



# Vacuum Pump Protection Filters

Models | A30032 to A31500

Flow Rates 4 SCFM (7 Nm<sup>3</sup>/hr) to 288 SCFM (489 Nm<sup>3</sup>/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  $\frac{3}{8}$ " to 3", the 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.

The Alpha elements utilize custom engineered media technology to deliver market leading performance, significantly reducing pressure loss and energy consumption for low operational costs and increased performance. The 5 micron (VLR) grade is used for liquid aerosol and high dirt removal, while the 1 micron (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



#### Optimized Filtration Performance

Alpha custom engineered media technology delivers a step change in performance



#### Product Safety in Mind

Lock indication arrows assure effective sealing

- **Market Leading Performance** Custom filter construction delivers optimum performance
- **Simplified Serviceability** Profiled bowl design and unique push fit 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](http://www.walkerfiltration.com)

For further information please call: **+1 814 836 2900**



# Technical Specification

Filter model	Pipe size inches	Exhaust flow rate* (vacuum displacement)		Dimensions inches (mm)				Weight		Element model
		SCFM	Nm <sup>3</sup> /hr	A	B	C	D	lbs	kg	
A30032 (grade)	3/8	4	7	2.76 (70)	0.91 (23)	9.09 (231)	2.76 (70)	1.3	0.6	E30408 (grade)
A30050 (grade)	1/2	7	11	2.76 (70)	0.91 (23)	9.09 (231)	2.76 (70)	1.3	0.6	E30412 (grade)
A30070 (grade)	1/2	12	20	5.00 (127)	1.26 (32)	11.22 (285)	3.15 (80)	3.7	1.7	E30612 (grade)
A30085 (grade)	3/4	15	25	5.00 (127)	1.26 (32)	11.22 (285)	3.15 (80)	3.7	1.7	E30612 (grade)
A30105 (grade)	1	17	29	5.00 (127)	1.26 (32)	11.22 (285)	3.15 (80)	3.7	1.7	E30612 (grade)
A30125 (grade)	3/4	21	35	5.00 (127)	1.26 (32)	14.57 (370)	3.15 (80)	4.4	2.0	E30621 (grade)
A30175 (grade)	1	29	50	5.00 (127)	1.26 (32)	14.57 (370)	3.15 (80)	4.4	2.0	E30621 (grade)
A30280 (grade)	1 1/4	44	75	5.51 (140)	1.61 (41)	18.74 (476)	3.35 (85)	6.6	3.0	E30731 (grade)
A30320 (grade)	1 1/2	50	85	5.51 (140)	1.61 (41)	18.74 (476)	3.35 (85)	6.6	3.0	E30731 (grade)
A30400 (grade)	1 1/2	59	100	6.69 (170)	2.08 (53)	20.00 (508)	3.94 (100)	10.8	4.9	E30831 (grade)
A30450 (grade)	2	68	115	6.69 (170)	2.08 (53)	20.00 (508)	3.94 (100)	10.8	4.9	E30831 (grade)
A30700 (grade)	2	106	180	6.69 (170)	2.08 (53)	27.87 (708)	3.94 (100)	12.1	5.5	E30850 (grade)
A30850 (grade)	2 1/2	118	200	8.66 (220)	2.75 (70)	28.98 (736)	3.94 (100)	23.1	10.5	E31140 (grade)
A30900 (grade)	3	138	234	8.66 (220)	2.75 (70)	28.98 (736)	3.94 (100)	23.1	10.5	E31140 (grade)
A31250 (grade)	3	212	360	8.66 (220)	2.75 (70)	33.74 (857)	3.94 (100)	25.4	11.5	E31160 (grade)
A31500 (grade)	3	288	489	8.66 (220)	2.75 (70)	39.57 (1005)	3.94 (100)	27.6	12.5	E31175 (grade)

\*Rated flow at atmospheric pressure, 14.50 psig (1 bar) (a) 68°F (20°C)

Grade	VLR		VX1	
Particle removal	5 micron		1 micron	
Maximum temperature	248°F	120°C	248°F	120°C
Pressure loss - clean & dry	0.3 psi	20 mbar	0.6 psi	40 mbar
Pressure loss - element change	12 mths	8000 hrs	12 mths	8000 hrs
Maximum working pressure	300 psig	20.7 barg	300 psig	20.7 barg
Maximum working vacuum	Full vacuum		Full vacuum	
Element end cap color	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	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
	Mbar abs	Atmospheric	900	800	700	600	500	400	300	200
	Torr	760	675	600	525	450	375	300	225	150
Correction factor		1.00	0.93	0.86	0.79	0.71	0.64	0.57	0.5	0.43

## Technical notes

- Direction of air flow is inside to out through 5 micron (VLR) grade and outside to in through 1 micron (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 are fitted to all models as standard (MDV25 on models A30032 to A30050 and MDVE25 on models A30070 to A31500).
- Drain flasks are available for liquid collection for use at atmospheric pressure or vacuum only.
- Alpha Filters are manufactured from cast aluminum alloy and are PED 2014/68/EU compliant for group 2 gases.
- Standard threaded connections are NPT to ANSI/ASME B1.20.1. RP (BSP Parallel) to ISO 7-1 and RC (BSP Taper) to ISO 7-1 are also available upon request.
- Filter elements should be changed every 12 months / 8000 hours (whichever comes first).

**CRN**



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