
Control switch ON/OFF	\$ 2	Part number:	160-1331117
Microswitches:			
Switch start cycle	MS1	Electrical connections:	2
Valves:			l
Vacuum valve	Y1		
Gas valve	Y2		
Seal valve	Y3		
Seal valve Soft-air valve	Y3 Y4		
Seal valve Soft-air valve Decompression valve	Y3 Y4 Y5		



VMS 193 (S/L) 400V - 3P - 50Hz





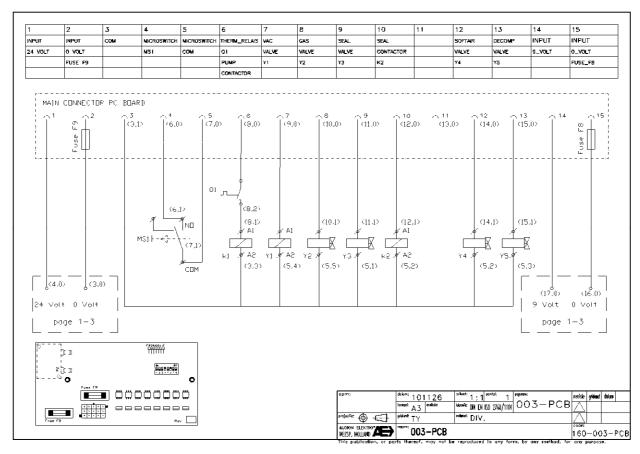


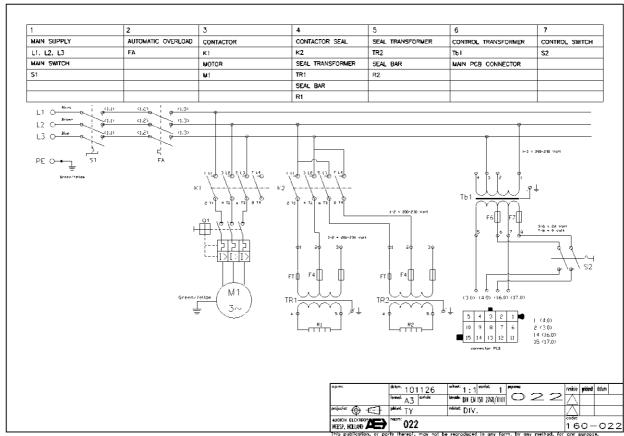
VM(S) 203 - 223 - 233 (S/S) 200V - 3P - 50/60Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	022	Sealconfiguration	Left and Right
Machine serie	VM 203, VMS 223, VMS 233	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	200-3-50/60		
Pomp capacity	063 m³/h		
Main electrical supply:	Diagram 4		
L1	Phase 1		
L2	Phase 2 Phase 3		
L3 PE			
<u>PE</u>	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332170
		Specification:	3 x 25 Amp
Termical overload pump	Q1	Part number:	160-1332241
, ,		Range:	9-14
		Set:	10
Fuse seal transformer	F4	Part number:	160-1343131
		Specification:	4 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
	10	Specification:	4 Amp, Slow
		Specification. Size:	5 x 20 mm
		GIZE,	3 x 20 mm
Pump:			
Pump type	063 m³/h		
Capacity	2,2 kW		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334143
		Input:	200 Volt
		Capacity:	900 VA
		Output:	21,4 Volt
		ED:	10 %
Jsed 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:			
Jsed sealbars	R1, R2	Connection:	Stand alone
Contactors:	174		
	W 1		
	K1		
	K2		
Seal			
Seal Switches:	K2	Dort number	100 1004474
Seal Switches:		Part number:	160-1331171
Seal Switches: Main switch	K2 S1	Specification:	25 Amp
Seal Switches: Main switch	K2		
Seal Switches: Main switch Control switch ON/OFF	K2 S1	Specification:	25 Amp
Seal Switches: Main switch Control switch ON/OFF Microswitches:	\$1 \$2	Specification: Part number:	25 Amp 160-1331117
Seal Switches: Main switch Control switch ON/OFF Microswitches:	K2 S1	Specification:	25 Amp
Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle	\$1 \$2	Specification: Part number:	25 Amp 160-1331117
Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves:	K2 \$1 \$2 M\$1	Specification: Part number:	25 Amp 160-1331117
Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve	K2 S1 S2 MS1	Specification: Part number:	25 Amp 160-1331117
Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	K2 S1 S2 MS1 Y1 Y2	Specification: Part number:	25 Amp 160-1331117
Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve	K2 S1 S2 MS1 Y1 Y2 Y3	Specification: Part number:	25 Amp 160-1331117
Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve Soft-air valve Decompression valve	K2 S1 S2 MS1 Y1 Y2	Specification: Part number:	25 Amp 160-1331117



VM(S) 203 - 223 - 233 (S/S) 200V - 3P - 50/60Hz





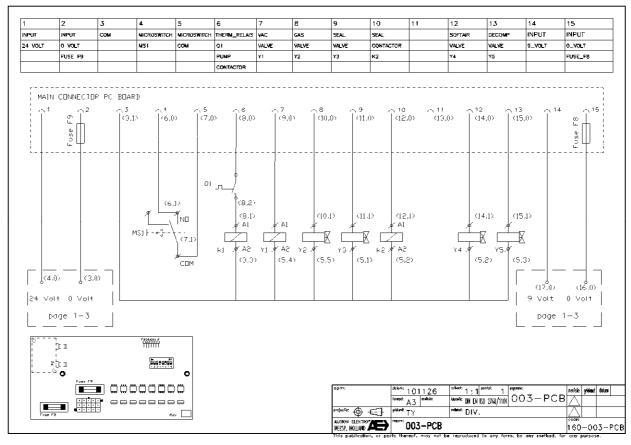


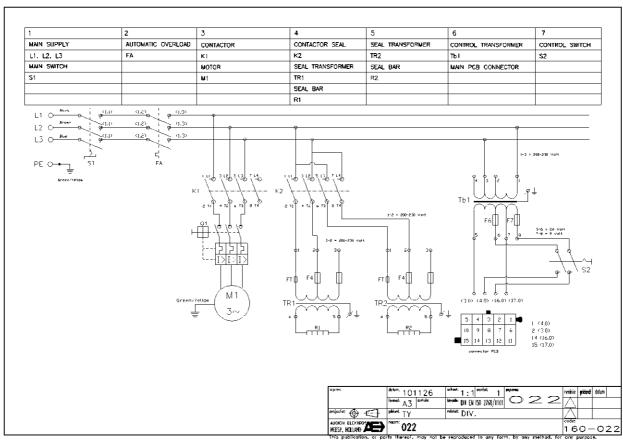
VM(S) 203 - 223 - 233 (S/S) 208V - 3P - 60Hz

Control dia mana	loga DCD	IDavisian (Evans 1 Intil)	In (04 04 2044 =>)
Control diagram Main circuit diagram	003-PCB 022	Revision (From - Until) Sealconfiguration	0 (01-01-2011 =>) Left and Right
Machine serie	VM 203, VMS 223, VMS 233	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	208-3-60	Courtype	Bodble / Gde on / Onni
Pomp capacity	063 m³/h		
	·		•
Main electrical supply:			
L1	Phase 1		
L2	Phase 2 Phase 3		
L3 PE	Ground connection		
<u> </u>	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332170
		Specification:	3 x 25 Amp
Termical overload pump	Q1	Part number:	160-1332241
		Range:	9-14
_		Set:	10
Fuse seal transformer	F4	Part number:	160-1343131
		Specification:	4 Amp Slow
		Size: FT:	5 x 20 mm 130 °C
Fuse control transformer	F6	Part number:	160-1343128
i dae condordansionnei	i⁻U	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	063 m³/h		
Capacity	2,2 kW		
•			
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334143
		Input:	208-230 Volt
		Capacity:	900 VA
		Output: ED:	21,4 Volt 10 %
Used transformers	Tr1	Connection:	Stand alone
Osed transformers	Tr2	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
	, , ,	Input:	208-230 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %
.			
Sealbars: Used sealbars	R1, R2	Connection:	Stand alone
Oseu sealbais	13.1, 132	Connection.	Glanu alone
Contactors:			
Pump	K1		
Seal .	K2		
0			
Switches:	\$1	Dort mumber	460 4004474
Main switch	S1	Part number:	160-1331171
Control switch ON/OFF	S2	Specification: Part number:	25 Amp 160-1331117
CONTROL SYSTEM ON/OFF	52	rattiumber.	100-1001117
Microswitches:			
Switch start cycle	MS1	Electrical connections:	2
•			
Valves:			
Vacuum valve	Y1		
~ `			
Gas valve	Y2		
Seal valve	Y3		
Gas valve Seal valve Soft-air valve Decompression valve			



VM(S) 203 - 223 - 233 (S/S) 208V - 3P - 60Hz





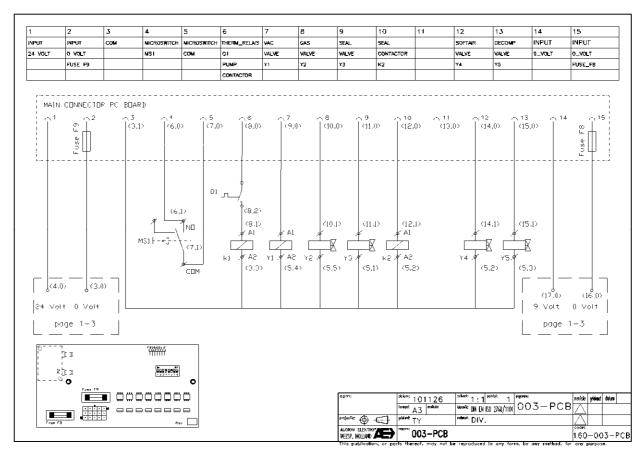


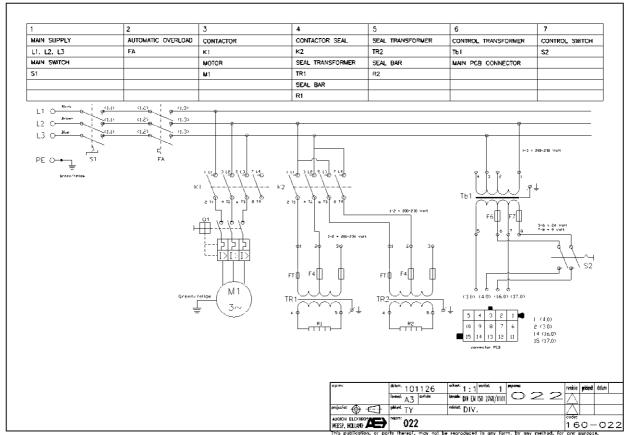
VM(S) 203 - 223 - 233 (S/S) 220V - 3P - 60Hz

		T==	In
Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	022	Sealconfiguration	Left and Right
Machine serie	VM 203, VMS 223, VMS 233	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	220-3-60		
Pomp capacity	063 m³/h		
		•	•
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
_			
Overload devices:			
Circuit breaker	FA	Part number:	160-1332170
		Specification:	3 x 25 Amp
Termical overload pump	Q1	Part number:	160-1332241
, and a range of a man	- .	Range:	9-14
		Set:	10
use seal transformer	F4	Part number:	160-1343131
use sear transformer	17		
		Specification:	4 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
use 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
use PCB	F8	Part number:	160-1343122
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
	10	Specification:	4 Amp, Slow
		•	
		Size:	5 x 20 mm
Pump:			
	063 m³/h		
Pump type			
Capacity	2,2 kW		
ransformers:			
	T-1	Dort number	160 1224142
Sealtransformer	Tr1	Part number:	160-1334143
		Input:	220 Volt
		Capacity:	900 VA
		Output:	21,4 Volt
		ED:	10 %
Jsed transformers	Tr1	Connection:	Stand alone
	Tr2	Connection:	Stand alone
antral transformer	112		
onuoi transformer	Tb1	Part number:	160-1334122
onuoi transtormer			
John of transformer		Input:	220 Volt
onio transformer		Input: Capacity:	220 Volt 60 VA
onuoi transiofmer		Input: Capacity: Output 1:	220 Volt 60 VA 24 Volt
zonilioi transiormer		Input: Capacity: Output 1: Output 2:	220 Volt 60 VA 24 Volt 9 Volt
onuoi transiormer		Input: Capacity: Output 1:	220 Volt 60 VA 24 Volt
		Input: Capacity: Output 1: Output 2:	220 Volt 60 VA 24 Volt 9 Volt
ealbars:	Tb1	Input: Capacity: Output 1: Output 2: ED:	220 Volt 60 VA 24 Volt 9 Volt 100 %
ealbars:		Input: Capacity: Output 1: Output 2:	220 Volt 60 VA 24 Volt 9 Volt
sealbars: Jsed sealbars	Tb1	Input: Capacity: Output 1: Output 2: ED:	220 Volt 60 VA 24 Volt 9 Volt 100 %
Sealbars: Jsed sealbars Contactors:	Тb1 R1, R2	Input: Capacity: Output 1: Output 2: ED:	220 Volt 60 VA 24 Volt 9 Volt 100 %
Sealbars: Used sealbars Contactors:	Тb1 R1, R2 K1	Input: Capacity: Output 1: Output 2: ED:	220 Volt 60 VA 24 Volt 9 Volt 100 %
ealbars: lsed sealbars contactors:	Тb1 R1, R2	Input: Capacity: Output 1: Output 2: ED:	220 Volt 60 VA 24 Volt 9 Volt 100 %
Sealbars: Used sealbars Contactors: Dump Seal	Тb1 R1, R2 K1	Input: Capacity: Output 1: Output 2: ED:	220 Volt 60 VA 24 Volt 9 Volt 100 %
iealbars: Ised sealbars Contactors: Pump ieal	Tb1 R1, R2 K1 K2	Input: Capacity: Output 1: Output 2: ED: Connection:	220 Volt 60 VA 24 Volt 9 Volt 100 %
Gealbars: Used sealbars Contactors: Cump Geal Gwitches:	Тb1 R1, R2 K1	Input: Capacity: Output 1: Output 2: ED: Connection:	220 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Sealbars: Used sealbars Contactors: Ump Seal Switches: Main switch	Tb1 R1, R2 K1 K2 S1	Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	220 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Sealbars: Jsed sealbars Contactors: Pump Seal Switches: Jain switch	Tb1 R1, R2 K1 K2	Input: Capacity: Output 1: Output 2: ED: Connection:	220 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF	Tb1 R1, R2 K1 K2 S1	Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	220 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Gealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches:	R1, R2 K1 K2 S1 S2	Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	220 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Gealbars: Used sealbars Contactors: Cump Geal Switches: Main switch Control switch ON/OFF	Tb1 R1, R2 K1 K2 S1	Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	220 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Gealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches:	R1, R2 K1 K2 S1 S2	Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	220 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
icalbars: Used sealbars Contactors: Comp Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle	R1, R2 K1 K2 S1 S2	Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	220 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Comp Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves:	R1, R2 K1 K2 S1 S2	Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	220 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Ump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve	Tb1 R1, R2 K1 K2 S1 S2 MS1	Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	220 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Sealbars: Jsed sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle /alves: /acuum valve Sas valve	Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2	Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	220 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Seal valve Seal valve	Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2 Y3	Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	220 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Soft-air valve Decompression valve	Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2	Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	220 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117



VM(S) 203 - 223 - 233 (S/S) 220V - 3P - 60Hz





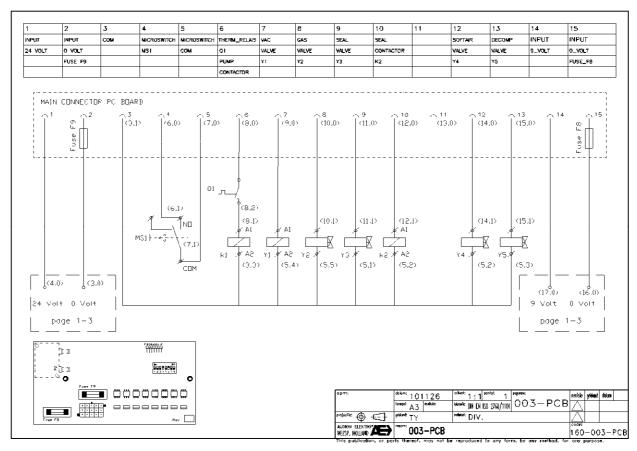


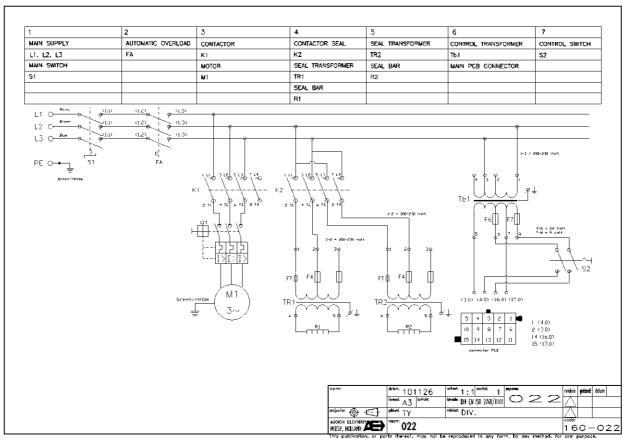
VM(S) 203 - 223 - 233 (S/S) 230V - 3P - 50Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	022	Sealconfiguration	Left and Right
Machine serie	VM 203, VMS 223, VMS 233	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	230-3-50		
Pomp capacity	063 m³/h		
84-i14-i1			
Main electrical supply: L1	Phase 1		
L2	Phase 1		
L3	Phase 3		
PE	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332170
		Specification:	3 x 25 Amp
Termical overload pump	Q1	Part number:	160-1332240
		Range: Set:	6,3-10
Fuse seal transformer	F4	Part number:	6,5 160-1343131
r dae aear danaionner		Specification:	4 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
	F 7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
Fuse PCB	Γ0	Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122 250 mAmp, Slow
		Specification: Size:	250 mAmp, Slow 5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm
Pump:			
Pump type	063 m³/h		
Capacity	1,5 kW		
- ·			
Transformers: Sealtransformer	Tr1	Part number:	160-1334143
Sealdansionnei	111	Input:	220-230 Volt
		Capacity:	900 VA
		Output:	21,4 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: ED:	9 Volt 100 %
		LU.	100 /0
Sealbars:			
Used sealbars	R1, R2	Connection:	Stand alone
	·		
Contactors:			
Pump	K1		
Seal	K2		
0			
Switches:	\$1	Part number:	160 1331474
Main switch	S1	Specification:	160-1331171 25 Amp
Control switch ON/OFF	S2	Part number:	160-1331117
COLLIGION CONTROL CONTROL	32	, are number.	100 1001117
Microswitches:		Electrical connections:	2
Microswitches: Switch start cycle	MS1	Electrical confidentions.	
	MS1	Electrical conflections.	
Switch start cycle Valves:		Electrical conflictions.	
Switch start cycle Valves: Vacuum valve	Y1	Electrical connections.	-
Switch start cycle Valves: Vacuum valve Gas valve	Y1 Y2	Electrical conflections.	-
Valves: Vacuum valve Gas valve Seal valve	Y1 Y2 Y3	Electrical conflections.	-
Switch start cycle Valves: Vacuum valve Gas valve	Y1 Y2	Electrical conflections.	



VM(S) 203 - 223 - 233 (S/S) 230V - 3P - 50Hz





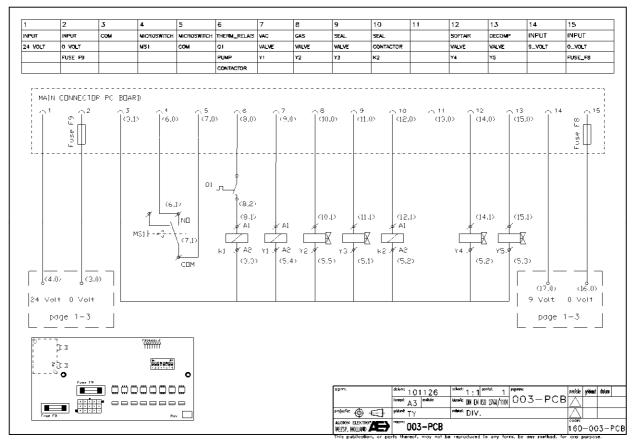


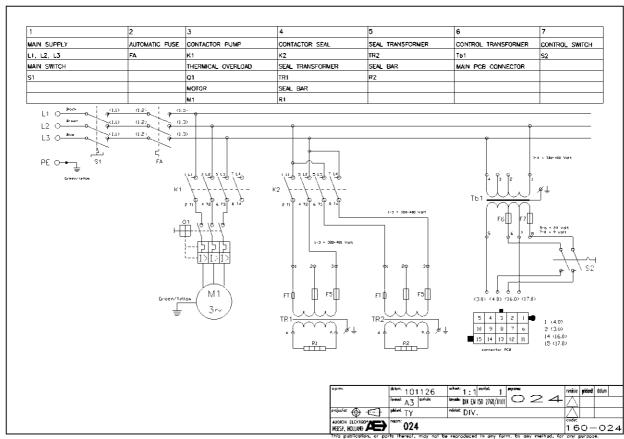
VM(S) 203 - 223 - 233 (S/S) 380V - 3P - 60Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	024	Sealconfiguration	Left and Right
Machine serie	VM 203, VMS 223, VMS 233	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	380-3-60		
Pomp capacity	063 m³/h		
Birth alexander alexander			
Main electrical supply: L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332171
		Specification:	3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332235
		Range:	4-6,5
		Set:	5,5
Fuse seal transformer	F5	Part number:	160-1343130
		Specification: Size:	3,15 Amp Slow 6,3 x 32 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
ase control transformer	1 3	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	063 m³/h		
Capacity	2,2 kW		<u> </u>
	_,		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334143
		Input:	400 Volt
		Capacity:	900 VA
		Output:	21,4 Volt
L		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
O	Tr2	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	400 Volt
		Capacity: Output 1:	60 VA 24 Volt
		Output 1:	9 Volt
		ED:	100 %
			.55 %
Sealbars:			
Used sealbars	R1, R2	Connection:	Stand alone
Contactors:			
Pump	K1		
Seal	K2		
0			
Switches:	81	Dort number:	160 1221171
Main switch	S1	Part number:	160-1331171
Control switch ON/OFF	S2	Specification: Part number:	25 Amp 160-1331117
Control SWITCH ON/OFF	92	ran number.	100-1001117
Microswitches:			
Switch start cycle	MS1	Electrical connections:	2
Valves:			
Vacuum valve	Y1		
Gas valve	Y2		
Seal valve	Y3		
Soft-air valve	Y4		
Decompression valve	Y5		



VM(S) 203 - 223 - 233 (S/S) 380V - 3P - 60Hz





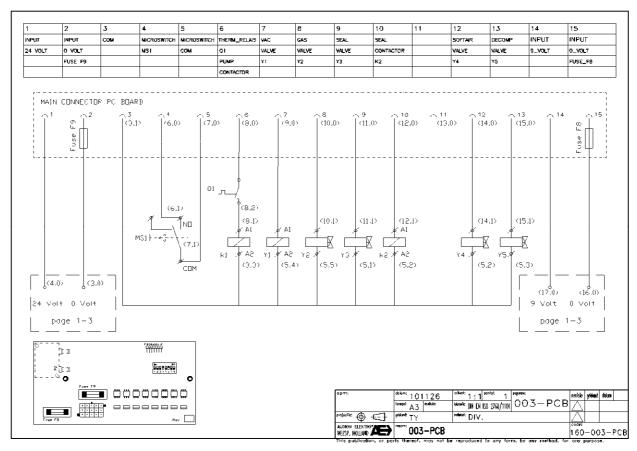


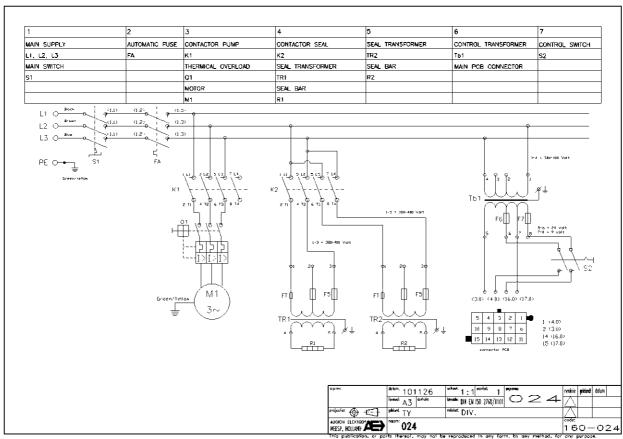
VM(S) 203 - 223 - 233 (S/S) 400V - 3P - 50Hz

Main circuit diagram				
Machine serine VMZ 203, VMS 223 Seal type Double / Cut-off / Amm Power (V/-Pt-12) 400-3-50		003-PCB	Revision (From - Until)	
Machine serine VMZ 203, VMS 223 Seal type Double / Cut-off / Amm Power (V/-Pt-12) 400-3-50	Main circuit diagram			
Flower (V-Priz) 400-3-50	Machine serie	VM 203, VMS 223, VMS 233	Seal type	Double / Cut-off / 8mm
Pomp capacity	Power (V/~/Hz)			
Main electrical supply:				
L1				•
L1	Main electrical supply:			
L2		Phase 1		
Page Phase 3				
PE				
Overload devices: FA				
Circuit breaker	PE	Ground connection		
Circuit breaker	Overalla and advention and			
Specification:		E4	Dd	400 4000474
Termical overload pump	Circuit preaker	FA		
Range	<u>L</u>			
Set	Termical overload pump	Q1		
Fuse seal transformer			Range:	4-6,5
Specification			Set:	5,5
Size	Fuse seal transformer	F5	Part number:	160-1343130
Size			Specification:	3,15 Amp Slow
Fig. 130 °C	I			
Fuse control transformer	I			
Specification: 2.5 Amp Slow (24 Volt)	Fuse control transformer	F6		*
Size		10		
F7	I			
Specification: 0.5 Amp Slow (9 Volt)		57		
Fuse PCB		F/		
Fuse PCB F8 Part number: 160-1343122				
F9 Specification: \$250 mAmp, Slow Size: 5 x 20 mm 160-1343123 Specification: 4 Amp, Slow Size: 5 x 20 mm 160-1343123 Specification: 4 Amp, Slow Size: 5 x 20 mm Size: Si				
F9	Fuse PCB	F8	Part number:	160-1343122
F9 Part number: 160-1343123 Specification: 4 A Amp, Slow Size: 5 x 20 mm			Specification:	250 mAmp, Slow
Specification:			Size:	5 x 20 mm
Specification:		F9	Part number	160-1343123
Size: 5 x 20 mm		. •		
Pump	I		•	
Pump type			Size.	5 X 20 Hilli
Pump type	D			
Transformers: Sealtransformer		062 m3/h		
Transformers Sealtransformer Tr1				
Sealtransformer	Сараску	∠,∠ KVV		
Sealtransformer				
Input:				
Capacity:	Sealtransformer	Tr1		
Used transformers	1		Input:	400 Volt
Sealbars			Capacity:	900 VA
Sealbars			Output	04.4.1/6/4
Used transformers				21,4 VOIL
Tr2				
Part number: 160-1334122	Used transformers	Tr1	ED:	10 %
Input: 400 Volt Capacity: 60 VA Output 1: 24 Volt Output 1: 9 Volt ED: 100 %	Used transformers		ED: Connection:	10 % Stand alone
Capacity:		Tr2	ED: Connection: Connection:	10 % Stand alone Stand alone
Output 1:		Tr2	ED: Connection: Connection: Part number:	10 % Stand alone Stand alone 160-1334122
Output 2: 9 Volt ED: 100 % Sealbars: Used sealbars R1, R2 Connection: Stand alone Contactors: Pump K1 Seal K2 Switches: Main switch S1 Part number: 160-1331171 Specification: 25 Amp Control switch ON/OFF S2 Part number: 160-1331117 Microswitches: Switch start cycle MS1 Electrical connections: 2 Valves: Vacuum valve Y1 Gas valve Y2 Seal valve Y3 Y3 Soft-air valve Y4 Y4		Tr2	ED: Connection: Connection: Part number: Input:	10 % Stand alone Stand alone 160-1334122 400 Volt
ED: 100 %		Tr2	ED: Connection: Connection: Part number: Input: Capacity:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA
Sealbars: Used sealbars R1, R2 Connection: Stand alone Contactors: Pump K1 Seal K2 Switches: Main switch S1 Part number: 160-1331171 Specification: 25 Amp Control switch ON/OFF S2 Part number: 160-1331117 Microswitches: Switch start cycle MS1 Electrical connections: 2 Valves: Vacuum valve Y1 Gas valve Y2 Seal valve Y3 Soft-air valve Y4		Tr2	ED: Connection: Connection: Part number: Input: Capacity: Output 1:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt
Used sealbars		Tr2	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt
Used sealbars		Tr2	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt
Contactors: Pump K1 Seal K2 Switches: Main switch S1 Part number: 160-1331171 Specification: 25 Amp Control switch ON/OFF S2 Part number: 160-1331117 Microswitches: Switch start cycle MS1 Electrical connections: 2 Valves: Vacuum valve Y1 Gas valve Y2 Seal valve Y3 Soft-air valve Y4	Control transformer	Tr2	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt
Contactors: Pump K1 Seal K2 Switches: Main switch S1 Part number: 160-1331171 Specification: 25 Amp Control switch ON/OFF S2 Part number: 160-1331117 Microswitches: Switch start cycle MS1 Electrical connections: 2 Valves: Vacuum valve Y1 Gas valve Y2 Seal valve Y3 Soft-air valve Y4		Tr2 Tb1	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt
Pump Seal K1 Seal K2 Switches: Main switch S1 Part number: Specification: Specification: 25 Amp Part number: 160-1331171 Specification: 25 Amp Part number: 160-1331117 Specification: 25 Amp Part number: 160-1331117 Specification: 25 Amp Part number: 160-1331117 Specification: 25 Amp Part number: 260-1331117 Specification: 27 April 160-1331117 Specification: 28 April 160-1331117 Specification: 29 April 160-1331117 Specification: 20 April 160-1331117 Specification: 20 April 160-1331117 Specification: 25 Amp Part number: 26 April 160-1331117 Specification: 27 April 160-1331117 Specification: 28 April 160-1331117 Specification: 29 April 160-1331117 Specification: 20 April 160-1331117 Specification: 20 April 160-1331117 Specification: 20 April 160-1331117 Specification: 25 Amp Part number: 26 April 160-1331117 Specification: 26 April 160-1331117 Specification: 27 April 160-1331117 Specification: 28 April 160-1331117 Specification: 29 April 160-1331117 Specification: 20	Control transformer Sealbars:	Tr2 Tb1	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 %
Pump Seal K1 Seal K2 Switches: Main switch S1 Part number: Specification: Specification: 25 Amp Part number: 160-1331171 Specification: 25 Amp Part number: 160-1331117 Specification: 25 Amp Part number: 160-1331117 Specification: 25 Amp Part number: 160-1331117 Specification: 25 Amp Part number: 260-1331117 Specification: 27 April 160-1331117 Specification: 28 April 160-1331117 Specification: 29 April 160-1331117 Specification: 20 April 160-1331117 Specification: 20 April 160-1331117 Specification: 25 Amp Part number: 26 April 160-1331117 Specification: 27 April 160-1331117 Specification: 28 April 160-1331117 Specification: 29 April 160-1331117 Specification: 20 April 160-1331117 Specification: 20 April 160-1331117 Specification: 20 April 160-1331117 Specification: 25 Amp Part number: 26 April 160-1331117 Specification: 26 April 160-1331117 Specification: 27 April 160-1331117 Specification: 28 April 160-1331117 Specification: 29 April 160-1331117 Specification: 20	Control transformer Sealbars:	Tr2 Tb1	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 %
Seal K2 Switches:	Control transformer Sealbars: Used sealbars	Tr2 Tb1	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 %
Switches: Main switch \$1 Part number: 160-1331171 Specification: 25 Amp Control switch ON/OFF \$2 Part number: 160-1331117 Microswitches: Switch start cycle MS1 Electrical connections: 2 Valves: Vacuum valve Y1 Gas valve Y2 Seal valve Y3 Soft-air valve Y4	Control transformer Sealbars: Used sealbars Contactors:	Tr2 Tb1 R1, R2	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 %
Main switch S1 Part number: Specification: 25 Amp Control switch ON/OFF S2 Part number: 160-1331117 Microswitches: Switch start cycle MS1 Electrical connections: 2 Valves: Vacuum valve Y1 Gas valve Y2 Seal valve Y3 Soft-air valve Y4	Control transformer Sealbars: Used sealbars Contactors: Pump	Ti/2 Tb1 R1, R2	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 %
Main switch S1 Part number: Specification: 25 Amp Control switch ON/OFF S2 Part number: 160-1331117 Microswitches: Switch start cycle MS1 Electrical connections: 2 Valves: Vacuum valve Y1 Gas valve Y2 Seal valve Y3 Soft-air valve Y4	Control transformer Sealbars: Used sealbars Contactors: Pump	Ti/2 Tb1 R1, R2	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 %
Specification: 25 Amp	Control transformer Sealbars: Used sealbars Contactors: Pump Seal	Ti/2 Tb1 R1, R2	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 %
Control switch ON/OFF S2 Part number: 160-1331117 Microswitches: Switch start cycle MS1 Electrical connections: 2 Valves: Vacuum valve Y1 Gas valve Y2 Seal valve Y3 Soft-air valve Y4	Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches:	Tr2 Tb1 R1, R2 K1 K2	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Microswitches: Switch start cycle MS1 Electrical connections: 2 Valves: Vacuum valve Y1 Gas valve Y2 Seal valve Y3 Soft-air valve Y4	Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches:	Tr2 Tb1 R1, R2 K1 K2	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Switch start cycle MS1 Electrical connections: 2 Valves: Vacuum valve Y1 Gas valve Y2 Seal valve Y3 Soft-air valve Y4	Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch	Tr2 Tb1 R1, R2 K1 K2	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Switch start cycle MS1 Electrical connections: 2 Valves: Vacuum valve Y1 Gas valve Y2 Seal valve Y3 Soft-air valve Y4	Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch	Tr2 Tb1 R1, R2 K1 K2	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Switch start cycle MS1 Electrical connections: 2 Valves: Vacuum valve Y1 Gas valve Y2 Seal valve Y3 Soft-air valve Y4	Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch	Tr2 Tb1 R1, R2 K1 K2	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Valves: Y1 Vacuum valve Y1 Gas valve Y2 Seal valve Y3 Soft-air valve Y4	Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF	Tr2 Tb1 R1, R2 K1 K2	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Vacuum valve Y1 Gas valve Y2 Seal valve Y3 Soft-air valve Y4	Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches:	Tr2 Tb1	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Vacuum valve Y1 Gas valve Y2 Seal valve Y3 Soft-air valve Y4	Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches:	Tr2 Tb1	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Gas valve Y2 Seal valve Y3 Soft-air valve Y4	Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle	Tr2 Tb1	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Seal valve Y3 Soft-air valve Y4	Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves:	Tr2 Tb1 R1, R2 K1 K2 S1 S2 MS1	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Soft-air valve Y4	Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve	Ti ² Tb1 R1, R2 K1 K2 S1 S2 MS1	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
	Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	Ti ² Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Decompression valve Y5	Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve	Ti ² Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2 Y3	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
,—	Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve	Ti ² Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2 Y3	ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Stand alone Stand alone 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117



VM(S) 203 - 223 - 233 (S/S) 400V - 3P - 50Hz





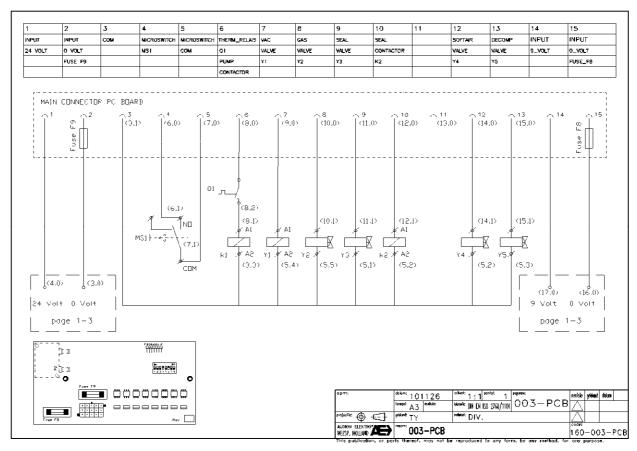


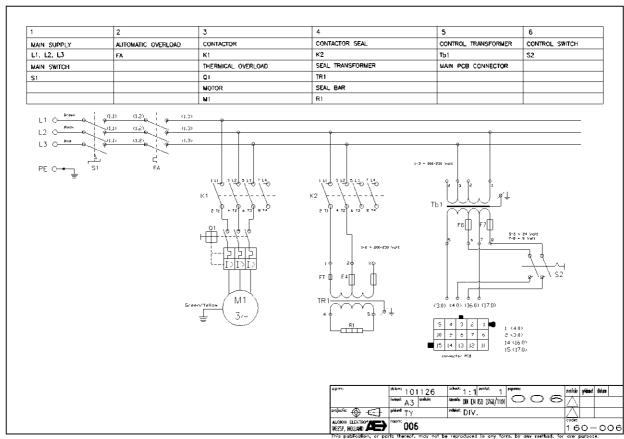
VMS 223 (Long) 200V - 3P - 50/60Hz

F			T
Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	006	Sealconfiguration	Front
Machine serie	VMS 223	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	200-3-50/60		
Pomp capacity	063 m³/h		
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
<u>FE</u>	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332171
		Specification:	3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332241
		Range:	9-14
		Set:	10
Fuse seal transformer	F4	Part number:	160-13 4 3131
		Specification:	4 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
1 dse i CD	10	Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
	гэ		
I		Specification:	4 Amp, Slow
		Size:	5 x 20 mm
Pump:			
Pump type	063 m³/h		
Capacity	2,2 kW		
Capacity	2,2 (0)		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334143
		Input:	200 Volt
		Capacity:	900 VA
		Output:	21,4 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
Condordansionner	151	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:			
Main switch	S1	Part number:	160-1331171
		Specification:	25 Amp
Control switch ON/OFF	S2	Part number:	160-1331117
Microswitches:			
Switch start cycle	MS1	Electrical connections:	2
Valves:			
Vacuum valve	Y1		
Gas valve	Y2		
Seal valve	Y3		
Soft-air valve	Y4		
	Y4 Y5		



VMS 223 (Long) 200V - 3P - 50/60Hz





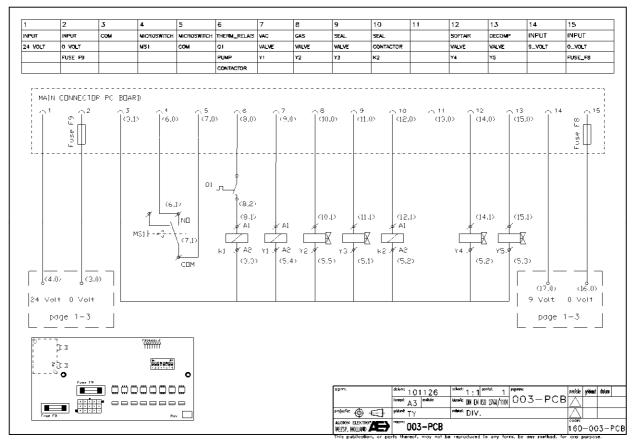


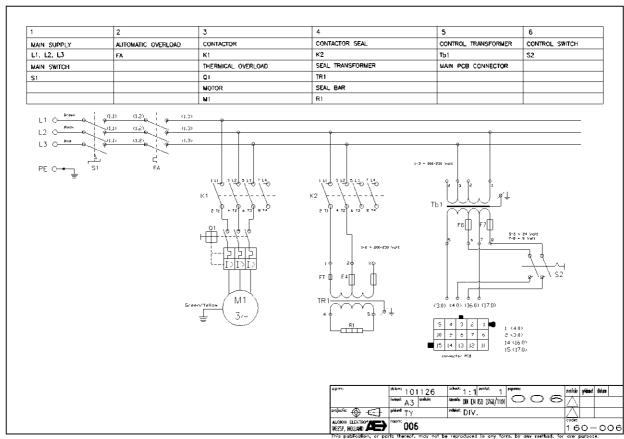
VMS 223 (Long) 208V - 3P - 60Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	006	Sealconfiguration	Front
Machine serie	VMS 223	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	208-3-60		
Pomp capacity	063 m³/h		
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
Overdend devices			
Overload devices: Circuit breaker	FA	Part number:	160-1332171
Circuit breaker	FA	Specification:	3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332241
Terrifical overload pump	G1	Range:	9-14
		Set:	10
Fuse seal transformer	F4	Part number:	160-1343131
use sear transferrier	1 -1	Specification:	4 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
. 250 control danatornici	. 5	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	063 m³/h		
Capacity	2,2 kW		
T			
Transformers: Sealtransformer	Tr1	Part number:	160-1334143
Sealtransionne	111	Input:	208-230 Volt
		Capacity:	900 VA
		Output:	21,4 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
Control transformer	101	Input:	208-230 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			1
Switches:	S1	Part number:	160-1331171
Main switch	31		
Control switch ON/OFF	\$2	Specification: Part number:	25 Amp
Control Switch ON/OFF	32	ran number.	160-1331117
Microswitches:			
Switch start cycle	MS1	Electrical connections:	2
		cccar comiconoria.	
Valves:			
Vacuum valve	Y1		
Vacuum valve	Y1 Y2 Y3		
Vacuum valve Gas valve	Y2		
Vacuum valve Gas valve Seal valve	Y2 Y3		



VMS 223 (Long) 208V - 3P - 60Hz





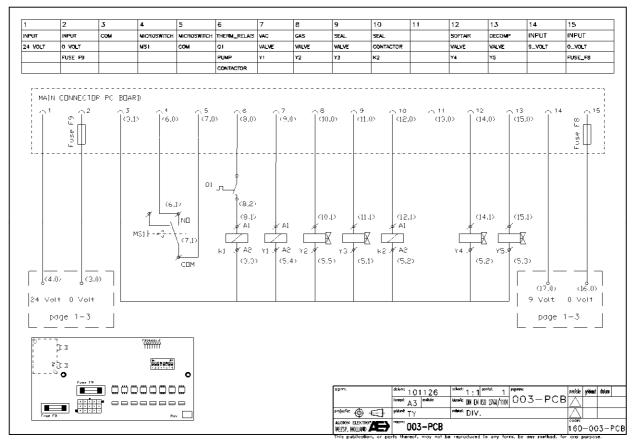


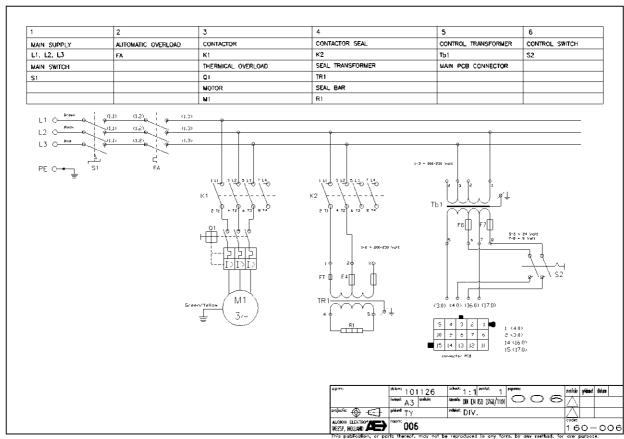
VMS 223 (Long) 220V - 3P - 60Hz

Control diagram	1003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	006	Sealconfiguration	Front
Machine serie	VMS 223	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	220-3-60	Ocar type	Bouble / Out on / Onni
Pomp capacity	063 m³/h		
Main electrical supply:			
	Dhana 1		
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332171
		Specification:	3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332241
Tommour o vomous pamp	~ .	Range:	9-14
-		Set:	10
Fuse seal transformer	F4	Part number:	160-1343131
		Specification:	4 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)
		•	
1	F-7	Size:	5 x 20 mm
1	F7	Part number:	160-1343127
1		Specification:	0,5 Amp Slow (9 Volt)
1		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
	ГЭ		
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm
Pump:			
Pump type	063 m³/h		
Capacity	2,2 kW		
[_,		
Transformers:			
	Ted	Dart worsham	460 4204440
Sealtransformer	Tr1	Part number:	160-1334143
		Input:	220 Volt
		Capacity:	900 VA
		Output:	21,4 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
Control transformer	181		220 Volt
		Input:	
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %
Sealbars:			
Used sealbars	R1	Connection:	Stand alone
SSSG SSGNOOTS	151	Commodon.	otana aiono
Contactors			
Contactors:	1/4		
Pump	K1		
Seal	K2		
Switches:			
Main switch	S1	Part number:	160-1331171
	· ·	Specification:	25 Amp
Control quitab ONOFF	60		
Control switch ON/OFF	\$ 2	Part number:	160-1331117
L			
Microswitches:			
Switch start cycle	MS1	Electrical connections:	2
·			
Valves:			
Vacuum valve	Y1		
Gas valve	Y2		
Seal valve	Y3		
Soft-air valve	Y4		
Decompression valve	Y5		



VMS 223 (Long) 220V - 3P - 60Hz





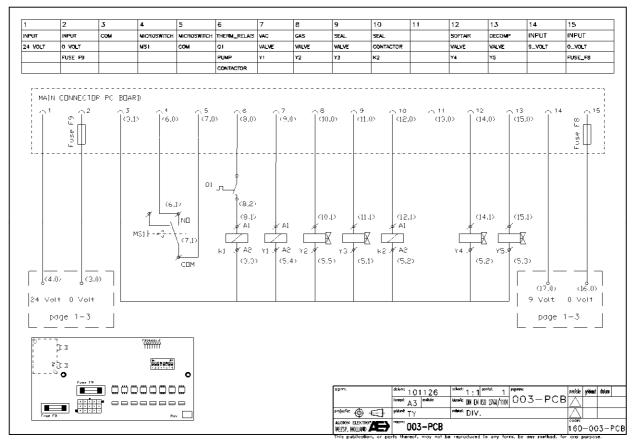


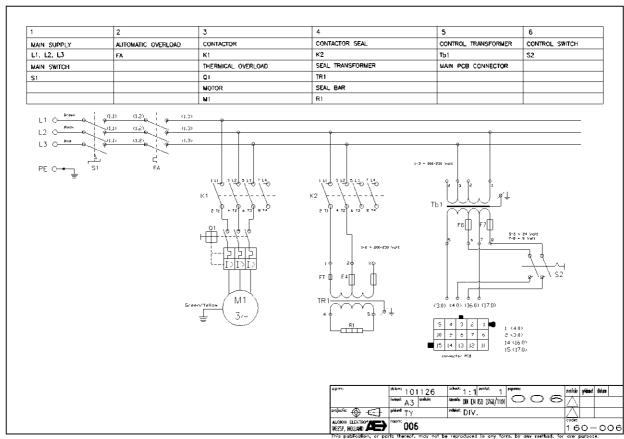
VMS 223 (Long) 230V - 3P - 50Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	006	Sealconfiguration	Front
Machine serie	VMS 223	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	230-3-50		
Pomp capacity	063 m³/h		
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
Overload devices:	FA	Part number:	160 1000171
Circuit breaker	FA		160-1332171
Tamasia al assaula a di ussuanu	04	Specification:	3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332240
		Range:	6,3-10
C	F4	Set:	6,5
Fuse seal transformer	F4	Part number:	160-1343130
		Specification:	3,15 Amp Slow
		Size:	6,3 x 32 mm
[F0	FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
	F.7	Size:	5 x 20 mm
	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
Eura BOD	Fo	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
		Sìze:	5 x 20 mm
Pump:			
Pump: Pump type	063 m³/h		
Capacity	1,5 kW		
Сарасіту	1,5 KVV		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334143
		Input:	220-230 Volt
		Capacity:	900 VA
		Output:	21,4 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		
Court of a co			
Switches:	04	Dark was to a	100 1001171
Main switch	S1	Part number:	160-1331171
_ , ,		Specification:	25 Amp
Control switch ON/OFF	S2	Part number:	160-1331117
l			
Microswitches:	Mod	Charles 1	
Switch start cycle	MS1	Electrical connections:	2
N-1			
Valves:	V4		
Vacuum valve	Y1		
Gas valve	Y2		
Seal valve	Y3		
Soft-air valve	Y4		
Soft-air valve Decompression valve	Y 4 Y5		



VMS 223 (Long) 230V - 3P - 50Hz





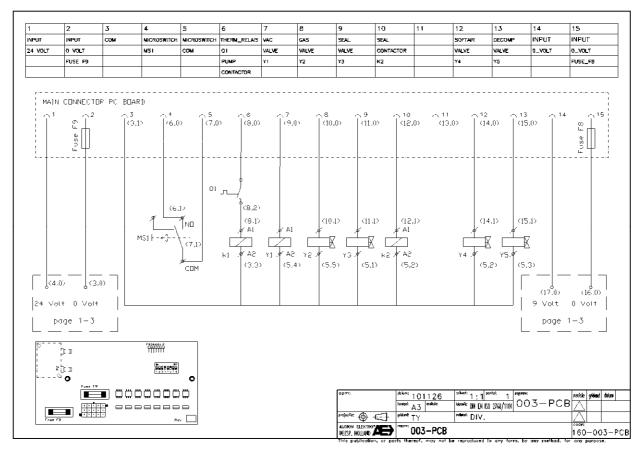


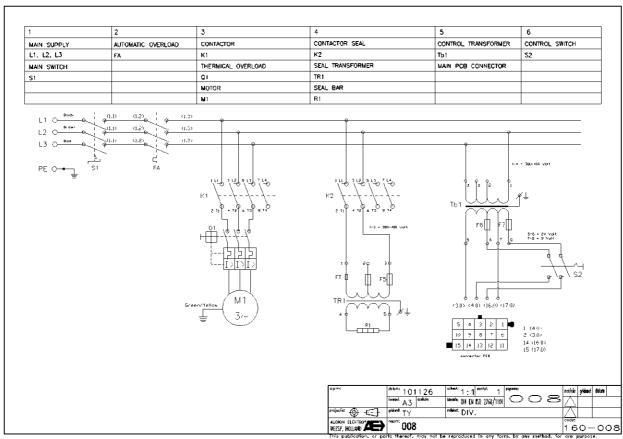
VMS 223 (Long) 380V - 3P - 60Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	008	Sealconfiguration	Front
Machine serie	VMS 223	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	380-3-60		
Pomp capacity	063 m³/h		
Basin alastuiani arrumbu			
Main electrical supply: L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332171
		Specification:	3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332235
		Range:	4-6,5
l		Set:	5,5
Fuse seal transformer	F5	Part number:	160-1343130
		Specification:	3,15 Amp Slow
		Size: FT:	6,3 x 32 mm 130 °C
Fuse control transformer	F6	Part number:	160-1343128
Lase control transformer	1-0	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
1	, -	Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm
Pump:	000 -3%		
Pump type	063 m³/h 2,2 kW		
Capacity	2,2 KVV		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334143
		Input:	400 Volt
		Capacity:	900 VA
		Output:	21,4 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		
O			
Switches: Main switch	S1	Port number	160 1221171
Iviaiii switch	01	Part number: Specification:	160-1331171 25 Amp
Control switch ON/OFF	\$ 2	Specification: Part number:	25 Amp 160-1331117
CONTROL SWITCH CHACLE	G2	ran number.	100-1001117
Microswitches:			
Switch start cycle	MS1	Electrical connections:	2
Valves:			
Vacuum valve	Y1		
Gas valve	Y2		
Seal valve	Y3		
Soft-air valve	Y4		
Decompression valve	Y5		



VMS 223 (Long) 380V - 3P - 60Hz





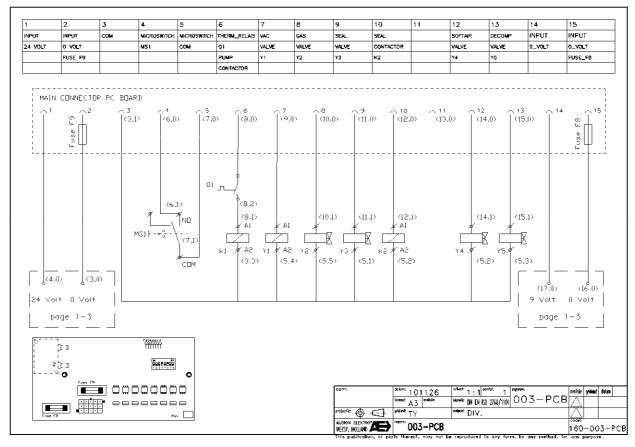


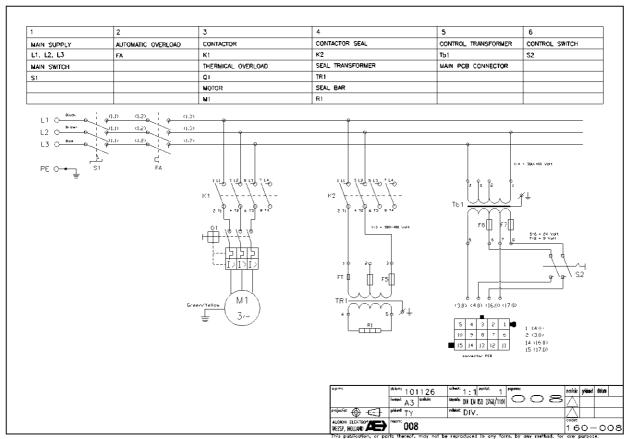
VMS 223 (Long) 400V - 3P - 50Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	008	Sealconfiguration	Front
Machine serie	VMS 223	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	400-3-50		
Pomp capacity	063 m³/h		
Main electrical supply:	Db 4		
L1 L2	Phase 1		
L2 L3	Phase 2 Phase 3		
PE	Ground connection		
[FE	Glouila connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332171
	, , ,	Specification:	3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332235
		Range:	4-6,5
		Set:	4
Fuse seal transformer	F5	Part number:	160-1343130
		Specification:	3,15 Amp Slow
		Size:	6,3 x 32 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
1		Size:	5 x 20 mm
1	F7	Part number:	160-1343127
		Specification:	0,5 Amp Slow (9 Volt)
Fuer BOD	F0	Size:	5 x 20 mm 160-1343122
Fuse PCB	F8	Part number:	
		Specification: Size:	250 mAmp, Slow 5 x 20 mm
	F9	Part number:	160-1343123
	F9	Specification:	4 Amp, Slow
		Size:	5 x 20 mm
		Size.	5 X 20 IIIIII
Pump:			
Pump type	063 m³/h		
Capacity	1,5 kW		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334143
		Input:	400 Volt
		Capacity:	900 VA
		Output:	21,4 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	400 Volt
		Capacity:	60 VA
		Output 1: Output 2:	24 Volt 9 Volt
		ED:	100 %
L		LD.	100 /0
Sealbars:			1
Used sealbars	R1	Connection:	Stand alone
Sou souldard	, , ,	Commodion.	Starta alono
Contactors:			
Pump	K1		
Seal	K2		
Switches:			
Main switch	S1	Part number:	160-1331171
	= :		OF Amer
		Specification:	25 Amp
Control switch ON/OFF	\$ 2	Specification: Part number:	160-1331117
Microswitches:	\$ 2	Part number:	160-1331117
Microswitches: Switch start cycle	\$ 2	Part number:	160-1331117
Microswitches: Switch start cycle	S2 MS1	Part number:	160-1331117
Microswitches: Switch start cycle Valves: Vacuum valve	S2 MS1 Y1	Part number:	160-1331117
Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	S2 MS1 Y1 Y2	Part number:	160-1331117
Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve	S2 MS1 Y1 Y2 Y3	Part number:	160-1331117
Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	S2 MS1 Y1 Y2	Part number:	160-1331117



VMS 223 (Long) 400V - 3P - 50Hz





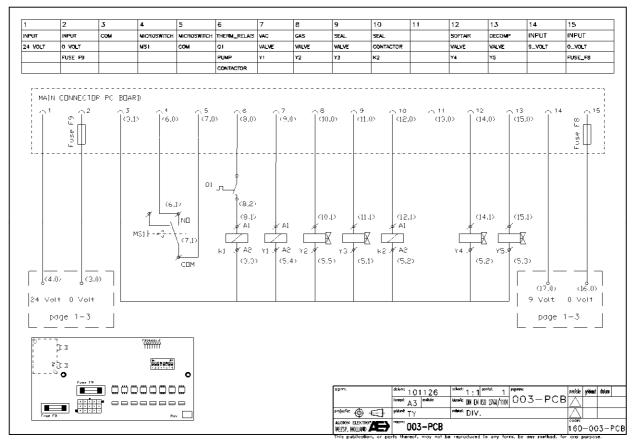


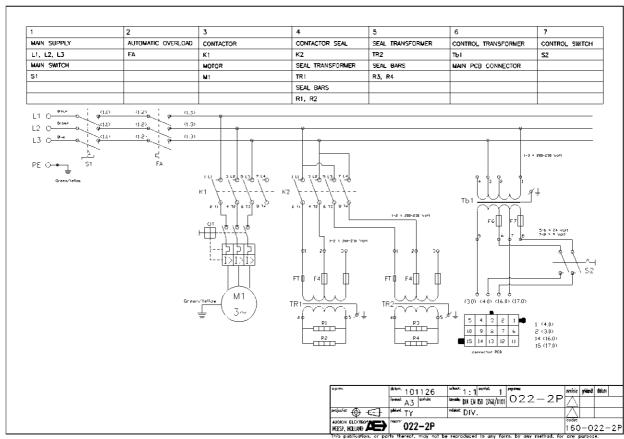
VM(S) 303 - 333 (S/S) 200V - 3P - 50/60Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	022-2P	Sealconfiguration	Left and Right
Machine serie	VM 303, VMS 333	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	200-3-50/60		Double / Cut-off / offiliti
Pomp capacity	100 m³/h		
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332181
Official breaker	10	Specification:	3 x 25 Amp
Tarania al accesta a di mona	01	•	
Termical overload pump	Q1	Part number:	160-1332241
		Range:	9-14
		Set:	13
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
ace control transformer	, 0		
		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
	La La		
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm
Pump:			
Pump type	100 m³/h		
Capacity	3 kW		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334143
Cealcrainsionniei	•••	Input:	200 Volt
		•	
		Capacity:	900 VA
		Output:	21,4 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
			24 Volt
		Output 1:	
		Output 2:	9 Volt
		ED:	100 %
Sealbars:			
Used sealbars	R1, R2	Connection:	Stand alone
Contactors:			1
Pump	K1		
•			
Seal	K2		
Switches:			
Main switch	S1	Part number:	160-1331171
		Specification:	25 Amp
Control switch ON/OFF	S2	Part number:	160-1331117
	<u></u>	, arthanibet.	100 1001117
Microswitches:			
	MC4	Classification on the con-	_
Switch start cycle	MS1	Electrical connections:	2
Valves:			
Vacuum valve	Y1		
Gas valve	Y2		
Seal valve	Y3		
Soft-air valve	73 Y4		
Decompression valve	Y5		



VM(S) 303 - 333 (S/S) 200V - 3P - 50/60Hz





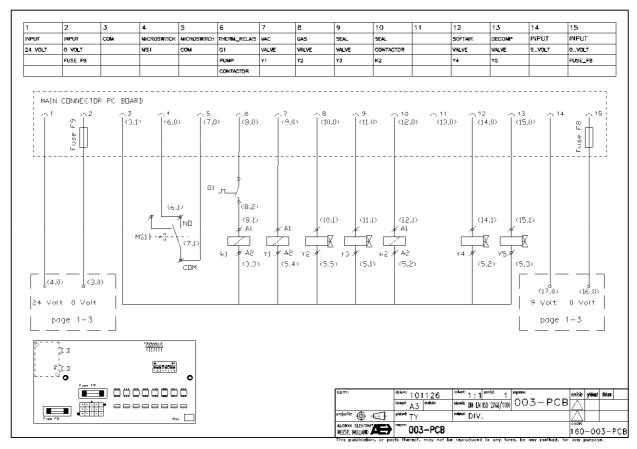


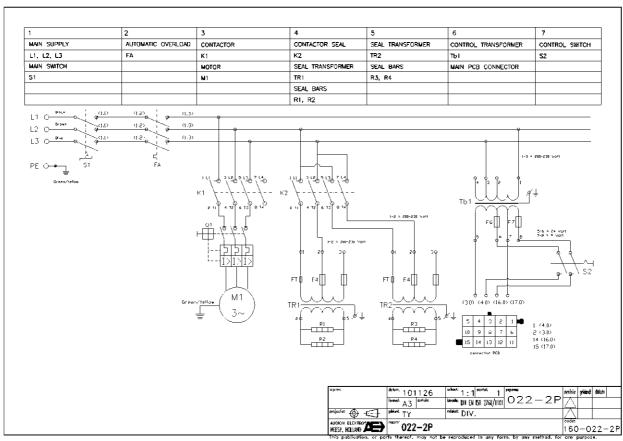
VM(S) 303 - 333 (S/S) 208V - 3P - 60Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	022-2P	Sealconfiguration	Left and Right
Machine serie	VM 303, VMS 333	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	208-3-60		
Pomp capacity	100 m³/h		
Main electrical supply:			
viani electricai suppiy. _1	Phase 1		
.2	Phase 2		
-2 -3	Phase 3		
- - -	Ground connection		
	Ordana connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332181
		Specification:	3 x 25 Amp
Termical overload pump	Q1	Part number:	160-1332241
		Range:	9-14
		Set:	13
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
and control and control	. •	Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F 7	Part number:	160-1343127
	1.7	Specification:	
		Size:	0,5 Amp Slow (9 Volt) 5 x 20 mm
Fuse PCB	F8		5 x 20 mm 160-1343122
-use PCD	го	Part number:	
		Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm
_			
Pump:	4.00 3/1-		
Pump type	100 m³/h		
Capacity	3 kW		
Fransformers:			
Sealtransformer	Tr1	Part number:	160-1334143
sealtransionnei	111		208-230 Volt
		Input:	
		Capacity:	900 VA
		Output:	21,4 Volt
	- .	ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
	Tr2	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
		Input:	208-230 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		Output 2:	9 Volt
	D4 D2	Output 2: ED:	9 Volt 100 %
	R1, R2	Output 2:	9 Volt
Jsed sealbars	R1, R2	Output 2: ED:	9 Volt 100 %
Sealbars: Used sealbars Contactors:		Output 2: ED:	9 Volt 100 %
Jsed sealbars Contactors: ⊃ump	K1	Output 2: ED:	9 Volt 100 %
Jsed sealbars Contactors: Pump		Output 2: ED:	9 Volt 100 %
Used sealbars Contactors: Pump Seal	K1	Output 2: ED:	9 Volt 100 %
Used sealbars Contactors: Pump Seal Switches:	K1 K2	Output 2: ED: Connection:	9 Volt 100 % Stand alone
Jsed sealbars Contactors: Pump Seal Switches:	K1	Output 2: ED: Connection: Part number:	9 Volt 100 % Stand alone
Used sealbars Contactors: Pump Seal Switches: Main switch	K1 K2 S1	Output 2: ED: Connection: Part number: Specification:	9 Volt 100 % Stand alone 160-1331171 25 Amp
Jsed sealbars Contactors: Pump Seal Switches: Main switch	K1 K2	Output 2: ED: Connection: Part number:	9 Volt 100 % Stand alone
Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF	K1 K2 S1	Output 2: ED: Connection: Part number: Specification:	9 Volt 100 % Stand alone 160-1331171 25 Amp
Used sealbars Contactors: Pump Seal Switches: Wain switch Control switch ON/OFF Microswitches:	K1 K2 S1 S2	Output 2: ED: Connection: Part number: Specification: Part number:	9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Used sealbars Contactors: Pump Seal Switches: Wain switch Control switch ON/OFF Microswitches:	K1 K2 S1	Output 2: ED: Connection: Part number: Specification:	9 Volt 100 % Stand alone 160-1331171 25 Amp
Jsed sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle	K1 K2 S1 S2	Output 2: ED: Connection: Part number: Specification: Part number:	9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves:	K1 K2 S1 S2 MS1	Output 2: ED: Connection: Part number: Specification: Part number:	9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve	K1 K2 S1 S2 MS1	Output 2: ED: Connection: Part number: Specification: Part number:	9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	K1 K2 S1 S2 MS1 Y1	Output 2: ED: Connection: Part number: Specification: Part number:	9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve	K1 K2 S1 S2 MS1 Y1 Y2 Y3	Output 2: ED: Connection: Part number: Specification: Part number:	9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	K1 K2 S1 S2 MS1 Y1	Output 2: ED: Connection: Part number: Specification: Part number:	9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117



VM(S) 303 - 333 (S/S) 208V - 3P - 60Hz





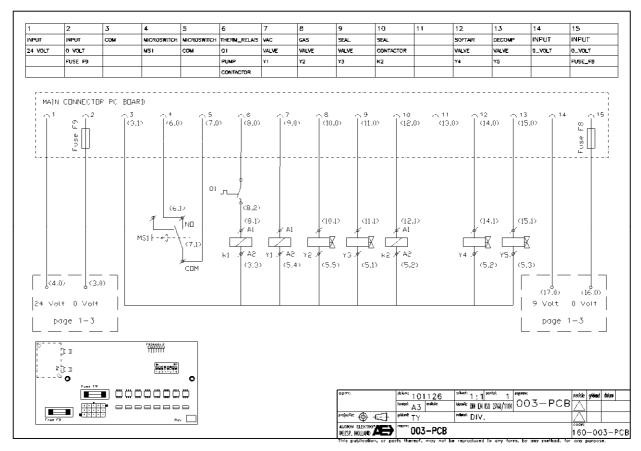


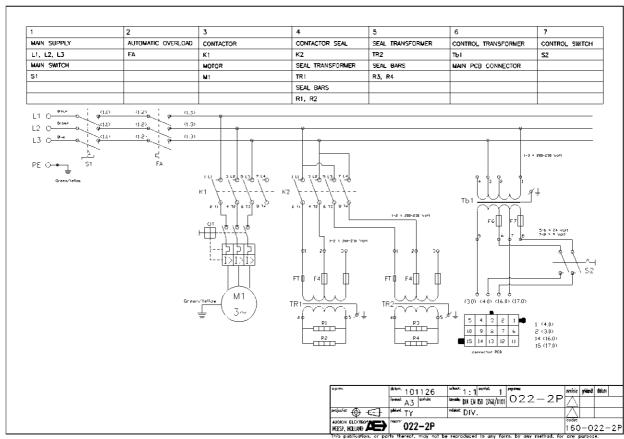
VM(S) 303 - 333 (S/S) 220V - 3P - 60Hz

	1	T==	
Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	022-2P	Sealconfiguration	Left and Right
Machine serie	VM 303, VMS 333	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	220-3-60		
Pomp capacity	100 m³/h		
[84-2			
Main electrical supply:	Dhoop 1		
L1 L2	Phase 1 Phase 2		
L3	Phase 3		
PE	Ground connection		
(FC	Ground Connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332181
on san broaker	•••	Specification:	3 x 25 Amp
Termical overload pump	Q1	Part number:	160-1332241
, on mour over our pump	۵.	Range:	9-14
		Set:	13
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
	F 7	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
		0120.	V / 20 11111
Pump:			
Pump type	100 m³/h		
Capacity	3 kW		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334143
		Input:	220 Volt
		Capacity:	900 VA
		Output:	21,4 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
<u> </u>			
Contactors:	1/4		
Pump	K1		
Seal	K2		
Cuitakaa			
Switches:	C1	Dart rumber	160 1221171
Switches: Main switch	S 1	Part number:	160-1331171
Main switch		Specification:	25 Amp
	\$1 \$2		
Main switch Control switch ON/OFF		Specification:	25 Amp
Main switch Control switch ON/OFF Microswitches:	S2	Specification: Part number:	25 Amp 160-1331117
Main switch Control switch ON/OFF		Specification:	25 Amp
Main switch Control switch ON/OFF Microswitches: Switch start cycle	S2	Specification: Part number:	25 Amp 160-1331117
Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves:	S2 MS1	Specification: Part number:	25 Amp 160-1331117
Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve	S2 MS1 Y1	Specification: Part number:	25 Amp 160-1331117
Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	S2 MS1 Y1 Y2	Specification: Part number:	25 Amp 160-1331117
Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve	S2 MS1 Y1 Y2 Y3	Specification: Part number:	25 Amp 160-1331117
Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	S2 MS1 Y1 Y2	Specification: Part number:	25 Amp 160-1331117



VM(S) 303 - 333 (S/S) 220V - 3P - 60Hz





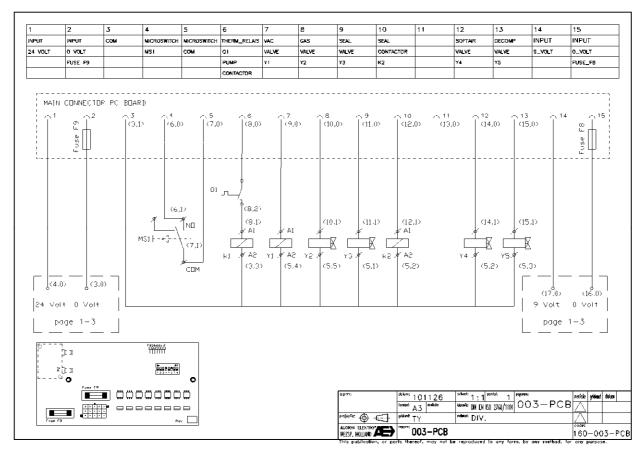


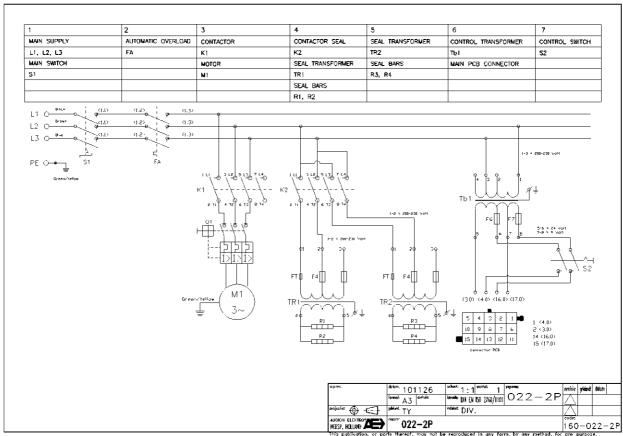
VM(S) 303 - 333 (S/S) 230V - 3P - 50Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	022-2P	Sealconfiguration	Left and Right
Machine serie	VM 303, VMS 333	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	230-3-50		
Pomp capacity	100 m ³ /h		
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332181
T	04	Specification:	3 x 25 Amp
Termical overload pump	Q1	Part number:	160-1332241 9-14
		Range: Set:	9-14
Fuse seal transformer	F4	Part number:	160-1343129
r doe dear transferrier	1 -	Specification:	5 Amp Slow
I		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	100 m³/h		
Capacity	2,2 kW		
Transformers:	T.4	5	100 1001110
Sealtransformer	Tr1	Part number:	160-1334143
		Input:	220-230 Volt 900 VA
		Capacity: Output:	21,4 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
Osed transformers	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:	D4 D2	Connections	Otand alone
Used sealbars	R1, R2	Connection:	Stand alone
Contactors:			
Pump	K1		
Seal	K2		
Switches:			
Main switch	S1	Part number:	160-1331171
		Specification:	25 Amp
Control switch ON/OFF	S2	Part number:	160-1331117
141			
Microswitches:	MC4	Electrical	3
Switch start cycle	MS1	Electrical connections:	2
Valves:			
Vacuum valve	Y1		
Gas valve	Y2		
	Y3		
Seai vaive			
Seal valve Soft-air valve	Y4		



VM(S) 303 - 333 (S/S) 230V - 3P - 50Hz





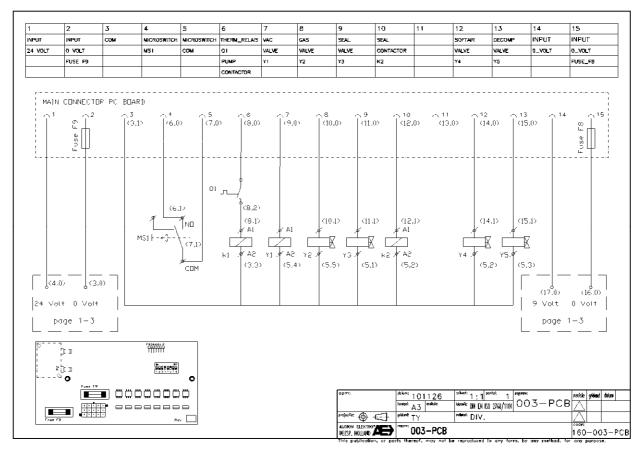


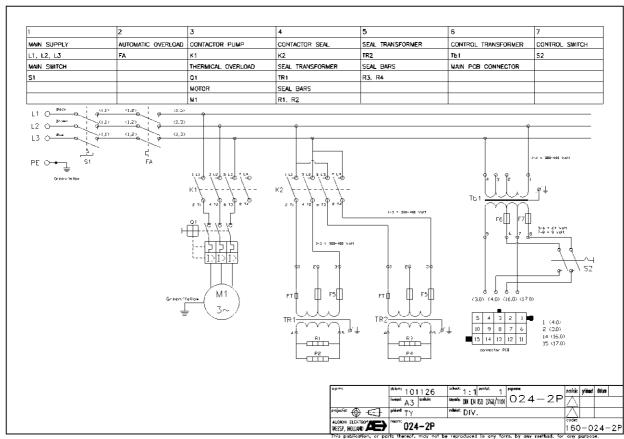
VM(S) 303 - 333 (S/S) 380V - 3P - 60Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	024-2P	Sealconfiguration	Left and Right
Machine serie	VM 303, VMS 333	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	380-3-60		
Pomp capacity	100 m³/h		
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
re .	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332171
on our broaker	171	Specification:	3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332235
remiedi ovemeda pamp	-	Range:	4-6,5
		Set:	6,5
Fuse seal transformer	F5	Part number:	160-1343130
use sear transformer	10		3,15 Amp Slow
		Specification:	
		Size:	6,3 x 32 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F 7	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
	13	Specification:	4 Amp, Slow
		·	
		Size:	5 x 20 mm
Pump:			
Pump type	100 m³/h		
Capacity	3 kW		
	T 100 F		
Fransformers:			
Sealtransformer	Tr1	Part number:	160-1334143
		Input:	400 Volt
		Capacity:	900 VA
		Output:	21,4 Volt
		ED:	10 %
Jsed transformers	T-1		
osed transformers	Tr1	Connection:	Stand alone
Saudual duam ada	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 %
Sealbars:	D4 D6	O ammin a filosopi	Official alicina
Jsed sealbars	R1, R2	Connection:	Stand alone
ontactors:			
ontactors: Pump	K1		
Seal	K2		
, oui	IV2		
Switches:			
Main switch	S1	Part number:	160-1331171
nam switch	31	Specification:	
Central quitob ON/OFF	ອາ		25 Amp 160-1331117
Control switch ON/OFF	S2	Part number:	100-1331111
dicroswitches:			
Microswitches:	MS1	Electrical connections:	2
Switch start cycle	MS1	Electrical connections:	2
f.t			
	V4		
/acuum valve	Y1		
Valves: Vacuum valve Gas valve	Y2		
Vacuum valve Gas valve Seal valve	Y2 Y3		
/acuum valve 3as valve Seal valve Soft-air valve	Y2 Y3 Y 4		
/acuum valve ∂as valve Seal valve	Y2 Y3		



VM(S) 303 - 333 (S/S) 380V - 3P - 60Hz





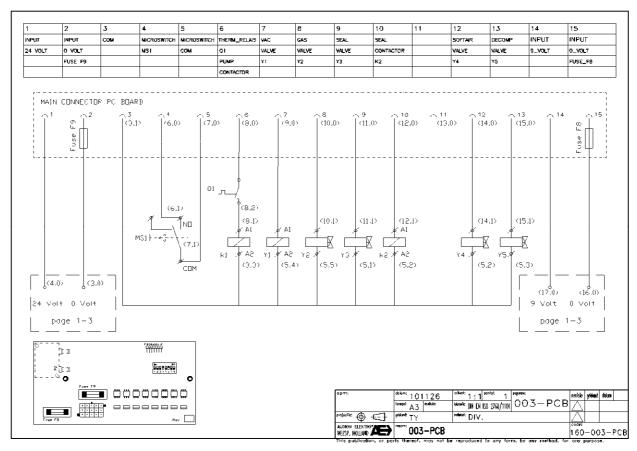


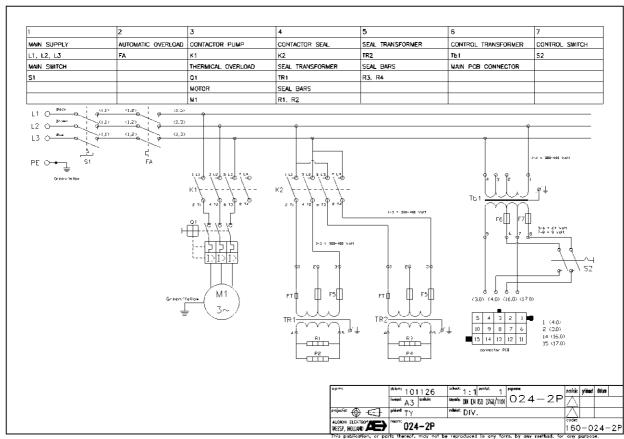
VM(S) 303 - 333 (S/S) 400V - 3P - 50Hz

	1		
Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	024-2P	Sealconfiguration	Left and Right
Machine serie	VM 303, VMS 333	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	400-3-50		
Pomp capacity	100 m³/h		
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332171
		Specification:	3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332235
		Range:	4-6,5
		Set:	5
Fuse seal transformer	F 5	Part number:	160-1343130
		Specification:	3,15 Amp Slow
		Size:	6,3 x 32 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
	F 9	Part number:	160-1343123
		Specification:	4 Amp, Slow
		Size:	5 x 20 mm
Pump:			
Pump type	100 m³/h		
Capacity	2,2 kW		
T			
Transformers:	T-4	Dort words on	400 4004440
Sealtransformer	Tr1	Part number:	160-1334143
		Input:	400 Volt
		Capacity:	900 VA
		Output:	21,4 Volt
	T.4	ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
0 4 1 4 4	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 %
Poolhous			
Sealbars: Used sealbars	R1, R2	Connection:	Stand alone
Doed Sealpals	Γ .1, Γ.∠	Connection:	Stand alone
Contactors:			
Pump	K1		
Seal	K2		
~ ~ ~ .	112		
Switches:			
Main switch	S1	Part number:	160-1331171
IVIAIII SVVILCII			25 Amp
IVIAIII SYVILCII	31	Specification:	
Control switch ON/OFF	\$2	Specification: Part number:	160-1331117
			160-1331117
			160-1331117
Control switch ON/OFF Microswitches:			160-1331117 2
Control switch ON/OFF Microswitches: Switch start cycle	\$2	Part number:	
Control switch ON/OFF Microswitches: Switch start cycle Valves:	S2 MS1	Part number:	
Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve	S2 MS1 Y1	Part number:	
Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	S2 MS1 Y1 Y2	Part number:	
Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve	S2 MS1 Y1 Y2 Y3	Part number:	
Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	S2 MS1 Y1 Y2	Part number:	



VM(S) 303 - 333 (S/S) 400V - 3P - 50Hz





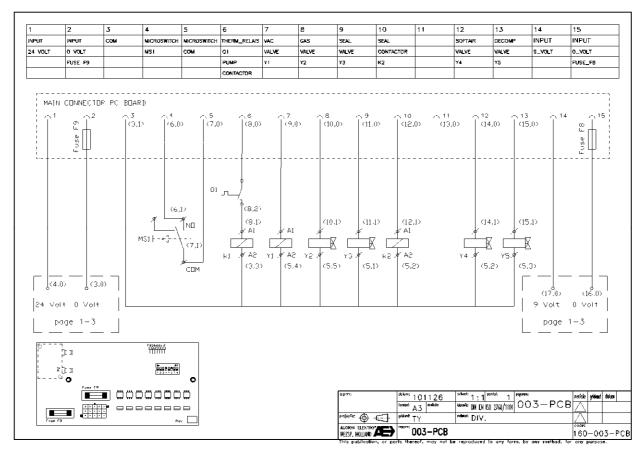


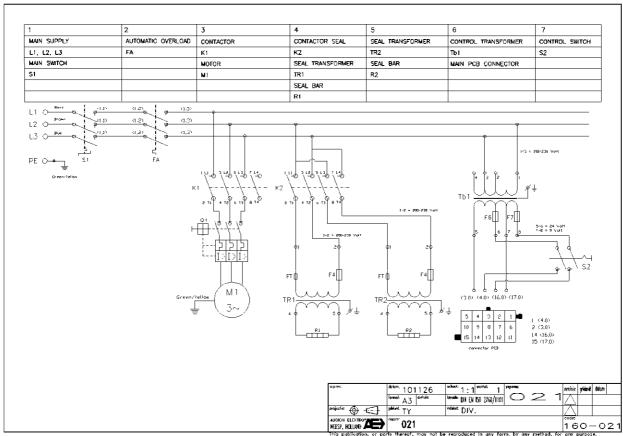
VM(S) 303 - 333 (L/L) 200V - 3P - 50/60Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	021	Sealconfiguration	Front and Rear
Machine serie	VM 303, VMS 333	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	200-3-50/60		
Pomp capacity	100 m³/h		
Main electrical supply:	Dhana 4		
L1 L2	Phase 1 Phase 2		
L2 L3	Phase 3		
PE	Ground connection		
	Cround connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332191
		Specification:	3 x 40 Amp
Termical overload pump	Q1	Part number:	160-1332241
		Range:	9-14
	F.4	Set:	13
Fuse seal transformer	F4	Part number:	160-1343136
		Specification: Size:	8 Amp Slow
		Size. FT:	5 x 20 mm 130 °C
use control transformer	F6	Part number:	160-1343128
use control transformer	F U	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	100 m³/h		
Capacity	3 kW		
Supucity	O KVV		
ransformers:			
Sealtransformer	Tr1	Part number:	160-1334157
		Input:	200 Volt
		Capacity:	1150 VA
		Output:	33,1 Volt
		ED:	10 %
Jsed transformers	Tr1	Connection:	Stand alone
	Tr2	Connection: Connection:	Stand alone Stand alone
		Connection: Connection: Part number:	Stand alone Stand alone 160-1334122
	Tr2	Connection: Connection: Part number: Input:	Stand alone Stand alone 160-1334122 200 Volt
	Tr2	Connection: Connection: Part number: Input: Capacity:	Stand alone Stand alone 160-1334122 200 Volt 60 VA
	Tr2	Connection: Connection: Part number: Input: Capacity: Output 1:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt
	Tr2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt
	Tr2	Connection: Connection: Part number: Input: Capacity: Output 1:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt
Control transformer	Tr2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt
control transformer	Tr2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt
Control transformer Sealbars: Used sealbars	Tr2 Tb1	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer Sealbars: Jsed sealbars Contactors:	Tr2 Tb1 R1, R2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer Sealbars: Jsed sealbars Contactors:	Tr2 Tb1 R1, R2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Sealbars: Jsed sealbars Contactors:	Tr2 Tb1 R1, R2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer Gealbars: Used sealbars Contactors: Pump Seal	Tr2 Tb1 R1, R2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
control transformer cealbars: Used sealbars contactors:	Tr2 Tb1 R1, R2 K1 K2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Control transformer Gealbars: Used sealbars Contactors: Pump Seal Switches:	Tr2 Tb1 R1, R2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Gealbars: Used sealbars Contactors: Comp Geal Switches: Main switch	Tr2 Tb1 R1, R2 K1 K2 S1	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Gealbars: Used sealbars Contactors: Comp Geal Switches: Main switch	Tr2 Tb1 R1, R2 K1 K2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Control transformer Sealbars: Used sealbars Contactors: Ump Seal Switches: Main switch Control switch ON/OFF	Tr2 Tb1 R1, R2 K1 K2 S1	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Sealbars: Jsed sealbars Contactors: Cump Seal Switches: Main switch Control switch ON/OFF Microswitches:	Tr2 Tb1 R1, R2 K1 K2 S1	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Control transformer Gealbars: Used sealbars Contactors: Pump Geal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle	Tr2 Tb1 R1, R2 K1 K2 S1 S2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331173 40 Amp 160-1331117
Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle /alves:	Tr2 Tb1 R1, R2 K1 K2 S1 S2 MS1	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331173 40 Amp 160-1331117
Control transformer Gealbars: Used sealbars Contactors: Pump Geal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle /alves: /acuum valve	Tr2 Tb1 R1, R2 K1 K2 S1 S2 MS1	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331173 40 Amp 160-1331117
Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle /alves: /acuum valve Gas valve	Tr2 Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331173 40 Amp 160-1331117
Control transformer Sealbars: Used sealbars Contactors: Ump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle /alves: /acuum valve Seal valve Seal valve Seal valve	Tr2 Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2 Y3	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331173 40 Amp 160-1331117
Jsed transformers Control transformer Sealbars: Jsed sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Soft-air valve Decompression valve	Tr2 Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	Stand alone Stand alone 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331173 40 Amp 160-1331117



VM(S) 303 - 333 (L/L) 200V - 3P - 50/60Hz





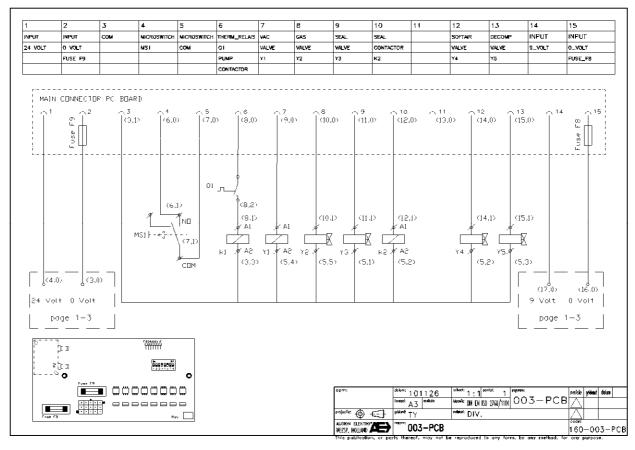


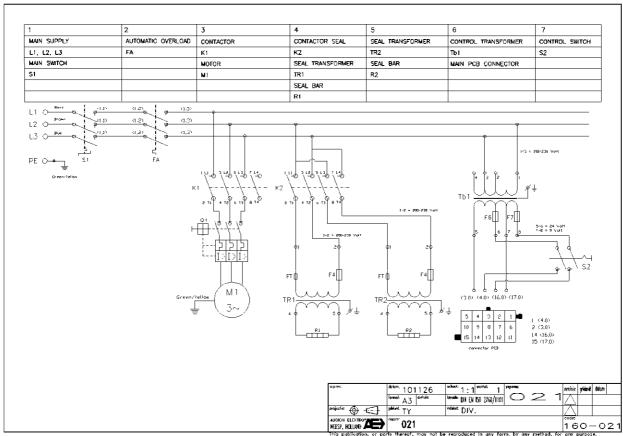
VM(S) 303 - 333 (L/L) 208V - 3P - 60Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	003-PCB	Sealconfiguration	Front and Rear
Machine serie	VM 303, VMS 333	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	208-3-60	Courtype	Bodbio / CdC oil / Oillin
Pomp capacity	100 m³/h		
-pp -			
Main electrical supply:			
L1	Phase 1		
_2	Phase 2		
_3	Phase 3		
PE	Ground connection		
Overload devices:		B - 1 1	400 4000404
Circuit breaker	FA	Part number:	160-1332191
T	04	Specification:	3 x 40 Amp
Termical overload pump	Q1	Part number:	160-1332241
		Range: Set:	9-14 13
Fuse seal transformer	F4	Set: Part number:	13 160-1343136
use seal transformer	F#	Specification:	8 Amp Slow
		Specification: Size:	5 x 20 mm
		Size; FT:	5 x 20 mm 130 °C
use control transformer	F6	Part number:	160-1343128
use control transformer	רט	Specification:	2,5 Amp Slow (24 Volt)
		Specification: Size:	
	F7		5 x 20 mm
	Γ1	Part number:	160-1343127
		Specification: Size:	0,5 Amp Slow (9 Volt) 5 x 20 mm
use PCB	F8	Size: Part number:	5 x 20 mm 160-1343122
use rod	LO	Specification:	250 mAmp, Slow
		Specification: Size:	250 mAmp, 510W 5 x 20 mm
	F9	Size: Part number:	5 x 20 mm 160-1343123
	ΓÐ	Part number: Specification:	4 Amp, Slow
		Specification. Size:	5 x 20 mm
		SIZE.	5 X 20 IIIII
'ump:			
ump type	100 m³/h		
Capacity	3 kW		
	Tr1	Part number:	160-1334145
	Tr1	Input:	208-230 Volt
	Tr1	Input: Capacity:	208-230 Volt 1150 VA
	Tr1	Input: Capacity; Output:	208-230 Volt 1150 VA 33,1 Volt
sealtransformer		Input: Capacity: Output: ED:	208-230 Volt 1150 VA 33,1 Volt 10 %
sealtransformer	Tr1	Input: Capacity: Output: ED: Connection:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone
sealtransformer	Tr1 Tr2	Input: Capacity: Output: ED: Connection: Connection:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone
sealtransformer	Tr1	Input: Capacity: Output: ED: Connection: Connection: Part number:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122
Sealtransformer	Tr1 Tr2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt
ealtransformer	Tr1 Tr2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA
Sealtransformer Jsed transformers	Tr1 Tr2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt
ealtransformer	Tr1 Tr2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1; Output 2:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt
ealtransformer sed transformers	Tr1 Tr2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt
ealtransformer	Tr1 Tr2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1; Output 2:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt
ealtransformer Ised transformers control transformer	Tr1 Tr2 Tb1	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt 100 %
Sealtransformer Used transformers Control transformer	Tr1 Tr2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1; Output 2:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt
Sealtransformer Used transformers Control transformer Sealbars: Used sealbars	Tr1 Tr2 Tb1	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt 100 %
Jeed transformers Control transformer Sealbars: Jeed sealbars Contactors:	Tr1 Tr2 Tb1 R1, R2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt 100 %
dealtransformer Used transformer Control transformer Dealbars: Used sealbars Contactors:	Tr1 Tr2 Tb1 R1, R2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt 100 %
ealtransformer lsed transformers control transformer ealbars: lsed sealbars contactors: lump	Tr1 Tr2 Tb1 R1, R2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt 100 %
dealtransformer Used transformers Control transformer Dealbars: Used sealbars Contactors: Used	Tr1 Tr2 Tb1 R1, R2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt 100 %
lealtransformer lsed transformers control transformer lealbars: lsed sealbars contactors: lump leal witches:	Tr1 Tr2 Tb1 R1, R2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt 100 %
dealtransformer dealtransformers control transformer dealbars:	Tr1 Tr2 Tb1 R1, R2 K1 K2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Jeed transformers Control transformer Sealbars: Jeed sealbars Contactors: Lump Seal Switches: Main switch	Tr1 Tr2 Tb1 R1, R2 K1 K2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
dealtransformer Used transformers Control transformer Dealbars: Used sealbars Contactors: Ump Deal Tr1 Tr2 Tb1 R1, R2 K1 K2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone	
Sealtransformer Jsed transformers Control transformer Sealbars: Jsed sealbars Contactors: Jump Seal Switches: Main switch Control switch ON/OFF	Tr1 Tr2 Tb1 R1, R2 K1 K2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Sealtransformer Jeed transformers Control transformer Sealbars: Jeed sealbars Contactors: Pump Jeeal Switches: Alain switch Control switch ON/OFF	Tr1 Tr2 Tb1 R1, R2 K1 K2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
lealtransformer lead transformers control transformer lealbars: leed sealbars contactors: lump leal witches: lain switch control switch ON/OFF	Tr1 Tr2 Tb1 R1, R2 K1 K2 S1 S2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
dealtransformer dealtransformers control transformer dealbars: dealbars: dealbars: dealbars: deal contactors: deal dealtransformer	Tr1 Tr2 Tb1 R1, R2 K1 K2 S1 S2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
dealtransformer dealtransformers control transformer dealbars:	Tr1 Tr2 Tb1 R1, R2 K1 K2 S1 S2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Sealtransformer Sealtransformer Control transformer Sealbars: Sealbars: Sump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve	Tr1 Tr2 Tb1 R1, R2 K1 K2 S1 S2 MS1	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Sealtransformer Jsed transformers Control transformer Sealbars: Jsed sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle /alves: /acuum valve Gas valve	Tr1 Tr2 Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Gealtransformers Gealtransformer Jsed transformer Control transformer Gealbars: Jsed sealbars Contactors: Pump Geal Switches: Main switch Control switch ON/OFF Microswitches: Gwitch start cycle /alves: /acuum valve Geal valve Geal valve Geal valve Geal valve Geal valve	Tr1 Tr2 Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2	Input: Capacity: Output: ED: Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	208-230 Volt 1150 VA 33,1 Volt 10 % Stand alone Stand alone 160-1334122 208-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone



VM(S) 303 - 333 (L/L) 208V - 3P - 60Hz





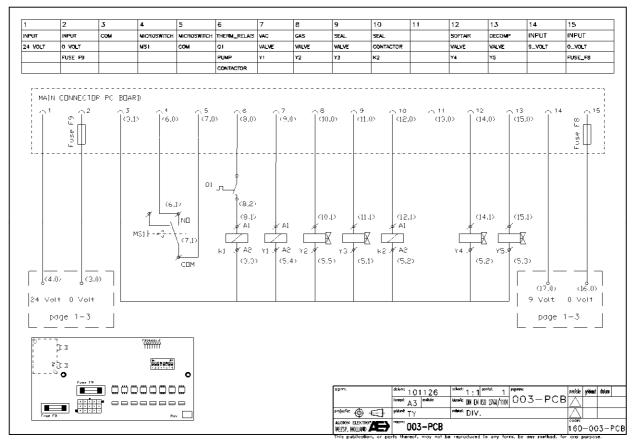


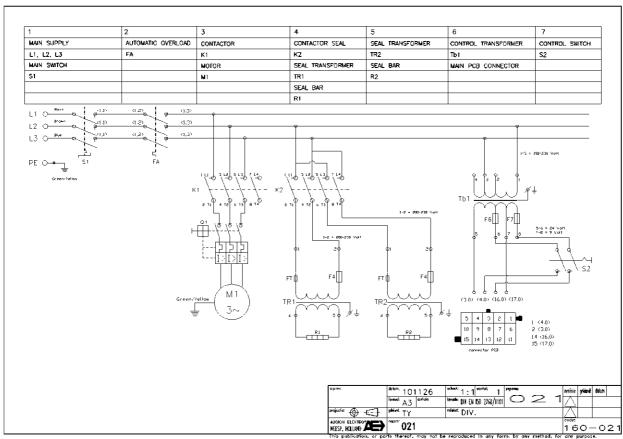
VM(S) 303 - 333 (L/L) 220V - 3P - 60Hz

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Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	021	Sealconfiguration	Front and Rear
Machine serie	VM 303, VMS 333	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	220-3-60		
Pomp capacity	100 m³/h	1	L
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
<u>. </u>	3.04.14 30.11.19		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332181
		Specification:	3 x 25 Amp
Termical overload pump	Q1	Part number:	160-1332241
		Range:	9-14
		Set:	13
Fuse seal transformer	F4	Part number:	160-1343136
		Specification:	8 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F 6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F 7	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	100 m³/h		
Capacity	3 kW		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334145
		Input:	220 Volt
		Capacity:	1150 VA
		Output:	33,1 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:	D4 D0	0	011-1
Used sealbars	R1, R2	Connection:	Stand alone
Contactors			
Contactors: Pump	K1		
	K1 K2		
Seal	r\z		
Switches:			
Main switch	S 1	Part number:	160-1331171
	. .	Specification:	25 Amp
Control switch ON/OFF	\$2	Part number:	160-1331117
Common Statem Of WOLL	~ <u>~</u>	i dichambol.	,00 ,001117
Microswitches:			
Switch start cycle	MS1	Electrical connections:	2
Switch start cycle			
Switch start cycle			
Valves:			
	Y1		
Valves:	Y1 Y2		
Valves: Vacuum valve			
Valves: Vacuum valve Gas valve	Y2		
Valves: Vacuum valve Gas valve Seal valve	Y2 Y3		



VM(S) 303 - 333 (L/L) 220V - 3P - 60Hz





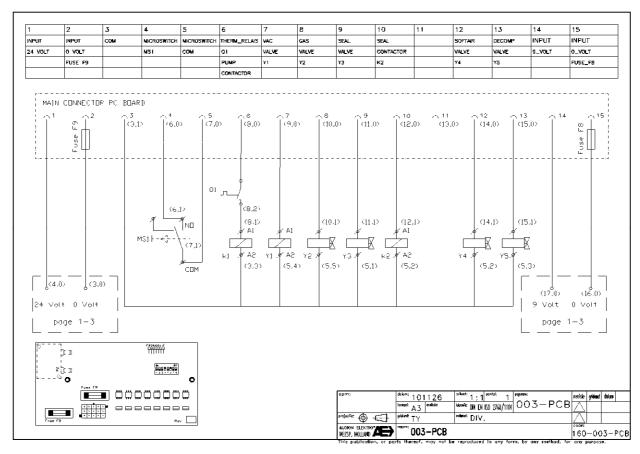


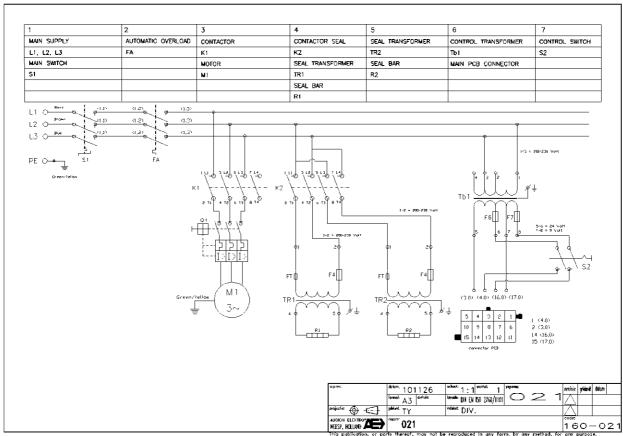
VM(S) 303 - 333 (L/L) 230V - 3P - 50Hz

-			
Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	021	Sealconfiguration	Front and Rear
Machine serie	VM 303, VMS 333	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	230-3-50		
Pomp capacity	100 m³/h		
84-i			
Main electrical supply:	Phase 1		
L1 L2	Phase 2		
L2 L3	Phase 3		
PE	Ground connection		
<u> </u>	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332181
on our broands	•••	Specification:	3 x 25 Amp
Termical overload pump	Q1	Part number:	160-1332241
		Range:	9-14
		Set:	9
Fuse seal transformer	F4	Part number:	160-1343136
		Specification:	8 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F 6	Part number:	160-1343128
		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F 7	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	100 m³/h		
Capacity	2,2 kW		
-			
Transformers:	T.,4	Bod woods on	400 4004445
Sealtransformer	Tr1	Part number:	160-1334145
		Input:	220-230 Volt
		Capacity:	1150 VA
		Output:	33,1 Volt 10 %
I I a sal face in a facility of	T4	ED:	
Used transformers	Tr1	Connection:	Stand alone
	Tr2	Connection:	Stand alone Stand alone
Used transformers Control transformer		Connection: Connection: Part number:	Stand alone Stand alone 160-1334122
	Tr2	Connection: Connection: Part number: Input:	Stand alone Stand alone 160-1334122 220-230 Volt
	Tr2	Connection: Connection: Part number: Input: Capacity:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA
	Tr2	Connection: Connection: Part number: Input: Capacity: Output 1:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt
	Tr2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt
	Tr2	Connection: Connection: Part number: Input: Capacity: Output 1:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt
Control transformer	Tr2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt
Control transformer Sealbars:	Tr2 Tb1	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer	Tr2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt
Control transformer Sealbars: Used sealbars	Tr2 Tb1	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer Sealbars: Used sealbars Contactors:	Tr2 Tb1 R1, R2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer Sealbars: Used sealbars	Tr2 Tb1	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer Sealbars: Used sealbars Contactors: Pump	Tr2 Tb1 R1, R2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer Sealbars: Used sealbars Contactors: Pump	Tr2 Tb1 R1, R2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer Sealbars: Used sealbars Contactors: Pump Seal	Tr2 Tb1 R1, R2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches:	Tr2 Tb1 R1, R2 K1 K2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches:	Tr2 Tb1 R1, R2 K1 K2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch	Tr2 Tb1 R1, R2 K1 K2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch	Tr2 Tb1 R1, R2 K1 K2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF	Tr2 Tb1 R1, R2 K1 K2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone
Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle	Tr2 Tb1 R1, R2 K1 K2 S1 S2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves:	Tr2 Tb1 R1, R2 K1 K2 S1 S2 MS1	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve	Tr2 Tb1 R1, R2 K1 K2 S1 S2 MS1	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	Tr2 Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve	Tr2 Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2 Y3	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	Tr2 Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2	Connection: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	Stand alone Stand alone 160-1334122 220-230 Volt 60 VA 24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117



VM(S) 303 - 333 (L/L) 230V - 3P - 50Hz





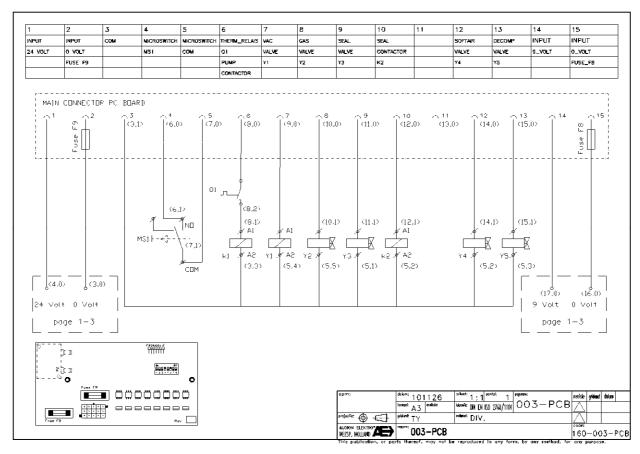


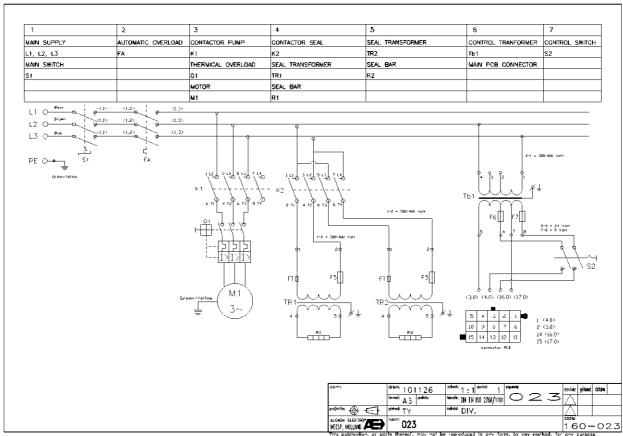
VM(S) 303 - 333 (L/L) 380V - 3P - 60Hz

	.	T	
Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	023	Sealconfiguration	Front and Rear
Machine serie	VM 303, VMS 333	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	380-3-60		
Pomp capacity	100 m³/h		
Main electrical supply:			
Main electrical supply. L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
	Croana connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332171
		Specification:	3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332235
		Range:	4-6,5
		Set:	6,5
use seal transformer	F5	Part number:	160-1343135
		Specification:	6,3 Amp Slow
		Size:	6,3 x 32 mm
		FT:	130 °C
use 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
use PCB	F8	Part number:	160-1343122
	· ·	Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
	10	Specification:	4 Amp, Slow
		Size:	5 x 20 mm
		GIZE.	5 X 20 IIIII
ump:			
Pump type	100 m³/h		
Capacity	3 kW		
ransformers:			
Sealtransformer	Tr1	Part number:	160-1334146
		Input:	400 Volt
		Capacity:	1150 VA
		Output:	33,1 Volt
		ED:	10 %
Jsed transformers	Tr1	Connection:	Stand alone
	Tr2	Connection:	Stand alone
ontrol transformer	Tb1	Part number:	160-1334122
		Input:	400 Volt
		Capacity:	
			60 VA
		_ · ·	60 VA 24 Volt
		Output 1:	24 Volt
		Output 1: Output 2:	24 Volt 9 Volt
		Output 1:	24 Volt
ealbars:		Output 1: Output 2:	24 Volt 9 Volt
	R1, R2	Output 1: Output 2:	24 Volt 9 Volt
Jsed sealbars	R1, R2	Output 1: Output 2: ED:	24 Volt 9 Volt 100 %
Jsed sealbars		Output 1: Output 2: ED:	24 Volt 9 Volt 100 %
Jsed sealbars Contactors:	R1, R2 K1	Output 1: Output 2: ED:	24 Volt 9 Volt 100 %
Sed sealbars Contactors:		Output 1: Output 2: ED:	24 Volt 9 Volt 100 %
Sed sealbars Contactors: Pump Seal	K1	Output 1: Output 2: ED:	24 Volt 9 Volt 100 %
contactors: tump teal	K1 K2	Output 1: Output 2: ED: Connection:	24 Volt 9 Volt 100 % Stand alone
Contactors: Cump Seal Switches:	K1	Output 1: Output 2: ED: Connection: Part number:	24 Volt 9 Volt 100 % Stand alone 160-1331171
Jsed sealbars Contactors: Cump Seal Switches: Main switch	K1 K2 S1	Output 1: Output 2: ED: Connection: Part number: Specification:	24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp
Jsed sealbars Contactors: Cump Seal Switches: Main switch	K1 K2	Output 1: Output 2: ED: Connection: Part number:	24 Volt 9 Volt 100 % Stand alone 160-1331171
Contactors: Pump Seal Switches: Main switch Control switch ON/OFF	K1 K2 S1	Output 1: Output 2: ED: Connection: Part number: Specification:	24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp
Contactors: Pump Seal Switches: Main switch Control switch ON/OFF	K1 K2 S1	Output 1: Output 2: ED: Connection: Part number: Specification:	24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Sed sealbars contactors: rump leal cwitches: flain switch control switch ON/OFF flicroswitches:	K1 K2 S1	Output 1: Output 2: ED: Connection: Part number: Specification:	24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp
Jeed sealbars Contactors: Dump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle	K1 K2 S1 S2	Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Seed sealbars Contactors: Jump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves:	K1 K2 S1 S2 MS1	Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Jeed sealbars Contactors: Jump Seal Switches: Jain switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve	K1 K2 S1 S2 MS1	Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Jsed sealbars Contactors: Cump Seal Switches: Jain switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Jacuum valve	K1 K2 S1 S2 MS1	Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Jsed sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle /alves: /acuum valve Gas valve	K1 K2 S1 S2 MS1	Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle /alves: /acuum valve Gas valve Seal valve Soft-air valve	K1 K2 S1 S2 MS1	Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	24 Volt 9 Volt 100 % Stand alone 160-1331171 25 Amp 160-1331117



VM(S) 303 - 333 (L/L) 380V - 3P - 60Hz





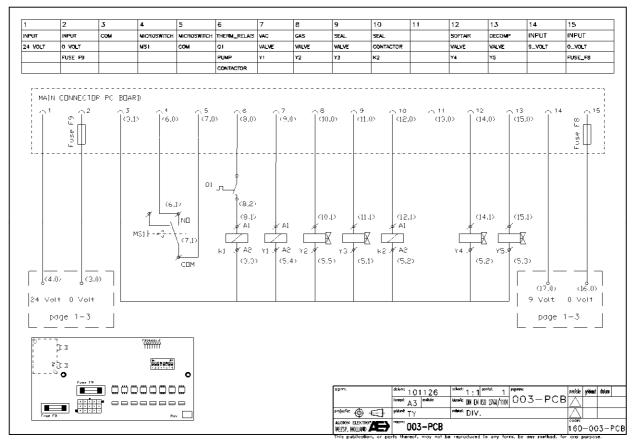


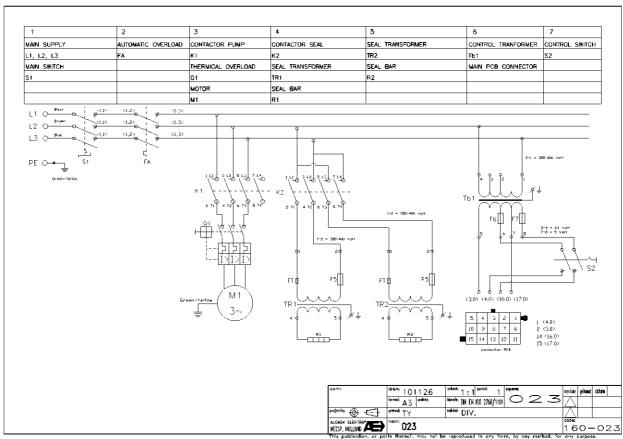
VM(S) 303 - 333 (L/L) 400V - 3P - 50Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	023	Sealconfiguration	Front and Rear
Machine serie	VM 303, VMS 333	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	400-3-50		
Pomp capacity	100 m³/h		
. ompoupaoity	100 111 111		
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332171
		Specification:	3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332235
		Range:	4-6,5
		Set:	5
Fuse seal transformer	F5	Part number:	160-1343135
		Specification:	6,3 Amp Slow
		Size:	6,3 x 32 mm
For a secretarity of	5 0	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
1 430 1 02	, ,	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	100 m³/h		
Capacity	2,2 kW		
Capacity	2,2 100		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334146
Sealtransformer	IFI		
		Input:	400 Volt
		Capacity:	1150 VA
		Output:	33,1 Volt
		ED:	10 %
Used transformers	Tr1	Connection:	Stand alone
	Tr2	Connection:	Stand alone
Control transformer	Tb1	Part number:	160-1334122
Control transformer	101		400 Volt
		Input:	
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %
Sealbars:			
Used sealbars	R1, R2	Connection:	Stand alone
Coca dealbaid	1(1) 1(2	Commodoll.	otalia alono
Contactors:			
Contactors:	174		
Pump	K1		
Seal	K2		
Switches:			
Main switch	S1	Part number:	160-1331171
	- •	Specification:	25 Amp
O-1-1-3-1 ONIOFE	S2	Part number:	160-1331117
	32	Fait number.	100-1331117
Control switch ON/OFF			
Microswitches:	****		
Microswitches:	MS1	Electrical connections:	2
Microswitches:	MS1	Electrical connections:	2
Microswitches: Switch start cycle	MS1	Electrical connections:	2
Microswitches: Switch start cycle Valves:		Electrical connections:	2
Microswitches: Switch start cycle Valves: Vacuum valve	Y1	Electrical connections:	2
Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	Y1 Y2	Electrical connections:	2
Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve	Y1 Y2 Y3	Electrical connections:	2
Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve Soft-air valve	Y1 Y2 Y3 Y4	Electrical connections:	2
Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve	Y1 Y2 Y3	Electrical connections:	2



VM(S) 303 - 333 (L/L) 400V - 3P - 50Hz





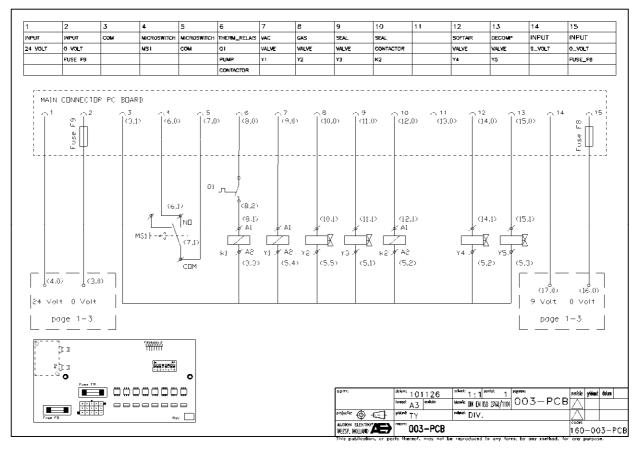


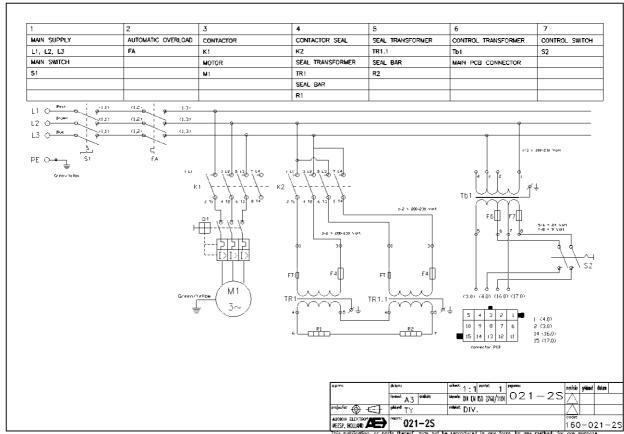
VM(S) 303 - 333 (S/L) 200V - 3P - 50/60Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	021-2S	Sealconfiguration	Right and Front
Machine serie	VM 303, VMS 333	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	200-3-50/60		
Pomp capacity	100 m³/h		
Main electrical supply:	_, ,		
L1	Phase 1		
L2 L3	Phase 2 Phase 3		
PE PE	Ground connection		
[L	Gradia connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332191
		Specification:	3 x 40 Amp
Termical overload pump	Q1	Part number:	160-1332241
		Range:	9-14
	F4	Set:	13
Fuse seal transformer	F4	Part number: Specification:	160-1343136 8 Amp Slow
		Size:	5 x 20 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
and the state of t	. -	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
	50	Size:	5 x 20 mm
	F9	Part number:	160-1343123
		Specification: Size:	4 Amp, Slow 5 x 20 mm
		Size.	5 X 20 MMI
Pump:			
Pump type	100 m³/h		
Capacity	3 kVV		
-			
Transformers: Sealtransformer	Tr1	Part number:	160-1334159
Sealtransionner	1111	Part number. Input:	200 Volt
		Capacity:	1150 VA
			,,,,,
		Output:	24 Volt
		Output: ED:	24 Volt 10 %
Used transformers	Tr1 & Tr1.1		
Used transformers Control transformer	Tr1 & Tr1.1 Tb1	ED:	10 %
		ED: Connection: Part number: Input:	10 % Serie 160-1334122 200 Volt
		ED: Connection: Part number: Input: Capacity:	10 % Serie 160-1334122 200 Volt 60 VA
		ED: Connection: Part number: Input: Capacity: Output 1:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt
		ED: Connection: Part number: Input: Capacity: Output 1: Output 2:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt
		ED: Connection: Part number: Input: Capacity: Output 1:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt
Control transformer		ED: Connection: Part number: Input: Capacity: Output 1: Output 2:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt
		ED: Connection: Part number: Input: Capacity: Output 1: Output 2:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt
Control transformer Sealbars: Used sealbars	Tb1	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer Sealbars: Used sealbars Contactors:	Tb1 R1, R2	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Sealbars: Used sealbars Contactors: Pump	Tb1 R1, R2 K1	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer Sealbars: Used sealbars Contactors:	Tb1 R1, R2	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer Sealbars: Used sealbars Contactors: Pump Seal	Tb1 R1, R2 K1	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 %
Sealbars: Used sealbars Contactors: Pump Seal Switches:	R1, R2 K1 K2	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Control transformer Sealbars: Used sealbars Contactors: Pump Seal	Tb1 R1, R2 K1	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Control transformer Sealbars: Used sealbars Contactors: Pump Seal Switches:	R1, R2 K1 K2	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch	R1, R2 K1 K2 S1	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches:	R1, R2 K1 K2 S1 S2	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF	R1, R2 K1 K2 S1	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle	R1, R2 K1 K2 S1 S2	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves:	R1, R2 K1 K2 S1 S2 MS1	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve	Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve	Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2 Y3	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2	ED: Connection: Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	10 % Serie 160-1334122 200 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie



VM(S) 303 - 333 (S/L) 200V - 3P - 50/60Hz





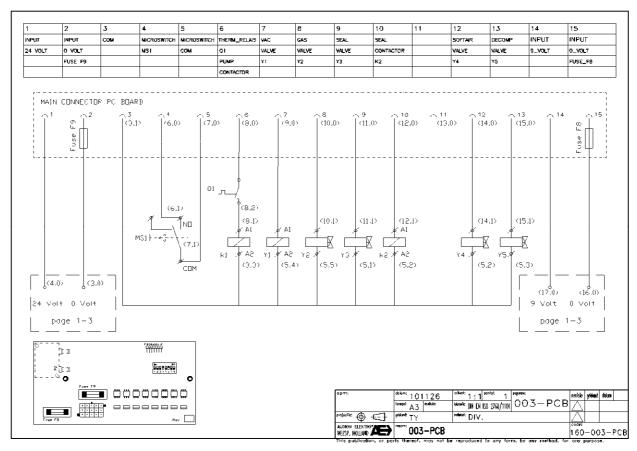


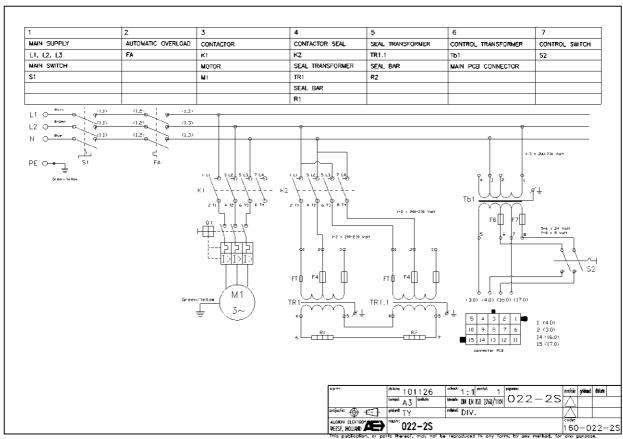
VM(S) 303 - 333 (S/L) 208V - 3P - 60Hz

Control diagram 003-PCB Revision (From - Until) Main circuit diagram 022-28 Sealconfiguration Machine serie VM 303, VMS 333 Seal type Power (V/~/Hz) 208-3-60 Pomp capacity Pomp capacity 100 m³/h Pomp capacity Main electrical supply: Phase 1 Pomp capacity L1 Phase 2 Phase 2 Phase 3 PE Ground connection Part number: Specification: Specification: Part number: Specification: Size: FT: Fuse seal transformer F4 Part number: Specification: Fuse control transformer F6 Part number: Specification: Size: FT: Part number: Specification: Size: F7 Part number: Specification:	0 (01-01-2011 =>) Right and Front Double / Cut-off / 8mm 160-1332191 3 × 40 Amp 160-1332241 9-14 13 160-1343129 5 Amp Slow 5 × 20 mm 130 °C 160-1343128
Main circuit diagram 022-2S Sealconfiguration Machine serie VM 303, VMS 333 Seal type Power (V/-/Hz) 208-3-60 Pomp capacity Pomp capacity 100 m³/h Main electrical supply: Phase 1 L2 Phase 2 L3 Phase 3 PE Ground connection Overload devices: Circuit breaker FA Part number: Specification: Specification: Termical overload pump Q1 Part number: Fuse seal transformer F4 Part number: Specification: Size: FT: Fart number: Specification: Size: F7 Part number: Specification: Size: Part number: Specification: Size: Part number: Specification: Size: Part number: Specification: Size: Part number: Specification: Size:	160-1332191 3 x 40 Amp 160-1332241 9-14 13 160-1343129 5 Amp Slow 5 x 20 mm 130 °C
Machine serie VM 303, VMS 333 Seal type Power (V/~/Hz) 208-3-60 Pomp capacity Main electrical supply: L1 Phase 1 L2 Phase 2 L3 L3 Phase 3 PE Ground connection Part number: Specification: Specification: Termical overload pump Q1 Part number: Fuse seal transformer F4 Part number: Specification: Size: FT: Fuse control transformer F6 For part number: Specification: Size: Part number: Specification: Size: F7 Part number: Specification: Size: Fart number: Specification:	160-1332191 3 x 40 Amp 160-1332241 9-14 13 160-1343129 5 Amp Slow 5 x 20 mm 130 °C
Power (V/~/Hz) 208-3-60 Pomp capacity 100 m³/h Main electrical supply: 1 L1 Phase 1 L2 Phase 2 L3 Phase 3 PE Ground connection Overload devices: Circuit breaker FA Part number: Specification: Specification: Termical overload pump Q1 Part number: Range: Set: Fuse seal transformer F4 Part number: Specification: Size: FT: Part number: Specification: Size: F7 Part number: Specification: Size: F7 Part number: Specification: Size:	3 x 40 Amp 160-1332241 9-14 13 160-1343129 5 Amp Slow 5 x 20 mm 130 °C
Main electrical supply: L1 Phase 1 L2 Phase 3 PE Ground connection Overload devices: FA Circuit breaker FA Part number: Specification: Termical overload pump Q1 Part number: Range: Set: Part number: Specification: Size: FT: Fuse control transformer F6 Part number: Specification: Size: F7 Part number: Specification: Size: F7 Part number: Specification:	3 x 40 Amp 160-1332241 9-14 13 160-1343129 5 Amp Slow 5 x 20 mm 130 °C
L1 Phase 1 L2 Phase 2 L3 Phase 3 PE Ground connection Overload devices: FA Part number: Circuit breaker FA Part number: Specification: Range: Set: Fuse seal transformer F4 Part number: Specification: Size: FT: Fuse control transformer F6 Part number: Specification: Size: F7 Part number: Specification: Size: F7 Part number: Specification: Specification:	3 x 40 Amp 160-1332241 9-14 13 160-1343129 5 Amp Slow 5 x 20 mm 130 °C
L1 Phase 1 L2 Phase 2 L3 Phase 3 PE Ground connection Overload devices: FA Part number: Circuit breaker FA Part number: Specification: Range: Set: Fuse seal transformer F4 Part number: Fuse seal transformer F4 Part number: Specification: Size: FT: Fart number: Specification: Size: F7 Part number: Specification: Size: F7 Part number: Specification: Size:	3 x 40 Amp 160-1332241 9-14 13 160-1343129 5 Amp Slow 5 x 20 mm 130 °C
L3 Phase 3 PE Ground connection Overload devices: Circuit breaker FA Part number: Specification: Specification: Fuse seal transformer F4 Part number: Specification: Size: FT: Fart number: Specification: Size: F7 Part number: Specification: Size: F7 Part number: Specification: Size:	3 x 40 Amp 160-1332241 9-14 13 160-1343129 5 Amp Slow 5 x 20 mm 130 °C
PE Ground connection Overload devices: FA Part number: Specification: Circuit breaker FA Part number: Specification: Termical overload pump Q1 Part number: Range: Set: Part number: Specification: Size: FT: Fuse seal transformer F6 Part number: Specification: Size: F7 Part number: Specification: Size: Part number: Specification: Specification: Size: Part number: Specification:	3 x 40 Amp 160-1332241 9-14 13 160-1343129 5 Amp Slow 5 x 20 mm 130 °C
Overload devices: Circuit breaker FA Part number: Termical overload pump Q1 Part number: Range: Set: Fuse seal transformer F4 Part number: Specification: Size: FT: Part number: Specification: Size: F7 Part number: Specification: Specification:	3 x 40 Amp 160-1332241 9-14 13 160-1343129 5 Amp Slow 5 x 20 mm 130 °C
Circuit breaker FA Part number: Specification: Termical overload pump Q1 Part number: Range: Set: Fuse seal transformer F4 Part number: Specification: Size: FT: Fuse control transformer F6 Part number: Specification: Size: Size: F7 F7 Part number: Specification: Specific	3 x 40 Amp 160-1332241 9-14 13 160-1343129 5 Amp Slow 5 x 20 mm 130 °C
Circuit breaker FA Part number: Specification: Termical overload pump Q1 Part number: Range: Set: Fuse seal transformer F4 Part number: Specification: Size: FT: Fuse control transformer F6 Part number: Specification: Size: Size: F7 F7 Part number: Specification: Specific	3 x 40 Amp 160-1332241 9-14 13 160-1343129 5 Amp Slow 5 x 20 mm 130 °C
Termical overload pump Q1 Part number: Range: Set: Fuse seal transformer F4 Part number: Specification: Size: FT: Fuse control transformer F6 Part number: Specification: Size: F7 Part number: Specification: Size: F7 Part number: Specification: Specification: Specification:	160-1332241 9-14 13 160-1343129 5 Amp Slow 5 x 20 mm 130 °C
Range: Set: Fuse seal transformer F4 Part number: Specification: Size: FT: Fuse control transformer F6 Part number: Specification: Size: F7 Part number: Specification: Size: F7 Part number: Specification: Size: F7 Specification: Specification:	9-14 13 160-1343129 5 Amp Slow 5 x 20 mm 130 °C
Fuse seal transformer F4 Part number: Specification: Size: FT: Fuse control transformer F6 Part number: Specification: Size: F7 Part number: Specification: Size: F7 Part number: Specification: Size: F7 Part number: Specification:	13 160-1343129 5 Amp Slow 5 x 20 mm 130 °C
Fuse seal transformer F4 Part number: Specification: Size: FT: Fuse control transformer F6 Part number: Specification: Size: F7 Part number: Specification: Size: F7 Specification: Specification:	160-1343129 5 Amp Slow 5 x 20 mm 130 °C
Specification: Size: FT: Fuse control transformer F6 Part number: Specification: Size: F7 Part number: Specification:	5 Amp Slow 5 x 20 mm 130 °C
Size: FT: Fuse control transformer F6 Part number: Specification: Size: F7 Part number: Specification: Specification:	5 x 20 mm 130 °C
FT: Fuse control transformer F6 Part number: Specification: Size: F7 Part number: Specification:	130 °C
Fuse control transformer F6 Part number: Specification: Size: F7 Part number: Specification:	
Specification: Size: F7 Part number: Specification:	160-1343128
Size: F7 Part number: Specification:	
F7 Part number: Specification:	2,5 Amp Slow (24 Volt)
Specification:	5 x 20 mm
	160-1343127
	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 100 m³/h	
Capacity 3 kW	
Transformers:	
Sealtransformers:	160-1334143
Input:	208-230 Volt
Capacity:	900 VA
Output:	21,4 Volt
ED:	10 %
Used transformers Tr1 & Tr1.1 Connection:	Serie
Control transformer Tb1 Part number:	160-1334122
Input:	208-230 Volt
Capacity:	60 VA
Output 1:	24 Volt
Output 2:	9 Volt
ED:	100 %
Sealbars: Used sealbars R1, R2 Connection:	R1 & R2 - Serie
	5.115 55115
Contactors:	
Pump K1	
Seal K2	
Switches:	
Main switch S1 Part number:	160-1331173
Specification:	40 Amp
Control switch ON/OFF S2 Part number:	160-1331117
Billion and Ashan	
Microswitches: Switch start evols MS1 Floatrical connections:	2
Switch start cycle MS1 Electrical connections:	2
Valves:	
Vacuum valve Y1	
Gas valve Y2	
Seal valve Y3	
Seal valve Y3 Soft-air valve Y4	



VM(S) 303 - 333 (S/L) 208V - 3P - 60Hz





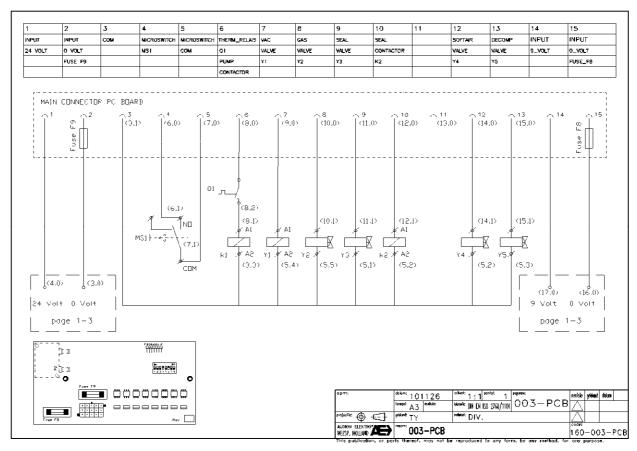


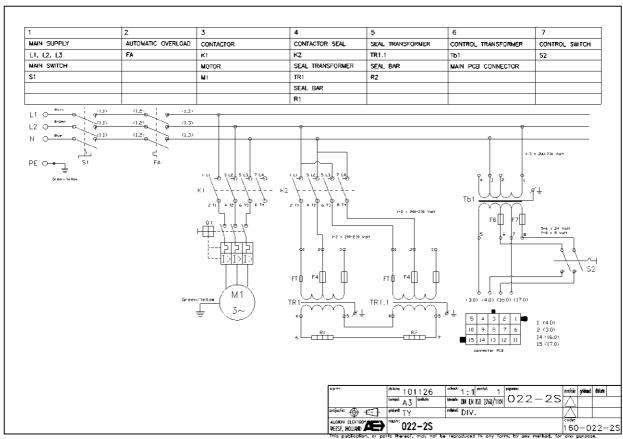
VM(S) 303 - 333 (S/L) 220V - 3P - 60Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	022-28	Sealconfiguration	Right and Front Double / Cut-off / 8mm
Machine serie Power (V/~/Hz)	VM 303, VMS 333 220-3-60	Seal type	Double / Cut-on / anim
Pomp capacity	100 m³/h		
		•	•
Main electrical supply:			
L1	Phase 1		
L2 L3	Phase 2 Phase 3		
PE PE	Ground connection		
	Greatia comiscacii		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332181
Tamaiaal accepta di access	04	Specification:	3 x 25 Amp
Termical overload pump	Q1	Part number: Range:	160-1332241 9-14
		Set:	13
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: Size:	0,5 Amp Slow (9 Volt)
Fuse PCB	F8	Part number:	5 x 20 mm 160-1343122
i use r CD	10	Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
1		Specification:	4 Amp, Slow
		Size:	5 x 20 mm
Pump:	400 3/h		
Pump type Capacity	100 m³/h 3 kW		
Сараску	3 KVV		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334143
		Input:	220 Volt
		Capacity:	900 VA
		Output:	21,4 Volt
Lla ad Avana fa ma ava	T-4 0 T-4 4	ED:	10 %
Used transformers Control transformer	Tr1 & Tr1.1 Tb1	Connection: Part number:	Serie 160-1334122
Control transformer	IBI	Input:	220 Volt
		Capacity:	60 VA
		Output 1:	24 Volt
		Output 2:	9 Volt
		ED:	100 %
			<u> </u>
Sealbars:	D4 D0	O !'	D4 8 D2 - 2 - 1
Used sealbars	R1, R2	Connection:	R1 & R2 - Serie
Contactors:			
	164		
Pump	K1		
	K1 K2		
Seal			
Seal Switches:	K2		100 1001171
Seal Switches:		Part number:	160-1331171
Seal Switches: Main switch	K2 S1	Specification:	25 Amp
Seal Switches: Main switch	K2		
Seal Switches: Main switch Control switch ON/OFF	K2 S1	Specification:	25 Amp
Seal Switches: Main switch Control switch ON/OFF Microswitches:	K2 S1	Specification:	25 Amp 160-1331117
Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle	S1 S2	Specification: Part number:	25 Amp
Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves:	S1 S2 MS1	Specification: Part number:	25 Amp 160-1331117
Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve	K2 S1 S2 MS1 Y1	Specification: Part number:	25 Amp 160-1331117
Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	K2 S1 S2 MS1 Y1 Y2	Specification: Part number:	25 Amp 160-1331117
Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve	K2 S1 S2 MS1 Y1 Y2 Y3	Specification: Part number:	25 Amp 160-1331117
Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	K2 S1 S2 MS1 Y1 Y2	Specification: Part number:	25 Amp 160-1331117



VM(S) 303 - 333 (S/L) 220V - 3P - 60Hz





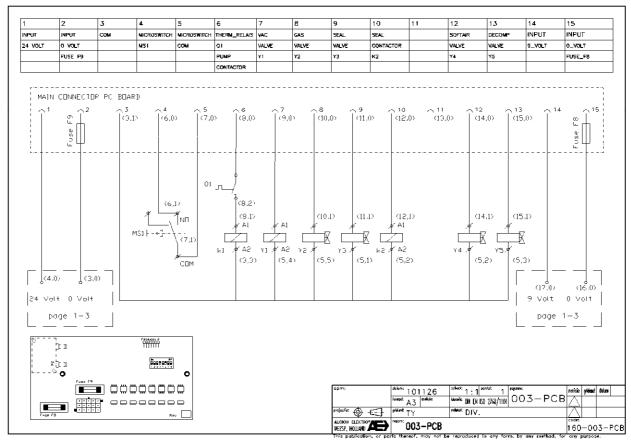


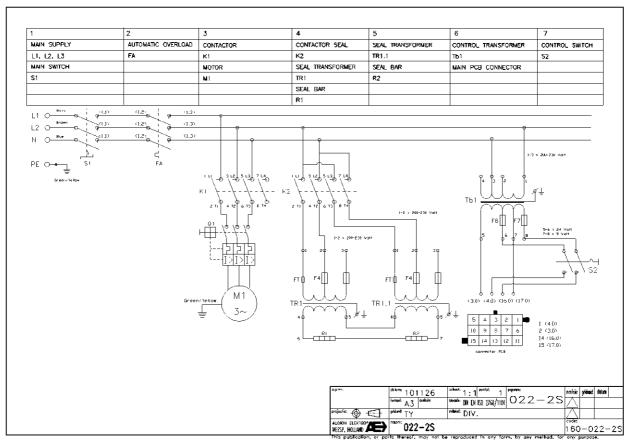
VM(S) 303 - 333 (S/L) 230V - 3P - 50Hz

Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	022-28	Sealconfiguration	Right and Front
Machine serie	VM 303, VMS 333	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	230-3-50	7	
Pomp capacity	100 m³/h		
		-	•
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332181
on out product		Specification:	3 x 25 Amp
Termical overload pump	Q1	Part number:	160-1332241
, .		Range:	9-14
		Set:	9
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)
Fuse PCB	F8	Size:	5 x 20 mm
Fuse PCB	FO	Part number:	160-1343122
		Specification: Size:	250 mAmp, Slow 5 x 20 mm
	F9	Part number:	160-1343123
	ГЭ	Specification:	4 Amp, Slow
		Size:	5 x 20 mm
		OIZE.	5 X 20 IIIII
Pump:			
Pump type	100 m³/h		
Capacity	2,2 kW		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334143
		Input:	220-230 Volt
		Capacity:	900 VA
		Output:	21,4 Volt
1 la a d Avana a fa waa a a a	T-4 P T-4 4	ED:	10 %
Used transformers Control transformer	Tr1 & Tr1.1 Tb1	Connection: Part number:	Serie 160-1334122
Control transformer	101	ran number.	
		Innut	
		Input:	220-230 Volt
		Capacity:	220-230 Volt 60 VA
		Capacity: Output 1:	220-230 Volt 60 VA 24 Volt
		Capacity: Output 1: Output 2:	220-230 Volt 60 VA 24 Volt 9 Volt
		Capacity: Output 1:	220-230 Volt 60 VA 24 Volt
Sealbars:		Capacity: Output 1: Output 2:	220-230 Volt 60 VA 24 Volt 9 Volt
Sealbars: Used sealbars	R1, R2	Capacity: Output 1: Output 2:	220-230 Volt 60 VA 24 Volt 9 Volt
Used sealbars	R1, R2	Capacity: Output 1: Output 2: ED:	220-230 Volt 60 VA 24 Volt 9 Volt 100 %
Used sealbars Contactors:		Capacity: Output 1: Output 2: ED:	220-230 Volt 60 VA 24 Volt 9 Volt 100 %
Used sealbars Contactors: Pump	K1	Capacity: Output 1: Output 2: ED:	220-230 Volt 60 VA 24 Volt 9 Volt 100 %
Used sealbars Contactors:		Capacity: Output 1: Output 2: ED:	220-230 Volt 60 VA 24 Volt 9 Volt 100 %
Used sealbars Contactors: Pump Seal	K1	Capacity: Output 1: Output 2: ED:	220-230 Volt 60 VA 24 Volt 9 Volt 100 %
Used sealbars Contactors: Pump Seal Switches:	K1 K2	Capacity: Output 1: Output 2: ED: Connection:	220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Used sealbars Contactors: Pump Seal	K1	Capacity: Output 1: Output 2: ED: Connection: Part number:	220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Used sealbars Contactors: Pump Seal Switches: Main switch	K1 K2 S1	Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Used sealbars Contactors: Pump Seal Switches:	K1 K2	Capacity: Output 1: Output 2: ED: Connection: Part number:	220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Contactors: Pump Seal Switches: Main switch Control switch ON/OFF	K1 K2 S1	Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches:	K1 K2 S1 S2	Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches:	K1 K2 S1	Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches:	K1 K2 S1 S2	Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves:	K1 K2 S1 S2	Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves:	K1 K2 S1 S2 MS1	Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve	K1 K2 S1 S2 MS1	Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	K1 K2 S1 S2 MS1	Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	220-230 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117



VM(S) 303 - 333 (S/L) 230V - 3P - 50Hz





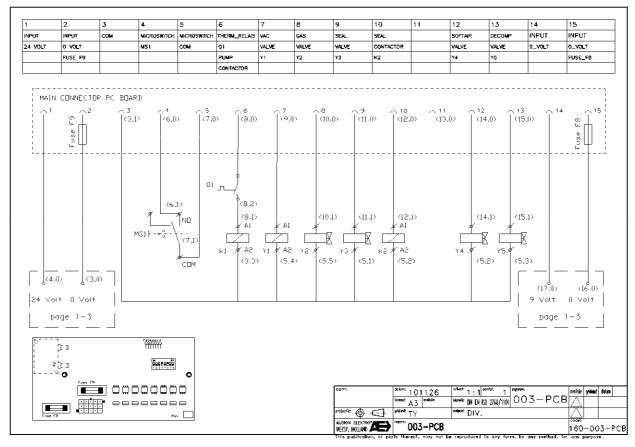


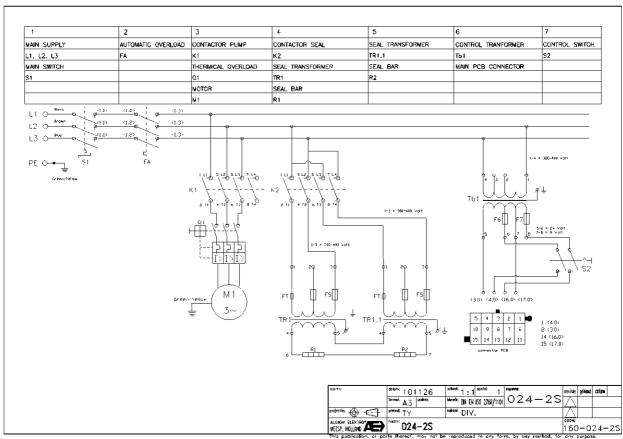
VM(S) 303 - 333 (S/L) 380V - 3P - 60Hz

Control diagram	Inna DOB	Dovision /From Lintil\	In (01.01.2011 =>)
Control diagram Main circuit diagram	003-PCB 024-2S	Revision (From - Until) Sealconfiguration	0 (01-01-2011 =>) Right and Front
Machine serie	VM 303, VMS 333	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	380-3-60	Courtypo	Dodpie i Gat Git i Gitiiti
Pomp capacity	100 m³/h		
	•	•	•
Main electrical supply:			
L1	Phase 1		
L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332171
		Specification:	3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332235
		Range:	4-6,5
		Set:	6,5
Fuse seal transformer	F5	Part number:	160-1343130
		Specification:	3,15 Amp Slow
		Size:	6,3 x 32 mm
l	F0	FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
		Specification: Size:	2,5 Amp Slow (24 Volt) 5 x 20 mm
1	F7	Size: Part number:	5 x 20 mm 160-1343127
	F (Specification:	0,5 Amp Slow (9 Volt)
1		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	100 m³/h		
Capacity	3 kW		
Capacity			
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334143
		Input:	400 Volt
		Capacity:	900 VA
		Output:	21,4 Volt
		ED:	10 %
L			
Used transformers	Tr1 & Tr1.1	Connection:	Serie
Used transformers Control transformer	Tr1 & Tr1.1 Tb1	Part number:	Serie 160-1334122
		Part number: Input:	Serie 160-1334122 400 Volt
		Part number: Input: Capacity:	Serie 160-1334122 400 Volt 60 VA
		Part number: Input: Capacity: Output 1:	Serie 160-1334122 400 Volt 60 VA 24 Volt
		Part number: Input: Capacity: Output 1: Output 2:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt
		Part number: Input: Capacity: Output 1:	Serie 160-1334122 400 Volt 60 VA 24 Volt
Control transformer Sealbars:	Tb1	Part number: Input: Capacity: Output 1; Output 2; ED:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer		Part number: Input: Capacity: Output 1: Output 2:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt
Control transformer Sealbars: Used sealbars	Tb1	Part number: Input: Capacity: Output 1; Output 2; ED:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer Sealbars: Used sealbars Contactors:	Tb1 R1, R2	Part number: Input: Capacity: Output 1; Output 2; ED:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 %
Sealbars: Used sealbars Contactors: Pump	Tb1 R1, R2 K1	Part number: Input: Capacity: Output 1; Output 2; ED:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 %
Control transformer Sealbars: Used sealbars Contactors:	Tb1 R1, R2	Part number: Input: Capacity: Output 1; Output 2; ED:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 %
Sealbars: Used sealbars Contactors: Pump	Tb1 R1, R2 K1	Part number: Input: Capacity: Output 1; Output 2; ED:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 %
Sealbars: Used sealbars Contactors: Pump Seal	Tb1 R1, R2 K1	Part number: Input: Capacity: Output 1; Output 2; ED:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 %
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch	R1, R2 K1 K2	Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches:	R1, R2 K1 K2	Part number: Input: Capacity: Output 1: Output 2: ED: Connection:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF	R1, R2 K1 K2 S1	Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches:	R1, R2 K1 K2 S1 S2	Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF	R1, R2 K1 K2 S1	Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle	R1, R2 K1 K2 S1 S2	Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches:	R1, R2 K1 K2 S1 S2	Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves:	R1, R2 K1 K2 S1 S2 MS1	Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve	R1, R2 K1 K2 S1 S2 MS1 Y1	Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve	Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2 Y3 Y4	Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117
Sealbars: Used sealbars Contactors: Pump Seal Switches: Main switch Control switch ON/OFF Microswitches: Switch start cycle Valves: Vacuum valve Gas valve Seal valve	Tb1 R1, R2 K1 K2 S1 S2 MS1 Y1 Y2 Y3	Part number: Input: Capacity: Output 1: Output 2: ED: Connection: Part number: Specification: Part number:	Serie 160-1334122 400 Volt 60 VA 24 Volt 9 Volt 100 % R1 & R2 - Serie 160-1331171 25 Amp 160-1331117



VM(S) 303 - 333 (S/L) 380V - 3P - 60Hz





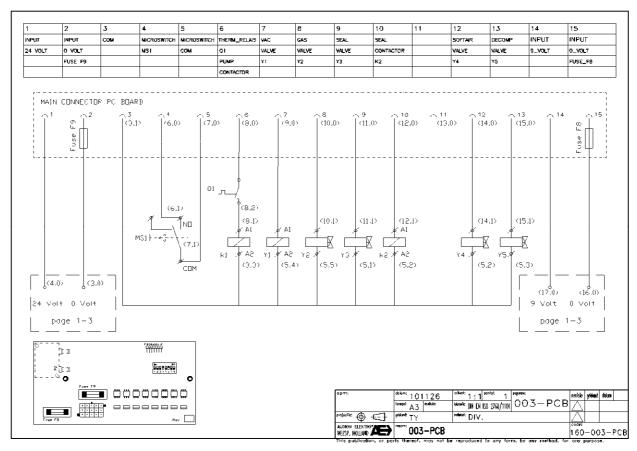


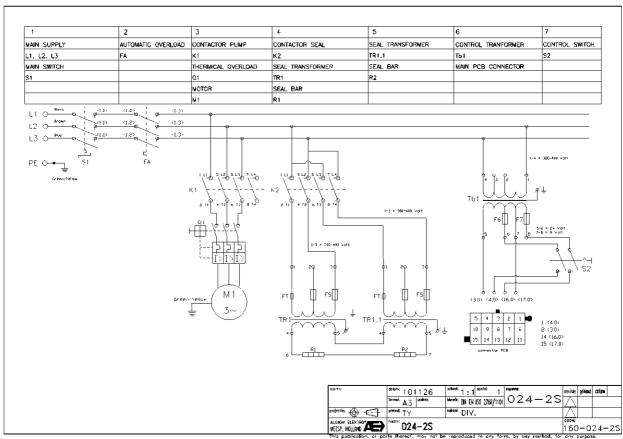
VM(S) 303 - 333 (S/L) 400V - 3P - 50Hz

		T	T
Control diagram	003-PCB	Revision (From - Until)	0 (01-01-2011 =>)
Main circuit diagram	024-28	Sealconfiguration	Right and Front
Machine serie	VM 303, VMS 333	Seal type	Double / Cut-off / 8mm
Power (V/~/Hz)	400-3-50		
Pomp capacity	100 m³/h		
Main alastaia di accessor			
Main electrical supply: L1	Phase 1		
L1 L2	Phase 2		
L3	Phase 3		
PE	Ground connection		
[FE	Glouila connection		
Overload devices:			
Circuit breaker	FA	Part number:	160-1332171
	,,,	Specification:	3 x 16 Amp
Termical overload pump	Q1	Part number:	160-1332235
		Range:	4-6,5
		Set:	5
Fuse seal transformer	F5	Part number:	160-1343130
	, -	Specification:	3,15 Amp Slow
		Size:	6.3 x 32 mm
		FT:	130 °C
Fuse control transformer	F6	Part number:	160-1343128
. 255 Some of Garlotofffior		Specification:	2,5 Amp Slow (24 Volt)
		Size:	5 x 20 mm
	F7	Part number:	160-1343127
	1 ,	Specification:	0,5 Amp Slow (9 Volt)
		Size:	5 x 20 mm
Fuse PCB	F8	Part number:	160-1343122
l user ob	, 0	Specification:	250 mAmp, Slow
		Size:	5 x 20 mm
	F9	Part number:	160-1343123
	13	Specification:	4 Amp, Slow
		Size:	5 x 20 mm
		SIZE.	3 X 20 IIIII
Pump:			
Pump type	100 m³/h		
Capacity	2,2 kW		
	•		
Transformers:			
Sealtransformer	Tr1	Part number:	160-1334143
		Input:	400 Volt
		Capacity:	900 VA
		Output:	21,4 Volt
		ED:	10 %
Used transformers	Tr1 & Tr1.1	Connection:	Serie
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, R2	Connection:	R1 & R2 - Serie
<u> </u>			
Contactors:	174		
Pump	K1		
Seal	K2		
Switches:			
Main switch	S1	Part number:	160-1331171
Iviani svvitori	31	Specification:	25 Amp
Control switch ON/OFF	S2	Part number:	160-1331117
Control Switch ON/OFF	G2	rait number.	100-1001117
Microswitches:			
Switch start cycle	MS1	Electrical connections:	2
			-
Valves:			
Vacuum valve	Y1		
Gas valve	Y2		
Seal valve	Y3		
Seal valve Soft-air valve	Y3 Y4		



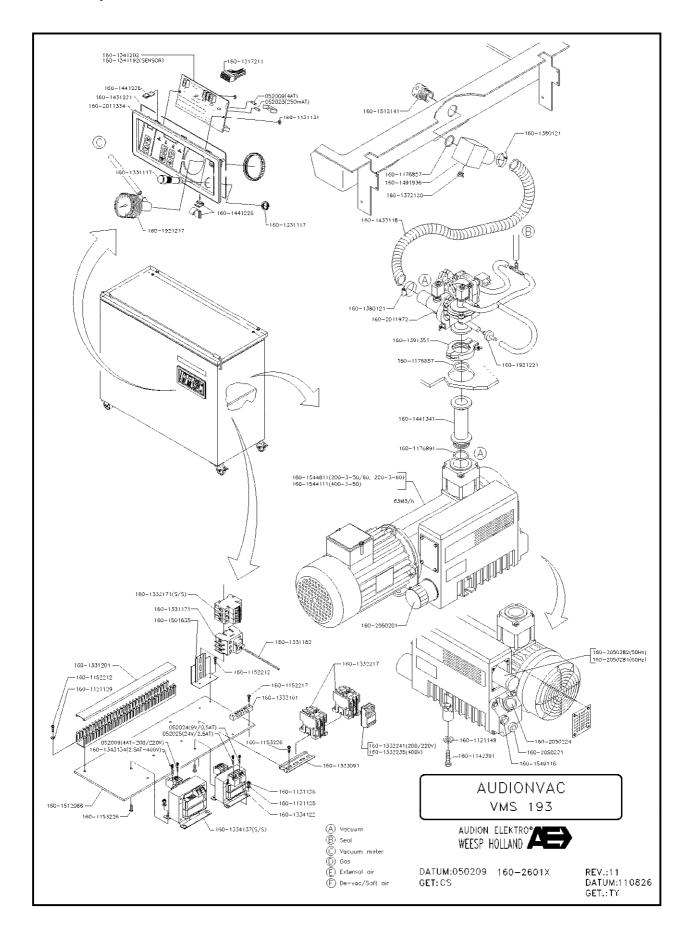
VM(S) 303 - 333 (S/L) 400V - 3P - 50Hz



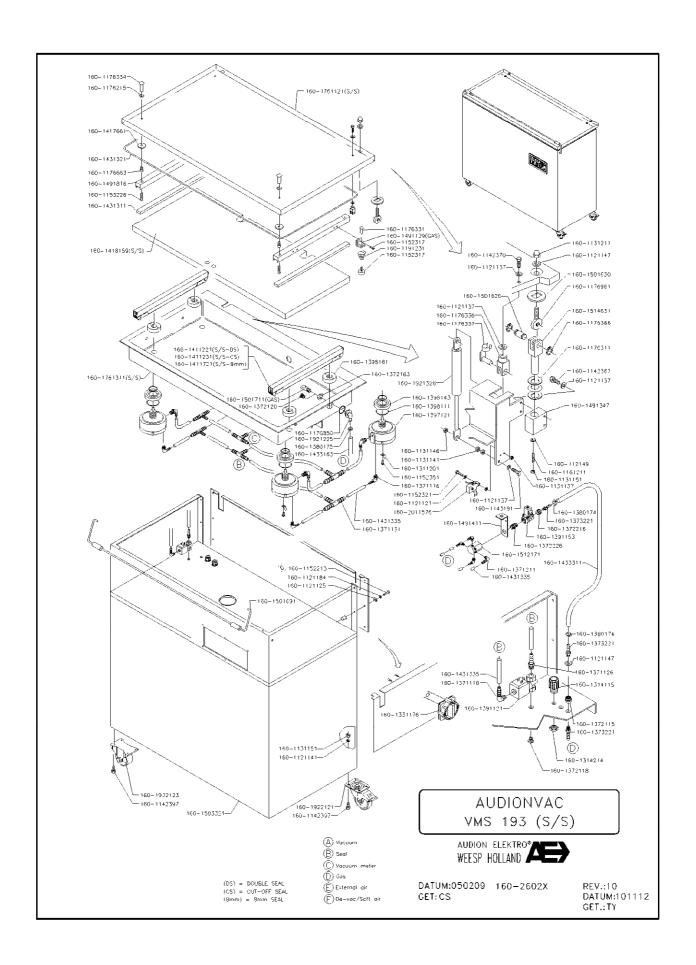




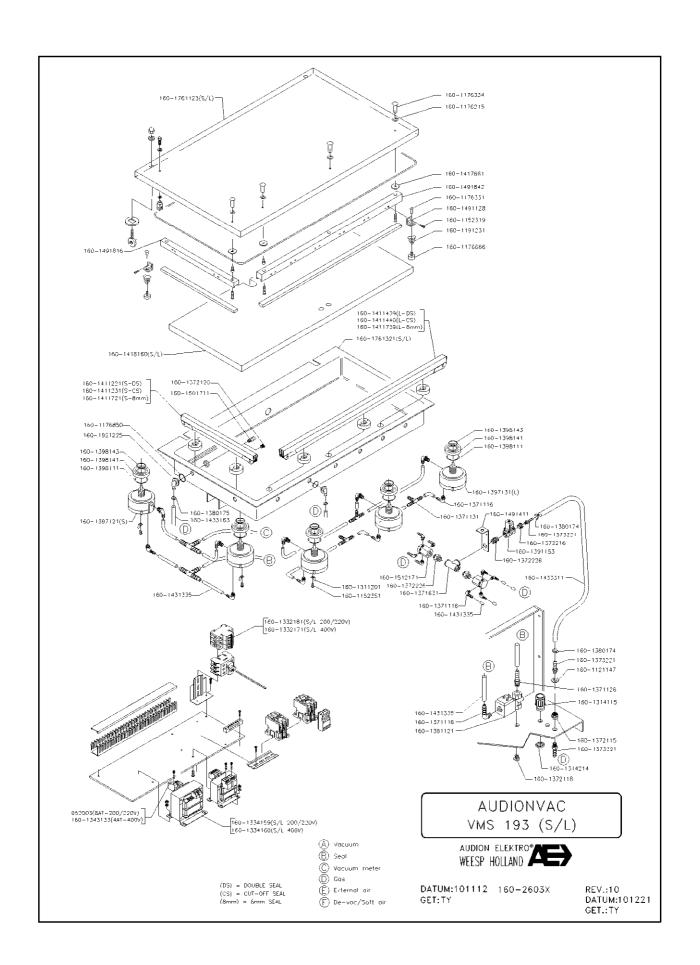
12 Exploded view machine



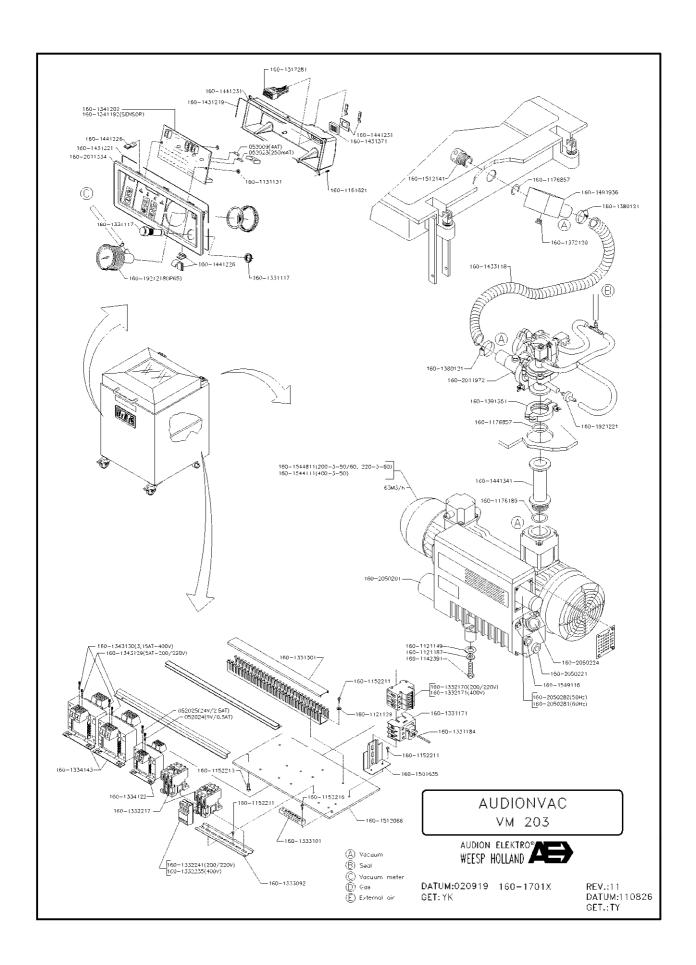




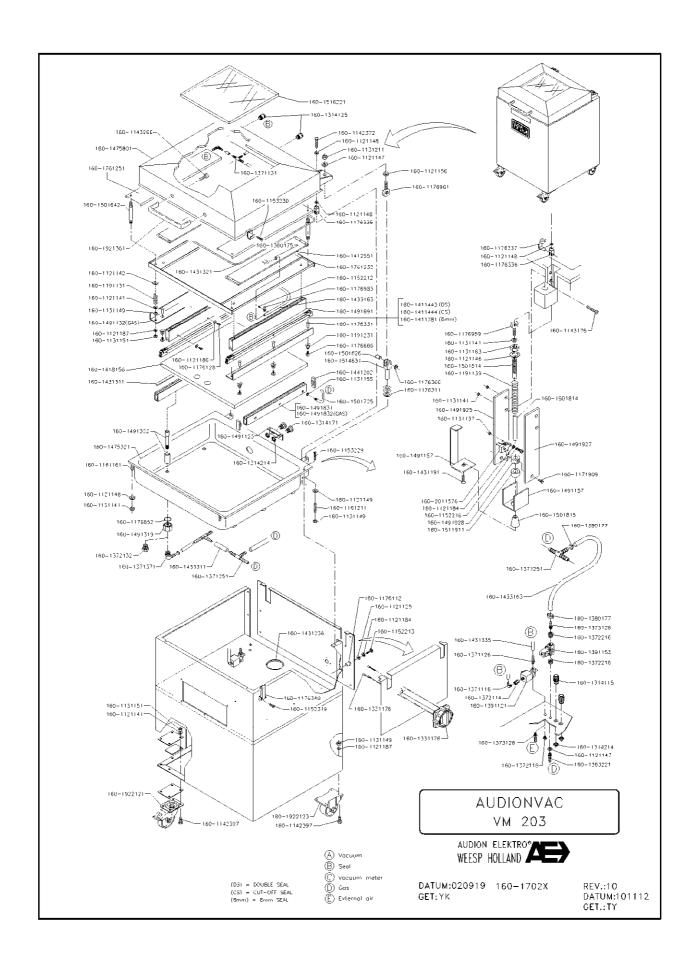




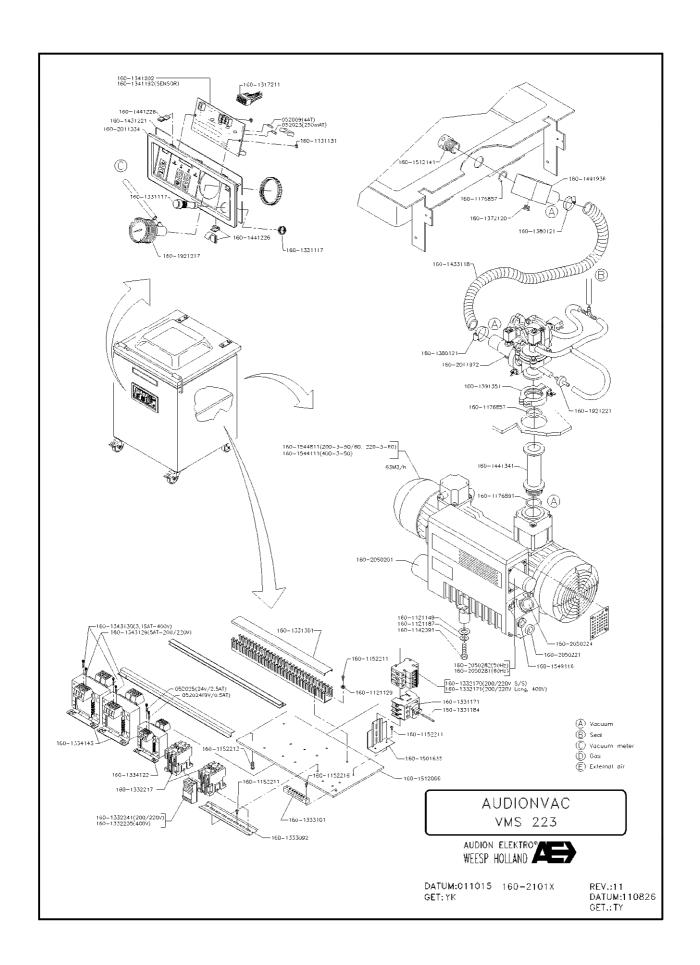




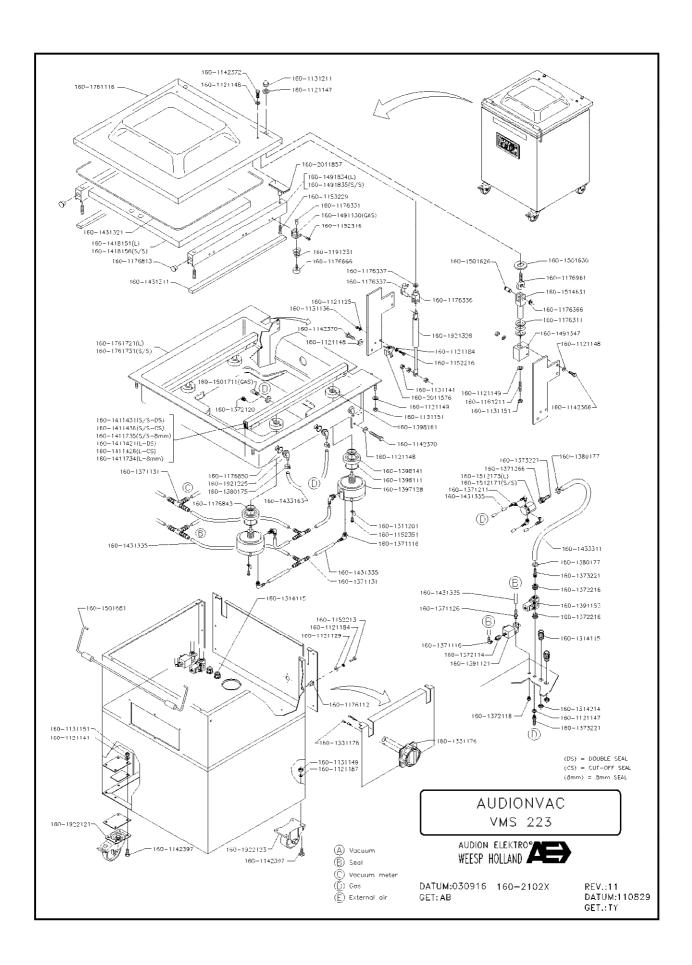




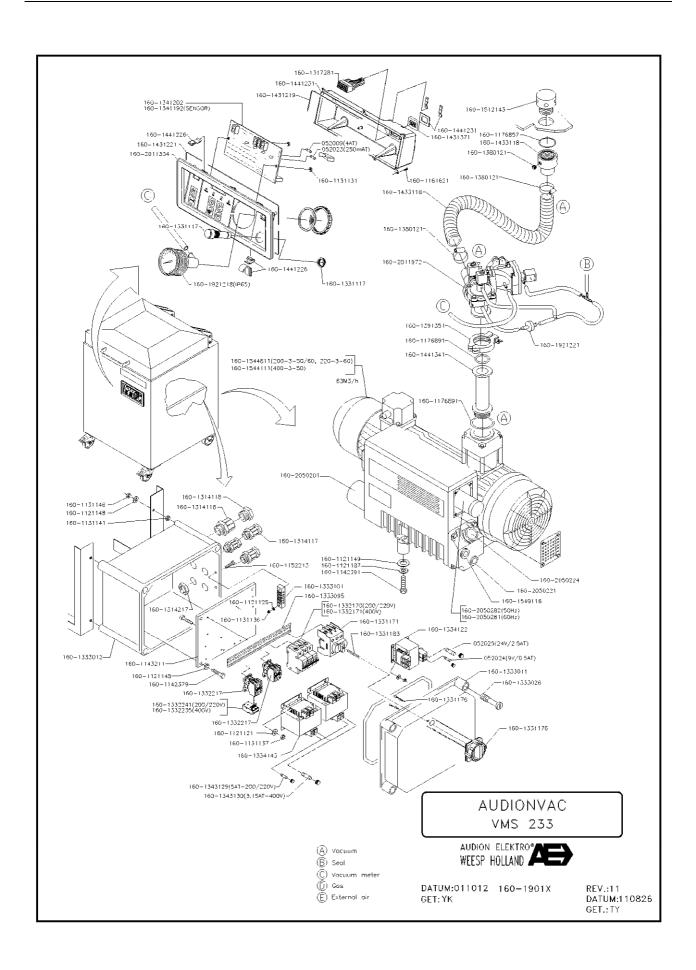




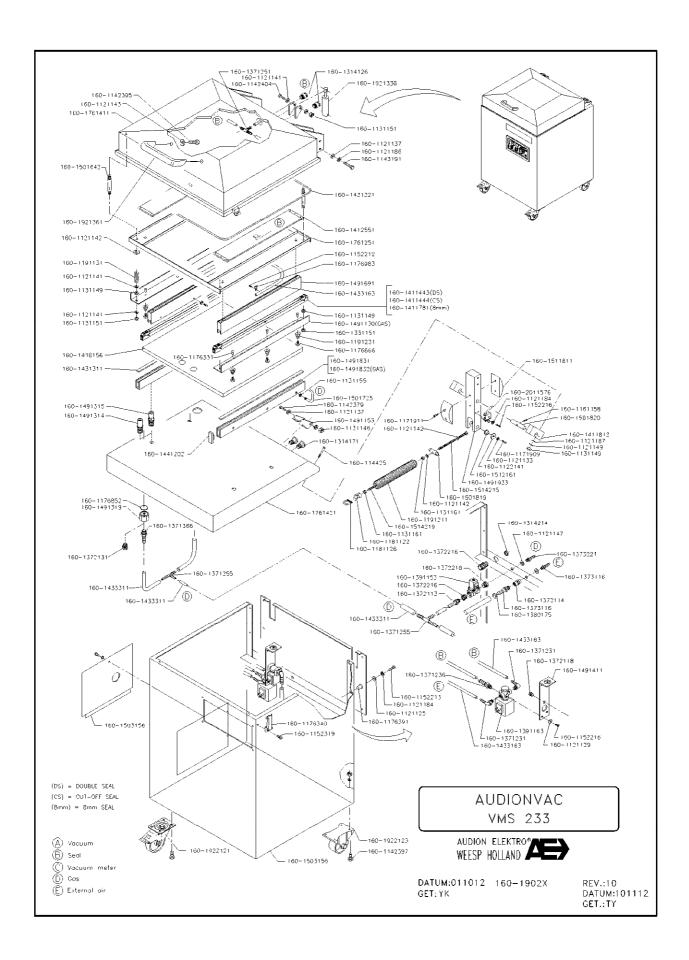




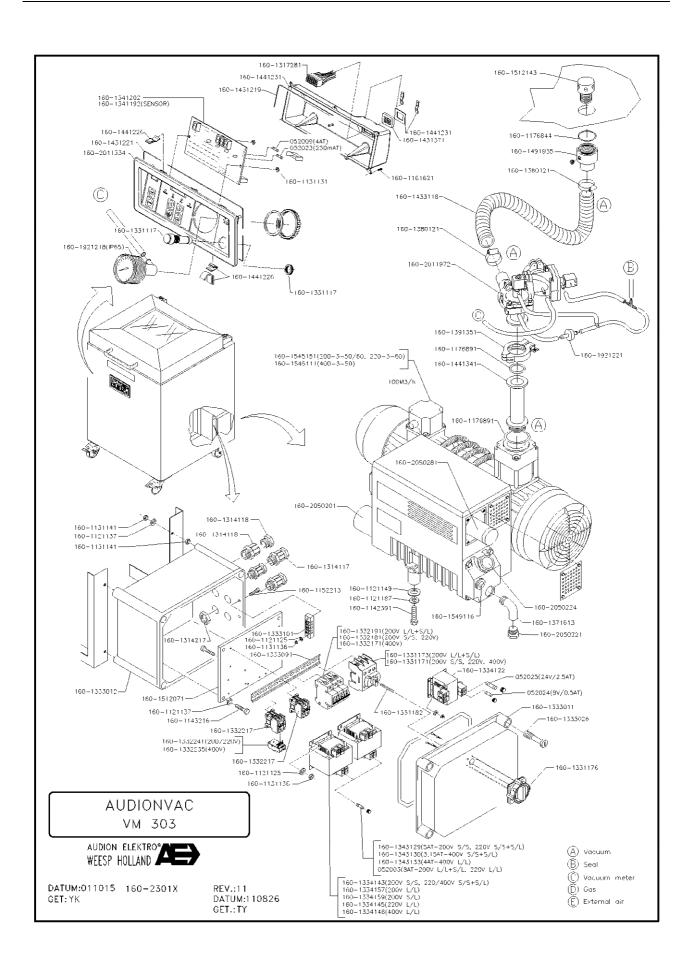




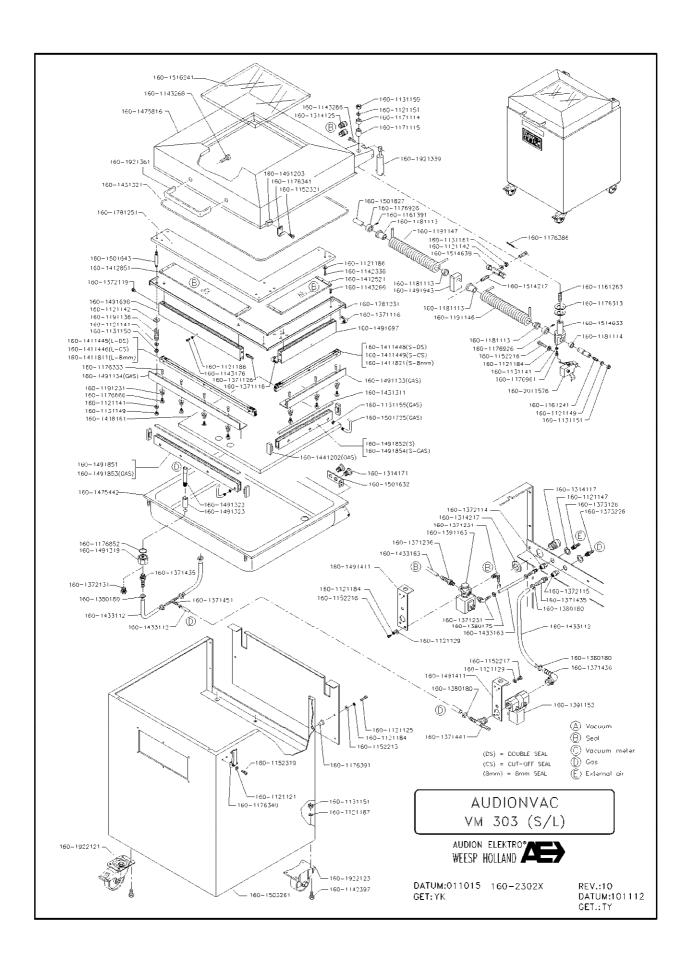




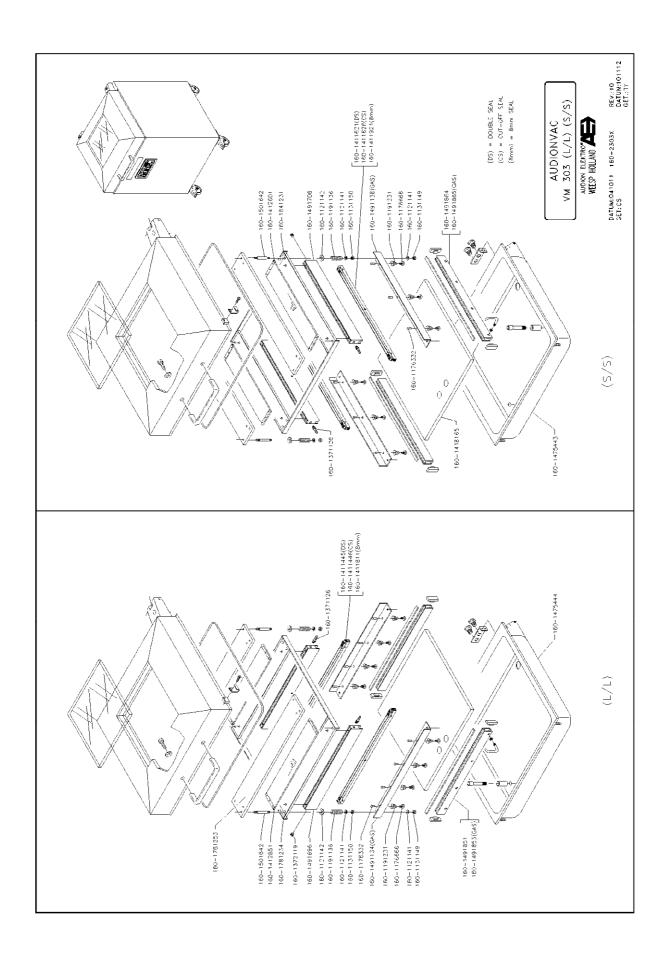




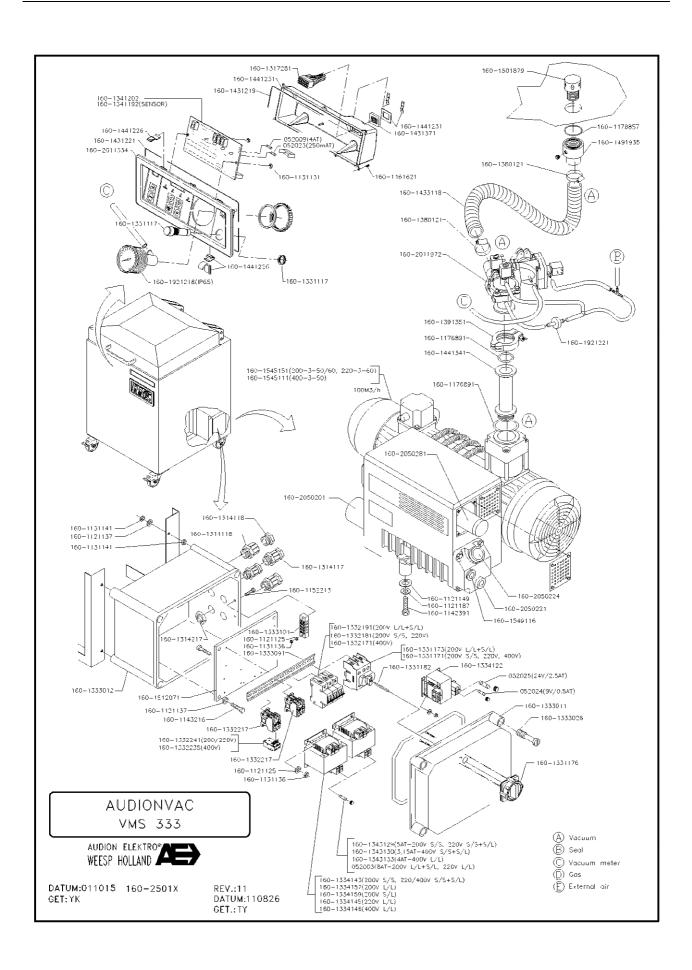




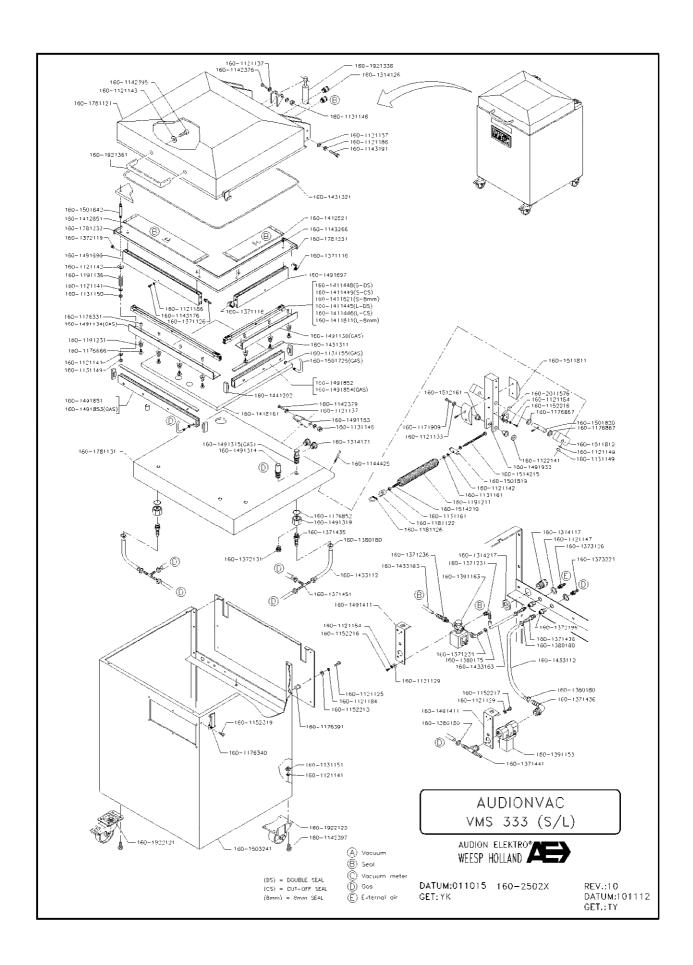




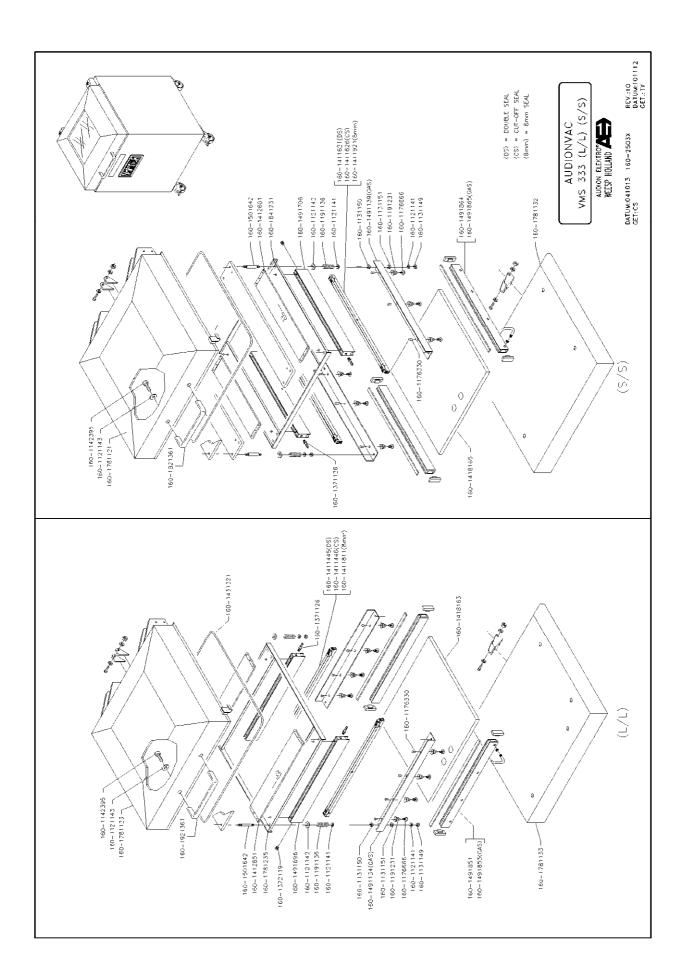






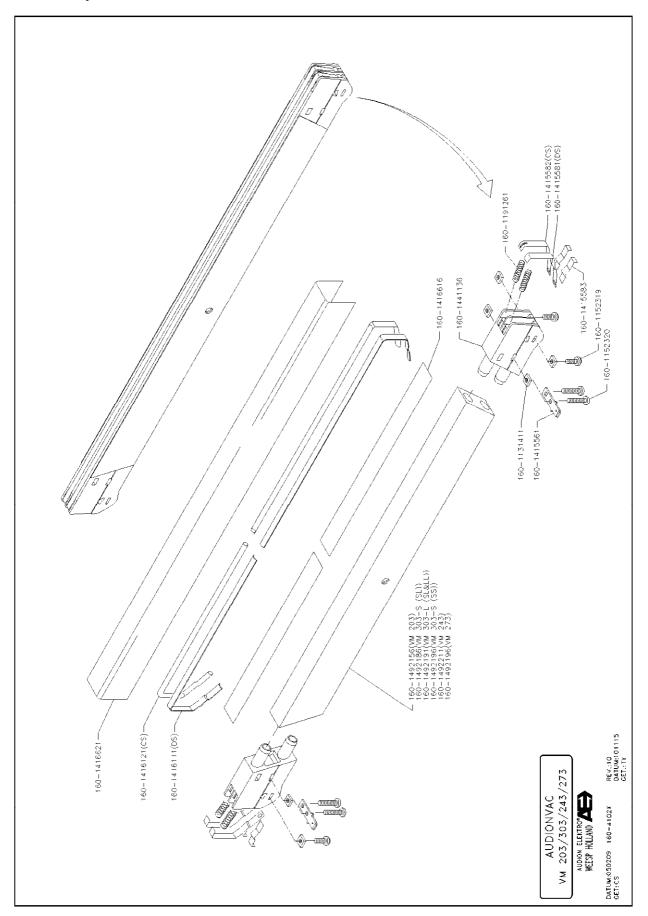




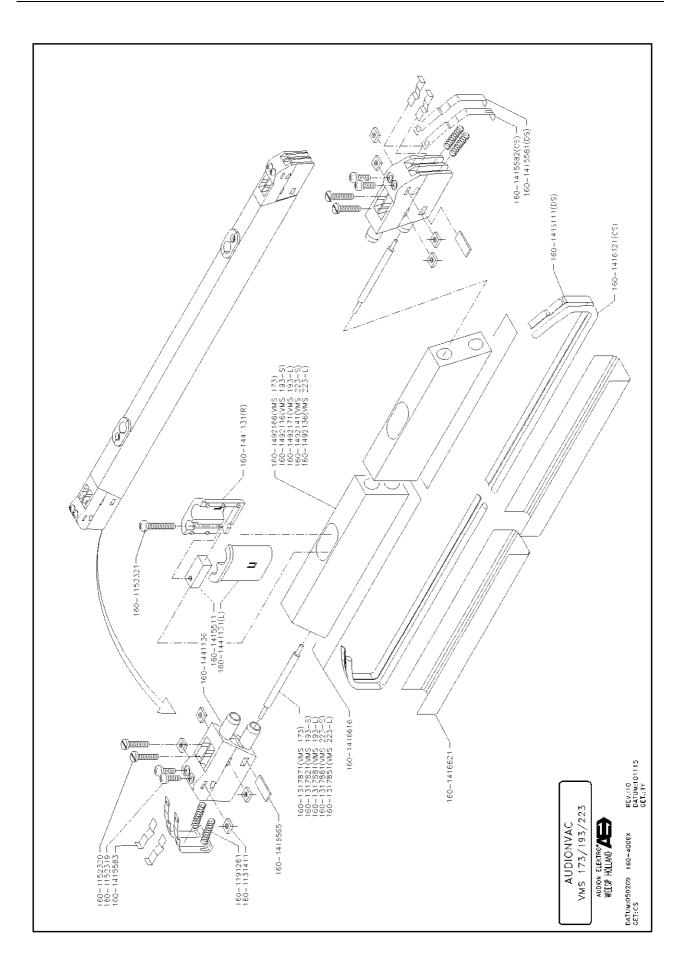




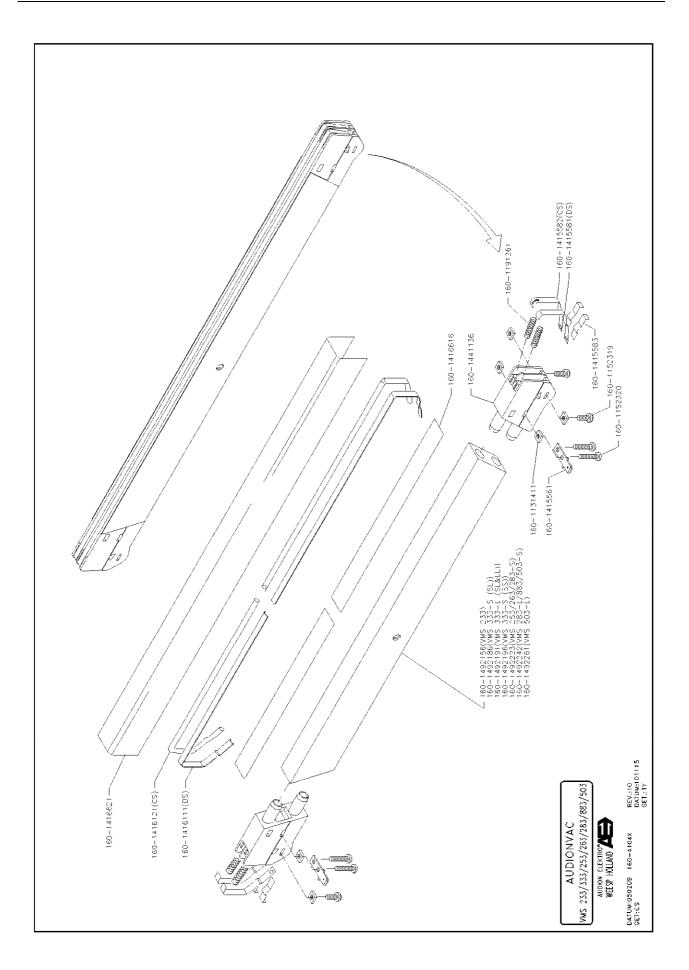
13 Exploded view seal bar







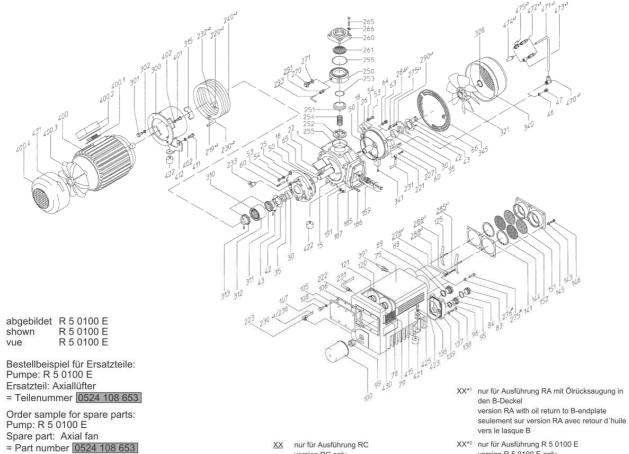






Exploded view pump 14

63m3-100m3



Exemple de commande pour pièces de remplacement: Pompes: R 5 0100 E
Pièce de rechange: Ventilateur axial
= Numéro de pièce 0524 108 653

version RC only sur version RC uniquement

XX* nur für Ausführung RA mit Ölrücklauf version RA with oil return to oil separator seulement sur version RA avec retour d'huile version R 5 0100 E only seulement sur version R 5 0100 E

XX*3 Gasballast Einzelteile components gas ballast composants du lest d'air

	ummern Ersatzteile umbers spare parts				
Numé	ro de pièce				
Pos.	Teil	Part	Pièce	R 5 0063 E	R 5 0100 E
1	Zylinder	Cylinder	Cylindre	0223 000 088	0223 000 08
15	Rotor	Rotor	Rotor	0210 108 662	0210 108 66
18	Innenring	Sleeve	Portée axe rotor	0472 105 822	0472 105 82
22	Schieber	Vane	Palette	0722 000 330	0722 000 36
25	Zvlinderdeckel A-Seite	A-endplate	A-couvercle de cylindre	0233 107 520	0233 107 52
26	Zylinderdeckel B-Seite	B-endplate	B-couvercle de cylindre	0233 000 155	0233 000 15
30	Nadellager	Needle bearing	Roulement à aiguilles, cage PA	0473 103 123	0473 103 12
35	Wellendichtring	Shaft seal	Joint d'arbre	0487 000 008	0487 000 00
42	Stützscheibe	Supporting ring	Rondelle pour bague defrein	0391 000 601	0391 000 60
43	Sechskantschraube	Hexagon head screw	Vis à tête hexagonale	0410 000 023	0410 000 02
46	Dichtring	Sealing ring	Joint	0484 000 029	0484 000 02
47	Verschlußschraube	Plug	Bouchon	0415 000 002	0415 000 00
50	O-Ring	O-ring	Joint torique	0486 000 539	0486 000 53
53	Sechskantschraube	Hexagon head screw	Vis à tête hexagonale	0410 000 130	0410 000 13
54	Federring	Lock washer	Rondelle ressort	0432 000 013	0432 000 01
60	Kegelstift	Taper pin	Goupille conique	0437 104 545	0437 000 07
63	Verschlußschraube	Plug	Bouchon	0415 000 002	0415 000 00
64	Dichtring	Sealing ring	Joint	0484 000 029	0484 000 02
65	Paßfeder	Shaft key	Clavette	0434 000 044	0434 000 04
66	Paßfeder	Shaft key	Clavette	0434 000 044	0434 000 04
75	Ölabscheider	Oil separator	Séparateur de brouillard d'huile	0266 000 156	0266 000 15
78	Streckmetall	Expanded metal	Métal déployé	0534 101 306	0534 101 30
79	Demister	Demister	Dévésiculeur	0534 101 308	0534 101 30
83	Ölschauglas, gewölbt	Oil sight glass, convex	Voyant d'huile, convexe	0583 108 695	0583 108 69
84	Ölschauglasdichtung	Oil sight glass seal	Joint du voyant d'huile	0480 109 793	0480 109 79
88	Verschlußschraube	Plug	Bouchon	0710 000 010	0710 000 01
89	Dichtring	Sealing ring	Joint	0482 000 020	0482 000 02
95	Verschlußschraube	Plug	Bouchon	0710 000 010	0710 000 01
96	O-Ring	O-ring	Joint torique	0486 000 505	0486 000 50
99	Nippel	Threaded fitting	Mamelon	0461 000 061	0461 000 06
100	Ölfilter	Oil filter	Filtre à huile	0531 000 002	0531 000 00
105	Deckel	Cover	Couvercle	0360 108 294	0360 108 29
106	Dichtung	Seal	Joint	0480 108 718	0480 108 71
107	Sechskantschraube	Hexagon head screw	Vis à tête hexagonale	0410 000 020	0410 000 02
108	Federring	Lock washer	Rondelle ressort	0432 000 010	0432 000 01
120	Luftentölelement	Exhaust filter	Filtre d'échappement	0532 000 510	0532 000 50



Part numbers spare parts Numéro de pièce					
Numér Pos.	o de pièce Teil	Part	Pièce	D 5 0002 F	D E 0400
21	O-Ring	O-ring	Joint torique	R 5 0063 E 0486 000 512	R 5 0100
25	Filterfeder	Filter spring	Ressort de filtre	0947 000 720	0947 000
6	Dichtung	Seal	Joint	0486 114 368	0486 114
7	Federring	Lock washer	Rondelle ressort	0432 000 010	0432 000
8	Sechskantschraube Servicedeckel	Hexagon head screw Service cover	Vis à tête hexagonale Couvercle de service	0410 000 030 0247 113 773	0410 000 0247 113
13	Federring	Lock washer	Rondelle ressort	0432 000 010	0432 000
15	Abluftdeckel	Exhaust cover plate	Couvercle d'échappement	0246 000 008	0246 000
16	Sechskantschraube	Hexagon head screw	Vis à tête hexagonale	0410 000 055	0410 000
54	Schalldämpfermembran	Silencer membrane	Membrane silencieuse	0734 000 003	0734 000
55	Sechskantschraube	Hexagon head screw	Vis à tête hexagonale	0410 000 020	0410 000
6 9	Streckmetall Abluftventil	Expanded metal Exhaust valve	Métal déployé Soupape d'échappement	0534 000 926	0534 000
35	Abscheiderdichtung	Separator gasket	Joint plat	0916 000 696 0480 000 150	0916 000 0480 000
36	Stiftschraube	Stud	Goujon	0412 104 730	0412 104
7	Federring	Lock washer	Rondelle ressort	0432 000 013	0432 000
11	Sechskantmutter	Hexagon nut	Ecrou hexagonal	0420 000 007	0420 000
9	Gerade Einschraubverschraubung	Straight stud fitting	Union mâle	2	0441 000
20	Gerade Einschraubverschraubung	Straight stud fitting	Union mâle	0444 000 400	0441 000
21	Schwenkverschraubung Gerade Einschraubverschraubung	Hydraulic fitting Straight stud fitting	Raccord Union mâle	0441 000 123 0441 000 004	0441 000
23	Schwenkverschraubung	Hydraulic fitting	Raccord	0441 000 004	0441 000
27	Hohlschraube	Hollow-core screw	Vis creuse	0415 000 105	0415 000
30	Leitungsrohr	Tube	Tube	*	0327 108
31	B-Leitungsrohr	B-tube	B-tube	0327 109 090	0327 109
32	A-Leitungsrohr	A-tube	B-tube	0444 000 400	0327 108
13	Schwenkverschraubung	Hydraulic fitting A-tube	Raccord A-tube	0441 000 199 0327 108 724	0441 000
36 10	A-Leitungsrohr Kühlschlange	Cooling spiral	Serpentin	0327 108 724	0522 000
50	Saugflanschunterteil	Inlet flange, lower housing	Flasque d'aspiration, partie inf.	0246 101 999	0322 000
51	Ventilteller	Valve plate	Clapet d'aspiration	0711 101 429	0711 101
2	Ventilführung	Guide for valve plate	Guide de clapet d'aspiration	0711 101 428	0711 101
53	O-Ring	O-ring	Joint torique	0486 000 559	0486 000
54	Druckfeder	Compression spring	Ressort de pression Joint torique	0435 103 976 0486 000 526	0435 103
55 60	O-Ring Saugflansch	O-ring Inlet flange	Flasque d'aspiration	0246 000 541	0486 000 0246 000
31	Sieb	Screen	Tamis	0534 000 018	0534 000
55	Sechskantschraube	Hexagon head screw	Vis à tête hexagonale	0410 000 060	0410 000
66	Federring	Lock washer	Rondelle ressort	0432 000 010	0432 000
70	Verschlußschraube	Plug	Bouchon	0415 000 002	0415 000
71	Dichtring	Sealing ring	Joint	0484 000 029	0484 000
75	Ölrücklaufventil	Oil return valve	Clapet de retour d'huile Joint	0916 000 048	0916 000
76 34	Dichtring Schwenkverschraubung	Sealing ring Hydraulic fitting	Raccord	0484 000 034 0441 000 152	0484 000
35	Hohlschraube	Hollow-core screw	Vis creuse	0416 000 117	0416 000
36	Ringanschlußstück	Connecting piece	Pièce de connexion	0947 000 707	0947 000
38	Dichtring	Sealing ring	Joint	0484 000 017	0484 000
90	Leitungsrohr	Tube	Tube	0327 000 199	0327 000
91	Gerade Einschraubverschraubung	Straight stud fitting	Union mâle Tube	0441 114 738	0441 000
00	Leitungsrohr Motorflansch	Tube Motor flange	Flasque de moteur	0327 101 828 0247 107 490	0327 101 0247 107
)1	Zylinderschaube	Cylinder cover screw	Vis de flasque	0413 000 425	0413 000
)2	Federring	Lock washer	Rondelle ressort	0432 000 013	0432 000
0	Kupplung	Coupling	Accouplement	0510 000 014	0510 000
3.1	Kupplungsnabe, motorseitig	Coupler hub, motor sided	Moyeu d'accouplement, côté moteur	0512 000 182	0512 000
2.2	Kupplungshülse	Coupling sleeve Coupler hub, rotor sided	Douille d'accouplement	0512 000 004	0512 000
1.3	Kupplungsnabe, rotorseitig	Axial fan	Moyeu d'accouplement, côté rotor Ventilateur axial	0512 000 180	0512 000
21	Axiallüfter Zacken-Ring	Sprocket ring	Rondelle dent	0524 108 653 0432 000 380	0524 108 0432 000
0	Lüfterhaube	Fan hood	Capot de ventilateur	0713 000 108	0713 000
1	Blechschraube	Tin screw	Vis	0418 101 688	0418 101
2	Dübel	Dowel	Douille	0710 000 200	0710 000
5	Schutzgitter	Protection grid	Garde-corps Anneau de levage	0713 108 129	0713 108
10	Ringschraube Elektromotor (50 Hz)	Lifting eye bolt Motor (50 Hz)	Moteur électrique (50 Hz)	0416 000 007 0616 109 939	0416 000 0620 101
0(*)	Elektromotor (50 Hz)	Motor (60 Hz)	Moteur électrique (50 Hz)	0620 000 321	0620 101
0.1	Klemmbrett (50 Hz)	Terminal Board (50 Hz)	Bornier (50 Hz)	0648 103 778	0684 103
0.1*	Klemmbrett (60 Hz)	Terminal Board (60 Hz)	Bornier (60 Hz)	0648 103 778	0648 103
0.2	Klemmkasten (50 Hz)	Terminalbox (50 Hz)	Boîte à bornes (50 Hz)	0648 000 461	0648 000
0.2*	Klemmkasten (60 Hz)	Terminalbox (60 Hz)	Boîte à bornes (60 Hz)	0648 000 461	0648 000
0.3	Lüfterflügel (50 Hz)	Fan blade (50 Hz)	Palette de ventilateur (50 Hz) Palette de ventilateur (60 Hz)	0648 000 302	0648 000
0.3*)	Lüfterflügel (60 Hz) Elektromotorhaube (50 Hz)	Fan blade (60 Hz) Motor fan cover (50 Hz)	Capot ventilateur moteur (50 Hz)	0648 000 333 0648 000 017	0648 000 0648 103
0.4	Elektromotorhaube (60 Hz)	Motor fan cover (60 Hz)	Capot ventilateur moteur (50 Hz)	0648 000 017	0648 000
)1	Sechskantschraube	Hexagon head screw	Vis à tête hexagonale	0410 000 120	0410 000
2	Federring	Lock washer	Rondelle ressort	0432 000 013	0432 000
1	Sechskantschraube	Hexagon head screw	Vis à tête hexagonale	0410 000 125	0410 000
2	Fuß	Foot	Pied	0391 107 504	0391 107
5	Sechskantschraube Sebwingmetelleuffer	Hexagon head screw Rubber foot	Vis à tête hexagonale Support élastique	0410 000 120	0410 000
21	Schwingmetallpuffer Schwingmetallpuffer	Rubber foot Rubber foot	Support élastique Support élastique	0561 000 030 0561 000 001	0561 000 0561 000
23	Federring	Lock washer	Rondelle ressort	0432 000 013	0432 000
25	Scheibe	Washer	Rondelle	0431 000 131	0431 000
30	Typenschild	Nameplate	Plaque signalétique	0565 102 562	0565 102
31	Drehrichtungspfeil	Arrow label	Flèche sens de rotation	0565 000 003	0565 000
0	Schwenkverschraubung	Hydraulic fitting	Raccord d'angle	0441 000 123	0441 000
1	Leitungsrohr	Tube	Tube	0327 000 200	0327 000
2	Rückschlagsventil	Nonreturn valve	Clapet de non-retour	0541 000 050	0541 000
3	Muffe Schalldämpfer	Bushing Silencer	Raccord à vis Silencieux	0456 000 250	0456 000
74	Schalldämpfer Hohlschraube	Hollow-core screw	Vis creuse	0562 000 004 0415 000 105	0562 000 0415 000

^{*) =} bei 220/ 380 V *) = at 220/ 380 V *) = à 220/ 380 V







EC-DECLARATION OF CONFORMITY

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

herewith declares that the

AUDIONVAC FLOOR MODEL

Type:

VM 203; VM 303; VMS 173; VMS 193; VMS 223; VMS 333

- is in conformity with the provisions of the following EEC directives:
 2014/35/EU Low Voltage Directive;
 2006/42/EC Machine Directive;
 2014/30/EU EMC-Directive;
 RoHS 2 2011/65/EU Directive;
- and that the following (parts/clauses of) harmonized standards have been applied:

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

Weesp 16-3-2017

E.Tangelder

Director PGR160B

AUDION ELEKTRO

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