

Exhaust Cleaner Series AMC

How to Order

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



AMC 5 1 0 - 06

Body size	
2	1/4 std.
3	3/8 std.
5	3/4 std.
6	1 std.
8	1 1/2 std.
9	2 std.

Thread	
1	Male thread
2 ⁽¹⁾	Female thread

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

Thread type	
Nil	R, Rc
N	NPT
F	G

Suffix	
B	With bracket
D ⁽²⁾	Drain piping (Except AMC220)

* Indicate "BD" if both are required.
Note 2) On the AMC220, an R 1/4 fitting can be attached by removing the drain cock. (It becomes the drain piping type.)

Port size

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

JIS Symbol



How to Order Oil Bowl Assembly

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

AMC - CA 3 - A

Body size	
2	AMC220
3	AMC310, 320
5	AMC510, 520
6	AMC610
8	AMC810
9	AMC910

Exhaust of oil mist

A	Drain cock (Standard)
D	Drain piping

Thread type

Applicable to drain piping

Nil	Rc
N	NPT
F	G

Note 1) On the type for the AMC220, an R 1/4 fitting can be attached by removing the drain cock. (It becomes the drain piping type.)

Note 2) Select the threads to match the threads on the product itself.

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
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 5-10-14 for Specific Product Precautions.

Model/Male Thread Type

Specifications	Model	AMC310	AMC510	AMC610	AMC810	AMC910
Effective area (mm ²)		16	55	165	330	550
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 model no.		AMC-EL3	AMC-EL5	AMC-EL6	AMC-EL8	AMC-EL9
Bracket model no.		BE30	BE50	BE60	—	—

* ANR: 20°C atmospheric pressure, relative humidity 65%

Model/Female Thread Type

Specifications	Model	AMC220	AMC320	AMC520
Effective area (mm ²)		12	16	55
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 model no.		AMC-EL2	AMC-EL3	AMC-EL5
Bracket model no.		BE20	BE30	BE50

* ANR: 20°C atmospheric pressure, relative humidity 65%

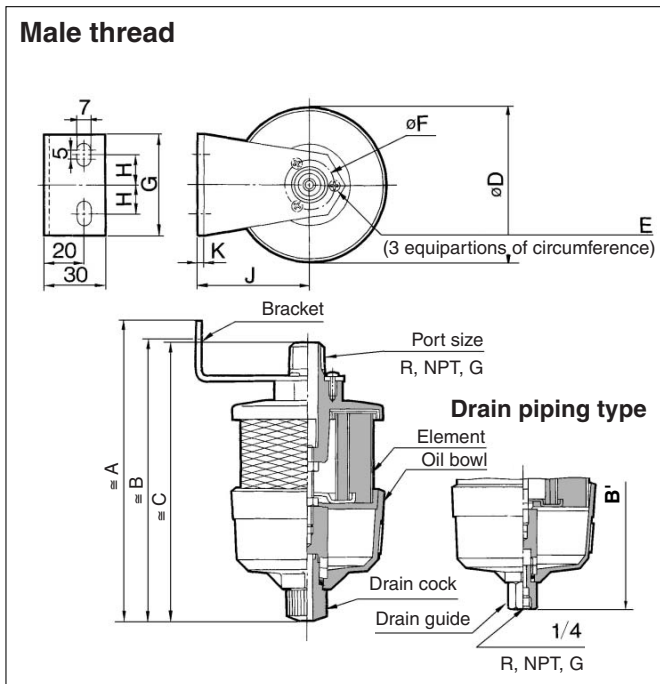
VEX

AN

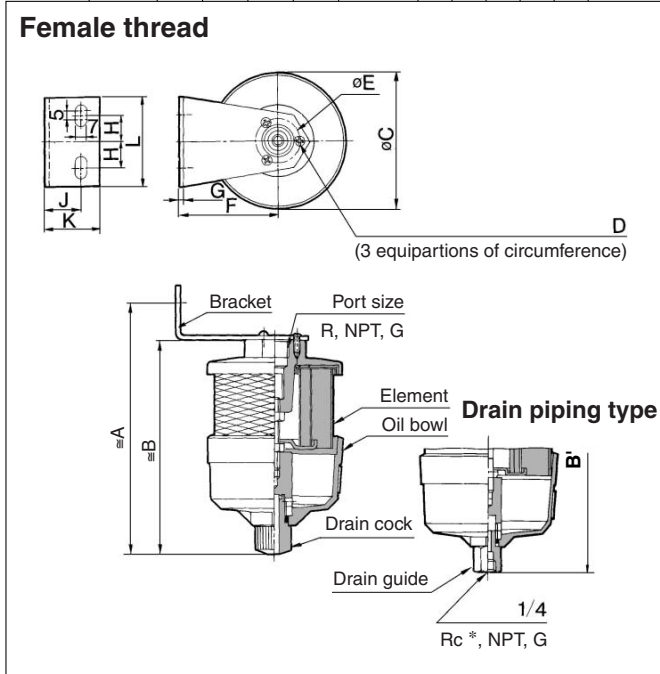
AMC

Series AMC

Construction/Dimensions



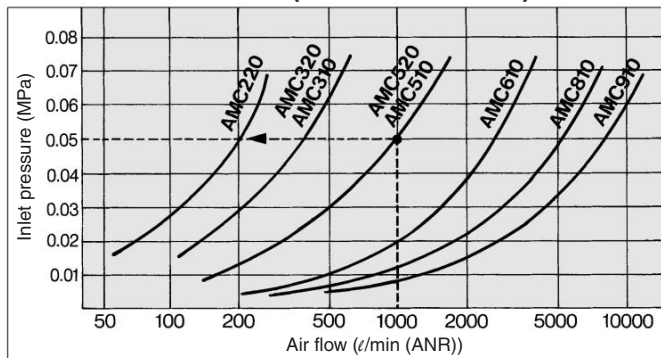
Model	Port size	A	B	C	D	Mounting bracket						Drain piping
						E	F	G	H	J	K	
AMC310	3/8	150.5	138.5	140.5	75	M3 x 0.5 Depth 8	24	50	15	55	2.3	141.5
AMC510	3/4	203.5	196.5	193.5	102	M4 x 0.7 Depth 8	40	70	20	70	3.2	199.5
AMC610	1	229.5	224.5	219.5	118	M4 x 0.5 Depth 10	48	70	20	80	3.2	227.5
AMC810	1 1/2	—	270	—	135	—	—	—	—	—	—	273
AMC910	2	—	327	—	153	—	—	—	—	—	—	330



Model	Port size	A	B	C	D	Mounting bracket						Drain piping	
						E	F	G	H	J	K		L
AMC220	1/4	100	88	56	M3 x 0.5 Depth 8	22	40	2.3	15	12	20	50	73 □
AMC320	1/4, 3/8	140.5	120.5	75	M3 x 0.5 Depth 8	24	55	2.3	15	20	30	50	123.5
AMC520	1/2, 3/4	193.5	173.5	102	M4 x 0.7 Depth 8	40	70	3.2	20	20	30	70	176.5

* On the type for the AMC220, an R 1/4 fitting can be attached by removing the drain cock. (It becomes the drain piping type.)

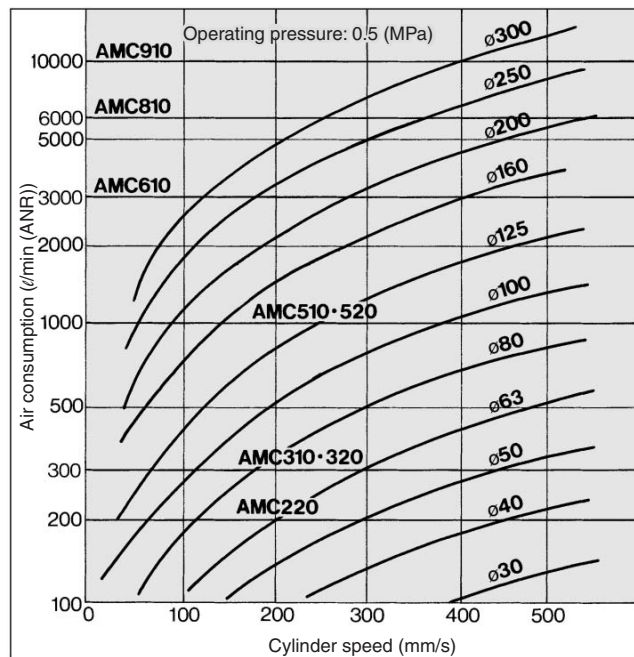
Flow Characteristics (Initial conditions)



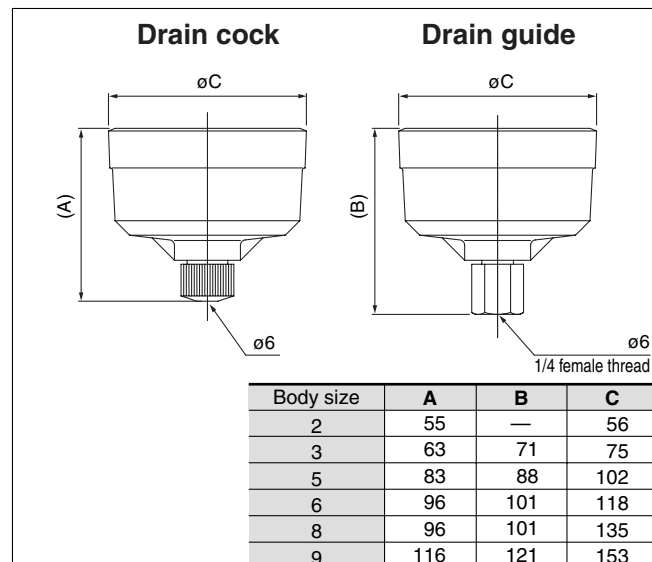
How to read the graph: If the AMC510 is operated at a flow volume of 1000 l/min (ANR), the inlet pressure will be 0.05 MPa.

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. Also add the capacity of the piping from the cylinder to the EXH.
 - Select a model that provides a maximum processing flow volume that exceeds the consumption volume obtained in step 1.



Dimensions





Exhaust Cleaner (Series AMC)

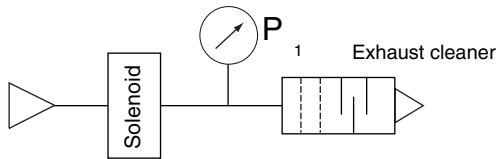
Specific Product Precautions

Be sure to read before handling.

Caution on 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. The inlet pressure obtained in the flow characteristic graph of silencer indicates the pressure (P1) prior to exhaust cleaner. (Refer to the diagram below.)



Inlet pressure for exhaust cleaner

3. If compressed air exhausted from the solenoid valve is not clean clogging may occur,
4. 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

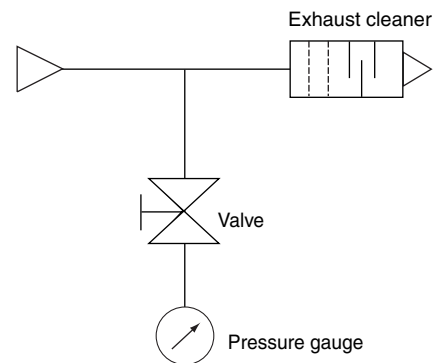
Caution

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.



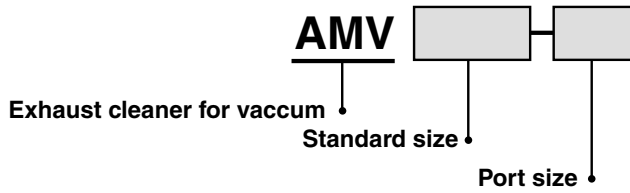
- Provide a branch on the supply side of the exhaust cleaner to mount a valve and a pressure gauge.
- During inspection, open the valve and check the pressure at the time of exhaust discharge.
(The valve must remain closed except for inspection. The pressure gauge could break if the valve remains open.)

Related Products:

Exhaust Cleaner for Vacuum

Over 99.5% of oil mist can be removed.
Piping to exhaust ducts from vacuum pump is unnecessary.

How to Order



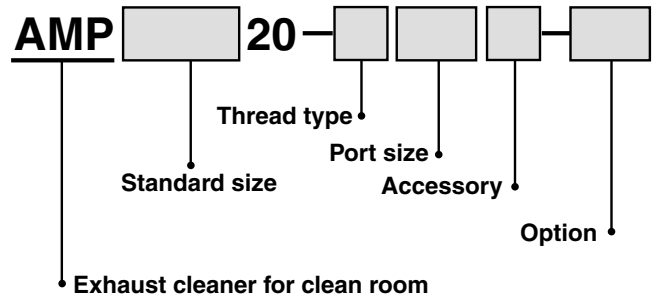
Model

Standard size	Port size	Max. air flow (ℓ/min (ANR))
3	1	360
6	1 1/2	650
15	2	1,500
37	2	3,700
75	3 ^B flange	7,500
160	4 ^B flange	16,000

Exhaust Cleaner for Clean Room

Since it is possible to release exhaust air from pneumatic equipment directly into a clean room, piping to exhaust ducts is unnecessary.

How to Order



Model

Standard size	Thread type	Port size				Max. air flow (ℓ/min (ANR))	Accessory Option
		1/4	3/8	1/2	3/4		
2	Rc	●	●			200	<ul style="list-style-type: none"> • Bracket • Flow direction (Right → Down) • With element service indicator
3	NPT		●	●	●	500	
4	G			●		1,000	



For details, refer to individual catalog (CAT: ES13-7) separately.

VEX

AN

AMC



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"	1/2"	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

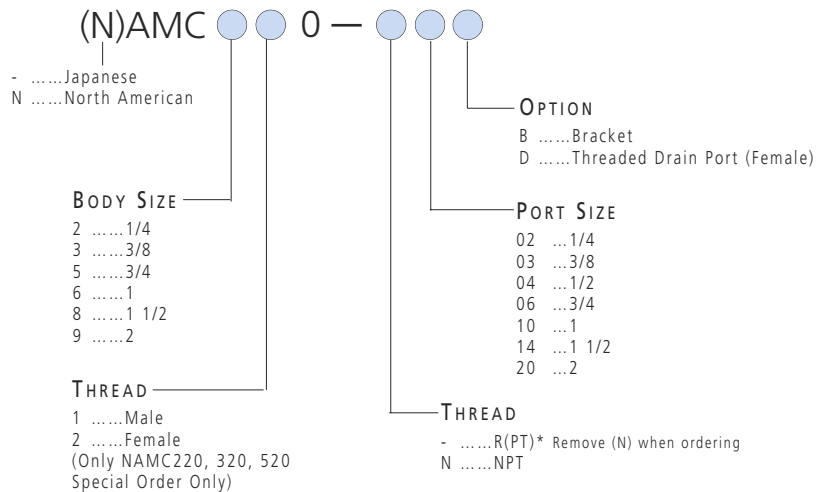
SERIES (N)AMC EXHAUST CLEANER

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