

## **FSG Series**

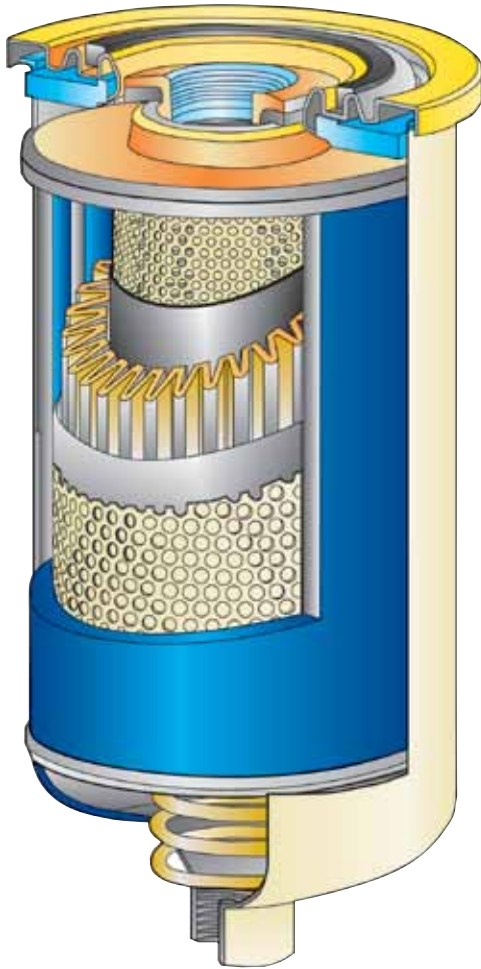
General Purpose Filter Solutions



**GD**  
**GARDNER DENVER™**

*Experience Proven Results™*

## General Purpose Filters



### Introducing Gardner Denver's Innovative FSG Series Filters—Keeping Air Clean the Easy Way!

Airborne contaminants from the atmosphere, such as dust, water vapor, and hydrocarbons enter the air system through the compressor intake. These contaminants, usually 4 million particles per cubic foot, can easily pass through a typical compressor intake filter since over 80% of these particles are less than 2 microns in size. The compressor also contributes to the problem with wear particles, oil vapor and fine aerosols that leak past glands and seals from the oil sump into the compression chamber.

Such Contaminants in the air system can affect the efficient operation of pneumatic devices and, over time, damage them. Compressed air filters that are installed upstream of the air devices will remove most of these contaminants, as well as, most liquid water from the air system.

Gardner Denver has developed an innovative filter design for the compressed air filtration market. These filters have an element secured in a canister housing, similar to an automotive oil filter, which eliminates complications while changing the element. Simply depressurize the system, unscrew the exhausted element and screw on a new element. Since you do not touch the element media, there is no oily residue to contend with.

### “Filtration Made Easy!”

The elements are made of pleated borosilicate which is currently the most efficient media used for filtration. This material does not absorb liquid as it enhances coalescence (micro-droplet formation), thus preventing excessive pressure drop and a degradation of the element quality. The contaminated air flows through the borosilicate micro fibers (inside to outside direction) which capture solid particles and coalesce oil and water droplets. The outside anti-entrainment barrier retains the coalesced liquid, facilitating its collection at the base of the element and allowing it to drain into the quiet zone at the bottom of the filter bowl where it is subsequently discharged by a customer supplied drain valve. The stainless steel support screens hold the micro fiber media and maintains element integrity against system upset differential pressure or a back flow situation. A differential pressure indicator or gauge is available as an option on the bulk liquid, coalescing and particulate filters.

## Filter Types

### Bulk Liquid (Type G) Filter

For the removal of particles down to 5 micron—including liquid water, oil, and solids. To be used as a bulk liquid or general purpose particulate filter. Good for systems with large amounts of rust and scale in piping.

### Course Coalescing/Particulate (Type P) Filter

For the removal of particles down to 1.0 micron—including oil, water and solids. To be used upstream of a refrigerated air dryer, downstream of a desiccant dryer, upstream of the Type C filter to prolong its' life or as a general purpose stand alone filter. Maximum remaining oil carryover of 0.5 ppm.

### Coalescing (Type C) Filter

For the removal of particles down to 0.01 micron—including oil and water aerosols. To be used downstream of a refrigerated air dryer, upstream of a desiccant dryer or as a high efficiency stand alone filter. Maximum remaining oil content of 0.01 ppm.

### Charcoal Element Vapor (Type V) Filter

For the removal of oil vapor and odors—to be used downstream of a Type C filter giving a maximum remaining oil vapor content of 0.003 ppm.

### Sizing the filter for your application

Selecting a general purpose filter for top performance in your application is easy. Select the pressure correction factor from the chart below and multiply it by the required flow of your system. Select the appropriate filter from the specification chart below.

Correction Factors	Pressure (psig)									
	10	20	40	60	80	100	125	150	200	230
	4.64	3.30	2.10	1.54	1.21	1.00	0.82	0.70	0.53	0.47

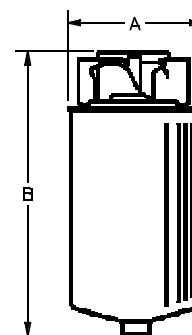
#### EXAMPLE

System requirement and filter for 95 scfm @ 125 psig

**Determine filter size:**  
 $95 \text{ scfm} \times \text{CF} (0.82) = 78 \text{ scfm}$  filter required

**Selection:** FSG80

#### DIMENSIONS

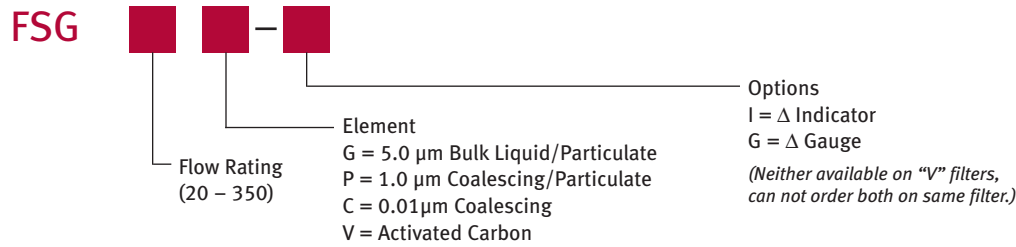


## Specifications

Model Number	Flow Rating SCFM @ 100 psig (7 bar)	Dimensions		Connections		Weight lbs (kg)
		A	B	In/Out	Drain	
FSG20*	20	3.75" (95 mm)	7.87" (200 mm)	1/2"	1/2"	2.5 (1,1)
FSG40*	40	3.75" (95 mm)	7.87" (200 mm)	1/2"	1/2"	2.5 (1,1)
FSG60*	60	3.75" (95 mm)	9.00" (230 mm)	3/4"	1/2"	2.5 (1,1)
FSG80*	80	3.75" (95 mm)	9.00" (230 mm)	3/4"	1/2"	2.5 (1,1)
FSG130*	130	3.75" (95 mm)	10.63" (270 mm)	3/4"	1/2"	3.0 (1,4)
FSG160*	160	5.50" (140 mm)	10.24" (260 mm)	1 1/2"	1/2"	5.5 (2,5)
FSG215*	215	5.50" (140 mm)	12.60" (320 mm)	1 1/2"	1/2"	6.0 (2,7)
FSG350*	350	5.75" (146 mm)	16.00" (406 mm)	1 1/2"	1/2"	6.9 (3,1)

\*Fill in the appropriate element code (G,P,C,V) to model number. Maximum pressure is 230 psig (16 bar). Maximum temperature is 140° F (60° C). G=5.0 micron; Bulk Liquid/Particulate P=1.0 micron; Course Coalescing/Particulate C=0.01 micron; Coalescing V=Vapor (Charcoal)

# Ordering Information



Example: FSG60C-I (for a 60 scfm 0.01 µm coalescing filter with a differential pressure indicator). Replacement element would be a FSG60CE.

All compressed air systems require dry, clean air and environmentally sound disposal of by products. That is why Gardner Denver's support does not stop at the compressor.

Rust, oil vapors, wear particles, air pollution, industrial gases and humidity can foul compressed air systems. Proper removal of these contaminants is essential in preventing costly damage to tools, and equipment.

To ensure total system reliability, Gardner Denver provides a broad range of dryers, coalescing filters, oil/water separators, drains, cleaning fluids, and aftercoolers. ONE-STOP shopping from Gardner Denver assures that all components of the system are designed to work together and are backed by customer support today and for years to come.



[www.GardnerDenverProducts.com](http://www.GardnerDenverProducts.com)

Gardner Denver, Inc. 1800 Gardner Expressway, Quincy, IL 62305  
[www.contactgd.com/compressors](http://www.contactgd.com/compressors)  
 866-440-6241

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