

ultra.pure AKK2

Activated carbon adsorption filter cartouche for removal of oil vapour and hydrocarbons as well as odours.

(Adsorption - Activated carbon + Particulate)

Description

AKK2 two stage filter elements (cartouches) 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. AKK2 filter elements are also ideal for breathing air applications. It is essential that coalescing filter element is installed as prefilter to AKK2 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

⁽²⁾AKK2 grade filter element can be used in variety of applications. For applications not listed please contact us



Filter Rating According ISO 8573-1

Solid particles	Water	Oil
Class 2	-	Class 0 / 1

Validated according to ISO12500-2 and ISO12500-3

Technical Specification

Operating temperature	1,5 - 45 °C	35 - 113 °F
Max. allowed differential pressure **	1 bar - 1000 mbar	0 - 232 psi
Particle retention (nominal)	99,9999% (0,1 µm)	
Particle retention rate ISO 12500-3 ⁽³⁾	99,98 %	
Residual oil content (nominal)	< 0,005 mg/m ³	
Capacity ISO 12500-2 ⁽⁴⁾	35 min.	
Flow direction	inside to outside	

⁽³⁾Tested according to ISO12500-3, 1bar(a), nominal flow, MF 04/20, Most penetrating particle size MPPS 0,3µm

Tested according to ISO12500-2, AKK2 04/20, tested with n-Hexane, test concentration 100mg/kg, 80% saturation

Materials

Adsorption material	Activated carbon,
Filter media Drainage media	Borosilicate micro fibers Polyester
Support	Stainless Steel 1.4301
Bonding	Polyurethane
Endcaps	Aluminium
Sealing	NBR
Body for carbon (tube)	Polymethylmethacrylat

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]
AKK2 04/20	Ø=52;h=104	120	71	0012	100	45
AKK2 05/20	Ø=52;h=128	180	106	0018	120	65
AKK2 05/25	Ø=62;h=128	270	159	0027	270	80
AKK2 07/25	Ø=62;h=180	360	212	0036	480	145
AKK2 07/30	Ø=86;h=180	480	282	0048	660	235
AKK2 10/30	Ø=86;h=254	720	423	0072	1250	400

ø=Diameter;h=Height

FILTER ELEMENT SIZE	Differential Pressure [mbar] at % of Nominal Flow			
	25%	50%	75%	100%
AKK2 04/20	25	50	75	100
AKK2 05/20	30	60	90	120
AKK2 05/25	65	130	200	270
AKK2 07/25	120	240	*360	*480
AKK2 07/30	160	330	*490	*660
AKK2 10/30	310	* 620	*935	*1250

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 1500 mbar, otherwise filter element can be damaged.**
- If filter housing is equipped with differential pressure gauge check max. allowable differential pressure of the gauge.

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}

Operatin 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.

