



Vacuum Pump Protection Filters

Models | A30032 to A31500

Flow Rates 4 SCFM (7 Nm³/hr) to 288 SCFM (489 Nm³/hr)

Essential for the removal of liquid and particulate contamination, Walker Filtration's Alpha Vacuum Pump Protection Filters offer a high efficiency solution for both rough and high vacuum applications.

Offered in a range of 16 models with threaded connections from 3/8" to 3", Alpha high efficiency filters prevent process contamination from entering liquid or dry running vacuum pumps - helping to prevent damage to rotating parts and costly downtime.

Alpha filter elements utilise custom engineered media technology to deliver market leading performance, significantly reducing pressure loss and energy consumption for low operational costs and increased performance. The VLR grade is used for liquid aerosol and high dirt removal, and the VX1 grade is used for fine particulate removal.



Assured Protection

Highly efficient removal of solid particles and other contaminants ensure prevention of damage to the Vacuum Pump



Optimised Filtration Performance

Alpha's custom engineered media technology delivers a step change in performance



Product Safety in Mind

Lock indication arrows assure effective sealing



- **Market Leading Performance** Custom engineered filtration media delivers optimum performance
- **Simplified Serviceability** Profiled bowl design and unique push fit filter elements ensure quick and reliable maintenance
- **Exceptional Drainage** Manual drain fitted to all Vacuum Pump Protection Filters as standard
- **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

For further information please visit www.walkerfiltration.com

For further information please call: **+44 (0) 191 417 7816**



Technical Specification

Filter model	Pipe size inches	Exhaust flow rate (vacuum displacement)		Dimensions mm				Weight Kg	Element model
		Nm³/hr	SCFM	A	B	C	D		
A30032 (grade)	3/8	7	4	70	23	231	70	0.6	E30408 (grade)
A30050 (grade)	1/2	11	7	70	23	231	70	0.6	E30412 (grade)
A30070 (grade)	1/2	20	12	127	32	285	80	1.7	E30612 (grade)
A30085 (grade)	3/4	25	15	127	32	285	80	1.7	E30612 (grade)
A30105 (grade)	1	29	17	127	32	285	80	1.7	E30612 (grade)
A30125 (grade)	3/4	35	21	127	32	370	80	2.0	E30621 (grade)
A30175 (grade)	1	50	29	127	32	370	80	2.0	E30621 (grade)
A30280 (grade)	1 1/4	75	44	140	41	476	85	3.0	E30731 (grade)
A30320 (grade)	1 1/2	85	50	140	41	476	85	3.0	E30731 (grade)
A30400 (grade)	1 1/2	100	59	170	53	508	100	4.9	E30831 (grade)
A30450 (grade)	2	115	68	170	53	508	100	4.9	E30831 (grade)
A30700 (grade)	2	180	106	170	53	708	100	5.5	E30850 (grade)
A30850 (grade)	2 1/2	200	118	220	70	736	100	10.5	E31140 (grade)
A30900 (grade)	3	234	138	220	70	736	100	10.5	E31140 (grade)
A31250 (grade)	3	360	212	220	70	857	100	11.5	E31160 (grade)
A31500 (grade)	3	489	288	220	70	1005	100	12.5	E31175 (grade)

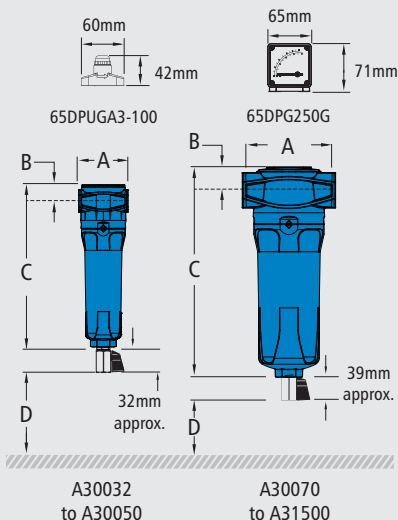
Rated flow at atmospheric pressure, 1 bar (a) and 20°C

Grade	VLR		VX1	
Particle removal	5 micron		1 micron	
Maximum temperature	120°C	248°F	120°C	248°F
Pressure loss - clean & dry	20 mbar	0.3 psi	40 mbar	0.6 psi
Pressure loss - element change	12 mths	8000 hrs	12 mths	8000 hrs
Maximum working pressure	20.7 barg	300 psig	20.7 barg	300 psig
Maximum working vacuum	Full vacuum		Full vacuum	
Element end cap colour	Green		Red	

Vacuum Correction Factors		For maximum flow rate, multiply model flow rate by the correction factor corresponding to the minimum operating pressure								
Operating vacuum	Mbar abs	Atmospheric	900	800	700	600	500	400	300	200
	Torr	760	675	600	525	450	375	300	225	150
	InchHg	29.9	26.6	23.6	20.7	17.7	14.8	11.8	8.9	5.9
	Psia	14.7	13.0	11.6	10.2	8.7	7.3	5.8	3.3	2.9
Correction factor		1.00	0.93	0.86	0.79	0.71	0.64	0.57	0.50	0.43

Technical Notes

- Direction of air flow is inside to out through VLR grade and outside to in through VX1 grade.
- Pop up indicators (65DPUGA3-100) are fitted to models A30032 to A30050. Differential pressure gauges (65DPG250G) are fitted to models A30070 to A31500 as standard. Volt free contact options are available upon request - see price guide.
- Manual drain valves (MDV25 on models A30032 to A30050 and MDVE25 on models A30070 to A31500) are fitted as standard.
- Drain flasks are available for liquid collection for use at atmospheric pressure or vacuum only.
- 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., A30070NVL, and for Rc threads add the suffix C, e.g. A30070CVLR.
- Filter elements should be changed every 12 months / 8000 hours (whichever comes first).



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Vacuum Pump Exhaust Filters

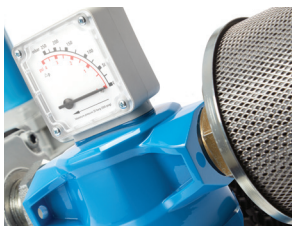
Models | A30032EF to A31500EF

Flow Rates 4 SCFM (7 Nm³/hr) to 288 SCFM (489 Nm³/hr)

Walker Filtration's Alpha Simplex and Duplex Vacuum Pump Exhaust Filters are designed to remove oil mist from lubricated Vacuum Pumps – providing unrivalled filtration performance, reduced exhaust noise levels and an oil free working environment.

Alpha Vacuum Pump Exhaust Filters feature a comprehensive range with connection sizes ranging from $\frac{3}{8}$ " to 3". High performing Simplex Filters deliver exceptional results in oil mist removal from vacuum pumps, whilst the two-stage Duplex Filter removes both oil mist and odour.

Alpha elements utilise custom engineered media technology to provide market leading performance, significantly reducing pressure loss and energy consumption for low operational costs and increased operating efficiencies.



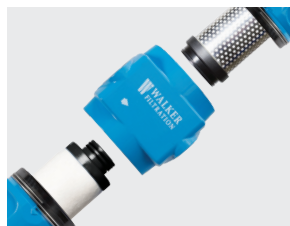
Effective Oil Mist Removal

Preventing potentially harmful contaminants being exhausted into the atmosphere



Optimised Filtration Performance

Alpha custom engineered media technology delivers a step change in performance



Duplex Filtration

Two-stage filtration within one filter unit

- **Exceptional Drainage** Manual drain fitted to all Vacuum Pump Protection Filters as standard
- **Market Leading Performance** Custom filter construction delivers optimum performance
- **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

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Technical Specification

Filter model	Pipe size inches	Exhaust flow rate (vacuum displacement)		Dimensions mm				Weight Kg	Element model
		Nm³/hr	SCFM	A	B	C	D		
A30032EF	3/8	7	4	70	23	231	70	0.6	E30408EF
A30050EF	1/2	11	7	70	23	231	70	0.6	E30412EF
A30070EF	1/2	20	12	127	32	285	80	1.7	E30612EF
A30085EF	3/4	25	15	127	32	285	80	1.7	E30612EF
A30105EF	1	29	17	127	32	285	80	1.7	E30612EF
A30125EF	3/4	35	21	127	32	370	80	2.0	E30621EF
A30175EF	1	50	29	127	32	370	80	2.0	E30621EF
A30280EF	1 1/4	75	44	140	41	476	85	3.0	E30731EF
A30320EF	1 1/2	85	50	140	41	476	85	3.0	E30731EF
A30400EF	1 1/2	100	59	170	53	508	100	4.9	E30831EF
A30450EF	2	115	68	170	53	508	100	4.9	E30831EF
A30700EF	2	180	106	170	53	708	100	5.5	E30850EF
A30850EF	2 1/2	200	118	220	70	736	100	10.5	E31140EF
A30900EF	3	234	138	220	70	736	100	10.5	E31140EF
A31250EF	3	360	212	220	70	857	100	11.5	E31160EF
A31500EF	3	489	288	220	70	1005	100	12.5	E31175EF

Filter model	Pipe size inches	Exhaust flow rate (vacuum displacement)		Dimensions mm				Weight Kg	Element model Exhaust Filter	Element model Activated Carbon	No. of Elements
		Nm³/hr	SCFM	A	B	C	D				
D3038EFC	3/8	7	4	70	199	204	70	1.0	E30408DEF / E30408DAC		1/1
D3058EFC	1/2	11	7	70	199	204	70	1.1	E30412DEF / E30412DAC		1/1
D3059EFC	1/2	20	12	100	236	240	80	2.3	E30613DEF / E30613DAC		1/1
D3078EFC	3/4	25	15	100	236	240	80	2.3	E30613DEF / E30613DAC		1/1
D3079EFC	3/4	35	21	100	356	360	80	3.1	E30625DEF / E30625DAC		1/1
D3109EFC	1	50	29	100	356	360	80	3.2	E30625DEF / E30625DAC		1/1

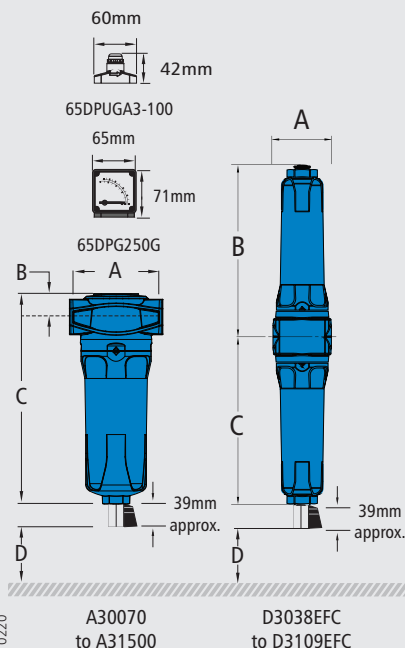
Rated flow at atmospheric pressure, 1 bar (a) and 20°C

Grade	EF		DAC	
Particle removal	0.1 micron		0.1 micron	
Maximum oil carryover at 20°C (68°F)	1 mg/m³		0.003 mg/m³	
Pressure loss - clean & dry	25 mbar	0.36 psi	30 mbar	0.44 psi
Pressure loss - saturated	70 mbar	1 psi	75 mbar	1.1 psi
Pressure loss - element change	12 mths	8000 hrs	at least every 6 months	
Maximum temperature	120°C	248°F	50°C **	122°F **
Maximum working pressure	20.7 barg	300 psig	20.7 barg	300 psig
Element end cap colour	Black		Black	

** Maximum recommended operating temperature 25°C (77°F)

Technical Notes

- Duplex filters provide a DEF grade element in the lower section for oil removal and a DAC grade element in the upper section for odour removal. Direction of air flow is inside to out through EF grade and outside to in through AC grade filter element.
- Pop up indicators (65DPUGA3-100) are fitted to models A30032EF to A30050EF. Differential pressure gauges (65DPG250G) are fitted to models A30070EF to A31500EF as standard.
- Manual drain valves (MDV25 on models A30032EF to A30050EF, D3038EFC to D3109EFC and MDVE25 on models A30070EF to A31500EF) are fitted as standard.
- Drain flasks are available for liquid collection, for use at atmospheric pressure or vacuum only - see price guide.
- Alpha Filters are manufactured from cast aluminium alloy and are PED 2014/68/EU compliant for group 2 gases.
- 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).
- 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., A30070NEF, and for Rc threads add the suffix C, e.g. A30070CEF.
- Filter elements should be changed every 12 months / 8000 hours (whichever comes first). Activated Carbon Filter elements should be changed at least every 6 months.



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