Drain Separator for Vacuum

Series AMJ

Removes water droplets from air by simply installing in vacuum equipment connection lines.
Effective for removing water droplets from the air sucked into vacuum pumps and ejectors, etc.

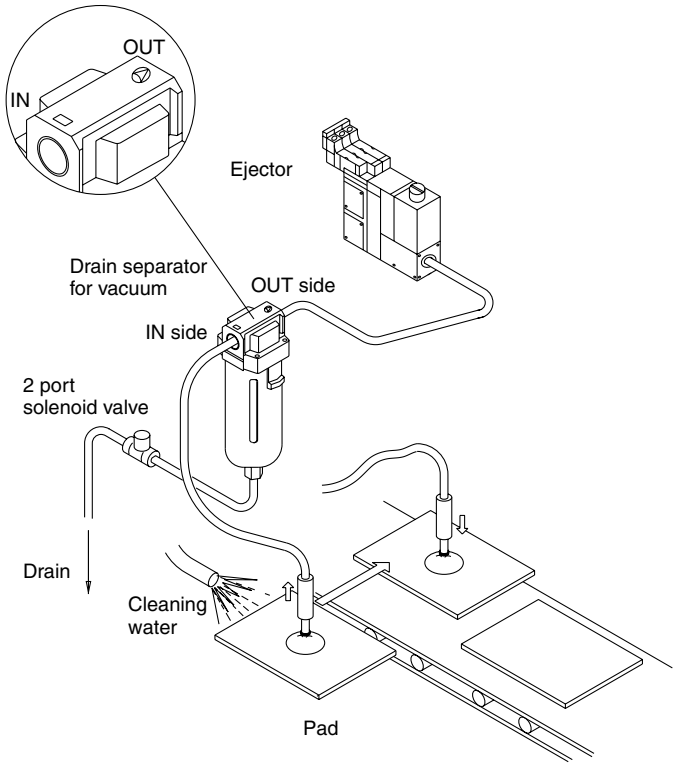
⚠ Precautions

Be sure to read before handling. Refer to pages 13-15-3 to 13-15-4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and refer to page 13-1-5 for Precautions on every series.

Mounting

⚠ Caution

1. Air piping should be thoroughly flushed before mounting.
2. When piping and fittings, etc. are being screwed together, be certain that cutting chips from the pipe threads, sealing material, and other debris do not get inside the piping. Further, when pipe tape is used, leave 1.5 to 2 thread ridges exposed at the end of the pipe.
3. The unit should be mounted vertically.
4. When piping is being installed, connect IN for work side and OUT for ejector or vacuum pump.



5. When drainage is discharged automatically, install 2 port solenoid valve and activate it in such an operation cycle like the drainage should be discharged by the time it reaches the upper limit. But when discharging it, return the case interior to atmospheric pressure before proceeding.

Operating Environment

⚠ Warning

1. Since the case material is polycarbonate, avoid using chemicals such as thinner, carbon tetrachloride, chloroform, aniline, cyclohexan, trichloroethylene, sulfric acid, lactic acid or water-miscible cutting fluid (alkaline), etc. Operation of the product in an atmosphere containing any of these chamicals should also be avoided.
   A neutral detergent may be used for cleaning the bowl.
2. Avoid use exposed to direct sunlight.

Maintenance

⚠ Caution

1. The element should be replaced after 2 years of use, or before the pressure drops to 0.02 MPa (0.2 kgf/cm^2).
   The spacer and O-ring should also be replaced at the same time that the element is replaced.
   Sometimes when the bowl is removed for a purpose other than replacing the element, the spacer may stick to the bowl and come off. In this case however, it may be returned to its installed position and used again.
2. Drainage should be discharged by the time it reaches the upper limit.
   Furthermore, when drainage is to be discharged or the element replaced, first confirm that all equipment, etc is stopped, and return the interior of the bowl to atmospheric pressure before proceeding.

Bowl Capacity

AMJ3000	30 cm^3
AMJ4000/5000	85 cm^3

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Over 90% of droplets can be removed through the use of a special water droplet removing element.

The provision of a drain cock makes it possible to discharge the drain manually after breaking the vacuum.

Even when the element is saturated with water, there is almost no drop in pressure (increase in resistance).

The element can be replaced with a single touch.

How to Order

AMJ [30] **00-** [ ] [03] [ ] **-** [2R]

Body size

30	3/8
40	1/2
50	3/4

Thread type

Nil	Rc
F	G
N	NPT

Port size

02	1/4
03	3/8
04	1/2
06	3/4
10	1

Pressure gauge position

Nil	None
B	Bracket

Option

Nil	Drain cock
2	Metal bowl
6	Nylon bowl
J	Drain guide (Rc 1/4)*
R	Flow: Right → Left

If ordering two options or more, indicate symbols numerically and alphabetically.

* Without valve function (It needs drain piping and piping for a stop valve like ball valves, etc.)

Option/Combinations

◎ Combination available Combination not available

Option	Symbol	Nil	2	6	J	R
Drain cock	**Nil**		◎	◎		◎
Metal bow	**2**	◎			◎	◎
Nylon bowl	**6**	◎			◎	◎
Drain guide	**J**		◎	◎		◎
Flow: Right → Left	**R**	◎	◎	◎	◎	

Model

Model	AMJ3000	AMJ4000	AMJ5000
Recommended flow rate (ℓ/min(ANR))	200	300	500
Port size (Nominal size B)	1/4, 3/8	3/8, 1/2	3/4, 1
Weight (kg)	0.3	0.6	1.1

Specifications

Fluid	Air
Maximum operating pressure	1.0 MPa
Minimum operating pressure	–0.1 MPa
Proof pressure	1.5 MPa
Ambient and fluid temperature	5 to 60°C
Water drop removal ratio	90%
Element life	2 years or when pressure drops to 0.02 MPa (0.2 kgf/cm^2)

Accessory (Option)

Applicable model	AMJ3000	AMJ4000	AMJ5000
Bracket assembly (With 2 mounting screws)	B340A	B440A	B640A

How to Order Bowl Assembly

AMJ-CA [30] **00-** [2] [A] [ ]

Body size

30
40
50

Option

Nil	Polycarbonate bowl (1)
2	Metal bowl
6	Nylon bowl (1)

Note 1) The bowl assembly includes a bowl guard (Material: SPCE).

Drain discharge

A	Drain cock
J	Drain guide (Rc 1/4)(2)

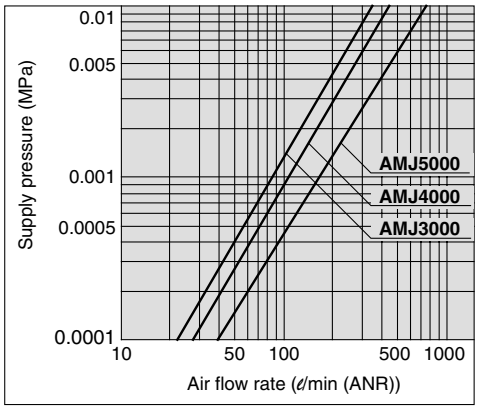
Note 2) Without valve function (It needs drain piping and piping for a stop valve like ball valves, etc.)

Thread type(3)

Nil	Rc
F	G
N	NPT

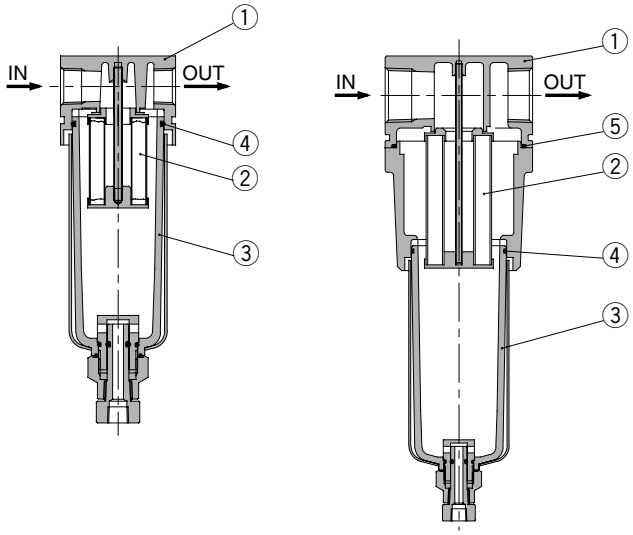
Note 3) Select in line with the thread type on the body.

Flow Characteristics



Fluid: Air (pressurized)
Measured pressure: Downstream release to atmosphere

Construction



Component Parts

No.	Description	Material	Note
①	Body	Aluminum die-casted	Platinum silver coated

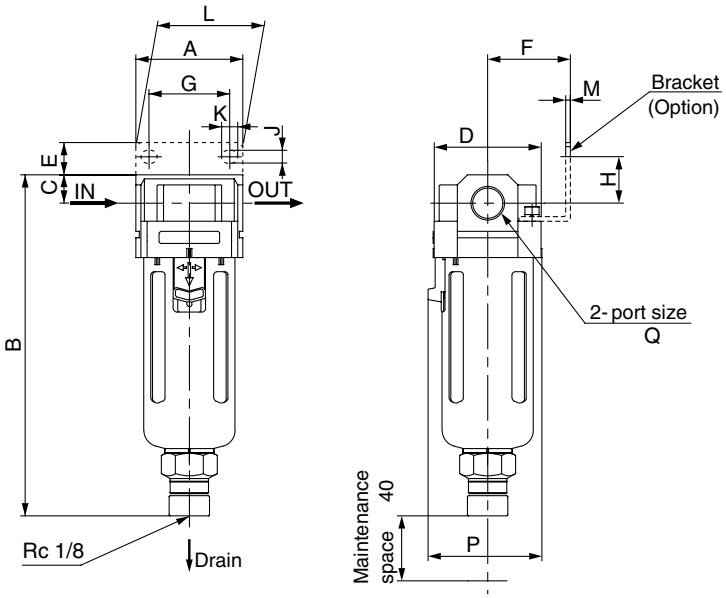
Replacement Parts

No.	Description	Material	Part no.		
			AMJ3000	AMJ4000	AMJ5000
②	Element assembly	—	AMJ-EL3000	AMJ-EL4000	AMJ-EL5000
③	Bowl assembly Note)	—	AMJ-CA3000-□	AMJ-CA4000-□	AMJ-CA5000-□
④	O-ring	NBR	111512	111636	111636
⑤	O-ring	NBR	—	—	111710

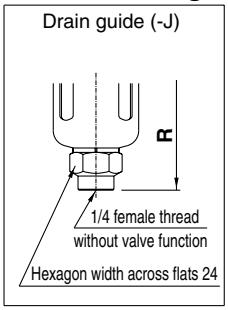
Note) Refer to the above for "How to Order Bowl Assembly".

Dimensions

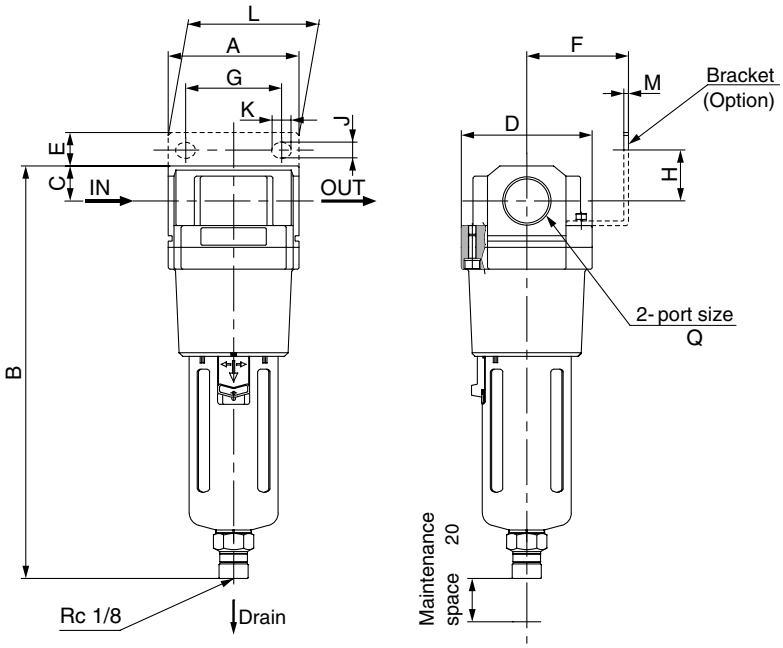
AMJ3000/4000



Drain Discharge



AMJ5000



(mm)

Model	Port size Q	A	B Note)	C	D	Bracket mounting dimensions								With drain guide R Note)
						E	F	G	H	J	K	L	M	
AMJ3000	1/4, 3/8	53	169 (171)	14	53	16	41	40	23	6.5	8	53	2.3	158 (160)
AMJ4000	3/8, 1/2	70	205 (206)	18	70	17	50	54	26	8.5	10.5	70	2.3	194 (195)
AMJ5000	3/4, 1	90	284 (285)	24	90	23	70	66	35	11	13	90	3.2	273 (274)

Note) ( ) is the case for metal bowl.