

RADEX™ AIRLINE FILTER



INSTRUCTION
MANUAL

RADEX™
AIRLINE FILTER

ISO9001
ACCREDITED COMPANY

Place Filter Replacement Sticker Here

! Warning!
Read all instructions before using
the Radex Airline Filter.
This Radex Airline Filter does not
remove carbon monoxide or other
toxic gases.
Do not operate this Radex Airline
Filter at more than 100 PSI.
Open drain valve every 4-6 hours
to remove any water.
Email: info@rpb.com

rpb respiratory
MODULAR ADVANTAGE

INDEX

Read all instructions & warnings before using this product. Keep this manual for future reference.

Introduction	1
Warnings	3
Basemount Assembly	4
04-900 Assembly	5
04-906 Assembly	7
Operation	9
Maintenance	10
Parts List	12

RPB Respiratory T: 1-866-494-4599 F: 1-866-494-4509 E: info@rpbrespiratory.com

www.rpbrespiratory.com

INTRODUCTION

The Radex filtration System (Comprising of the Radex Airline Filter and Radex CO Monitor) meets the following specifications when used in accordance with the User Instruction Manual.

**ANSI / Compressed Gas Association Commodity Specification for Air,
G-7.1-1989.**

**Federal OSHA 29 CFR 1910.134 "Compressor Operations for Breathing Air"
Army Corps of Engineers EM385-1-1, Section 30.F.04.**

OSHA Regulations place the responsibility for the quality of compressed breathing air with the user. Compliance with federal, state, or local regulations is the responsibility of the user and this statement does not supersede any existing rules, regulations, or laws which may apply. The Radex Filtration system meets or exceeds CGA Grade-D specifications for air quality as adopted by OSHA, when the components are used in accordance with the manufacturer's instructions and recommendations, the "system" meets or exceeds federal regulations presently in force. The user is under obligation to comply with any changes in the law or regulations which may occur.

The Breathing air supply compressor must be located in a safe, clean ambient air environment, constructed and situated so as to prevent entry of contaminated air into the air supply system and as detailed in OSHA Regulation (29 CFR 1910.134(i)) Total system Grade-D air quality must be tested at the time of initial setup. This "safe" location must be tested periodically using the correct instruments to ensure clean ambient air quality on a consistent basis. If the compressor is moved, retesting air quality is recommended. Should the compressor location or environment significantly change, the air quality should be retested. The compressor filters and oil level should be checked daily and changed during regular scheduled maintenance or when contaminated.

INTRODUCTION CONTINUED.

The Radex Airline Filter Part No. 04-900 is not capable of removing Carbon Monoxide and other toxic Gases from the Compressed Air and requires the Radex CO Monitor Part No. 08-200 to be connected to complete a system that is compliant with OSHA regulation 1910.134(i)(7) "For oil-lubricated compressors, the employer shall use a high-temperature or carbon monoxide alarm, or both, to monitor carbon monoxide levels. If only high-temperature alarms are used, the air supply shall be monitored at intervals sufficient to prevent carbon monoxide in the breathing air from exceeding 10 ppm."

The Radex Filtration system should be used according to the instructions and recommendations specified in the Users Instruction Manual. The standard filtration package is not explosion-proof and should be located in a non-explosive environment.

The User must perform a Calibration Check monthly or if the accuracy of the monitor is in question, Should the Calibration Check indicate a fault, the unit will provide a service center contact number and email address. Breathing air quality should be tested for, but not limited to, the following Grade-D air components:

- O2 - Oxygen
- CO2 - Carbon Dioxide
- CO - Carbon Monoxide
- H2O - Water (Moisture Content)
- Hydrocarbons (Oil Mist)
- Total Particulates

The maximum allowable level of these air quality components varies depending on the Grade of Air that that is required by the user, these Grades are detailed by the Compressed Gas Association Commodity Specification for Air, G-7.1-1989.

! DANGER !

Do not connect the Radex Airline Filter to bottled air that does not have a pressure reducing valve that will reduce the air pressure to a maximum of 125 psig (860 kpa). Failure to comply with this warning could cause the Radex Airline Filter to explode, causing serious injury or death.

WARNINGS

1. The Radex Airline Filter should be assembled, operated and maintained by trained and experienced users.
2. Read all instructions and warnings before assembling and using the Radex Airline Filter. Failure to adhere to all instructions and warnings could result in serious injury or death.
3. Do not connect the Radex Airline Filter to any air source unless you have confirmed that it supplies breathable grade air. Failure to connect the airline filter to the proper air source could result in injury or death.
4. Do not modify or alter this Radex Airline Filter. Use only genuine RPB Respiratory replacement parts. Use of non genuine parts could reduce filtration capabilities.
5. Do not remove the safety pressure relief valve. Air will be released when pressure in the filter exceeds 125 psig (860kpa).
6. The Radex Airline Filter DOES NOT REMOVE CARBON MONOXIDE (CO) OR TOXIC FUMES. Carbon monoxide alarms, monitoring devices or removal devices must be used in conjunction with this Radex Airline Filter.
7. Do not use the Radex Airline Filter if it has been damaged as the Filter is a pressure vessel and damage to the vessel could cause fatigue that could result in serious injury or death. Do not attempt to weld the filter unit.
8. If the Radex Airline Filter is being used in conjunction with abrasive blasting, do not use abrasives containing free silica. The use of silica sand can cause respiratory diseases that cause death.
9. Always use NIOSH, CE or AS approved supplied air respirators. The type of supplied air respirator suitable for each application must be determined by your employer.
10. Always mount the Radex Airline Filter on a secure level surface.
11. Moisture must be drained on a regular basis to keep air supply free of moisture.
12. Do no loosen the bolts on the Radex Airline Filter lid while the unit is pressurized. All air must be drained from the filter and air supply to the inlet must be shut off completely before performing any work on the Radex Airline Filter.

BASEMOUNT

The base mount can be attached in two positions, wall mount or floor mount. To connect the base mount align the arrows on the base mount with the arrows on the filter, Fig 1.1 for floor mount, Fig 1.2 for wall mount. NOTE: The base mount will only fit in two positions, the arrows must align before locking.

Turn the filter in a clockwise direction and lock into position. You will hear a click when the base is in the final position.

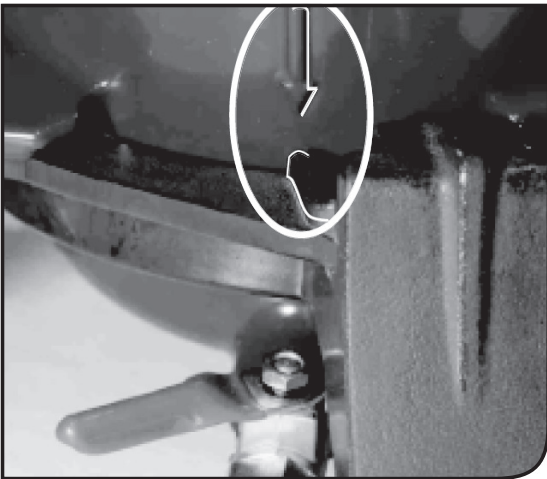
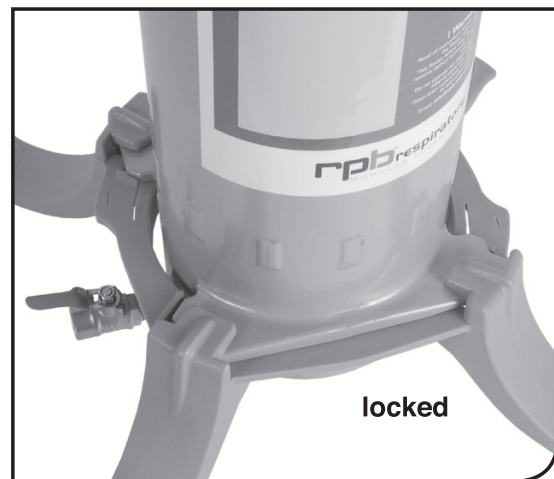


Fig. 1.1 FLOOR MOUNT



04-900 ASSEMBLY

PRESSURE REGULATOR

To assembly the pressure regulator, thread the pressure gauge into the body (refer Fig 2.1) and tighten. Connect the quick disconnect coupler and brass cap to the 3/8" tee into the top of the pressure regulator and tighten (refer Fig 2.2). It is recommended that the regulator assembly is tightened before mounting onto the Radex Airline Filter. Use thread sealant on all fittings.

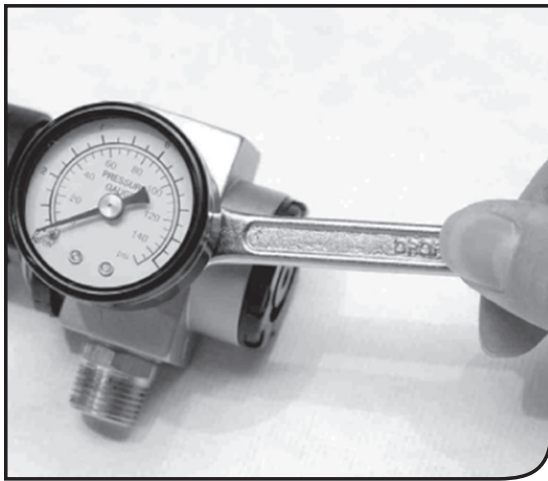


Fig. 2.1

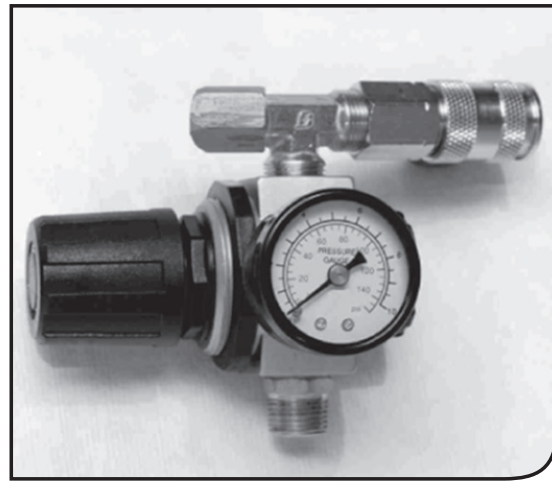


Fig. 2.2

Fit the complete regulator assembly onto the top of the Radex Airline Filter lid (refer Fig 2.3). Once the regulator assembly has been tightened onto position you can fit the pressure relief valve and tighten (refer Fig 2.4).

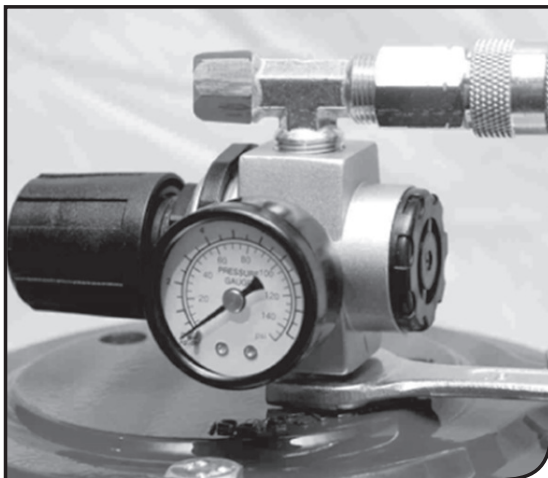


Fig. 2.3

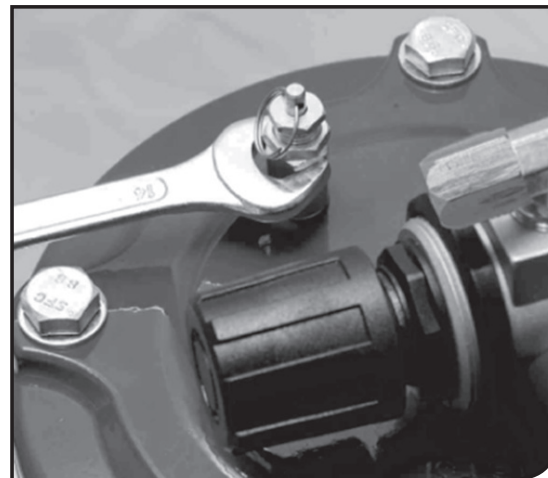


Fig. 2.4

!WARNING! The pressure relief valve must be connected to protect the Radex Airline Filter from over pressurizing.

04-900 ASSEMBLY CONTINUED.

INLET CONNECTOIN

The Radex Airline Filter has a 1" NPT inlet. It is advised to connect a ball valve close to the inlet so the unit can be shut off for servicing. Connect inlet fittings and tighten. Once the Radex Airline Filter is completely assembled and connected to compressed air open supply line and check fitting for any air leaks, tighten accordingly.

! WARNING !

DO NOT over tighten fittings, as over tightening could crack the Filter Casting.

FITTING OPTIONAL MICRO MIST FILTER

To fit optional micro mist filter 04-925, first thread the reducing nipple 04-926 into the micro mist filter then thread into the filter inlet and tighten, ensure the micro mist filter is positioned straight so it drains moisture from the collection bowl (Fig 3.1).



Fig. 3.1

04-906 ASSEMBLY

SIX OUTLET MANIFOLD

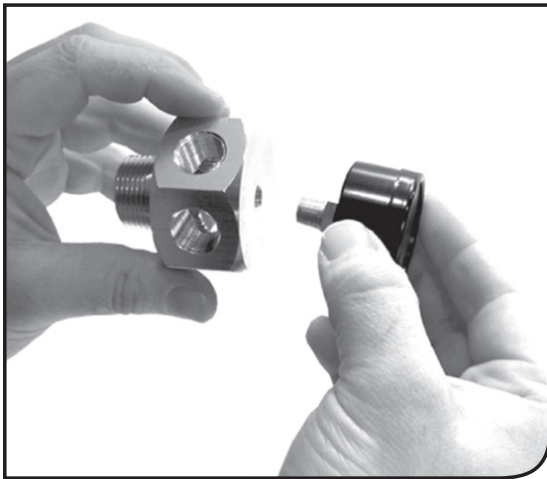


Fig. 4.1

To assemble the Six Outlet Manifold, firstly thread the 04-915 Pressure Gauge into the 04-965 6 Outlet Manifold and tighten.

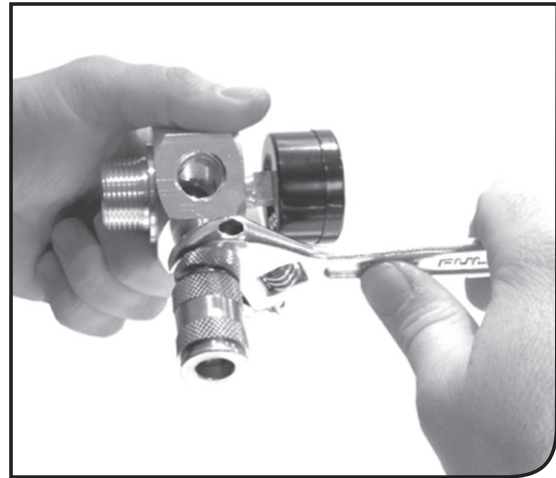


Fig. 4.2

Thread all six 04-065 Couplers into the 04-065 Manifold and tighten.

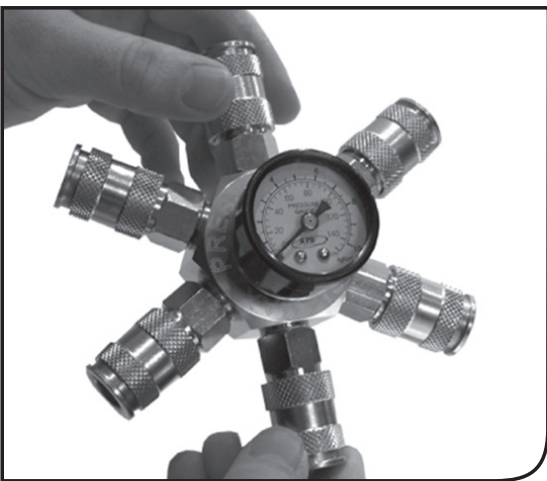


Fig. 4.3

! WARNING !

The pressure relief valve must be connected to protect the Radex Airline Filter from over pressurizing.

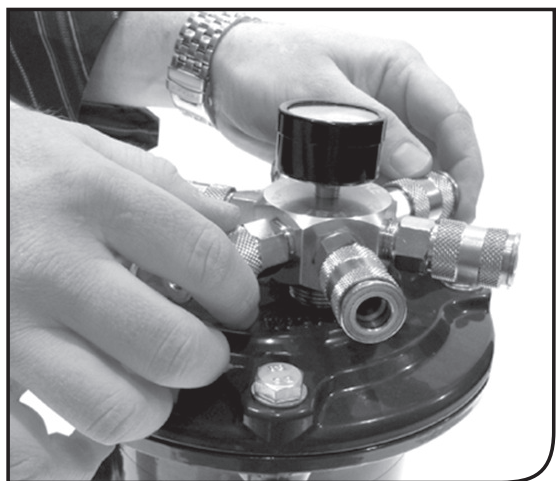


Fig. 4.4

Thread the completed 04-964 Six Outlet Manifold in to filter lid and tighten.

ASSEMBLY CONTINUED.

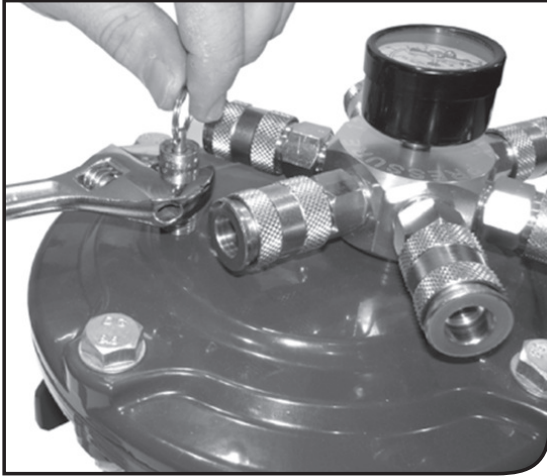


Fig. 4.5
Thread the 04-916 Pressure Relief Valve into the lid and tighten.

SUPER HIGH FLOW REGULATOR ASSEMBLY

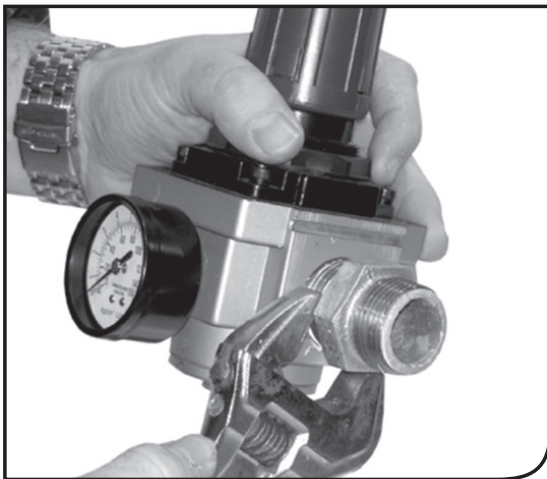


Fig. 4.6
Thread the 04-963 Pressure Gauge and 04-966 1”NPT Connector into the 04-962 Super High Flow Regulator and tighten.



Fig. 4.7
Now thread the complete Regulator into the INPUT port on the body of the Radex Filter Unit and tighten.

Check ALL fittings and connections are tight. **YOUR FILTER IS NOW READY FOR USE.**

NOTE: If the Pressure Gauge on th Super High Flow Regulator and the Pressure Gauge on the Manifold are reading more than 10psi apart, your cartridge is blocked and needs replacing.

Refer to your respirator instruction manual for pressure ranes for your respirators, increase the pressure according to the number of operators.

OPERATION

AIR PRESSURE

The air pressure supplied to the Radex Airline Filter should not exceed 125psi (860 kpa). When setting the outlet pressure using the pressure regulator refer to your respirator instruction manual to set the correct air pressure.

AIR TEMPERATURE

The Air supplied to the Radex Airline Filter should not exceed 140 degrees Fahrenheit (60 degrees Celsius). Do not connect the Radex Airline Filter directly to the compressor outlet manifold.

AIR QUALITY

The Radex Airline Filter does not remove carbon monoxide and other toxic gases from the breathing air supply. An Radex carbon monoxide monitor 08-200 must be used at all times. Supplied air passing through this Radex Airline Filter must meet the requirements of Grade D. EN 12021 or AS/NZS 1715 refer to your relevant authorities for copies of these standards. Regular tests of the compressed air must be carried out to ensure it meets the requirements for breathable air.

AIR CONNECTIONS

Connect air fittings that meet the requirements of OSHA for respirable air. The inlet thread size is 1: NPT. All connections should be sealed using liquid thread sealant. If the Radex Airline Filter is hard piped an isolation valve must be used to enable depressurisation for servicing.

MAINTENANCE

FILTER CARTRIDGE REPLACEMENT

The filter cartridge should be inspected weekly or more often depending on usage and the conditions of the air system in which the Radex Airline Filter is installed. The filter cartridge should be replaced after a period of 3 months based on a 40 hour week. The filter cartridge must be replaced immediately if the following exist:

1. The presence of odour and or tastes in the air being supplied to the respirator.
2. Presence of moisture at the outlet fittings.
3. Large pressure drop across the filter.

REPLACING CARTRIDGE

1. Shut off the air supply to the Radex Airline Filter and drain all air from the body by opening the drain tap.
2. Remove the bolts from the lid and separate the lid from the body.
3. Remove the cartridge and dispose in an appropriate disposal area.
4. Clean the inside of the filter body to remove any contaminants, do not clean with volatile chemicals.
5. Insert a new filter cartridge and reassemble the lid, tighten the bolts in the pattern drawn in (Fig 5.1) tighten to 10ft / lb torque.
6. Record the data on the sticker supplied with the filter cartridge and place on to the Radex Airline Filter.

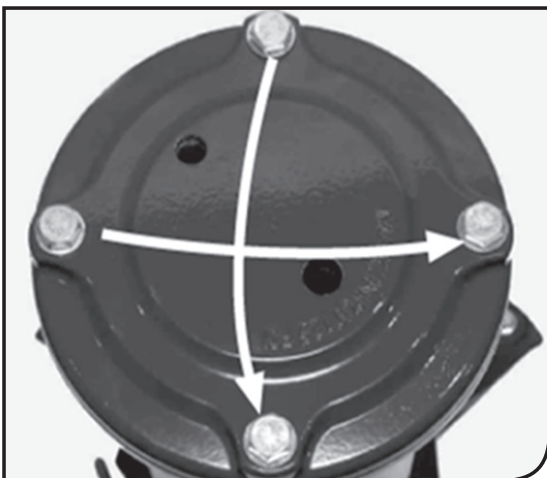


Fig. 5.1

DRAINING MOISTURE

Water will accumulate in the filter tank, this should be drained by opening the ball valve. This should be done each day. In very humid climates or if there is large amounts of water in the air supply it is recommended to leave the ball valve partially open to bleed the moisture. When fitted with auto drain assembly 04-924, moisture will automatically drain from the unit as particles which could cause blockages.

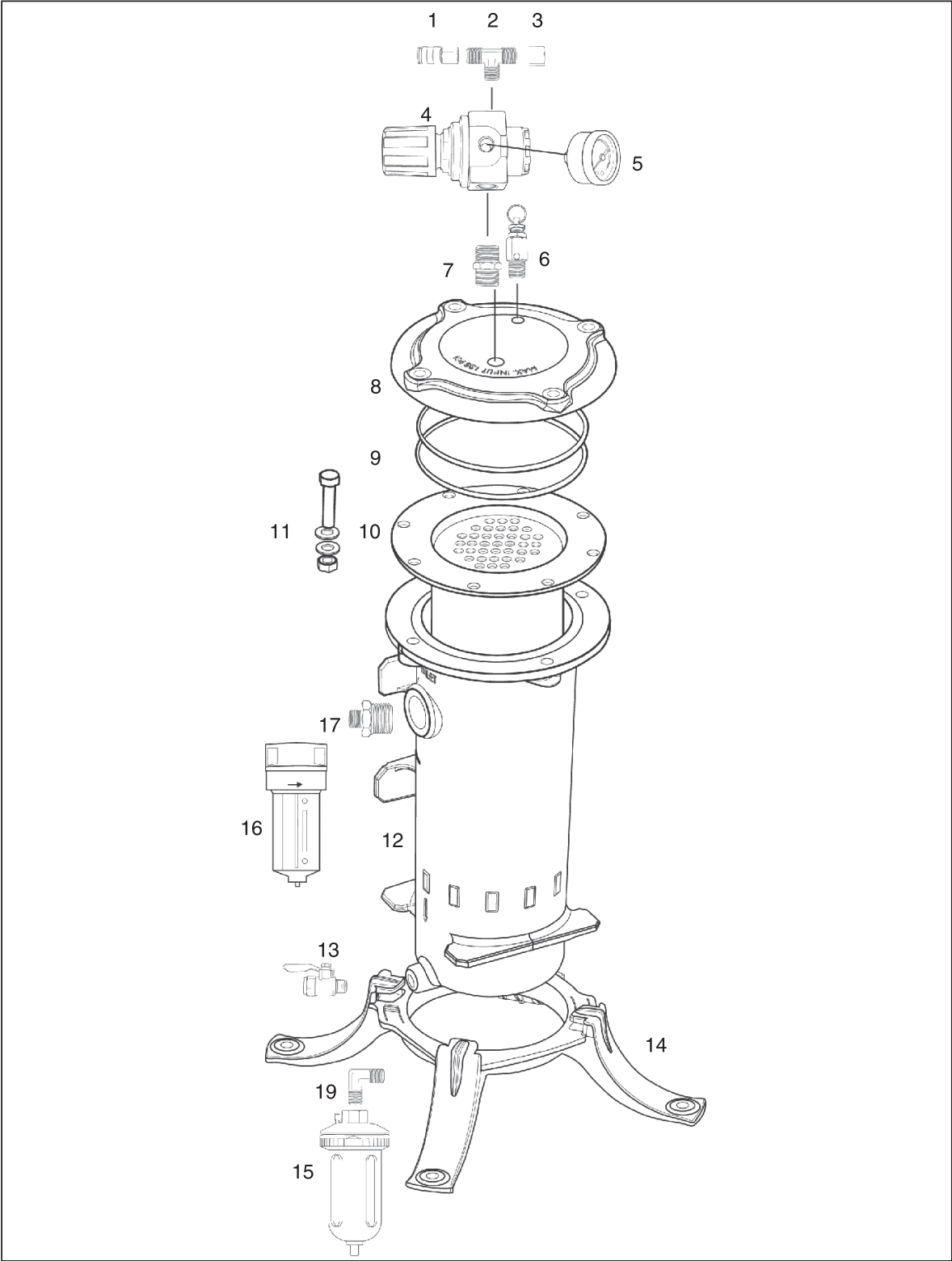
LID BOLTS, ORINGS

The Radex Airline Filter lid bolts should be checked to ensure that they are tight. The lid bolts 04-920 should be replaced when replacing the filter cartridge. The recommended tightness for the lid bolts is 10 ft / lbs. Check the orings 04-919 and replace if damaged.

PARTS LIST

1	Quick Disconnect Coupler _____	04-911
2	3/8" Tee _____	04-912
3	3/8" Cap _____	04-913
4	Pressure Regulator _____	04-914
5	Pressure Gauge _____	04-915
6	Pressure Relief Valve 125 psi _____	04-916
7	3/8" Hex Nipple _____	04-917
8	Lid _____	04-918
9	O-ring (set of 2) _____	04-919
10	Filter Cartridge _____	APF 3100
11	Bolt, Nut Washer (set of 4) _____	04-920
12	Body _____	04-921
13	Drain Tap _____	04-922
14	Base Mount _____	04-923
15	Auto Drain Unit _____	04-924
16	Micro Mist Filter 1/2 _____	04-925
17	1" x 1/2 Reducing Nipple _____	04-926
18	Main Line Pre Filter _____	04-927
19	Brass Elbow _____	04-928

PARTS LIST



OTHER PRODUCTS



NOVA 2000 BLASTING HELMET

The **NOVA 2000** has been designed for blasting professionals. The **NOVA 2000** is the most advanced abrasive blasting helmet available, with fully padded pillow foam liner for extra comfort and noise attenuation, wide angle vision, even air distribution assures a pleasant working environment, optional climate control devices. Things cannot get much better.



ASTRO BLASTING HELMET

ASTRO is your number one choice economic Abrasive Blasting Helmet which meets safety standards worldwide. This is the lightweight, robust helmet you have been waiting for. It helps to reduce fatigue, reduce down time and increase productivity.



HEAD SOCKS & SPRAY HOODS

Stay cleaner with **Head Socks** and **Spray Hoods**. One size fits all. The cool comfortable Spray Hood protects from over spray and sanding dust. The Head Sock can be worn as a hygienic liner.



FILTER CARTRIDGE

These large capacity six stage Filter Cartridges remove moisture and particulates to 0.5 micron & odor from the compressed air stream, providing you with clean breathable air.

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