FILTER ELEMENT - H^2

(Catalyst (Hopcalite) + Particulate)

DESCRIPTION

New H^2 two stage filter elements have been specifically developed for high efficient reduction of carbon monoxide as well as some other substances[2] from compressed breathing air[1]. In first stage Hopcalite catalyst reduces specified substances from the air and in second stage depth fiber filter media intercepts all Hopcalite dust particles. It is essential that coalescing filter element is installed as pre-filter to the H^2 grade filter and that relative humidity is sufficiently low.

APPLICATIONS[3]

- Compressed breathing air

[1]For any other technical gas please contact us or your local dealer.
[2]For any other substance please contact us or your local dealer.
[3]H^2 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	-	

Validated according to ISO12500-3

TECHNICAL SPECIFICATION

Operating temperature	1,5 - 45 °C	35 - 113 °F
Operating pressure	0 - 16 barg	0 - 232 psi
Inlet humidity	-40°C (pressure dew point)	
Particle retention (nominal)	99,9999% (0,1 μm)	
Particle retention rate ISO[4]	99,98 %	
Flow direction	INSIDE to OUT	

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

MATERIALS

Catalyst material	Hopcalite
Filter media	Borosilicate micro fibers
Drainage media	Polyester based polyurethane
Support	Stainless Steel 1.4301
Chamber	Acryl
Bonding	Polyurethane
Endcaps	PA6
Sealing	NBR

SIZES

FILTER ELEMENT SIZE	DIMENSIONS [mm]	FLOW CAPACITY [Nm³/h]	FLOW CAPACITY [scfm]	FITS INTO FILTER HOUSING	Δp AT NOMINAL FLOW [mbar]	HOPCALITE [g]
07050 H²	Ø=51;h=70	78	46	AF 0076	80	35
14050 H²	Ø=51;h=140	120	70	AF 0106	110	135
12075 H²	Ø=75;h=125	198	116	AF 0186	120	155
22075 H²	Ø=75;h=225	335	197	AF 0306	420	430
32075 H²	Ø=75;h=325	510	300	AF 0476	730	740
50075 H²	Ø=75;h=505	780	459	AF 0706	1400	1310

ø=Diameter;h=Height

FILTER ELEMENT SIZE	DIFFERENTIAL PRESSURE [mbar] AT % OF NOMINAL FLOW			
	25%	50%	75%	100%
07050 H²	20	40	60	80
14050 H²	28	55	83	110
12075 H²	30	60	90	120
22075 H²	105	210	315	420*
32075 H²	183	365*	548*	730*
50075 H²	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 3 month or sooner if it is required for specific application.

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