Exhaust Cleaner
Series AMC

RoHS

Ensures clean plant air and reduces noise pollution;
Over 35 dB (A) noise reduction
Over 99.9% oil mist removal

How to Order

AMC 5 1 0 – □ 06 □

Body size

Symbol	Size	Symbol	Size
2	1/4 std.	6	1 std.
3	3/8 std.	8	1 1/2 std.
5	3/4 std.	9	2 std.

Thread

Symbol	Type
1	Male thread
2 (1)	Female thread

Note 1) Female thread: Available only AMC220, 320, 520.

Thread type

Symbol	Type
Nil	R, Rc
N	NPT
F	G

Port size

Symbol	Type	Size
02	Female	1/4
03	Female	3/8
	Male	
04	Female	1/2
06	Female	3/4
	Male	
10	Male	1
14	Male	1 1/2
20	Male	2

Suffix

Symbol	Type	Note
Nil	—	—
B (2)	With bracket	Shipped together (Not assembled)
D	Drain piping	—

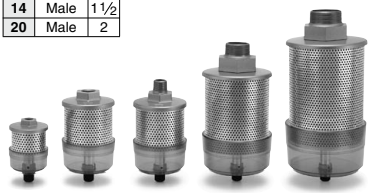
∗ Indicate BD when combining.
Note 2) Not applicable to AMC810 and 910

Specifications

Fluid	Compressed air
Ambient and fluid temperature	5 to 60°C ∗
Element inlet pressure	0.1 MPa or less
Noise reduction	35 dB or more
Oil mist removal	99.9% or more
Filtration	0.3 μm (Trapping efficiency: 95%)
Exhaust of oil mist	Drain cock (Standard) Drain piping
Option	Bracket ∗∗

∗ It can operate in temperatures between –10 to 60°C if there is no risk of freezing the moisture in the air.
∗∗ Bracket not available on AMC810 and 910.

Refer to page 687 for Specific Product Precautions.



Model/Male Thread Type

Specifications \ Model	AMC310	AMC510	AMC610	AMC810	AMC910
Effective area (mm²)	16	55	165	330	550
Sonic conductance C [dm³/(s·bar)]	3.2	11	33	66	110
Max. air flow (L/min (ANR))	300	1,000	3,000	6,000	10,000
Port size	3/8	3/4	1	1 1/2	2
Weight (kg)	0.2	0.5	0.7	1.2	1.7
Element part no.	AMC-EL3	AMC-EL5	AMC-EL6	AMC-EL8	AMC-EL9
Bracket part no. Note)	BE30	BE50	BE60	–	–

∗ ANR: 20°C atmospheric pressure, relative humidity 65%
Note) With 3 mounting screws

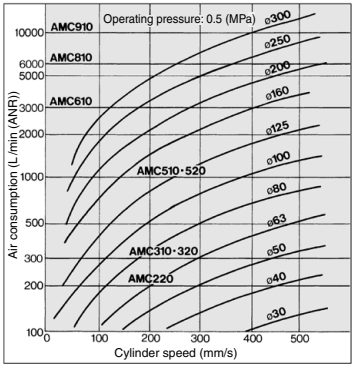
Model/Female Thread Type

Specifications \ Model	AMC220	AMC320	AMC520
Effective area (mm²)	12	16	55
Sonic conductance C [dm³/(s·bar)]	2.4	3.2	11
Max. air flow (L/min (ANR))	200	300	1,000
Port size	1/4	1/4, 3/8	1/2, 3/4
Weight (kg)	0.12	0.2	0.5
Element part no.	AMC-EL2	AMC-EL3	AMC-EL5
Bracket part no. Note)	BE20	BE30	BE50

∗ ANR: 20°C atmospheric pressure, relative humidity 65%
Note) With 3 mounting screws

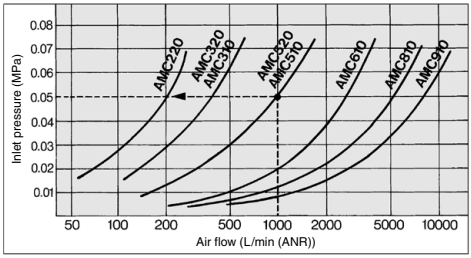
How to Select Condition: At operating pressure 0.5 MPa

Select a model according to the air consumption of the circuit to be used.
1. Obtain the air consumption of the actuator to be used. However, if an exhaust cleaner of the centralized piping type will be used, sum the air consumption of the actuators that operate simultaneously.
2. Select a model that provides a maximum processing flow volume that exceeds the consumption volume obtained in step 1.



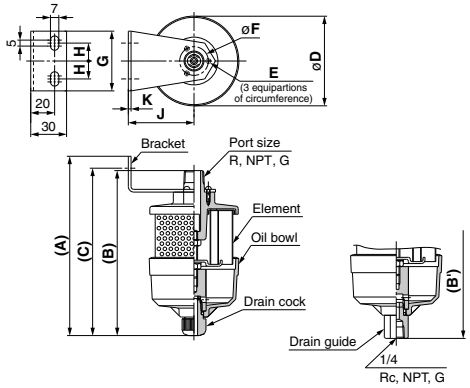
Flow Characteristics (Initial conditions)

How to read the graph: If the AMC510 is operated at a flow volume of 1000 L/min (ANR), the inlet pressure will be 0.05 MPa.



Construction/Dimensions

Male thread

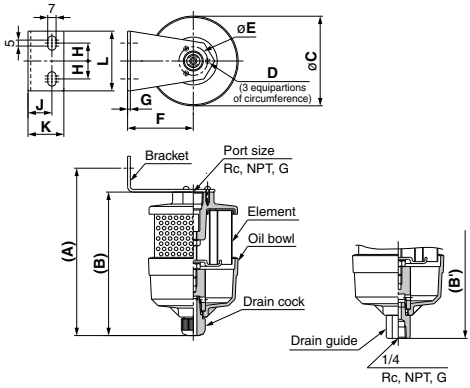


Drain piping type

(mm)

Model	Port size	A	B			C	D	Mounting bracket						Drain piping B'		
			R	NPT	G			E	F	G	H	J	K	Rc	NPT	G
AMC310	3/8	151	139	134	141	141	75	M3 x 0.5 Depth 8	24	50	15	55	2.3	142	137	
AMC510	3/4	204	197	189	194	194	102	M4 x 0.7 Depth 10	40	70	20	70	3.2	200	192	
AMC610	1	230	225	217	220	220	118	M4 x 0.7 Depth 10	48	70	20	80	3.2	228	220	
AMC810	1 1/2	–	270		–	135		–	–	–	–	–	–	273		
AMC910	2	–	327		–	153		–	–	–	–	–	–	330		

Female thread



Drain piping type

(mm)

Model	Port size	A	B	C	Mounting bracket								Drain piping B'		
					D	E	F	G	H	J	K	L	Rc	NPT	G
AMC220	1/4	100	88	56	M3 x 0.5 Depth 8	22	40	2.3	15	12	20	50	91		
AMC320	1/4, 3/8	141	121	75	M3 x 0.5 Depth 8	24	55	2.3	15	20	30	50	124		
AMC520	1/2, 3/4	194	174	102	M4 x 0.7 Depth 10	40	70	3.2	20	20	30	70	177		

How to Order Oil Bowl Assembly

If the oil case becomes damaged, it can be replaced easily.

AMC − CA 3 − A □

Body size

Symbol	Applicable model
2	AMC220
3	AMC310, 320
5	AMC510, 520
6	AMC610
8	AMC810
9	AMC910

Exhaust of oil mist

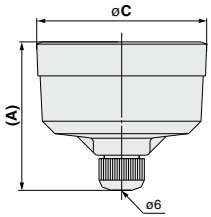
Symbol	Type
A	Drain cock (Standard)
D	Drain piping

Thread type Applicable to drain piping

Symbol	Type
Nil	Rc
N	NPT
F	G

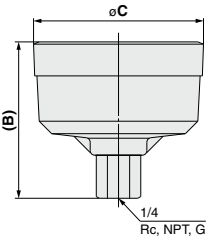
Note) Select the threads to match the threads on the product itself.

AMC-CA□-A



Drain cock

AMC-CA□-D
AMC-CA□-DN
-DF



Drain piping type

(mm)

Body size	A	B	C
2	56	59	56
3	66	69	75
5	83	86	102
6	96	99	118
8	96	99	135
9	116	119	153

Series AMC
Exhaust Cleaner
Special Product Precautions

Be sure to read before handling.

Design

⚠Warning

1. The exhaust port could become blocked by the clogging of the exhaust cleaner.
Therefore, make sure to provide a safe design so as not to cause the whole system to malfunction.

2. If compressed air exhausted from the solenoid valve is not clean clogging may occur,

3. Operate at a back pressure (inlet pressure) of 0.1 MPa or less.

Selection

⚠Caution

1. Select an exhaust cleaner which is able to dispose of the maximum allowable flow capacity of compressed air exhausted from solenoid valve.
If the flow exceeds the maximum allowable flow for the exhaust cleaner, drainage and oil may be sprayed into the environment causing damage to equipment.

2. Select a model which has a bigger effective area than that of the solenoid valve (including compound effective area).

3. If this will be used with a centralized piping system, calculate the peak maximum air consumption by including the actuators that operate simultaneously and the capacity of the piping that is connected.
Then, select a model so that the calculated value will be less than the maximum flow volume of the exhaust cleaner. (Select a style with ample capacity because the exhaust speed will decrease when the element becomes clogged.)

Mounting

⚠Caution

1. Make sure not to apply a lateral load to the body during or after the installation.

2. Take precautions so that the piping load is not be applied to the main body.
The attached bracket is for supporting the exhaust cleaner body only. Thus, it cannot support the piping or other items. If these items need to be supported, provide an additional support.

3. Exhaust cleaner must be mounted vertically.
If it is mounted diagonally, laterally, or inverted, the oil that is separated by the element will splash on the surroundings.

Maintenance

⚠Caution

1. If the exhaust speed drops and the system performance decreases due to clogging, replace with a new element.
Make sure to verify the operating condition of the actuator at least once a day.

2. The replacement interval for the element is before the internal pressure during exhaust reaches 0.1 MPa or after 1 year operation, whichever comes first.

- Provide a branch on the supply side of the exhaust cleaner to mount a valve and a pressure gauge.
- During inspection, open the valve and check the pressure at the time of exhaust discharge.
(The valve must remain closed except for inspection. The pressure gauge could break if the valve remains open.)