FILTER ELEMENT – A^2

Series: AF Series

(Adsorption – Activated carbon + Particulate)

DESCRIPTION

New A^2 two stage filter elements have been specifically developed for high efficient removal of oil vapours and odours from compressed air[1]. In first stage activated carbon pellets removes specified substances from the air and in second stage depth fiber filter media intercepts all activated carbon dust particles. A^2 filter elements are also ideal for breathing air applications. It is essential that coalescing filter element is installed as prefilter to A^2 grade filter.

[1]For any other technical gas please contact us or your local dealer

FILTER ELEMENT RATING ACCORDING TO ISO 8573-1

Solid particles class	Water class	Oil class
1*	/	0/1

Validated according to ISO12500-2 and ISO12500-3
* Valid if "S" filter cartridge is installed upstream

TECHNICAL SPECIFICATION

Operating temperature	1,5 - 45 °C / 35 - 113 °F
Operating pressure	0 - 16 barg / 0 - 232 psi
Differential pressure (dry)	/
Differential pressure (wet)	/
Particle retention (nominal)	99,9999% (0,1 µm)
Particle retention rate ISO[3]	99,98%
Residual oil content (nominal)	< 0,005 mg/m^3
Flow Direction	INSIDE to OUTSIDE
Capacity (ISO12500-2)[5]	35 min

[3]Tested according to ISO12500-3, 1bar(a), nominal flow, 06050 M, Most penetrating particle size MPPS 0,3mm
[5]Tested according to ISO12500-2, 06050 A, tested with n-Hexane, test concentration 100mg/kg, 80% Saturation

MATERIALS

Filter media	Borosilicate micro fibers
Protection media	Polyester fleece
Drainage media	Polyester based polyurethane
Adsorption media	Activated carbon granulate
Support (inner-outer)	Stainless steel 1.4301
Bonding	Polyurethane
Endcaps	PA6 with 30% glass fibers
Sealing	NBR
Chamber	Acryl

SIZES

Model	Diameter [mm]	Height [mm]	Flow Capacity [Nm³/h]	Flow Capacity [scfm]	Activated carbon [g]	Fits into filter housing
07050 A²	51	70	78	46	20	AF 0076
14050 A²	51	140	120	70	75	AF 0106
12075 A²	75	125	198	116	85	AF 0186
22075 A²	75	225	335	197	240	AF 0306
32075 A²	75	325	510	300	410	AF 0476
50075 A²	75	505	780	459	730	AF 0706

DIFFERENTIAL PRESSURE [mbar] AT % OF NOMINAL FLOW				
Model	**25%**	**50%**	**75%**	**100%**
07050 A²	20	40	60	80
14050 A²	28	55	83	110
12075 A²	30	60	90	120
22075 A²	105	210	315	420*
32075 A²	183	365*	548*	730*
50075 A²	343	685*	1028*	1400*

To reach required pressure drop reduce the flow.

*It is strongly recommended to reduce the flow so that pressure drop is below 350mbar

IMPORTANT

- Differential pressure should never exceed 1500mbar, otherwise filter element can be damaged.
- If filter housing is equipped with differential pressure gauge check maximum allowable differential pressure of the gauge.
- If tie-rod is used to fix the element into filter housing max differential pressure must not exceed 350mbar.

CORRECTION FACTORS

To calculate the correct capacity of a given filter based on actual operating conditions, multiply the nominal flow capacity by the appropriate correction factor(s). CORRECTED CAPACITY = NOMINAL FLOW CAPACITY x C_{OP}

OPERATING PRESSURE

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

MAINTENANCE

Replace filter element at least every 6 months or sooner if it is required for specific application.

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