Technical Information

Installation, Operation, and Maintenance Manual

Parker Balston® FT-IR Purge Gas Generator Models 75-45, 75-52, and 75-62

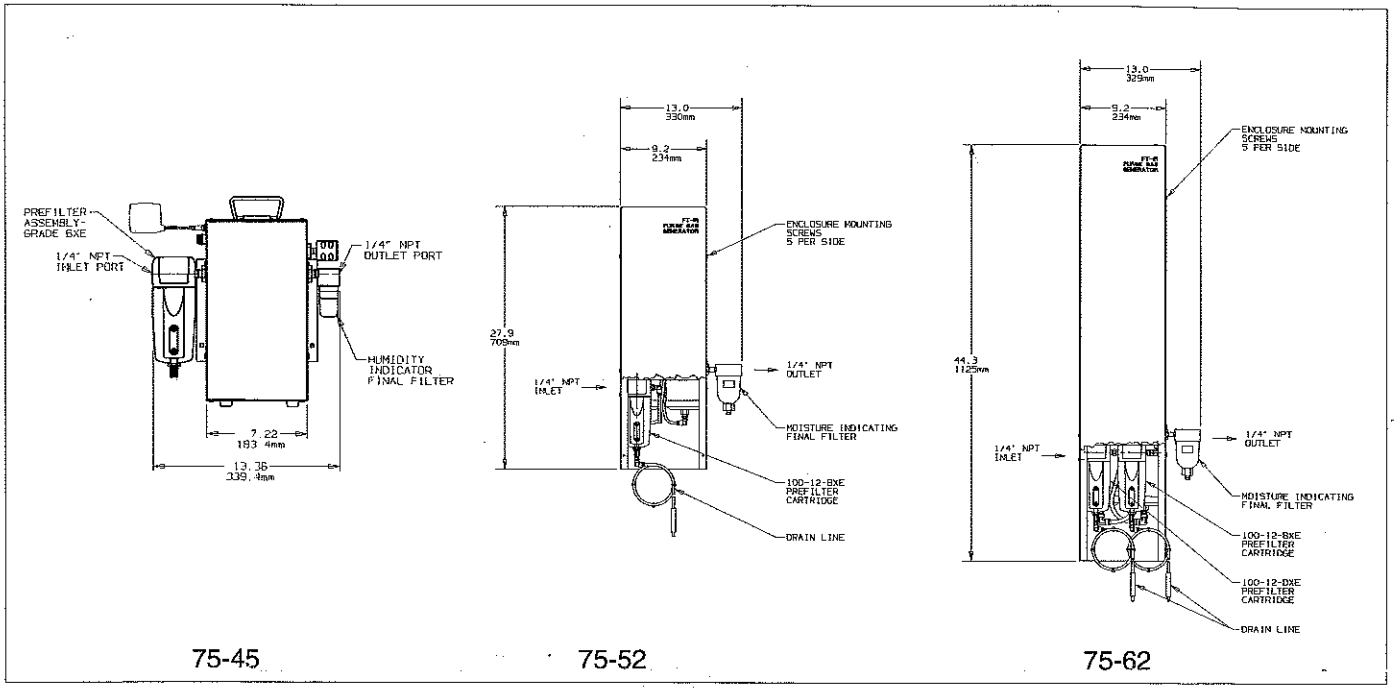

Figure 1 - Overall Dimensions

These instructions must be thoroughly read and understood before installing and operating this product. Any modification to the product will void the warranty. If you have any questions or concerns, please call the Technical Services Department at 800-343-4048, 8AM to 5PM Eastern Time or email us at balstontechsupport@parker.com (North America only). For other locations, please contact your local representative.

System Description

The Parker Balston 75-45, 75-52, and 75-62 FT-IR Purge Gas Generators deliver clean, dry compressed air with a -100°F (-73°C) dewpoint. The generators also remove carbon dioxide (CO_2) to a concentration of less than 1 ppm. The generators use a combination of coalescing filtration, regenerative pressure swing adsorption, and high efficiency particulate filtration to produce laboratory quality, dry, CO_2-free air from a standard compressed air supply.

The generators are powered by a 12 VDC power supply. Each unit is shipped with a 12 VDC plug-in transformer for connection to most worldwide standard power supplies.

Installation

All installation, operation, and maintenance procedures for the Parker Balston FT-IR Purge Gas Generator should be performed by suitable personnel using reasonable care.

The Parker Balston 75-45 FT-IR Purge Gas Generator may be table-mounted or wall-mounted. The 75-52 and 75-62 must be wall mounted. If the unit is to be wall-mounted, secure the generator to a wall stud or similar structural member and use hardware adequately sized to support the weight of the generator. The generator should be mounted in compliance with NEC codes and local building regulations (See Figure 2).

To facilitate routine maintenance and ensure optimal operation, install a shutoff valve and a pressure regulator directly upstream from the generator (see Figure 3). The shutoff valve will allow the user to isolate the generator from the compressed air supply for routine maintenance activities and short or long term shutdowns. The pressure regulator will supply compressed air at a constant pressure to the generator, ensuring consistent operation of the unit.

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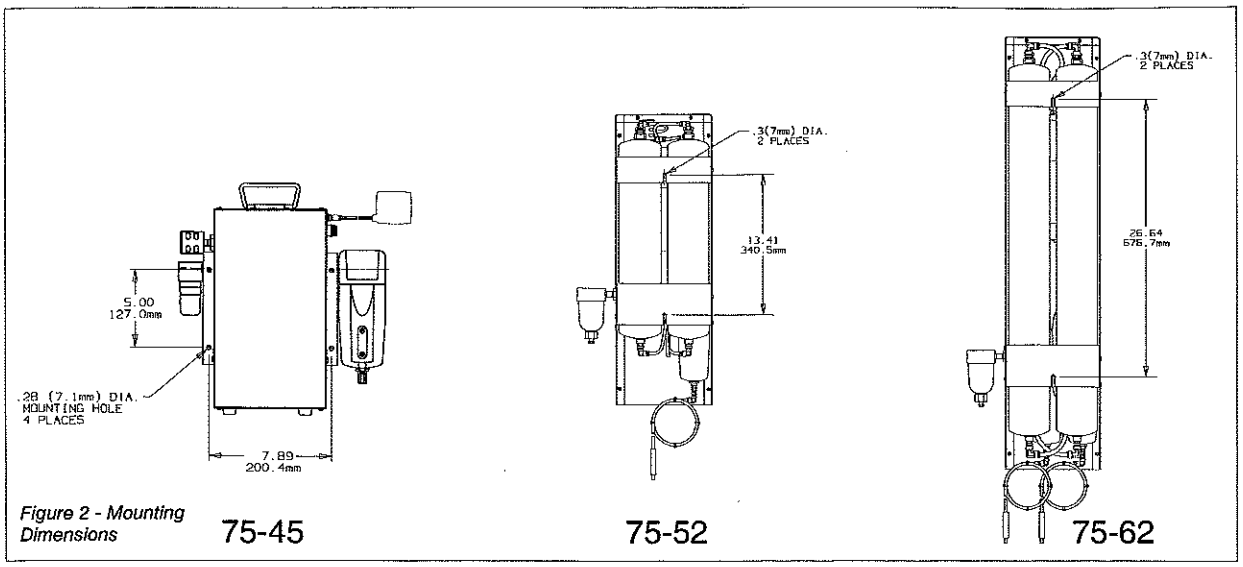

Figure 2 - Mounting Dimensions

Installation

The generator should be installed on a compressed air system which contains a properly sized after-cooler. The temperature of the supply air entering the unit should not exceed 78°F (25°C). If the temperature of the inlet compressed air exceeds 78°F (25°C), the dewpoint of the outlet air may exceed the rated dewpoint and the unit may be damaged. A minimum supply air pressure of 60 psig (4.1 barg) is required to maintain proper operation of the drying towers and associated valves. The maximum supply pressure should not exceed 125 psig (8.6 barg) or damage to the unit may occur. **(Note: If the generator is fed from an overhead compressed air line, install a drip leg upstream from the generator to remove excess water and compressor oil. See Figure 3 for recommended installation and accessories.)**

If the compressed air supply has excess moisture or oil contamination, install a drip leg and an additional prefilter (P/N 2002N-1B1-DX for 75-45 only or 8002N-1B1-DX for 75-52 only) directly upstream from the generator. Pipe the supply air (60 psig - 125 psig / 4.1 barg - 8.6 barg) to the 1/4" female NPT inlet port of the dryer. Downstream from the generator, install a flow control device to prevent the flow demand from exceeding the capacity of the unit. Finally, install a drain line to the bottom of the prefilter (1/8" NPT 75-45 only) to pipe away any liquid waste which accumulates in the bowl of the filter. This waste will contain water and compressor oils, and should be disposed of properly.

Operation

To operate the generator, simply pipe the compressed air supply to the generator, plug the female end of the power cord/transformer into the power receptacle on the unit, and plug the opposite end into a nearby wall outlet. Turn the power switch on (75-45 only; no power switch on the 75-52 or 75-62). Initiate compressed air flow through the dryer by opening the (customer installed) shutoff valve and adjusting the inlet pressure using the (customer installed) pressure regulator. Prior to bringing the Parker Balston Purge Gas Generator on line to the FT-IR, regenerate the unit for at least 12 hours (see Troubleshooting section for details). After regeneration is complete, open the (customer installed) outlet valve and initiate flow to the FT-IR. The moisture indicator may be yellow, but permit the unit to run for at least 30 minutes before reporting this as a malfunction. The indicating filter should remain green during normal operation of the unit. It will change to yellow when excess moisture is present in the purge gas (see Troubleshooting section).

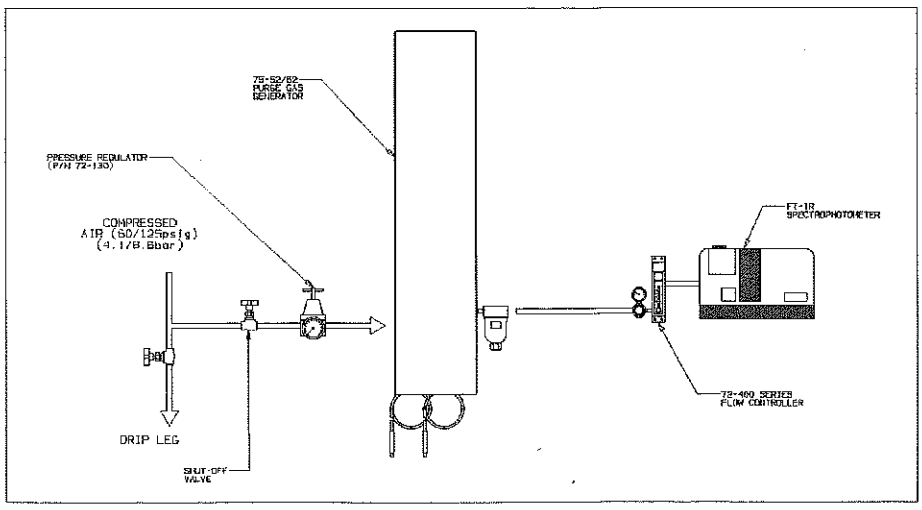

Figure 3- Recommended Installation

All installation, operation, and maintenance procedures for the generators should be performed by suitable personnel using reasonable care.

Disconnect the electrical power, isolate the generator from the compressed air supply, and depressurize before starting any maintenance procedures.

The only maintenance activity required by the Parker Balston FT-IR Purge Gas Generator is the annual replacement of the coalescing prefilter cartridge (or cartridges), and the occasional replacement of the moisture indicator cartridge. For convenience, prefilters and moisture indicating cartridges are assembled into 1 year maintenance kits for each generator.

To remove a filter cartridge, simply unscrew the filter bowl from the head, lower the bowl, and remove the element retainer disc at the base of the cartridge. Replace the spent cartridge and re-assemble.

Changing the prefilter cartridge(s) and moisture indicating cartridge on the Parker Balston FT-IR Purge Gas Generator takes approximately 10 minutes.

Replacement Parts

Description	75-45	75-52	75-62
Maintenance Kit (1 year)	MK7505	MK7552	MK7520
Moisture Indicator Filter	75805	75800	75800
Silencer	9955-05-DX	—	—
Fuse (1.5 amp)	13206	—	—
Transformer	A03-0191	A03-0192	A03-0192

Note: To ensure consistent product performance and reliability, use only genuine Balston replacement parts and filter cartridges.

System Specifications

	75-45	75-52	75-62
Dewpoint	-100°F (-73°C)	→	→
CO_2 Concentration	< 1 ppm	→	→
Min/Max Inlet Air Pressure	60 psig/125 psig (4.1 barg/8.6 barg)	→	→
Pressure Drop at Max Flow Rate	4 psid (0.3 bar)	→	→
Inlet/Outlet Port Connections	1/4" NPT (female)	→	→
Electrical Requirements (1)	120 VAC/60 Hz, 220 VAC/50 Hz	→	→
Dimensions	13"w x 13"h x 7"d (32cm x 33cm x 18cm)	13"w x 28"h x 9"d (32cm x 71cm x 22cm)	13"w x 44"h x 9"d (32cm x 112cm x 22cm)
Shipping Weight	26 lbs. (12kg)	60 lbs (27 kg)	88 lbs. (40 kg)

(1) 12 VDC transformer supplied with unit.

System Flow Rates

	75-45	75-52	75-62
Inlet Pressure 125 psig (8.6 barg)	17 lpm	34 lpm	102 lpm
Inlet Pressure 100 psig (6.9 barg)	14 lpm	28 lpm	85 lpm
Inlet Pressure 80 psig (5.5 barg)	12 lpm	23 lpm	71 lpm
Inlet Pressure 60 psig (4.1 barg)	9 lpm	17 lpm	57 lpm
Air Loss for Regeneration	14 lpm	14 lpm	57 lpm

Optional Accessories
(Request AGS Catalog)

Model Number	Description
W-405-4032-000	Pressure Regulator (outlet)
72-130-V883	Pressure Regulator (inlet)
W-FM Series, 72-400 Series	Flow Controllers
2002N-1B1-DX (Model 75-45)	Auxiliary Coalescing Prefilter Assembly
8002N-1B1-DX (Model 75-52)	Auxiliary Coalescing Prefilter Assembly
72-100	Condenser

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Installation, Operation, and Maintenance
75-45, 75-52, 75-62 FT-IR Purge Gas Generators

All troubleshooting activities should be performed by suitable personnel using reasonable care.

Note: When applicable, disconnect the electrical power before starting any trouble shooting activities.

Symptom	Course of Action
Moisture Indicator Turns Yellow	Check inlet air pressure. Maintain 60 psig (4.1 barg), minimum. Check inlet air temperature. If higher than 78°F (26°C), install aftercooler condenser upstream from the dryer. Check outlet flow rate. If it exceeds dryer capacity, control with a flow controller. Check that the unit is cycling between towers. If not, check power. Replace fuse if necessary (1.5 amp only).
High Pressure Drop Through Dryer (not enough flow)	Check flow demand. Match process flow requirements to dryer capacity. Check inlet filter for particulate clogging; replace if necessary. Examine fittings and process for gross leaks.
No Flow Through Dryer	Check inlet (supply) pressure. Maintain 60 psig (4.1 barg) minimum. At pressures lower than 60 psig (4.1 barg), back pressure regulator will prevent outlet flow from generator. Check supply line source (compressor). Check to make sure all customer installed valves are open. Check prefilter drains to ensure they are sealed.
Logic Box Hum (loud and annoying) or Not Cycling	Consult the Technical Services Department or your local representative to arrange for return.

Note: After the problem has been resolved, the towers must be regenerated by turning on the inlet air supply, shutting off the outlet flow from the dryer and turning on the power. This will cycle the dryer with 100% purge air. The dryer should purge for approximately 12 hours to assure complete regeneration.

Don't Forget To:

1. Complete and mail your registration card.
2. Order an installation kit (P/N IK7572).
3. Keep your product certification in a safe place.
4. Call the Technical Services Department at 800-343-4048, 8AM to 5PM Eastern Time with any questions or email at balstontechsupport@parker.com. For locations outside North America, please contact your local representative.

Serial Numbers

The serial number for the unit is on the left side panel, near the inlet port. For your own records, and in case service is required, please record the following:

DATE IN SERVICE _____ SERIAL NO. _____

Please have the serial number available when calling for assistance.

Member of

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Technical Information

Installation, Operation, and Maintenance Manual

Parker Filtration 8000 Series Compressed Air and Gas In-Line Filters

These instructions must be thoroughly read and understood before installing and operating this product. If you have any questions or concerns, please call the Technical Services Department at 800-343-4048, 8AM to 5PM Eastern Time or email at balstontechsupport@parker.com (North America only). For other locations, please contact your local representative.

General

When properly installed on a compressed air or gas line, Parker Filtration 8000 Series in-line filters effectively remove oil, water, and particulate contamination from a gas supply. The quantity of oil and water and the size of the particulate contamination removed from a gas supply is dependent upon the grade of the filter cartridge installed in the housing.

⚠ **Warning: Do not expose filter assemblies with plastic or nylon components to solvents, alcohols, or glycols. Exposure to these materials could cause failure of the housing. Use only non-detergent mineral base oils with housings containing polycarbonate components. Use of any other types of oils could lead to dangerous failure of the product.**

⚠ **To avoid personal injury and/or property damage resulting from over pressurizing the housing, Parker recommends that the customer install a pressure relieving device set at 125% of the maximum pressure rating of the housing.**

Filter Housing Installation

Filter housings are pressure vessels and all system connections and accessory outlets must be leak-tight. It is good practice to apply pipe sealant to the male threads before connecting the pipe to the filter ports. Any lubricant used must be compatible with the filtered media. The use of lubricant facilitates disassembly at a later time, if necessary.

For most applications, the flow direction through the filter cartridge should be from the **inside-to-outside.** Most Filtration 8000 Series filters have a flow arrow indicating the flow direction from inside-to-outside through the cartridge.

For coalescing applications, the flow of compressed gas through the filter cartridge should be from inside-to-outside. Suspended liquids will be coalesced throughout the cartridge and will drain from the outside of the cartridge into the bowl of the filter assembly. Accumulated liquids may be drained from the filter bowl by automatic or manual drains. For more details on coalescing filtration and liquid drains, request Bulletin OEM.

For installations where the compressed gas is sourced from an overhead line, the gas should be piped from the top of the header to the filter. In this way, excessive moisture and dirt are not gravity-fed to the in-line filter. For installations in which long runs of piping carry filtered gas from the filter to the point of use, filters should be located as close to the point of use as possible to trap condensation and particulate which may have been picked up in the pipe.

Mounting bracket kits are available for most filters (see Figure 5 and Table 1). Some filter assemblies may be pipe mounted if the size and weight of the housing and piping permit it. All fittings must be leak tight before applying gas pressure to the filter.

⚠ **Do not install Parker Filtration 8000 Series filter housings in corrosive environments.**

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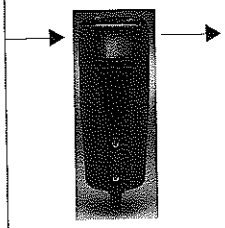
Operation and Maintenance

The schematic below shows typical installations for three commonly required coalescing applications in compressed air systems.

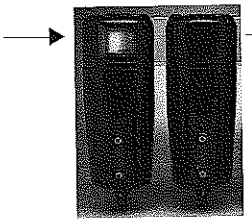
General Purpose or Prefiltration



Filter Cartridge Grade DXE

- Flow direction: inside-to-outside through the filter cartridge
- 93% particle and mist removal

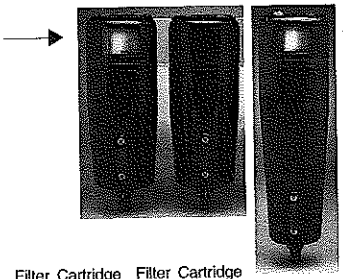
Instrument Air or Other Critical Applications



Filter Cartridge Grade DXE | Filter Cartridge Grade BXE

- Flow direction: inside-to-outside through the filter cartridge
- 99.99% particle and mist removal

Removal of Compressor Oil Vapor



Filter Cartridge Grade DXE | Filter Cartridge Grade BXE | CI Cartridge Grade -000

- Flow direction: inside-to-outside through each stage.
- 99.99% particle and mist removal
- Removal of trace compressor oil vapors

All installation and maintenance activities should be performed by suitable personnel using reasonable care. Turn off the compressed gas supply and depressurize the filter housing prior to performing routine maintenance. The 8000 Series is equipped with a vent valve at the base of the bowl which can be used to depressurize the housing.

Filter Cartridge Installation

Most filter housings are ordered separately from filter cartridges. Parker Filtration 8000 Series coalescing filter assemblies, however, are shipped from the factory with the filter cartridge installed. 8000 Series adsorbent filter assemblies are shipped from the factory with the adsorbent filter packaged separately from the filter housing. The adsorbent cartridge must be installed into the housing prior to installing the housing on the compressed air line. This packaging procedure extends the life of the cartridge by preventing exposure to the atmosphere prior to initial use.

An adhesive-backed label indicating the grade of the filter cartridge is packed inside each box of filter cartridges. This label should be affixed to the filter housing when the first filter cartridge is installed. Using the cartridge grade label will help ensure that the correct filter cartridge is used when maintenance is performed on the housing. The date that the replacement cartridge is installed may be recorded, with a marking pen or grease pencil, on the filter housing label to provide a ready reference for scheduling routine maintenance.

Parker Filtration 8000 Series Microfibre® filter cartridges are sealed in place by compression against a flat surface. Gaskets are not required between the filter cartridge and the filter housing. The filter cartridge is centered by guides on the housing which fit the inside diameter of the cartridge at each end. In most 8000 Series housing designs, the filter cartridge is sealed by tightening a threaded element retainer on a tie rod. Do not use excessive force or tools on the element retainer. The filter cartridge is securely sealed by tightening the element retainer 1-1/2 to 2 turns after it first contacts the filter cartridge. (**Note:** In high flow, multi-cartridge housings, it may be necessary to tighten the element retainer 3 to 4 turns after contact with the filter cartridge.)

⚠ **Proper Replacement of the Filter Bowl requires the sightglass to be aligned perpendicular with the Differential Pressure Indicator or at a 90° position from inlet/outlet pipe. Failure to replace the filter bowl in the locked position as described above could result in catastrophic failure and personal injury (see Figure 1 on Page 3).**

⚠ **Always replace the filter bowl guard, when applicable, after servicing the filter.**

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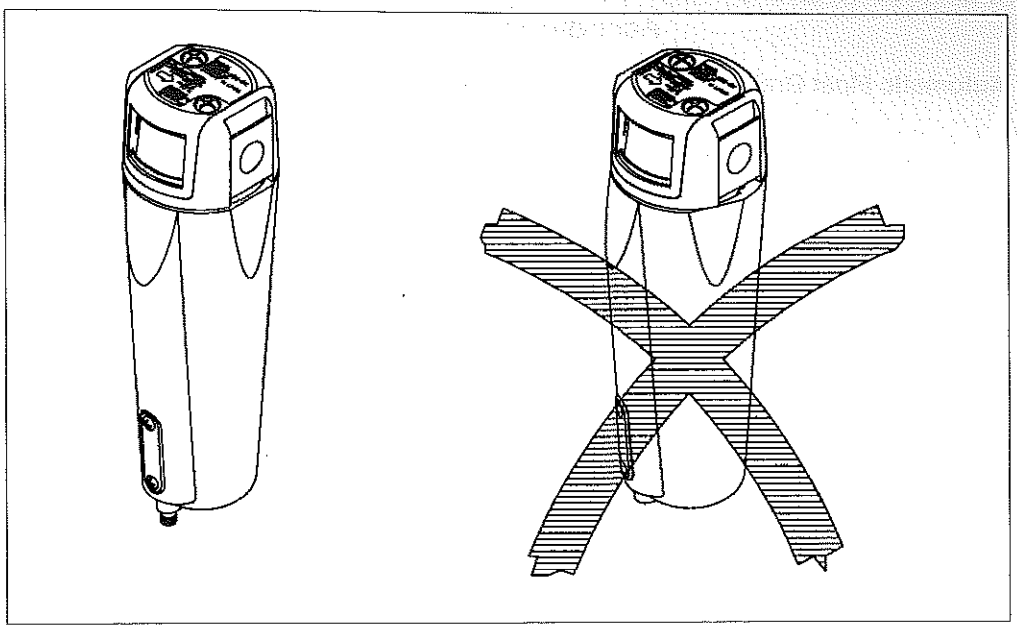

Figure 1 - Proper Bowl Replacement

Filter Cartridge Life

The efficiency of the Parker Filtration 8000 Series Microfibre filter cartridge is relatively unaffected by liquids entrained in the compressed air or gas stream. The life of the filter cartridge is determined by the increase in flow resistance caused by solids trapped within the depth of the filter cartridge. The change in pressure through the filter cartridge should be monitored while the filter is in use (many of the 8000 Series filter assemblies are equipped with Differential Pressure Indicators). The filter cartridge should be changed when the flow through the housing falls below an acceptable level, or when the pressure drop becomes too high for the application. In any case, **the filter cartridge should be changed when the pressure drop reaches 5-7 psid.** (Note: The 8000 Series Microfibre filter cartridge cannot be cleaned by back-flushing because the solids are trapped within the depth of the cartridge, not on the surface.)

Failure of the filter cartridge resulting from a high pressure drop or excessive solids loading may cause damage to the filter housing and/or any downstream equipment.

In many applications, the pressure drop through the filter assembly may be measured using two pressure gauges, one directly upstream from the filter assembly, and one directly downstream from the filter assembly. In compressed air filtration, however, the pressure drop through the filter assembly is difficult to measure in this way because of inaccuracies in the pressure gauges and rapid fluctuations in system pressure. For monitoring pressure drop through a compressed air filter assembly, use a Differential Pressure Indicator. Most 8000 Series filter assemblies are available with factory installed Differential Pressure Indicators.

Ordering Replacement Filter Cartridges

Some Parker Filtration 8000 Series filter assemblies have filter cartridges installed when shipped from the factory. If filter cartridges are being ordered separately, either as replacements for an existing assembly or as an original for a new installation, specify both the size and grade of the filter cartridge. Filter cartridges for compressed air and gas filter assemblies are available in boxes of 4. The size of the filter is designated by a three-digit number followed by a two digit number (e.g., 4/100-12, 4/150-19, 4/200-80). The retention efficiency of the filter is designated by a series of letters or numbers following the size designation (e.g., 4/100-12-DXE, 4/150-19-BXE).

To ensure consistent product performance and reliability use only genuine Parker Filtration 8000 Series replacement parts and filter cartridges.

Ordering Filter Assembly Replacement Parts

The replacement parts for the 8000 Series filters (except Grade SA) are detailed in Figure 3 (page 6) and Table 1 (page 7). Inspect all seals when changing filter cartridges and replace as needed. Lubricate all replacement seals prior to installation. Use a lubricant which is compatible with the gas being filtered.

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Accessories

Automatic Float Drains

If the filter housing is ordered with an automatic float drain, the drain is installed at the factory.

Float drains are available on select assemblies with DXE or BXE cartridges. They are not available for assemblies with Grade CI adsorbent cartridges or Grade SA sterile air cartridges.

If the filter housing is not equipped with a drain, several different drain assemblies are available which may be integrated into the housing.

Differential Pressure Indicators (DPI)

Most Parker Filtration 8000 Series Compressed Air Filter Assemblies are shipped with Differential Pressure Indicators (DPIs) installed. The DPI monitors the pressure drop across the filter, and may be used to measure pressure drop across other components in the compressed air system. Differential Pressure Indicators may also be purchased as accessories for other 8000 Series filter assemblies. Two different models of DPIs are available: 41-071 and 41-082.

Connect the indicator to the HIGH (upstream) and LOW (downstream) sides of the line as indicated by the marking on the indicator.

The Parker Filtration 8000 Series Differential Pressure Indicators give a quick visual indication of the pressure drop in the line. It is not intended to be an accurate pressure gauge.

Ordering Information

Model	Ports	Maximum Pressure	Maximum Temperature
41-071	1/8" NPT	250 psig	130°F (54°C)
41-082	3/8"-24 UNF (1)	300 psig	150°F (65°C)

Notes:

1 If the 41-082 DPI is not mounted on the filter housing, a mounting block (P/N 76256) must be ordered.

2 To ensure consistent product performance and reliability use only genuine Parker Filtration 8000 Series replacement parts and filter cartridges.

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Figure 2 - Mounting Bracket Installation

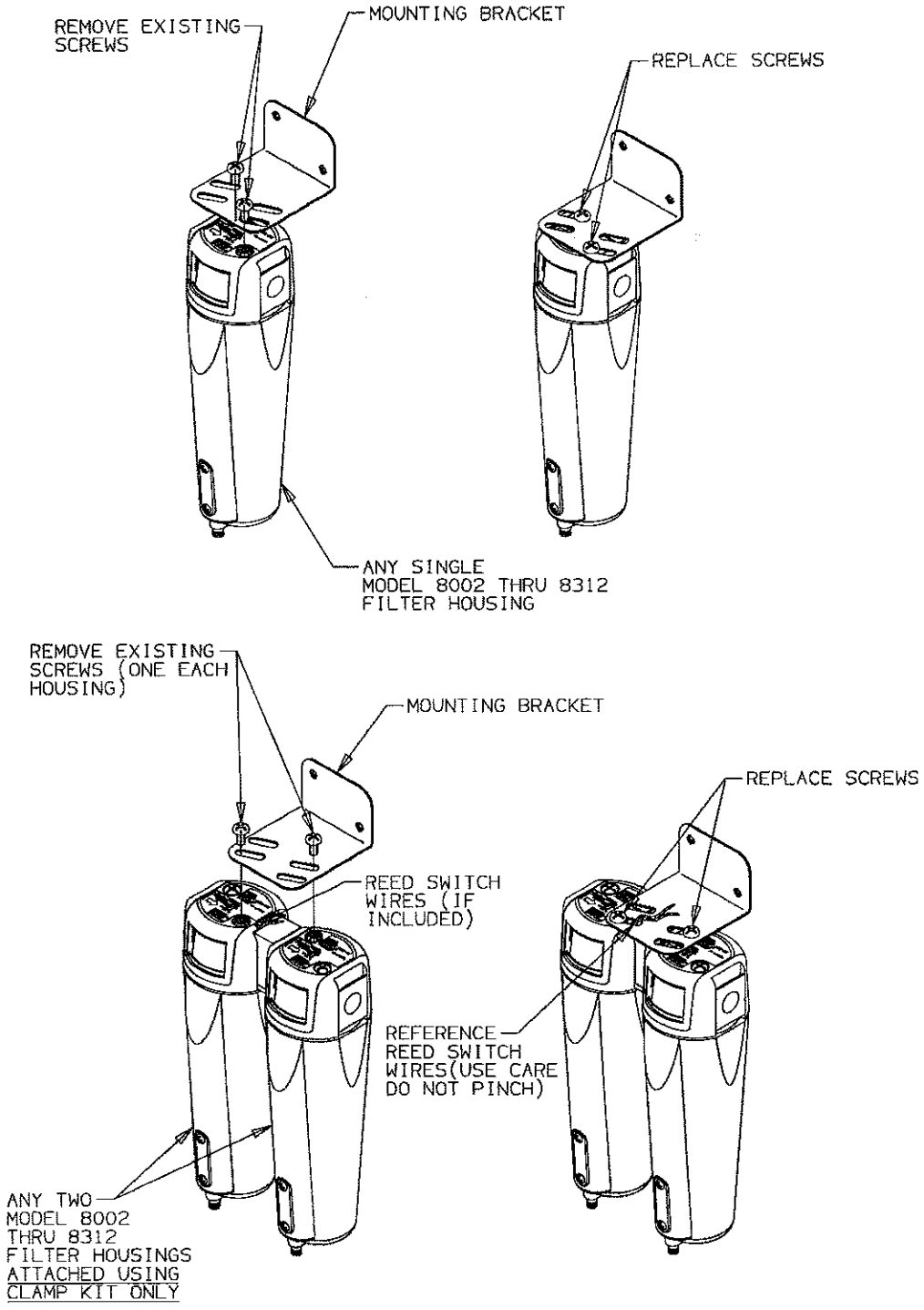

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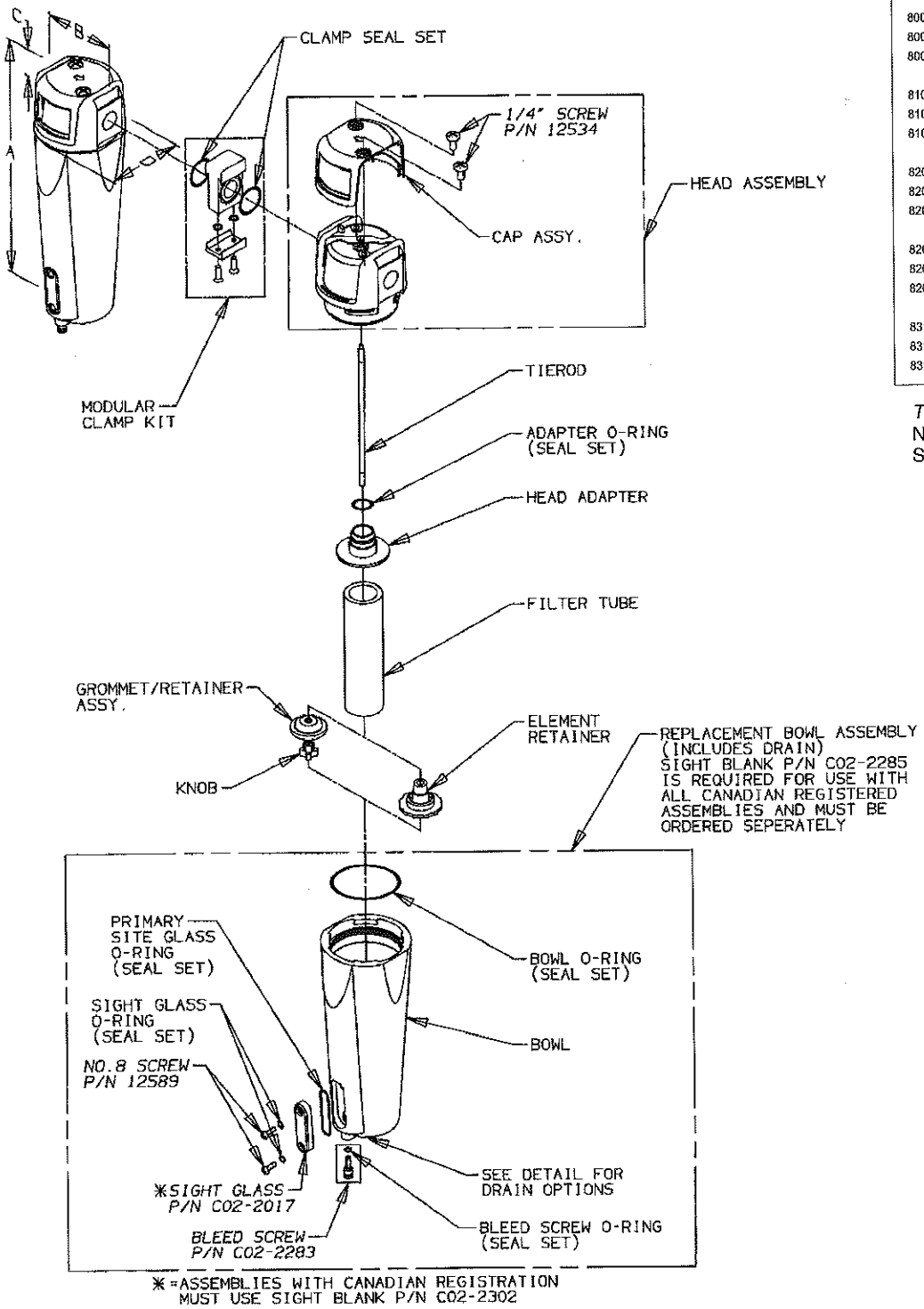
Figure 3 - Exploded Parts View



ASSEMBLY PART NO.	HEAD ASSEMBLY	CAP ASSEMBLY	TIEROD	HEAD ADAPTE
8002N-0A0-000	C02-2233	C02-2220	C02-2020	91410
8002N-0AX-[ ]	C02-2233	C02-2220	C02-2020	91410
8002N-1AX-[ ]	C02-2236	C02-2223	C02-2020	91410
8003N-0A0-000	C02-2234	C02-2220	C02-2020	91410
8003N-0AX-[ ]	C02-2234	C02-2220	C02-2020	91410
8003N-1AX-[ ]	C02-2237	C02-2223	C02-2020	91410
8004N-0A0-000	C02-2235	C02-2220	C02-2020	91410
8004N-0A0-[ ]	C02-2235	C02-2220	C02-2020	91410
8004N-1AX-[ ]	C02-2238	C02-2223	C02-2020	91410
8104N-0A0-000	C02-2235	C02-2220	C02-2022	91410
8104N-0A0-[ ]	C02-2235	C02-2220	C02-2021	91410
8104N-1AX-[ ]	C02-2238	C02-2223	C02-2021	91410
8206N-0A0-000	C02-2242	C02-2221	C02-2066	62451
8206N-0A0-[ ]	C02-2242	C02-2221	C02-2066	62451
8206N-1AX-[ ]	C02-2247	C02-2224	C02-2066	62451
8208N-0A0-000	C02-2244	C02-2221	C02-2066	62451
8208N-0A0-[ ]	C02-2244	C02-2221	C02-2066	62451
8208N-1AX-[ ]	C02-2249	C02-2224	C02-2066	62451
8312N-0A0-000	C02-2255	C02-2222	C02-2084	60451
8312N-0A0-[ ]	C02-2255	C02-2222	C02-2084	60451
8312N-1AX-[ ]	C02-2257	C02-2225	C02-2084	60451

Table 1: Spare Parts Table, 8000 Series
Note: See Pages 10 and 11 for "SA" Sterile Air Filters

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FILTER TUBE	ELEMENT RETAINER	GROMMET RETAINER	KNOB	BOWL	SEAL SET (BUNA)	SEAL SET (VITON)	CLAMP KIT	CLAMP SEAL SET (BUNA)	CLAMP SEAL SET (VITON)	MOUNTING BRACKET	DIM. A	DIM. B	DIM. C	DIM. D	PORT SIZE
CI100-12-000	91960	———	———	C02-2261	A05-0001	A05-0002	C02-2091	A05-0007	A05-0008	C02-2123	7.54(191.5)	3.00(76.2)	1.19(30.2)	3.25(82.6)	1/4"NPT
100-12-[ ]	91960	———	———	C02-2261	A05-0001	A05-0002	C02-2091	A05-0007	A05-0008	C02-2123	7.54(191.5)	3.00(76.2)	1.19(30.2)	3.25(82.6)	1/4"NPT
100-12-[ ]	91960	———	———	C02-2261	A05-0001	A05-0002	C02-2091	A05-0007	A05-0008	C02-2123	7.54(191.5)	3.00(76.2)	1.19(30.2)	3.25(82.6)	1/4"NPT
CI100-12-000	91960	———	———	C02-2261	A05-0001	A05-0002	C02-2091	A05-0007	A05-0008	C02-2123	7.54(191.5)	3.00(76.2)	1.19(30.2)	3.25(82.6)	3/8"NPT
100-12-[ ]	91960	———	———	C02-2261	A05-0001	A05-0002	A02-2091	A05-0007	A05-0008	C02-2123	7.54(191.5)	3.00(76.2)	1.19(30.2)	3.25(82.6)	3/8"NPT
100-12-[ ]	91960	———	———	C02-2261	A05-0001	A05-0002	C02-2091	A05-0007	A05-0008	C02-2123	7.54(191.5)	3.00(76.2)	1.19(30.2)	3.25(82.6)	3/8"NPT
CI100-12-000	91960	———	———	C02-2261	A05-0001	A05-0002	C02-2091	A05-0007	A05-0008	C02-2123	7.54(191.5)	3.00(76.2)	1.19(30.2)	3.25(82.6)	1/2"NPT
100-12-[ ]	91960	———	———	C02-2261	A05-0001	A05-0002	A02-2091	A05-0007	A05-0008	C02-2123	7.54(191.5)	3.00(76.2)	1.19(30.2)	3.25(82.6)	1/2"NPT
100-12-[ ]	91960	———	———	C02-2261	A05-0001	A05-0002	C02-2091	A05-0007	A05-0008	C02-2123	7.54(191.5)	3.00(76.2)	1.19(30.2)	3.25(82.6)	1/2"NPT
CI100-25-000	91960	———	———	C02-2262	A05-0001	A05-0002	C02-2091	A05-0007	A05-0008	C02-2123	10.29(261.4)	3.00(76.2)	1.19(30.2)	3.25(82.6)	1/2"NPT
100-18-[ ]	91960	———	———	C02-2262	A05-0001	A05-0002	C02-2091	A05-0007	A05-0008	C02-2123	10.29(261.4)	3.00(76.2)	1.19(30.2)	3.25(82.6)	1/2"NPT
100-18-[ ]	91960	———	———	C02-2262	A05-0001	A05-0002	C02-2091	A05-0007	A05-0008	C02-2123	10.29(261.4)	3.00(76.2)	1.19(30.2)	3.25(82.6)	1/2"NPT
CI150-19-000	62960	———	———	C02-2263	A05-0003	A05-0004	C02-2121	A05-0009	A05-0010	C02-2124	12.10(307.3)	4.00(101.6)	1.52(38.6)	4.38(111.1)	3/4"NPT
150-19-[ ]	62960	———	———	C02-2263	A05-0003	A05-0004	C02-2121	A05-0009	A05-0010	C02-2124	12.10(307.3)	4.00(101.6)	1.52(38.6)	4.38(111.1)	3/4"NPT
150-19-[ ]	62960	———	———	C02-2263	A05-0003	A05-0004	C02-2121	A05-0009	A05-0010	C02-2124	12.10(307.3)	4.00(101.6)	1.52(38.6)	4.38(111.1)	3/4"NPT
CI150-19-000	62960	———	———	C02-2263	A05-0003	A05-0004	C02-2121	A05-0009	A05-0010	C02-2124	12.10(307.3)	4.00(101.6)	1.52(38.6)	4.38(111.1)	1" NPT
150-19-[ ]	62960	———	———	C02-2263	A05-0003	A05-0004	C02-2121	A05-0009	A05-0010	C02-2124	12.10(307.3)	4.00(101.6)	1.52(38.6)	4.38(111.1)	1" NPT
150-19-[ ]	62960	———	———	C02-2263	A05-0003	A05-0004	C02-2121	A05-0009	A05-0010	C02-2124	12.10(307.3)	4.00(101.6)	1.52(38.6)	4.38(111.1)	1" NPT
CI200-35-000	19923	———	———	C02-2264	A05-0005	A05-0006	C02-2122	A05-0011	A05-0012	C02-2125	16.14(410.0)	5.00(127.0)	2.00(50.8)	5.59(142.0)	1-1/2"NPT
200-35-[ ]	———	19939	19916	C02-2264	A05-0005	A05-0006	C02-2122	A05-0011	A05-0012	C02-2125	16.14(410.0	5.00(127.0)	2.00(50.8)	5.59(142.0)	1-1/2"NPT
200-35-[ ]	———	19939	19916	C02-2264	A05-0005	A05-0006	C02-2122	A05-0011	A05-0012	C02-2125	16.14(410.0)	5.00(127.0)	2.00(50.8)	5.59(142.0)	1-1/2"NPT

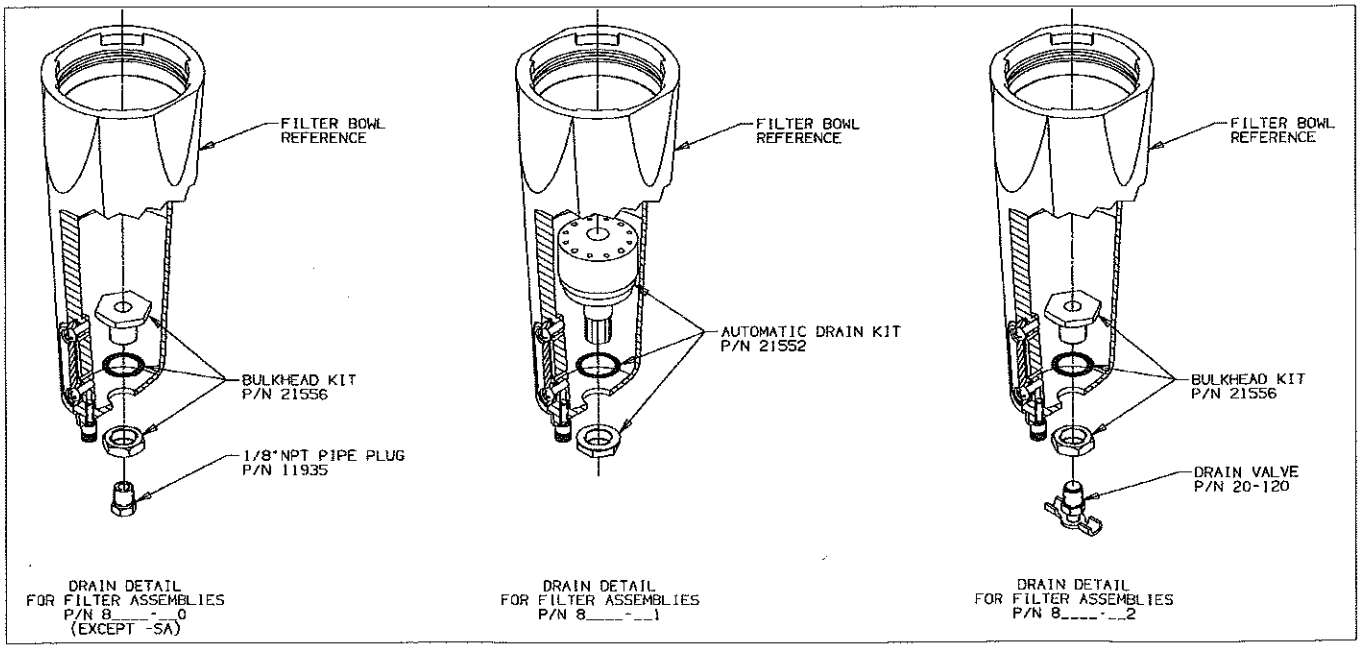
[ ]= Specify Filter Tube Grade BXE or DXE
_ = Specify Drain Option 0,1 or 2 (See Drain Detail)
Dimensions - IN (mm)

BOWL CAPACITY	REPLACEMENT BOWL ASSY. OPTION 0 PLUGGED DRAIN (_____-__0)	OPTION 1 AUTO DRAIN (_____-__1)	OPTION 2 MANUAL DRAIN (_____-__2)
13.5oz (80___-___)	C02-2287	C02-2288	C02-2289
20.3oz (8104_-___)	C02-2291	C02-2292	C02-2293
40.6oz (82___-___)	C02-2295	C02-2296	C02-2297
81.1oz (8312_-___)	C02-2299	C02-2300	C02-2301

EXCEPT "SA" (_____-0A0-SA)
SEE REPLACEMENT PARTS TABLE FOR "SA" HOUSINGS FOR APPROPRIATE REPLACEMENT BOWL ASSY.

Table 2: Replacement Bowl Assembly

Figure 4 - Drain Details



Installation, Operation and Maintenance - Parker Filtration 8000 Series Sterile Air Filters

These instructions must be thoroughly read and understood before installing and operating this product. If you have any questions or concerns, please call the Technical Services Department at 800-343-4048, 8AM to 5PM Eastern Time or email at balstontechsupport@parker.com (North America only). For other locations, please contact your local representative.

Preparing Compressed Air for Sterilization

All water, oil, and dirt must be removed from compressed air before it enters a sterile air filter. Parker 8000 Series coalescing filters remove these contaminants from compressed air at very high efficiencies, up to 99.99% for 0.01 µm for particles and droplets. Collected liquid drips from the filter cartridge to an automatic drain as rapidly as it enters the filter. A Parker coalescing filter will remove liquids for an unlimited time without loss of efficiency or flow capacity.

Two stages of coalescing filters, a Parker Grade DXE followed by a Parker Grade BXE, are recommended to satisfy all requirements for preparing compressed air for sterile filtration (see Figure 5, Recommended Installation diagram, on page 9).

Installing a Parker Sterile Air Filter Assembly

NOTE: All housings with "SA" designations (3rd stage in diagram) must be installed so that flow direction of the compressed air is "outside to inside" through the filter cartridge.

The filter housing is a pressure vessel and the system connections and accessory outlets must be leak-tight. Apply a pipe sealant to the male threads before connecting the pipe line to the filter ports. The sealant also permits disassembly at a later time, if necessary. Any sealant such as PTFE tape, paste, or other compound may be used if it is compatible with the filtered media.

Special consideration must be taken when the application requires steam sterilization of the sterile air filter. The sterile air filter should be piped so that it may be isolated from the coalescing prefilters when it is being steam sterilized (see Figure 5 on page 9). **Any filter housing which is steam sterilized must be stainless steel.**

The Filter Cartridges

Please note that an adhesive-backed grade label is packed in each box of filter cartridges. Affix the grade label to the filter housing when installing the first filter cartridge, so that maintenance personnel know which grade of filter to use for replacement. The date the filter cartridge is installed may be written on the housing label with marking pen or grease pencil, ensuring that the cartridges are changed on a regular schedule.

Installing Filter Cartridges

Microfibre filter cartridges are sealed in place by compression against a flat surface. Gaskets are not required between the filter cartridge and the filter housing. The filter cartridge is centered by guides which fit the inside diameter of the cartridge at each end. In most Parker Filtration housing designs, the filter cartridge is sealed by tightening a threaded element retainer on a tie rod. It is not necessary to use excessive force or tools on the element retainer. The filter cartridge is securely sealed by tightening the element retainer 1-1/2 to 2 turns after it first contacts the filter cartridge.

Changing the Filter Cartridge

A Microfibre filter cartridge continues to filter at its original efficiency as long as it is kept in service. The life of the filter cartridge is determined by the increase in flow resistance caused by solids trapped within the depth of the cartridge. The filter cartridge should be changed when the flow falls below an acceptable level, or the pressure drop becomes too high. The pressure drop through the cartridge should not exceed 10 psid. The filter cartridge cannot be cleaned by back-flushing, because the solids are trapped in the depth of the cartridge, not on the surface.

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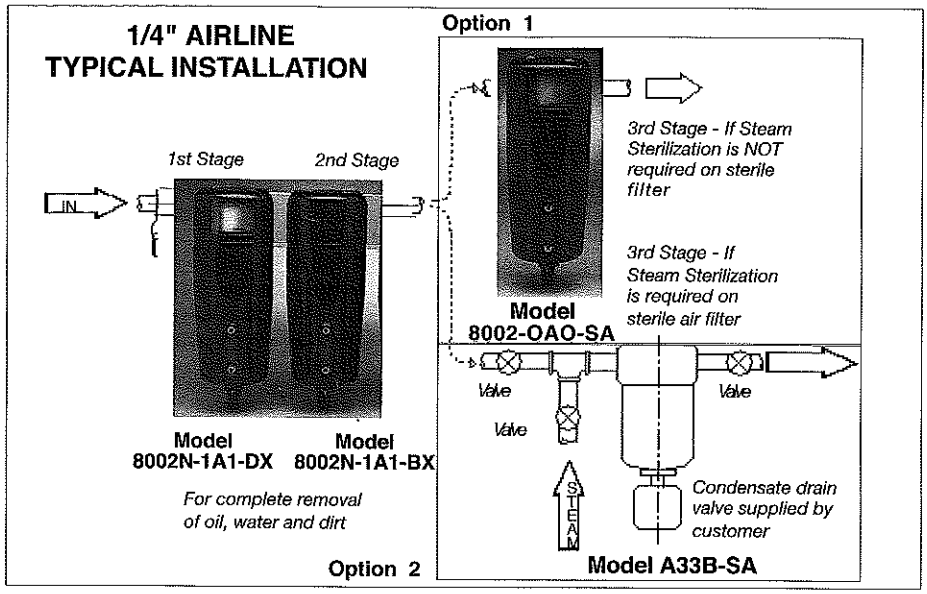
Figure 5 - Recommended Installation



Summary of Filter Cartridge Recommendations

1st Stage Grade DXE	2nd Stage Grade BXE*	3rd Stage Grade SA
For removal of large quantities of oil, water, and dirt from compressed air. Prefilter to Grade BXE*	For complete removal of trace quantities of oil, water, and dirt.	For removal of bacteria when providing sterile air.

*Parker does not recommend the use of Grade BXE without a Grade DXE prefilter.

Steam Sterilization Procedure - Option 2

The housing must be a stainless steel filter housing.

Steam must flow through the sterile air filter in an outside-to-inside flow direction.

In installations where the sterile air filter requires steam sterilization, we recommend the following:

When steam sterilizing, ensure the steam pressure does not exceed 60 psig. It is preferable to hold the steam pressure to 40 psig or less. A typical sterilization cycle consists of using steam at 30 psig for 20 minutes. Steam sterilization time can be increased as desired without harm to the filter cartridges; however, the steam flow rate should not exceed the normal air flow rate for the unit. A condensate drain valve must be installed on the sterile air filter to ensure no condensate buildup during the steam sterilization cycle. If condensate is allowed to build up within the housing during steam sterilization, the sterility and integrity of the sterile air filter may be compromised. Typically, the Parker Filtration Sterile Air filter cartridge will withstand approximately 60 steam sterilization cycles.

Use only filtered steam to sterilize a sterile air filter. The use of unfiltered steam may contaminate the filter housing, filter cartridge, and any downstream equipment or piping. Request Bulletin FNS for more information on Parker Steam Filters.

Autoclaving Procedure

The Parker Filtration 8000 Series Grade SA sterile air filter cartridges will tolerate temperatures to 300°F (149°C) in dry gas. Viton or other appropriate heat-resistant sealing should be used in the housing during autoclaving. The housing must be rated for the temperature used during autoclaving.

Ordering and Installing Replacement Parts

The replacement parts for the Grade SA 8000 Series filters are detailed in Figure 6 (page 10) and Table 3 (page 11). When replacing seals, lubricate prior to installation. Use a lubricant which is compatible with the gas being filtered.

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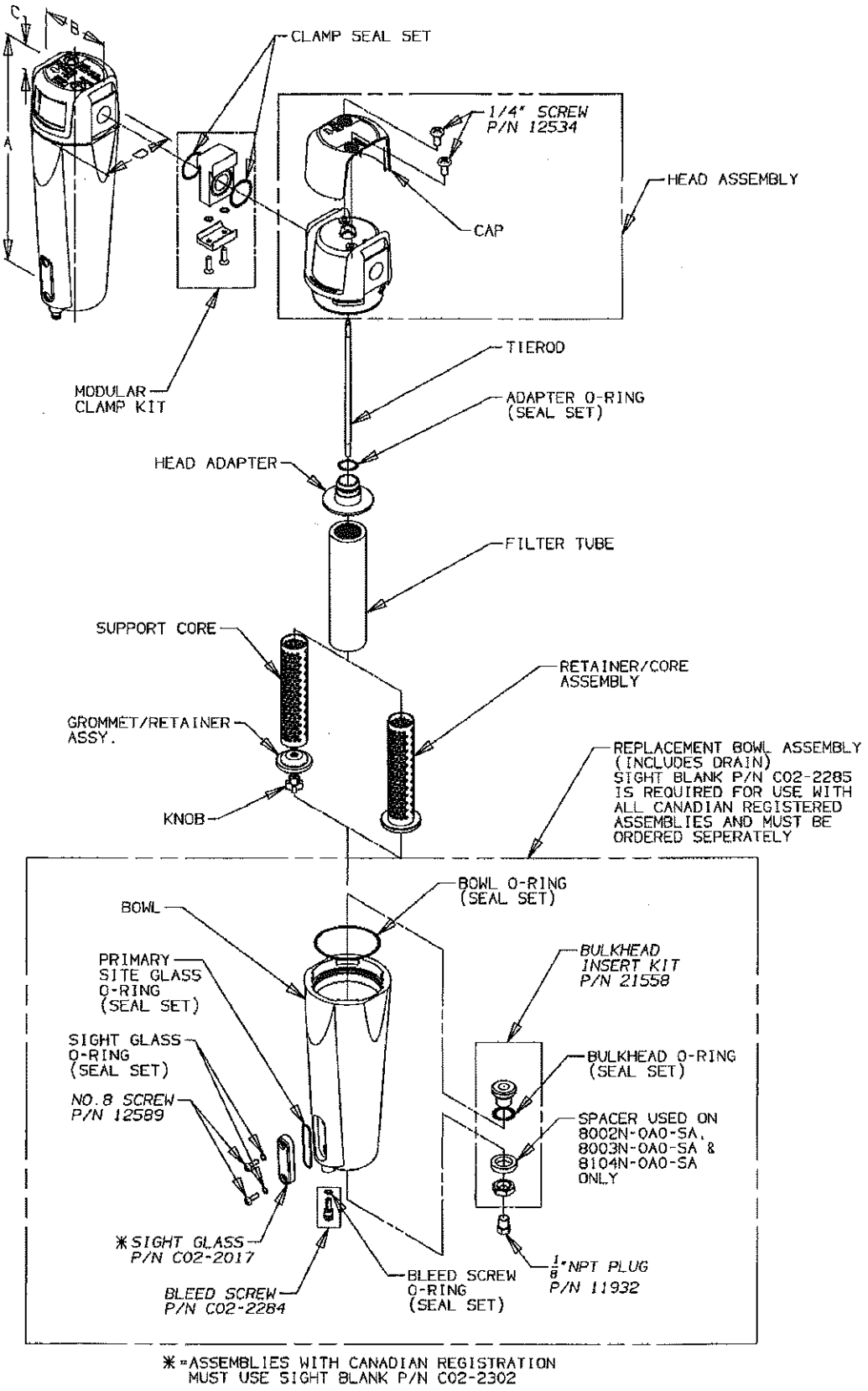
Figure 6 - Exploded Parts View (Sterile Air)



*=ASSEMBLIES WITH CANADIAN REGISTRATION
MUST USE SIGHT BLANK P/N C02-2302

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Table 3: Spare Parts Table (Sterile Air)

ASSEMBLY PART NO	HEAD ASSEMBLY	CAP ASSEMBLY	TIEROD	HEAD ADAPTER	FILTER TUBE	RETAINER CORE ASSY.	SUPPORT CORE	GROMMET RETAINER	KNOB	BOWL	BOWL ASSY.
8002N-0A0-SA	C02-2233	C02-2220	C02-2020	91410	100-12-SA	*91961*	———	———	———	C02-2261	C02-2286
8003N-0A0-SA	C02-2234	C02-2220	C02-2020	91410	100-12-SA	*91961*	———	———	———	C02-2261	C02-2286
8104N-0A0-SA	C02-2235	C02-2220	C02-2021	91410	100-18-SA	*91962*	———	———	———	C02-2262	C02-2290
8206N-0A0-SA	C02-2242	C02-2221	C02-2066	62451	150-19-SA	*62905*	———	———	———	C02-2263	C02-2294
8208N-0A0-SA	C02-2244	C02-2221	C02-2066	62451	150-19-SA	*62905*	———	———	———	C02-2263	C02-2294
8312N-0A0-SA	C02-2255	C02-2222	C02-2084	60451	200-35-SA	———	SS-200-36	19939	19916	C02-2264	C02-2298

ASSEMBLY PART NO	SEAL SET (BUNA FOOD GRADE)	CLAMP KIT	CLAMP SEAL SET (BUNA)	MOUNTING BRACKET	DIM A	DIM B	DIM C	DIM D	PORT SIZE
8002N-0A0-SA	A05-0001	C02-2091	A05-0007	C02-2123	7.54(191.5)	3.00(76.2)	1.19(30.2)	3.25(82.6)	1/4" NPT
8003N-0A0-SA	A05-0001	C02-2091	A05-0007	C02-2123	7.54(191.5)	3.00(76.2)	1.19(30.2)	3.25(82.6)	3/8" NPT
8104N-0A0-SA	A05-0001	C02-2091	A05-0007	C02-2123	10.29(261.4)	3.00(76.2)	1.19(30.2)	3.25(82.6)	1/2" NPT
8206N-0A0-SA	A05-0003	C02-2121	A05-0009	C02-2124	12.10(307.3)	4.00(101.6)	1.52(38.6)	4.38(111.1)	3/4"NPT
8208N-0A0-SA	A05-0003	C02-2121	A05-0009	C02-2124	12.10(307.3)	4.00(101.6)	1.52(38.6)	4.38(111.1)	1"NPT
8312N-0A0-SA	A05-0005	C02-2122	A05-0011	C02-2125	16.14(410.0)	5.00(127.0)	2.00(50.8)	5.59(142.0)	1-1/2"NPT

Dimensions = IN (mm)

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