



Compressed Air/Gas Filters

NPT & Flanged

35 – 3000 cfm

High Performance Products.
Designed for you !

 Chicago
Pneumatic

Product Update – Filters

Overview

- Introduction to Models
- Media Selections
- Benefits
- Specifications
- Standard Components
- Questions



NPT Filters

NPT Style Housings

Max Pressure: 232 PSIG (16 bar)

Max. Temp: 150°F (65°C)

Adsorbers max working temp

100°F (38°C)

Seals: O-ring

Materials: Aluminum

Coatings: Anti-corrosion treatment

Powder coated exterior

Design: In-line threaded bowl to head



ASME Flanged Filters

Flanged Style Housings

- Max Pressure: 150 PSIG (10 bar)
- Max. Temp: 175°F (79°C)
- Seals: Nitrile standard / Viton optional
- Materials: Carbon Steel Housing
- Coatings: Primer with enamel finish coat
- Design: ASME coded and stamped vessel



Coalescer Filters & Elements

Oil Removal



CPFS FINE COALESCING FILTER

- .01 micron coalescer, 0.008 max oil carryover
- 99.981% efficient, 1.3 psid
- Provides technically oil-free air; exceeds ISO 8573 Class 1 for oil carryover
- Applied as a pre-filter for desiccant or refrigerant dryers. Used when removal of liquid aerosols or particles in suspension is required
- Can be used to protect control systems, painting systems and critical air conveying



CPFM COALESCING FILTER

- 0.1 micron coalescer, 0.1 ppm max oil carryover
- 98.5% coalescing efficiency, 1.2 psid
- Normally used as a pre-filter to CPFS series filters to extend its life
- Applications: Removal of water, oil or aerosols that are difficult to drain

Particulate Filters & Elements

Particulate Removal



CPFP PARTICULATE FILTER

- 3 micron particulate, 0.6 psid
- Installed on the outlet of desiccant dryers to remove all traces of desiccant dust
- To be used for vacuum pumps and pneumatic blowing systems
- Ideal as a pre-filter for coalescing filters



CPFD DUST FILTER

- 1 micron particulate, 1.2 psid
- Installed where finer filtration is needed
- Often used as pre-filter for coalescing filters
- Great point of use final particle filtration filter for pipe scale and debris that accumulates in the air lines

Adsorbing Filters & Elements

Vapor Removal



CPFP PARTICULATE FILTER

- Activated carbon media filter
- Cannot be used to remove particulates
- Used for vapor and odor elimination and to polish gas streams of final trace amounts of hydrocarbon contaminants
- Applications: pharmaceutical, electronics, medical, photographic workshops, food and beverage, packaging, galvanic treatment, and other sensitive applications requiring no traces of aerosols
- Should always be mounted after a CPFS or a CPFM

CP Filter Benefits



- ▶ Quick and easy push-to-fit element installation
- ▶ Push to fit elements up to 471 cfm. Secure tie rods from 589 to 1413 cfm
- ▶ O-ring seals eliminate fluid and oil carryover
- ▶ Audible pressure indicating alarm warns you if the unit is not depressurized prior to element change

CP Filter Benefits



- ▶ Pressure differential indicator standard - helps ensure element replacement in a timely manner.
- ▶ Filter model # indicates flow, type and connection size, making it easy to size units
- ▶ Functional, anti re-entrainment color sleeve helps instantly identify element
- ▶ Installed float drain is standard (except CPFA).

Correction Factors

Inlet air pressure PSIG [bar]	14.5 [1]	29.0 [2]	43.5 [3]	58.0 [4]	72.5 [5]	87.0 [6]	101.5 [7]	116.0 [8]	130.5 [9]	145.0 [10]	159.5 [11]	174.1 [12]	188.6 [13]	203.1 [14]	217.6 [15]	232.1 [16]
Correction Factor	0.25	0.38	0.50	0.65	0.75	0.88	1.00	1.13	1.25	1.38	1.50	1.63	1.75	1.88	2.00	2.13

Filter Size = Flow Rate / Correction Factor

Flow Rate of Filter = Filter Size x Correction Factor

Examples:

Q: 225 scfm flow rate @ 125 psig, what size fine coalescing filter?

$$225 / 1.2 \text{ (interpolated)} = 187.5 \text{ corrected cfm}$$

A: Choose a CPFS-200

Q. How much flow can a CPFS-200 handle at 125 psig?

A. 200 scfm x 1.2 = 240 scfm equivalent flow.

Standard Components



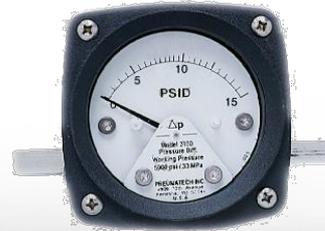
Installed Float Drain Valve
(except on CPFA)



Differential Pressure Indicator
Installed on 35-200 NPT Housings



Differential Pressure Gauge
Installed on 300-1250 cfm NPT Housings
(shipped loose on 1500 cfm NPT Housings)



Differential Pressure Gauge
Shipped loose with Flanged style Housings,
1/4" FNPT connections

Key Points to Remember

- Coalescing efficiency greatly improved
- Easy push-to-fit elements up to 471 cfm
- Secure tie rods on larger filters
- O-ring seals eliminate fluid / oil carryover
- Sizing units is easy, model # indicates flow
- Indicators and gauges are standard



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Questions ?



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