

FILTER ELEMENT - A²

(Adsorption - Activated carbon + Particulate)



DESCRIPTION

New A² 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. A² filter elements are also ideal for breathing air applications. It is essential that coalescing filter element is installed as prefilter to A² grade filter.

APPLICATIONS⁽²⁾

- General industrial application
- Automotive
- Electronics
- Food & Beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- Medical, Dental
- Breathing air

⁽¹⁾For any other technical gas please contact us or your local dealer

⁽²⁾A² grade filter element can be used in variety of applications. For applications not listed please contact us or your local dealer.

FILTER ELEMENT RATING ACCORDING TO ISO8573-1

Solid particles	Water	Oil
Class 1	-	Class 0 / 1

Validated according to ISO12500-2 and ISO12500-3

TECHNICAL SPECIFICATION

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

⁽³⁾Tested according to ISO12500-3, 1bar(a), nominal flow, 06050 M, Most penetrating particle size MPPS 0,3µm

⁽⁴⁾Tested according to ISO12500-2, 06050 A, tested with n-Hexane, test concentration 100mg/kg, 80% Saturation

MATERIALS

Adsorption material	Activated carbon
Filter media	Borosilicate micro fibers
Drainage media	Polyester based polyurethane
Support	Stainless Steel 1.4301
Bonding	Polyurethane
Endcaps	PA6
Sealing	NBR

SIZES

FILTER ELEMENT SIZE	DIMENSIONS [mm]	FLOW CAPACITY [Nm ³ /h]	FLOW CAPACITY [scfm]	FITS INTO FILTER HOUSING	Δp AT NOMINAL FLOW [mbar]	ACTIVATED CARBON [g]
07050 A ²	∅=51;h=70	78	46	AF 0076	80	20
14050 A ²	∅=51;h=140	120	70	AF 0106	110	75
12075 A ²	∅=75;h=125	198	116	AF 0186	120	85
22075 A ²	∅=75;h=225	335	197	AF 0306	420	240
32075 A ²	∅=75;h=325	510	300	AF 0476	730	410
50075 A ²	∅=75;h=505	780	459	AF 0706	1400	730

∅=Diameter;h=Height

FILTER ELEMENT SIZE	DIFFERENTIAL PRESSURE [mbar] AT % OF NOMINAL FLOW			
	25%	50%	75%	100%
07050 A ²	20	40	60	80
14050 A ²	28	55	83	110
12075 A ²	30	60	90	120
22075 A ²	105	210	315	420*
32075 A ²	183	365*	548*	730*
50075 A ²	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 max. 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 month or sooner if it is required for specific application.

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	Our quality management system is certified by BUREAU VERITAS in conformity with ISO 9001:2008 Reg. number: 200285
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