

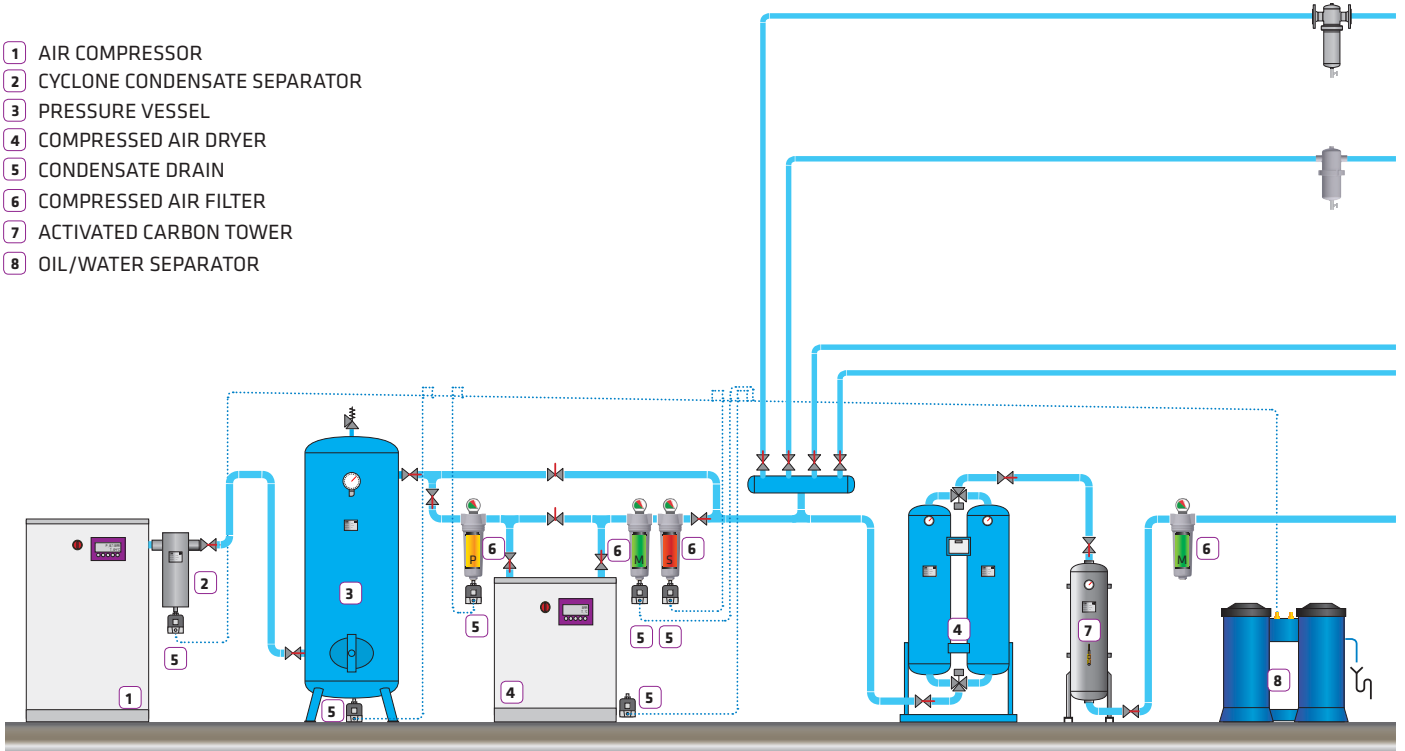
# CLEAN AIR FOR HOSPITALS

We care for health



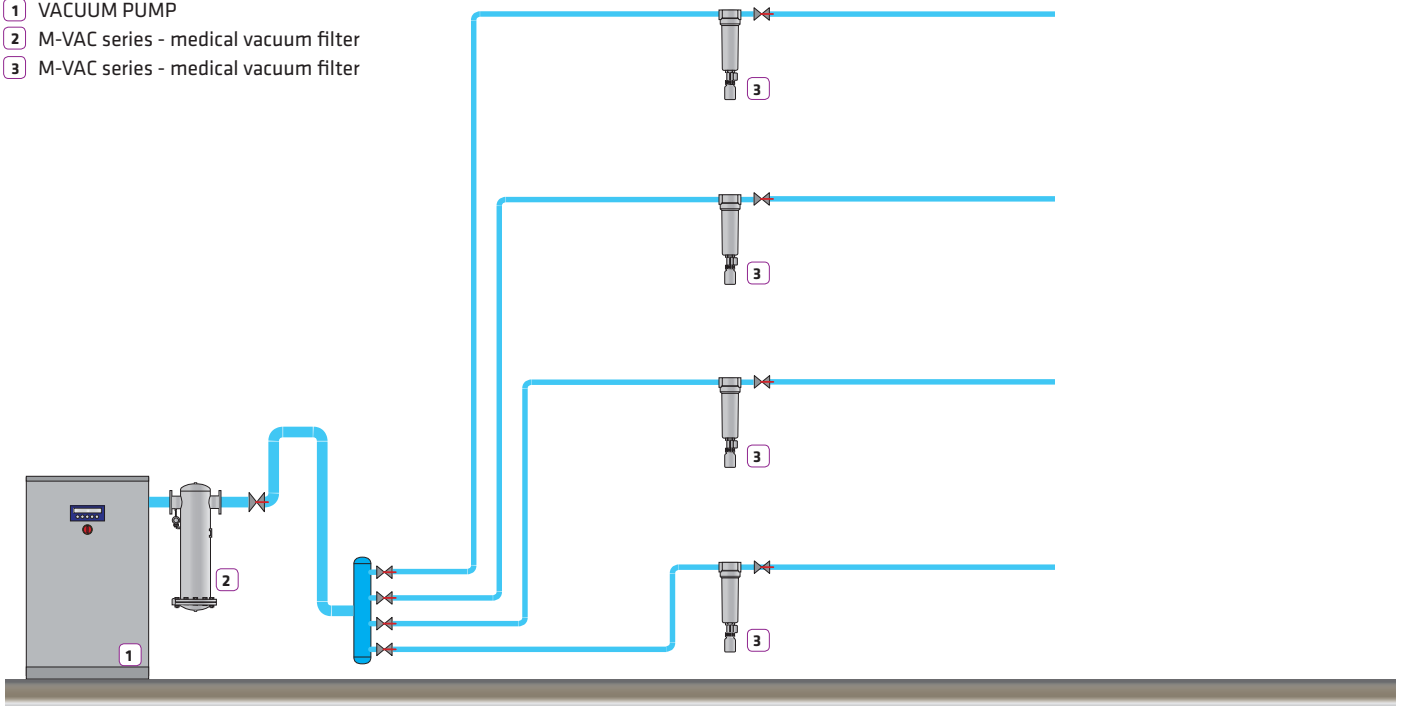
## COMPRESSED AIR LINE

- 1 AIR COMPRESSOR
- 2 CYCLONE CONDENSATE SEPARATOR
- 3 PRESSURE VESSEL
- 4 COMPRESSED AIR DRYER
- 5 CONDENSATE DRAIN
- 6 COMPRESSED AIR FILTER
- 7 ACTIVATED CARBON TOWER
- 8 OIL/WATER SEPARATOR

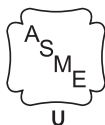


## VACUUM LINE

- 1 VACUUM PUMP
- 2 M-VAC series - medical vacuum filter
- 3 M-VAC series - medical vacuum filter



## OMEGA AIR Certificates:



# CKL-B SERIES

## ALUMINIUM CONDENSATE SEPARATORS



CKL-B  
Cyclone element

operating pressure	16 bar
volume flow rate	120 to 2850 Nm <sup>3</sup> /h
connections	3/8" to 3"
operating temp. range	1,5 to 65 °C
standard colour	RAL 9005

### DESCRIPTION

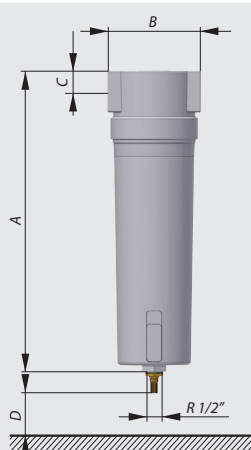
CKL-B condensate separators have been developed for high efficient removal of bulk liquids from compressed air and vacuum systems. Inside the housing there is an insert with vanes that creates controlled rotation of the air.

As a result of centrifugal action liquids (water, oil) and large particles are forced to the housing wall, slowed down and accumulated at the bottom of separator housing as condensate. The turbulent free zone in the lower part of the filter housing prevents condensate from being picked up and "carried over" into the airstream.

To discharge condensate from the CKL-B cyclone separator it is essential to install automatic or electronic condensate drain.

### TECHNICAL DATA - CKL-B SERIES

Model	Pipe size	Max.oper. pressure	Flow rate at 7 bar(g), 20 °C		Temperature oper. range		Dimensions [mm]				Mass
	DN	bar/psi	Nm <sup>3</sup> /h	SCFM	°C	°F	A	B	C	D	kg
CKL 005 B	3/8	16/232	120	70	1,5 - 65	35 - 149	187	88	20	60	0,7
CKL 007 B	1/2	16/232	155	91	1,5 - 65	35 - 149	187	88	20	60	0,7
CKL 010 B	3/4	16/232	235	138	1,5 - 65	35 - 149	257	88	20	80	0,8
CKL 018 B	1	16/232	365	215	1,5 - 65	35 - 149	263	125	32	100	1,8
CKL 047 B	1 1/2	16/232	770	452	1,5 - 65	35 - 149	461	125	32	140	2,5
CKL 094 B	2	16/232	1280	753	1,5 - 65	35 - 149	684	163	43	520	5,1
CKL 150 B	2 1/2	16/232	2460	1447	1,5 - 65	35 - 149	684	163	43	520	5,1
CKL 200 B	3	16/232	2850	1677	1,5 - 65	35 - 149	795	240	59	630	12,9



quality class - solids (ISO 8573-1)	-
quality class - water (ISO 8573-1)	8
quality class - oils (ISO 8573-1)	-
efficiency	>98 %

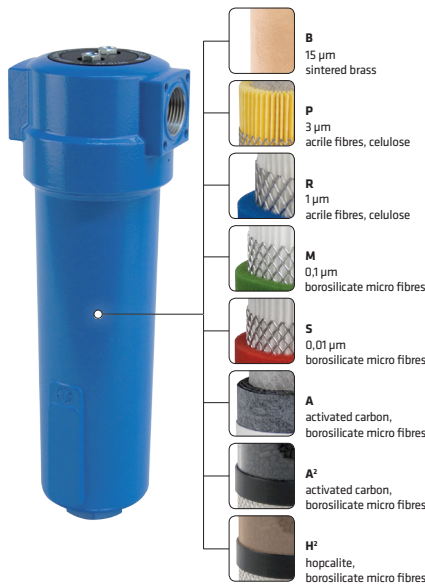
### CORRECTION FACTORS

Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	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

- To calculate the correct capacity of a given filter based on actual operating conditions, multiply the nominal flow capacity by the appropriate correction factor  $C_1$ .
- To select a filter to match system flow conditions, multiply the system flow by the correction factor  $C_2$  that corresponds to vacuum in the pipe.

# AF SERIES

## ALUMINIUM COMPRESSED AIR FILTERS



operating pressure	<b>16 bar</b>
volume flow rate	<b>60 to 2760 Nm³/h</b>
connections	<b>3/8" to 3"</b>
operating temp. range	<b>1,5 to 65 °C</b>
standard colour	<b>RAL 5012</b>

### DESCRIPTION

AF filter housings have been developed for high efficient removal of solid particles, water, oil aerosols, hydrocarbons, odour and vapours from compressed air<sup>(1)</sup> systems. To meet the required compressed air quality appropriate filter element (B, P, R, M, S, A, A<sup>2</sup>, H<sup>2</sup>) must be installed into filter housing.

<sup>(1)</sup> For any other technical gas please contact producer or your local distributor.

TECHNICAL DATA - AF FILTERS										AF - FILTER ELEMENTS									
Filter housing size	Pipe size	Max. oper. pressure	Flow rate at 7 bar(g), 20 °C		Dimensions [mm]				Mass	B	P	R	M	S	A	A <sup>2</sup>	H <sup>2</sup>		
	inch		[bar/psi]	Nm³/h	scfm	A	B	C		D	sintered 15 µm	prefilter 3 µm	prefilter 1 µm	microfilter 0,1 µm	microfilter 0,01 µm	active carbon	adsorption (act. carbon)	catalyst (hopcalite)	
AF 0056	3/8"	16/232	60	35	187	88	20	60	0,7	06050 B15	06050 P	06050 R	06050 M	06050 S	06050 A	-	-		
AF 0076	1/2"	16/232	78	46	187	88	20	60	0,7	07050 B15	07050 P	07050 R	07050 M	07050 S	07050 A	07050 A <sup>2</sup>	07050 H <sup>2</sup>		
AF 0106	3/4"	16/232	120	70	257	88	20	80	0,8	14050 B15	14050 P	14050 R	14050 M	14050 S	14050 A	14050 A <sup>2</sup>	14050 H <sup>2</sup>		
AF 0186	1"	16/232	198	116	263	125	32	100	1,8	12075 B15	12075 P	12075 R	12075 M	12075 S	12075 A	12075 A <sup>2</sup>	12075 H <sup>2</sup>		
AF 0306	1"	16/232	335	197	363	125	32	120	2,5	22075 B15	22075 P	22075 R	22075 M	22075 S	22075 A	22075 A <sup>2</sup>	22075 H <sup>2</sup>		
AF 0476	1 1/2"	16/232	510	300	461	125	32	140	2,5	32075 B15	32075 P	32075 R	32075 M	32075 S	32075 A	32075 A <sup>2</sup>	32075 H <sup>2</sup>		
AF 0706	1 1/2"	16/232	780	459	640	125	32	160	3,2	50075 B15	50075 P	50075 R	50075 M	50075 S	50075 A	50075 A <sup>2</sup>	50075 H <sup>2</sup>		
AF 0946	2"	16/232	1000	588	684	163	43	520	5,1	51090 B15	51090 P	51090 R	51090 M	51090 S	51090 A	-	-		
AF 1506	2"	16/232	1500	882	935	163	43	770	7,1	76090 B15	76090 P	76090 R	76090 M	76090 S	76090 A	-	-		
AF 1756	2 1/2"	16/232	1680	990	935	163	43	770	6,9	76090 B15	76090 P	76090 R	76090 M	76090 S	76090 A	-	-		
AF 2006	3"	16/232	2160	1270	795	240	59	630	12,9	51140 B15	51140 P	51140 R	51140 M	51140 S	51140 A	-	-		
AF 2406	3"	16/232	2760	1620	1000	240	59	780	14,0	75140 B15	75140 P	75140 R	75140 M	75140 S	75140 A	-	-		
										quality class - solids (ISO 8573-1)	7	6	3	2	1	1 <sup>3)</sup>	1 <sup>3)</sup>	1 <sup>3)</sup>	
										residual oil content [mg/m <sup>3</sup> ]	-	-	-	<0,1	<0,01	<0,005	<0,005	-	
										quality class - oils (ISO 8573-1)	-	-	-	2	1	1	0/1	-	
										pressure drop - new element [mbar / psi]	20 / 0,290	10 / 0,145	20 / 0,290	50 / 0,725	80 / 1,160	60 / 0,870	see spec.	see spec.	
										change filter cartridge at pressure drop [mbar / psi]	<sup>1)</sup>	350 / 5,07	350 / 5,07	350 / 5,07	350 / 5,07	6 months <sup>2)</sup>	6 months <sup>2)</sup>	6 months <sup>2)</sup>	
										filter material	sintered brass	acrylic fibres, cellulose		borosilicate micro fibres			borosilicate micro fibres		
											pleated version	-	✓	✓	✓	✓	-	✓	✓
											wrapped version	-	-	-	-	-	✓	-	-
										sintered version	✓	-	-	-	-	-	-	-	
										min. operating temperature (°C / °F)	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	1,5 / 35	
max. operating temperature (°C / °F)	65 / 149	65 / 149	65 / 149	65 / 149	65 / 149	65 / 149	65 / 149	65 / 149											

CORRECTION FACTORS																
Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232	
Correction factor	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	

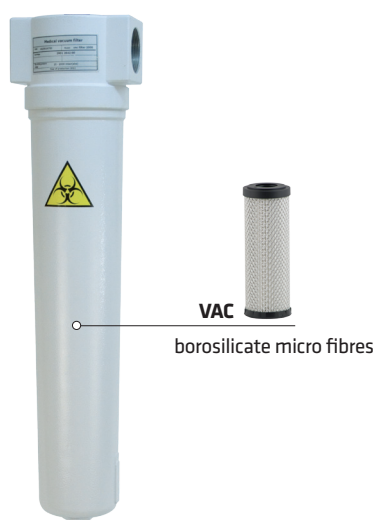
<sup>1)</sup> B filter element can be cleared with ultrasonic bath or with back flushing. Intervals of cleaning depends of application. If necessary replace filter element with new one.

<sup>2)</sup> Filter elements "A, A<sup>2</sup>, H<sup>2</sup>", must be changed periodically to suit application, but at least every 6 months. Activated carbon filters must not operate in oil saturated conditions.

<sup>3)</sup> Valid if "S" filter cartridge is installed upstream.

# M-VAC SERIES

## MEDICAL VACUUM FILTERS



operating pressure	<b>20 to 2000 mbar(abs)</b>
volume flow rate	<b>7,5 to 787 Nm<sup>3</sup>/h</b>
connections	<b>3/8" to DN150</b>
operating temp. range	<b>1,5 to 65 °C</b>
surface protection	<b>RAL 9003</b>

### DESCRIPTION

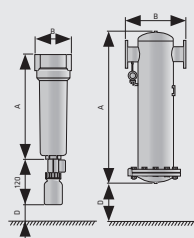
M-VAC filters have been developed for medical vacuum applications. These filters are optimised for high-efficient removal of bacterial and other contamination (solids and liquids) from the suction side of vacuum pumps preventing damage to the pump and the potential biological infection of the surrounding environment. Removed liquids are collected in a transparent flask which can be removed for sterilisation.

The efficiency of the installed filter elements exceeds the 0,005% penetration specified in HTM 2022 for infectious disease units, when tested in accordance with BS 3928.

### TECHNICAL DATA - M-VAC FILTERS

### M-VAC FILTER ELEMENTS

Filter model	Pipe size	Free air capacity at atmospheric pressure		Dimensions [mm]			Mass kg	VAC
		inch	Nm <sup>3</sup> /h	scfm	A	B		
M-VAC 0056	3/8"	7,5	4	187	88	60	0,7	06050
M-VAC 0076	1/2"	9,8	6	187	88	60	0,7	07050
M-VAC 0106	3/4"	15,0	9	257	88	80	0,8	14050
M-VAC 0186	1"	24,8	15	263	125	100	1,8	12075
M-VAC 0306	1"	41,9	25	363	125	120	2,5	22075
M-VAC 0476	1 1/2"	63,8	38	461	125	140	2,5	32075
M-VAC 0706	1 1/2"	97,5	57	640	125	160	3,2	50075
M-VAC 0946	2"	125	74	684	163	520	5,1	51090
M-VAC 1506	2"	187,5	110	935	163	770	7,1	76090
M-VAC 1756	2 1/2"	210	124	935	163	770	6,9	76090
M-VAC 2006	3"	270	159	795	240	630	12,9	51140
M-VAC 2406	3"	345	203	1000	240	780	14	75140
M-VAC B240	DN80	275	162	1170	450	650	61	1x 76090
M-VAC B300	DN100	394	232	1340	560	650	115	2x 76090
M-VAC B450	DN125	587	345	1340	560	650	123	3x 76090
M-VAC B600	DN150	787	463	1425	620	650	178	4x 76090



pressure drop - new element-dry [mbar / psi]

30 / 0,45

filter media

borosilicate micro fibres

min. operating temperature (°C / °F)

1,5 / 35

max. operating temperature (°C / °F)

65 / 149

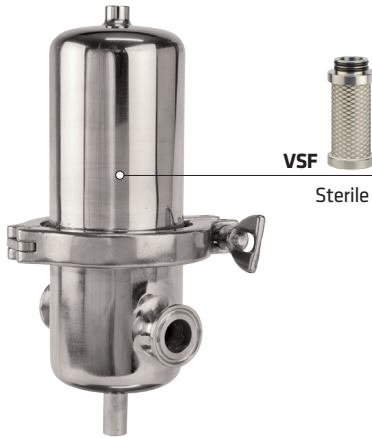
### CORRECTION FACTORS

Absolute pressure [bar]	1	0,9	0,8	0,7	0,6	0,5	0,4	0,3	0,2	0,1	0,05	0,02
Absolute pressure [psi]	14,7	13	11,6	10,2	8,7	7,3	5,8	3,3	2,9	1,45	0,73	0,29
Correction factor C <sub>1</sub>	1	0,9	0,8	0,7	0,6	0,5	0,4	0,3	0,2	0,1	0,05	0,02
Correction factor C <sub>2</sub>	1	1,1	1,25	1,43	1,67	2	2,5	3,33	5	10	20	50

- To calculate the correct capacity of a given filter based on actual operating conditions, multiply the nominal flow capacity by the appropriate correction factor C<sub>1</sub>.
- To select a filter to match system flow conditions, multiply the system flow by the correction factor C<sub>2</sub> that corresponds to vacuum in the pipe.

# SF SERIES

## STAINLESS STEEL STERILE FILTERS



operating pressure	<b>10 (16) bar</b>
volume flow rate	<b>75 to 21.120 Nm<sup>3</sup>/h</b>
connections	<b>DN10 to DN200</b>
operating temp. range	<b>-20 to +150 °C</b>
material	<b>stainless steel 1.4301</b>

### DESCRIPTION

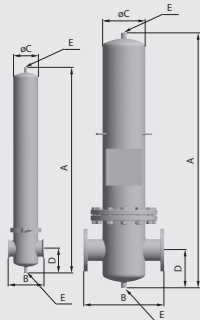
SF stainless steel sterile filter housings have been specifically developed for removing of impurities from compressed air<sup>(1)</sup> system. To meet the required compressed air quality appropriate filter element must be installed into filter housing. SF filter housing is also designed for sterilisation.

SF process filter housing can be used in variety of applications. For applications not listed above please contact producer or your local distributor.

<sup>(1)</sup> For any other technical gas please contact producer or your local distributor.

## TECHNICAL DATA - SF FILTERS

Filter housing size	Pipe size	Max. oper. pressure bar/psi	Flow rate at 7 bar(g), 20 °C		Dimensions [mm]					Mass kg	SF FILTER ELEMENTS
	inch		Nm <sup>3</sup> /h	scfm	A	B	C	D	E		VSF sterile 0,01 µm
SF 006	DN10 / ø17,2	16/232	75	44	218	125	76,1	69	1/8"	1,6	1 x 0310-VSF
SF 009	DN10 / ø17,2	16/232	105	62	246	125	76,1	69	1/8"	1,7	1 x 0410-VSF
SF 012	DN15 / ø21,3	16/232	150	88	251	120	76,1	69	1/8"	1,7	1 x 0420-VSF
SF 018	DN15 / ø21,3	16/232	225	132	275	120	76,1	69	1/8"	1,8	1 x 0520-VSF
SF 032	DN25 / ø35,7	16/232	315	185	303	169	114,3	86	1/4"	3,1	1 x 0530-VSF
SF 048	DN32 / ø42,4	16/232	600	353	363	169	114,3	86	1/4"	3,4	1 x 0730-VSF
SF 072	DN40 / ø48,3	16/232	900	530	446	169	114,3	86	1/4"	3,6	1 x 1030-VSF
SF 108	DN50 / ø60,3	16/232	1.260	742	587	183	114,3	96	1/4"	4,9	1 x 1530-VSF
SF 144	DN65 / ø76,1	16/232	1.680	989	763	195	139,7	120	1/4"	8,4	1 x 2030-VSF
SF 192	DN80 / ø88,9	16/232	2.400	1.413	1015	195	139,7	120	1/4"	10,2	1 x 3030-VSF
SF 432	DN100	10/145	5.040	2.966	1012	410	219,1	183	1/2"	44	3 x 2030-VSF
SF 576	DN100	10/145	6.720	3.955	1266	410	219,1	183	1/2"	45	3 x 3030-VSF
SF 768	DN150	10/145	9.600	5.650	1305	480	273	225	1/2"	70	4 x 3030-VSF
SF 1152	DN150	10/145	13.440	7.910	1418	540	323,9	256	1"	80	6 x 3030-VSF
SF 1536	DN200	10/145	17.200	10.124	1568	660	406,4	306	1"	135	8 x 3030-VSF
SF 1920	DN200	10/145	21.120	12.431	1568	660	406,4	306	1"	135	10 x 3030-VSF



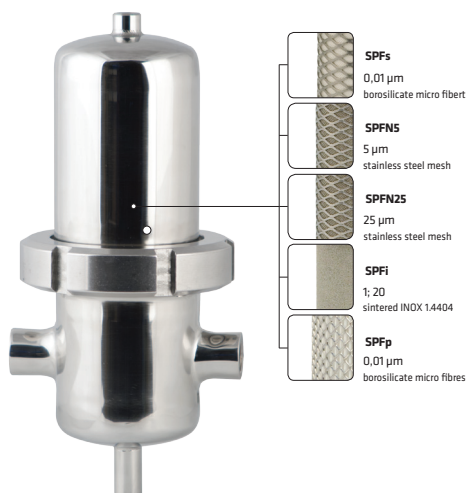
quality class - solids (ISO 8573-1)	1
quality class - oils (ISO 8573-1)	-
pressure drop - new element (dry) [mbar / psi]	80/1,160
pressure drop - new element (wet) [mbar / psi]	190/2,756
filter media	Borosilicate micro fibres
pleated version	-
wrapped version	✓
sintered version	-
min. operating temperature (°C / °F)	-20 / -4
max. operating temperature (°C / °F)	150 / 302

### CORRECTION FACTORS

Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	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

# SPF SERIES

## STAINLESS STEEL STERILE FILTERS



operating pressure	<b>12 (16) bar</b>
volume flow rate	<b>75 to 3600 Nm<sup>3</sup>/h</b>
connections	<b>1/4" to 3"</b>
operating temp. range	<b>up to +150 °C</b>
material	<b>stainless steel 1.4301</b>

### DESCRIPTION

SPF stainless steel sterile filter housings have been specifically developed for applications in process industry, where the risk for corrosion of compressed air<sup>(1)</sup> system components is very high. To meet the required compressed air quality appropriate filter element (sterile filter cartridge) must be installed into filter housing. SPF process filter housing can be used in variety of applications.

For applications not listed please contact producer or your local distributor. For oil removal, coalescing filter element must be installed and flow direction inside-out must be provided. General arrangement is filter head on top and filter bowl on bottom.

<sup>(1)</sup> For any other technical gas please contact producer or your local distributor.

TECHNICAL DATA - SPF FILTERS										SPF FILTER ELEMENTS					
Filter housing size	Pipe size	Operating pressure	Flow rate at 7 bar(g), 20 °C		Dimensions [mm]				Mass	SPFs sterile 0,01 µm	SPFN5 prefilter 5 µm	SPFN25 prefilter 25 µm	SPFI sterile 1; 20	SPFP microfilter 0,01 µm	
	inch		bar	Nm <sup>3</sup> /h	scfm	A	B	C		E	kg				
SPF 005	1/4"	16	75	44	225	116	76,1	1/8"	1,7	0310-SPFs	0310-SPFN5	0310-SPFN25	0310-SPFI	0310-SPFP	
SPF 007	3/8"	16	105	62	251	120	76,1	1/8"	1,9	0410-SPFs	0410-SPFN5	0410-SPFN25	0410-SPFI	0410-SPFP	
SPF 010	1/2"	16	150	88	253	125	76,1	1/8"	1,9	0420-SPFs	0420-SPFN5	0420-SPFN25	0420-SPFI	0420-SPFP	
SPF 018	3/4"	16	225	132	281	125	76,1	1/8"	2,0	0520-SPFs	0520-SPFN5	0520-SPFN25	0520-SPFI	0520-SPFP	
SPF 030	1"	16	315	185	290	136	88,9	1/8"	2,6	0525-SPFs	0525-SPFN5	0525-SPFN25	0525-SPFI	0525-SPFP	
SPF 047	1 1/4"	16	420	247	357	155	88,9	1/8"	3,0	0725-SPFs	0725-SPFN5	0725-SPFN25	0725-SPFI	0725-SPFP	
SPF 070	1 1/2"	16	600	353	408	179	114,3	1/4"	4,3	0730-SPFs	0730-SPFN5	0730-SPFN25	0730-SPFI	0730-SPFP	
SPF 094	2"	16	900	530	476	179	114,3	1/4"	4,8	1030-SPFs	1030-SPFN5	1030-SPFN25	1030-SPFI	1030-SPFP	
SPF 150	2"	16	1260	742	602	180	114,3	1/4"	5,3	1530-SPFs	1530-SPFN5	1530-SPFN25	1530-SPFI	1530-SPFP	
SPF 175	2 1/2"	16	1680	989	762	224	139,7	1/4"	9,0	2030-SPFs	2030-SPFN5	2030-SPFN25	2030-SPFI	2030-SPFP	
SPF 200	3"	12	2400	1413	1030	224	139,7	1/4"	10,8	3030-SPFs	3030-SPFN5	3030-SPFN25	3030-SPFI	3030-SPFP	
SPF 240	3"	12	3600	2119	1035	238	154	1/4"	16,2	3050-SPFs	3050-SPFN5	3050-SPFN25	3050-SPFI	3050-SPFP	
										quality class - solids (ISO 8573-1)	1	-	-	-	1
										quality class - oils (ISO 8573-1)	-	-	-	-	1
										pressure drop - new element-dry [mbar / psi]	80 / 1,16	10 / 0,15	10 / 0,15	60 / 0,87	80 / 1,16
										filter media	borosilicate micro fibres	stainless steel mesh	stainless steel mesh	sintered INOX 1.4404	borosilicate micro fibres
										pleated version	-	-	-	-	✓
										wrapped version	✓	✓	✓	-	-
										sintered version	-	-	-	✓	-
min. operating temperature (°C / °F)	-20 / -4	0 / 32	0 / 32	0 / 32	1,5 / 35										
max. operating temperature (°C / °F)	150 / 302	150 / 302	150 / 302	150 / 302	120 / 248										

### CORRECTION FACTORS

Operating pressure [bar]	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Operating pressure [psi]	29	44	58	72	87	100	115	130	145	160	174	189	203	218	232
Correction factor	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

# OMEGA AIR

*Better air*



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