Compressed Air Duplex Filters



The intelligent design of this 2 stage filter allows it to be installed in the same line space as a single stage filtration unit with twice the filtration capability.

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The duplex filter is available in 8 sizes with connections from $\frac{1}{4}$ " to 1", and flows up to 297 Nm³/h (175 SCFM). The housings are manufactured in robust cast aluminium with an anti corrosion Walker E-Coat. The optimised design is space saving and modular allowing multiple close coupling.

2 stage filtration in a single unit

Oleophobic borosilicate media and a custom engineered anti re-entrainment layer in the XA grade element guarantees exceptional dirt holding and drainage capabilities with minimal pressure drop. The AC element uses a finely divided activated carbon media to remove odours and tastes.

Unique element end cap design

Walker Filtration's unique elements have colour coded end caps making grade identification swift and simple. Our endcap design engages with the bowl minimising vibration, increasing stability and assisting drainage.

Custom engineered design for exceptional performance

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Applications include

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Manufacturing
Vilitary
Dil & Gas
Paint Applications
Pharmaceutical Manufacturing
Railway











Technical Specification

filter model	pipe	flow rate*		dimensions (mm)				weight	element	no. of
	size	Nm³/h	SCFM	А	В	С	D	Kg	model	elements
D028 XAC	1/4	42.5	25	70	163	159	70	0.9	E0406 XA / E0407 DAC	1/1
D038 XAC	3/8	59.5	35	70	163	159	70	0.9	E0407 XA / E0407 DAC	1/1
D058 XAC	1/2	85	50	70	204	200	70	1.0	E0413 XA / E0413 DAC	1/1
D059 XAC	1/2	119	70	100	240	236	80	2.3	E0613 XA / E0613 DAC	1/1
D078 XAC	3/4	144	85	100	240	236	80	2.3	E0613 XA / E0613 DAC	1/1
D079 XAC	3/4	212	125	100	360	356	80	3.1	E0620 XA / E0625 DAC	1/1
D108 XAC	1	229	135	100	360	356	80	3.1	E0620 XA / E0625 DAC	1/1
D109 XAC	1	297	175	100	360	356	80	3.2	E0625 XA / E0625 DAC	1/1

* Rated flow at 7 barg, reference conditions 1 bar (a) 20°C

	х	(A	AC			
Particle removal	0.01	micron	0.01 micron			
Maximum particle size class**		1	1			
Maximum oil content class**		1	1			
Maximum oil carryover at 20°C (68°F)	0.01	mg/m³	0.003 mg/m ³			
Maximum temperature	50°C	122°F	50°C	122°F		
Pressure loss - clean & dry	150 mbar	2.2 psi	75 mbar	1.1 psi		
Pressure loss - oil saturated	300 mbar	4.4 psi		-		
Pressure loss - change element	400 mbar	6 psi	6 months /	1000 hours		
Maximum working pressure	16 barg	232 psig	16 barg	232 psig		
Element end cap colour	bl	lue	black			

** class to ISO 8573-1:2001 (E)

pressure correction factors for maximum flow rate, multiply model flow rate by the correction factor corresponding to the minimum operating pressure										
Operating pressure barg (psig)	4 (58)	5 (72)	6 (87)	7 (100)	8 (115)	10 (145)	12 (174)	14 (203)	16 (232)	
7 barg - correction factor	0.76	0.84	0.92	1.00	1.07	1.19	1.31	1.41	1.51	

technical notes

- Duplex filters offer 2 stage filtration within one filter unit. Each filtration package provides an XA grade element in the lower section for oil removal, while the AC grade element in the upper section is for odour removal.
- Direction of air flow is inside to out through XA grade and outside to in through AC grade filter element.
- DVAS16C drains are fitted to models D028 XAC to D058 XAC; DVAS16 drains are fitted to D059 XAC to D109 XAC.
- Models D059 XAC to D109 XAC can be adapted to use $^{1\!/\!4"}$ drains with a reducer. Activated carbon filters must not operate in oil saturated conditions and will not remove certain types of gases
- including carbon monoxide (CO) and carbon dioxide (CO₂).
- Duplex filters are manufactured from cast aluminium alloy and are PED 97/23/EC compliant for group 2 gases. Threaded connections are Rp (BSP parallel) to ISO 7/1 or NPT to ANSI B2.1 if supplied within North America.
- For NPT connections, add the suffix N e.g. D028XACN.
- Filter elements should be changed every 12 months / 8000 hours (whichever comes first). Activated carbon filter elements should be changed every 6 months / 1000 hours (whichever comes first).
- Filters are suitable for use with mineral and synthetic oils plus oil-free compressed air applications.



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