

# techhose

QUALITY CONNECTIONS

Hydraulics

Pneumatics  
& Vacuum

Industrial

Compressed Air  
& Ring Main

Process &  
Instrumentation

## Pneumatics

Filtration



# SECTION 13

## Filtration



- Compressed Air Coalescing Filters
- Compressed Air Duplex Filters
- Compressed Air Particulate Filters
- Water Separators
- Medical Vacuum Filters
- Silicone Free Coalescing Filters
- Alternative Elements
- Breathable Air Systems
- Medical Sterile Filters
- Dryers
- Vacuum Pump Protection Filters
- Vacuum Pump Exhaust Filters
- Autoclave Filter Elements
- Stainless Steel Air Service Units
- Stainless Steel High Pressure Regulators



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# COMPRESSED AIR COALESCING FILTERS



## Alpha Series & Elements

**Models | A30006 to A31500**

Flow Rates 6 SCFM (10 Nm<sup>3</sup>/hr) to 1500 SCFM (2550 Nm<sup>3</sup>/hr)

**Introducing the Alpha Coalescing Filter, Walker Filtration's latest range of market leading compressed air and gas filters. With enhanced housing features and a step change in element performance, the Alpha delivers a high quality filtration solution you can trust.**

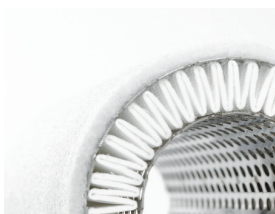
Offered in a range of 19 models with connection sizes ranging from 1/8" to 3", the Alpha Series has been tested to provide a saturated differential pressure of <125 mbar across X1 and XA grades - proving to be our most advanced filter to date.

With class leading performance and exceptional results in oil aerosol and particle retention, the Alpha Filters deliver significantly reduced pressure loss and optimum filtration efficiencies - to ensure continually low operational costs.



### Modular Filter

Low cost connecting kits and new filter head design enables easy close coupling assembly



### NEW Filtration Technology

Alpha deep pleated media technology delivers a step change in performance



### Externally Accessible Drain

Eliminates the need to access the inside of the filter housing when servicing the drain

- **Flow-Optimised Design** Advanced filter head design for optimised flow performance
- **Flexible Installation** Modular design and accessible fixings enable simple close coupling assembly
- **Market Leading Performance** Custom engineered filtration media delivers optimum performance in line with air quality standard ISO 8573-1: 2010
- **Simplified Serviceability** Externally accessible drain, profiled bowl design and unique push fit elements ensure quick and reliable maintenance
- **Corrosion Protection** Internal and external electrophoretic paint finish followed by a tough exterior polyester powder coating
- **Colour Coded Element End Caps** Easy and accurate grade identification
- **Product Safety in Mind** Guaranteed safe housing closure with rotational safety stop

Differential pressure of <125 mbar across X1 and XA grades





## Technical Specification

9062 Filter Model	Thread	Inlet flow rate*		Dimensions mm				Weight Kg	9068 Element Model
		Nm <sup>3</sup> /hr	SCFM	A	B	C	D		
A30006 (grade)	1/8"	10	6	50	17	157	60	0.3	E30306 (grade)
A30015 (grade)	1/4"	25	15	50	17	157	60	0.3	E30306 (grade)
A30025 (grade)	1/4"	42	25	70	23	231	70	0.6	E30408 (grade)
A30032 (grade)	3/8"	54	32	70	23	231	70	0.6	E30408 (grade)
A30050 (grade)	1/2"	85	50	70	23	231	70	0.6	E30412 (grade)
A30070 (grade)	1/2"	119	70	127	32	285	80	1.7	E30612 (grade)
A30085 (grade)	3/4"	144	85	127	32	285	80	1.7	E30612 (grade)
A30105 (grade)	1"	178	105	127	32	285	80	1.7	E30612 (grade)
A30125 (grade)	3/4"	212	125	127	32	370	80	2.0	E30621 (grade)
A30175 (grade)	1"	297	175	127	32	370	80	2.0	E30621 (grade)
A30280 (grade)	1.1/4"	476	280	140	41	508	85	3.0	E30731 (grade)
A30320 (grade)	1.1/2"	544	320	140	41	508	85	3.0	E30731 (grade)
A30400 (grade)	1.1/2"	680	400	170	53	508	100	4.9	E30831 (grade)
A30450 (grade)	2"	765	450	170	53	508	100	4.9	E30831 (grade)
A30700 (grade)	2"	1189	700	170	53	708	100	5.5	E30850 (grade)
A30850 (grade)	2.1/2"	1444	850	220	70	736	100	10.5	E31140 (grade)
A30900 (grade)	3"	1529	900	220	70	736	100	10.5	E31140 (grade)
A31250 (grade)	3"	2125	1250	220	70	857	100	11.5	E31160 (grade)
A31500 (grade)	3"	2550	1500	220	70	1005	100	12.5	E31175 (grade)

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

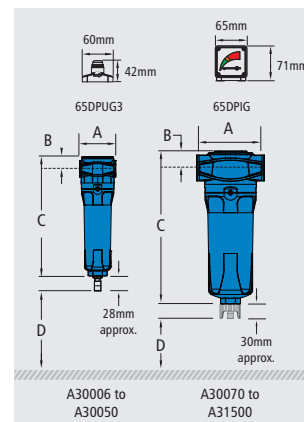
Specification									
Grade	X25		X5		X1		XA		AC
Particle removal	25 micron		5 micron		1 micron		0.01 micron		0.01 micron
Maximum particle size class**	-		4		3		1		1
Maximum oil content**	-		4		3		1		1
Maximum oil carryover at 20°C (68°F)	10 mg/m <sup>3</sup>		5 mg/m <sup>3</sup>		0.3 mg/m <sup>3</sup>		0.01 mg/m <sup>3</sup>		0.003 mg/m <sup>3</sup>
Pressure loss - clean & dry	30 mbar	0.4 psi	40 mbar	0.6 psi	55 mbar	0.8 psi	85 mbar	1.2 psi	115 mbar 1.7 psi
Pressure loss - saturated	50 mbar	0.7 psi	75 mbar	1.1 psi	125 mbar	1.8 psi	125 mbar	1.8 psi	N/A N/A
Pressure loss - element change	12 mths	8000 hrs	12 mths	8000 hrs	12 mths	8000 hrs	12 mths	8000 hrs	at least every 6 mths
Maximum temperature - automatic drain	80°C	176°F	80°C	176°F	80°C	176°F	80°C	176°F	50°C*** 122°F***
Maximum working pressure - automatic drain	16 barg	232 psig	16 barg	232 psig	16 barg	232 psig	16 barg	232 psig	16 barg 232 psig
Maximum temperature - manual drain	120°C	248°F	120°C	248°F	120°C	248°F	120°C	248°F	50°C*** 122°F***
Maximum working pressure - manual drain	20.7 barg	300 psig	20.7 barg	300 psig	20.7 barg	300 psig	20.7 barg	300 psig	20.7 barg 300 psig
Element end cap colour	Black		Green		Red		Blue		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	1.07	1.19	1.31	1.41	1.51

## Technical Notes:

- Direction of air flow is inside to out through the filter element.
- Pop up indicators (65DPUG3) are fitted to models A30025 to A30050 as standard. Differential pressure indicators (65DPIG) are fitted to models A30070 to A31500 as standard. Activated Carbon (AC) grade filters do not include DP equipment. Volt free contact options are available upon request.
- Coalescing Filters are fitted as standard with normally open float operated automatic drain valves, ADVS16 on models A30006 to A30050 ADVSE16 on models A30070 to A31500. Standard filters can operate at 16 barg (232 psig) at 80°C (176°F). Normally closed automatic drain valves (ADVSI6C) are available for low flow applications. 20.7 bar range (300 psi) at 120°C (248°F) available when supplied with a manual drain valve (MDV25 / MDVE25).
- 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>).
- New 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., A30070NXA, and for Rc threads add the suffix C, e.g. A30070CXA.
- Filters are suitable for use with mineral and synthetic oils plus, oil-free compressed air applications.







## Alpha Series & Elements

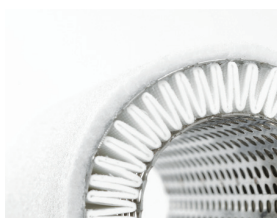
### Models | D3028 to D3109

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.



#### 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

**Differential pressure of <125 mbar across DXA grade**

- **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

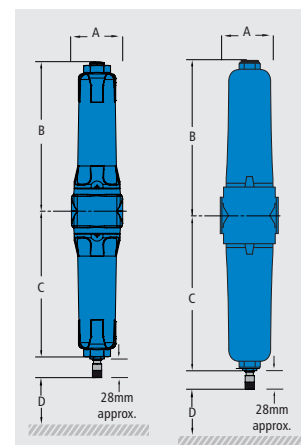
9062 Filter Model	Thread	Inlet flow rate*		Dimensions mm				Weight Kg	9068 Element model Coalescing	9068 Element model Activated Carbon	No. of Elements
		Nm³/hr	SCFM	A	B	C	D				
D3028XAC (grade)	1/4"	42	25	70	204	199	70	1.0	E30408DXA	E30408DAC	1/1
D3038XAC (grade)	3/8"	54	32	70	204	199	70	1.0	E30408DXA	E30408DAC	1/1
D3058XAC (grade)	1/2"	85	50	70	204	199	70	1.1	E30412DXA	E30412DAC	1/1
D3059XAC (grade)	1/2"	119	70	100	240	236	80	2.3	E30613DXA	E30613DAC	1/1
D3078XAC (grade)	3/4"	144	85	100	240	236	80	2.3	E30613DXA	E30613DAC	1/1
D3079XAC (grade)	3/4"	212	125	100	360	356	80	3.1	E30625DXA	E30625DAC	1/1
D3109XAC (grade)	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

Grade	Specification			
	DXA		DAC	
Particle removal	0.01 micron		50.01 micron	
Maximum particle size class**	1		1	
Maximum oil content**	1		1	
Maximum oil carryover at 20°C (68°F)	0.01 mg/m³		0.003 mg/m³	
Pressure loss - clean & 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 mths	8000 hrs	at least every 6 months	
Maximum temperature	50°C	122°F	50°C***	122°F ***
Maximum working pressure - automatic drain	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 ADVS16 normally open float operated automatic drain valves as standard. Normally closed float operated automatic drain valves ADVS16C are available for low flow applications.
- 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).
- 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.
- Filter elements should be changed every 12 months / 8000 hours (whichever comes first). Activated Carbon filter elements should be changed every 6 months.





# COMPRESSED AIR PARTICULATE FILTERS

## Alpha Series & Elements

**Models | A30006 to A31500**

Flow Rates 6 SCFM (10 Nm<sup>3</sup>/hr) to 1500 SCFM (2550 Nm<sup>3</sup>/hr)

**Advancements in filtration technology, improved low differential pressure and a step change in performance ensures the Alpha Particulate (Dust) Filters are the ideal solution for installation downstream of regenerative compressed air and gas dryers.**

With exceptional results in particle retention of up to 99.999%, and significantly reduced pressure loss, Alpha Particulate Filters ensure total protection of manufacturing equipment from dust carryover.

Available in a range of connection sizes from 1/8" to 3", Alpha Particulate Filters have a maximum temperature of 120°C (248°F) and increased operating pressure of 20.7 barg (300 psig).



### Modular Filter

Low cost connecting kits and new filter head design enables easy close coupling assembly



### Filtration Technology

Alpha deep pleated media technology delivers a step change in performance



### Product Safety in Mind

Lock indication arrows ensure effective sealing

**Up to 99.999%  
particle retention  
when tested in  
accordance with  
ISO 12500-3**

- **Flow-Optimised Design** Advanced filter head design for optimised flow performance
- **Flexible Installation** Modular design and accessible fixings enable simple close coupling assembly
- **Market Leading Performance** Custom engineered filtration media delivers optimum performance in line with air quality standard ISO 8573-1: 2010
- **Simplified Serviceability** Profiled bowl design and push fit elements ensure quick and reliable maintenance
- **Corrosion Protection** Internal and external electrophoretic paint finish followed by a tough exterior polyester powder coating
- **Colour Coded Element End Caps** Easy and accurate grade identification





## Technical Specification

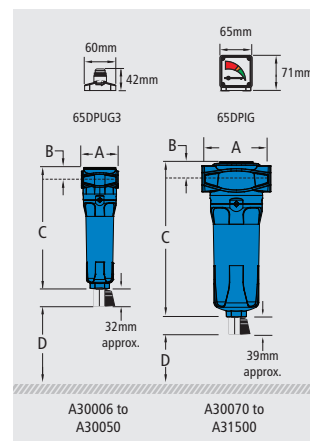
9062 Filter Model	Thread	Inlet flow rate*		Dimensions mm				Weight Kg	9068 Element Model
		Nm <sup>3</sup> /hr	SCFM	A	B	C	D		
A30006 (grade)	1/8"	10	6	50	17	157	60	0.3	E30306 (grade)
A30015 (grade)	1/4"	25	15	50	17	157	60	0.3	E30306 (grade)
A30025 (grade)	1/4"	42	25	70	23	231	70	0.6	E30408 (grade)
A30032 (grade)	3/8"	54	32	70	23	231	70	0.6	E30408 (grade)
A30050 (grade)	1/2"	85	50	70	23	231	70	0.6	E30412 (grade)
A30070 (grade)	1/2"	119	70	127	32	285	80	1.7	E30612 (grade)
A30085 (grade)	3/4"	144	85	127	32	285	80	1.7	E30612 (grade)
A30105 (grade)	1"	178	105	127	32	285	80	1.7	E30612 (grade)
A30125 (grade)	3/4"	212	125	127	32	370	80	2.0	E30621 (grade)
A30175 (grade)	1"	297	175	127	32	370	80	2.0	E30621 (grade)
A30280 (grade)	1.1/4"	476	280	140	41	476	85	3.0	E30731 (grade)
A30320 (grade)	1.1/2"	544	320	140	41	476	85	3.0	E30731 (grade)
A30400 (grade)	1.1/2"	680	400	170	53	508	100	4.9	E30831 (grade)
A30450 (grade)	2"	765	450	170	53	508	100	4.9	E30831 (grade)
A30700 (grade)	2"	1189	700	170	53	708	100	5.5	E30850 (grade)
A30850 (grade)	2.1/2"	1444	850	220	70	736	100	10.5	E31140 (grade)
A30900 (grade)	3"	1529	900	220	70	736	100	10.5	E31140 (grade)
A31250 (grade)	3"	2125	1250	220	70	857	100	11.5	E31160 (grade)
A31500 (grade)	3"	2550	1500	220	70	1005	100	12.5	E31175 (grade)

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

Grade	Specification				
	RX25	RX5	RX1	RXA	RAC
Particle removal	25 micron	5 micron	1 micron	0.01 micron	0.01 micron
Maximum particle size class**	-	4	3	1	1
Maximum oil carryover at 20°C (68°F)	10 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>	0.3 mg/m <sup>3</sup>	0.01 mg/m <sup>3</sup>	0.003 mg/m <sup>3</sup>
Pressure loss - clean & dry	30 mbar 0.4 psi	40 mbar 0.6 psi	75 mbar 1.1 psi	100 mbar 1.5 psi	75 mbar 1.1 psi
Pressure loss - element change	12 mths 8000 hrs	12 mths 8000 hrs	12 mths 8000 hrs	12 mths 8000 hrs	at least every 6 mths
Maximum temperature	120°C 248°F	120°C 248°F	120°C 248°F	120°C 248°F	50°C*** 122°F***
Maximum working pressure	20.7 barg 300 psig	20.7 barg 300 psig	20.7 barg 300 psig	20.7 barg 300 psig	20.7 barg 300 psig
Element end cap colour	Black	Green	Red	Blue	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									
	4	5	6	7	8	10	12	14	16	20.7
Operating pressure barg (psig)	(58)	(72)	(87)	(100)	(115)	(145)	(174)	(203)	(232)	(300)
7 barg - correction factor	0.76	0.84	0.92	1	1.07	1.19	1.31	1.41	1.51	1.73



### Technical Notes:

- Direction of air flow is outside to in through the filter element.
- Pop up indicators (65DPUG3) are fitted to models A30025 to A30050 as standard. Differential pressure indicators (65DP1G) are fitted to models A30070 to A31500 as standard. Activated Carbon (AC) grade filters do not include DP equipment. Volt free contact options are available upon request.
- Manual drain valves (MDV25 on models A30006 to A30050 and MDVE25 on models A30070 to A31500), are fitted as standard.
- 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., A30070NRXA, and for Rc threads add the suffix C, e.g. A30070CRXA.
- Filters are suitable for use with mineral and synthetic oils plus oil-free compressed air applications.
- Filter elements should be changed every 12 months / 8000 hours (whichever comes first). Activated carbon filter elements should be changed every 6 months.





# WATER SEPARATORS

## Alpha Series & Elements

**Models | A30006WS to A31500WS**

Flow Rates 6 SCFM (10 Nm<sup>3</sup>/hr) to 1500 SCFM (2550 Nm<sup>3</sup>/hr)

**Integrating into Walker Filtration's compressed air filtration range, the Alpha Water Separator combines proven Alpha centrifugal technology with a new forward thinking housing design to deliver market leading water removal efficiencies – eliminating 99% bulk water with continuously low differential pressure.**

The custom engineered centrifugal module features unique vanes to eliminate points of low efficiency, and a vortex arrestor to stop re-entrainment - ensuring minimal operating pressure loss and maintaining excellent liquid removal, even at low velocities.

No replacement components are required, making Walker Filtration's Water Separators a viable and cost effective solution for removing bulk water from compressed air.



### Unique Centrifugal Module

Removes 99% of bulk water even at low velocities



### Externally Accessible Drain Valve

Eliminates the need to access inside the water separator housing when servicing the drain



### Modular Construction

Low cost connecting kits and new filter head design enables easy close coupling assembly

**Removes up to 99% of bulk water when tested in accordance with ISO 12500-4**

- **Energy Saving** Water Separators operate with consistently low differential pressure reducing both energy consumption and operating costs
- **Flexible Installation** Modular design and accessible fixings enable simple close coupling assembly
- **Cost Effective** No replacement components required
- **Externally Accessible Drain Valve** Drain valve can be removed externally on larger models
- **Product Safety in Mind** Guaranteed safe housing closure with rotational safety stop
- **Corrosion Protection** Internal and external electrophoretic painting followed by a tough exterior polyester powder coating





## Technical Specification

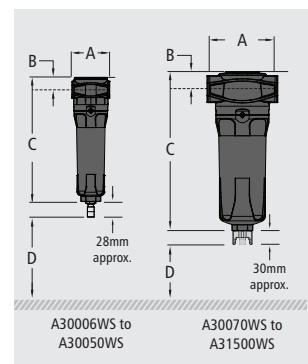
9062 Filter Model	Thread	Inlet flow rate* Nm <sup>3</sup> /hr SCFM		Dimensions mm				Weight Kg
				A	B	C	D	
A30006WS	1/8"	10	6	50	17	157	60	0.3
A30015WS	1/4"	5	15	50	17	157	60	0.3
A30025WS	1/4"	42	25	70	23	231	70	0.6
A30032WS	3/8"	54	35	70	23	231	70	0.6
A30050WS	1/2"	85	50	70	23	231	70	0.6
A30070WS	1/2"	119	70	127	32	285	80	1.7
A30125WS	3/4"	212	125	127	32	285	80	1.7
A30175WS	1"	297	175	127	32	285	80	1.7
A30280WS	1.1/4"	476	280	140	41	476	85	3.0
A30320WS	1.1/2"	544	320	140	41	476	85	3.0
A30400WS	1.1/2"	680	400	170	53	508	100	4.9
A30700WS	2"	1189	700	170	53	508	100	4.9
A30850WS	2.1/2"	1444	850	220	70	420	100	8.0
A31500WS	3"	2550	1500	220	70	420	100	8.0

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

Specification		
Grade	WS	
Minimum recommended operating temperature - automatic drain	1°C	34°F
Maximum recommended operating temperature - automatic drain	80°C	176°F
Maximum working pressure - automatic drain	16 barg	232 psig
Minimum recommended operating temperature - manual drain	1°C	34°F
Maximum recommended operating temperature - manual drain	120°C	248°F
Maximum working pressure - manual drain	20.7 barg	300 psig
Typical pressure loss at rated flow	55 mbar	0.8 psig

### Technical Notes:

- Water separators are fitted as standard with normally open float operated automatic drain valves, ADVS16 on models A30006WS to A30050WS and ADVSE16 on models A30070WS to A31500WS. Standard filters operate at 16 barg (232 psig) at 80°C (176°F). Normally closed automatic drain valves (ADVSE16C) are available for low flow applications. A 20.7 barg (300 psig) range at 120°C (248°F) is available when supplied with a manual drain valve (MDV25 / MDVE25).
- Connecting kits are required to connect water separators to models A30006 to A31500.
- Wall mounting brackets are available for all models.
- 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., A30070NWS, and for Rc threads add the suffix C, e.g. A30070CWS.







# MEDICAL VACUUM

## Alpha Series & Elements

**Models | A30025MV to A31500MV**

Flow Rates 6 SCFM (10 Nm<sup>3</sup>/hr) to 1500 SCFM (2550 Nm<sup>3</sup>/hr)

**Designed for use in critical medical applications to remove solid, liquid and bacterial contamination in vacuum systems, Walker Filtration's Medical Vacuum Filters guarantee a safe and reliable product that is trusted by hospitals worldwide.**

Situated on the suction side of a vacuum pump, Alpha Series Medical Vacuum Filters are essential to avoiding damage to vacuum pumps and preventing potentially hazardous biological contagions from being exhausted into the surrounding environment.



### NEW Filtration Technology

Filtration efficiency in excess of 99.999% (HTM 02-01 specifies >99.995%)



### Product Safety in Mind

Easily removable sterilisable drain flask and Differential Pressure monitor supplied as standard



### Push Fit Element Design

Quick and easy maintenance with unique push fit element design

- **High Efficiency Medical Grade Filter Element** Custom engineered filter media and deep pleat element technology provides minimal pressure loss and filtration efficiencies in excess of international medical gas standards
- **International Medical Gas Standards** Fully compliant with global medical gas pipeline systems standards ISO 7396-1, HTM 02-01, NFPA 99 and AS 2896
- **Quick and Easy Maintenance** Unique push fit element design allows for easy maintenance, significantly reducing service time and contact time for service engineers with contaminated filter elements
- **Advanced Filtration Technology** Low pressure loss borosilicate glass microfiber-media and open cell reticulated foam pre-filtration layer captures particulates, bacteria and liquid aerosols reducing energy consumption and overall system costs for low total cost of ownership
- **Corrosion Protection** Internal and external electrophoretic painting followed by a tough exterior polyester powder coating
- **Product Safety in Mind** Quality design and build. Guaranteed safe housing closure with rotational safety stop



Third party tested and validated in accordance with HTM 02-01, NFPA 99, ISO 7396-1 and AS 2896





## Technical Specification

9074 Filter Model	Thread	Maximum Rated Flow at Atmospheric pressure		Maximum Rated Flow at an Operating Vacuum (Suction) Pressure of 475 mmHg (63 kPa) [383.25 mbar(a)]				Dimensions mm				Weight Kg	9075 Element Model
		Free Air Aspirated (FAA)		Free Air Aspirated (FAA)		Rarefied Air Flow		A	B	C	D		
		NI/min	SCFM	NI/min	SCFM	L/min	CFM						
A30025MV	1/2"	48	1.7	25	0.9	66	2.3	70	23	231	70	0.6	E30408MV
A30032MV	3/8"	82	2.9	45	1.6	119	4.2	70	23	231	70	0.6	E30408MV
A30050MV	1/2"	187	6.6	105	3.7	278	9.8	70	23	231	70	0.6	E30412MV
A30070MV	1/2"	340	12.0	190	6.7	502	17.7	127	32	285	80	1.7	E30612MV
A30085MV	3/4"	420	14.8	235	8.3	621	21.9	127	32	285	80	1.7	E30612MV
A30105MV	1"	495	17.5	275	9.7	727	25.7	127	32	285	80	1.7	E30612MV
A30175MV	1"	870	30.7	485	17.1	1282	45.3	127	32	370	80	2.0	E30621MV
A30280MV	1.1/4"	1285	45.4	720	25.4	1904	67.2	140	41	476	85	3.0	E30731MV
A30320MV	1.1/2"	1340	47.3	720	26.5	1983	70.0	140	41	476	85	3.0	E30731MV
A30400MV	1.1/2"	1875	66.2	1050	37.1	2776	98.0	170	53	508	100	4.9	E30831MV
A30450MV	2"	1965	69.4	1100	38.8	2908	102.7	170	53	508	100	4.9	E30831MV
A30700MV	2"	2770	97.8	1550	54.7	4098	144.7	170	53	708	100	5.5	E30850MV
A30850MV	2.1/2"	4700	166.0	2630	92.9	6953	245.6	220	70	736	100	10.5	E31140MV
A30900MV	3"	5360	189.3	3000	105.9	7932	280.1	220	70	736	100	10.5	E31140MV
A31250MV	3"	5985	211.4	3350	118.3	8857	312.8	220	70	857	100	11.5	E31160MV
A31500MV	3"	6340	223.9	3550	125.4	9386	331.4	220	70	1005	100	12.5	E31175MV

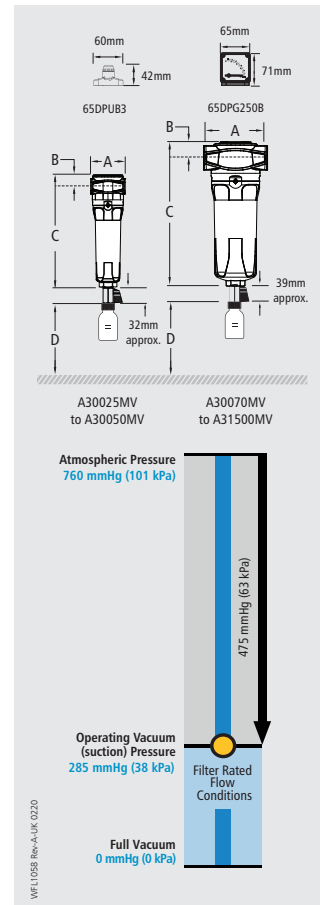
\*NOTE: Rated flows are stated at HTM 02-01 conditions. For flows at other operating vacuum pressures, please consult Walker Filtration Ltd. Operating vacuum (suction) pressure is stated at the filter outlet (i.e. vacuum pump or suction side) Standard (reference) atmosphere: 101.325 kPa (1013.25 mbar(a)), 20°C

Specification	
Grade	MV
Element end cap colour	Black
Particle removal efficiency	> 99.9999% (HTM 02-01 specifies >99.995%)*
Maximum temperature	60°C (140°F)
Pressure loss - clean & dry	≤ 3 kPa (30 mbar / 0.44 psig)
Maximum working pressure	0.5 barg (7 psig)
Maximum working vacuum	Full Vacuum

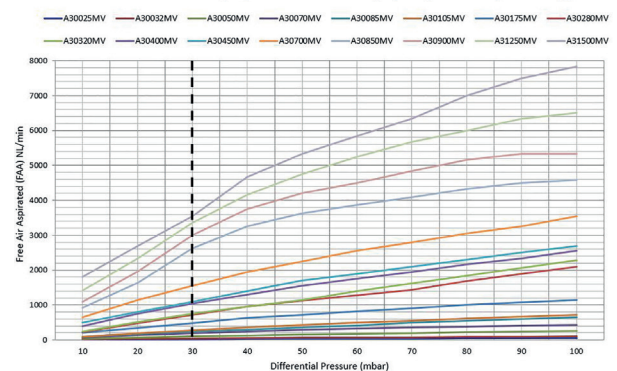
\*In accordance with BS 3928:1969. Fully validated to ISO 7396-1, AS 2896 and NFPA 99. Certificates available on request

### Technical Notes:

- Direction of flow is outside to inside through the element.
- Filter elements should be replaced at least every 6 months.
- Pop Up Indicator (65DPUB3) is fitted to models A30025 to A30050 as standard. Differential pressure gauges (65DPG250B) are fitted to models A30070 to A31500 as standard. Volt free contact options are available.
- Manual drain valves (MDVE25B) are fitted to all models. Sterilisable glass drain flasks are supplied as standard, 100ml for models A30025MV to A30105MV and 250ml for models A30175MV to A31500MV.
- Threaded connections are Rp (BSPP 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 connections, add the suffix 'N' e.g. A30070NMV. For Rc threads add the suffix 'C' e.g. A30070CMV.



Differential Pressure (ΔP) mbar v. Flow Rate (NL/min) at 63kPa (475mmHg)





# SILICONE FREE COALESCING FILTERS



## Alpha Series & Elements

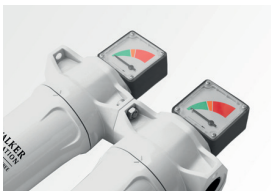
**Models | SF0006 to SF1500**

Flow Rates 6 SCFM (10 Nm<sup>3</sup>/hr) to 1500 SCFM (2550 Nm<sup>3</sup>/hr)

**Our Silicone Free Filters provide exceptional air quality for applications, such as paint spraying and automotive, where silicone free air is required to protect your end products.**

Utilising market leading Alpha filtration performance, our silicone-free range of compressed air and gas filters is manufactured and tested in a controlled environment that ensures silicone is not present on the components used, or introduced into the production process.

Designed with flow optimisation in mind, the Alpha Silicone Free Coalescing Filters deliver exceptional results in oil aerosol and particle retention, removing particles down to 0.01 micron in line with air quality standard ISO 8573-1: 2010. Featuring custom engineered Alpha filter media, the Alpha Silicone Free Filter provides a saturated differential pressure of <125 mbar across X1 and XA grades.



### NEW Modular Filter

Low cost connecting kits and new filter head design enables easy close coupling assembly



### Silicone Free Manufacturing

Manufactured in a controlled environment to ensure silicone is not present or introduced during the production process



### NEW Filtration Technology

Alpha deep pleated media technology delivers a step change in performance

- **Market Leading Performance** Custom engineered filtration media delivers optimum performance in line with air quality standard ISO 8573-1: 2010, and significantly reduced pressure loss of <125 mbar across X1 and XA grades
- **Improved Operational Efficiencies** Deliver improved production and operational efficiencies in your industrial paint plant with market leading silicone-free filtration technology
- **Simplified Serviceability** Externally accessible drain, profiled bowl design, and unique push fit elements ensure quick and reliable maintenance
- **Flow-Optimised Design** Advanced filter head design for optimised flow performance
- **Flexible Installation** Modular design and accessible fixings enable simple close coupling assembly
- **Corrosion Protection** Internal and external electrophoretic paint finish followed by a tough exterior polyester powder coating
- **Product Safety in Mind** Guaranteed safe housing closure with rotational safety stop

**Differential pressure of <125 mbar across X1 and XA grades**





## Technical Specification

9062 Filter Model	Thread	Inlet flow rate*		Dimensions mm				Weight Kg	9068 Element Model
		Nm <sup>3</sup> /hr	SCFM	A	B	C	D		
SF0006 (grade)	1/8"	10	6	50	17	157	60	0.3	ESF0306 (grade)
SF0015 (grade)	1/4"	25	5	50	17	157	60	0.3	ESF0306 (grade)
SF0025 (grade)	1/4"	42	25	70	23	231	70	0.6	ESF0408 (grade)
SF0032 (grade)	3/8"	54	32	70	23	231	70	0.6	ESF0408 (grade)
SF0050 (grade)	1/2"	85	50	70	23	231	70	0.6	ESF0412 (grade)
SF0070 (grade)	1/2"	119	70	127	32	285	80	1.7	ESF0612 (grade)
SF0085 (grade)	3/4"	144	85	127	32	285	80	1.7	ESF0612 (grade)
SF0105 (grade)	1"	178	105	127	32	285	80	1.7	ESF0612 (grade)
SF0125 (grade)	3/4"	212	125	127	32	370	80	2.0	ESF0621 (grade)
SF0175 (grade)	1"	297	175	127	32	370	80	2.0	ESF0621 (grade)
SF0280 (grade)	1.1/4"	476	280	140	41	476	85	3.0	ESF0731 (grade)
SF0320 (grade)	1.1/2"	544	320	140	41	476	85	3.0	ESF0731 (grade)
SF0400 (grade)	1.1/2"	680	400	170	53	508	100	4.9	ESF0831 (grade)
SF0450 (grade)	2"	765	450	170	53	508	100	4.9	ESF0831 (grade)
SF0700 (grade)	2"	1189	700	170	53	708	100	5.5	ESF0850 (grade)
SF0850 (grade)	2.1/2"	1444	850	220	70	736	100	10.5	ESF1140 (grade)
SF0900 (grade)	3"	1529	900	220	70	736	100	10.5	ESF1140 (grade)
SF1250 (grade)	3"	2125	1250	220	70	857	100	11.5	ESF1160 (grade)
SF1500 (grade)	3"	2550	1500	220	70	1005	100	12.5	ESF1175 (grade)

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

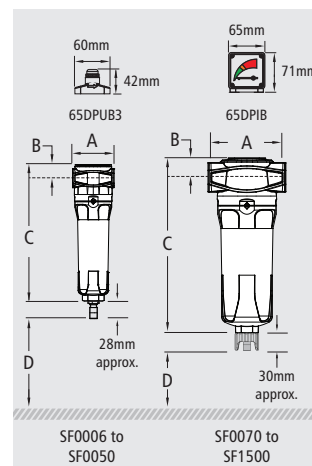
Specification										
Grade	X25		X5		X1		XA		AC	
Particle removal	25 micron		5 micron		1 micron		0.01 micron		0.01 micron	
Maximum particle size class**	-		4		3		1		1	
Maximum oil content**	-		4		3		1		1	
Maximum oil carryover at 20°C (68°F)	10 mg/m <sup>3</sup>		5 mg/m <sup>3</sup>		0.3 mg/m <sup>3</sup>		0.01 mg/m <sup>3</sup>		0.003 mg/m <sup>3</sup>	
Pressure loss - clean & dry	30 mbar	0.4 psi	40 mbar	0.6 psi	55 mbar	0.8 psi	85 mbar	1.2 psi	115 mbar	1.7 psi
Pressure loss - saturated	50 mbar	0.7 psi	75 mbar	1.1 psi	125 mbar	1.8 psi	125 mbar	1.8 psi	N/A	N/A
Pressure loss - element change	12 mths	8000 hrs	12 mths	8000 hrs	12 mths	8000 hrs	12 mths	8000 hrs	at least every 6 mths	
Maximum temperature	80°C	176°F	80°C	176°F	80°C	176°F	80°C	176°F	50°C***	122°F***
Maximum working pressure - automatic drain valves	16 barg	232 psig	16 barg	232 psig	16 barg	232 psig	16 barg	232 psig	16 barg	232 psig
Maximum working pressure - manual drain valve	20.7 barg	300 psig	20 barg	300 psig	20 barg	300 psig	20 barg	300 psig	20 barg	300 psig
Element end cap colour	Black									

\*\*\* 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)	20.7 (300)
7 barg - correction factor	0.76	0.84	0.92	1	1.07	1.19	1.31	1.41	1.51	1.73

### Technical Notes:

- Direction of air flow is inside to out through the filter element.
- Pop Up Indicators (65DPUB3) are fitted to models SF0025 to SF0050. Differential Pressure Indicators (65DPPIB) are fitted to models SF0070 to SF1500. Activated Carbon (AC) grade filters do not include DP equipment. Volt free contact options are available upon request.
- Coalescing Filters are fitted as standard with normally open float operated Automatic Drain Valves, ADVS16 on models SF0006 to SF0050 and ADVSE16B on models SF0070 to SF1500. Standard filters can operate at 16 barg (232 psig) at 80°C (176°F). Normally closed Automatic Drain Valves (ADVS16C) are available for low flow applications. 20.7 barg (300 psig) range at 120°C (248°F) available when supplied with a Manual Drain Valve (MDV25 / MDVE25B).
- 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. SF0070NXA, and for Rc threads add the suffix C e.g. SF0070CXA.
- Filters are suitable for use with mineral and synthetic oils plus oil-free compressed air applications.
- 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.
- These filters are manufactured and tested in a controlled environment to ensure that traces of silicone or paint wetting impairment substances (PWIS) are not present on the components used, or unintentionally introduced during the production process. While the product itself does not contain significant traces of such substances, they are not designed to remove pre-existing silicone contaminants from the air stream.







# THERE IS AN ALTERNATIVE...

## Alternative Elements

Alternative Elements | Parker dh Advantage and Evolution Range

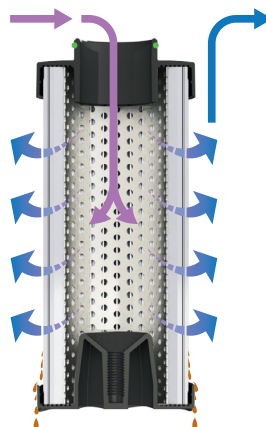
**Alternative filter elements have been independently tested in accordance with ISO 12500 to guarantee exceptional performance levels.**

All alternative elements manufactured by Walker Filtration are designed to fit into original filter housings - providing a highly credible, reliable and energy efficient alternative.

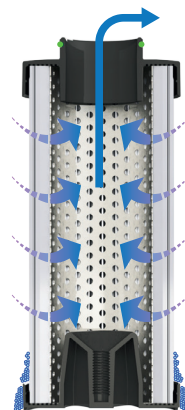
Custom engineered media delivers outstanding filtration performance in both oil aerosol and particulate removal applications, whilst minimising differential pressure.

### Features and Benefits:

- Deep bed pleated media provides greater dirt holding capacity
- Provides significantly more surface area
- Large open inlet enhances flow and reduces pressure differential across the element
- Maximum operating temperature of 120°C. Delivering a higher operating temperature than the original standard element
- Engineered to deliver outstanding filtration performance
- Custom polyester drainage layer with hydrophobic properties
- Lower differential pressure increases service life to improve energy saving
- Self-centralising, easy, tie rod locators incorporated in design



Grades PX1 and PXA, flows inside to out



Dust Grades PRX1 and PRXA, flows outside to in



**Deep bed pleated media** provides significantly more surface area for particulate removal

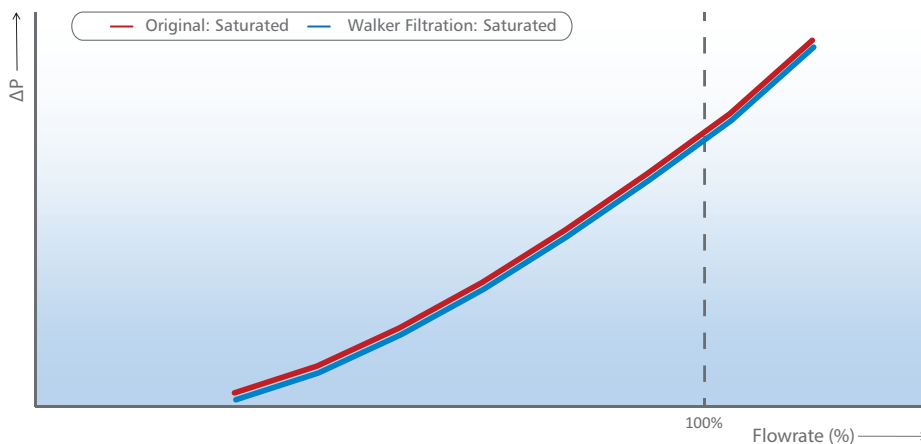


**Customised materials** with hydrophobic and oleophobic drainage layer to improve coalescence



**Increased top end cap opening** reduces differential pressure and provides optimised flow path

## Performance Analysis



## The Eco friendly alternative

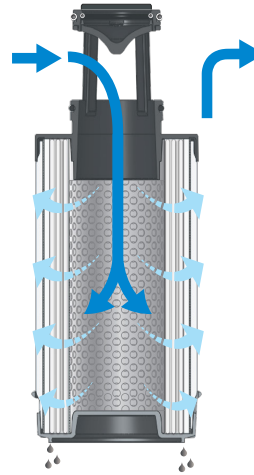




## Alternative Elements

### Features and Benefits:

- Internal and external O-rings ensuring complete operation use of the original differential pressure gauge
- Unique top end cap provides an optimum flow path and allows complete operational use of the original differential pressure gauge
- Large open inlet enhances flow and reduces differential pressure
- No support arms provides a clear airflow, lowering pressure drop
- Deep pleated media provides greater dirt holding capacity
- Self-centralising bottom end cap secures element in place
- Drainage apertures for reduced wet band
- Breaker rim protects drain from oil contamination



**Top end cap**  
provides an optimum flow path, reducing system operating costs.

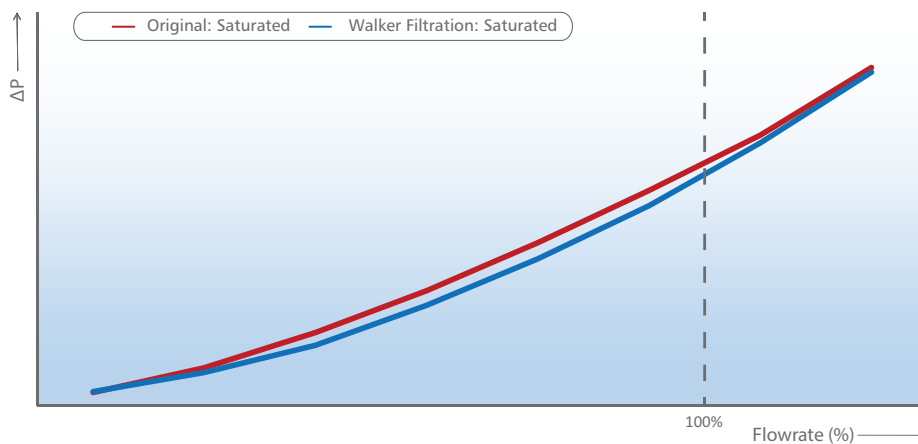


**Deep bed pleated media**  
provides significantly more surface area and greater dirt holding capacity.



**Bottom end cap**  
apertures enhance wet band drainage.

## Performance Analysis







## Advantage Alternative

Table shows original equipment performance claims as published by manufacturer (Parker domnick hunter). Walker Filtration Ltd. guarantees performance of alternative filter elements to be equal to or exceeding that of the original filter element when placed in service under identical conditions.

Grade	PX1		PXA		PRX1		PRXA		ACS	
<b>Parker Domnick Hunter grade</b>	AO		AA		AR		AAR		ACS	
<b>Particle removal</b>	1 micron		0.01 micron		1 micron		0.01 micron		-	
<b>Filter type</b>	Coalescing		Coalescing		Dry Particulate		Dry Particulate		Oil Vapour & Odours	
<b>Maximum oil carryover (21°C / 70°F)*</b>	0.6 mg/m³ 0.5 ppm(w)		0.01 mg/m³ 0.01 ppm(w)		-		-		<0.003 mg/m³ <0.003 ppm(w)	
<b>Pressure loss - clean and dry</b>	~ 70 mbar	1 psi	~ 140 mbar	2 psi	~ 70 mbar	1 psi	~ 100 mbar	1.5 psi	~ 70 mbar	1.5 psi
<b>Pressure loss - saturated (initial)</b>	~ 140 mbar	2 psi	~ 200 mbar	3 psi	-	-	-	-	-	-
<b>Maximum temperature</b>	100°C		100°C		100°C		100°C		100°C	

\* Under normal operating conditions. Elements should be changed every 12 months. In the case of ACS, Elements should be changed when oil vapour or odour is detected

### Grade PX1 - 1 Micron

9068	Replaces
D009 PX1	K009AO
D017 PX1	K017AO
D030 PX1	K030AO
D058 PX1	K058AO
D145 PX1	K145AO
D220 PX1	K220AO
D330 PX1	K330AO
D430 PX1	K430AO
D620 PX1	K620AO

### Grade PXA - 0.01 Micron

9068	Replaces
D009 PXA	K009AA
D017 PXA	K017AA
D030 PXA	K030AA
D058 PXA	K058AA
D145 PXA	K145AA
D220 PXA	K220AA
D330 PXA	K330AA
D430 PXA	K430AA
D620 PXA	K620AA

### Grade PRX1 - 1 Micron

9068	Replaces
D009 PRX1	K009AR
D017 PRX1	K017AR
D030 PRX1	K030AR
D058 PRX1	K058AR
D145 PRX1	K145AR
D220 PRX1	K220AR
D330 PRX1	K330AR
D430 PRX1	K430AR
D620 PRX1	K620AR

### Grade PRXA - 0.01 Micron

9068	Replaces
D009 PRXA	K009AAR
D017 PRXA	K017AAR
D030 PRXA	K030AAR
D058 PRXA	K058AAR
D145 PRXA	K145AAR
D220 PRXA	K220AAR
D330 PRXA	K330AAR
D430 PRXA	K430AAR
D620 PRXA	K620AAR

### Grade ACS - Activated carbon

9068	Replaces
D009 ACS	K009ACS
D017 ACS	K017ACS
D030 ACS	K030ACS
D058 ACS	K058ACS
D145 ACS	K145ACS
D220 ACS	K220ACS
D330 ACS	K330ACS
D430 ACS	K430ACS
D620 ACS	K620ACS

## Evolution Alternative

Table shows original equipment performance claims as published by manufacturer (Parker Domnick Hunter). Walker Filtration Ltd. guarantees performance of alternative filter elements to be equal to or exceeding that of the original filter element when placed in service under identical conditions.

Grade	EX1		EXA		ERX1		ERXA		EACS	
<b>Parker Domnick Hunter grade</b>	AO		AA		AR		AAR		ACS	
<b>Particle removal</b>	1 micron		0.01 micron		1 micron		0.01 micron		-	
<b>Filter type</b>	Coalescing		Coalescing		Dry Particulate		Dry Particulate		Oil Vapour & Odours	
<b>Maximum oil carryover (21°C / 70°F)*</b>	0.6 mg/m³ 0.5 ppm(w)		0.01 mg/m³ 0.01 ppm(w)		-		-		<0.003 mg/m³ <0.003 ppm(w)	
<b>Pressure loss - clean and dry</b>	~ 70 mbar	1 psi	~ 140 mbar	2 psi	~ 70 mbar	1 psi	~ 140 mbar	2 psi	~ 200 mbar	3 psi
<b>Pressure loss - saturated (initial)</b>	~ 140 mbar	2 psi	~ 200 mbar	3 psi	-	-	-	-	-	-
<b>Maximum temperature</b>	100°C		100°C		100°C		100°C		50°C	

\* Under normal operating conditions. Elements should be changed every 12 months. In the case of ACS, Elements should be changed when oil vapour or odour is detected

### Grade EX1 - 1 Micron

9068	Replaces
D005 EX1	005AO
D010 EX1	010AO
D015 EX1	015AO
D020 EX1	020AO
D025 EX1	025AO
D030 EX1	030AO
D035 EX1	035AO
D040 EX1	040AO
D045 EX1	045AO
D050 EX1	050AO
D055 EX1	055AO
D060 EX1	060AO
D100 EX1	100AO

### Grade EXA - 0.01 Micron

9068	Replaces
D005 EXA	005AA
D010 EXA	010AA
D015 EXA	015AA
D020 EXA	020AA
D025 EXA	025AA
D030 EXA	030AA
D035 EXA	035AA
D040 EXA	040AA
D045 EXA	045AA
D050 EXA	050AA
D055 EXA	055AA
D060 EXA	060AA
D100 EXA	100AA

### Grade ERX1 - 1 Micron

9068	Replaces
D005 ERX1	005AR
D010 ERX1	010AR
D015 ERX1	015AR
D020 ERX1	020AR
D025 ERX1	025AR
D030 ERX1	030AR
D035 ERX1	035AR
D040 ERX1	040AR
D045 ERX1	045AR
D050 ERX1	050AR
D055 ERX1	055AR
D060 ERX1	060AR
D100 ERX1	100AR

### Grade ERXA - 0.01 Micron

9068	Replaces
D005 ERXA	005AAR
D010 ERXA	010AAR
D015 ERXA	015AAR
D020 ERXA	020AAR
D025 ERXA	025AAR
D030 ERXA	030AAR
D035 ERXA	035AAR
D040 ERXA	040AAR
D045 ERXA	045AAR
D050 ERXA	050AAR
D055 ERXA	055AAR
D060 ERXA	060AAR
D100 ERXA	100AAR

### Grade EACS - Activated carbon

9068	Replaces
D005 EACS	005ACS
D010 EACS	010ACS
D015 EACS	015ACS
D020 EACS	020ACS
D025 EACS	025ACS
D030 EACS	030ACS
D035 EACS	035ACS
D040 EACS	040ACS
D045 EACS	045ACS
D050 EACS	050ACS
D055 EACS	055ACS
D060 EACS	060ACS
D100 EACS	100ACS





## Filtration

### Walker Filtration Breathable Air Systems | BA3022 to BA3031

Flow rates 15 scfm (25Nm<sup>3</sup>/h) to 30 scfm (50Nm<sup>3</sup>/h)

**Due to the increasing demand for improved environmental and safety control, Walker Filtration have compiled a comprehensive range of wall mounted and portable breathable air systems.**

Designed to suit 2 and 4 port breathable air installations, these purification packages offer exceptional dirt holding capacity and can be installed where safe, breathable compressed air is required.

The filter packages offer filtration and oil removal efficiencies down to 0.01 micron particulate size and maximum oil carryover efficiencies to 0.003 mg/m<sup>3</sup> (0.003 ppm) offering the operator clean, particulate and liquid oil free air with the added benefit of taste and odour removal for improved user comfort and performance.



#### Modular Construction

New filter head design enables easy close coupling assembly



#### Two-Stage Filtration

DXA and DAC elements for double the filtration performance



#### Flexible Installation

Wall or Frame Mounted options available



- Diving
- Welding



- Shot blasting
- Spray painting



- Mining
- Tunnelling



- Tank cleaning
- Asbestos removal







## Technical Specification

9062 Filter Model	Pipe Size	Inlet Flow rate*		Dimensions mm				Weight Kg	No. of outlets	9068 Element Model
		Nm <sup>3</sup> /hr	SCFM	A	B	C	D			
BA3022W	1/4"	25	15	253	236	428	75	4.6	2 at 3/8"	E30408XA/E30408DAC
BA3022WH	1/4"	25	15	394	377	428	99	4.6	2 at 3/8"	E30408XA/E30408DAC
BA3022F	1/4"	25	15	495	N/A	507	516	4.6	2 at 3/8"	E30408XA/E30408DAC
BA3022FH	1/4"	25	15	495	N/A	507	516	4.6	2 at 3/8"	E30408XA/E30408DAC
BA3031W	3/8"	50	30	333	316	428	75	6.6	4 at 3/8"	E30408XA/E30408DAC
BA3031WH	3/8"	50	30	474	457	428	99	6.6	4 at 3/8"	E30408XA/E30408DAC
BA3031F	3/8"	50	30	495	N/A	507	516	6.6	4 at 3/8"	E30408XA/E30408DAC
BA3031FH	3/8"	50	30	495	N/A	507	516	6.6	4 at 3/8"	E30408XA/E30408DAC

9077 Model	Description
BAF1	Stand alone frame assembly suitable for Rp 1/4 to Rp 3/8 filter assemblies
WKN40178	Air pressure regulator and pressure gauge
LPA1	Audible alarm for low inlet air pressure condition
WKN40180	Manifold two port version
WKN40179	Manifold four port version

Specification		
Particle removal	0.01 micron	
Maximum oil carryover at 20°C (68°F)	0.003 mg/m <sup>3</sup>	0.003 ppm
Maximum temperature	50°C *	122°F *
Maximum working pressure	10 barg	145 psig

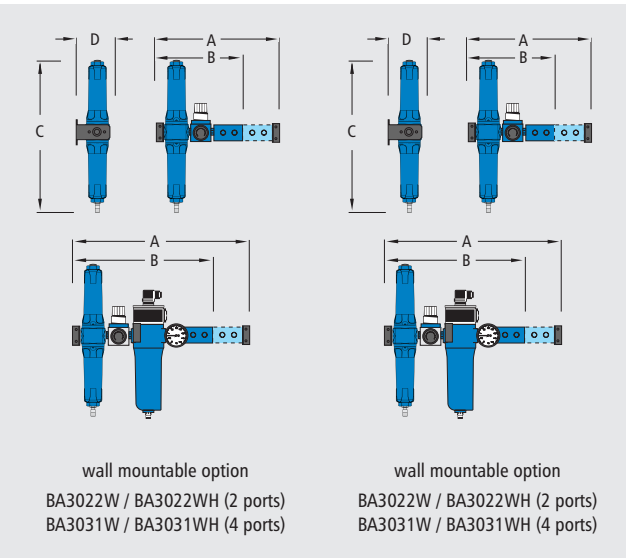
\* Recommended operating temperature 25°C (77°F)

### Ordering Information:

- BA3022W or BA3031W: wall mounting option with Duplex Filter.
- BA3022WH or BA3031WH: wall mounting option with Duplex Filter and Compressed Air Heater.
- BA3022F or BA3031F: Duplex Filter mounted onto a portable frame.
- BA3022FH or BA3031FH: Duplex Filter and Compressed Air Heater mounted onto a portable frame.

### Technical Notes:

- Additional filtration including a water separator is required.
- Duplex filters offer 2 stage filtration within one filter unit. Each filtration package provides an XA (0.01 micron) 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 (0.01 micron) grade filter element and outside to in through activated carbon AC grade filter element.
- Breathable air filters include float operated drains as standard. ADVS16 on Duplex Filters and SDV25 on heaters.
- Self relieving air pressure regulators are used with 0 to 16 barg (0 to 232 psig) Pressure Gauges and can control the outlet air pressure between 2 and 10 barg (29 and 145 psig).





## Filtration

### Models | A30015MS to A31500MS

Flow Rates 15 SCFM (25 Nm<sup>3</sup>/hr) to 1500 SCFM (2550 Nm<sup>3</sup>/hr)

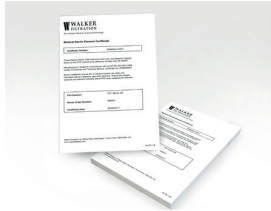
When it comes to patient care, quality and reliability of compressed air is paramount. Walker Filtration's range of Alpha Medical Sterile Filters guarantees reliable and outstanding air purity that meets internationally certified medical performance levels.

100% integrity tested, Alpha Medical Sterile elements are guaranteed for a minimum of 100 sterilisations at 120°C (248°F), ensuring your compressed air is free from live bacteria and other submicron particles.



#### Stainless Steel End Caps

Specially designed for autoclave sterilisation compatibility



#### 100% Integrity Tested

Each element is supplied with an Air Sterilisation Certificate to guarantee the highest quality to our customers



#### Product Safety in Mind

Lock indication arrows assure effective sealing

- **International Validation** Designed to exceed the requirements of HTM 02-01 medical gas pipeline systems
- **Simplified Serviceability** Ribbed 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 polyester powder coating
- **Flexible Installation** Modular design and accessible fixings enable simple close coupling assembly
- **Robust and Sterilisable Materials** Manufactured from cast aluminium alloy for enhanced strength and protection



Designed to exceed  
the requirements of  
UK Health Technical  
Memorandum,  
HTM 02-01







## Technical Specification

9074 Filter Model	Pipe Size	Inlet Flow rate*		Dimensions mm				Weight Kg	9075 Element Model
		Nm <sup>3</sup> /hr	SCFM	A	B	C	D		
A30015MS	1/4"	25	15	50	17	157	60	0.3	E30306SR
A30025MS	1/4"	42	25	70	23	231	70	0.6	E30408SR
A30032MS	3/8"	54	32	70	23	231	70	0.6	E30408SR
A30050MS	1/2"	85	50	70	23	231	70	0.6	E30412SR
A30070MS	1/2"	119	70	127	32	285	80	1.7	E30612SR
A30085MS	3/4"	144	85	127	32	285	80	1.7	E30612SR
A30175MS	1"	297	175	127	32	370	80	2.0	E30621SR
A30280MS	1.1/4"	476	280	140	41	476	85	3.0	E30731SR
A30320MS	1.1/2"	544	320	140	41	476	85	3.0	E30731SR
A30400MS	1.1/2"	680	400	170	53	508	100	4.9	E30831SR
A30450MS	2"	765	450	170	53	508	100	4.9	E30831SR
A30700MS	2"	1189	700	170	53	708	100	5.5	E30850SR
A30850MS	2.1/2"	1444	850	220	70	736	100	10.5	E31140SR
A30900MS	3"	1529	900	220	70	736	100	10.5	E31140SR
A31250MS	3"	2125	1250	220	70	857	100	11.5	E31160SR
A31500MS	3"	2550	1500	220	70	1005	100	12.5	E31175SR

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

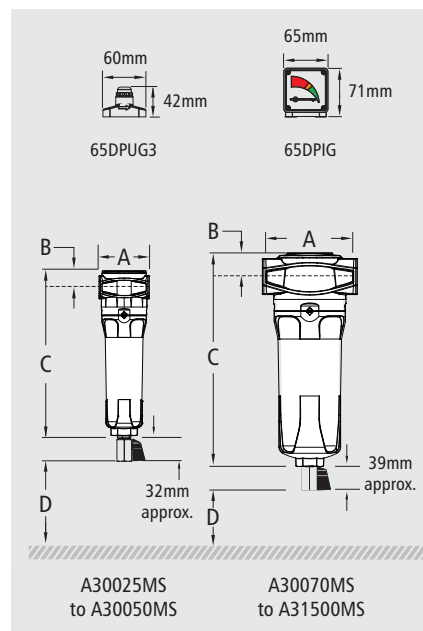
Grade	SR	
DOP efficiency**	>99.9999%	
Particle removal	0.01 micron	
Maximum operating temperature	120°C	248°F
Recommended operating temperature	50°C	122°F
Maximum autoclave temperature	134°C	273°F
Pressure Loss - clean & dry	100 mbar	1.5 psi
Maximum working pressure	20.7 barg	300 psig
Element end cap material	Stainless steel	

\*\* As specified in HTM 02-01 medical gas pipeline systems

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)	20.7 (300)
7 barg – correction factor	0.76	0.84	0.92	1.00	1.07	1.19	1.31	1.41	1.51	1.73

### Technical Notes:

- Filter element end caps are stainless steel.
- Direction of air flow is outside to in through the filter element.
- Pop up indicators (65DPUG3) are fitted to models A30025MS to A30050MS as standard. Differential pressure indicators (65DPiG) are fitted to models A30070MS to A31500MS as standard.
- Manual drain valves (MDV25 on models A30015MS to A30050MS and MDVE25 on models A30070MS to A31500MS) are fitted as standard.
- Medical Sterile Filter elements must not operate in water or oil saturated conditions.
- Maximum steam sterilising autoclave temperature refers to the filter element ONLY. Grade SR filter elements can be steam sterilised 100 times. Each element must be autoclaved before commencement of duty.
- Pre-filtration should be used in conjunction with 0.01 micron sterile filters.
- Threaded filters are manufactured from cast aluminium alloy and are PED 2014/68/EU compliant for group 2 gases.
- Standard 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., A30070NMS, and for Rc threads add the suffix C, e.g. A30070CMS.
- Filter elements should be changed at least every 6 months.
- Filters are suitable for use in dry air conditions only, as any liquids passing through the filter could carry bacteria and compromise sterility.





## Dryers

### Walker Filtration's range of lower flow Desiccant Dryers | PD004 to PD035

Flow rates 4 scfm (7 Nm<sup>3</sup>/hr) to 35 scfm (59 Nm<sup>3</sup>/hr)

**With flow rates from 4 – 35 scfm, our range of lower flow PRODRY models provide a proven solution for compressed air drying and are ideal for smaller point of use applications.**

Designed to deliver optimum performance in line with the highest standards of air purity, as specified in ISO 8573-1: 2010, PRODRY models PD004 to PD035 are supplied as standard with XA grade 0.01 micron coalescing filter.

With a compact design and multi-ported manifold the dryer can be installed vertically and horizontally, providing a flexible solution to your compressed air drying needs. This highly reliable, high efficiency range of dryers features in-built energy management, allowing the purge flow to be isolated during periods of low demand for efficient use of compressed air. Whatever your application requirement, PRODRY delivers a compressed air drying solution you can trust.



**0.01 Micron XA Pre-Filter**  
Supplied as standard

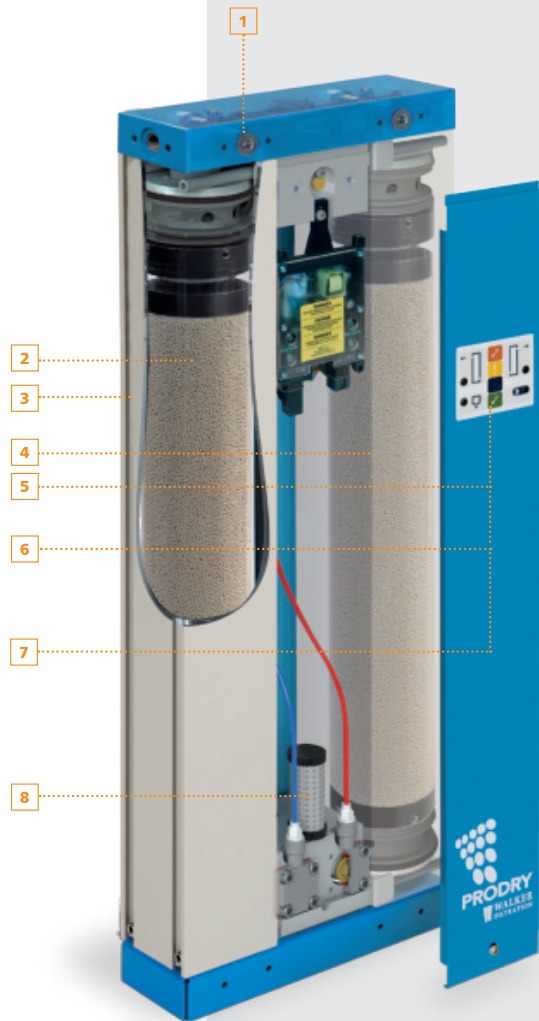


**LED Controller**  
Supplied as standard



**1 Micron X1 Dust Filter**  
Integrated into  
Desiccant Cartridge

- |   |   |
|---|---|
| <p><b>1</b> Multi-ported manifold and compact design allows for flexible installation</p> <p><b>2</b> Controlled desiccant bed geometry ensures consistent and reliable dew point performance</p> <p><b>3</b> Anodised aluminium extrusions provides corrosion protection</p> <p><b>4</b> Desiccant columns can be removed for quick and efficient change out</p> | <p><b>5</b> PD004 to PD035 feature 16 barg standard operating pressure</p> <p><b>6</b> Intelligent LED controller with built-in energy management (supplied as standard)</p> <p><b>7</b> Energy management feature isolates purge flow low during periods of low demand</p> <p><b>8</b> Internal Walker Filtration designed silencer reduces noise levels below 85dBA</p> |
|---|---|







## Technical Specification

9074 Dryer Model	Pipe Size	Inlet Flow rate*		Dimensions mm						Weight Kg	No. of cartridges	Included Filter Model
		Nm³/hr	SCFM	A	B	C	D	E	F			
PD004	3/8"	7	4	445	280	92	22	160	415	13.0	2	A30032XA
PD006	3/8"	10	6	504	280	92	22	160	475	14.0	2	A30032XA
PD008	3/8"	14	8	564	280	92	22	160	535	15.0	2	A30032XA
PD010	3/8"	17	10	634	280	92	22	160	605	17.0	2	A30032XA
PD015	3/8"	25	15	814	280	92	22	160	785	20.0	2	A30032XA
PD025	3/8"	42	25	1204	280	92	22	160	1035	24.0	2	A30032XA
PD035	3/8"	59	35	1569	280	92	22	160	1430	31.0	2	A30032XA

\* Stated flows are for an inlet pressure of 7 barg (100 psig) with reference to 20°C, 1 barg (abs.), 0% relative water vapour pressure. For flow at other pressures apply the appropriate correction factors, terms and dew point.

Specification		
Standard pressure dew point	-40°C*	-40°F*
Optional pressure dew point ISO Class (ISO 8573-1:2010)	-70°C**	-94°F*
Electric control	12V DC - 24V DC or 100 - 240 V AC at 50 - 60Hz	
Minimum inlet temperature	1.5°C	34°F
Maximum inlet temperature	50°C	122°F
Minimum working pressure	4 barg	58 psig
Maximum working pressure	16 barg	232 psig

\* ISO Class 2 (ISO 8573-1:2010)

\*\* ISO Class 1 (ISO 8573-1:2010)

### Technical Notes:

- Models PD004 – PD035 supplied complete with XA (0.01 micron) pre-filter.
- An appropriate Water Separator must be installed. If bulk water enters the adsorption dryer it can cause heat expansion to the desiccant, substantial rise in the dryer differential pressure, lead to poor outlet dew point and cause potential dryer failure. Dryer warranty will be deemed invalid if a high efficiency Water Separator with an efficient condensate drain is not used.
- All dryer applications and sizing should be confirmed by Walker Filtration. Please contact nearest sales team for information on recommended sizing and air quality for your application need.
- Models PD004 – PD035 feature easy removable desiccant cartridges with integral 1 micron Dust Filter.
- For additional security, Walker Filtration recommends fitting an RX1 (1 micron) Dust Filter to the outlet.
- High Performance Cartridges are required for applications where -70°C/-94°F dew points are required.

## PRODRY Sizing Example

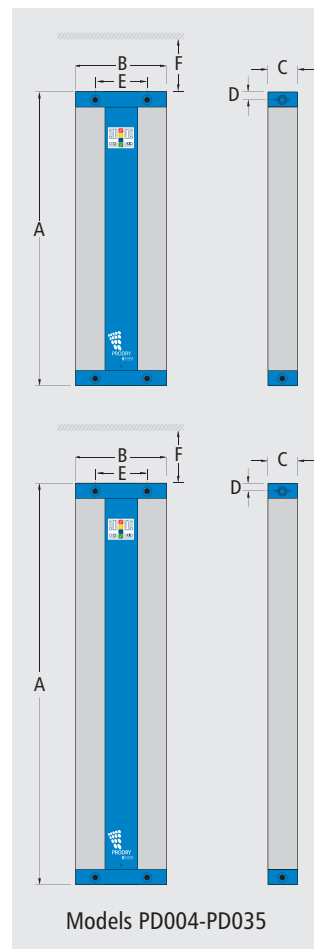
To correctly select the PRODRY model suitable for your application the following information is required:  
Minimum Inlet Pressure, Maximum Inlet Temperature, Maximum Inlet Flow and Required Pressure Dew Point (PDP).

Requirements		Correction Factor
Maximum compressor inlet flow	15 scfm	-
Actual minimum inlet pressure to the dryer	6 barg	PCF = 0.87
Maximum inlet temperature	25°C (77°F)	TCF = 1.06
Pressure dew point (PDP)	-70°C (-94°F)	DCF = 0.7
Corrected dryer flow rate	$\frac{\text{Inlet flow rate}}{\text{PCF} \times \text{TCF} \times \text{DCF}} = \frac{15}{(0.87 \times 1.06 \times 0.7)} = \frac{23.2 \text{ scfm}}{(39 \text{ Nm}^3/\text{hr})}$	
Appropriate dryer size	Dryer model is selected based on the corrected flow rate, i.e. PD0025	

Operating pressure (PCF)															
barg	4	5	6	7	8	9	10	11	12	13	14	15	16		
psig	58	72	87	100	116	130	145	160	174	189	203	218	232		
Correction factor	0.62	0.75	0.87	1.00	1.12	1.25	1.37	1.50	1.62	1.75	1.87	2.00	2.12		

Temperature (TCF)						
Celcius °C	20	25	30	35	40	45
Fahrenheit °F	68	77	86	95	104	113
Correction Factor	1.07	1.06	1.04	1.00	0.88	0.78

Pressure Development (DCF) <sup>6,3</sup>		
Celcius °C	20	25
Fahrenheit °F	68	77
Correction Factor	1.07	1.06





## Dryers

### Introducing a New Generation of Desiccant Dryers | PD0046 to PD0360

Flow rates 45 scfm (77 Nm<sup>3</sup>/hr) to 360 scfm (612 Nm<sup>3</sup>/hr)

The all new Walker Filtration PRODRY models feature major design changes that deliver significant energy savings, dramatically reduced service times and optimum performance across the range.

Tested and validated to international standards, PRODRY's multi-voltage capabilities allow for worldwide installation.

Now with the option to upgrade to advanced dew point management for even greater operating efficiency - whatever your application requirement, PRODRY's optimum performance delivers a compressed air drying solution you can trust.



#### Unique Purge Plug

Select orifice size to suit changing pressure requirements

(Patent Pending)



#### Tower Pressure Gauges

Clearly visible diagnostics for accurate pressure readings



#### Optional DMC Controller

Advanced dew point management & energy savings

- |   |  |
|---|--|
| <p><b>1</b> Dew point management sensor (hygrometer) increases operating efficiency up to 81% (fitted with DMC controller)</p> <p><b>2</b> Top loading cartridge design and lifting handle for fast and efficient servicing</p> <p><b>3</b> Compact modular design with built-in lifting hook</p> <p><b>4</b> Multi-ported manifold for flexible installation</p> | <p><b>5</b> Advanced desiccant blend delivers optimised dew point and improved performance</p> <p><b>6</b> Intelligent LED controller with built-in energy management (supplied as standard)</p> <p><b>7</b> Anodised aluminium extrusions provides corrosion protection</p> <p><b>8</b> Externally fitted silencers for dramatically reduced service time</p> |
|---|--|



\* Operating efficiency and energy savings based upon installing a DMC controller and running with a flow of 360 scfm (612Nm<sup>3</sup>/hr) at 7 barg (100 psig) inlet pressure and 35°C (95°F) inlet temperature, operating at 10% load for 6000 hours.

Optional Dewpoint Management Control delivering up to **81%** increase in operating efficiency and annual energy savings\*







## Technical Specification

9074 Dryer Model	Pipe Size	Inlet Flow rate*		Dimensions mm						Weight Kg	No. of cartridges	9074 Recommended Filter Model	9074 Model with Dew Point Management Control**
		Nm <sup>3</sup> /hr	SCFM	A	B	C	D	E	F				
PD0046	1"	77	45	655	380	310	76	50	600	46	2	A30050	PD0046DMC
PD0056	1"	94	55	735	380	310	76	50	700	51	2	A30070	PD0056DMC
PD0075	1"	128	75	905	380	310	76	50	850	62	2	A30085	PD0075DMC
PD0090	1"	153	90	1030	380	310	76	50	1000	70	2	A30105	PD0090DMC
PD0110	1"	187	110	1260	380	310	76	50	700	85	4	A30105	PD0110DMC
PD0150	1"	255	150	1595	380	310	76	50	850	105	4	A30175	PD0150DMC
PD0180	1"	306	180	1845	380	310	76	50	1000	122	4	A30175	PD0180DMC
PD0220	1.1/2"	374	220	1260	380	490	76	62	700	154	8	A30280	PD0220DMC
PD0300	1.1/2"	510	300	1596	380	490	76	62	850	195	8	A30400	PD0300DMC
PD0360	1.1/2"	612	360	1845	380	490	76	62	1000	225	8	A30400	PD0360DMC

\* Stated flows are for an inlet pressure of 7 barg (100 psig) with reference to 20°C, 1 barg (abs.), 0% relative water vapour pressure.

For flow at other pressures apply the appropriate correction factors, terms and dew point.

\*\* For full dew point management control state 'DMC' with dew point Sensor (hygrometer) when asked what controller type you require upon placing your order.

Specification		
Standard pressure dew point	-40°C	-40°F
Optional pressure dew point	-20°C	-4°F
	-74°C	-100°F
Minimum working pressure	4 barg	58 psig
Maximum working pressure	13 barg	188.5 psig
Electronic control (LED)	115 or 230 V AC at 50-60Hz	
Dew point control (DMC)	24 V DC	
Minimum inlet temperature	1.5°C	35°F
Maximum inlet temperature	50°C	122°F

Operating pressure (PCF)										
barg	4	5	6	7	8	9	10	11	12	13
psig	58	72	87	100	115	130	145	160	174	189
Correction factor	0.62	0.75	0.87	1.00	1.12	1.25	1.37	1.50	1.62	1.75

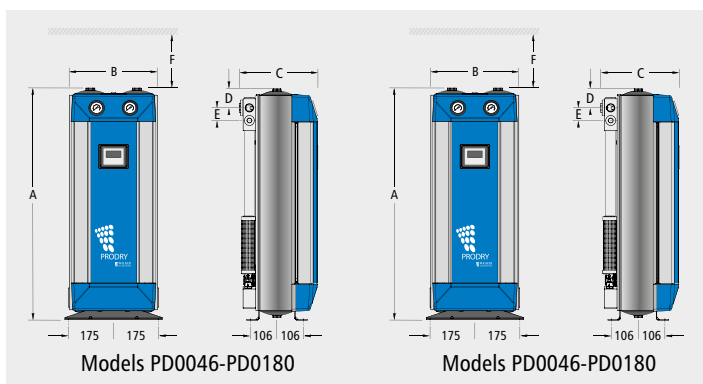
Temperature (TCF)							
Celsius °C	20	25	30	35	40	45	50
Fahrenheit °F	68	77	86	95	104	113	122
Correction Factor	1.30	1.20	1.10	1.00	0.75	0.65	0.45

Pressure Development (DCF)			
Celsius °C	-20	-30	-40
Fahrenheit °F	-4	-22	-40
Correction Factor	1.23	1.2	1

Pressure Development (DCF) <sup>(1)</sup>		
Celsius °C	-70	-74
Fahrenheit °F	-94	-100
Correction Factor	0.8	0.77

### Technical Notes:

- On Models PD0046 – PD0360 Walker Filtration recommends that an XA (0.01 micron) pre-filter, is installed upstream of the dryer and an RXA (0.01 micron) dust filter is installed downstream of the dryer.
- Walker Filtration Water Separator supplied as standard. Walker Filtration Water Separator must be installed. If bulk water enters the adsorption dryer, it can cause heat expansion to the desiccant, substantial rise in the dryer differential pressure, lead to poor outlet dew point, and cause potential dryer failure.
- All dryer applications and sizing should be confirmed by Walker Filtration. Please contact nearest sales team for information on recommended sizing and air quality for your application need.
- Full Dew Point Management Control (DMC) option includes digital dew point display and dew point sensor (hygrometer), providing advanced dryer control based on outlet dew point.
- Floor fixing dimensions are given in the above illustrations.
- For PRODRY sizing and further information on service kits and accessories.
- High Performance Cartridges are required for applications where -70° and -74°C dew points are required.







# VACUUM PUMP PROTECTION FILTERS

## Filtration

### 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 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







# VACUUM PUMP PROTECTION FILTERS

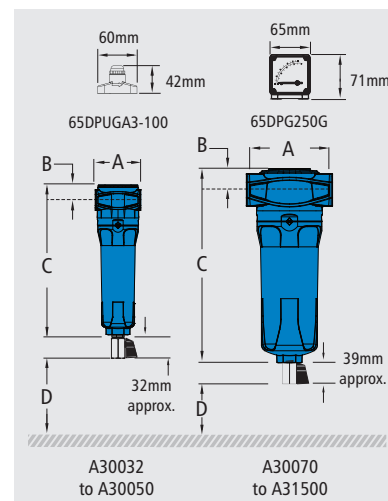
## Technical Specification

9062 Filter Model	Pipe Size	Exhaust Flow Rate (Vacuum Displacement)		Dimensions mm				Weight Kg	9068 Element Model
		Nm <sup>3</sup> /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)

### 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.
- 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 NP SI/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., A30070NVLR, and for Rc threads add the suffix C, e.g. A30070CVLR.
- Filter elements should be changed every 12 months / 8000 hours (whichever comes first).

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





## Filtration

**Models | A30032EF to A31500EF**

Flow Rates 4 SCFM (7 Nm<sup>3</sup>/hr) to 288 SCFM (489 Nm<sup>3</sup>/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 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



### Optimised Filtration Performance

Alpha custom engineered media technology delivers a step change



### 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







# VACUUM PUMP EXHAUST FILTERS

## Technical Specification

9062 Filter Model	Pipe Size	Exhaust Flow Rate (Vacuum Displacement)		Dimensions mm				Weight Kg	9068 Element Model
		Nm <sup>3</sup> /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

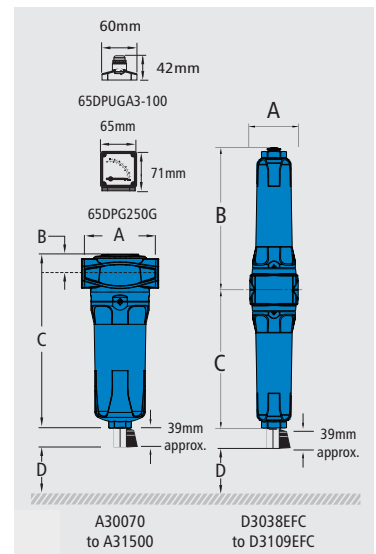
9062 Filter Model	Pipe Size	Exhaust Flow Rate (Vacuum Displacement)		Dimensions mm				Weight Kg	9068 Element Model Exhaust Filter	9068 Element Model Activated Carbon	No. of Elements
		Nm <sup>3</sup> /hr	SCFM	A	B	C	D				
D3038EFC	3/8"	7	4	70	199	204	70	1.0	E30408DEF	E30408DAC	1/1
D3058EFC	1/2"	11	7	70	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

Grade	EF		DAC	
Particle removal	0.1 micron		0.1 micron	
Maximum oil carryover at 20°C (68°F)	1 mg/m <sup>3</sup>		0.003 mg/m <sup>3</sup>	
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.
- 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 (CO<sub>2</sub>).
- 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.





## Elements

Walker Filtration's Autoclave Filter Elements are used to ensure atmospheric air entering an autoclave is both sterile and safe to use, protecting the load from external contamination. They are recommended for use in both medical and industrial applications, during the vacuum break cycle.

Manufactured from corrosion resistant materials and designed to operate in demanding environments, Walker Filtration's Autoclave Filter Elements utilise high performance filtration with 100% sterilising efficiency.

Constructed to an exceptionally high quality standard, our Autoclave Filter Elements remove solid and biological particles down to 0.01 micron. They also exceed efficiencies of conventional HEPA filters and are confirmed in accordance with BS3928 Sodium Flame Test with a penetration of less than 0.001%.

Each filter is supplied with a replaceable outer foam pre-filtration sock which provides protection to the high efficiency media against large atmospheric particles.



- **High Efficiency Filtration** 100% sterilising efficiency and particle removal down to 0.01 micron, exceeding efficiencies of conventional HEPA filters.
- **Corrosion Resistant** Manufactured from corrosion resistant materials and designed to operate in demanding environments
- **High Dirt Holding Capacity** High efficiency borosilicate glass microfiber filter media offers over 95% voids volume providing exceptionally high dirt holding capacity
- **Product Safety in Mind** Quality design in line with requirements of BS EN 285
- **Detachable Pre-filtration Layer** Each filter has a replaceable outer foam pre-filtration sock



Medical

Dental

Pharmaceutical

Instrumentation

Industrial

## Technical Specification

Grade	AF	
Particle removal	0.01 micron	
Penetration at 0.3 micron	<0.005%	
Maximum Operating Temperature (recommended)	273°C	134°F
Element end cap material	Acetal	

### Technical Notes:

1. Autoclave filter elements are manufactured from corrosion resistant materials and are designed specifically to operate in arduous environments.
2. The elements can be steam sterilised at 134°C (273°F) and are guaranteed for up to 50 sterilisation cycles.
3. High efficiency borosilicate glass microfiber filter media offers over 95% voids volume providing exceptionally high dirt holding capacity for long service life.
4. Each autoclave filter element is supplied with a replaceable outer foam pre-filtration sock. This provides protection to the high efficiency microfiber media against large atmospheric dirt particles.
5. Designed to meet the requirements of BS EN 285.
6. Remove and replace sock when steam sterilising.
7. The autoclave filter can be steam sterilised allowing the filter to be re-used, simply remove the outer foam pre-filtration sock before steam sterilising the filter, and replace with a new pre-filtration sock once sterilisation is complete.



### Filter Elements

9062	Thread	Flow rate		Dimensions mm			Weight	
		Nm <sup>3</sup> /hr	SCFM	A	B	C	lbs	Kg
AF1	1/2"	20	12	83	23	103	0.64	0.29
AF2	1/2"	40	24	83	83	183	0.77	0.35

### Pre-Filtration Sock, Pack of 10

9062	To Suit
AF1 socks	AF1
AF2 socks	AF2



# PARKER D.H FILTERS & DRAINS

## AIR, WATER, VACUUM

### Parker D.H Filters & Drains



#### Electronic Zero Loss Condensate Drains

0050	Capacity Compressor* 1 m³/h	Capacity Dryer* 1 m³/h	Connection
ED3004-G230	240	480	1 x G1/2"
ED3007-G230	420	840	2 x G1/2"



#### Oil-X Combination Point of Use Filter

0050	Size	L/S	CFM
AC015CBFI	1/2"	13	27



#### Combination Replacement Element Kit

0050	Description
015AC	2nd Stage Element



#### Oil-X Evolution AO Pre-filters

0050	Size	L/S	CFM
A0030GBFX	1.1/2"	110	233
A0035GBFX	1.1/2"	160	339
A0040GBFX	1.1/2"	220	466



#### Replacement Element Kit Oil-X Evolution AO Filters

0050	Range
010AO	010AO
015AO	015AO
020AO	020AO
025AO	025AO



#### Oil-X Evolution High Efficiency AA Filters

0050	Size	L/S	CFM
AA015BBFX	3/8"	20	42
AA015CBFX	1/2"	20	42
AA020DBFX	3/4"	30	64
AA030EBFX	1"	110	233
AA035GBFX	1.1/2"	160	339



#### Replacement Element Kit Oil-X Evolution AA Filters

0050	Range
015AA	015AA
020AA	020AA
025AA	025AA



#### Oil-X Evolution ACS Oil Vapour & Odour Removal Filters

0050	Size	L/S	CFM
ACS020DBMX	3/4"	30	64



#### Oil Vapour & Odour Removal Elements

0050	Qty	Range
010ACS	1	010ACS







# PARKER D.H FILTERS & DRAINS AIR WATER VACUUM

## Parker D.H Filters & Drains



### Vacuum Inlet & Exhaust Filter Down to 1 Micron

0050	Pipe Size	Free Air Capacity
AR010CBMX	1/2"	3.6 m3/h (2cfm)



### Oil-X Evolution Filter Accessories, 1/4" to 3" Models

0050	Filter Model	Description
FXKE1	005-010	Filter Fixing Clamp Kit
FXKE3	025-030	Filter Fixing Clamp Kit
605009902	AC010-AC030	Oil Indicator
EF1	AO/AA GRADE	Replacement Drains



### Alternative Donaldson Ultrafilter Interchange Elements

0050	Parfit Element Donaldson Ultrafilter	Description
PR2090980	PE/V-PE 02/05	Pre-filter Element



### Oil-X Plus Replacement AO/AA Elements for Oil-X Filters (94-04)

0050	Housing Type	Description
K030AO	0030G	Pre Filter Element
K145AO	0080G	Pre Filter Element
K330AO	0330G	Pre Filter Element
K009AA	0009G	High Efficiency Element
K030AA	0030G	High Efficiency Element
K145AA	0080G	High Efficiency Element

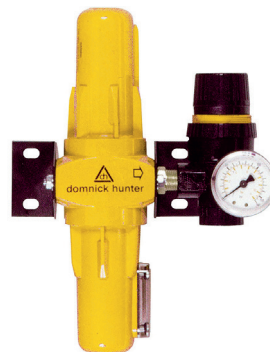
### Oil-X Plus Activated Carbon Elements (94-04)

0050	Housing Type	Description
K006AC	AC-0006G	Activated Carbon Element

### Old Model Oil-X Plus Filter Spares (94-04)

0050	Housing Type	Description
605006520	0006G-0009G	Automatic Drain Kit
605006250	0017G-01045G	Automatic Drain Kit

## Parker D.H Breathing Air



### BA-2013 1-2 Man Breathing Air Purifier

0050	Inlet Connection	Outlet Connection
606033450	G3/8"	G3/8"







## Filter

### Technical Specifications

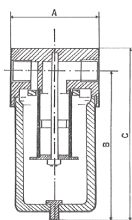
- Body, bowl and internal parts: AISI316 stainless steel
- O-ring: NBR
- Filtration: 50 micron
- Working pressure: 50 bar
- Connections: standard BSP (NPT on request)

### Dimensions

Code	243M & 243N	233N & 233L	233P & 233Q	273Q & 273R
A mm	40	65	80	110
B mm	93	140	165	200
C mm	104	155	175	230

° Working Temperature:  
+20°C to +80°C

Working Pressure:  
50 bar



### BSP

9160	Type	Thread BSP	Flow Rate* m³/hr	Weight kg
243MGE06	F318MC	G1/8"	35	0.9
243NGE06	F314MC	G1/4"	35	0.9
233NGE06	F314ST	G1/4"	198	1.6
233LGE06	F338ST	G3/8"	198	1.6
233PGE06	F312ST	G1/2"	244	2.0
233QGE06	F334ST	G3/4"	244	2.0
273QGE06	F334M	G3/4"	640	5.0
273RGE06	F310M	G1"	640	5.0

\*Measured at 8 bar.

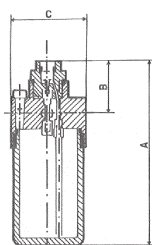
## Lubricator

### Technical Specifications

- Body, bowl and internal parts: AISI316 stainless steel
- O-ring: NBR
- Connections: standard BSP (NPT on request)

° Working Temperature:  
+20°C to +80°C

Working Pressure:  
30 bar



### Dimensions

Code	343M & 343N	333N & 333L	333P & 333Q	373Q & 373R
A mm	170	159	175	220
B mm	44	46	46	56
C mm	40	65	80	110

## Pressure Regulator

### Technical Specifications

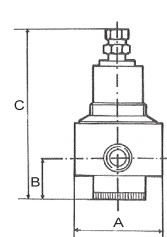
- Body and internal parts: AISI316 stainless steel
- O-ring: NBR
- Connections: standard BSP (NPT on request)

### Dimensions

Code	543M & 543N	533N & 533L	533P & 533Q	573R
A mm	50	65	80	125
B mm	28	34	37	66
C mm	110	145	155	286

° Working Temperature:  
+20°C to +80°C

Working Pressure:  
0-8 bar (other ranges on request)  
Maximum Inlet Pressure:  
30 bar (50 bar on request)



### BSP

9160	Type	Thread BSP	Flow Rate* m³/hr	Weight kg
543MDD1	R318MC	G1/8"	30	0.25
543NDD1	R314MC	G1/4"	30	0.25
533NDD1	R3114C	G1/4"	55	2.0
533LDD1	R3138C	G3/8"	55	2.0
533PDD1	R3121C	G1/2"	90	2.5

\*Measured at 2.5 bar outlet pressure.

### BSP

9160	Type	Thread BSP	Flow Rate* m³/hr	Weight kg
343M21	L318MC	G1/8"	60	1.0
343N21	L314MC	G1/4"	60	1.0
333N23	L314ST	G1/4"	82	1.6
333L23	L338ST	G3/8"	82	1.6
333P23	L312ST	G1/2"	140	2.0
333Q23	L334ST	G3/4"	140	2.0
373Q23	L334M	G3/4"	360	5.0
373R23	L310M	G1"	360	5.0

\*Measured at 8 bar.





## Filter Regulator

### Technical Specifications

Body, bowl and internal parts: AISI316 stainless steel

Working spring: SS 304

Diaphragm: rubber on cotton


O-ring: NBR


Filtration: 50 micron

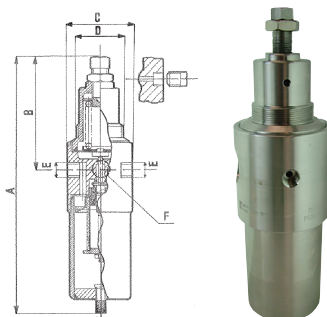
Connections: standard BSP (NPT on request)

### Dimensions

Code	443M & 443N	433N & 433L	433P & 433Q	473Q & 473R
A mm	188	250	280	350
B mm	72	110	130	205
C mm	40	65	80	90
D mm	30.5	45	50	60
F	1/4"	1/4"	1/4"	1/4"

 **Working Temperature:**  
+20°C to +80°C

 **Working Pressure:**  
0-8 bar (other ranges on request)  
**Maximum Inlet Pressure:**  
30 bar (50 bar on request)



### BSP

9160	Type	Thread BSP	Flow Rate* m³/hr	Weight kg
443MDG35	FR318MCL	G1/8"	30	1.5
443NDG35	FR314MC	G1/4"	30	1.5
433NDG26	FR314ST	G1/4"	55	3.0
433LDG26	FR338ST	G3/8"	55	3.0
433PDG26	FR312ST	G1/2"	90	5.0
433QDG26	FR334ST	G3/4"	90	5.0
473QDG26	FR334M	G3/4"	275	6.5
473RDG26	FR310ST	G1"	275	6.5

\*Measured at 8 bar.

## Lock Nuts



### To Suit Regulators

9160	To Suit Size
18413ZB0	1/8" & 1/4"
016120004	1/4" & 3/8"
016120012	1/2" & 3/4"

## Brackets



### To Suit Filters

9160	To Suit Size
M13001	1/4" & 3/8"
M13002	1/2" & 3/4"
M13003	3/4"

## Bracket & Lock Nut



### To Suit Regulators

9160	To Suit Size
M14301	1/8" & 1/4"
M13302	1/4" & 3/8"
M13301	1/2" & 3/4"
M13303	3/4"

For Stainless Steel Push-In Fittings  
see **Section 8**







## Pressure Regulator, High Pressure

### Features

- Pressure regulator for inlet pressure up to 50 bar (725 psi)
- Connection ports: R3114 1/4"-F, R3138 3/8"-F, R3121 1/2"-F
- Different connections available on request: 3/4" or welded flanges
- Outlet pressure, up to 15 bar (217 psi), is controlled by stainless steel diaphragm; greater outlet pressure is controlled by a piston
- Balanced main valve
- ATEX 2014/34/EU version available on request
- Brand CE Ex II2GcIICTX, CE Ex II2DcIIICTX
- For use in potentially explosive atmosphere zones: 1, 21, 2, 22 (not applicable in mines and zone 0)
- EAC-EX TP TC 012/2011 available for the Russian market
- The product complies with the 2014/68/EU PED directive
- The product is registered at the Canadian authority ABSA, CRN 0C11053.2, and can be sold and used in Canada

### Maximum Inlet Pressure 50 bar/Piston Controlled, BSP

9160	Thread
R3114	G1/4"
R3138	G3/8"
R3121	G1/2"



## Modular Pressure Regulator, High Pressure

### Features

- Pressure regulator for inlet pressure up to 50 bar (725 psi) in the standard version
- Connections 3/4"-F, 1"-F, 1.1/4"-F and 1.1/2"-F by flanges screwed to the body. Other connections available on request
- Outlet pressure is controlled by a piston in stainless steel (AISI 316L)
- Main valve is balanced
- ATEX 2014/34/EU version available on request
- Brand CE Ex II2GcIICTX, CE Ex II2DcIIICTX
- For use in potentially explosive zones: 1, 21, 2, 22 (not applicable in mines and zone 0)
- EAC TP TC 032/2013 or EAC-EX TP TC 012/2011 versions available for the Russian market
- The product complies with the directive 2014/68/EU (PED)
- Available units composed of Filter + Regulator + Lubricator

### Maximum Inlet Pressure 50 bar/Piston Controlled, BSP

9160	Thread
310R2-34	G3/4"
310R2-1	G1"
310R2-114	G1.1/4"
310R2-112	G1.1/2"





## Pressure Regulator, with Gauge, High Pressure

### Features

- Pressure regulator for inlet pressure up to 50 bar (725 psi)
- Connections by flanges screwed to the body
- R3130 1.1/2"-GF
- R3130/2" 2"-GF
- Connections with EN or ASME flanges available on request
- Outlet pressure is controlled by a stainless steel AISI 316L piston
- ATEX 2014/34/EU version available on request
- Brand: II2GcIICTX, II2DcIIICTX
- For use in potentially explosive atmosphere zones: 1, 21, 2, 22 (not for mines and zone 0)
- EAC TP TC 032/2013 or EAC-EX TP TC 012/2011 versions available for the Russian market
- The product complies with the directive 2014/68/EU PED
- Gauge for outlet pressure, accuracy class 1.6



### Maximum Inlet Pressure 50 bar/Piston Controlled, BSP

9160	Thread
R3130	G1.1/2"
R3130-2	G2"

## STAINLESS STEEL PRECISION REGULATOR

## Precision Regulator

### Features

- Precision pressure regulator for inlet pressure up to 10 bar (145 psi)
- Connections 1/2"-GF for standard version
- Outlet pressure is controlled by a rubber diaphragm. The regulator's main valve is balanced
- ATEX 2014/34/EU version available on request
- Brand: CE Ex II2GcIICTX, CE Ex II2DcIIICTX
- For use in potentially explosive atmosphere zones: 1, 21, 2, 22 (not applicable in mines and zone 0)
- EAC-EX TP TC 012/2011 available for the Russian market
- The product complies with the directive 2014/68/EU PED



### Maximum Inlet Pressure 10 bar/Piston Controlled, BSP

9160	Thread
R3150	G1/2"