

FILTER ELEMENT – OIR F Flanged

Alternative filter elements for Ingersoll Rand

Series: F Series - Flanged

DESCRIPTION

OIR F Flanged filter elements have been developed for high efficient removal of solid particles, oil aerosols, water, hydrocarbons, vapours and odours from compressed air.



FILTER ELEMENT RATING ACCORDING TO ISO 8573-1

Filtration grade	Solid particles class	Water class	Oil class
ID/XR	3	/	/
IG/XM	2	/	2
IH/XS	1	/	1
IA/A	1*	/	0/1

Validated according to ISO12500-1, ISO12500-2 and ISO12500-3

* Valid if "XS" filter cartridge is installed upstream

TECHNICAL SPECIFICATION

	ID/XR ⁽⁶⁾	IG/XM ⁽⁶⁾	IH/XS ⁽⁶⁾	IA/A ⁽⁶⁾
Operating temperature	1,5 - 65 °C/ 35 - 149 °F	1,5 - 65 °C/ 35 - 149 °F	1,5 - 65 °C/ 35 - 149 °F	1,5 - 45 °C/ 35 - 113 °F
Operating pressure	0 - 16 barg/ 0 - 232 psi	0 - 16 barg/ 0 - 232 psi	0 - 16 barg/ 0 - 232 psi	0 - 16 barg/ 0 - 232 psi
Differential pressure (dry)	20 mbar/ 0,290 psi	50 mbar/ 0,725 psi	80 mbar/ 1,160 psi	60 mbar/ 0,870 psi
Differential pressure (wet)	40 mbar/ 0,580 psi	120 mbar/ 1,740 psi	190 mbar/ 2,756 psi	/
Particle retention (nominal)	99,9999% (1 µm)	99,9999% (0,1 µm)	99,9999% (0,01 µm)	/
Particle retention rate ISO ⁽³⁾	99,8 %	99,98 %	99,9994 %	/
Residual oil content ⁽⁴⁾	/	< 0,1mg/m ³	< 0,01mg/m ³	< 0,005mg/m ³
Flow Direction	INSIDE to OUTSIDE	INSIDE to OUTSIDE	INSIDE to OUTSIDE	INSIDE to OUTSIDE
Capacity (ISO12500-2) ⁽⁵⁾	/	/	/	20 min

⁽³⁾ Tested according to ISO12500-3, 1bar(a), nominal flow, 06050 M, S, MPPS-(0,3µm)

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

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

⁽⁶⁾ Cross reference Omega Air – Ingersoll Rand filtration grades: XR=ID/XR, XM=IG/XM, XS=IH/XS, A=IA/A

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

MATERIALS

	ID/XR	IG/XM	IH/XS	IA/A
Filter media	Borosilicate micro fibers	Borosilicate micro fibers	Borosilicate micro fibers	Borosilicate micro fibers
Protection media	Polyester fleece	Polyester fleece	Polyester fleece	Polyester fleece
Drainage media	Polyester needle felt	Polyester needle felt	Polyester needle felt	/
Adsorption media	/	/	/	Activated carbon granulate
Support (inner-outer)	Stainless steel 1.4301	Stainless steel 1.4301	Stainless steel 1.4301	Stainless steel 1.4301
Bonding	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Endcaps	PA6 with 30% glass fibers	PA6 with 30% glass fibers	PA6 with 30% glass fibers	PA6 with 30% glass fibers
Sealing	NBR	NBR	NBR	NBR

SIZES

Model*	Diameter [mm]	Height [mm]	Element quantity	Flow Capacity [Nm ³ /h]	Flow Capacity [scfm]	Fits into filter housing
OIR F770	82	210	1	768	450	F770
OIR F1320	82	482	1	1320	822	F1320
OIR F2100	121	636	1	2100	1308	F2100
OIR F2800	121	760	1	2760	1720	F2800
OIR F4200	121	636	2	4200	2617	F4200
OIR F5700	121	760	2	5700	3551	F5700
OIR F7500	121	760	3	7500	4673	F7500
OIR F9300	121	636 & 760	4	9300	5794	F9300
OIR F11000	121	760	4	11100	6916	F11000
OIR F14200	121	760	6	14400	8972	F14200
OIR F19900	121	760	8	19800	12336	F19900
OIR F31000	121	760	11	31200	19439	F31000

*Filter cartridge names consist of cartridge size and filtration grade. Place filtration grade designation after filter size (e.g. OIR F1320 IG/XM).

MAINTENANCE

ID/XR, IG/XM, IH/XS - Replace filter element at least once per year or when pressure drop reaches 350mbar

IA/A - Replace filter element at least every 6 months

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	Our quality management system is certified by BUREAU VERITAS in conformity with ISO 9001:2015	
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