CFG Series

GENERAL PURPOSE AND HIGH EFFICIENCY INDUSTRIAL FILTERS
20 – 350 SCFM

- Unique spin-on design

- Four filter types for selection

- Borosillicate media efficient for oil, solids, water removal

- Efficiency comes standard

CHAMPION®

CFG Series

SPIN-ON FILTERS, 20–350 SCFM

Spin-On Filter

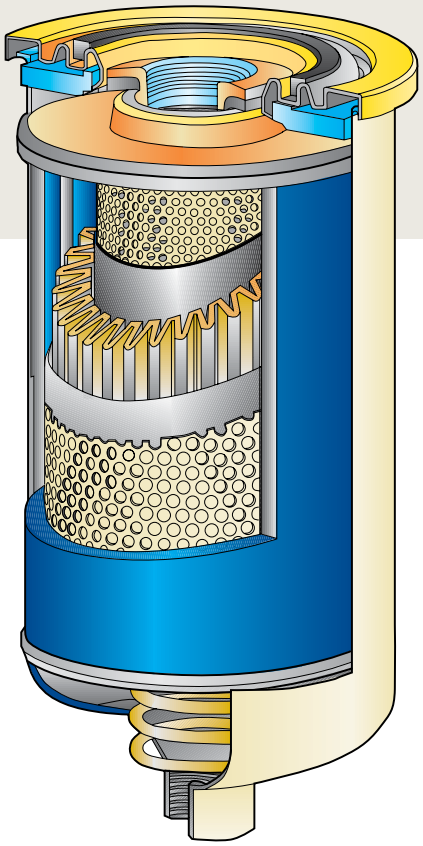
INTRODUCING CHAMPION'S INNOVATIVE FILTER

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.

Champion 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.

Keeping air clean the easy way…



FILTRATION MADE EASY: UNIQUE SPIN-ON DESIGN

The elements are made of *Pleated Borosillicate* 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 Borosillicate micro fibers (inside to outside direction) which capture solid particles and coalesce oil and water droplets. The outside anti-reentrainment 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 holding screens support the micro fiber media and maintain element integrity against high 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.

Features and Benefits

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 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.

DIMENSIONS

Model	Flow Rating	Dimensions (inches)		Connections (NPT)		Weight
Number	SCFM @ 100 psig	A	B	In/Out	Drain	lbs (kg)
CFG20*	20	3.75	7.87	1/2	1/2	2.5 (1,1)
CFG40*	40	3.75	7.87	1/2	1/2	2.5 (1,1)
CFG60*	60	3.75	9.00	3/4	1/2	2.5 (1,1)
CFG80*	80	3.75	9.00	3/4	1/2	2.5 (1,1)
CFG130*	130	3.75	10.63	3/4	1/2	3.0 (1,4)
CFG160*	160	5.50	10.24	1	1/2	5.5 (2,5)
CFG215*	215	5.50	12.60	1 1/2	1/2	6.0 (2,7)
CFG350*	350	5.75	16.00	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; Coarse Coalescing/Particulate C=0.01 micron; Coalescing V=Vapor (Charcoal)
Differential pressure indicator (I) or gauge (G) optional. Example: CFG40P-I, 40 scfm type P, I differential pressure indicator.

SIZING THE FILTER FOR YOUR APPLICATION

Selecting a 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 model selection chart below.

CORRECTION FACTORS

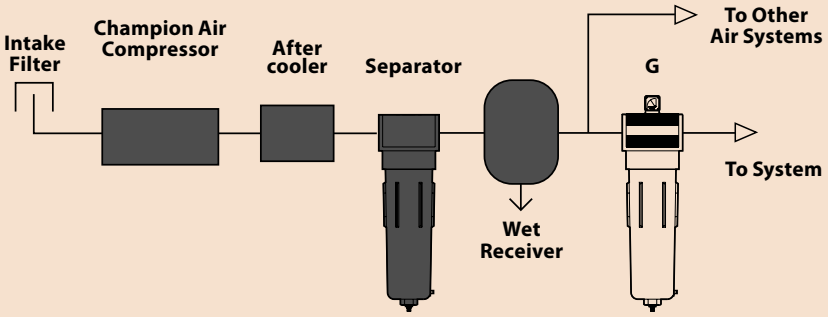
Operating Pressure (psig)	10	20	40	60	80	100	125	150	175	200	230
Correction Factors	**3.13**	**2.22**	**1.56**	**1.28**	**1.11**	**1**	**0.89**	**0.82**	**0.76**	**0.71**	**0.67**

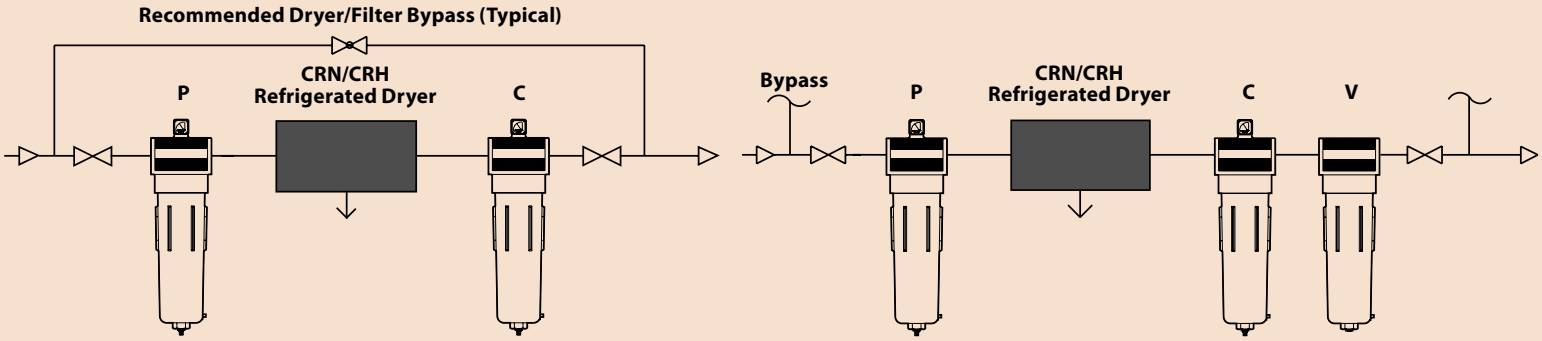
Example: Filter requirement for 90 scfm @ 125 psig

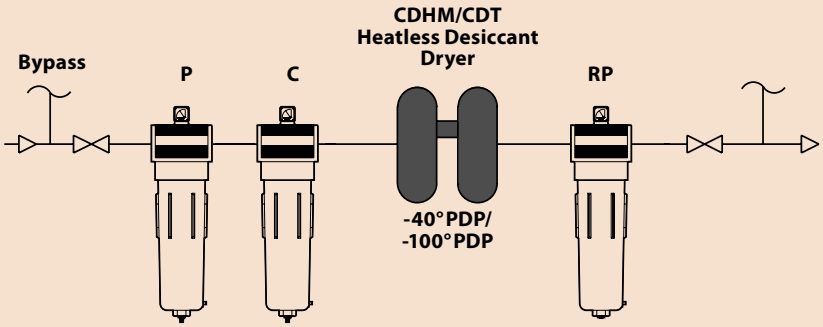
Determine Filter Size: 90 scfm x CF (0.89) = 80 scfm filter required ***Selection:*** **CFG80**

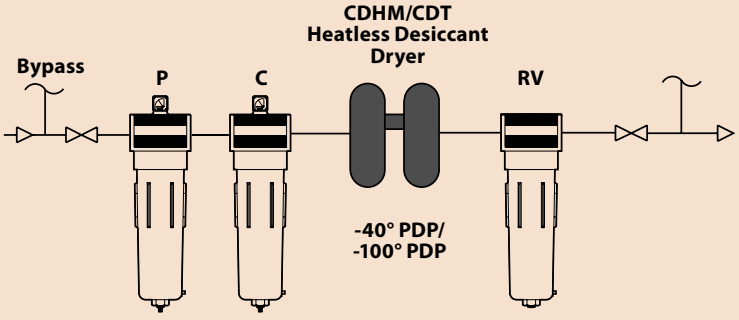
Note: Filters are not supplied with drain valves.

Typical Compressed Air Systems









FILTER GRADE SELECTION

G	5 micron general purpose, coalescing and bulk contaminant removal; point-of-use.
P	1 micron prefiltration to refrigerated dryer; higher efficiency, coalescing point-of-use.
C	0.01 micron high efficiency coalescing oil removal after refrigerated dryer; upstream of desiccant dryers.
V	0.01 micron oil vapors/odor/taste removal downstream of C filter.

CHAMPION®

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