

Compressed Air Purity Class ISO 8573

RoHS

Solid/Oil Separation

Line Filter **AFF Series**

1
μm

Water droplet removal

Mist Separator **AM Series**

0.1
μm

Oil mist separation and removal

Micro Mist Separator **AMD Series**

0.01
μm

Oil mist separation and removal

Deodorization

Activated Carbon Filter **AMK Series**

Oil concentration
0.003
mg/m³

Oil vapor and odor removal

Flow capacity L/min (ANR)

20	Up to 300
30	Up to 750
40	Up to 1500
50	Up to 2200
60	Up to 3700

Weight reduced by 50%

p. 4

AFF/AM/AMD20-D: 0.19 kg (Existing model: 0.38 kg)

Face-to-face and depth dimensions reduced by 30%

AFF/AM□30-D: □53 mm (Existing model: □76 mm)

Modular connection is possible.

p. 1



New With clogging switch

p. 3

The clogging status can be identified by the switch output.



AFF/AM/AMD/AMK Series

Reduced pressure drop contributes to energy saving.

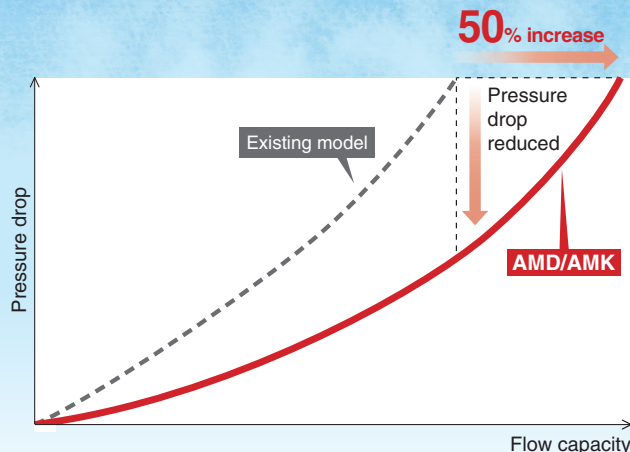
AMD **AMK**

Flow capacity

3700 L/min (ANR)

Pressure drop

Max. 50% reduction

AMD40: 6.8 kPa (Existing model AMD350C: 13.6 kPa)
AMK40: 4.7 kPa (Existing model AMF350C: 9.4 kPa)


Space-saving design and reduced piping labor

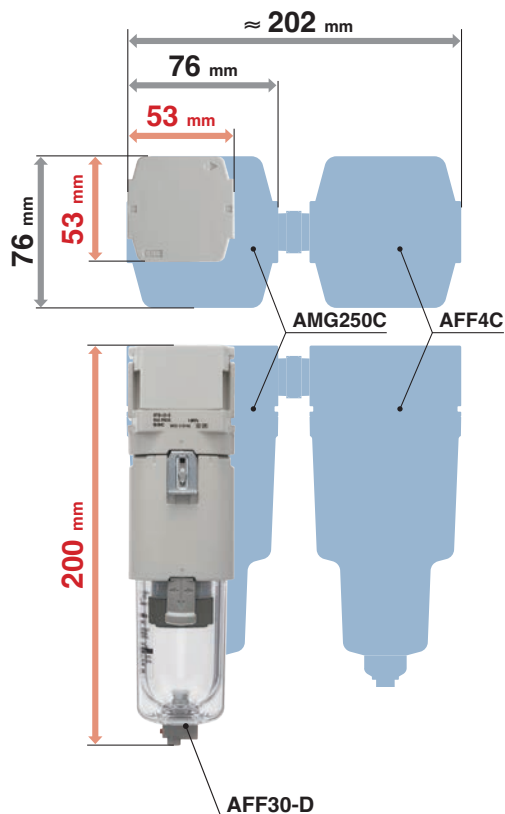
AFF Series

AFF

	AMG250C + AFF4C	AFF30-D	
Face-to-face dimension	≈ 202 mm	53 mm	Approx. 150 mm reduction

The AFF series line filter removes both water droplets and solid particles. It can eliminate*1 a separate filter for removing water droplets (water separator, AMG series), thus greatly reducing the face-to-face dimension and also reducing the required installation space and piping work.

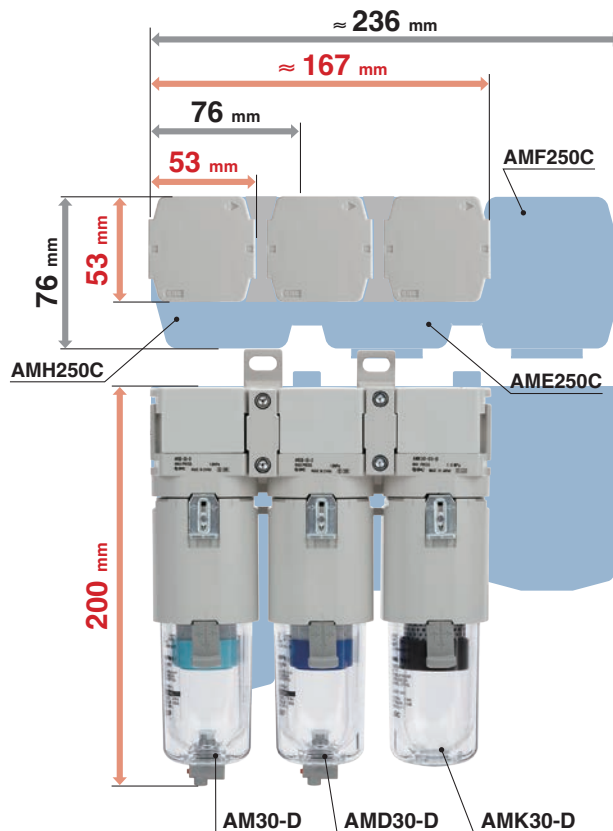
*1 When used within the product's specification range



Modular connection (AM + AMD + AMK)

AM
AMD
AMK

	AMH250C + AME250C + AMF250C	AM30-D + AMD30-D + AMK30-D	
Face-to-face dimension	≈ 236 mm	≈ 167 mm	Approx. 69 mm reduction
Weight	1.51 kg	1.17 kg	23% reduction
Flow capacity	500 L/min (ANR)	750 L/min (ANR)	50% increase

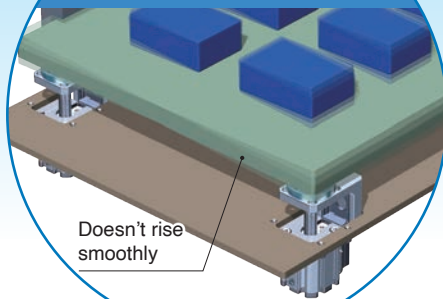


The differential pressure check mode (PSE200A series) allows for the quantification of the clogging state of each filter element.

As the filter element does its job, the amount of clogging will gradually increase, resulting in **a drop in the pressure**. Ignoring this will lead to **energy loss**.

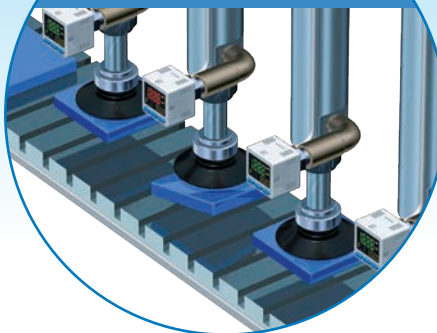
Example ①

Reduced thrust due to pressure drop



Example ②

Adsorption errors due to reduced flow rate



Element replacement period

Within **2 years***¹ of the start of use

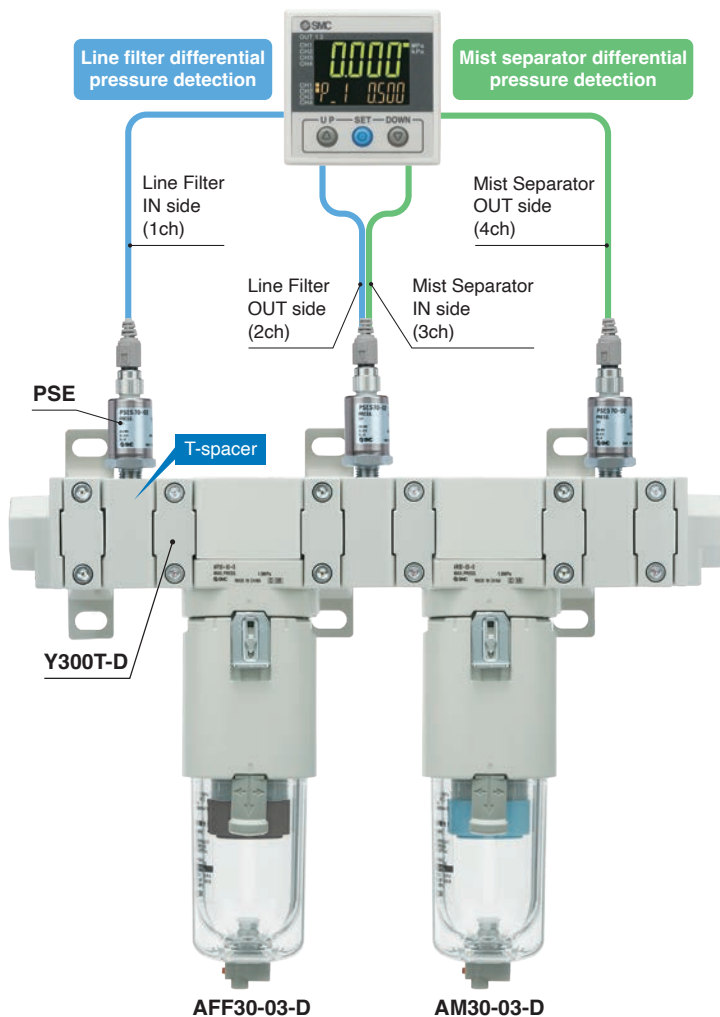
or

Before the differential pressure reaches **0.1 MPa**

*1 Within 1 year for the AMK series

In order to prevent the above

The differential pressure of 2 filters can be managed by **a single unit**.

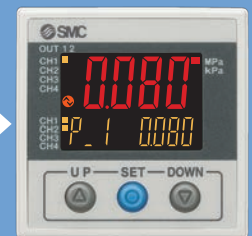
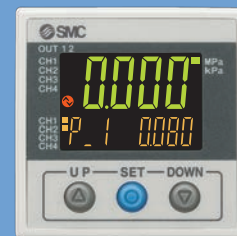


The differential pressure value to be output can be set freely according to the customer's system conditions.

[Ex.] When the differential pressure value to be output is set to 0.08 MPa

Continuously monitored remotely via IO-Link communication

Once 0.08 MPa is reached, a signal is output.



Related Product

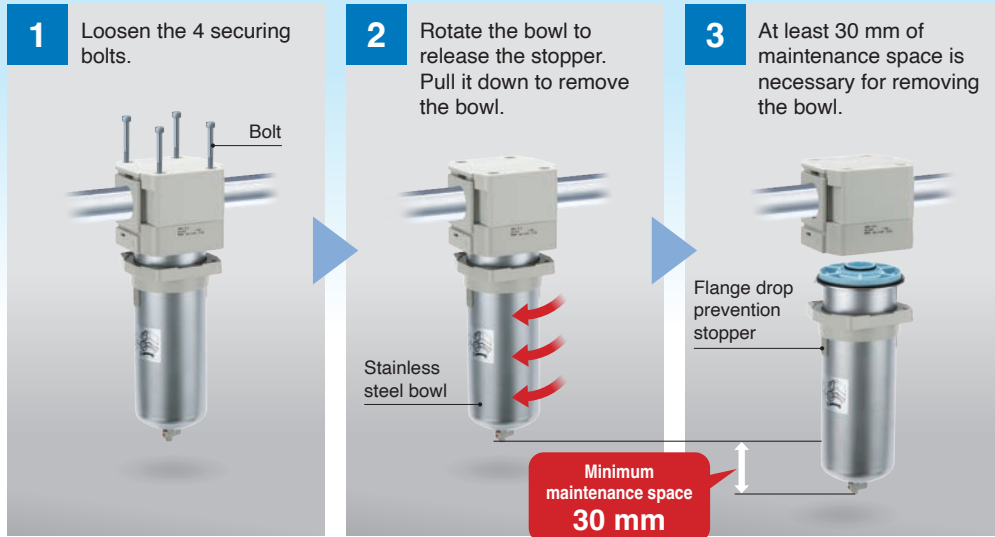
Multi-channel Digital Sensor Monitor
PSE200A Series



Easier replacement of the element

Size 50/60 The stopper function prevents the bowl from falling.

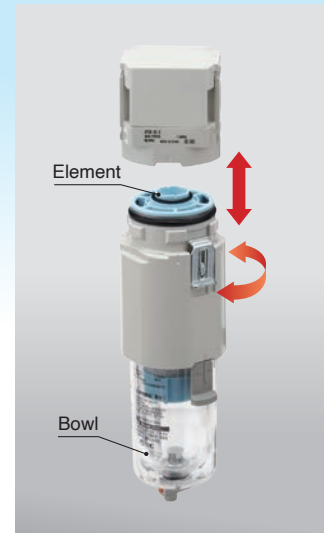
The bowl will not fall even if the bolts are loosened. It is not necessary to hold the bowl when removing the bolts. Safe and secure mounting and removing of the bowl with both hands is possible. The lightweight stainless steel bowl with reduced thickness allows for easier element replacement.



Size 20 to 40

No tools are required.

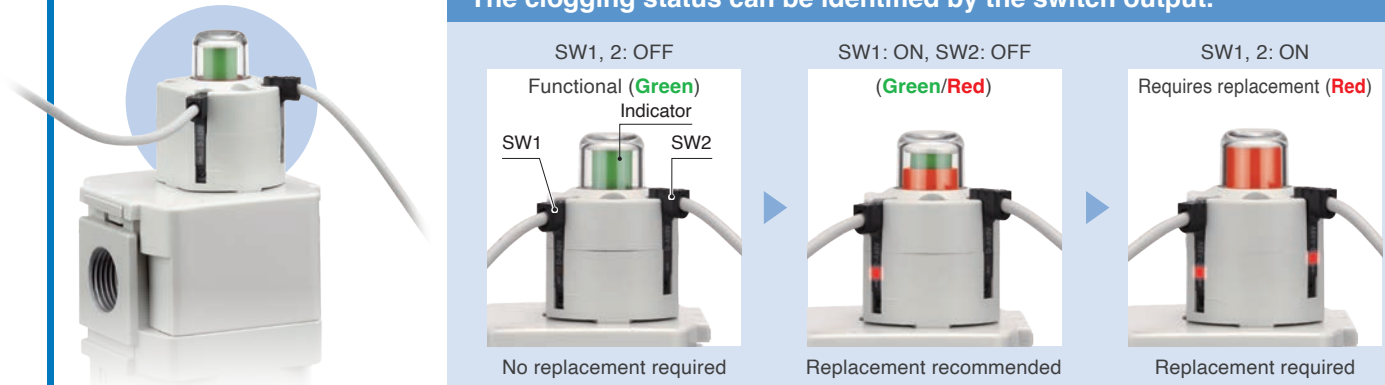
Easy replacement of the element is possible as the element and the bowl are in one piece. Replacement can be done in hand.



Element replacement notification

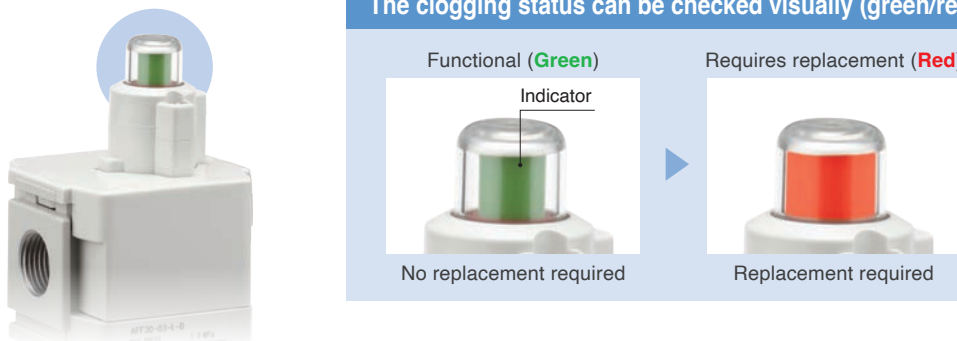
New With clogging switch

The clogging status can be identified by the switch output.



With element service indicator

The clogging status can be checked visually (green/red).



Lightweight

AFF AM AMD AMK

Weight

Max. **50% lighter***¹

0.19 kg ◁ 0.38 kg

*¹ Compared with existing products (AFF□C, AM□C, and AMD□C series)

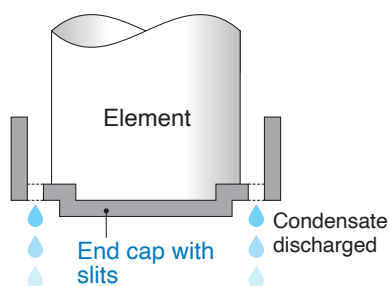
*² Compared with existing products (AMF□C series)

Series	Size	Weight [kg]	Reduction rate [%]
AFF/AM/AMD* ¹	20	0.19 ◁ 0.38	50
	30	0.39 ◁ 0.55	29
	40	0.79 ◁ 0.9	12
	50	1.23 ◁ 1.4	12
	60	1.46 ◁ 2.1	30
AMK* ²	20	0.19 ◁ 0.3	37
	30	0.39 ◁ 0.48	19
	40	0.79 ◁ 0.8	1.3
	50	1.25 ◁ 1.3	4
	60	1.50 ◁ 2.0	25

Color-identifiable elements

AFF AM AMD AMK

This eliminates the accumulation of condensate. Even high-velocity fluid is not spattered. The result is a compact bowl design.



Condensate is not accumulated, so no water flows to the downstream side.



3 models (AFF/AM/AMD) with an end cap with slits

Transparent bowl guard (2-layer construction)*¹

AFF AM AMD AMK

The inside is visible from 360°. The bowl is completely protected from the environment, allowing for improved safety.



Material: Polycarbonate

Material: Polycarbonate

*¹ Size 20 to 40 only

Improved flow capacity

AMK

Increased by up to **50%**

Size	New AMK	AMF	[L/min(ANR)] Improvement rate [%]
20	300	200	50
30	750	500	50
40	1500	1000	50
50	2200	2000	10

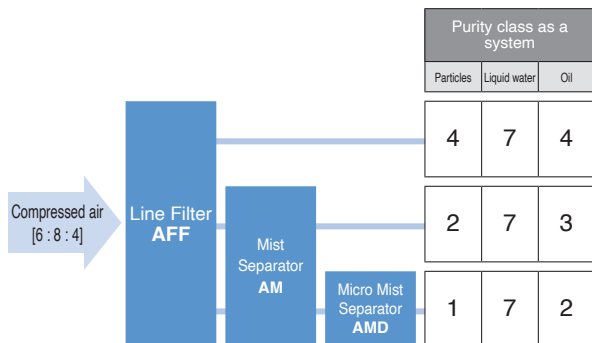
Variations

Series	Size	Port size						Flow capacity L/min (ANR)	Option/ Accessory
		1/8	1/4	3/8	1/2	3/4	1		
AFF Series <small>p. 8</small> Line Filter Large dust particle filtration, Water droplet separation Water droplet removal ratio: 99% Nominal filtration rating: 1 μm [Filtration efficiency: 99%]	20	●	●					300	· Bracket · Auto drain · Element service indicator · Clogging switch
	30		●	●				750	
	40		●	●	●			1500	
	50				●	●		2200	
	60					●		3700	
AM Series <small>p. 8</small> Mist Separator Dust filtration, Oil mist separation Nominal filtration rating: 0.1 μm [Filtration efficiency: 99%] Oil mist concentration on the outlet side: Max. 1.0 mg/m^3 [\approx 0.8 ppm]	20	●	●					300	
	30		●	●				750	
	40		●	●	●			1500	
	50				●	●		2200	
	60					●		3700	
AMD Series <small>p. 8</small> Micro Mist Separator Dust filtration, Oil mist separation Nominal filtration rating: 0.01 μm [Filtration efficiency: 99.9%] Oil mist concentration on the outlet side: Max. 0.1 mg/m^3 [\approx 0.08 ppm]	20	●	●					300	
	30		●	●				750	
	40		●	●	●			1500	
	50				●	●		2200	
	60					●		3700	
AMK Series <small>p. 20</small> Activated Carbon Filter Removes oil vapor and odor from compressed air Oil concentration on the outlet side: Max. 0.003 mg/m^3 [\approx 0.0025 ppm]	20	●	●					300	· Bracket
	30		●	●				750	
	40		●	●	●			1500	
	50				●	●		2200	
	60					●		3700	

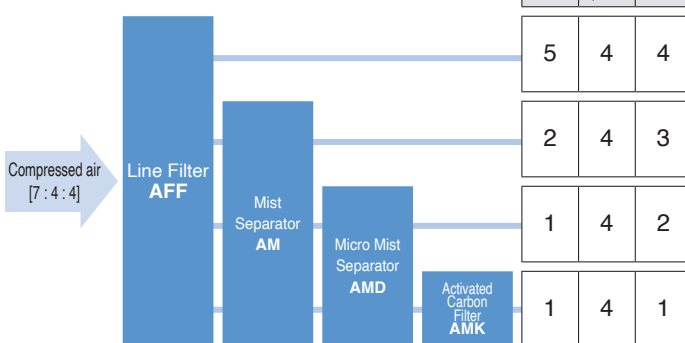
Compliant with ISO 8573 Compressed Air Purity Class

Systems which are in compliance with the degree of purity required for compressed air (For details ▶ page 31)

System example 1)



System example 2)



Certified by a third party organization

Contaminants	ISO 12500: Filters for compressed air – test methods	ISO 8573: Compressed air
Particles	ISO 12500-3:2009 Filters for compressed air – test methods – Particulates	ISO 8573-4:2001 Compressed air – Test methods for solid particle content
Liquid water	ISO 12500-4:2009 Filters for compressed air – test methods – Water	ISO 8573-9:2004 Compressed air – Test methods for liquid water content
Oil	ISO 12500-1:2007 Filters for compressed air – test methods – Oil aerosols	ISO 8573-2:2007 Compressed air – Test methods for oil aerosol content



Simple Specials System



A system designed to respond quickly and easily to your special ordering needs

For modular connection units (shipped assembled), the simple specials system can be used.

Short lead times

This system enables us to respond to your special needs (additional machining, accessory assembly, or the designing of a modular unit) and deliver your personalized products as quickly as standard products.

Repeat orders

Once we receive a simple special part number from one of your previous orders, we will process the order, manufacture the product, and deliver it to you as quickly as possible.

Please contact your local sales representative for more details.

Connectable Modular Components

F.R.L. Units AC



- Modular design with uniform body style
- Better visibility & environmental resistance
2-layer construction: The bowl is covered with a transparent bowl guard.
Better visibility: 360°

- No tools are required.
Easier replacement of the element (AF-D only)

Series	Port size
AC20 to 60-D Air filter, Regulator, Lubricator	1/8, 1/4, 3/8, 1/2, 3/4, 1
AC20A to 60A-D Filter regulator, Lubricator	
AC20B to 60B-D Air filter, Regulator	
AC20C to 40C-D Air filter, Mist separator, Regulator	1/8, 1/4, 3/8, 1/2
AC20D to 40D-D Filter regulator, Mist separator	

AWM-D Series



Mist Separator
Regulator

AWM-D Series



Micro Mist Separator
Regulator

AR□M-D Series



Common Supply
Regulator

PF3A₈⁷H Series



Digital Flow Switch
3-Color Display

VHS-D Series



OSHA Standard Compliant Pressure Relief
3-Port Valve with
Locking Holes

JSXM Series



2-Port Solenoid
Valve

VP546E/746E Series



Residual Pressure Relief 3-Port
Solenoid Valve

VP546/746 Series



3-Port Solenoid Valve/Residual Pressure
Release Valve with
Detection of Main
Valve Position

SY3000/5000-X990 Series



5-Port Solenoid Valve
Plug-In Type

