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for economical, trouble-free performance and long-life reliability

MANUFACTURED

with high-quality components and innovative engineering



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COMPRESSED AIR/GAS FILTERS

WORLD LEADERS IN COMPRESSED AIR & GAS SYSTEM ENGINEERING



Basic Models



C COALESCER

Pneumatech's Micro-glass fiber technology and unique element tube configuration combine to deliver high efficiencies with 30% greater flow per unit of size. Complementing these coalescing elements are Pneumatech's "deep bowl" design housings (large sump capacity) **designed specifically to remove oil from compressed air.**

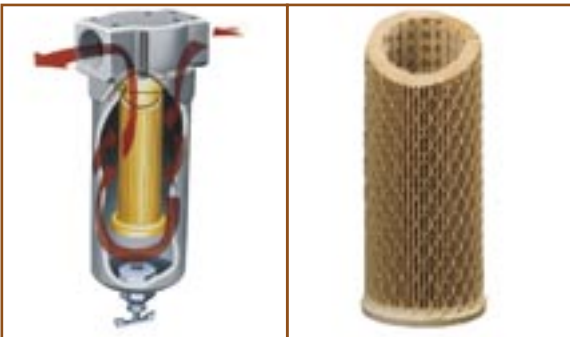
In the coalescing process, liquid aerosols come in contact with fine glass micro-fibers and are agglomerated into increasingly larger droplets that are gravitationally drained away. A micron, identified by the symbol " μm ," also known as a micrometer, is one millionth of a meter (0.000039 inches) in size. The coalescing process occurs in three distinctly different ways, depending on the aerosol size:

DIRECT IMPACT: Contaminants greater than $2\mu\text{m}$.

INTERCEPTION: Contaminants between $.2$ and $2\mu\text{m}$.

DIFFUSION: Aerosols in the $.001$ to $.2\mu\text{m}$ range.

Coalescing of a liquid does not clog the filter, solid particles do. Our **unique, vacuum formed**, fiber matrix used for coalescing also forms a highly efficient and durable particulate filter (see Media Specifications).



P PARTICULATE

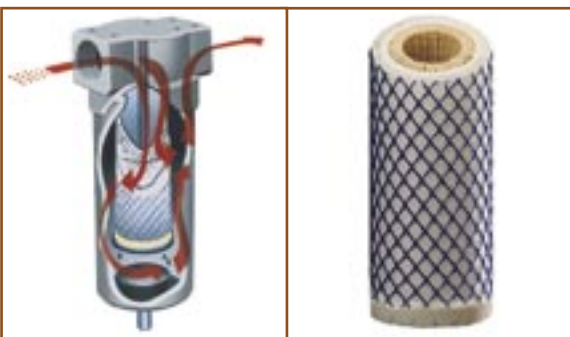
Pneumatech's Particulate Filter uses an interceptor element that is absolute rated to 3 micrometers. The interceptor element is a pleated, large area, high capacity, cellulose element with porosity matched to the coalescer for pre-filtering, or as an independent $3\mu\text{m}$ instrument-quality particulate filter.

Pneumatech's Particulate Filters are **perfect for eliminating desiccant dust after air passes through a heatless regenerative compressed air dryer.** They also serve as a pre-filter to coalescing filters, helping extend the life of a coalescing element. The smaller filters (1" and less) are often used as point-of-use filters to help prevent pipe scale and other contaminants from damaging production tools and cylinders.



A ADSORBER

Pneumatech's Adsorber Filter is an ultra-fine grained, highly concentrated, activated-carbon media filter **used primarily for vapor and odor elimination.** Adsorbers act as a final polishing filter to remove final traces of hydrocarbon contaminants and vapors (odors).



Q COALESCER

Q-style coalescing element combines a particulate filter with a coalescing element. Q-style is standard in F-style (ASME) housing. Air flow is through the particulate element first, capturing larger particles to give longer coalescing element life.

Media Selection Chart

C COALESCER Filter Media (Oil Removal)

Grade Designation

Grade Designation (Coalescing elements wrapped in color netting corresponding to numbers below)	Media Specifications	Coalescing Efficiency .3 to .6 Micron Particles	Maximum Oil Carryover ¹ PPM w/w	Micron Rating	Pressure Drop (PSID) ² @ Rated Flow	
	Applications				Media Dry	Media Wet With 10-20 wt. o
4	Very high-efficiency coalescer; for medium elevated pressures between 150 & 500 PSIG (10 & 34 bar) or lighter weight aerosols. Protects fluid systems and critical modulation systems such as flow and temperature controllers.	99.995%	.003	.01	1.25	3-4
6 STANDARD	General air coalescing applications in all pressure ranges when removal of liquid aerosols and suspended fines is required. Protection of air dryers, air gauging, air logic, modulating systems, critical air conveying, etc.	99.97%	.008	.01	1.0	2-3
8	Good air coalescing efficiency in combination with high flow rate and long element life. Protects non-critical circuit components such as valves, cylinders, etc. Pre-filter for refrigerated air dryer.	98.5%	.2	.5	.5	1-1.5
10	Pre-coalescer or pre-filter for Grade 6 to remove gross amounts of water and oil, or tenacious aerosols that are difficult to drain. Upgrades existing particulate equipment to coalescing without increase in pressure drop. High temperature Grade 10 elements are ideal as after-filters for heated regenerative dryers.	95%	.85	.7	.5	.5

¹ Tested per BCAS 860900 at 40 ppm inlet

² Add dry + wet for total pressure drop

To order other than grade 6, use "G" suffix (see chart on next page) and specify grade #.

MEDIA TYPE:

"C" Micro-glass coalescer (standard).

"Q" C Coalescer with built-in pre-filter (standard for ASME filters; optional for non-ASME).

"/H" High-temperature 450°F (232°C) micro-glass (optional).

END SEAL:

None ¼" to ½" filters - (standard).

Molded Urethane ¾" and larger filters and all coalescers with built-in pre-filters (standard, optional on smaller sizes).

Viton Gasket Bonded to metal end cap for high-temperature 450°F (232°C) element seals (optional).

P PARTICULATE Filter Media (Particulate Removal)

Grade Designation

APPLICATIONS: Particulate removal where very high dirt-holding capacity is required. Safety after-filter for desiccant dryer, pore matched pre-filter for coalescer or as general use for final instrument air protection.

MEDIA TYPE: Pleated cellulose.

END SEAL: Molded urethane, standard on all pleated cellulose filters.

Media Specifications

Absolute Efficiency Rating = 3µm
Pressure Drop (PSID) @ Rated Flow
Media Dry = .25-.5

A ADSORBER Filter Media (Vapor Removal)

Grade Designation

APPLICATIONS: Polishing gas stream of final trace amounts of hydrocarbon contaminants, usually .5 to 2 ppm inlet concentrations. Hydrocarbon vapor removal.

MEDIA TYPE: Activated charcoal adsorber.

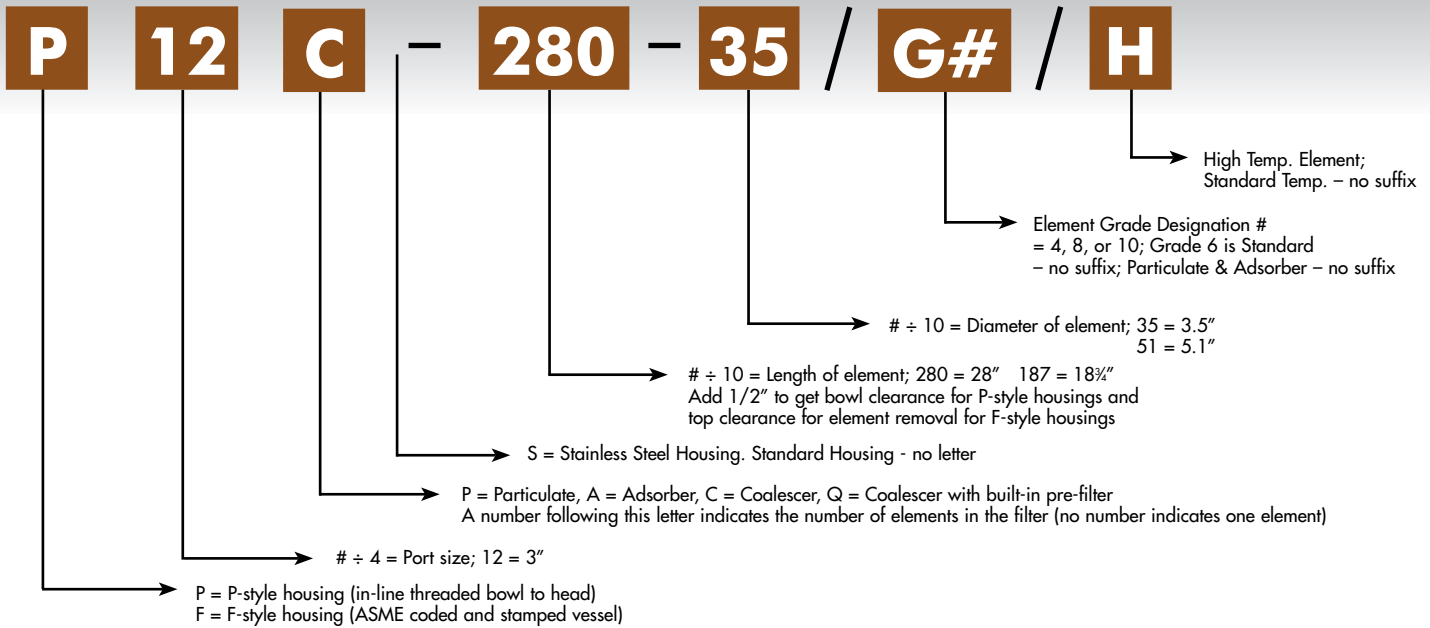
END SEAL: Molded urethane, standard on all activated charcoal filters.

Special Note: Activated charcoal adsorbers should always be preceded by a Grade 6 coalescer.

Media Specifications

Oil Vapor Removal Efficiency = 99%+
Pressure Drop (PSID) @ Rated Flow
Media Dry = 1

Filter Nomenclature



For replacement elements use letter and last two numbers, e.g. C-280-35.

FLOW RATES

Rated Flows: SCFM @ 100 PSIG (m³/hr @ 7 bar) + or - 10%

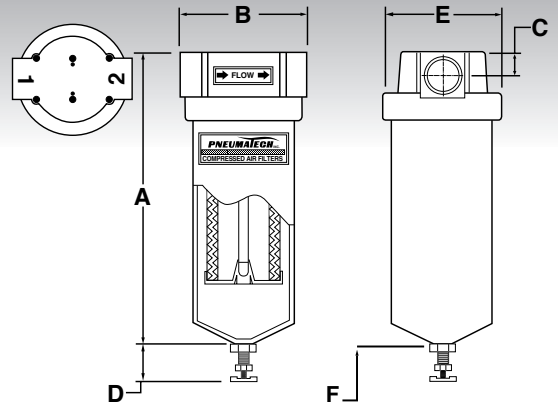
Model Number	Port Size	Rated Flows: SCFM @ 100 PSIG (m ³ /hr @ 7 bar) + or - 10%					
		4 Coalescer	STANDARD 6 Coalescer	8 Coalescer	10 Coalescer	A Adsorbers	P Particulates
P1 □ -25-10	1/4" NPT	11 (19)	15 (26)	20 (34)	25 (43)	15 (26)	25 (43)
P1.5 □ -25-10	3/8" NPT	15 (26)	20 (34)	27 (46)	33 (56)	20 (34)	33 (56)
P2 □ -25-10	1/2" NPT	19 (32)	25 (43)	34 (58)	42 (71)	25 (43)	42 (71)
P1 □ -50-10	1/4" NPT	23 (39)	30 (51)	41 (68)	50 (85)	30 (51)	50 (85)
P1.5 □ -50-10	3/8" NPT	30 (51)	40 (68)	55 (94)	66 (112)	40 (68)	66 (112)
P2 □ -50-10	1/2" NPT	38 (65)	50 (85)	68 (116)	83 (141)	50 (85)	83 (141)
P3 □ -60-15	3/4" NPT	61 (104)	80 (136)	109 (185)	133 (226)	80 (136)	133 (226)
P4 □ -60-15	1" NPT	76 (129)	100 (170)	136 (231)	166 (282)	100 (170)	166 (282)
P4 □ -95-15	1" NPT	106 (180)	140 (238)	191 (325)	232 (394)	140 (238)	232 (394)
P5 □ -130-25	1 1/2" NPT	190 (323)	250 (425)	330 (461)	415 (706)	250 (425)	415 (706)
P6 □ -130-25	1 1/2" NPT	260 (442)	350 (595)	465 (791)	600 (1,020)	350 (595)	600 (1,020)
P8 □ -187-25	2" NPT	340 (578)	450 (765)	600 (1,020)	750 (1,275)	450 (765)	750 (1,275)
P8 □ -235-25	2" NPT	470 (799)	625 (1,063)	830 (1,411)	1,035 (1,760)	625 (1,063)	1,035 (1,760)
P10 □ -280-35	2 1/2" NPT	600 (1,020)	800 (1,360)	1,060 (1,802)	1,330 (2,261)	800 (1,360)	1,330 (2,261)
P12 □ -280-35	3" NPT	750 (1,275)	1,000 (1,700)	1,330 (2,261)	1,660 (2,822)	1,000 (1,700)	1,500 (2,550)
F12 □ -280-51	3" FLG	1,135 (1,930)	1,500 (2,550)	2,050 (3,485)	2,495 (4,242)	1,500 (2,550)	2,500 (4,250)
F16 □ -280-51	4" FLG	1,135 (1,930)	1,500 (2,550)	2,050 (3,485)	2,495 (4,242)	1,500 (2,550)	2,500 (4,250)
F16 □ -250-85	4" FLG	1,515 (2,576)	2,000 (3,400)	2,735 (4,650)	3,330 (5,661)	2,000 (3,400)	3,300 (5,610)
F24 □ -250-85	6" FLG	1,515 (2,576)	2,000 (3,400)	2,735 (4,650)	3,330 (5,661)	2,000 (3,400)	3,300 (5,610)
F16 □ -360-85	4" FLG	2,270 (3,859)	3,000 (5,100)	4,105 (6,979)	4,995 (8,492)	3,000 (5,100)	5,000 (8,500)
F24 □ -360-85	6" FLG	2,270 (3,859)	3,000 (5,100)	4,105 (6,979)	4,995 (8,492)	3,000 (5,100)	5,000 (8,500)
* F24 □ 3-280-51	6" FLG	3,405 (5,789)	4,500 (7,650)	6,160 (10,472)	7,495 (12,742)	4,500 (7,650)	(P3) 7,500 (12,750)
* F32 □ 4-280-51	8" FLG	4,545 (7,727)	6,000 (10,200)	8,215 (13,966)	9,995 (16,992)	6,000 (10,200)	(P4) 10,000 (17,000)
* F40 □ 7-280-51	10" FLG	7,950 (13,515)	10,500 (17,850)	14,380 (24,446)	17,495 (29,742)	10,500 (17,850)	(P4) 17,500 (29,750)
* F48 □ 11-280-51	12" FLG	12,495 (21,242)	16,500 (28,050)	22,600 (38,420)	27,495 (46,742)	16,500 (28,050)	(P7) 27,000 (45,900)

* For drawings and specifications consult factory

Specifications

All P-Style Housings

Max Pressure: **500 PSIG (34 bar)** (will be less with certain options)
Max Temp.: **175°F (79°C)** with option to **450°F (232°C)**
 for Coalescers and **(177°C)** for Particulate
Seals: Nitrile standard / Viton optional
Materials: Aluminum - 380 Die Cast Heads (P1-P4 Housings);
 356 Sand Cast Heads (P5 – P12 Housings);
 6061 Drawn bowls
Coatings: Chromated heads and bowls;
 Powder painted exterior
Design: In-line threaded bowl to head



NOTE: Ports on Head are marked 1 and 2.
 Coalescers flow from Port 1 to Port 2.
 Adsorbers and Particulates flow from Port 2 to Port 1.

1/4" to 1" Housings (P-Style)

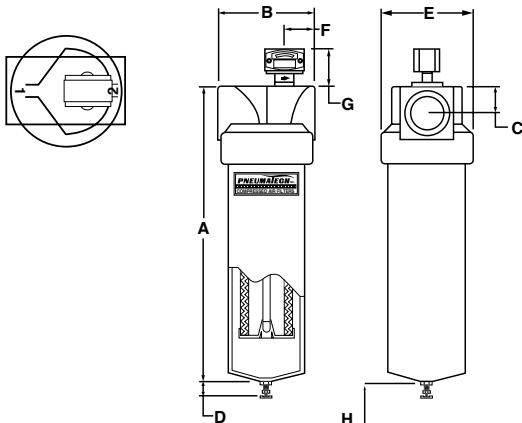
MODEL	A	B	C	D	E	F*	Sump (ml)	Weight
P1 □ -25-10	7.13 (181)	3.11 (79)	.55 (14)	.875 (22)	2.87 (73)	2.99 (76)	150	1.49 (0.68)
P1.5 □ -25-10	7.13 (181)	3.11 (79)	.55 (14)	.875 (22)	2.87 (73)	2.99 (76)	150	1.47 (0.66)
P2 □ -25-10	7.13 (181)	3.11 (79)	.55 (14)	.875 (22)	2.87 (73)	2.99 (76)	150	1.44 (0.65)
P1 □ -50-10	9.61 (244)	3.11 (79)	.55 (14)	.875 (22)	2.87 (73)	5.51 (140)	140	1.89 (0.86)
P1.5 □ -50-10	9.61 (244)	3.11 (79)	.55 (14)	.875 (22)	2.87 (73)	5.51 (140)	140	1.87 (0.85)
P2 □ -50-10	9.61 (244)	3.11 (79)	.55 (14)	.875 (22)	2.87 (73)	5.51 (140)	140	1.85 (0.84)
P3 □ -60-15	10.75 (273)	4.65 (118)	.98 (25)	.875 (22)	3.68 (93.5)	6.50 (165)	270	3.56 (1.61)
P4 □ -60-15	10.75 (273)	4.65 (118)	.98 (25)	.875 (22)	3.68 (93.5)	6.50 (165)	270	3.29 (1.49)
P4 □ -95-15	14.25 (362)	4.65 (118)	.98 (25)	.875 (22)	3.68 (93.5)	10.00 (254)	270	4.11 (1.86)

Special Note: Dimensions are in inches (millimeters); weight is in pounds (kilograms).
 * Clearance required to remove bowl.

1 1/4" to 3" Housings (P-Style)

MODEL	A	B	C	D	E	F	G	H*	Sump(ml)	Weight
P5 □ -130-25	18.23 (463)	5.91 (150)	1.65 (42)	.875 (22)	5.67 (144)	1.85 (47)	2.28 (58)	13.50 (343)	440	12.11 (5.49)
P6 □ -130-25	18.23 (463)	5.91 (150)	1.65 (42)	.875 (22)	5.67 (144)	1.85 (47)	2.28 (58)	13.50 (343)	440	11.97 (5.43)
P8 □ -187-25	24.29 (617)	5.91 (150)	1.65 (42)	.875 (22)	5.67 (144)	1.85 (47)	2.28 (58)	19.25 (489)	530	14.00 (6.35)
P8 □ -235-25	29.33 (745)	5.91 (150)	1.65 (42)	.875 (22)	5.67 (144)	1.85 (47)	2.28 (58)	24.02 (610)	620	15.99 (7.25)
P10 □ -280-35	35.98 (914)	7.99 (203)	2.40 (61)	.875 (22)	7.24 (184)	2.36 (60)	2.28 (58)	28.50 (724)	880	35.00 (15.87)
P12 □ -280-35	35.98 (914)	7.99 (203)	2.40 (61)	.875 (22)	7.24 (184)	2.36 (60)	2.28 (58)	28.50 (724)	880	34.14 (15.48)

Special Note: Dimensions are in inches (millimeters); weight is in pounds (kilograms).
 * Clearance required to remove bowl.

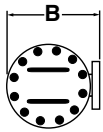
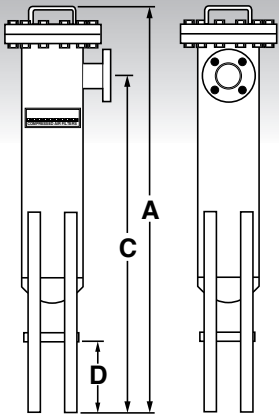


NOTE: Ports on Head are marked 1 and 2.
 Coalescers flow from Port 1 to Port 2.
 Adsorbers and Particulates flow from Port 2 to Port 1.



P-style Elements P1 to P12

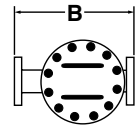
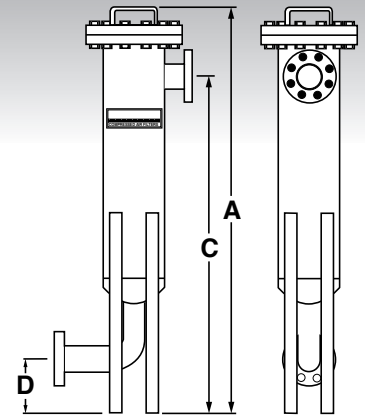
Specifications



F12 & F16 Housings

ASME F-Style Housings

Max Pressure: 150 PSIG (10 bar) (will be less with certain options)
Max Temp.: 175°F (79°C) with option to 450°F (232°C)
 for Coalescers and 350°F (177°C) for Particulate
Seals: Nitrile standard / Viton optional
Materials: Carbon Steel Housing
Coatings: Primer with Enamel Finish Coat
Design: ASME coded and stamped vessel



F24 Housings



F32C4-280-51 Filter

MODEL	A	B	C	D	Weight
F12 □-280-51	58.00 (1473)	15.000 (381)	48.00 (1219)	10.0 (254)	165 (74)
F16 □-280-51	58.00 (1473)	17.125 (435)	48.00 (1219)	6.5 (165)	175 (80)
F16 □-250-51	58.00 (1473)	21.375 (543)	48.25 (1226)	13.0 (330)	320 (145)
F24 □-250-85	59.25 (1505)	25.500 (648)	48.00 (1219)	7.5 (191)	360 (163)
F16 □-360-85	72.00 (1829)	21.375 (543)	62.25 (1581)	13.0 (330)	385 (175)
F24 □-360-85	75.25 (1911)	25.500 (648)	64.00 (1626)	7.5 (191)	420 (191)

Special Note: Dimensions are in inches (millimeters); weight is in pounds (kilograms).



ASME Coalescing Filter Elements



F001 Installed Float Drain Valve (Internal)



F002 Installed Differential Pressure Indicator



2130 Differential Pressure Gauge - Standard with F-style housings (shipped loose), 1/4" FNPT connections



2140 Differential Pressure Gauge - Standard on P5 - P12 housings

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4909 70th Avenue • Kenosha, Wisconsin U.S.A. 53144
 (262) 658-4300 Fax: (262) 658-1945 • www.pneumatech.com



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