

Exhaust Cleaner Series AMC



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		Thread	
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.

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
04	Female	1/2
06	Female	3/4
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

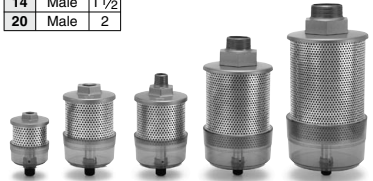
Specifications

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 (mm ²)		16	55	165	330	550
Sonic conductance C [dm ³ /(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 (mm ²)		12	16	55
Sonic conductance C [dm ³ /(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%

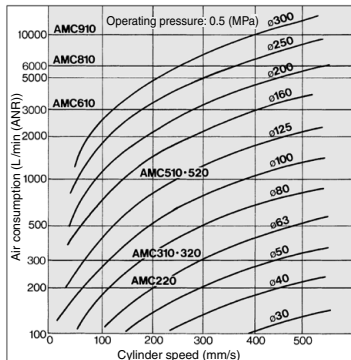
Note) With 3 mounting screws

How to Select

Condition: At operating pressure 0.5 MPa

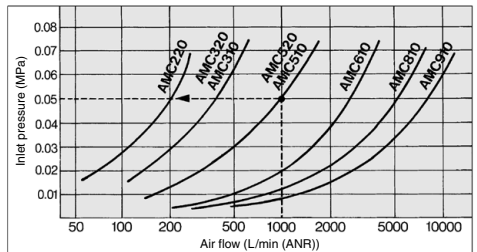
Select a model according to the air consumption of the circuit to be used.

- 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.
- 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.



GENTLE AUTOMATIC SOLUTION SDN BHD

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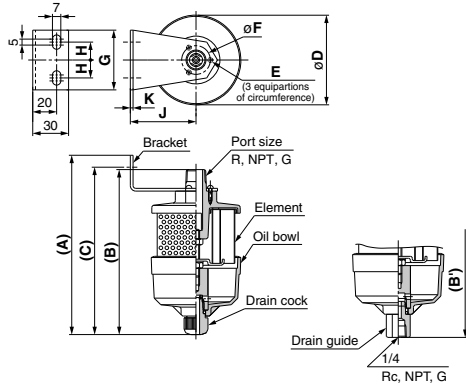
AMV

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Series AMC

Construction/Dimensions

Male thread

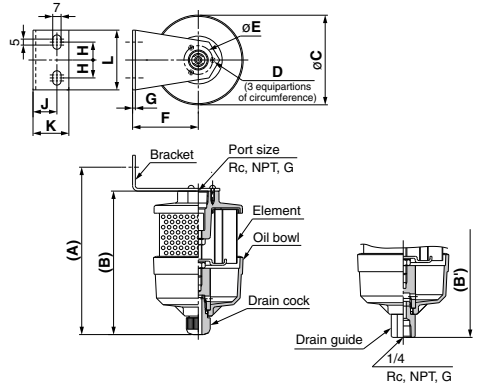


Drain piping type

(mm)

Model	Port size	A			B			C			D			Mounting bracket			Drain piping		
		R	NPT	G	R	NPT	G	R	NPT	G	E	F	G	H	J	K	Rc	NPT	G
AMC310	3/8	151	139	134	141	75	M3 x 0.5 Depth 8	24	50	15	55	2.3	142	137					
AMC510	3/4	204	197	189	194	102	M4 x 0.7 Depth 10	40	70	20	70	3.2	200	192					
AMC610	1	230	225	217	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				
					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.

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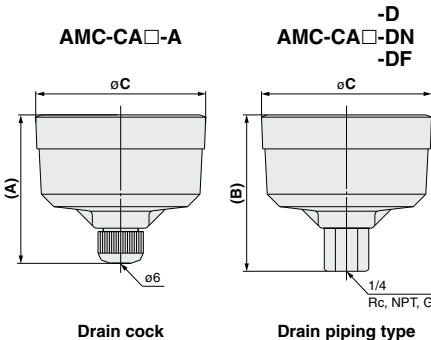
Symbol	Applicable model
2	AMC220
3	AMC310, 320
5	AMC510, 520
6	AMC610
8	AMC810
9	AMC910

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.



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.)

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SERIES (N)AMC EXHAUST CLEANER

- ✓ Ensures Clean Plant Air and Noise Reduction of distributing noise contamination
- ✓ Over 35 dB Noise Reduction
- ✓ Over 99.9% Oil Mist Removal



TECHNICAL SPECIFICATIONS

Max Operating Temperature	60°C / 140°F
Noise Reduction	35dB or more
Oil Mist Removal	99.9% or more
Exhaust of Oil Mist	Drain cock
Option	Bracket*
*Bracket not available on NAMC810 and 910	



HOW TO ORDER NAMC SERIES

Model	Male					Female		
	NAMC310	NAMC510	NAMC610	NAMC810	NAMC910	NAMC220	NAMC320	NAMC520
Port Size NPT	3/8"	3/4"	1	1 1/2	2	1/2"	1/2*3/8"	1/2*3/4"
Max Air Flow (Nl/min)	300	1,000	3,000	6,000	10,000	200	300	1,000
Effective Orifice mm ² (Cv)	16 (0.88)	55 (3.1)	165 (9.2)	330 (18.3)	550 (31)	12 (0.66)	16 (0.88)	55 (3.1)
Element Model No	635321	635521	635619	635812P	635917P	63522	635321	635521
Bracket Model No	BE30	BE50	BE60	-	-	BE20	BE30	BE50

ACCESSORIES

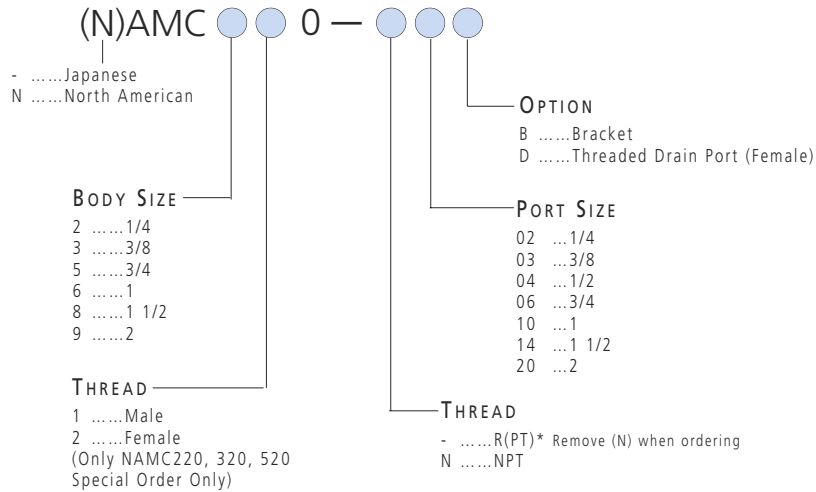
SERIES (N)AMC EXHAUST CLEANER

ElementSee "How To Order"
BracketSee "How To Order"

FOR MORE TECHNICAL INFORMATION ON THIS SERIES, PLEASE CONSULT SMC CUSTOMER SERVICE

HOW TO ORDER

EXHAUST CLEANER SERIES (N)AMC



FOR FURTHER TECHNICAL DETAILS ON THIS PRODUCT, REQUEST CATALOG REFERENCE E5G