

Manual

For **CondairPure 05-20** reverse osmosis system



Pressure : 12 - 15 bar

Temperature : minimum 2⁰ C
maximum 43⁰ C

Power supply : 230 Vac – 50 Hz

Reverse osmosis system : CondairPure 05-20

CONDAIR B.V.
Gyroscoopweg 21 - 1042 AC - AMSTERDAM
Tel. +31- (0)20 – 705 8200

Internet www.condair.nl
E-mail info@condair.nl

INDEX

- Safety requirements	Page	3
- General	"	5
- Principle of operation	"	7
- Proces Instrumentation Diagram	"	8
- Device components	"	9
- General description display	"	10
- Measuring and function display	"	11
- Alarms	"	12
- Electrical wiring diagram	"	13
- Technical specifications	"	14
- Pre assembling instructions	"	15
- Installation schematic	"	16
- Pressurized pump	"	17
- Pressurized pump control panel	"	18
- Start up instructions	"	19
- Maintenance instructions	"	20
- Troubleshooting	"	21
- Exploded view parts	"	22-27

Safety requirements

Follow the safety instructions

The CondairPure 05-20 is especially designed for pre water treatment of humidifiers. Usage for any other application is not in accordance with the safety requirements, and can resolve in dangerous situations. We advise and compel all users to read and follow the safety requirements accordingly.

General safety instructions

- Only qualified personnel with specific knowledge and proper qualification is allowed to install, operate, service and if necessary repair the CondairPure 05-20. The user is responsible for checking the level of qualification of the personnel.
- Be aware of electric shock! The CondairPure 05-20 operates on 230 Vac. Prior to any service work the CondairPure 05-20 needs to be switched off completely, both from electric power and water supply.
- Follow all electrical and water safety regulations.
- Lack of maintenance on the CondairPure 05-20 can result in dangerous situations. We strongly recommend to commit to our advised minimal maintenance interval, which is every half year.
- When the CondairPure 05-20 is in poor condition it must be assumed that it is no longer safe to operate. The unit must be shut down immediately.
Conditions that can lead to these circumstances are:
 - o In case of any structural damage,
 - o In case the unit doesn't function properly,
 - o In case any water leakage.
- The CondairPure 05-20 may only be used for humidifiers. Installation of the device is recommended in a well-ventilated area with a temperature 5 (min) – 35⁰ C (max.).
- The CondairPure 05-20 is electrical protected according to the IP 44 standard. Please take notice that the device must be protected against any water leakage.
- Attention! If the device is installed without any floor drainage we highly recommend to install a floor water leakage detection. This leakage floor detection is able to shut down the device in case of any water leakage to prevent water damage. Condair cannot take any responsibility for water damage due to the device.



- Any reparations or changes made to the CondairPure 05-20 that are not described in this documentation are not allowed.
- Only use original Condair parts when replacing a dysfunctional part.
- When changing the pre filter, the filter housing should be tightened by hand, only use the tool to loosen the filter housing.
- When the unit has been long term out of use, contact the helpdesk at Condair. Due to the possible growth of bacteria in non flowing water there needs to be taken action to solve this problem.
- The produced reverse osmosis water can not be used for drinking water.

General

The CondairPure 05-20 is an automated reverse osmosis system designed to supply pressurised water with very low salt content.

Its configuration makes the CondairPure 05-20 ideal for supplying humidification systems where salt residues (calcium scale) will cause problems in terms of both efficiency and appearance.

When a pressure of 12 bar is applied to the water for treatment, the passage through the osmotic membrane removes more than 90% of salts (depending on the nature of the salts themselves).

Since the membrane is able to «reject» substances dissolved in ionic form, it is even more effective in preventing the passage of undissolved materials (colloids, bacteria, etc.) or organic molecules larger in size than the ions. However, it is important to remember that the concentration of both these substances and the dissolved salts increases strongly on the surface of the membrane, and may give rise to undesirable phenomena.

For example:

- the undissolved substances may deposit on the surfaces of the membrane, clogging it and thus reducing its efficiency.
- Some types of salts (particularly Calcium salts) are only moderately soluble, so as the concentration increases they may precipitate and create a scale on the membrane, with effects similar to those mentioned above.

These problems can be overcome by providing an adequate pretreatment of the water and by ensuring proper plant management.

In more general terms, with or without pretreatment, the water for treatment must have the following main specifications (for the other parameters not considered here, it is supposed that the water has the characteristics of drinking water).

Hydraulic Pressure	: > 1,0 bar
Temperature	: 2-35°C (nominal temperature 20°C)
Maximum Salinity	: ≤ 1500 mg/l (as TDS)

pH	: 7 ± 1
Active Chlorine	: ≤ 0,15 ppm
Calcium sulphate	: concentration in reject water below the solubility limit
Calcium Carbonate	: Langelier index of reject water negative
Silica	: concentration in reject water below the solubility limit

Note - with temperatures below or above the specified limits, there may be irreversible physical damage to the membranes (because of frost or degradation of the osmotic film).

The nominal temperature of 20°C is that taken for the calculation of the forecast plant yield.

- Active chlorine is normally added to water to disinfect it. The excess is then eliminated by means of activated carbon or other procedures.
- Calcium sulphate, Calcium carbonate and Silica: the limits indicated refer to the need to prevent scaling precipitates.

Normally, after chemical analysis of the water, Wairtec takes the limits into consideration when designing the plant, and suggests any corrective pretreatment necessary (conditioning, softening on resin, etc.).

Hydraulic components

All the hydraulic components used consist of corrosion-resistant materials suitable for use with products for human consumption, and are designed to withstand the envisaged operating conditions as follows:

- the elements upstream of the high pressure pump are resistant to a nominal pressure of 8 bar (114 psi).
- The elements of the high pressure circuit (membrane inlet and reject lines) withstand a nominal pressure of 14 bar (200 psi). The key feature of this system is that the osmosis modules used are of "free" type: the vessel is rigidly connected in its interior to the membrane.

Pretreatment

The CondairPure 05-20 is designed to be supplied with municipal mains water.

The system is equipped as standard with a pre-filtering section capable of removing undissolved impurities such as sand, turbidity, oxidised iron, etc., with a level of filtration of the order of 5 µm.

If the CondairPure 05-20 is to be supplied with water having characteristics different from those referred to above, a pretreatment stage outside the system should be provided as appropriate to the chemical and physical properties of the water for treatment.

Principles of operation

(See flow diagram figure 1)

If the water supply is sufficient the break tank (2) automatically fills with water. Before the water is filtered by a 5 micron cartridge filter (1).

A break tank level switch (3) will constantly check for sufficient water. If the level switch is not activated the motor-pump (5) will start running after a short delay of a few seconds.

Low pressure due to fouling of the prefilter, a not opened tap or a lack of water is indicated on the panel by the "Low pressure". In this particular case the low level switch is activated and the unit stopped.

With the pump (5) in operation, the water is pressurised and sent to the osmosis section (6). The pressurisation is displayed in the system by means of a pressure gauge (7). On contact with the osmosis membrane, a certain proportion of the water is permeated, losing salts (osmosis-treated water), while the remainder, with high salt content, is rejected.

The CondairPure is now in operation and will start filling the demi water storage tank.

When the humidifier requests water, the permeate pump (13) starts running. Demi water will be pressurized and pumped to the humidifier. When the humidifier stops requesting, the product line is pressurised and the pump reservoir (11) fills. When the pump reaches app. 3.5 bar on the pressure gauge (14), the pump (13) stops. Now the CondairPure 05-20 is in STANDBY condition.

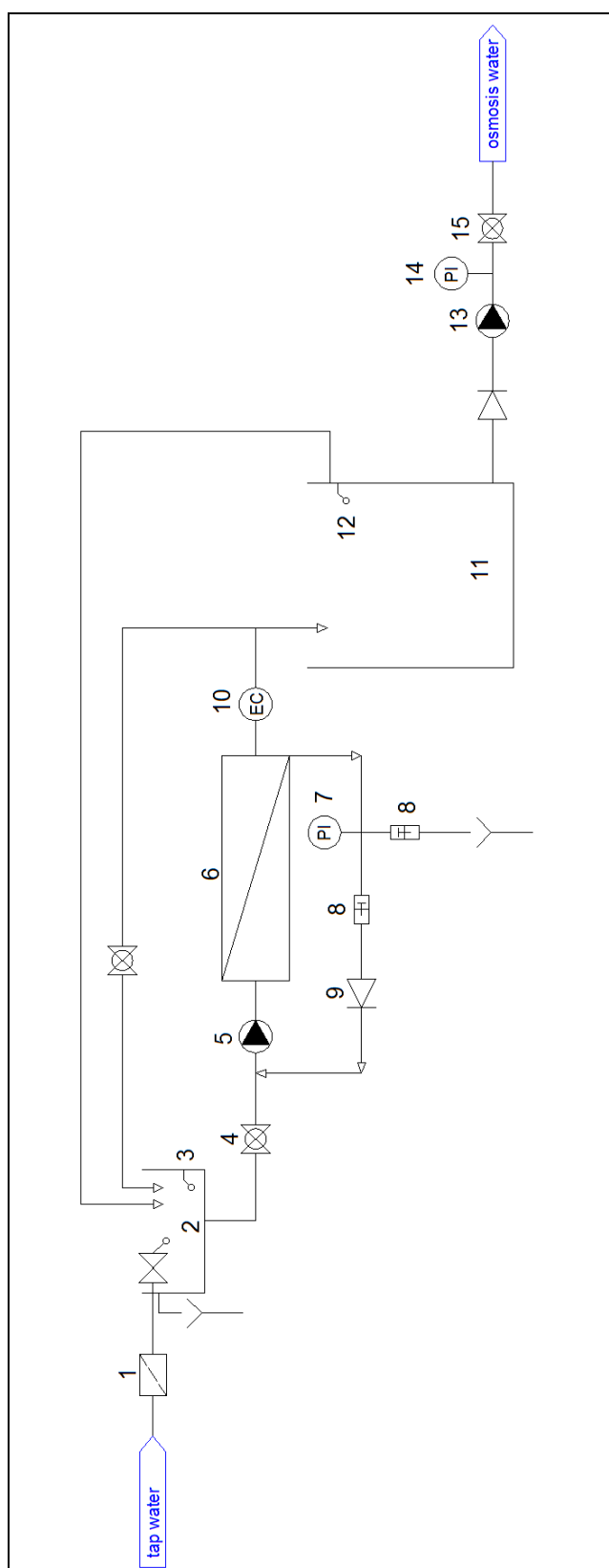
The user takes off water:

The pressure in the product line falls and once the preset value app. 2 bar is reached, the pump differential pressure switch restarts the system (repeating the START-UP phase). The pump never starts until the pressure inside the hydrobox is equal to or less than the setting (2.0 bar) of the pressure switch and it stops when the setting value (3.5 bar) is reached.

The system is equipped with a quality indicator capable of reading the quality of the osmosis-treated water and illustrating the value in the display.

Process instrumentation diagram

Figure 1



DEVICE COMPONENTS

Note: The number of each point refers to the Flow Diagram in Figure No. 1.

Pre-filter (1)

Disposable 5 µm filter-cartridge.

Break tank (2)

Small storage tank in the supply line to disable water flowing back.

Level switch (3)

Allows the system to be stopped automatically in the case of low intake of water.

Ball valve (4)

Prevents draining of the break tank in case maintenance is required.

Single-phase electric motor: 230V-50Hz (5)

Continuous operating type, proof against water splashes (IP 54 class F degree of protection).

Osmosis module (6)

The module is placed within the stainless steel vessel and can be exchanged if needed.

Pressure gauge (7)

Indicates the pressure upstream of the osmosis module.

Needle valve for regulation of flow (8)

Allows setting of the quantity of reject and recycling water.

Check valves (9)

Compel the water to flow in one direction only.

Conductivity cell (10)

Electronic device with PVC body and stainless steel cell, for measuring the conductivity of the water.

Storage tank (11)

60 litre capacity reservoir for demineralized water .

Level switch (12)

Unit turns on/off based upon the water level in the storage tank.

Permeate pressure pump (13)

Transports the permeate water (Pressure: 3,5 bar) to the humidifier.

Pressure permeate line (14)

Indicates the pressure on the product line.

Electrical panel

Electrical panel, constructed with programmable electronic circuit board. Allows the simplest, most complete control of the entire water treatment system

- Electricity supply to the system

The CondairPure 05-20 is designed for connection to the electrical mains at 230 Vac single-phase + earth and is complete with an electricity supply lead with plug for connection to the power socket.

For all the electrical connections see figure N. 4.

General description display

Figure No. 3



The CondairPure 05-20 operating control is used to fully automatically monitor and control very simple water treatment systems, which operate according to the reverse osmosis principle. The basic values that have been programmed into the operating control can be changed at any moment and are not erased in case of a power failure.

The control has four switching steps:

- "PRODUCTION"
- "STAND-BY"
- "RINSE"
- "INTERVAL RINSE".

"Production" step

The start of the production depends on the number of programmed level switches and the position of these switches (inputs FU and EM). In the "Production" step of the reverse osmosis system first the inlet valve is opened. After an adjustable delay time of 1 - 999 seconds the high-pressure pump is activated.

The following values are monitored:

- Conductivity below the minimum limit value
- Conductivity above the maximum limit value
- Low water pressure input
- Stop

A built-in working hours counter registers the duration of the "PRODUCTION" step from one minute to 65.000 hours.

"Stand by" step

No water flows during the "Stand by" step. The input valve is closed and the high pressure pump is switched off.

The following values are monitored:

- Tank high-level input
- Tank low-level input
- Stop

"Rinse" step

The step "Rinse" will be activated (if programmed) after finishing the step "Production". The concentrate valve will be opened always. The inlet valve and high pressure pump can be programmed. The high pressure pump can be switched on with a programmable delay.

The following values are monitored:

- Low water pressure input (only when inlet valve is opened)
- Tank high-level input
- Tank low-level input
- Stop

"Interval Rinse" step

The step "Interval Rinse" will be activated (if programmed) when there is no water production for a programmable time.

The concentrate valve will be opened always. The inlet valve and high pressure pump can be programmed. The high pressure pump can be switched on with a programmable delay.

The following values are monitored:

- Low water pressure input (only when inlet valve is opened)
- Exceeded pressure input
- Tank high-level input
- Tank low-level input
- Stop

Measuring and function display

First LCD line

The first line of the LCD display shows the actual phase of the system: "Production", "Stand-by", "Rinse" and "Int. Rinse". If the system has been switched off on account of an alarm situation during one of the above phases, then this is indicated by the additional text "Alarm" (e.g. "Rinse Alarm").

Second LCD line

Depending on the current phase of the system, the second line of the LCD display shows measuring and operating values.

ATTENTION! If for a measuring value in the second line the message "OFL" appears, then the value to be measured lies outside the measuring range.

Second LCD line for the "Production" step

The second line of the LCD display shows the following information during the "Production" step:

At the beginning, the delay time is displayed in seconds, until the high-pressure pump is enabled, for instance "Delay 10s". Also the value of conductivity 1 and the production hours are displayed alternately.

Conductivity 8.0 µS/cm
Service 114:14 (hours:minutes)

Production
Delay 10s

Second LCD line for the "Standby" step

The second line of the LCD display shows the following information during the "Standby" step:

Also the value of conductivity 1 and the working hours are displayed.

Conductivity 8.0 µS/cm
Service 114:14 (hours:minutes)

Second LCD line for the "Rinse" step

The second line of the LCD display shows the following information during the "Rinse" step: At the beginning, the delay time is displayed in seconds, until the high-pressure pump is enabled, for instance "Delay 10s". During the rinse, the remaining rinse time will be displayed. Also the value of conductivity 1 and the production hours are displayed alternately.

Conductivity 8.0 µS/cm
Service 114:14 (hours:minutes)

Standby
Service 114:14

Rinse
Rinse time 10s

Second LCD line for the "Interval rinse" step

The second line of the LCD display shows the following information during the "Interval Rinse" step: At the beginning, the delay time is displayed in seconds, until the high-pressure pump is enabled, for instance "Delay 10s". During the rinse, the remaining rinse time will be displayed. Also the value of conductivity 1 and the production hours are displayed alternately.

Conductivity 8.0 µS/cm
Service 114:14 (hours:minutes)

Alarms

Here you will find an overview of the alarm messages that can appear in the display.

Limit CM Min under valued
CM to low

The conductivity value on the conductivity meter has fallen below the set minimum limit value. The system remains switched on. The message disappears as soon as the minimum limit value is again exceeded. The alarm relay can be activated.

Limit CD Max exceeded
CM to high

The conductivity value on the conductivity meter has exceeded the set maximum limit value. The system will be switched on. The message disappears as soon as the maximum limit value again falls below the set limit value. The alarm relay can be activated.

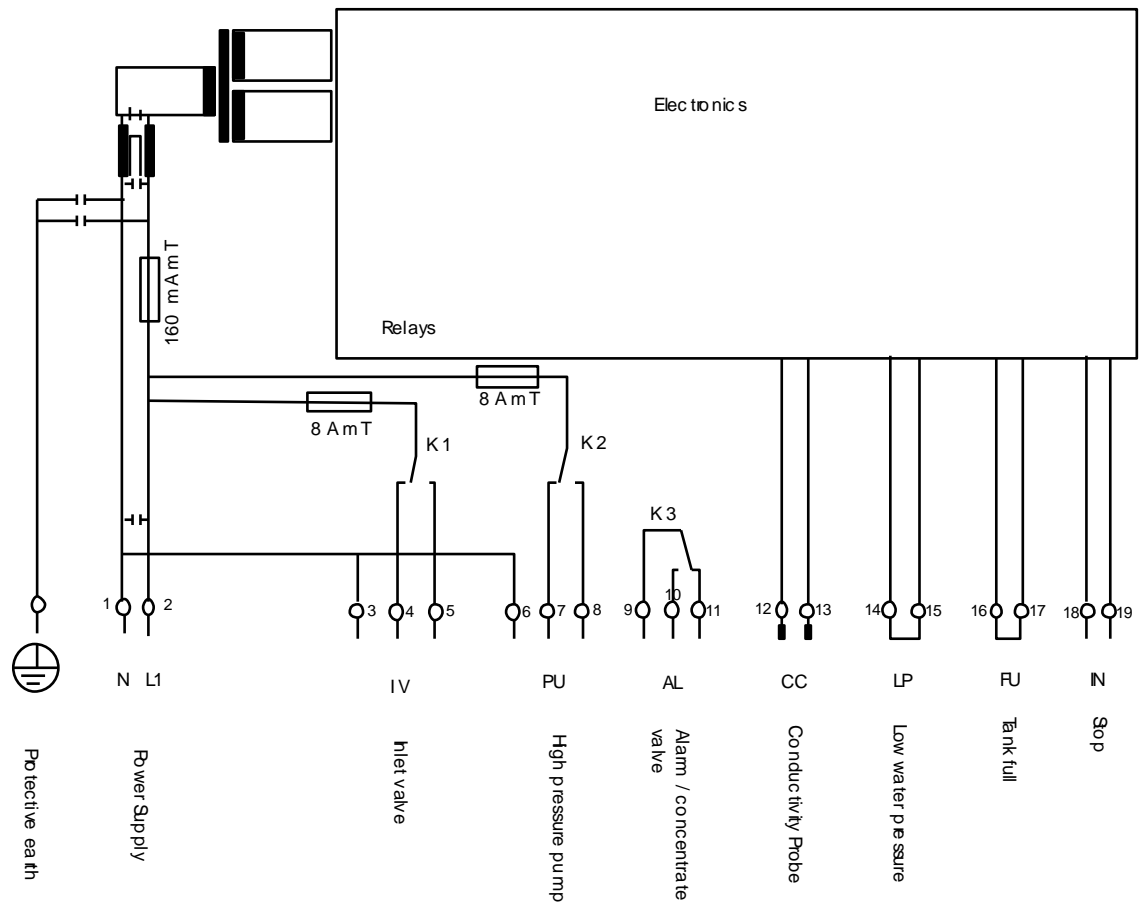
CM Max 19s exceeded
CM to high 19s

This message will appear when the plant has to be switch off when the conductivity is too high. In the right upper corner the remaining time will be shown until the plant will be stopped. When the conductivity is correct within this time the plant will not be stopped and the message will disappear automatically.

Stop CM Max
CM to high STOP

When the plant is stopped you will find this message in the display. The plant can be start again by switching off and on again the controller.

Figure No. 4 Wiring diagram



Electrical connections

(see wiring diagram – Figure No. 4)

Connect the system to the mains (230Vac-50Hz-1-ph-400W).

N.B.: the system must always be supplied from a power socket having a differential safety breaker (in accordance with the regulations in force).

Technical specifications

Model	Nominal capacity	Membranes	Recovery	Technical Specifications		Hydraulic connections	Size			Weight (~)
Condair Pure				Motor	Electric 1-phase + ground		B	D	H	
	l/h	Number	%	kW			mm	mm	mm	kg
05	50	1	65	1.1	230 Vac	Supply : ½" Permeate : ½" Reject : 8 mm Overflow : 32 mm	870	760	1050	40*
10	100	1	65	1.22	230 Vac	Supply : ½" Permeate : ½" Reject : 8 mm Overflow : 32 mm	870	760	1050	42*
20	200	2	65	1.41	230 Vac	Supply : ½" Permeate : ½" Reject : 8 mm Overflow : 32 mm	870	760	1050	45*

* Weight excludes water.

- 1) The CondairPure 05-20 dient unit needs to be protected by a 10 A fuse.
- 2) Average values calculated at the following conditions with new membranes:
 - water temperature : ~20°C
 - operating pressure : ~12 bar
 - salinity of raw water : 500 ppm NaCl
 - product water pressure : 3,5 bar

Pre-assembling instructions

General advice about where to install the appliance

The area where the system is installed must have the following features:

- 1) must be large enough to contain any other water pre-treatment equipment required;
- 2) must be easily accessible for any assembly, maintenance and control procedures;
- 3) must be closed but well ventilated, adequately lit and complete with drain leading to the sewer.

Remove the system from its packaging and position it on a solid base, as close as possible to the point of use.

During installation, remember the following:

- 1) A 0-10 bar pressure gauge and stop valve not supplied with the system must be installed on the intake line, in that order (see Figure No. 3).
- 2) The reject line and overflow connections must be open-ended and flow out to buildings waste line (see Figure No. 3).
- 3) Near to the system, prepare an electrical power socket, protected by a bipolar switch (230V-50Hz + earth).

Water connections

(see Figure No 3)

The side of the system carries the unions for the water connections, as follows:

Intake (Feed) : raw or pre-treated water (1/2").

Permeate (Product) : osmosis treated water outlet (1/2").

Waste (Osmosis reject) : drain for the waste water from the membranes (hose dia. 8 mm)

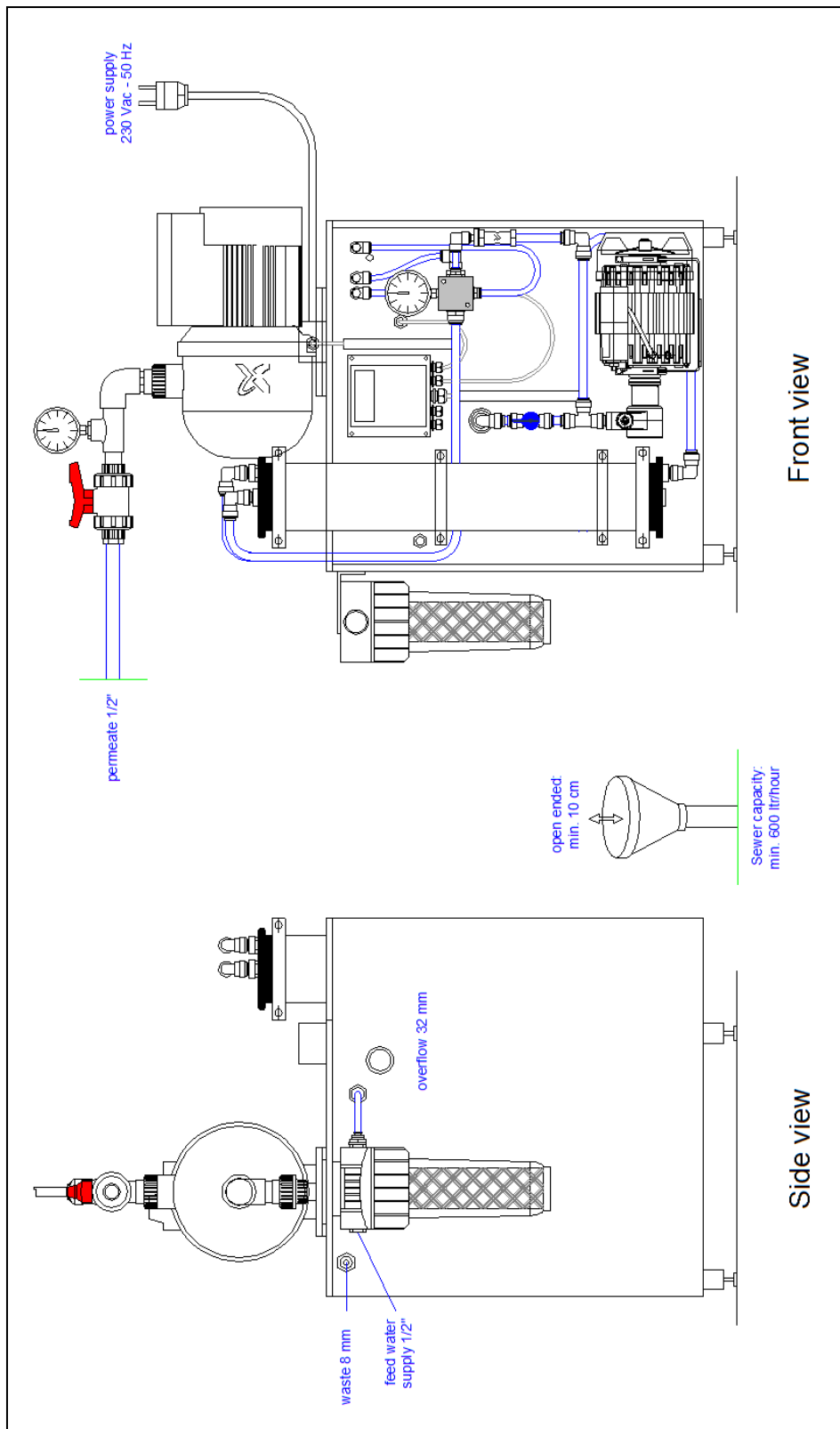
Overflow : overflow connection 32 mm PVC

During installation, remember the following factors:

- 1) The drain line must have unrestricted outlet as described in the installation instructions.
- 2) The "product" line must be connected to the humidification system. When the humidifier asks for water the high pressure transportation pump will automatically start up for supplying the humidification system.

Installation schematic

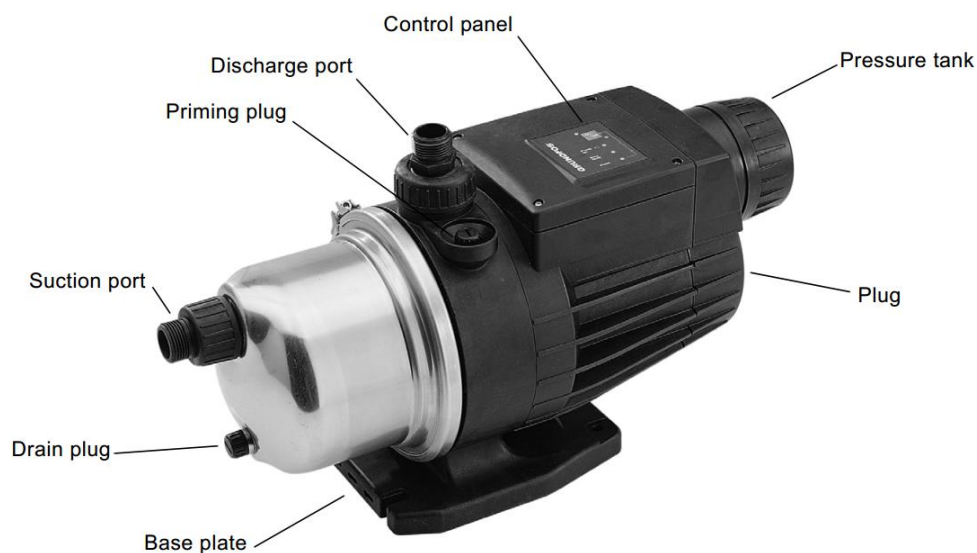
Figure 3



CONDAIR B.V.
Gyroscoopweg 21 - 1042 AC - AMSTERDAM
Tel. +31- (0)20 - 705 8200

Internet www.condair.nl
E-mail info@condair.nl

Pressurized pump MQ-3



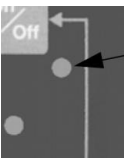
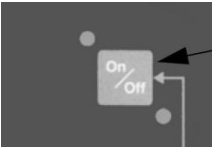
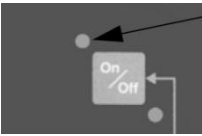
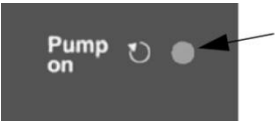
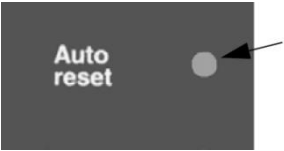
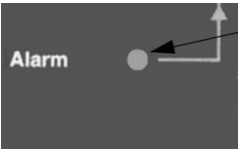
1) Pumped liquids.

Thin, clean, non-aggressive liquids, not containing solid particles or fibres.

2) Technical specifications.

	MQ-3
Maximum pressure [bar]	3,5
Maximum system pressure [bar]	7,5
Maximum suction lift [m],	8
Minimum ambient temperature [°C]	0
Maximum ambient temperature [°C]	45
Minimum liquid temperature [°C]	0
Maximum liquid temperature [°C]	35
Net weight [kg]	13
Sound pressure level [dB(A)]	<70
Tank volume [l]	0,16
Air pressure in tank [bar]	1,5 – 1,7
Maximum flow rate [m³/h]	4,5
Connections	G51
Enclosure class	IP54
Insulation class	B
Supply cable	2 m H07RN-F
Voltage [VAC]	1 x 220-240 V – 10/+ 6%
Power consumption, P1 [W]	850

3) Pressured pump – control panel:

Illustration	Description
1 	Indicator Light (red): When the indicator Light is on, the pump is on standby
2 	On/off button: The pump is started/stopped by means of the on/off button. The on/off button can also be used for manual resetting of an alarm condition: <ul style="list-style-type: none"> • press once for resetting and • press once more for starting
3 	Indicator Light (green) Indicates that the pump is ready for operation. When the indicator light is on, the pump will start automatically when water is consumed. After-run time depends on the flexibility of the discharge pip, but will be at least 10 seconds.
4 	Pump on (green): The indicator Light is on when the pump is running.
5 	Auto-reset (green): <ul style="list-style-type: none"> • When the indicator Light is on, the auto-reset function is activated. The pump will automatically attempt to restart every 30 minutes after an alarm/fault over a period of 24 hours. After this period, the pump will remain in the alarm condition. • When the indicator light is off, the auto-reset function is deactivated. The pump will not restart after an alarm/fault. The auto-reset function can be activated/deactivated by pressing the on/off button for 5 seconds
6 	Alarm (red): The indicator Light is on when the pump is in alarm condition. The alarm condition may have been caused by: <ul style="list-style-type: none"> • Dry running • Overheating • Overloaded motor • Seized-up motor/pump

Start-up Instructions

Make sure all hydraulic connections are made sufficiently. Make sure the outlet valve after the transport pump is closed.

Then open the water tap to fill the system. The break tank will be automatically filled till the break tank is full. Check if there is no leakage.

Then plug the power supply to the start the reverse osmosis system.

This provides two effects simultaneously:

- A) The RO system will automatically start to run and fill the storage with RO water;
- B) The high pressure pump starts up with a delay of a few seconds.

Note : If the inlet water flow is not enough, the plant stops automatically. In the display the message low pressure will appear.

Allow the first water to drain from the system until all the formalin disinfectant solution has been completely eliminated, checking both the product (osmotized) water and the reject water (drain).

Due to the filling with formaline the from the system until all the formalin disinfectant solution has been completely eliminated, checking both the product (osmotized) water and the reject water (drain).

It is possible that the message CD max appears. This message will appear when the plant has to be switch off when the conductivity is too high.

In the beginning all the formalin disinfectant has to be drained. This might give the warning CD max exceeded.

The plant can be start again by switching off and on again the controller.

THE PLANT IS NOW IN OPERATION



All units are pre programmed, tuned and tested. If any adjustments need to be made, please contact our support team.

Maintenance Instructions

Running

Regular checks and adjustments on the main operating parameters (pressures - flow-rates - salinity) will show up any anomalies.

These anomalies can be avoided by means of regular maintenance.

A proper servicing programme and reference to the troubleshooting table will allow any problems which may occur in spite of (or in the absence of) maintenance.

Maintenance

The main maintenance procedures involve the regular replacement of the filter and the sanitizing of the system when required.

Replacing the filter cartridges

The filter cartridge must be replaced every 2 months.

Troubleshooting

Problem		Cause	Remedy
1) The high pressure pump motor unit does not run.	A)	Circuit fuse blown.	a) Replace fuse and identify the cause.
	B)	Water pressure insufficient.	b) Check that the hand-operated PVC valve is open.
	C)	Pre-filter cartridges dirty.	c) Check condition of the cartridges and replace if necessary.
	D)	Low pressure switch set incorrectly.	d) Check and adjust the lower pressure switch.
	E)	Solenoid valve burnt out.	e) Replace the solenoid valve.
	F)	High pressure switch insufficient.	f) Replace the high pressure switch.
2) Pressure insufficient.	A)	Pre-filter cartridges dirty.	a) Replace pre-filter cartridges.
	B)	Pump by-pass regulator screw set incorrectly.	b) Adjust pump by-pass screw.
	C)	Pump is faulty.	c) Replace pump.
	D)	Module faulty.	d) Check the module thoroughly and only replace when the causes of the fault have been identified.
3) Poor quality output water.	A+B)	The chemical and physical characteristics of the intake water have changed.	a) Check the chemical and physical characteristics of the intake water.
			b) Modify the chemical pre-treatment.
	C)	Valve which regulates the high reject is dirty.	c) Check and replace the flow reject.
	D)	Osmosis modules have deteriorated.	d) Carry out a chemical flushing procedure on the osmosis modules and replace if the output water quality remains poor.
4) Output water flow-rate insufficient.	A)	Intake water temperature too low.	a) If possible increase intake water temperature to 20°C.
	B)	High pressure pump breakdown.	b) Check the maximum pressure delivered by the pump and replace if necessary.
	C)	Incrustation on modules.	c) Carry out a chemical flushing procedure on the osmosis modules and replace if the desired results are not obtained.

Exploded Views

CondairPure 05-20 reverse osmosis



Pressure : 12 - 15 bar

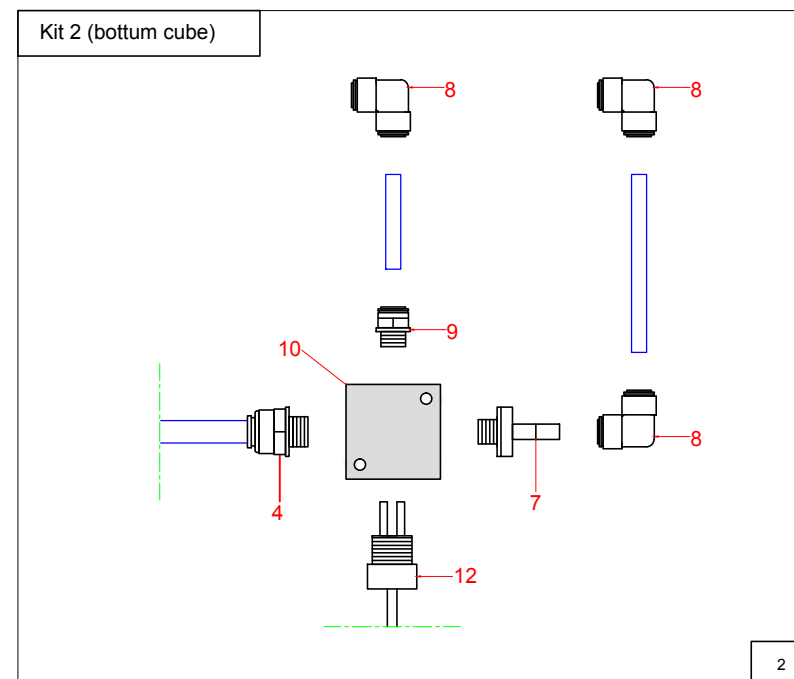
Temperature : minimum 2⁰ C
maximum 43⁰ C

Power supply : 230 Vac – 50 Hz

Reverse osmoses system : CondairPure 05-20

Condair B.V.
Gyroscoopweg 21, 1042 AC, Amsterdam
Tel. +31- (0)20 – 70 582 00
Internet www.condair.nl
E-mail info@condair.nl

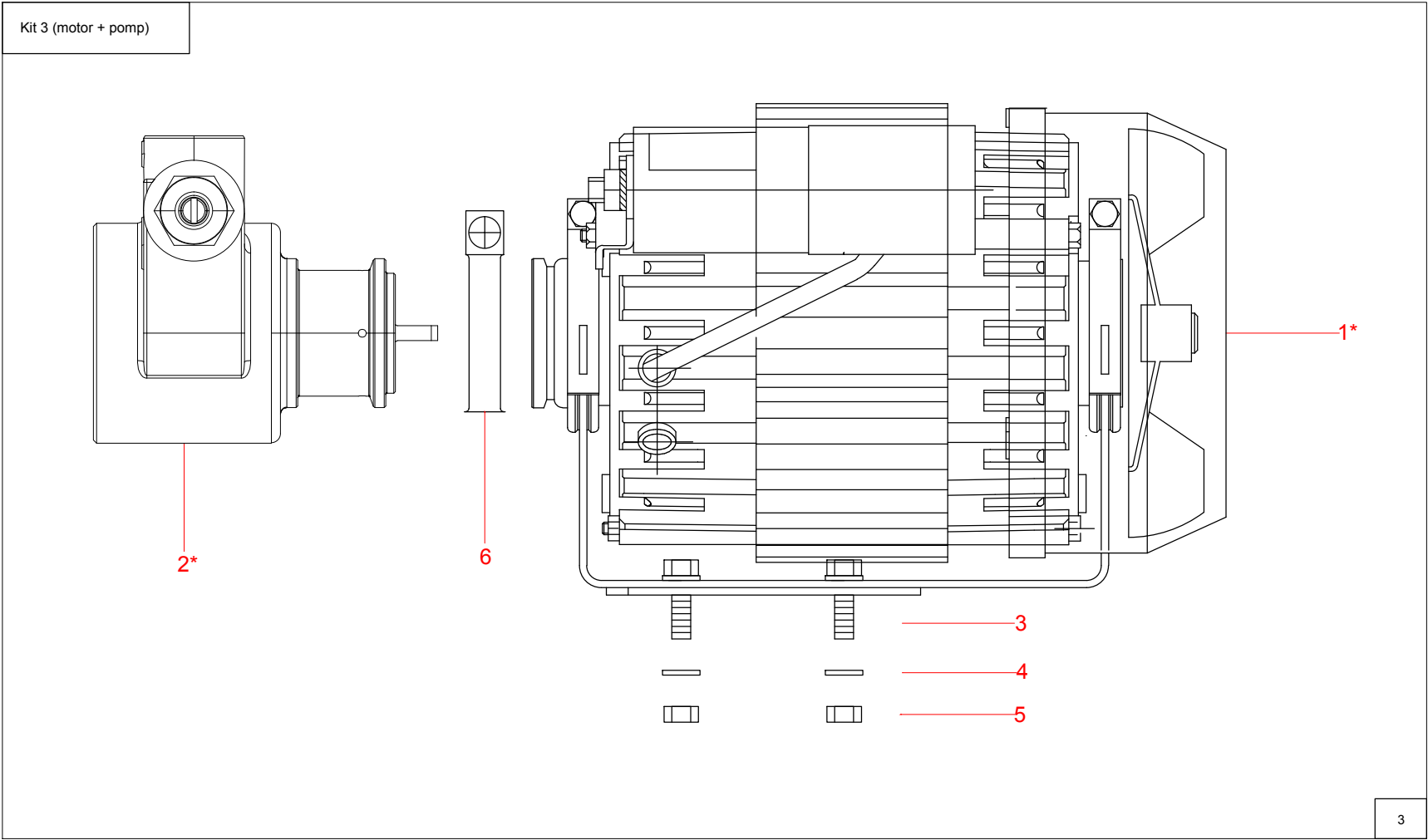
7	RINIP 1/4" x 8 mm	1	AL-10100813
8	KKI- 8 mm	5	JG-PM0308E
9	RIKIP 1/4" x 8 mm	3	JG-PM010812E
10	Plastic block RX	2	ER-10081157
11	Pressure gauge 1/4 "	1	BO-0859933
12	Conductivity sensor	1	MANI-K05
13	R Stop Valve - 12 mm	1	AL-14331212




		Date: 17-07-2014	Scale: 1:4
		Drawing type: ACAD	Format: A4
Projection: Exploded view	Description: Kit 1+2 CondairPure 05-20	Measurements: (mm)	
		Drawn by: Onno Zwaan	

Type		Description	Quantity	Part number
CP 05	1*	Motor 245 Watt	1	IM-66014005
	2*	PR4 ASX	1	IM-67101004
CP 10	1*	Motor 373 Watt	1	IM-66014006
	2*	PR6 ASX	1	IM-67101006
CP 20	1*	Motor 560 Watt	1	IM-66014007
	2*	PR8 ASX	1	IM-67101008

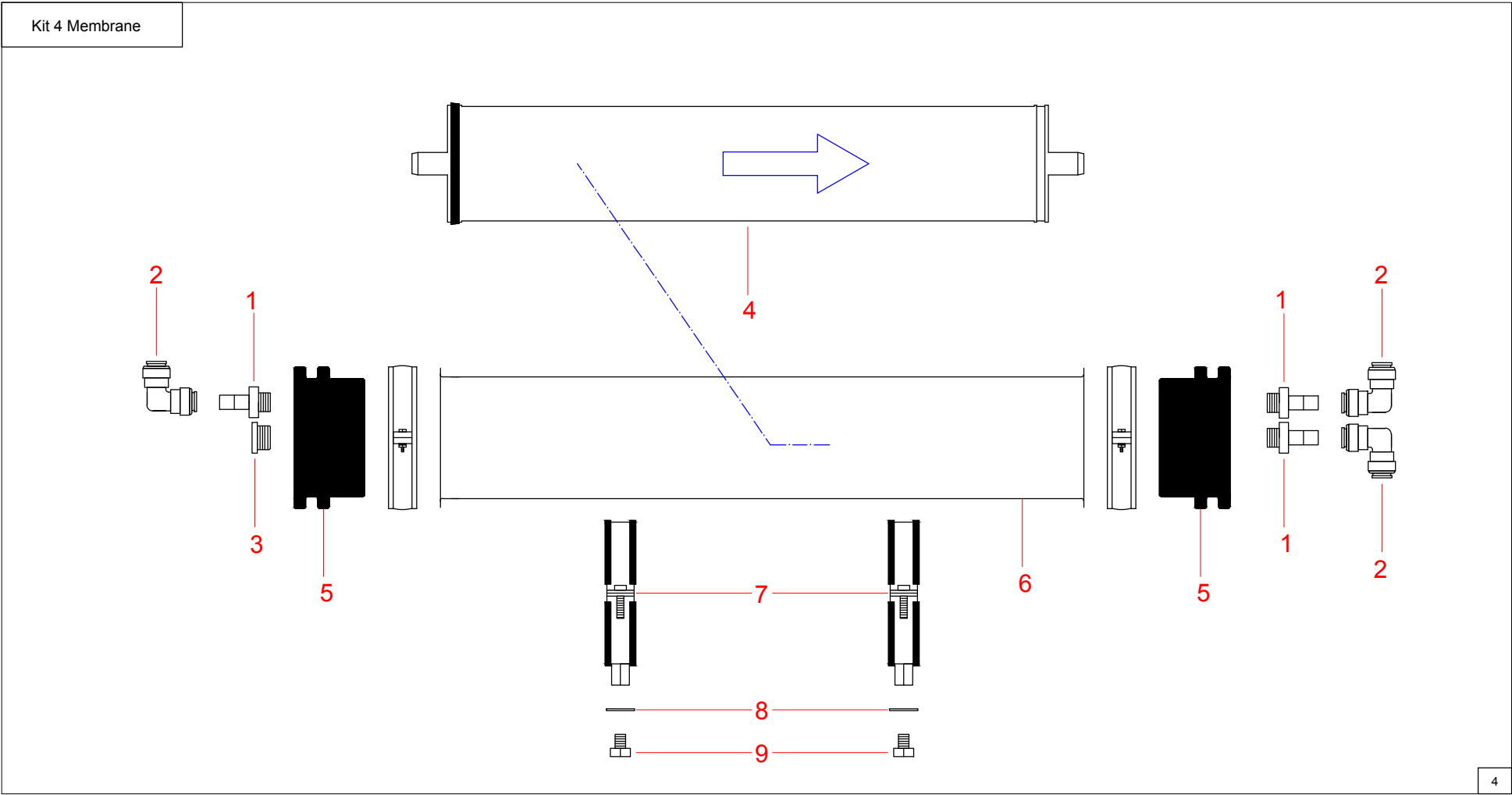
	Description	Quantity	Part number
3	Bolt A2 M6	4	WRT-0094516
4	Ring A2 M6	8	WRT-04096
5	Nut A2 M6	4	WRT-03226
6	Clip	1	-



		Date: 16-07-2014	Scale: 1:2
		Drawing type: ACAD	Format: A4
Projection: Exploded View	Description: Kit 3 CondairPure 05-20	Measurements: (mm)	
		Drawn by: Onno Zwaan	

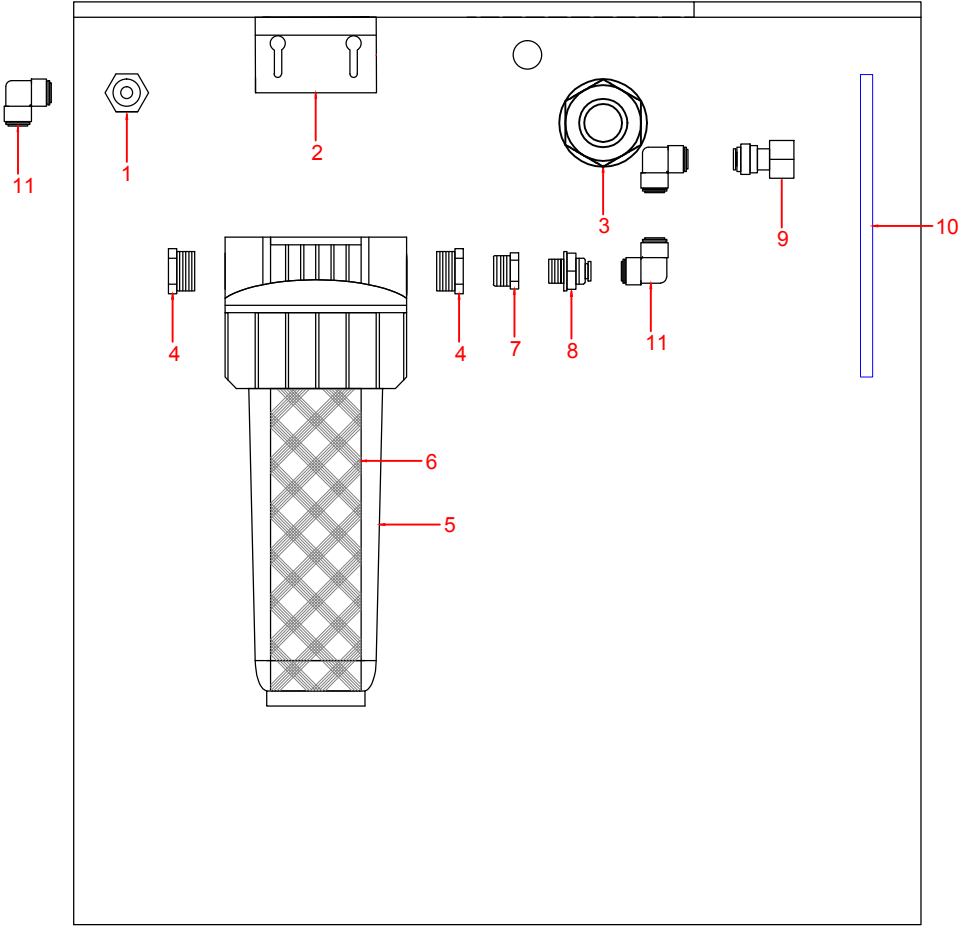
	Description	Quantity	Part number
1	RINIP 1/2" x 12 mm	3	AL-10101221
2	KKI - 12 mm	3	JG-PM0312E
3	Plug 1/2"	1	AL-40182101
4	Membrane 4021 TE	1	SH-9902001318
5	Endcap	-	BW-4021-EKP

	Description	Quantity	Part number
6	Pressure housing	1	BW-BN1-4021
7	Pipe bracket 101 - 106 mm	2	AL-96101106
8	Ring 10x25x1,5	2	WRT-04111025
9	Bolt M10 x 12	2	WRT-00571012




		Date: 16-07-2014	Scale: 1:5
		Drawing type: ACAD	Format: A4
Projection: Exploded View	Description: Kit 4 CondairPure 05-20	Measurements: (mm)	
		Drawn by: Onno Zwaan	

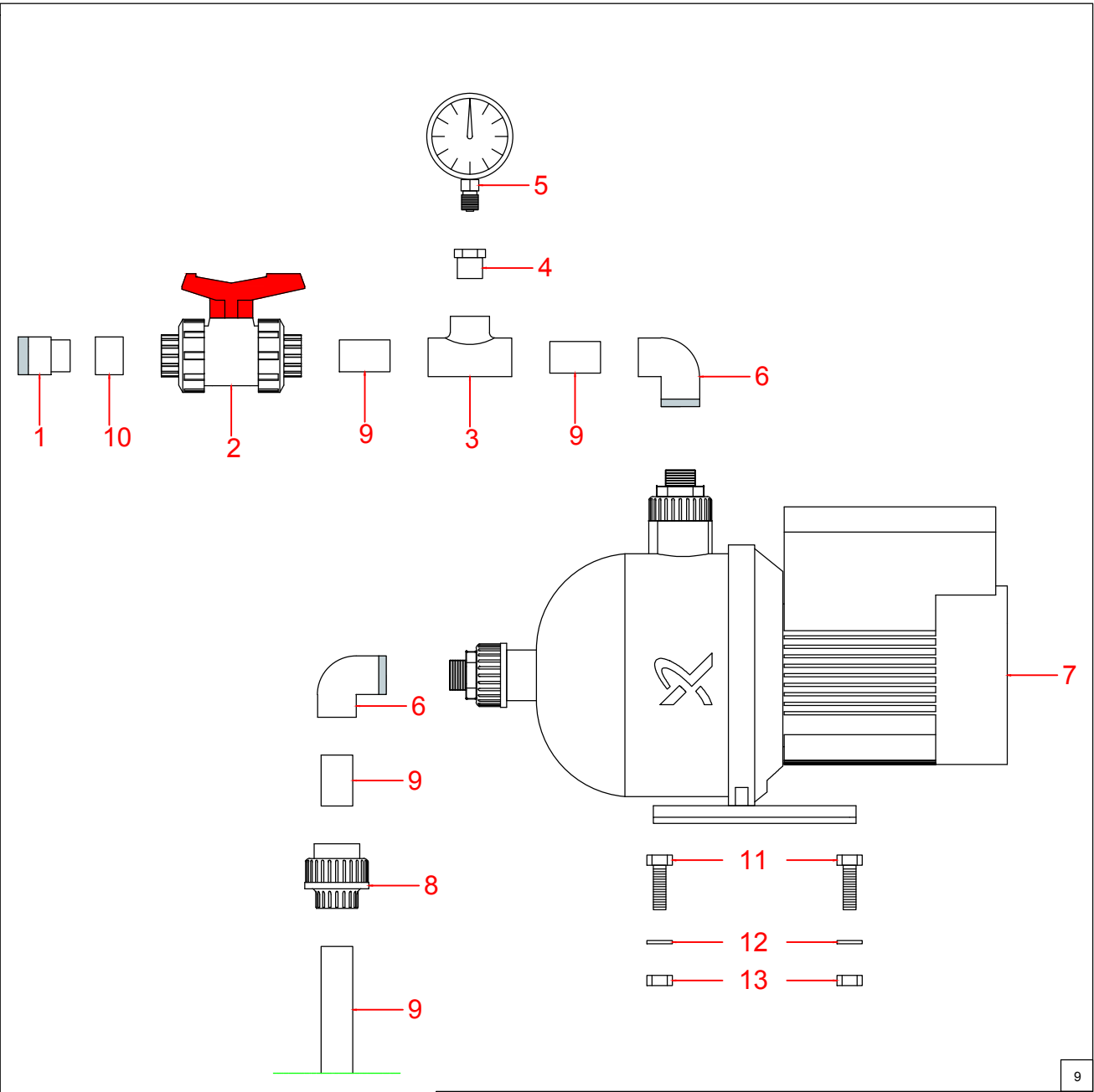
	Description	Quantity	Part number
1	Tank transit SDKI - 8 mm	1	JG-PM1208E
2	Bracket filter single	1	-
3	Tank transit 25/ 32 X 1"	1	BO-0100541
4	Reduction ring VR-P 3/4" - 1/2"	2	AL-40052721
5	Filter 10" 3/4"	1	EA-1604007366
6	Filter 10" 5u (D60 - H248 mm)	1	TF-934005
7	Reduction ring VR-P 1/2" - 3/8"	1	AL-40052117
8	RIKIP 8 x 3/8"	1	JG-PM010813E
9	ROKI 8 x 1/2"	1	JG-PM4508C5S
10	Tubing PA 8 x 6 mm zwart	1	JG-PA-FM-0806-100M-E
11	KKI - 8 mm	3	JG-PM0308E



side view

		Date: 17-07-2014	Scale: 1:8
		Drawing type: ACAD	Format: A4
Projection:	Description: Kit 8 CondairPure 05-20	Measurements: (mm)	
		Drawn by: Onno Zwaan	

	Description	Quantity	Part number
1	PVC nippel 25 mm x 1/2"	1	TH-721910437
2	PVC Ball valve 32 mm	1	BO-0111378
3	PVC T 90° 32x20x32	1	BO-0110291
4	PVC ring 20 mm X 1/4" bi. [16bar]	1	BO-0110781
5	RVS Pressure gauge 63 mm 1/4" OA	1	BO-0859933
6	PVC knee 90° 32 mm x 1" RVS ring	2	TH-721100208
7	GRFS MQ3-35 Pressurepump	1	GRU-96515412
8	3/3 Connector SG 32 mm 10 BAR	1	BO-0110073
9	PVC pipe 32 mm 16 BAR	1	BO-0329132
10	PVC ring 32-25	1	BO-0110736
11	Bolt VZ 10 x 35 mm	4	WRT-00571035
12	Ring M10x25x1,5	4	WRT-04111025
13	Nut VZ M10	4	WRT-031710



		Date: 17-07-2014	Scale: 1:5
		Drawing type: ACAD	Format: A4
Projection:	Description: Kit 9 CondairPure 05-20	Measurements: (mm)	
		Drawn by: Onno Zwaan	