



Filter Solutions

Pneumatech offers you a comprehensive line-up of innovative filter solutions to meet your specific needs. Our filtration solutions are engineered cost-effectively to provide the best air quality and meet today's increasing quality demands.

For general applications we provide oil coalescing, particulate and oil vapor filters in a wide range of flows and pressures. Pneumatech is also your partner for breathing air, silicone-free, sterile & process filtration.

TF 1 - 11 - Threaded filters

Features & Benefits

- ▶ Guaranteed air purity
 - High-efficient glass fiber and foam media
- ▶ No risks of:
 - Cracked filter media
 - Cylinder implosion
 - Top cap leakages
 - Oil re-entrainment
- ▶ Significant energy savings
 - Optimal filter media selection allows low pressure losses
- ▶ Highest quality standards
 - In-house research, development & production
 - Each filter subjected to rigorous quality control
 - Fully tested and qualified according to ISO standards
- ▶ Robust design
 - Stainless steel cores guarantee ultimate strength
 - Protection paper to avoid damaging of glass fiber media
 - Anti-corrosive coated filter housing
- ▶ Easy service and installation
 - Push-on filter cartridges elements
 - Different grade, different color
 - Differential pressure gauge on HE range (indicator for sizes 1 to 3)

General Specifications

- ▶ Compressed air inlet pressure: 1-16 barg / 15-232 psig
- ▶ Max. ambient air temperature: 66°C / 151 °F (35°C / 95 °F for V grade)
- ▶ Available grades:
 - P: pre-filter
 - G: fine filter
 - C: super fine filter
 - V: activated carbon filter for oil vapor
 - S: dust filter
 - D: dust filter - high efficient



Options



Wall mounting kit



Connection kit



Potential free contact



Zero-loss drain



Differential pressure gauge (std. on HE range)

Pneumatech offers a comprehensive line-up of innovative filter solutions to meet your specific needs. Our state-of-the-art test facility allows to perform all tests according to ISO 8573 & ISO 12500 standards in-house. In this way we can optimize and validate our products to the maximum; and bring best-in-class filters to the market. From operations side, we distinct ourselves with our high level of automation and quality control in a triple certified manufacturing environment.

A filter is only as good as its weakest link. This explains our choices for two perforated stainless steel filter cores (strength), additional protection layers between filter media and core (no cracks), double O-rings for proper cartridge fixation (no leaks) and epoxy sealed end caps (guaranteed fixation). In this way, we can guarantee the highest air purity at lowest operational costs throughout the entire service life of the filter.

Technical specifications for threaded filters TF 1 - 11												
Pneumatech Variant → Specifications ↓	Units	TF 1	TF 2	TF 3	TF 4	TF 5	TF 6	TF 7	TF 8	TF 9	TF 10	TF 11
Nominal (max.) flow rate ⁽¹⁾	l/s	10 (12)	20 (25)	30 (45)	40 (65)	60 (90)	110 (160)	160 (215)	220 (265)	320 (360)	450 (525)	600 (690)
	m ³ /hr	36 (43)	72 (90)	108 (162)	144 (234)	216 (324)	396 (576)	576 (774)	792 (954)	1152 (1296)	1620 (1890)	2160 (2484)
	cfm	21 (25)	42 (53)	64 (95)	85 (138)	127 (191)	233 (339)	339 (456)	466 (562)	678 (763)	953 (1112)	1271 (1462)
Max Pressure	barg	16	16	16	16	16	16	16	16	16	16	16
	psig	290	290	290	290	290	290	290	290	290	290	290
Connection	G/NPT	3/8"	1/2"	1/2"	3/4" & 1"	1"	1 1/2"	1 1/2"	1 1/2"	2" & 2 1/2"	3"	3"
Dimensions (A)	mm	90	90	90	110	110	140	140	140	179	210	210
	inch	3.5	3.5	3.5	4.3	4.3	5.5	5.5	5.5	7.0	8.3	8.3
Dimensions (B)	mm	61	61	61	99	99	105	105	105	121	128	128
	inch	2.4	2.4	2.4	3.9	3.9	4.1	4.1	4.1	4.8	5.0	5.0
Dimensions (C)	mm	268	268	323	374	414	520	603	603	689	791	961
	inch	10.6	10.6	12.7	14.7	16.3	20.5	23.7	23.7	27.1	31.1	37.8
Weight	Kg	1	1.1	1.3	1.6	2.1	4.2	4.5	4.6	6.9	11	12.6
	Lbs	2.2	2.4	2.9	4.2	4.6	9.3	9.9	10.1	15.2	24.2	27.8
Filter element size		1(grade)	2(grade)	3(grade)	4(grade)	5(grade)	6(grade)	7(grade)	8(grade)	9(grade)	10(grade)	11(grade)
Order example:		TF 1 C S (super fine filter without differential pressure gauge)										
		TF 1 C HE (super fine filter with differential pressure gauge)										

1. Flow is measured at reference conditions: 1 bara and 20°C at operating pressure of 7 barg, inlet temperature 10°C & std PDP of 3°C at the inlet.

Filter Elements performance						
Grades → Performance ↓	P	G	C	V	S	D
	Pre-filter	Fine filter - Oil aerosols/ solid particles	Super fine filter - Oil aerosols/ solid particles	Activated Carbon - Oil vapor	Dust filter	High efficiency dust filter
Particle removal efficiency at nominal flow (% at MPPS)	92.03%	99.92%	99.98%	n/a	99.92%	99.98%
"Oil carry-over at nominal flow (mg/m3) "	<1*	<0,07*	<0,008*	<0,003	n/a	n/a

* Oil aerosol content

Correction factors												
Inlet pressure (barg)	1	2	3	4	5	6	7	8	10	12	14	16
Inlet pressure (psig)	15	29	44	58	72.5	87	102	116	145	174	203	232
Correction factor	0.38	0.53	0.65	0.75	0.83	0.92	1	1.06	1.2	1.31	1.41	1.5



FF 1 - 12 - Flanged Filters

Features & Benefits

- ▶ Guaranteed air purity
 - High-efficient glass fiber and foam media
- ▶ No risks of:
 - Cracked filter media
 - Cylinder implosion
 - Top cap leakages
 - Oil re-entrainment
- ▶ Significant energy savings
 - Optimal filter media selection allows low pressure losses
 - Zero-loss electronic drain included as standard
- ▶ Highest quality standards
 - In-house research, development & production
 - Each filter subjected to rigorous quality control
 - Fully tested and qualified according to ISO standards
- ▶ Robust design
 - Stainless steel cores guarantee ultimate strength
 - Protection paper to avoid damaging of glass fiber media
 - Special coating ensures high corrosion protection, and therefore a housing lifetime of at least 20 years
- ▶ Easy service and installation
 - Bottom cover with special rotating system
 - Different grade, different colour
 - Differential pressure gauge, with voltage free contact

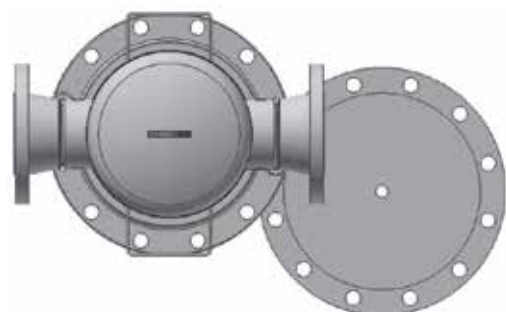
General Specifications

- ▶ Compressed air inlet pressure:
1-16 barg / 15-232 psig
- ▶ Max. ambient air temperature:
66°C / 151 °F (35°C / 95 °F for V grade)
- ▶ Available grades:
 - P: pre-filter
 - G: fine filter
 - C: super fine filter
 - V: activated carbon filter for oil vapor
 - S: dust filter
 - D: dust filter- high efficient



Zooming in

Special rotating system of bottom cover





Pneumatech's flanged filter range contains the same type of robust, high-efficient filter cartridges as the threaded range. The cartridges are contained in a welded steel housing which is pressure-rated up to 16 barg / 232 psig and provided with flanged connections at the compressed air inlet and outlet. The filter housings are completely cleaned, zinc phosphate and KTL

coated at the inside and outside and externally painted afterwards. This guarantees a housing lifetime of at least 20 years.

All flanged filters are standard equipped with a zero-loss electronic drain and differential pressure gauge with voltage-free contact connections. The special rotating system of the bottom cover makes filter cartridge replacement very straightforward.

Technical specifications for flanged filters FF 1-12													
Pneumatech Variant → Specifications ↓	Units	FF 1	FF 2	FF 3	FF 4	FF 5	FF 6	FF 7	FF 8	FF 9	FF 10	FF 11	FF 12
Nominal (max.) Flow Rate ⁽¹⁾	l/s	"550 (630)"	"850 (970)"	1100 (1260)	1400 (1600)	1800 (2200)	2200 (2400)	3000 (3600)	4000	5000	6000	7000	8000
	m ³ /hr	1980 (2268)	3060 (3492)	3960 (4536)	5040 (5760)	6480 (7920)	7920 (8640)	10800 (12960)	14400	18000	21600	25200	28800
	cfm	1165 (1335)	1801 (2055)	2331 (2670)	2966 (3390)	3814 (4662)	4662 (5085)	6357 (7628)	8476	10594	12713	14832	16951
Max Pressure	barg	16	16	16	16	16	16	16	16	16	16	16	16
	psig	232	232	232	232	232	232	232	232	232	232	232	232
Connection	DN	DN80	DN100	DN100	DN150	DN150	DN150	DN200	DN200	DN250	DN250	DN300	DN300
Dimensions (A)	mm	370	510	510	620	640	640	820	820	820	920	920	1040
	inch	14.6	20.1	20.1	24.4	25.2	25.2	32.3	32.3	32.3	36.2	36.2	40.9
Dimensions (B)	mm	190	230	230	290	285	285	400	400	400	550	550	525
	inch	7.5	9.1	9.1	11.4	11.2	11.2	15.7	15.7	15.7	21.7	21.7	20.7
Dimensions (C)	mm	1295	1360	1360	1480	1555	1555	1745	1745	1745	2085	2085	2070
	inch	51.0	53.5	53.5	58.3	61.2	61.2	68.7	68.7	68.7	82.1	82.1	81.5
Weight	Kg	76	141	143	210	176	178	420	428	432	594	597	1140
	Lbs	167.6	310.9	415.3	463	388	392.4	925.9	943.6	952.4	1034	1479.3	1984.2
Number of filter elements		1	3	4	5	6	7	10	14	16	20	24	28
Filter element size		1F (grade)	2F (grade)	2F (grade)	2F (grade)	2F (grade)	2F (grade)	2F (grade)	2F (grade)	2F (grade)	2F (grade)	2F (grade)	2F (grade)
Order example:		FF 1 C HE (superfine filter with differential pressure gauge)											

1. Flow is measured at reference conditions: 1 bara and 20°C at operating pressure of 7 barg, inlet temperature 10°C & std PDP of 3°C at the inlet.

Filter Elements performance						
Grades → Performance ↓	P	G	C	V	S	D
	Pre-filter	Fine filter - Oil aerosols/ solid particles	Super fine filter - Oil aerosols/ solid particles	Activated Carbon - Oil vapor	Dust filter	High efficiency dust filter
Particle removal efficiency at nominal flow (% at MPPS)	92.03%	99.92%	99.98%	n/a	99.92%	99.98%
Oil carry-over at nominal flow (mg/m ³)	<1*	<0,07*	<0,008*	<0,003	n/a	n/a

* Oil aerosol content

Correction factors												
Inlet pressure (barg)	1	2	3	4	5	6	7	8	10	12	14	16
Inlet pressure (psig)	15	29	44	58	72.5	87	102	116	145	174	203	232
Correction factor	0.38	0.53	0.65	0.75	0.83	0.92	1	1.06	1.2	1.31	1.41	1.5



VT - Activated carbon towers + vessels

Features & Benefits

- ▶ Guaranteed air purity with residual oil content below 0,003 mg/m³
 - Superb 2-layer activated carbon material
 - Designed with sufficient safety margin
 - Performance certified by external body
- ▶ Significant energy savings & limited system operating costs
 - Optimal internal flow path
 - Average pressure drop of 125 mbar only
- ▶ Certified class 1 performance, according to ISO 8573-1:2010
 - If combined with Pneumatech oil coalescing filters (G & C)
- ▶ Compact and reliable product design
 - Wall-mounting kit, optional for VT1 - 7
 - Easy to lift, install and service



General Specifications

- ▶ Compressed air inlet pressure:
 - VT 1-9: 1-16 barg / 15-232 psig
 - VT with optional oil indicator: 1-8,8 barg / 15-127 psig
- ▶ Ambient air temperature: -10 - 50°C / 14 - 122°F
- ▶ Compressed air inlet temperature : 1 - 66°C / 34 - 151°F

Options



Wall mounting kit



Oil Indicator



Dust filter



ISO 8573-1:2010 Class 1 validation certificate

Pneumatech's VT activated carbon towers and vessels are high-efficiency filtration products designed to meet the most demanding industry applications. Examples are pharmaceutical, medical, food & beverage, electronics and chemical industries.

The VT is capable of removing hydrocarbons, odors and oil vapors from compressed air. The activated carbon layers will, by the use

of adsorption, reduce the residual oil content to less than 0,003 mg/m³. In combination with Pneumatech G and C filters, the VT meets the requirements of air purity class 1 for total oil, according to ISO 8573-1:2010 in a typical compressed air installation, as was certified by an external body.

Technical specifications for VT 1-9										
Pneumatech Variant → Specifications ↓	Units	VT 1	VT 2	VT 3	VT 4	VT 5	VT 6	VT 7	VT 8	VT 9
Capacity ⁽¹⁾	l/s	20	45	60	95	125	150	185	245	310
	m ³ /hr	72	162	216	342	450	540	666	882	1116
	cfm	42	95	127	201	265	318	392	519	657
Initial pressure drop over filter when dry	BARG	0,015	0,065	0,11	0,085	0,135	0,1	0,145	0,185	0,27
Connection	G/NPT	½"	1"	1"	1"	1½"	1½"	1½"	1½"	1½"
Dimensions (A)	mm	490	715	840	715	840	715	840	840	840
	inch	19.29	28.15	33.07	28.15	33.07	28.15	33.07	33.07	33.07
Dimensions (B)	mm	223	223	223	387	387	551	551	715	879
	inch	8.78	8.78	8.78	15.24	15.24	21.69	21.69	28.15	34.61
Dimensions (C)	mm	190	190	190	190	190	190	190	190	190
	inch	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48	7.48
Weight	Kg	10	15	18	29	34	42	50	67	84
	Lbs	22.0	33.1	39.7	63.9	75.0	92.6	110.2	147.7	185.2

1. Flow is measured at reference conditions: 1 bara and 20°C at operating pressure of 7 barg, inlet temperature 20°C & inlet PDP of 3°C at the outlet.

Correction factors										
For other compressed air inlet temperatures, please multiply the filter capacity by the following correction factor (Kt):										
Inlet temperature	°C	20	25	30	35	40	45	50	55	60
	°F	68	77	86	95	104	113	122	131	140
Correction factor	Kt	1.67	1.43	1.25	1	0.71	0.56	0.37	0.25	0.19

Correction factors												
For other compressed air inlet pressures, please multiply the filter capacity by the following correction factor (Kp):												
Inlet pressure	barg	3	4	5	6	7	8	9	10	11	12	13
	psig	44	58	73	87	102	116	131	145	160	174	189
Correction factor	Kp	0.57	0.77	0.83	1	1	1	1	1.05	1.05	1.11	1.18

Activated carbon vessels for higher flows available on request. Please consult Pneumatech for further support.



H - High Pressure Filters

Features & Benefits

- ▶ High reliability
 - High-performance aluminum or stainless steel housings to withstand ultimately high operational pressures
 - Double O-rings, epoxy sealed caps and anti-corrosive coated filter housing
- ▶ Maximum contaminant removal
 - Removal of dry and wet dust, particulates, oil aerosol and water droplets
 - High-efficiency glass fiber and fleece media
- ▶ Significant energy savings & limited system operating costs
 - Optimal design and filter media allow for low pressure drops
- ▶ Easy to service
 - Cartridge color based on type of filtration grade, makes it easy to service

General Specifications

- ▶ Operating pressures: 50-100-350 barg / 725-1450-5075 psig
- ▶ Operating temperature range:
 - 0-120°C / 32-248°F (for grades S, D, G & C)
 - 0-35°C / 32-95°F (for grade V)
- ▶ Available grades:
 - G: general oil coalescing filtration (max oil carry-over: 0,08 mg/m³)
 - C: fine oil coalescing filtration (max oil carry-over: 0,007 mg/m³)
 - S: general dust filtration (99,92% at MPPS)
 - D: fine dust filtration (99,98% at MPPS)
 - V: oil vapor filtration (max oil carry-over: 0,003 mg/m³)
- ▶ Inlet and outlet connections: threaded
- ▶ Housing material: Aluminum (50 barg / 725 psig only) or stainless steel (complete range)



Applications



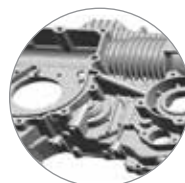
Laser cutting



PET bottling



Pressure testing of components



High-pressure die casting



Autoclave



Pneumatech's high pressure filters are engineered to cost effectively provide the best air purity and meet today's increasing quality demands up to working pressures of 350 barg/5075 psig. All high pressure filter housings are hydraulically tested to ensure safe and reliable operation at all times. The hydrostatic test certificate is supplied with every filter.

The high pressure filters are available in 3 pressure ranges. The 50 barg (725 psig) range is available in both aluminum and stainless steel housings. As the performance of both filters is the same, the choice between the 2 can be made based on the customer's preference. The 100 barg (1450 psig) and 350 barg (5075 psig) filters are available in stainless steel housings.

Technical specifications for HP 1-9 50 barg Aluminium Filters										
Pneumatech Variant→ Specifications ↓	Units	1	2	3	4	5	6	7	8	9
Capacity ⁽¹⁾	l/s	44	69	125	153	232	347	479	535	889
	m ³ /hr	160	250	450	550	835	1250	1725	1925	3200
	cfm	94	147	265	324	491	736	1015	1133	1883
Connection	BSP	¼"	3/8"	½"	¾"	1"	1½"	1½"	2"	2"
Dimensions (A)	mm	63	63	114	114	114	146	146	146	146
	inch	2.48	2.48	4.49	4.49	4.49	5.75	5.75	5.75	5.75
Dimensions (B)	mm	150	190	305	305	395	435	435	435	635
	inch	5.91	7.48	12.01	12.01	15.55	17.13	17.13	17.13	25.00
Weight	Kg	0.3	0.3	2.6	2.6	3.3	7.5	7.5	7.5	10
	Lbs	0.7	0.7	5.7	5.7	7.3	16.5	16.5	16.5	22.0

Technical specifications for HP 1-7 100 barg Stainless Steel									
Pneumatech Variant→ Specifications ↓	Units	1	2	3	4	5	6	7	
Capacity ⁽¹⁾	l/s	28	88	128	189	333	472	944	
	m ³ /hr	100	315	460	680	1200	1700	3400	
	cfm	59	185	271	400	706	1001	2001	
Connection	BSP	¼"	1/2"	¾"	1"	1"	1½"	2"	
Dimensions (A)	mm	65	65	88	135	135	150	150	
	inch	2.56	2.56	3.46	5.31	5.31	5.91	5.91	
Dimensions (B)	mm	135	250	275	265	480	525	815	
	inch	5.31	9.84	10.83	10.43	18.90	20.67	32.09	
Weight	Kg	3.2	5.6	6.1	10.5	14.7	22	28	
	Lbs	7.1	12.3	13.4	23.1	32.4	48.5	61.7	

Technical specifications for HP 1-8 50 barg Stainless Steel									
Pneumatech Variant→ Specifications ↓	Units	1	2	3	4	5	6	7	8
Capacity ⁽¹⁾	l/s	28	56	94	139	278	472	567	944
	m ³ /hr	100	200	340	500	1000	1700	2040	3400
	cfm	59	118	200	294	589	1001	1201	2001
Connection	BSP	¼"	3/8"	½"	¾"	1"	1½"	2"	2"
Dimensions (A)	mm	85	85	85	110	110	150	150	150
	inch	3.35	3.35	3.35	4.33	4.33	5.91	5.91	5.91
Dimensions (B)	mm	202	227	257	270	422	517	517	817
	inch	7.95	8.94	10.12	10.63	16.61	20.35	20.35	32.17
Weight	Kg	1.7	2	2.2	4	5	15	15	21
	Lbs	3.7	4.4	4.9	8.8	11.0	33.1	33.1	46.3

Technical specifications for HP 1-6 350 barg Stainless Steel							
Pneumatech Variant→ Specifications ↓	Units	1	2	3	4	5	6
Capacity ⁽¹⁾	l/s	13	31	71	142	208	369
	m ³ /hr	48	111	255	510	750	1330
	cfm	28	65	150	300	441	783
Connection	BSP	¼"	¼"	½"	¾"	1"	1"
Dimensions (A)	mm	41	65	88.5	88.5	150	150
	inch	1.61	2.56	3.48	3.48	5.91	5.91
Dimensions (B)	mm	103	135	210	280	330	480
	inch	4.06	5.31	8.27	11.02	12.99	18.90
Weight	Kg	1.6	3.2	5.6	6.1	14.5	17.4
	Lbs	3.5	7.1	12.3	13.4	32.0	38.4

Correction factors: 50 barg Aluminum & Stainless Steel										
Operating pressure	barg	4	6	8	10	15	20	30	40	50
	psig	58	87	116	145	218	290	435	581	726
Correction factor	Kp	0.14	0.22	0.28	0.34	0.47	0.56	0.7	0.85	1

Correction factors: 100 barg Stainless Steel										
Operating pressure	barg	20	30	40	50	60	70	80	90	100
	psig	290	435	581	726	871	1016	1161	1306	1451
Correction factor	Kp	0.45	0.57	0.68	0.8	0.84	0.88	0.92	0.96	1

Correction factors: 350 barg Stainless Steel										
Operating pressure	barg	-	-	50	100	150	200	250	300	350
	psig	-	-	726	1451	2177	2903	3628	4354	5080
Correction factor	Kp	-	-	0.73	0.78	0.82	0.87	0.91	0.96	1



1. Flow is referred to an absolute pressure of 1 barg and temperature of 20°C

SLF - Silicone Free Filters

Features & Benefits

- ▶ Guaranteed silicone-free
 - Plasma-cleaned O-rings, diaphragms & gaskets
 - Metallic cylinders, housing components and fasteners washed at 80°C / 176°F
 - Certificates delivered with SLF filters
- ▶ Maximum contaminant removal
 - Removal of dry and wet dust, particulates, oil aerosol and water droplets
 - High-efficiency glass fiber and fleece media
- ▶ Significant energy savings & limited system operating costs
 - Optimal design and filter media allow for low pressure drops
 - High reliability
 - High-performance stainless steel cores, double O-rings, epoxy sealed caps and anti-corrosive coated filter housing

General Specifications

- ▶ Operating pressure range:
2-16 barg / 29-232 psig
- ▶ Operating temperature range:
 - 0-66°C / 32-151°F (for grades S, D, G & C)
 - 0-35°C / 32-95°F (for grade V)
- ▶ Available grades:
 - G: general oil coalescing filtration (max oil carry-over: 0,1 mg/m³)
 - C: fine oil coalescing filtration (max oil carry-over: 0,01 mg/m³)
 - S: general dust filtration (99,81 % at MPPS)
 - D: fine dust filtration (99,97 % at MPPS)
 - V: oil vapor filtration (max oil carry-over: 0,003 mg/m³)
- ▶ Inlet and outlet connections: threaded



Zooming in

Avoid paint defects



Avoid blisters



Avoid poor adhesion



Avoid craters

The SLF filters are free from substances that could cause defects in the paint. The filters are manufactured in a controlled environment that ensures silicone is not present on the components used or introduced in the production process. All filters are subject to dimensional inspection, pressure &

performance testing and a paint compatibility test.

SLF filters are available in 5 grades, which efficiently prevent dry and wet dust, oil aerosol, oil vapor and water drops from entering your compressed air system.

Technical specifications for SLF Silicone-free filters												
Pneumatech Variant → Specifications ↓	Units	SLF 1	SLF 2	SLF 3	SLF 4	SLF 5	SLF 6	SLF 7	SLF 8	SLF 9	SLF 10	SLF 11
Nominal flow ⁽¹⁾	l/s	9	17	32	44	60	120	150	175	280	390	520
	m ³ /hr	32.4	61.2	115.2	158.4	216	432	540	630	1008	1404	1872
	cfm	19	36	68	93	127	254	318	371	594	827	1102
Connection	G/NPT	3/8"	1/2"	1/2"	3/4" & 1"	1"	1-1/2"	1-1/2"	1-1/2"	2" & 2-1/2"	3"	3"
Dimensions (A)	mm	90	90	90	110	110	140	140	140	179	210	210
	inch	3.54	3.54	3.54	4.33	4.33	5.51	5.51	5.51	7.05	8.27	8.27
Dimensions (B)	mm	61	61	61	98.5	98.5	105	105	105	121	128	128
	inch	2.40	2.40	2.40	3.88	3.88	4.13	4.13	4.13	4.76	5.04	5.04
Dimensions (C)	mm	268	268	323	374	414	520	603	603	689	791	961
	inch	10.55	10.55	12.72	14.72	16.30	20.47	23.74	23.74	27.13	31.14	37.83
Weight	Kg	1	1.1	1.3	1.9	2.1	4.2	4.5	4.6	6.9	11	12.6
	Lbs	2.2	2.4	2.9	4.2	4.6	9.3	9.9	10.1	15.2	24.3	27.8

1. Flow measured at reference conditions of Nominal pressure: 7 barg(e)/102 psig; temperature: 20°C, 68°F.

Correction Factors										
Inlet pressure	barg	2	4	6	7	8	10	12	14	16
Inlet pressure	psig	29	58	87	102	116	145	174	203	232
Correction factor		0.53	0.75	0.92	1	1.06	1.2	1.31	1.41	1.5



FP & FP HP - Process Filters (incl. high pressure)

Features & Benefits

- ▶ Enhanced stainless steel (1,4301) filter housing
 - Designed for applications with high risk of corrosion
 - High hygiene standards
- ▶ Advanced filter cartridge design
 - High filtration efficiency
 - Guaranteed performance over the entire lifetime
 - Low pressure drop
- ▶ Ultimate strength
- ▶ 100% integrity tested (DOP test)
- ▶ All components meet the FDA requirements for contact with food in accordance with the Code of Federal Regulations (CFR), title 21.
- ▶ Wide range of cartridges to suit application needs

General Specifications: FP 1-18

- ▶ Stainless Steel Process Filters
- ▶ Operating Pressure: 10-16 barg / 145-232 psig
- ▶ Operating temperature range¹: 0-150°C / 41-302°F
- ▶ Body Connections: DIN 11851 (Milk pipe connections)
- ▶ Surface Finish: Ra 1.6, electro-polished
- ▶ Inlet and outlet Connections: Threaded and flanged.

¹Operating temperature range can vary as per the filter element used.

General Specifications: FP HP 1-8

- ▶ High Pressure Stainless Steel Process Filters
- ▶ Operating Pressure: 50 barg / 725 psig
- ▶ Operating temperature range¹: 0-150°C / 41-302°F
- ▶ Body Connections: DIN 11851 (Milk pipe connections)
- ▶ Surface Finish: Ra 1.6, electro-polished
- ▶ Inlet and outlet Connections: threaded (and flanged from FP 13 onwards)

¹Operating temperature range can vary as per the filter element used.





In process industries where the risk of corrosion of the compressed air system components is high, Pneumatech's FP 1-18 process filter range provides the right solution. The filter housing is made out of stainless steel grade 1,4301. The surface has been smoothed with advanced mechanical and electro-polishing techniques to a level of Ra 1,6. To avoid

micro-organism contamination between the filter head and bowl, these are connected by a milk pipe connection as per DIN 11851.

The filter cartridges are available in 4 different filtration grades for a wide variety of applications. All cartridges have been extensively tested to guarantee the best filtration efficiency over the entire cartridge lifetime.

Technical Specifications FP 1-18

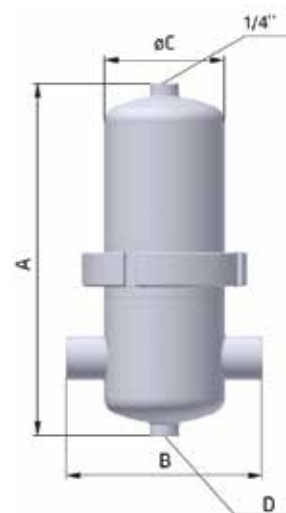
Pneumatech Variant → Specifications ↓	Units	FP 1	FP 2	FP 3	FP 4	FP 5	FP 6	FP 7	FP 8	FP 9	FP 10	FP 11	FP 12	FP 13	FP 14	FP 15	FP 16	FP 17	FP 18
Flow ¹	m ³ /hr	75	105	150	225	315	420	600	900	1260	1680	2400	3600	5040	6720	9600	13440	17280	21120
	cfm	44	62	88	132	185	247	353	530	742	989	1413	2119	2966	3955	5650	7910	10171	12431
Operating Pressure	barg/psig	16/232	16/232	16/232	16/232	16/232	16/232	16/232	16/232	16/232	16/232	12/174	12/174	10/145	10/145	10/145	10/145	10/145	10/145
Connections	Inch	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2"	2 1/2"	3"	3"	DN100	DN100	DN150	DN150	DN200	DN200
Dimensions	A (mm)	202	232	230	254	275	337	386	457	583	740	1004	1029	986	1240	1311	1351	1496	1496
	A (inch)	8.0	9.1	9.1	10.0	10.8	13.3	15.2	18.0	23.0	29.1	39.5	40.5	38.8	48.8	51.6	53.2	58.9	58.9
	B (mm)	116	120	125	125	136	155	180	180	180	224	224	252	410	410	480	540	660	660
	B (inch)	4.6	4.7	4.9	4.9	5.4	6.1	7.1	7.1	7.1	8.8	8.8	9.9	16.1	16.1	18.9	21.3	26.0	26.0
	C (mm)	76.1	76.1	76.1	76.1	88.9	88.9	114.3	114.3	114.3	139.7	139.7	168.3	219.1	219.1	273	323.9	406.4	406.4
	C (inch)	3.0	3.0	3.0	3.0	3.5	3.5	4.5	4.5	4.5	5.5	5.5	6.6	8.6	8.6	10.7	12.8	16.0	16.0
	D	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1"	1"	1"	1"	1"
Mass	Kg	1.7	1.9	1.9	2	2.6	3	4.3	4.8	5.3	9	10.8	16.2	45	46	70	80	135	135
	Lbs	3.7	4.2	4.2	4.4	5.7	6.6	9.5	10.6	11.7	19.8	23.8	35.7	99.2	101.4	154.3	176.4	297.6	297.6

1. Flow is measured at Reference Conditions: 1 bara and 20°C

Technical specifications for FP HP 1-8

Pneumatech Variant → Specifications ↓	Units	FP HP 1	FP HP 2	FP HP 3	FP HP 4	FP HP 5	FP HP 6	FP HP 7	FP HP 8
Flow ¹	m ³ /hr	150	225	315	420	600	900	1260	2400
	cfm	88	132	185	247	353	530	742	1413
Operating Pressure	barg/psig	50/725	50/725	50/725	50/725	50/725	50/725	50/725	50/725
Connections	Inch	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2"	3"
Dimensions	A (mm)	231	253	274	336	387	453	580	1005
	A (inch)	9.1	10.0	10.8	13.2	15.2	17.8	22.8	39.6
	B (mm)	125	125	136	155	180	180	180	224
	B (inch)	4.9	4.9	5.4	6.1	7.1	7.1	7.1	8.8
	C (mm)	76.1	76.1	88.9	88.9	114.3	114.3	114.3	139.7
	C (inch)	3.0	3.0	3.5	3.5	4.5	4.5	4.5	5.5
	D	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
Mass	kg	2.5	2.6	3.4	3.9	5.6	6.2	6.9	14.1
	Lbs	5.5	5.7	7.5	8.6	12.3	13.7	15.2	31.1

1. Flow is measured at Reference Conditions: 1 bara and 20°C



Correction factors

Operating pressure	barg	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	20	30	40	50
	psig	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232	100	290	435	725
Correction factor	Kp	0,38	0,5	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13	2,63	3,88	5,13	6,38

FS - Sterile Filters

Features & Benefits

- ▶ Enhanced high-grade stainless steel filter housing
 - Designed for applications with high risk of corrosion
 - High hygiene standards thanks to sanitary couplings
- ▶ Advanced filter cartridge design
 - High microbiological filtration efficiency
 - Designed to withstand a large number of sterilization cycles thanks to silicon bonded joint and additional NOMEX layer
- ▶ Stainless steel cylinders and end-caps
- ▶ Low pressure drop
- ▶ 100% integrity tested (DOP test)
- ▶ All components meet the FDA requirements for contact with food in accordance with the Code of Federal Regulations (CFR), title 21.

General Specifications

- ▶ Operating Pressure: 10-16 barg/ 145-232 psig
- ▶ Operating temperature range¹:
-20°C to 150°C / -4°F to 302°F
- ▶ Side Connections : DN10 to DN200 sanitary flange (ISO)
- ▶ Surface Finish : Ra 0.8
- ▶ Body Connections: Sanitary tri clamp

¹Operating temperature range can vary as per the filter element used.





Pneumatech's FS filters are designed for compressed air and gas applications that need to be free from microbiological contamination, and can thus be sterilized regularly.

Pneumatech's FS filter housings are made out of stainless steel grade 1,4301, with a surface that has been smoothed to a level of Ra 0,8. The upper and bottom filter parts are connected by a sanitary tri clamp fitting; and the side connections are made out of sanitary ISO flanges. As a result, there is no void inside the entire filter housing; and thus no risk of micro-organism contamination.

The filter elements are manufactured with silicon as bonded joint to ensure robustness at high operating and sterilization temperatures. For the same reason, an additional NOMEX layer is used at the inside and outside of the filter element. The filter cylinders and end-caps are made out of stainless steel. This all results in a highly efficient and exceptionally strong filter, which keeps its performance after a large number of sterilization cycles.

Technical specifications for FS 1-16

Pneumatech Variant →	Units	FS HE 1	FS HE 2	FS HE 3	FS HE 4	FS HE 5	FS HE 6	FS HE 7	FS HE 8	FS HE 9	FS HE 10	FS HE 11	FS HE 12	FS HE 13	FS HE 14	FS HE 15	FS HE 16
Flow ⁽¹⁾	l/s	21	29	42	63	88	167	250	350	467	667	1400	1867	2667	3733	4778	5867
	m ³ /hr	75	105	150	225	315	600	900	1260	1680	2400	5040	6720	9600	13440	17200	21120
	cfm	44	62	88	132	185	353	530	742	989	1,413	2,966	3,955	5,650	7,910	10,124	12,431
Operating Pressure	barg/psig	16/232	16/232	16/232	16/232	16/232	16/232	16/232	16/232	16/232	16/232	10/145	10/145	10/145	10/145	10/145	10/145
Connections	Inch	DN10/ø17,2	DN10/ø17,2	DN15/ø21,3	DN15/ø21,3	DN25/ø35,7	DN32/ø42,4	DN40/ø48,3	DN50/ø60,3	DN65/ø76,1	DN80/ø88,9	DN100	DN100	DN150	DN150	DN200	DN200
Dimensions	A (mm)	218	246	251	275	303	363	446	587	763	1015	1012	1266	1305	1418	1568	1568
	A (inch)	8.6	9.7	9.9	10.8	11.9	14.3	17.6	23.1	30.0	40.0	39.8	49.8	51.4	55.8	61.7	61.7
	B (mm)	125	125	120	120	169	169	169	183	195	195	410	410	480	540	660	660
	B (inch)	4.9	4.9	4.7	4.7	6.7	6.7	6.7	7.2	7.7	7.7	16.1	16.1	18.9	21.3	26.0	26.0
	C (mm)	76.1	76.1	76.1	76.1	114.3	114.3	114.3	114.3	139.7	139.7	219.1	219.1	273	323.9	406.4	406.4
	C (inch)	3.0	3.0	3.0	3.0	4.5	4.5	4.5	4.5	5.5	5.5	8.6	8.6	10.7	12.8	16.0	16.0
	D (mm)	69	69	69	69	86	86	86	96	120	120	183	183	225	256	306	306
	E (inch)	1/8"	1/8"	1/8"	1/8"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/2"	1/2"	1/2"	1"	1"
Mass	Kg	1.6	1.7	1.7	1.8	3.1	3.4	3.6	4.9	8.4	10.2	44	45	70	80	135	135
	Lbs	3.5	3.7	3.7	4.0	6.8	7.5	7.9	10.8	18.5	22.5	97.0	99.2	154.3	176.4	297.6	297.6

1. Flow is measured at Reference Conditions: 1 bara and 20°C

Correction factors

Operating pressure	barg	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	psig	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	Kp	0,38	0,50	0,63	0,75	0,88	1	1,13	1,25	1,38	1,50	1,63	1,75	1,88	2,00	2,13



TF DC - Filters with Desiccant Cartridges

General Specifications

- ▶ Pressure dew point: -40°C
- ▶ Max working pressure: 16 barg / 232 psig
- ▶ Operating temperature range:
1,5 – 45 °C / 35 - 113 °F

The TF DC consists of a desiccant-filled cartridge, fit inside the standard Pneumatech filter housing. The desiccant dries the compressed air down to -40°C / -40°F but only has a limited lifetime, as it is not regenerated. The DC is therefore meant to dry small amounts of temporarily required compressed air; or as a safety filter downstream the main dryer.

The integrated dust filter collects any dust particles from the desiccant, making downstream dust filtration unnecessary. As with adsorption dryers, upstream oil coalescing filters are recommended to avoid that oily contaminants would stick to the desiccant.

Technical specifications for Desiccant Cartridges

Filter Cartridge Size element → Specifications ↓	Unit	TF 2 DC	TF 4 DC	TF 5 DC	TF 6 DC	TF 7 TC	TF 8 DC
Nominal flow ⁽¹⁾	m ³ /hr	0,2	0,7	1	3,7	4,2	5
	cfm	0,12	0,41	0,59	2,18	2,47	2,94
Total Capacity ⁽²⁾	m ³	5	18	26	82	94	114
	Ft ³	185,9	647,8	907,4	2898,5	3320,2	4029,6
Connections	inch	1/2"	3/4"	1"	1 1/2"	1 1/2"	1 1/2"
Molecular Sieves Mass	kg	0,056	0,196	0,278	0,878	1,02	1,201
	Lbs	0,12	0,43	0,61	1,94	2,25	2,65

1. Refers to 10s contact time at 7 barg operating pressure and 20°C.

2. Refers to 20°C inlet temperature, 100% relative humidity and 20% wt desiccant load capacity.



Correction factor

Operating pressure	barg	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	psig	29	44	58	73	87	102	116	131	145	160	174	189	203	218	232
Pressure correction factor	Kp	0.38	0.5	0.63	0.75	0.88	1	1.13	1.25	1.38	1.5	1.63	1.75	1.88	2	2.13

Correction factor

Operating Temperature	°C	20	25	30	35	40	45
	°F	68	77	86	95	104	113
	Kt	1	0.98	0.97	0.95	0.94	0.92

TF CC & TF HC - filters with Activated Carbon & Hopcalite cartridges

The cartridge-concept of the Desiccant Cartridges is also applied to activated carbon and hopcalite materials.

The activated carbon cartridge can be considered an intermediate solution between the carbon impregnated cartridge (V) and the activated carbon towers (VT). It provides thus a compact oil vapor filtration solution, albeit with a longer service life than the V filter.

Hopcalite is a catalyst which converts carbon monoxide into carbon dioxide. It is often used in breathing air applications to bring the carbon monoxide concentration below the prescribed thresholds of 15 ppm according to EN 12021 and 5 ppm according to the European Pharmacopeia.

Both solutions include an integrated dust filter. The correct filter sizing is usually based on the requested pressure drop over the filter.

General Specifications

- ▶ Max working pressure: 16 barg / 232 psig
- ▶ Operating temperature range: 1,5 – 45 °C / 35 - 113 °F
- ▶ Service life: Dependent on inlet concentration – please consult Pneumatech for further support.



Technical specifications for Activated Carbon Cartridges

Filter grade→ Specifications↓	Unit	TF 2 CC	TF 4 CC	TF 5 CC	TF 6 CC	TF 7 CC	TF 8 CC
Flow Capacity ⁽¹⁾	m ³ /hr	72	144	216	396	576	792
	cfm	42	85	127	233	339	466
Connections	inch	1/2"	3/4"	1"	1 1/2"	1 1/2"	1 1/2"
Pressure Drop at Nominal Flow	mBar	80	110	120	420	730	1400
	psig	1,16	1,60	1,74	6,09	10,59	20,31
Activated Carbon Mass	kg	0,04	0,14	0,199	0,627	0,729	0,858
	Lbs	0,1	0,3	0,4	1,4	1,6	1,9

1. Flow refers to 1 barg and 20°C at 7 barg operating pressure.

Technical specifications for Hopcalite Cartridges

Filter grade→ Specifications↓	Unit	TF 2 HC	TF 4 HC	TF 5 HC	TF 6 HC	TF 7 HC	TF 8 HC
Flow Capacity ⁽¹⁾	m ³ /hr	78	120	198	335	510	780
	cfm	46	71	117	197	300	459
Connections	inch	1/2"	3/4"	1"	1 1/2"	1 1/2"	1 1/2"
Pressure Drop at Nominal Flow	mBar	80	110	120	420	730	1400
	psig	1,16	1,60	1,74	6,09	10,59	20,31
Hopcalite mass	kg	0,073	0,252	0,358	1,129	1,312	1,544
	Lbs	0,2	0,6	0,8	2,5	2,9	3,4

1. Flow refers to 1 barg and 20°C at 7 barg operating pressure.

Correction factor

Operating pressure	barg	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	psig	29	44	58	73	87	102	116	131	145	160	174	189	203	218	232
Pressure correction factor	Kp	0.38	0.5	0.63	0.75	0.88	1	1.13	1.25	1.38	1.5	1.63	1.75	1.88	2	2.13

BREATHBOX - Portable breathing air system

Features & Benefits

- ▶ High quality breathing air for up to 5 people
 - Based on conservative peak inhalation rate of 15,1 m³/hr / 8,9 cfm per person, as defined by BS 4275:1997
- ▶ Rigorous air quality monitoring
 - Continuous measurement of CO, CO₂ and O₂ concentrations
 - Compliance with EN 12021 and BS 4275:1997
 - Alarm triggering when air quality does not comply with the standards
 - Gas analyzers approved and certified as per various certification bodies and standards
- ▶ Advanced filter design
 - Highly reliable filter cartridges
 - Ensuring ISO 8573-1:2010 Class 1:x:1
- ▶ Plug and play portable design
 - Small footprints and low weight design
 - Easy installation with quick couplings

General Specifications

- ▶ Operating Pressure: 0-16 barg / 0-232 psig
- ▶ Operating temperature range: 1.5-40°C / 35-104°F
- ▶ Inlet and outlet connections : Quick coupling DN 7,2 (inlet-male, outlet-female)
- ▶ Electrical Connections : 230 VAC / 110 VAC / 9 VDC to 24 VDC
- ▶ Power consumption: < 10W



Are you looking for a portable, easy-to-use and reliable breathing air solution?

Pneumatech's BREATHBOX can safely provide high-quality breathing air for up to 5 people. The BREATHBOX consists of a 5-stage filter train, combined with gas concentration analyzers, a pressure regulator and quick couplings, all packed in a compact and robust casing.

The 5-stage filter train includes:

- High-efficiency oil coalescing filter
- Oil vapor removal filter with activated carbon pellets
- Integrated particle removal filters to remove all activated carbon dust particles

- Hopcalite catalyst to convert carbon monoxide into carbon dioxide
- Integrated high-efficiency particle removal filter to remove hopcalite dust particles

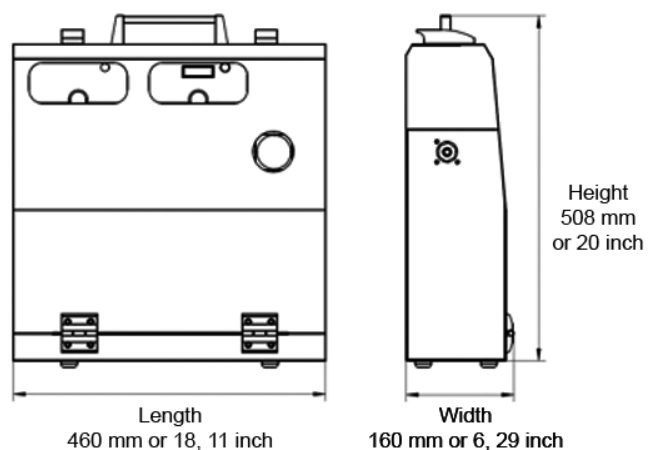
Gas concentration analyzers monitor CO, CO₂ and O₂ concentrations at all times, and trigger an alarm if concentrations exceed the values described in EN12021 and BS4275:1997.

The BREATHBOX is easy to transport, install and use; and can therefore be used in a wide range of applications, such as shot-blasting, tank cleaning, spray painting and manufacturing.

Technical Specifications for Breathbox

Flow rate ⁽¹⁾ (7bar, 20°C)	m ³ /hr	120
	cfm	71
1 st filtration stage		Oil aerosol filtration down to < 0,01 mg/m ³
2 nd filtration stage		Oil vapor filtration down to < 0,005 mg/m ³ with integrated particle filter
3 rd filtration stage		CO removal, with integrated particle filter
CO monitoring		Warning 3 ppm, alarm 5 ppm
CO ₂ monitoring		Alarms (increasing intensity) at 500 ppm/1500 ppm
O ₂ monitoring		Alarm at O ₂ concentration <19,5%
Protection class of analysers		IP65
Weight	kg	12
	Lbs	26.5

1. Flow refers to 1 barg and 20°C at 7 barg operating pressure.



Competitor spare parts - Alternative line filter cartridges

Features & Benefits

- ▶ Guaranteed performance
 - Filter media selected to offer low differential pressure, high oil removal efficiencies and proven continuous performance
 - Performance equal to or superior than the original
- ▶ Robust design
 - Perforated support cylinders made from corrosion resistant stainless steel, which is twice as strong as galvanized steel
 - Protection layers to protect the glass fiber media from being damaged by the metal cores
- ▶ Guaranteed interchangeability
 - Designed to fit into the original housing
 - Tested in more than 10.000 filters in the field
- ▶ Quality Control
 - Full traceability by ink jet marking specific codes on every filter element complying with our IOS 9001 manufacturing procedures



Brands

Domnick Hunter	Dollinger (SPX)
Zander	Finite
Donaldson Ultrafilter	Kaeser
Hydrovane	CompAir
Hiross	Ingersoll Rand
Hankison (SPX)	Parker Balston
Deltech (SPX)	Sullair
CTA	FST
Bea Filtri	And many more

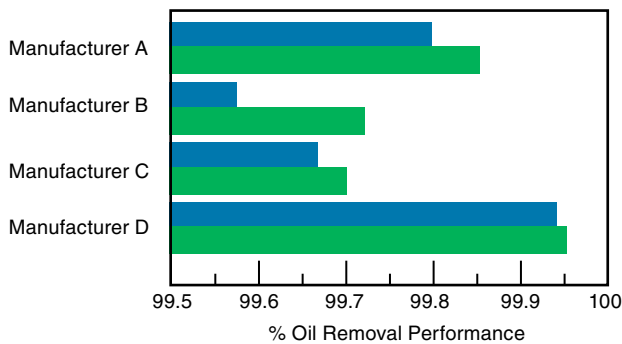


Pneumatech offers superior quality alternative line filters for all major brands including Domnick Hunter, Zander, Donaldson and many more. We can supply filtration solutions for any grade or class of air quality to suit all air compressor needs.

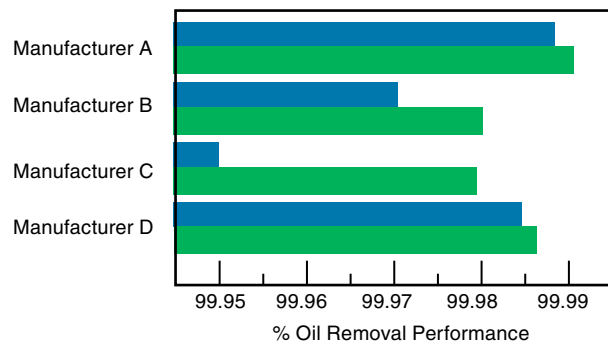
Pneumatech's high quality filter elements use the latest filter media technology and fit seamlessly into OEM machines and housings. There is no need for modification kits or

adapters. The elements offer unrivaled reliability and operate with minimal pressure drop, delivering optimum energy efficiency. All our brand alternatives are tested in accordance with ISO 12500 to guarantee exceptional performance. The filters are extensively tested in the field without any performance issues.

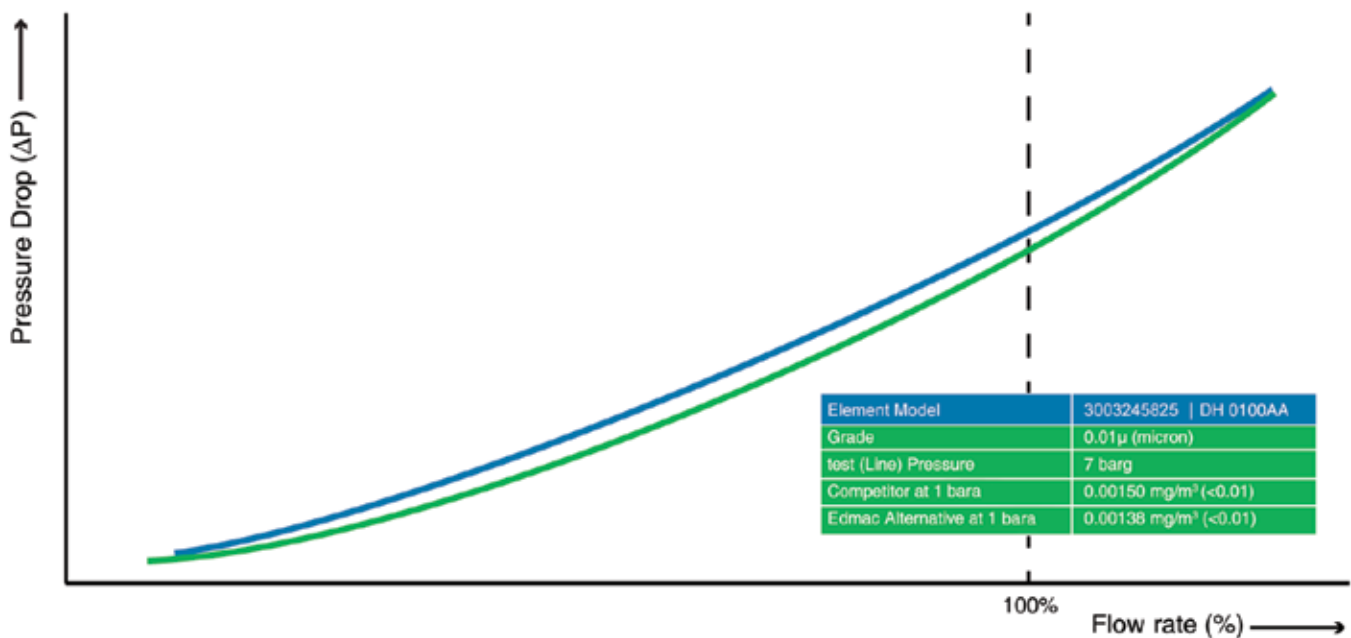
Alternative Element Analysis
General Purpose: 1 micron
■ Pneumatech Alternative
■ Original Manufacturer



Alternative Element Analysis
High Efficiency: 0.01 micron
■ Pneumatech Alternative
■ Original Manufacturer



— Original: wet — Pneumatech Alternative: wet



Filter type	General oil coalescing		Fine oil coalescing		General dry dust		Fine dry dust		Oil vapor	
Maximum oil carryover (68°F / 20°C)	0.5 mg/m ³		0.01 mg/m ³		-		-		0.003 mg/m ³	
Pressure loss clean and dry	1 psig	<70 mbar	2 psig	< 140 mbar	1 psig	< 70 mbar	2 psig	< 140 mbar	-	
Wet pressure drop	2 psig	< 140 mbar	3 psig	< 200 mbar	-	-	-	-	-	
Maximum temperature	248°F	120°C	248°F	120°C	248°F	120°C	248°F	120°C	122°F	50°C

Competitor spare parts - Alternative desiccants

Features & Benefits

- ▶ All types of desiccants, matched to the OEM performance
 - Activated alumina
 - Silicagel
 - Molecular sieves
 - Activated carbon
- ▶ High-quality supply at the lowest cost
 - Lowest total cost of ownership
 - Highest crushing resistance
 - Limited anti-aging effect

Why choose Pneumatech for alternative spare parts?

- ▶ Excellent customer service
- ▶ Over 250.000 parts available
- ▶ Same day shipping
- ▶ World class logistics
- ▶ Full track and trace of all shipments
- ▶ Competitive pricing & flexible discounts
- ▶ Customized labelling

Adsorption dryers can only be energy efficient if they contain premium desiccant material. The desiccant used in Pneumatech adsorption dryers is carefully selected from a wide range of European and North-American suppliers; and is suitable for all OEM machines including Domnick Hunter, Donaldson, Boge, Ingersoll Rand, Compair, Kaeser, Almig and many more.



Brands

Domnick Hunter	CompAir
Zander	Ingersoll Rand
Donaldson Ultrafilter	Boge
Hankison (SPX)	Almig
Deltech (SPX)	FST
CTA	KSI
Dollinger (SPX)	Parker Balston
Kaeser	And many more

Protect the environment – treat your condensate

As efficient as the process may be, a compressor inevitably produces more than compressed air alone. One of its by-products is a large volume of condensate, generally an emulsified combination of oil and water that poses a serious environmental risk. Only by treating this condensate in the right way, we can make sure it brings no harm to the environment.

Depending on the location, severe penalties can be charged for dumping oily condensate in the sewage system. The legal threshold of the maximum oil concentration in water varies strongly depending on continent, country and even local region. However, the maximum allowable oil content in drainage to the sewage generally varies between 15 and 20 mg/l