

SMF Series Micro-Filter



Coalescing Filters (X and Y models) are probably the most important items of purification requirements in a compressed air system, which are designed not only to filter oil vapor and water, but also to filter solid particulates to an acceptable level as small as 0.01 micron in size.

Usually, in the installation system, the first filter's purpose is to pre-filter, protect the high efficiency filters from bulk contamination so as to provide high quality compressed air.

If the air filters worked under damp or full of water adsorption condition, it would prevent the compressed air from getting through the filter element, and the air flow would force the liquid to get through from the pores of the element media, thus increase working pressure drop and reduce filtration performance.



Activated Carbon Filters:

Oil vapor can easily get through the coalescing filters in a state of gaseous, so the adsorptive filter (A model) must provide large activated carbon adsorption bed.

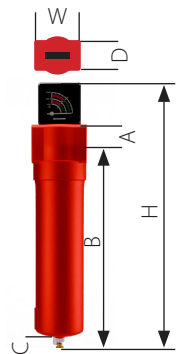
Because the damp air will reduce the adsorptive ability of the activated carbon, the adsorptive filter usually installed after the adsorptive dryer, in order to guarantee effective removal of oil vapor and peculiar odor. It's not used to remove the liquid oil or aerosols, thus poor maintenance and lack of pre-filter will accelerate its invalidation.

Benefits:

- The filter housing is aluminium alloy die-casting with tight, strong structure and long life span.
- Smaller and compact filter due to the advance filter element designing idea.
- The filter housing's service life is 15 years, and the filter element can be used for 6000~8000 hours.
- Under working environment from temperature 1.5~80 °C.
- The housing can burst 1.6 Mpa pressure.

Properties

Model	Pipe Size inch	Flow Rate			Element Model	Dimension (mm)					
		I/S	m ³ /min	cfm		Width(w)	Depth(d)	Height(H)	A	B	C
SMF 132	1/2	36.7	2.2	77.7	SF 132	11	11	46.5	33.5	36	2.8
SMF 180	3/4	50	3	106	SF 180	11	11	46.5	33.5	36	2.8
SMF 270	1	75	4.5	159	SF 270	11	11	46.5	33.5	36	2.8
SMF 372	1-1/4	103.3	6.2	219	SF 372	11	11	61.5	33.5	51.5	2.8
SMF 432	1-1/2	120	7.2	254.2	SF 432	11	11	61.5	33.5	51.5	2.8



X	Y	A
High efficiency general, protection, dust particles water mist and oil mist whose diameter more than 1µm can be removed the residual content of oil mist does not exceed 0.6 m ³ /mg (21°C) 1PPM (w)	High efficiency removal filtration dust particles water mist and oil mist whose diameter more than 0.01µm can be removed the residual content of oil mist does not exceed 0.01 m ³ /mg (21°C) 0.01ppm (w)	Dust particles whose diameter more than 0.01µm oil vapor and odor can be removed the maximum residual content of oil vapor does not exceed 0.003 m ³ /mg (21°C) 0.003ppm (w)

Filtration Grade	X	Y	A
Size of solid particles (ISO 12500-3)	1µm	0.01µm	-
Filtration performance of solid particles (ISO 12500-3)	99.999+%	99.999+%	99.999+%
Filtration performance of oil (ISO12500-1)	80+%	99.9+%	-
Residual oil content (ISO 12500-1)	0.6mg/m ³	<0.01mg/m ³	<0.004mg/m ³

Pressure	Barg	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Psig	15	29	44	59	73	87	100	116	131	145	160	174	189	203	218	232
Correction Factor		0.38	0.53	0.65	0.63	0.85	0.93	1	1.07	1.13	1.19	1.23	1.31	1.36	1.41	1.46	1.51