AirStar AERO™

AERO100 • AERO100M • AERO200 • AERO200M

OPERATING INSTRUCTIONS

AERO200M

AIR TECHNIQUES equipped for life™

The present operating instructions give you all the necessary advice for the proper and safe handling of the oil-free compressor stations.

Please read and carefully observe the operating instructions to avoid mistakes and dangerous situations.

The operating instructions are arranged as follows:

Chapter	Planned purpose	Target group
Chapter 1	Gives you safety advice and important general information for the products.	Installer, operator, qualified personnel, user
Chapter 2	Contains detailed instructions and advice for the transport, storage, installation and the initial operation of the product.	Operator, installer and qualified personnel
Chapter 3	Contains instruction and advice for safe technical handling of the product.	User
Chapter 4-6	Gives detailed instruction for cleaning, maintenance and servicing the product.	Operator, qualified personnel
Appendix	In the appendix you will find important technical information.	Qualified personnel

This operating manual is valid for oil-free compressor stations, hereinafter called product.

The operating manual is only valid so long as your product complies with the information described within.

These instructions contain all details required for the transport, installation, operation, shut-down and maintenance of these products.

Therefore please read the operating instructions carefully prior to the first operation, thus ensuring the safe and economic application of the products.

When a fault occurs or maintenance is required, which is not covered by the operating manual, you should contact your authorized distributor.

Therefore it is essential to hold the exact product description in readiness.
(see type plate at REF)

All service and maintenance work must be carried out by qualified personnel.
If service and maintenance work is neglected or carried out improperly, our warranty will be invalidated.

Should you have any problems understanding the operating instructions please contact your local Air Techniques representative or distributor from which the unit was purchased.

CONTENT

Appendix

1. INTRODUCTION AND GENERAL ADVICE

1.1 Symbol explanation and definition

1.1.1 Symbol explanation

In the manual and on the product hand symbols and pictograms are used whose meaning you should memorize. These symbols help you to understand the information in this manual quicker and make you aware of potential danger or important advice.

Attention! Danger sign. It points out danger as well as rules and bans to prevent personal and /or danger to property.

Advice! Attention is brought to advise on the handling and economic use of product.

Warning against electric energy! Your life could be in danger. Make sure that all electrical work is carried out by a qualified electrician.

Warning advice. The product can start without warning!

On the product and in the operating instruction special information signs and warning Symbols with following meaning are used:

Warning of hot surfaces! There is a danger of burns! Observe especially that these surfaces may still be hot after the product has been switched off. Work near these surfaces only after they have cooled off.

1.1.2 Definitions

User, Operator: The responsible person who has the authorization to use the product. The user must have been given instructions on the safe handling of the unit from the appropriate authority.

Operator Authority: Responsible for the safe installation, regular servicing and cleaning of the product.

Qualified personnel: Trained by the operating authority or by authorised Air Techniques personnel who are aware of the dangers of the product and familiar with the technical aspects of the product. Qualified personnel are trained to carry out service and repair on the product.

Product: General term used for oil-free compressor stations.

1.2 General safety advice

During use, care and maintenance of the product, the following fundamental safety measures must be observed for the protection of the operator, maintenance and service engineers as well as the product:

During the development and manufacture of the product, the recognized regulations of the technical aspects, as well as the recognized valid standards and guide-lines were taken into account and used. In addition the product has been designed and constructed in such a way that endangerment through the agreed use are minimized. Nonetheless we feel obliged to describe the following safety measures so the remaining dangers can also be minimized.

Warning! When electrical equipment is being used, the basic safety precautions must be followed, to prevent risk of fire, electric shock and personal injury.

Therefore please read the manual prior to starting work. Keep this manual within reach for the engineer and the operator. The information should be passed on to any successor.

During operation of the product the relevant laws and regulations for the place of deployment must be observed. In the interest of safe operation the authorized operator and the supervisory personnel are responsible for keeping within the regulations.

Check during all work on the product for possible dangers. All parts must be correctly fitted and all requirements fulfilled to ensure safe operation. Should the product be damaged in any way, the product should no longer be used. The product should only be repaired by experts. Mark the defect clearly and pull out the mains plug, so that until the repair is effected, no accidents or damage can occur through the defective product.

Take account of environmental influences!
Do not operate the product in a wet or damp environment.

Do not use the power connection line for purposes it was not meant for. Do not pull the plug out of the socket by the cable. Only pull the plug from the socket by pulling the plug casing. Protect the cable against heat, oil and sharp edges.

In dangerous situations or during technical problems, separate the product at once from the power supply (pull the plug).

Check regularly the power supply line and the casings of electrical components and if they are damaged, have them repaired by a qualified electrician.

Check the electrical equipment for external damage before work starts. Check thoroughly whether lines or cables are damaged. If there is damage, do not operate the product.

If there is damage, do not operate the product. **Pull out mains plug!**

For all maintenance and repair work the mains plug must be pulled out of the socket.

Attention! Work on electrical equipment must only be carried out by a qualified electrician.

Only original spare parts must be used. Otherwise there may be injury to the user.

Warning! The use of other spare parts and other accessories, as stated in this manual, can cause personal injury. Only use spare parts permitted by the manufacture

Warning of hot surfaces! Do not touch hot surfaces. The surfaces of the machine can still be hot after shutdown. Mind this especially at mobile compressor stations.

1.3 Product description

1.3.1 Agreed application

The product is intended for the compression of air.

The aspiration of fluids, aggressive or explosive gases is forbidden! It will cause danger to health and the possible danger of explosion or fire!

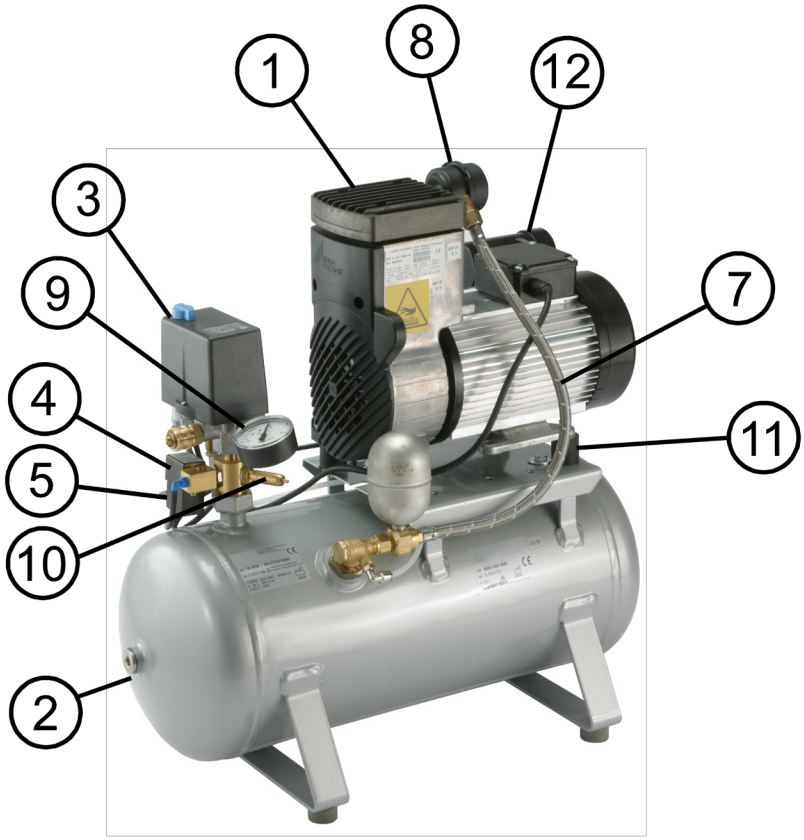
The product is designed for operation in a dry, well ventilated room. Never expose the compressor station to rain. The product should not operate in a damp or wet environment. In addition, operating near gases or flammable fluids is forbidden.

1.3.2 Function description without drying installation

The product consists of a piston compressor, a pressure tank and control gear with operating and safety elements. Via the suction filter (8) Figure 1a atmospheric air is aspirated. This air is compressed by the piston in the cylinder. The inlet or outlet valve shuts off flow in one direction, so the compressed air is made to lead via the pressure hose (7) through the check valve integrated in the manifold into the pressure tank (2).

The compressor aggregate (1) supplies compressed air until the set shut-off pressure of 7 bar is indicated in the pressure switch (3) before switching off. The tank pressure is indicated by the pressure gauge (9). Pressure is released in the pressure hose by the integrated relief valve.

If compressed air is taken out by user, the tank pressure reduces. On reaching the switch-on pressure, the product is automatically switched on again via the pressure switch. A safety valve (10) prevents the maximum permitted tank pressure being exceeded



1	Compressor	5	Condensate solenoid	10	Safety valve
2	Pressure tank	7	Pressure hose	11	Vibration damper
3	Pressure switch	8	Suction filter	12	Capacitor
4	Starter solenoid	9	Pressure gauge		

Figure 1a. AERO100 Key Components

1.3.3 Function description with drying installation

The product consists of a piston compressor aggregate, a pressure receiver, a control unit with control and safety elements, a cooler and a membrane dryer.

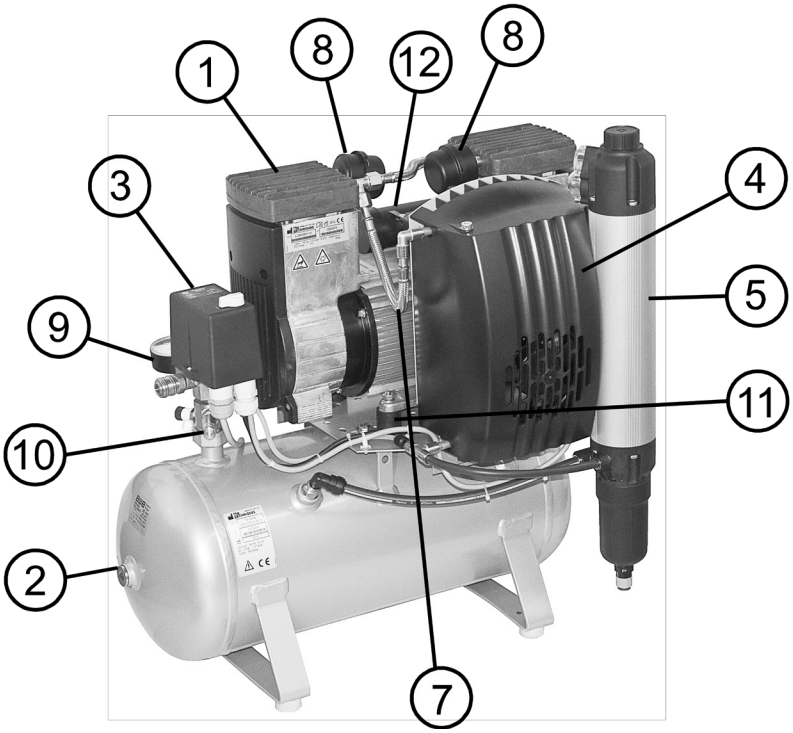
Atmospheric air will be sucked in by the suction filter Figure 1b. This air will be compressed by the piston in the cylinder. The inlet and outlet respectively close a flow direction, which leads the compressed air to the cooler (4) and then the membrane dryer (5).

The hot and humidity saturated compressed air coming from the compressor aggregate flows into the cooler (4). In the cooler the compressed air will be cooled down to only a few degrees C above the room temperature, hereby condensing out water. 100 % saturated compressed air and condensate are separated from the cooler and flow into the drain-valve. The condensate which is in the air will be separated by the sinter filter and accumulated in the water collecting receiver. The automatic condensate drain valve blows off the water, level-controlled, periodically. Thereafter the air will be directed to the membrane element. The air flows through the membrane fibres thereby the water molecules contained in the air diffuse through the membrane wall and accumulate outside of the fibre. The dried air flows now via the fine filter, the relief valve and the check valve to the receiver (2).

For regeneration a small portion of dried air will be directed via the purge air nozzle to the outside of the membrane fibre, absorbs the accumulated humidity and will be discharged to the ambient. This
regeneration is made continuously during operation. No standstill periods are necessary. The relief valve which is built in in the upper part of the membrane makes sure that the membrane dryer reaches its nominal operation value within the shortest possible time. The moisture indicator which is installed in the upper part of the membrane is visible through the transparent upper part. In case of a failure of the dryer which causes an insufficient air drying, there will be a color change from blue into pink.

The compressor aggregate (1) generates compressed air as long as the pressure switch (3) signalizes that the adjusted shut-off pressure is reached. Now the machine shuts down. The pressure is indicated by the pressure gauge. (9) The pressure hose will be depressurized by the integrated relief valve.

The tank pressure declines when taking out pressure for a consumer. On reaching the start-up-pressure the compressor aggregate will be automatically restarted by the pressure switch. A safety valve (10) prevents that the maximum permitted tank pressure is exceeded.



1	Compressor
2	Pressure tank
3	Pressure switch
4	Cooler
5	Membrane dryer
7	Pressure hose
8	Suction filter
9	Pressure gauge
10	Safety valve
11	Vibration damper
12	Capacitor

Figure 1b. AERO200M Key Components

2. TRANSPORT, STORAGE, INITIAL OPERATION

2.1 Transport and Storage

The products are sent from the factory packaged in a transport carton. With this the equipment is safe against transit damage. Always use the original packaging of the product as necessary. Transport the product in an upright position. Do not pick up the unit by the membrane dryer or cooler assembly.

Protect the equipment during transport and storage against damp and extreme temperatures. Take special care that the electrical equipment does not get damp or wet.

Only transport products depressurized! Remove air pressure from any fitted pressure containers and hoses prior to shipment.

Before transporting or storage, the condensate water in the tank must be drained completely (see chapter 4: maintenance and service). The products are delivered for immediate assembly. Products still in the original packing can be stored in warm, dry and dust free rooms. If the products should be stored long term, e.g. as a replacement product, it must be protected against dust and damp.

Keep packaging if at all possible.

Environmental rules regarding the disposal of the packaging must be observed and to assist this please note the labels on the packaging.

2.2 Transport and storage requirements

Temperature: -25 °C to + 55 °C
Relative humidity: 10% to 90%
(without condensation).

2.3 Assembly advice and initial operation

The installation and initial operation must only be carried out by a specialist familiar with the handling of the product.

2.3.1 Environmental conditions

The product must only be installed and operated in dry, well ventilated and dust free rooms.

Take care when choosing the site for installation that the product is easily accessible for operating, cleaning and maintenance. Especially the connection piece and the operational parts must be easily accessible.

The product should be installed on a level and solid surface. To reduce vibration the supplied vibration dampers should be mounted. If the product is built into a machine or housing, it must be noted that the identification plate is visible and readable, without having to dismantle the product. Also ensure that the connection clamps are easily accessible when taking off or opening the housing.

Make sure that the suction sides of the air filter and the cooler are free of any obstructions. Verify that the ventilation ribs of the product are not blocked and there is sufficient space from the side wall distance (approximately 4 cm).

Make sure that the power line connection and the air lines are not kinked.
Room temperature must not fall below 5°C, otherwise problems with the operation of the product may occur.
The room temperature must not exceed 40°C. Room temperatures above 40°C will require additional ventilation.
Most suitable ambient temperatures are between 10 °C to 15 °C.

Approximately 70% of the products induced electrical energy is converted into heat and is given off to the surrounding area.

The motor ventilator normally ensures an effective pressurized cooling of the product. To do this the air must be able to flow unhindered. Ventilation openings must be large enough to allow this to happen. In unsuitable cases, e.g. when the product is built-in an independent air cooling system might be required.

2.3.2 Compressed air connection

The compressor stations are fitted as standard with control gear, consisting of a pressure switch, pressure gauge, safety valve, check valve and condensate drain.

The compressed air connection takes place at the pressure switch via a 0.635 cm ID thread. A quick coupling with hose nozzle if not included in the scope of delivery, is available as an accessory. Fasten the pressure hose at the hose nozzle with the help of a hose clamp.

Approximately 70% of the products induced electrical energy is converted into heat and is given off to the surrounding area.

To prevent vibration transference it is advisable to install a flexible pressure hose between the pressure switch and user's line. As a further accessory, a pressure reducer unit (see figure 4) can be connected.

2.3.3 Electrical installation

The connection to the mains voltage supply must only be carried out by a qualified electrician! (with the exception of the ready to plug-in supplied stations for connection to the safety plug socket).

Observe closely the local regulations for power undertakings. The connection must only be carried out on a power supply with correctly installed protective conductor. Equipment with safety contact plug must be connected to a safety contact socket.

The product should only be connected to a safety plug socket, DE1 with correctly installed protective conductor. If this is not fitted the plug has to be exchanged by a qualified electrician according to the customary loading system.

If the equipment is hard wired to the power supply a switch arrangement must be arranged with at least a 3 mm wide contact opening (e.g. heavy duty switch).

If the product is connected to the power supply with the aid of a plug, the socket must be easily accessible for safety reasons, so that in the event of danger the equipment can be isolated from the power supply. Please make sure that the connection cable does not run across the machine. The hot surface of the compressor station could damage the insulation of the cable.

Prior to making the electrical connection, check the mains voltage and frequency. They should correspond with the specifications on the model label.

Please observe that the relevant circuit is protected by the correct fuse.

2.3.4 Motor protection

Attention! After cooling off, products with temperature switch start again automatically!

If the motor locks for example on starting against pressure or a short circuit in the motor windings, the current consumption can become so high that a fitted temperature switch might get damaged. This can only be controlled in a safe way by the installation of an external overload protector.

When using outside of normal operating conditions the installation of an overcurrent switch is absolutely essential!

Should the installation procedures be disregarded or carried out incorrectly the warrantee will be invalidated.

Motor protection for 1-stage AC-current motors (230 V AC):

The motors are equipped with a thermal protection switch to prevent overheating of the motor windings. In the case of too high an ambient temperature, the thermal protection switch shuts down the unit by cutting off the operating current.

2.3.5 Circuit diagram

The connection to the mains voltage supply must only be carried out by a qualified electrician! (with the exception of the ready to plug-in supplied stations for connection to the safety plug socket).

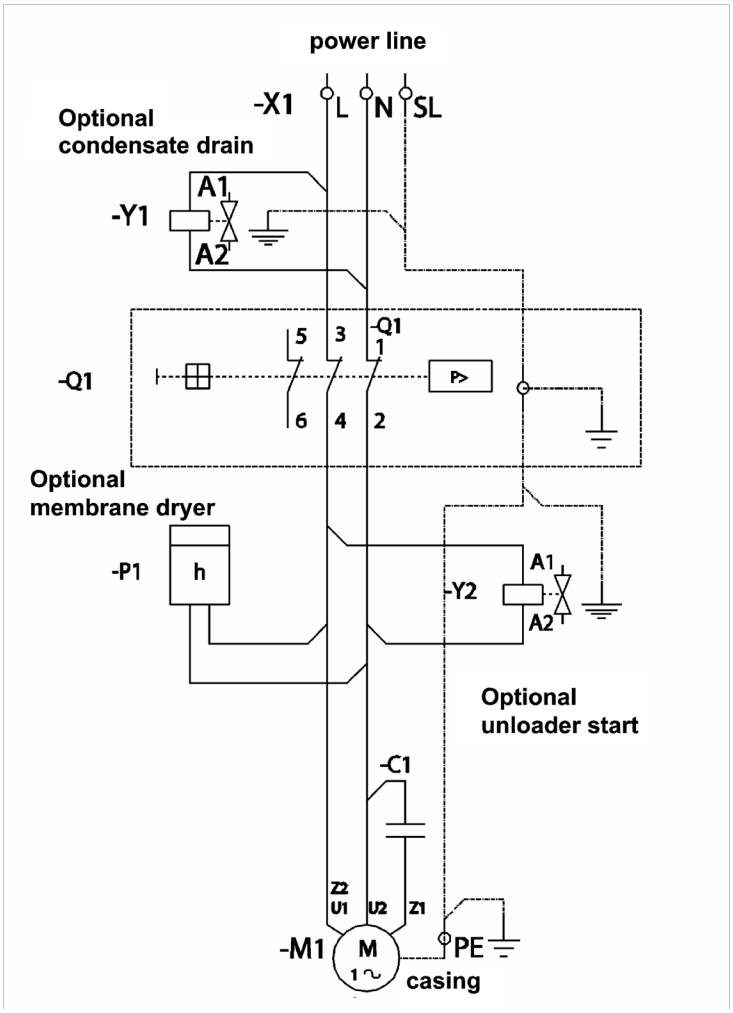


Figure 2. Circuit diagram for one-phase alternating current

Advice! Write down the correct operation in the equipment log book.

2.4 Initial operation

- Make sure the product pressure switch is off.
- Check the connections are correct to the compressed air components.
- Make sure the machine is correctly connected to the power supply.
- Check that the air filter is correctly fitted.
- Switch the compressor station on at the pressure switch.
- Listen during operation for unusual noises.
- Check the switch-off pressure of the product.
- Check the switch-on pressure of the station by releasing the pressure.
- Check the safety valve for correct function.

3. OPERATION

The operation of the product is quite simple and is mostly automatic.

Please always remember that the product has hot surfaces. There is a danger of burns if the surface is touched.

In the case of danger, separate the machine from the mains (pull the mains plug).

3.1 Switching on the product

The product is switched on at the pressure switch to setting “I” - “ON”. The product starts and the pressure tank fills up. When reaching the switch-off pressure, the product turns off automatically.

Please watch closely that the maximum permitted operating pressure is not exceeded. The permitted operating pressure is marked on the fitted pressure gauge with a red line.

If the permitted operating pressure is exceeded, you must switch the product off and separate it from the mains supply (pull out mains plug). Inform the responsible qualified staff.

3.2 Switching off the product

Switch off the product to setting “0” - “OFF”.

3.3 Switching on the product after a power supply interruption

Advice: The product will not start against pressure. Therefore the products are fitted either with an expansion tank (1) and a mechanical vent valve (2) Figure 3 or with an automatic starter valve.

Switching on machines with expansion tank and mechanical vent valve and machines with drying installation:

1. Switch off product at pressure switch.

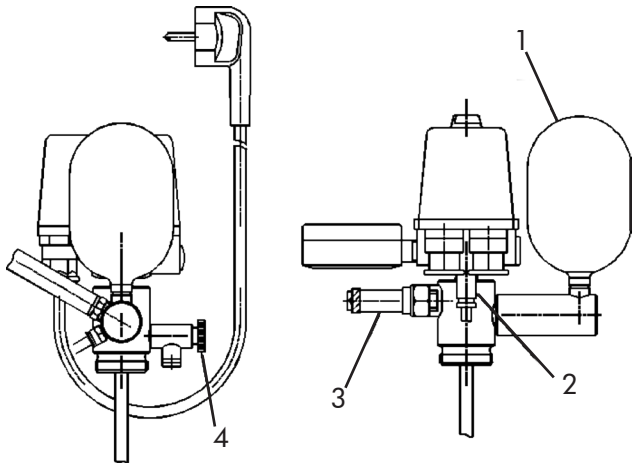
2. Restart the machine at the pressure switch, after the air has been blown-off of the starting volume (this will take approximately 5 seconds).

Machines with automatic starter valve:

If the product is fitted with an electric starter relief valve, the normally closed valve provides for the pressure free starting of the product.

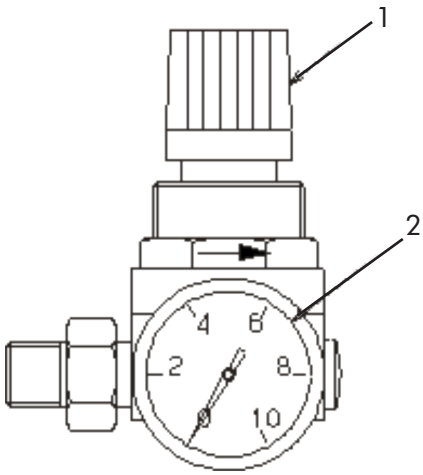
3.4 Pressure tank check

According to the regulations pressure receivers up to 25 l, corresponding to the pressure tank contents p x l < 200, are allocated to group 1 of paragraph 8 classification and not subject to recurrent tests pursuant to paragraph 10. The pressure tank conforms to the EU guidelines 87/404 EEC.



1 Starting Sphere
2 Mech. Ventilation Valve
3 Safety Valve
4 Mech. Condensate Screw

Figure 3. Start Against Pressure



1 Regulator Knob
2 Pressure Gauge

Figure 4. Pressure Reducer

3.5 Pressure reducer

The pressure reducer regulates the tank pressure (primary pressure) to the required working pressure (secondary pressure). With the additional secondary valve the increase of pressure in the user line when not in use is prevented. The pressure reducer is mounted at the pressure switch (0.635 cm thread).

3.5.1 Setting of the pressure reducer

By slightly lifting the regulator knob (1) the constant pressure can be altered. Increase (+) pressure by rotating the regulator knob clockwise or decrease (-) pressure by turning the regulator knob counterclockwise.

When the pressure is set, push the regulator knob downwards and let it engage. The set pressure is now fixed. It can be read on the pressure gauge (2).

4. MAINTENANCE

Chapter 4 contains all the details which are needed for carrying out the necessary maintenance procedures. If faults occur or a repair is needed which is not dealt with in this chapter, contact our engineer immediately.

4.1 Maintenance, Cleaning

For the proper and safe function of the product, regular cleaning and rotational maintenance is required.
When faults appear or a repair is needed, inform an authorised engineer. Before any cleaning work is carried out the product must be switched off and separated from the mains power supply (pull out mains plug).

The product has hot surfaces. Please let the product cool down before starting any cleaning work.

Clean the surfaces of the product with a dust free cloth. Take special care to keep the ventilation openings of the crankcase chamber and the cylinder head free from dust and dirt.

4.2 Maintenance

The stated maintenance intervals are guidelines for normal working conditions. If there are extreme working conditions (e.g. long work times under full load, high ambient temperature, very dusty atmosphere, high humidity) the maintenance intervals will need to be shorter. When carrying out maintenance work, the product must be disconnected from the power supply.

The product has hot surfaces. Please let the product cool down before starting any cleaning work.

4.2.1 Drain condensate water from pressure tank

Mechanical condensate drainage:

Drain the condensate from the compressed air tank once a week.

Automatic condensate drainage:

Should the product be fitted with an automatic condensate drain valve, it will empty the compressed air tank on its own at regular intervals.

For compressor types with drying installation the condensate will be separated automatically by the drying installation.

Table 4-1. Maintenance Intervals

Required Maintenance	Chapter	Time interval
Drain water condensate	4.2.1	Weekly (only with mechanical condensate drain), for machines with drying installation check 2 x yearly, drain when necessary
Change suction filter	4.2.2	Yearly
Check safety valve	4.2.3	Half yearly
Inspect carbon brushes	4.2.4	Half yearly
Change filter of membrane dryer	4.2.5	Yearly

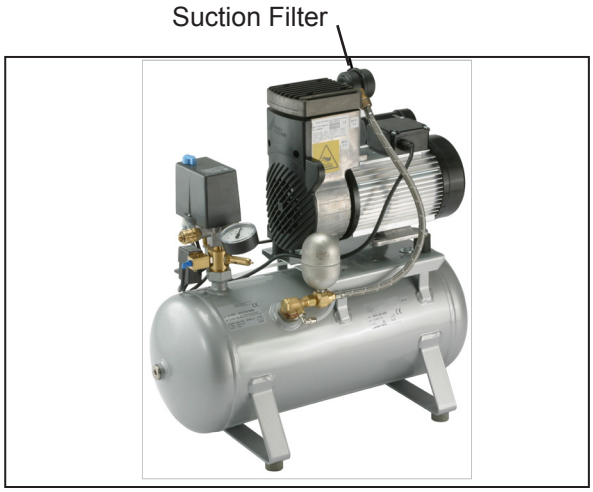


Figure 5. Suction filter, Example Bayonet Lock

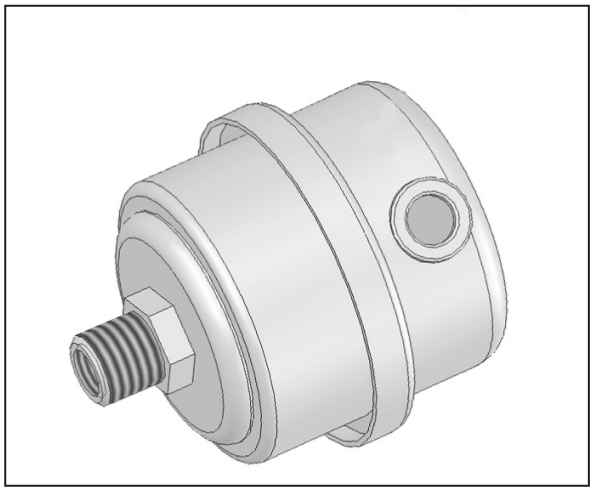


Figure 6. Filter

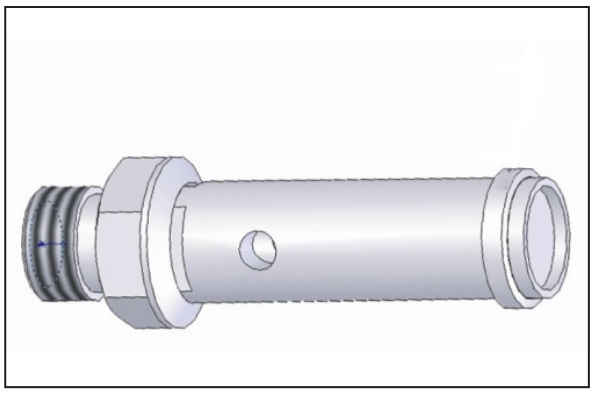


Figure 7. Safety Valve 1 Knob

4.2.2 Changing suction filters

The suction filter (example Figure 5) needs to be changed only once a year, if the surrounding conditions are clean. If the atmosphere is excessively dusty the suction filter must be changed more often.

Dirty filters decrease the delivery output and the lifespan of your product!

Prior to changing filters, switch product off and pull out the mains plug!

To change the air filter, proceed as follows:

1. Turn the filter housing (1) clockwise. The bayonet lock opens and the filter can be pulled off.
2. Exchange the air filter insert.
3. Turn the filter housing counterclockwise until the bayonet lock is closed again.

Attention! Never clean filter inserts with petrol or oil!

4.2.3 Check safety valve function

The safety valve (see Figure 7) is set in the factory at the tank pressure, tested and lead sealed according to the current regulations. Under no circumstance should the seal be removed or the safety valve be reset. Any tampering of the seal will invalidate all liability.

The safety valve is to be function tested semi annually. With working pressure in the tank, turn the valve lifter (1) counterclockwise until blown off compressed air is heard. Turn the valve filter again in a clockwise direction until it is closed.

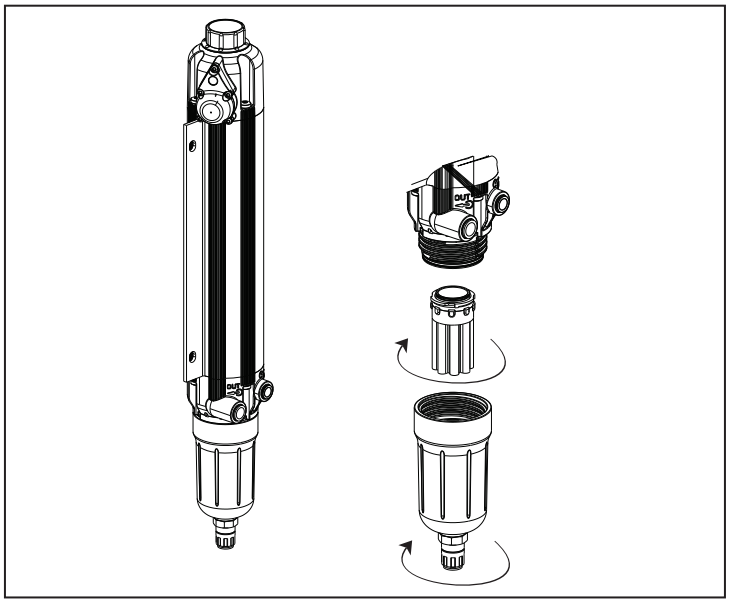


Figure 8. Replace Sintered Filter

4.2.4 Change of filter for membrane dryer

Change the Sintered and fine filter in a clean ambient environment according to Figures 8 and 9 once a year.

4.3 Repairs

Attention! Repair work can only be carried out by qualified and authorized specialists.

Attention! Only use the spare parts and accessories permitted by the manufacturer. The use of spare parts and accessories other than the ones stated in the manual could cause injury to you.

Attention! Before starting repair work, the compressor station must be separated from the power supply (pull out the plug) and all lines must be depressurized.

If the necessary spare parts are not available the compressor station must be sent to the manufacturer for repair.

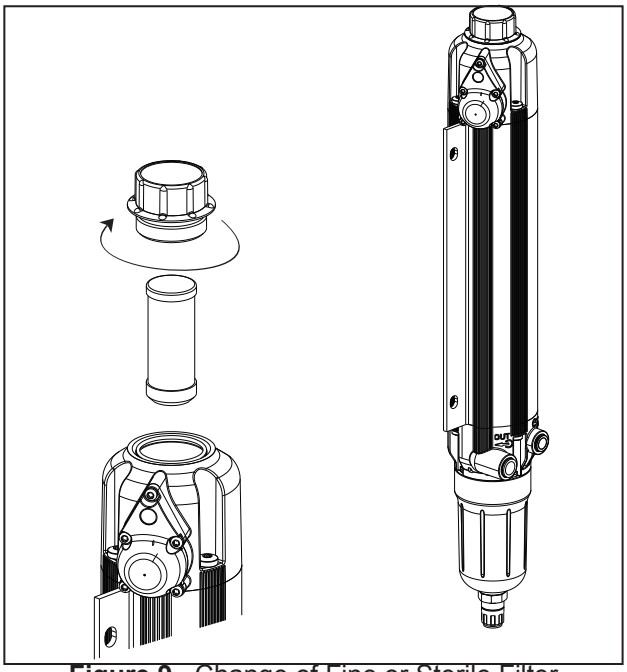


Figure 9. Change of Fine or Sterile Filter

Note: Membrane Dryer is shipped with a fine filter.
A sterile filter is an option.

5 Shutdown and Disposal

If the product is not in operation over a longer period, it is recommended to drain off the condensation from the pressure receiver until the switch-off pressure is achieved. Thereafter open the drain plug until the condensation stops leaking. Afterwards cut-off the machine from the pressure switch, close the condensation drainage and pull out mains plug, depressurize the machine and pressure hoses.

The disposal has to be carried out in an appropriate way. The national laws and stipulations have to be followed. For further questions please contact Air Techniques.

6 Vessel Operations Instructions

Pressure receivers from company Behälter-Werk Burgau GmbH are used in these products.

BWB Behälter-Werk Burgau GmbH	**Type 316034 / 5430-200-51** PS 8 bar V 25l CE 0036 Tmax 100°C Tmin -10°C Ph 12 bar EN 286-1:19 F

Serial number and year of fabrication (look at the nameplate)
Application: Pressure vessel for stationary installations
Medium: Air / Nitrogen
Corrosion allowance: c=0 mm

The pressure vessel is only to be used for the application specified above in accordance with the technical specifications. Safety reasons prohibit any other applications.
The pressure vessel has been manufactured according to the EEC regulation 87/404 as a single component without safety equipment for the above mentioned application. The layout was mainly effected for a permanent load by internal pressure.

Before commissioning, the vessel is to be provided with the required safety equipment such as manometer, overpressure control devices, and safety valve, etc. These components are not part of our supply. No welding or heat treatment of any kind is permitted to those vessel walls which are exposed to pressure.

It must be ensured that the internal pressure will not permanently exceed the maxi-mum working pressure PS stipulated on the vessel nameplate; however, it may momentarily do so by up to 10%. Suitable measures are to be taken to prevent both vibrating stress and corrosion.

The pressure vessel is to be installed in a way that guarantees its safety in use (e.g. no rigid connection with the floor, the machine frame or oscillation damper).
Taking into consideration all components of the equipment , the instructions, issued by the supplier of the pressure vessel, must include:
a) instructions for discharging the condensate
b) information referring to the maintenance of the pressure vessel in order to guarantee is safety in use.
The supplier must also decide whether the pressure vessel, once equipped and ready for operation, is to be subjected to an acceptance test before operation. The supplier/operator is obliged to observe the laws and decrees regarding the operation of the pressure vessel valid in the respective country.
The vessel is resistant to fatigue strength at a pressure variation range of 2 bar
(10% PS)

Remarks: The condensation drain must be performed under interior pressure according to the operating instruction of Air Techniques.

See type plate of the compressors or stations. Details as per documentation attached to the shipment.

Advice: The product will not start against pressure. Therefore the products are fitted either with an expansion tank (1) and a mechanical vent valve (2) Figure 3 or with an automatic starter valve.

Since our products are subject to a process of continuous improvement, the technical specification may have changed. If you propose to base your planning on these Directions for Use, please contact us beforehand for details of current data and dimensions.

Specifications	AirStar AERO100/100M*	AirStar AERO200/200M*
Dimensions (H x W x D) (cm)	68 x 64 x 49	68 x 64 x 49
Weight (kgs)	43	54
Delivery rate at Pe	0 bar (110 l/min)	0 bar (195 l/min)
Delivery rate at Pe	5 bar (60 l/min)	5 bar (120 l/min)
Nominal Pressure PN	8 bar (max. operating pressure)	8 bar (max. operating pressure)
Safety pressure PS	10 bar (max. pressure permitted)	10 bar (max. pressure permitted)
Noise level at nominal pressure PN	66 dB (A)	69 dB (A)
Motor voltage	230 V, 50/60 Hz	230 V, 50 Hz
Motor power	920/970 W	1370 W
Current consumption	4.3 / 4.9 (A)	6.3 (A)
Motor protection	temperature switch	temperature switch
Duration of operation	100% continuous running at an ambient temperature up to 40°C	100% continuous running at an ambient temperature up to 40°C
Receiver Capacity	25 L	25 L

Appendix 2: Troubleshooting

The following description for fault finding is only meant for authorized personnel. Repairs must only be carried out by authorized personnel.

Fault	Possible Cause	Remedy
Compressor does not start	• no mains voltage	• check mains voltage
	• low voltage	• check mains voltage
	• capacitor defective	• check capacitor, if necessary change it
	• pressure switch in (0) position	• set to the ON (I) position
	• Motor defective	• Change product
	• Protector in motor has switched off	• Allow compressor to cool **Attention, compressor will switch on again automatically!**
	1. High ambient temp.	1. make better cooling arrangement
	2. Mechanically sluggish	2. factory repair
	3. Pressure in the line	3. Ventilate air intake
	• Over current switch has switched off	• State cause
	• Suction filter dirty	• Replace filter
Decrease in delivery performance	• Lines, hoses or connections leaking	• Check lines, hoses and connections (if possible, seal, otherwise replace
	• Suction filter very dirty	• Change filter, if necessary fit filter with greater surface area
	• Gasket defective	• Replace
	• Cup seal leaking	• Remedy
	1. Worn or pitted	1. Exchange cup seal, cylinder and washers (spare part kit)
	2. Very dirty	2. Change filter
	3. Too high ambient temperature	3. Arrange for better ventilation
	4. Unsuitable substances aspirated	4. Only handle suitable medium
	• Lamellar valve defective	• Change lamellar and if necessary valve plate and seals
Compressor station too noisy	• Bearing damaged	• Factory repair
	• Vibrations transferred to the housing	• Fit suitable vibration damper (see parts list)
	• Vibration damper defective	• Fit new vibration dampers
Water drops out of the air consumer	• Condensate in the pressure receiver. Drying installation defective	• Exchange of drying installation
	• Station without drying installation	• Drain the condensate regularly (see par. 4.2.1)
Pressure dew point is not suitable	• Purge air nozzle too small or too big	• Change the purge air nozzle
Moisture indicator at the membrane dryer is pink.	• The product had not been used over a longer period.	• On operation of the product the moisture indicator will regenerate itself and change the colour back into blue.
	• During operation there is a malfunction of the dryer, insufficient air drying.	• Exchange of drying installation.

Item No.	Description	AERO100/100M	AERO200/200M
1	Compressor	87611	87612
2	Pressure Switch	87613	87614
3	Pressure Switch Cover	87615	
4	Pressure Gauge 0-16 Bar	87616	
5	Air Filter Complete	C1154	
6	Air Filter Element	C1154-1	
7	Vibration Dampner Set	87617	87618
8	Capacitor	87619	87620
9	Safety Relief Valve	87621	
10	Tank Drain Valve	87622	
11	Starting Sphere	C1188 AERO100 and AERO200 ONLY	
12	Non return valve (receiver)	87623 AERO100M and AERO200M ONLY	
12	Non return valve (receiver)	87624 AERO100 and AERO200 ONLY	
13	Tank Rubber Mount	87625	
14	Unloader valve	87626	
AERO100M and AERO200M ONLY			
15	Membrane Dryer	86760	
16	Cooler Assembly 230V	87160	
17	Fine Filter (shipped with Membrane Dryer)	87366	
18	Sterile Filter (optional fine filter replacement)	87627	
19	Sintered Filter	87367	
20	Nozzle Kit	87628	

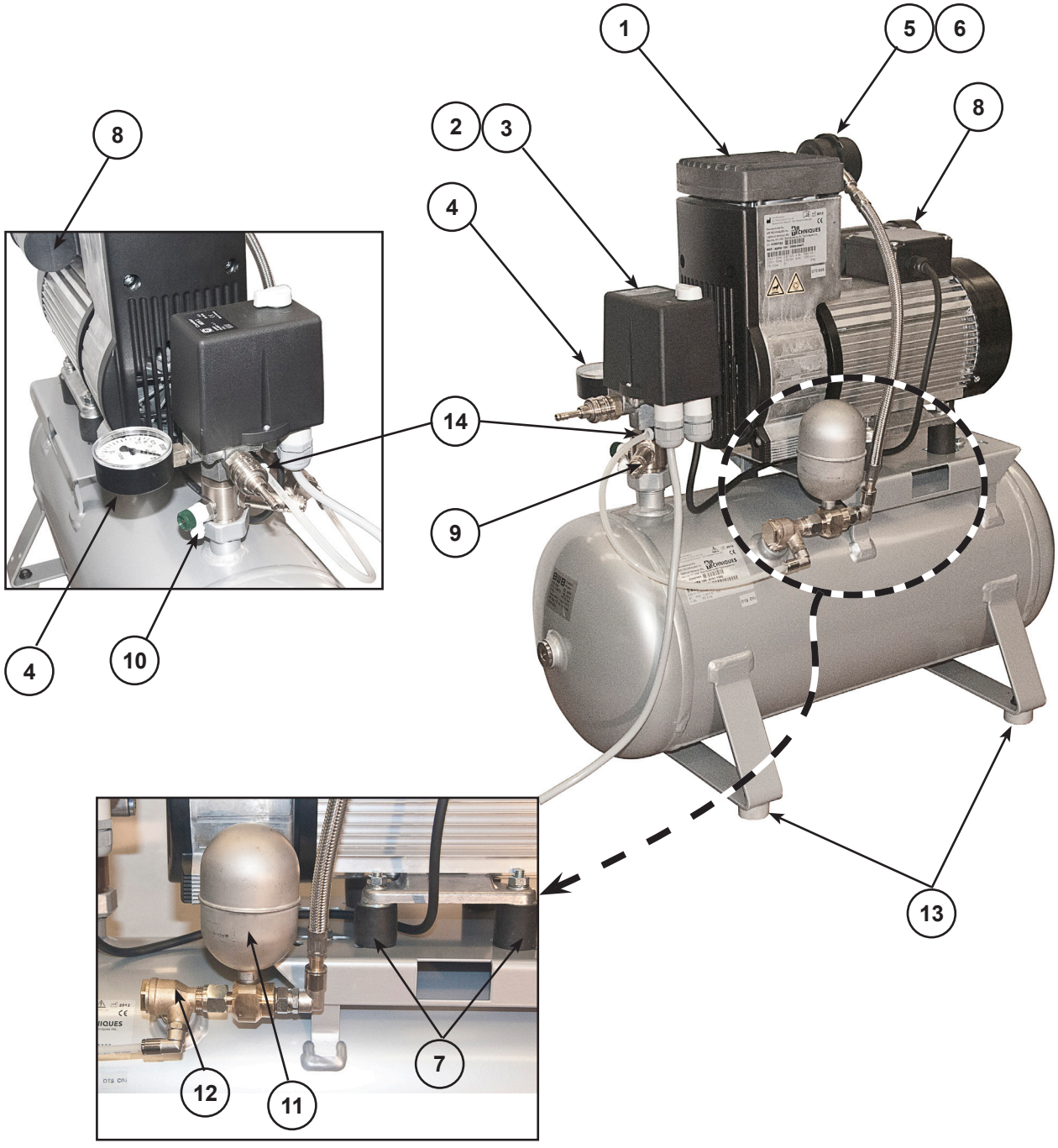
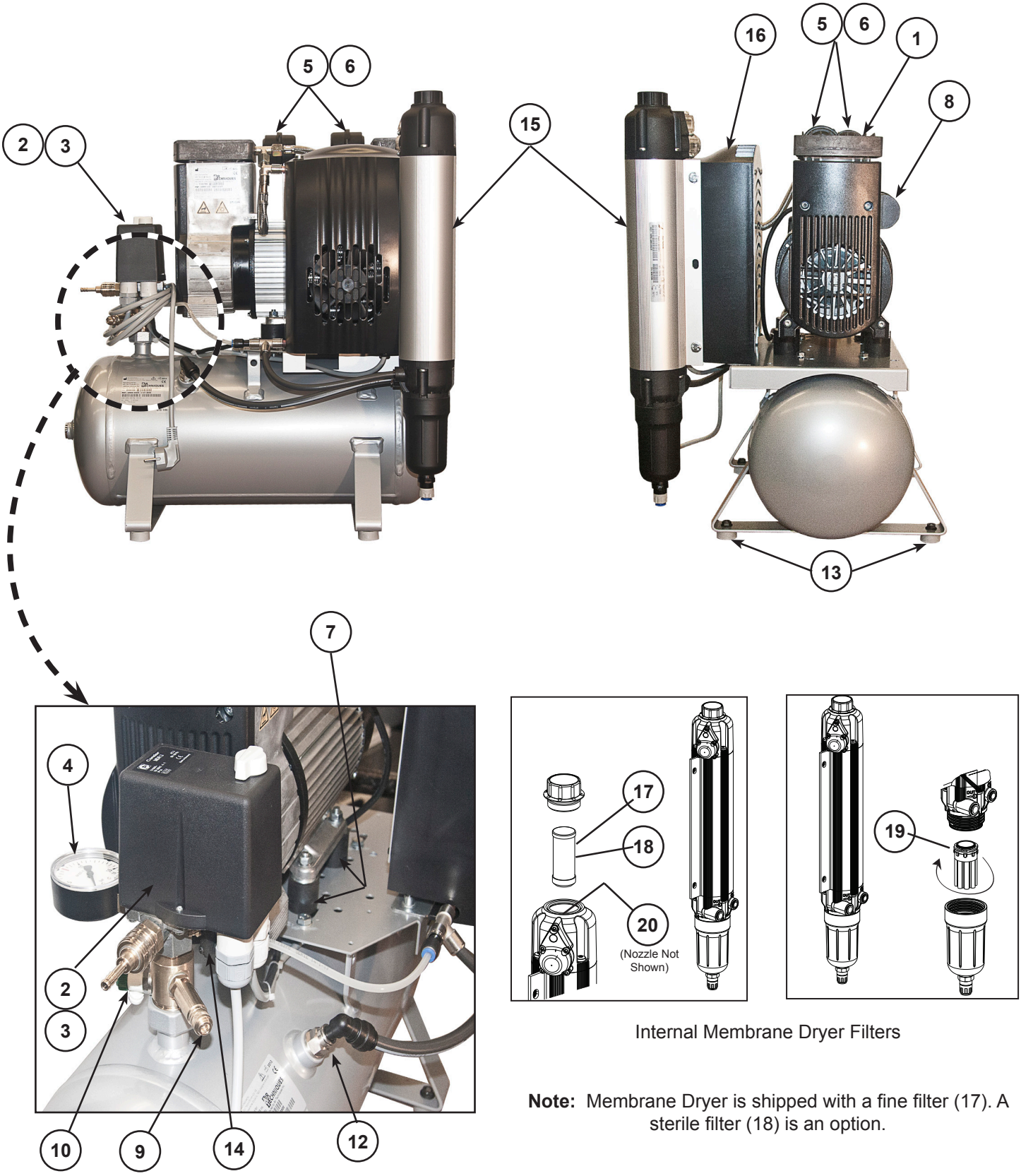


Figure 10. AERO100 and AERO200 Parts Location (AERO100 shown)



Internal Membrane Dryer Filters

Note: Membrane Dryer is shipped with a fine filter (17). A sterile filter (18) is an option.

Figure 11. AERO100M and AERO200M Parts Location (AERO200M shown)

Technical advice -
Please contact your local distributor where you purchased the AERO compressor.

Spare parts service -
Please contact your local distributor where you purchased the AERO compressor.

When ordering spare parts the following details are required:

- Model number and article number
- Order number as per parts list
- How many of each item required
- Exact address to dispatch to
- Dispatch details

Repairs / return delivery -
Please follow the packaging requirements listed below when returning equipment for repair:

- When returning products, if possible use the original packing.
- Always pack the product in synthetic packaging material.
- If possible use recyclable packing material.

Address for return shipment -
Please contact your local distributor where you purchased the AERO compressor.

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- Intraoral X-ray
- Film Processors

❑ Utility Room

- Dry Vacuums
- Wet Vacuums
- Air Compressors
- Amalgam Separator
- Utility Accessories
- Utility Packages

❑ Merchandise

- Surface Disinfectant
- Enzymatic Cleaner
- Hand Sanitizer and Lotion
- Waterline Cleaner
- Evacuation System Cleaner
- Imaging Accessories
- Chemistry
- Processor Accessories

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