

# Compressed Air Duplex Filters

Models | D3028 to D3109

Flow Rates 25 SCFM (42 Nm<sup>3</sup>/hr) to 175 SCFM (297 Nm<sup>3</sup>/hr)

The Alpha Duplex range delivers an economical, space-saving filtration solution. With exceptionally improved performance, the intelligent design combines a two-stage filtration system in a single unit, ensuring twice the filtration capability.

Available in a range of 7 models with connection sizes ranging from 1/4" - 1" , the Alpha Duplex Filters space saving modular design utilises deep pleated media technology to deliver market leading performance.

The 0.01 micron (DXA grade) element delivers exceptional results in oil aerosol removal and particle retention - with a significantly reduced differential pressure of <125 mbar. The Activated Carbon (DAC) element utilises a finely divided activated carbon media to remove odours and tastes.



Differential pressure  
of <125 mbar across  
DXA grade



#### NEW Filtration Technology

Alpha deep pleated media technology delivers a step change in performance



#### Two-Stage Filtration

DXA and DAC elements for double the filtration performance



#### Modular Construction

Low cost connecting kits enable easy close coupling assembly

- **Flow-Optimised Design** Advanced filter head designed for optimised flow performance
- **Flexible Installation** Filter housings can be multi-banked together using connecting kits enabling simple close coupling assembly
- **Market Leading Performance** Pleated oleophobic borosilicate media delivers significant energy cost savings through lower differential pressure
- **Simplified Serviceability** Profiled bowl design and unique push fit elements ensure quick and reliable maintenance
- **Product Safety in Mind** Guaranteed safe housing closure with rotational safety stop
- **Corrosion Protection** Internal and external electrophoretic paint finish followed by a tough exterior polyester powder coating

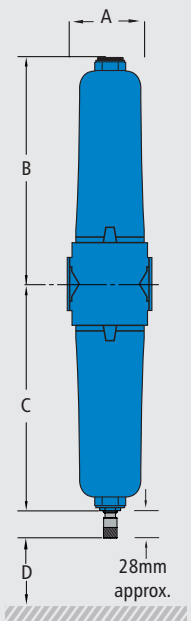
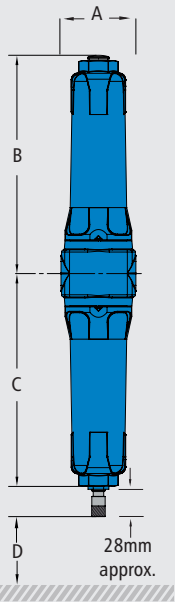




# Technical Specification

Filter model	Pipe size inches	Inlet flow rate*		Dimensions mm				Weight Kg	Element model Coalescing	Element model Activated Carbon	No. of Elements
		Nm <sup>3</sup> /hr	SCFM	A	B	C	D				
D3028XAC	1/4	42	25	70	204	199	70	1.0	E30408DXA / E30408DAC		1/1
D3038XAC	3/8	54	32	70	204	199	70	1.0	E30408DXA / E30408DAC		1/1
D3058XAC	1/2	85	50	70	204	199	70	1.1	E30412DXA / E30412DAC		1/1
D3059XAC	1/2	119	70	100	240	236	80	2.3	E30613DXA / E30613DAC		1/1
D3078XAC	3/4	144	85	100	240	236	80	2.3	E30613DXA / E30613DAC		1/1
D3079XAC	3/4	212	125	100	360	356	80	3.1	E30625DXA / E30625DAC		1/1
D3109XAC	1	297	175	100	360	356	80	3.2	E30625DXA / E30625DAC		1/1

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



D3028 to D3109

Grade	DXA		DAC	
Particle removal	0.01 micron		0.01 micron	
Maximum particle size class**	1		1	
Maximum oil content**	1		1	
Maximum oil carryover at 20°C (68°F)	0.01 mg/m <sup>3</sup>		0.003 mg/m <sup>3</sup>	
Pressure loss: clean and dry	85 mbar	1.2 psi	75 mbar	1.1 psi
Pressure loss: saturated	125 mbar	1.8 psi	N/A	N/A
Pressure loss: element change	12 months	8000 hours	at least every 6 months	
Maximum temperature	50°C	122°F	50°C ***	122°F ***
Maximum working pressure	16 barg	232 psig	16 barg	232 psig
Element end cap colour	Black		Black	

\*\* To ISO 8573-1:2010 \*\*\* Maximum Recommended operating temperature 25°C (77°F)

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 provide a 0.01 micron (DXA) grade element in the lower section for oil removal, while the Activated Carbon (DAC) grade element in the upper section is for odour removal.
- Direction of air flow is inside to out through the 0.01 micron (DXA) grade and outside to in through Activated Carbon (DAC) grade filter element.
- Duplex Filters are fitted with ADV516 normally open float operated automatic drain valves as standard. Normally closed float operated automatic drain valves ADV516C are available for low flow applications - see price guide.
- 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 (CO<sub>2</sub>).
- Alpha Filters are manufactured from cast aluminium alloy and are PED 2014/68/EU compliant for group 2 gases.
- Threaded connections are Rp (BSP Parallel) to ISO 7-1 or NPT to ANSI/ASME B1.20.1 if supplied within North America. Rc (BSP Taper) to ISO 7-1 also available.
- For NPT threads, add the suffix N e.g. D3028NXAC, and for Rc threads add the suffix C e.g. D3028CXAC.
- Filters are suitable for use with mineral and synthetic oils plus oil-free compressed air applications.
- Mounting brackets are available for all models - see price guide.
- Filter elements should be changed every 12 months / 8000 hours (whichever comes first). Activated Carbon filter elements should be changed every 6 months.

