

FILTER ELEMENT – OHK

(Particulate, Coalescing, Oil vapour removal)

DESCRIPTION

OHK filter elements have been developed for high efficient removal of solid particles, oil aerosols, water, hydrocarbons, vapours and odours from compressed air⁽¹⁾.

OHK filter elements are designed to fit into Hankison filter housings.

APPLICATIONS ⁽²⁾

- Automotive
- Electronics
- Food & Beverage
- Chemical
- Petrochemical
- Plastics
- Paint
- General industrial application

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

⁽²⁾OHK 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

Filtration grade	Solid particles	Water	Oil
E9/P	Class 6	-	-
E7/R	Class 3	-	-
E5/M	Class 2	-	Class 2
E3/S	Class 1	-	Class 1
E1/A	-	-	Class 0/1

Validated according to ISO12500-1 and ISO12500-3

TECHNICAL SPECIFICATION

	E9/P ⁽⁶⁾	E7/R ⁽⁶⁾	E5/M ⁽⁶⁾	E3/S ⁽⁶⁾	E1/A ⁽⁶⁾
Operating pressure			0 - 16 barg/ 0 - 232 psi		
Operating temperature		1,5 - 65 °C/ 35 - 149 °F		1,5 - 45 °C/ 35 - 113 °F	
Differential pressure (dry)	10mbar	20mbar	50 mbar/ 0,725 psi	80 mbar/ 1,160 psi	60 mbar/ 0,870 psi
Differential pressure (wet)	20mbar	40mbar	120 mbar/ 1,740 psi	190 mbar/ 2,756 psi	N/A
Particle retention (nominal)	99,99% (3µm)	99,9999%(1 µm)	99,9999% (0,1 µm)	99,9999% (0,01 µm)	N/A
Particle retention rate ISO ⁽³⁾	95%	99,8%	99,98 %	99,9994 %	N/A
Residual oil content ⁽⁴⁾	/	/	< 0,1mg/m ³	< 0,01mg/m ³	< 0,005mg/m ³
Capacity (ISO12500-2) ⁽⁵⁾	N/A	N/A	N/A	N/A	20 min

⁽³⁾ Tested according to ISO12500-3, 1bar(a), nominal flow, 06050 E9/P, MPPS-(5µm) ; 06050 E7/R, E5/M, E3/S, MPPS-(0,3µm)

⁽⁴⁾ Tested according to ISO12500-1, 06050 E5/M, E3/S Oil aerosol viscosity 32mm²/s, inlet concentration 10mg/m³

⁽⁵⁾ Tested according to ISO12500-2, 06050 E1/A, tested with n-Hexane, test concentration 100mg/kg, 80% Saturation

⁽⁶⁾ Cross reference Hankison = Omega Air filtration grades: E9 = E9/P = P, E7 = E7/R = R, E5 = E5/M = M, E3 = E3/S = S, E1 = E1/A = A

SIZES

ALUMINIUM END CAPS	DIMENSIONS [mm]			FLOW CAPACITY [Nm ³ /h]	FLOW CAPACITY [scfm]
	ø1	ø2	h		
OHK 12 E/_ AI	42,5	60,0	50,0	35	20
OHK 16 E/_ AI	42,5	60,0	91,0	60	35
OHK 20 E/_ AI	42,5	60,0	152,0	105	61
OHK 24 E/_ AI	60,5	60,5	168,0	170	100
OHK 28 E/_ AI	60,5	60,5	276,0	290	170
OHK 32 E/_ AI	68,0	68,0	337,0	425	250
OHK 36 E/_ AI	68,0	68,0	450,0	640	376
OHK 40 E/_ AI	82,5	82,5	518,0	825	485
OHK 44 E/_ AI	82,5	82,5	665,0	1060	623
OHK 48 E/_ AI	82,5	82,5	820,0	1325	779
OHK 52 E/_ AI	85,0	82,5	674,0	1110	653
OHK 54 E/_ AI	85,0	82,5	527,0	1700	1000

ø=Diameter; h=Height

MATERIALS

	E9/P	E7/R	E5/M	E3/S	E1/A
Filter media	Acrylic fibers, cellulose		Borosilicate micro fibers		Glass fibre, borosilicate microfibers
Support media	Polyester		/		/
Drainage media	/		Polyurethane		/
Adsorption media		/			Activated carbon granulate PES (Polyester)
Support (inner-outer)			Stainless steel 1.4301		
Bonding			Polyurethane		
Endcaps			Aluminium		
Sealing			NBR		

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 grade E9/P, E7/R, E5/M, E3/S at least once per year or when pressure drop reaches 350mbar.

Replace filter element grade E1/A at least every 6 months.

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