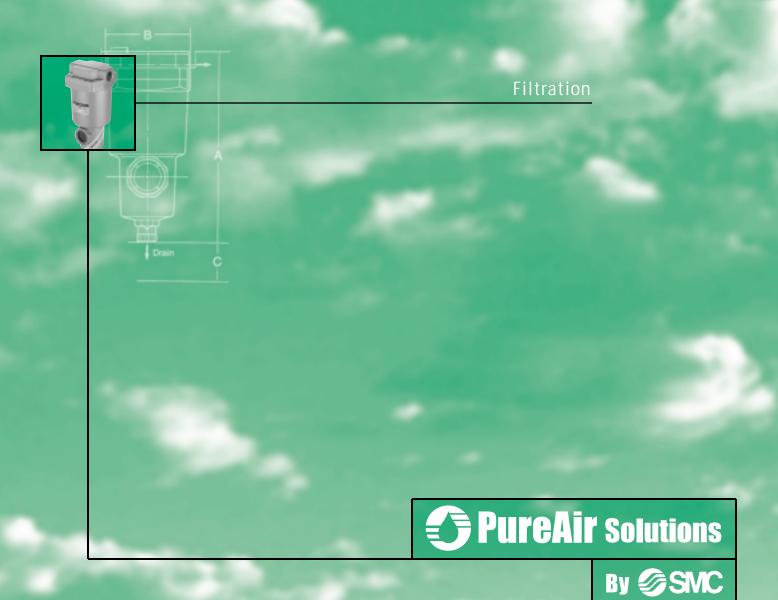
### Pneumatic Purification



### Product Information



#### Cylinders and Actuators

SMC's Cylinders and Actuators offer some of the most innovative designs in the pneumatic industry. they are available in a wide variety of styles, including compact, guided and rodless cylinders as well as rotary actuators and grippers. All are created to provide you with an array of solutions to help meet your design needs, such as a wide range of bore sizes stroke lengths, high precision performance, exceptional reliability, global availability and auto switch capability.



#### **Directional Control Valves**

SMC's Valve series offers industry leading valve performance advancements such as remarkably high flow capacities from very compact designs, low power consumption, high speed response, long life, built-in surge suppression and indicator lights. Manifold options, including built-in "One-Touch" fittings, prewired electric connections and serial interface simplify installation, maintenance and control.



#### **Air Preparation Products**

SMC's Air Preparation products line offers a wide variety of filter, regulator and lubricator combination units as well as ambient dryers, booster regulators, mist separators and a wide range of accessories.



#### **Vacuum Products**

SMC's vacuum Products offer the variety and innovation necessary to satisfy your needs. Our vacuum generators pack several optional features - such as "One-Touch" fittings, filters, switches and exhaust mufflers - into small, lightweight packages designed for maximum flexibility, including point-of-use mounting. Most options are modular allowing you to add only those that are relevant to your application.



#### Fittings, Tubing and Flow Controls

SMC's Fittings, Tubing and Flow Controls simplify your pneumatic components. Both the fittings and flow controls utilize SMC's innovative "One-Touch" or "Uni-Thread" technology which offers unsurpassed simplicity in fitting and connector installation, reducing time, tools and hardware. We offer many variations and sizes to suit any application. Tubing is made in several sizes and roll lengths to ensure the right fit for your needs.



#### Instrumentation

SMC's Instrumentation products are designed as feedback devices in a pneumatic or vacuum system. they include pressure and vacuum switches, as well as flow switches and proportional pressure regulators - all of which are easy to read, control and set up. As with other SMC products, there are many options available to suit your specific applications.



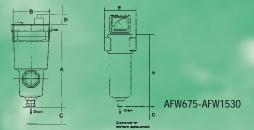
### Main Line Filter: Series AFF

					_			
MODEL	FLOW	PORT	Α	В	С	D	WEIGHT	ELEMENT
	(cfm)	NPT	in	in	in	in	lb	
AFF2B-N02C-T	10	1/4"	6.26	2.48	0.39	1.46	0.84	AFF-EL2B
AFF4B-N03C-T	26	3/8"	6.78	2.99	0.39	1.46	1.21	AFF-EL4B
AFF8B-N04C-T	53	1/2"	8.04	3.55	0.39	1.46	1.98	AFF-EL8B
AFF11B-N06C-T	73	3/4"	8.87	4.18	0.39	1.46	3.09	AFF-EL11B
AFF22B-N10C-T	123	1"	10.2	4.8	0.39	1.46	4.63	AFF-EL22B
AFF37B-N14D-T	212	1 1/2"	14.22	6.3	0.39	1.46	9.26	AFF-EL37B
AFF75B-N20D-T	424	2"	18.64	8.67	0.39	1.46	23.15	AFF-EL75B
AFW675-N20-E1	675	2"	18.64	8.67	0.39	2.56	11.02	E1702-E1
AFW954-N25-E1	954	2 1/2"	18.64	8.67	0.39	2.56	25.35	E3127-E1
AFW1300-N30-E1	1300	3"	18.64	8.67	0.39	2.56	34.17	E3783-E1
AFW1530-N30-E1	1530	3"	18.64	8.67	0.39	2.56	41.89	E3843-E1

Filter Performance (ISO8573.1) • Particle Size CL.3 • Oil Content CL.4 Flow @ 0.7MPa (100 PSI) &  $20^{\circ}\text{C}$ 

#### Standard features

- · Die-cast Aluminum with chromate treatment
- No screw threads or tie rods are required therefore removal and replacement of element is made quick and easy (AFF)
- Differential Pressure indicator
- Internal autodrain
- Built-in push-to-connect fitting on drain (AFF)



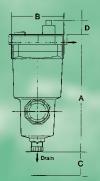
Series AFF Mainline Filters will remove oil, water and dirt from compressed air. The AFF may be located in the compressed air main and can be used as a 3 micron protection filter (AFW 1.0 Micron) for a refrigerated air dryer or prefilter to the high efficiency filters, Series AM, AMD or AMH.



### Mist Separator: Series AM

MODEL	FLOW	PORT	Α	В	С	D	WEIGHT	ELEMENT
	(cfm)	NPT	in	in	in	in	lb	
AM150-N02C-T	10	1/4"	6.26	2.48	0.39	1.46	0.84	AM-EL150
AM250-N03C-T	26	3/8"	6.78	2.99	0.39	1.46	1.21	AM-EL250
AM350-N04C-T	53	1/2"	8.04	3.55	0.39	1.46	1.98	AM-EL350
AM450-N06C-T	73	3/4"	8.87	4.18	0.39	1.46	3.09	AM-EL450
AM550-N10C-T	123	1″	10.2	4.81	0.39	1.46	4.63	AM-EL550
AM650-N14D-T	212	1 1/2"	14.22	6.3	0.39	1.46	23.15	AM-EL650
AM850-N20D-T	424	2"	18.64	8.67	0.39	1.46	23.15	AM-EL850

Filter Performance (ISO8573.1) • Particle Size CL.1 • Oil Content CL.2 Flow @ 0.7MPa (100 PSI)



## Standard features on all models

- Die-cast Aluminum with chromate treatment
- No screw threads or tie rods are required therefore removal and replacement of element is made quick and easy
- · Differential Pressure indicator
- Internal autodrain
- Built-in push-to-connect fitting on drain

Series AM Micro Mist Separator will remove oil, water and dirt from compressed air and is well suited for oil filtration following a piston compressor. Series AM filters will remove 0.3 micron or larger with an oil carry over 0.8ppm or less.



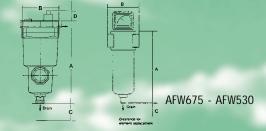
### Micro Mist Separator: Series AMD

MODEL	FLOW	PORT	Α	В	С	D	WEIGHT	ELEMENT
	(cfm)	NPT	in	in	in	in	lb	
AMD150-N02C-T	7	1/4"	6.26	2.48	0.39	1.46	0.84	AMD-EL150
AMD250-N03C-T	17	3/8"	6.78	2.99	0.39	1.46	1.21	AMD-EL250
AMD350-N04C-T	35	1/2"	8.04	3.55	0.39	1.46	1.98	AMD-EL350
AMD450-N06C-T	70	3/4"	8.87	4.18	0.39	1.46	3.09	AMD-EL450
AMD550-N10C-T	123	1″	10.2	4.81	0.39	1.46	4.63	AMD-EL550
AMD650-N14D-T	212	1 1/2"	14.22	6.3	0.39	1.46	23.15	AMD-EL650
AMD850-N20D-T	424	2"	18.64	8.67	0.39	1.46	23.15	AMD-EL850
AFW675-N20-EA	954	2"	29.16	7.88	0.39	2.56	25.35	E1702-EA
AFW954-N25-EA	1300	2 1/2"	33.88	7.88	0.39	2.56	34.17	E3127-EA
AFW1300-N30-EA	1530	3"	38.81	9.06	0.39	2.56	41.89	E3783-EA
AFW1530-N30-EA	1530	3″	38.81	9.06	0.39	2.56	41.89	E3843-EA

Filter Performance (ISO8573.1) • Particle Size CL.1 • Oil Content CL.1 Flow @ 0.7MPa (100 PSI)

#### Standard features

- Die-cast Aluminum with chromate treatment
- No screw threads or tie rods are required therefore removal and replacement of element is made quick and easy (AMD)
- · Differential Pressure indicator
- · Internal autodrain
- Built-in push-to-connect fitting on drain (AMD)



Series AMD Micro Mist Separator will remove particles, liquid and oil aerosols of more than <u>0.01 microns</u>. They are high efficiency filters used for very good quality compressed air. They can be used in conjunction with the Series AMF activated carbon odour removal filters. They should always br preceded by AM series.



### Micro Mist Separator: Series AMH

MODEL	FLOW	PORT	Α	В	С	D	WEIGHT	ELEMENT
	(cfm)	NPT	in	in	in	in	lb	
AMH150-N02C-T	7	1/4"	6.26	2.48	0.39	1.46	0.84	AMH-EL150
AMH250-N03C-T	17	3/8"	6.78	2.99	0.39	1.46	1.21	AMH-EL250
AMH350-N04C-T	35	1/2"	8.04	3.55	0.39	1.46	1.98	AMH-EL350
AMH450-N06C-T	70	3/4"	8.87	4.18	0.39	1.46	3.09	AMH-EL450
AMH550-N10C-T	123	1″	10.2	4.81	0.39	1.46	4.63	AMH-EL550
AMH650-N14D-T	212	1 1/2"	14.22	6.3	0.39	1.46	23.15	AMH-EL650
AMH850-N20D-T	424	2"	18.64	8.67	0.39	1.46	23.15	AMH-EL850

Filter Performance (ISO8573.1) • Particle Size CL.1 • Oil Content CL.1

#### Standard features

- Die-cast Aluminum with chromate treatment
- No screw threads or tie rods are required therefore removal and replacement of element is made quick and easy (AMH)
- Differential Pressure indicator
- Internal autodrain
- Built-in push-to-connect fitting on drain

**Series AMH Micro Mist Separator** provides the performance of a high quality 0.01 micron oil removal coalescing filter with a built in prefilter. The AMH eliminates the prefilter for multi filter installations reducing element replacement, space & reduced total pressure drop.

### Odour Removal Filter: Series AMF



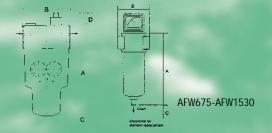
MODEL	FLOW	PORT	Α	В	С	D	WEIGHT	ELEMENT
	(cfm)	NPT	in	in	in	in	lb	
AMF150-N02-T	7	1/4″	6.26	2.48	0.39	1.46	0.84	AMF-EL150
AMF250-N03-T	17	3/8"	6.78	2.99	0.39	1.46	1.21	AMF-EL250
AMF350-N04-T	35	1/2"	8.04	3.55	0.39	1.46	1.98	AMF-EL350
AMF450-N06-T	70	3/4"	8.87	4.18	0.39	1.46	3.09	AMF-EL450
AMF550-N10-T	123	1″	10.2	4.81	0.39	1.46	4.63	AMF-EL550
AMF650-N14-T	212	1 1/2"	14.22	6.3	0.39	1.46	23.15	AMF-EL650
AMF850-N20-T	424	2"	18.64	8.67	0.39	1.46	23.15	AMF-EL850
AFW675-N20-EC	675	2"	26.79	5.32	25.81	2.56	11.02	E1702-EC
AFW954-N25-EC	954	2 1/2"	29.16	7.88	27.46	2.56	25.35	E3127-EC
AFW1300-N30-EC	1300	3″	33.88	7.88	27.46	2.56	34.17	E3783-EC
AFW1530-N30-EC	1530	3"	38.81	9.06	37.23	2.56	41.89	E3843-EC

Filter Performance (ISO8573.1) • Particle Size CL.1 • Oil Content CL.1 Flow @ 0.7MPa (100 PSI) & 20°C

Warning: Will not remove carbon monoxide nor carbon dioxide

#### Standard features

- Die-cast Aluminum with chromate treatment
- No screw threads or tie rods are required therefore removal and replacement of element is made quick and easy (AMF)
- Two sight glasses are fitted to the housing to give a visual indication of the filter operation and condition (AMF)



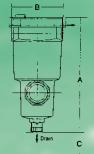
Series AMF Odour Removal Filters is a high efficiency, large filtration area, multi-layered, activated carbon filter used to remove hydrocarbon and organic vapors from compressed air. It is used after the Series AMD or AMH micro mist separator for process air.



### Water Separator: Series AMG

MODEL	FLOW	PORT	Α	В	С	D	WEIGHT	ELEMENT
	(cfm)	NPT	in	in	in	in	lb	
AMG150-N02C	7	1/4"	6.26	2.48	0.39	1.46	0.84	AMG-EL150
AMG250-N03C	17	3/8"	6.78	2.99	0.39	1.46	1.21	AMG-EL250
AMG350-N04C	35	1/2"	8.04	3.55	0.39	1.46	1.98	AMG-EL350
AMG450-N06C	70	3/4"	8.87	4.18	0.39	1.46	3.09	AMG-EL450
AMG550-N10C	123	1"	10.2	4.81	0.39	1.46	4.63	AMG-EL550
AMG650-N14D	212	1 1/2"	14.22	6.3	0.39	1.46	23.15	AMG-EL650
AMG850-N20D	424	2"	18.64	8.67	0.39	1.46	23.15	AMG-EL850

Flow @ 0.7MPa (100 PSI)



### Standard features

- Port Sizes 1/4, 3/8, 1/2, 3/4, 1, 11/2, 2
- Removes 99.9% of Water Droplets
- · Automatic Drain as Standard
- · Element is resistant to clogging
- · Built0in push to connect fitting on drain

Series AMG Water Separator will remove 99.9% of all liquid water and mist that is present in air line where an AMG is installed. AMG should be installed at the highest pressure and as far away as possible from the compressor. Particle and oil filter, plus pressure regulation if required, should be installed downstream of AMG. The element design produces negligible pressure drop.

Note: AMG does not remove water vapour & air leaving AMG is 100% saturated. Where dehumified air (ie. RH<100%) is required an SMC dryer is recommended.



### Heavy Duty Auto Drain Model ADH 4000-N04

- · Minimum operating pressure 8psi.
- Maximum operating pressure 145psi.
- Maximum discharge 400cc/operation. Suitable for refrigerated dryers, air receivers and after coolers which produce large amounts of condensate.
- There is no influence of back pressure, therefore can be used in centralized piping and long drain piping system.
- Push button is provided on top of drain for easy operation.
- 1/2" NPT side entry.





### Auto Drain - Float Type

Model NAD402-N04 (N04 = 1/2 NPT)

- Minimum operating pressure 22psi.
- · Maximum operating pressure 145psi.
- Available N02 (1/4 NPT), N03 (3/8 NPT) and N04 (1/2 NPT)
- Metal bowl available as option (-2)



### Model NAD600-N10

- Minimum operating pressure 45psi.
- · Maximum operating pressure 145psi.
- 1" NPT top entry. (N10), 3/4 NPT (N06)



### Series SL Slimline Auto Drain and Filterstop

- LED indicators show operational status
- Test button for maintenance check
- UL and CSA approved

	SPECIFICATIONS
Timer	Solid-state construction
Status Indication	Power 'ON' / Valve 'OPEN'
Interval Time	0.5 to 45 minutes (as required)
Discharge Time	0.5 to 10 seconds (as required)
Electrical Connection	DIN 46242

PART NUMBER	DESCRIPTION
SL-W	Timer, cord, filterstop, 3/8 valve 24 to 240 VAC/DC
SL-WVX1/2	As above, but with SMC 1/2" NPT VXD valve and no filterstop 110 VAC*
SL-WVX3/4	As above, but with 3/4" NPT VXD valve and no filterstop 110 VAC*
SL-WVX1	As above, but with 1" NPT VXD valve and no filterstop 110 VAC*
FS	Filterstop only
MK111	Timer and Cord for SL
MK12	Timer for filters 0-120 minutes, fixed discharge 2 seconds

<sup>\*</sup> other voltages available

# Air Quality Class Recommendations for Typical Applications

APPLICATIONS	SUGGESTE	D QUALIT	Y CLASSES	ADDITIONAL REQUIREMENTS
	Solids	Water	Oil	
Air Bearings, Turbines, Gauging	2	2	3	
Food & Beverage, Pharmaceuticals	1	3/2	1	Odor Removal
Instrumentation	1	3/2	2	
Abrasive Blasting	-	3	3	
Spray Painting	1	4/3	3	
Automation / Robotics	3	4/3	3	
Basic Air Cylinders	3	4/5	4	
Outdoor Pipelines	1	2/3	1	
Packaging Machines	3	4/5	3	
Hand Air Tools	3	4/6	4	

### ISO 8573.1 Filtration Classes

CLASS	PARTICLE	WATER	OIL
	Max Size µ micron	Max Pressure Dew Point C	Max Oil Content Mg/M <sup>3</sup>
1	0.1	-70	0.01
2	1	-40	0.1
3	5	-20	1.0
4	15	+3	5
5	40	+7	25
6	-	+10	-

### 'A' Series Compressed Air Filters

The selection of an air filter should be based on a desired result. One should determine the air quality one requires and then puchase filters that will provide it.

Every application for compressed air has a corresponding air quality. Manufacturers of modern machinery and processes regularly specify a minimum air quality standard for their equipment. In many cases, the successful and reliable operation of plant is dependent on that specified air quality.

Compressed air purification can be defined as making air suitable for its application and the filters used should deliver that quality in the most cost effective way with the lowest possible pressure drop.

### **SMC Worldwide Locations**

#### **CANADA**

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**SMC Windsor** 2870 Jefferson Blvd - Unit 1 Windsor, ON N8T 3L2 Tel: (519) 944 0555 Fax: (519) 944 1870

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SMC Pneumatics Inc. (St Louis) 4130 Rider Trail North Earth City, MO 63045

SMC Pneumatics Inc. (Tampa) 8507-H Benjamin Road Tampa, FL 33634 Tel: (813) 243 8350 Fax: (813) 243 8621

SMC Pneumatics Inc. (Tulsa) Tulsa, OK 74146 Fax: (918) 252 7820 Fax: (918) 252 9511

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SMC Pneumatics (Ireland) Ltd.

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SMC Pneumatique SA

THE NETHERLANDS / BELGIUM SMC Controls BV

ROMANIA

**SWEDEN** 

**SWITZERLAND** 

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