



Oil mist filter standard white Series  
**M1000/M3000/M4000**  
**M6000/M8000-W Series**

Ideal for circuits susceptible to oil, including measuring, and instrumentation circuits  
 Port size: 1/8 to 1

JIS symbol



### Specifications

Descriptions	M1000-W	M3000-W	M4000-W	M6000-W	M8000-W
Appearance					
Working fluid	Compressed air				
Working pressure range MPa	0.1 to 1.0 Note 7, 8				
Withstanding pressure MPa	1.5 Note 7				
Drain capacity cm <sup>3</sup>	3	45	80	80	80
Port size Rc, NPT, G	1/8, 1/4 (3/8 uses an adapter)	1/4, 3/8 (1/2 uses an adapter)	1/4, 3/8, 1/2 (3/4 uses an adapter)	3/4, 1 (1 1/4 uses an adapter)	3/4, 1 (1 1/4 uses an adapter)
Product weight kg	0.096	0.28	0.52	0.95	1.35
Standard accessories	Bowl guard				

Mantle option name	Blank (M type)	S (S type)	X (X type)
Maximum flow rate Note 1 ℓ/min. (ANR)	150 note 7	150 note 7	150
Primary side pressure 0.7MPa	360	450	450
Pressure drop 0.01MPa	825	1000	1000
	1270	1400	1400
	2600	2900	2900
Ambient temperature range °C	5~60		5~30
Filtration rating μm	0.01 (nominal)		0.3 Suction by activated charcoal Note 4
Secondary side oil concentration mg/m <sup>3</sup>	0.01 or less Note 2, Note 3		0.5 or less Note 2 0.003 or less Note 5
Mantle (element) change	1 year (6000 hours) or pressure drop 0.1MPa		- Note 6

Note 1: Use within the maximum processing flow rate.

If the maximum processing flow is exceeded temporarily, or if the filter is installed at a place with high levels of pulsation, the mantle could be damaged or oil or drainage, etc., could splatter to the secondary side and result in faults at the terminal.

Note 2: The secondary oil density is the value when the primary oil density is 30 mg/m<sup>3</sup> and inlet air temperature is 21°C.

Note 3: Install an oil mist filter (S type) as a prefilter on the primary side to prevent early clogging.

Note 4: Activated charcoal particles could flow to the secondary side, so install an air filter (F Series) or oil mist filter (M Series M type or S type) on the secondary side.

Note 5: When an oil mist filter (M Series M type) is installed on the primary side.

Note 6: The mantle (element) replacement period differs with the odor density in compressed air, and thus cannot be clearly indicated.

Consider the total period from initial installation to when the smell of oil is confirmed as the effective deodorizing period, and replace at the same time as the M type or control with usage time. (When the inlet temperature is 21°C, replace at the control time or 1,000 hours, whichever is sooner)

Keep the primary air temperature at 30°C or less. The deodorizing effect will drop if the temperature is high, so provide heat dissipation measures.

Note 7: With M1000-W-F1 automatic drain, minimum operating pressure is 0.2 MPa, maximum operation pressure is 0.7 MPa and the guaranteed pressure resistance is 1.05 MPa. Refer to the maximum processing flow graph (page 93) for the maximum working flow.

Note 8: Min. operating pressure is 0.15MPa for "F1" with automatic drain.

### Clean room specifications (Catalog No. CB-033SA)

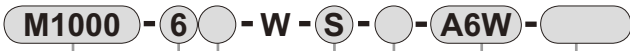
● Dust generation preventing structure for use in cleanrooms

**M\*000-..... - P7\***

# Oil Mist Filter Series

How to order

## How to order



A Model no.

B Port size

C Port thread type

D Option

E Display unit

F Piping adapter set (attached)

G Bracket (attached)

\* Refer to page 9 for explanation of an option.

A Model no.

M	M	M	M	M
1	3	4	6	8
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

Symbol	Descriptions					
<b>B Port size</b>						
6	1/8	●				
8 <b>Note 8</b>	1/4	●	●	●		
10	3/8		●	●		
15	1/2			●		
20	3/4				●	●
25	1				●	●
<b>C Port thread type</b>						
<b>Note 1</b>						
Blank	Rc thread	●	●	●	●	●
N	NPT thread	●	●	●	●	●
G	G thread	●	●	●	●	●
<b>D Option</b>						
<b>Note 2</b>						
Drainage <small>Note 3, Note 4</small>	Blank	With manual drain cock	●	●	●	●
	F1	Automatic drain with manual override (NC type; No exhaust without pressurized)	●	●	●	●
Bowl material	Blank	Polycarbonate bowl	●	●	●	●
	Z	Nylon bowl	●	●	●	●
	M <b>Note 6</b>	Metal bowl		●	●	●
	M1	Metal bowl with manual drain cock		●	●	●
Mantle (element)	Blank	M type (nominal 0.01µm; remaining oil 0.01mg/m <sup>3</sup> )	●	●	●	●
	S	S type (0.3µm; remaining oil 0.5mg/m <sup>3</sup> )	●	●	●	●
	X <b>Note 5</b>	X type (deodorization; remaining oil 0.003mg/m <sup>3</sup> )	●	●	●	●
Differential pressure detection	Blank	Without differential pressure detection port	●	●	●	●
	Q	With differential pressure detection port (Rc1/4)				●
Differential pressure indicator	Blank	Without differential pressure indicator	●	●	●	●
	Q1 <b>Note 5, Note 6</b>	Differential pressure with indicator			●	
Flow direction	Blank	Standard flow (left → right)	●	●	●	●
	X1	Reverse flow (right → left)	●	●	●	●
<b>E Display unit</b>						
Blank	MPa display, Rc thread	●	●	●	●	●
J1	MPa display, NPT, G thread	●	●	●	●	●
<b>F Piping adapter set (attached)</b>						
<b>Note 7 Pages 151 to 153</b>						
Blank	Not attached	●	●	●	●	●
A6*W	1/8 piping adapter set	●				
A8*W	1/4 piping adapter set	●	●	●		
A10*W	3/8 piping adapter set	●	●	●		
A15*W	1/2 piping adapter set		●	●		
A20*W	3/4 piping adapter set			●	●	●
A25*W	1 piping adapter set				●	●
A32*W	1 1/4 piping adapter set				●	●
<b>* Adaptor screw type</b>						
Blank	Rc thread	●	●	●	●	●
N	NPT thread	●	●	●	●	●
G	G thread	●	●	●	●	●
<b>G Bracket (attached)</b>						
<b>Page 148</b>						
Blank	Not attached	●	●	●	●	●
BW	C type bracket	●	●	●	●	●

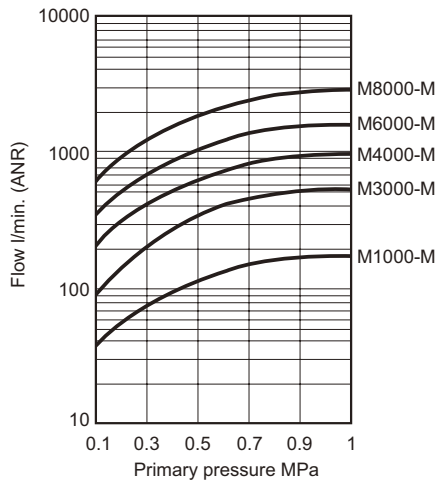
### ⚠ Note on model no. selection

- Note 1: When G threads or NPT threads are selected, the IN, OUT, and drain port (metal bowl automatic drain) are available.
- Note 2: Select options for each drainage, bowl material and differential pressure detection.  
When selecting options for several items, list options in order from the top.
- Note 3: Automatic drain of NO type can not be selected.
- Note 4: Refer to page 11 for the automatic drain use conditions.
- Note 5: Combination with option F1 or "Q1" with differential pressure indicator is not possible.
- Note 6: "Q1" with differential pressure indicator cannot be selected for bowl material "M".
- Note 7: The piping adapter set and C type bracket cannot be used together.
- Note 8: "Q1" with differential pressure indicator cannot be selected for port size "8".

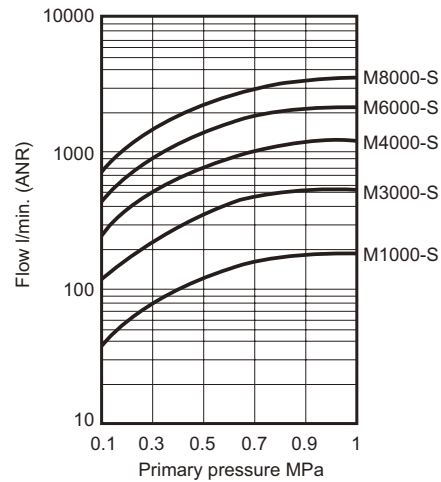
# Oil Mist Filter Series

## Flow characteristics (maximum flow rate)

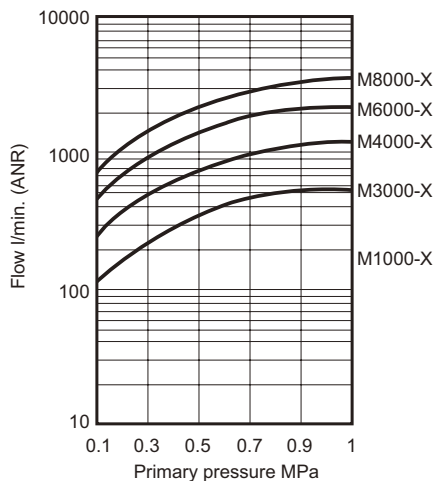
● M\*000-W-M



● M\*000-W-S

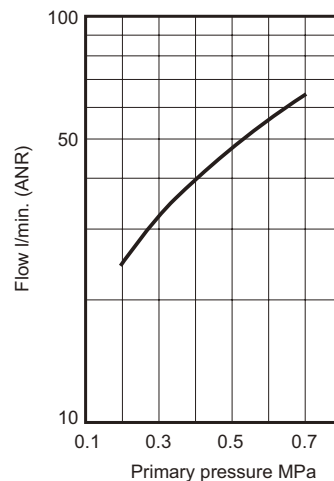


● M\*000-W-X



● M1000-W-F1

With automatic drain (M type, S type)



### Oil mist filter: Using optional mantle

Major recommended circuit  
\* S type



#### Applications

- General industrial air
- Air tool
  - Air drill, air screw driver
  - air grinder
- Labor saving device and components
- Pneumatic jigs and tools
- Air chuck
- Air vice
- Precision part cleaning air blow

\* M type



#### Oil free air

- Instrumentation
- Measurement
- Logic control
- Movable element, pure fluid element
- Luxury painting
- Precise industry

\* X type



#### Deodorization air

- Food industry
- Pharmaceutical industry
- Agitation
- Transportation
- Dry
- Package
- Air for brewing

### Option symbol and shape of mantle

Option symbol	Appearance
Blank (M type)	<p>End plate black Plastic form red</p>
S (S type)	<p>End plate green Plastic form red</p>
X (X type)	<p>End plate black Punching metal</p>

CAUTION: Changes for product upgrades may be made without prior notice.  
When placing an order, confirm the option symbol for the part model given here.

### Oil indicator

Use the oil indicator for measuring oil content density.

Oil indicator model no.  
With needle valve 6509  
Without needle valve 6510



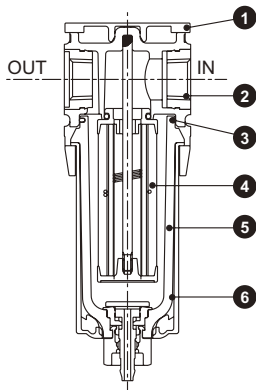
Note: Consult with CKD for details.

# Oil Mist Filter Series

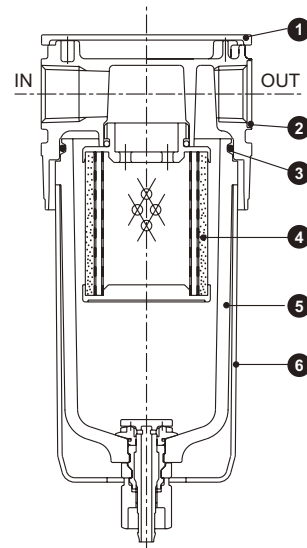
Internal structure and parts list

## Internal structure and parts list

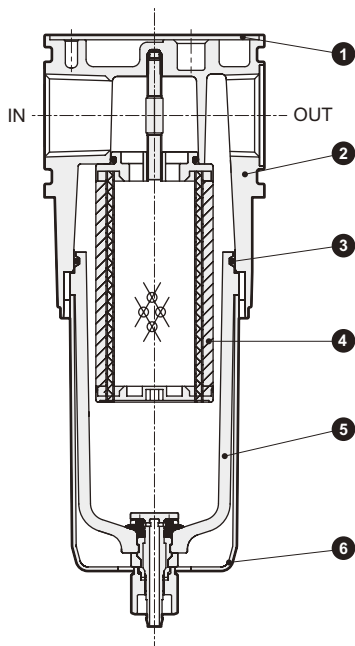
● M1000-W



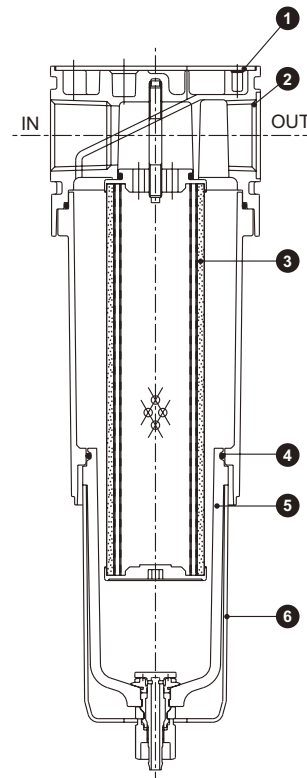
● M3000-W/M4000-W



● M6000-W



● M8000-W



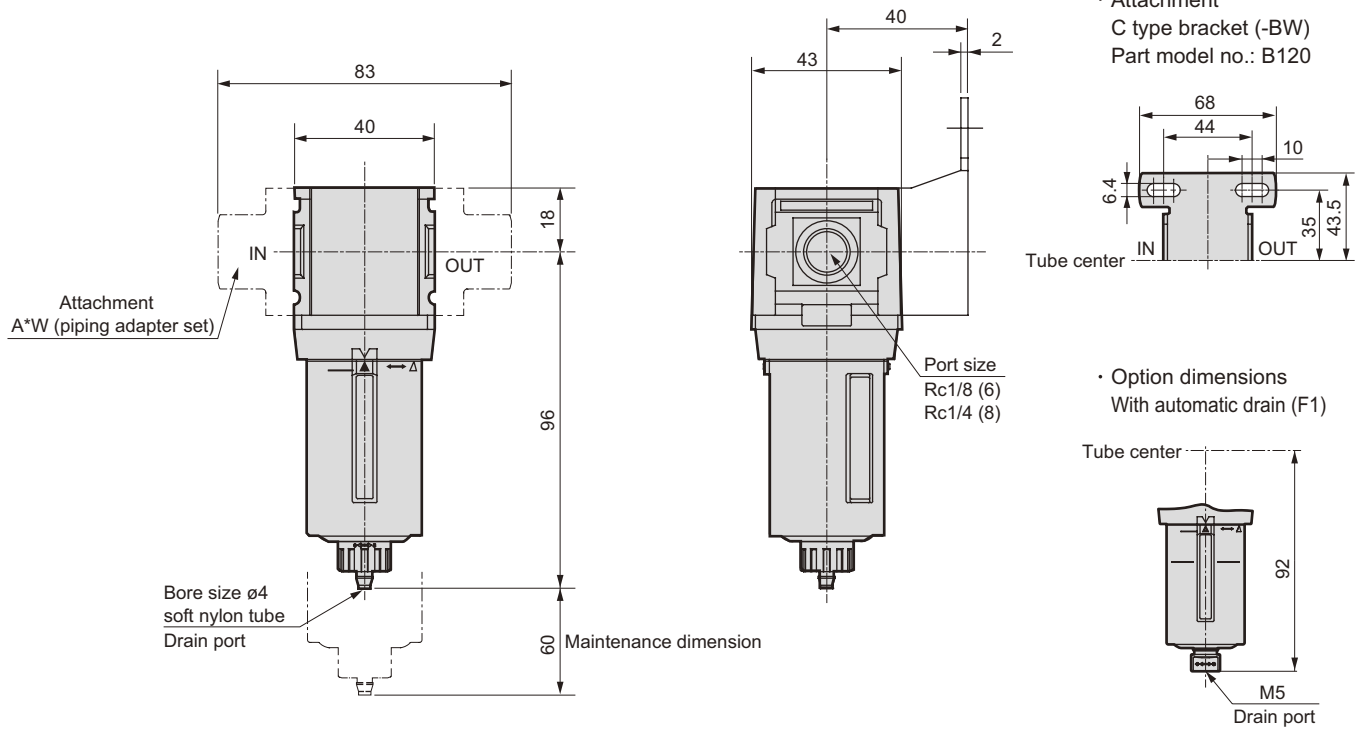
No.	Part name	Material				
		M1000-W	M3000-W	M4000-W	M6000-W	M8000-W
1	Plate cover	ABS resin				
2	Body	Polyamide resin	Aluminum alloy die-casting			
3	O ring Note 1	Special nitrile rubber				
4	Mantle assembly	-				
5	Bowl assembly	Polycarbonate resin, polyacetal resin, urethane rubber resin				
6	Bowl guard	Polyamide resin	Polyamide resin, steel			

Note 1: The M1000-W O ring has a special shape.

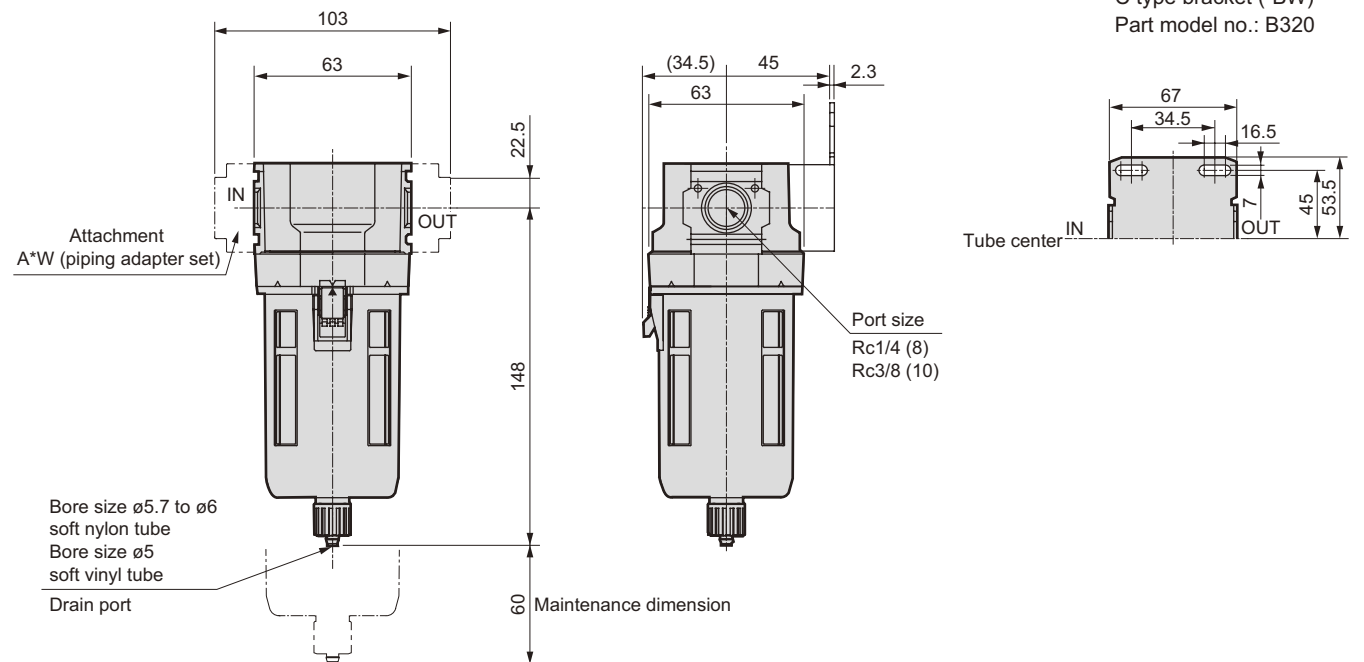
# Oil Mist Filter Series

## Dimensions

### ● M1000-W



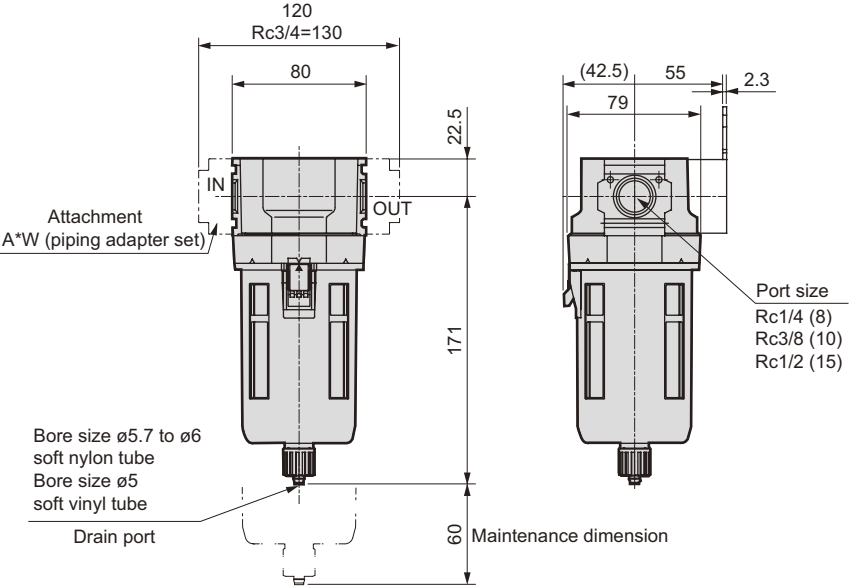
### ● M3000-W



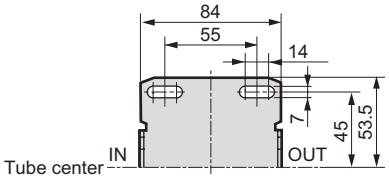
● For the plastic bowl, the dimensions are the same regardless of whether the manual cock or automatic drain is installed.  
Note: The C-type bracket and piping adapter set attachments cannot be used at the same time.

Dimensions 

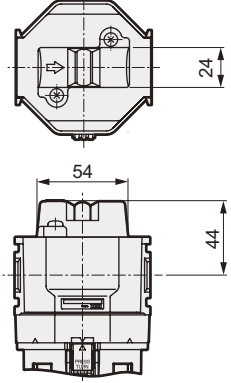
● M4000-W



• Attachment  
C type bracket (-BW)  
Part model no.: B420

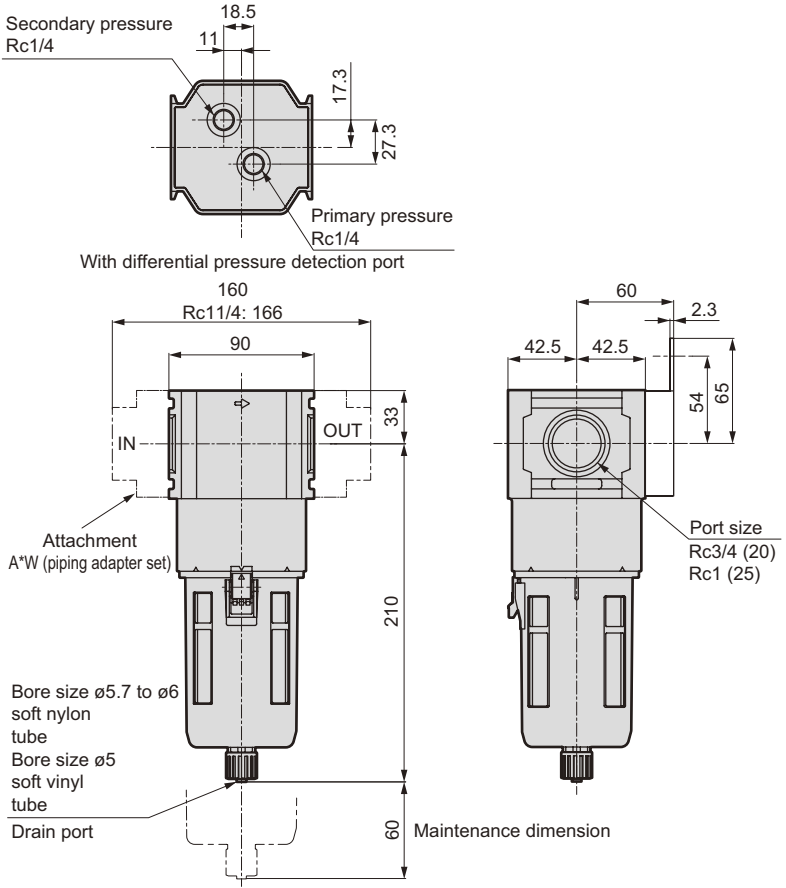


• Option dimensions  
Differential pressure with indicator (Q1)

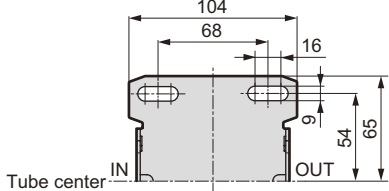


● For the plastic bowl, the dimensions are the same regardless of whether the manual cock or automatic drain is installed.

● M6000-W



• Attachment  
C type bracket (-BW)  
Part model no.: B620

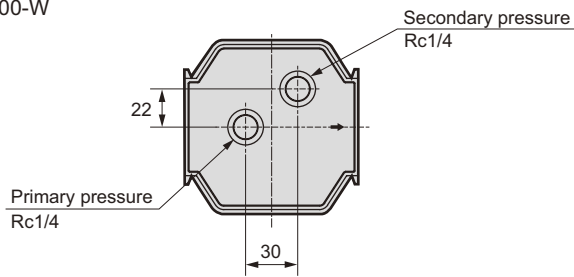


● For the plastic bowl, the dimensions are the same regardless of whether the manual cock or automatic drain is installed.  
Note: The C-type bracket and piping adapter set attachments cannot be used at the same time.

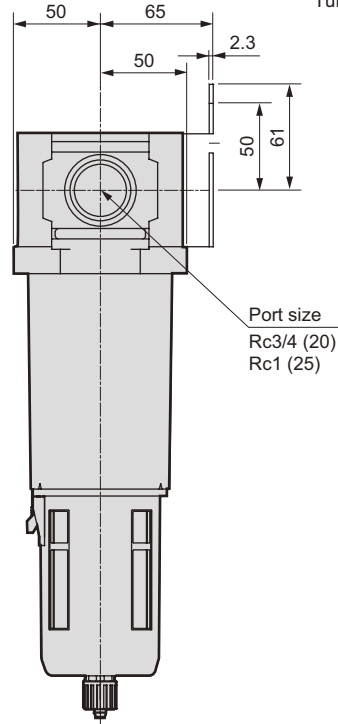
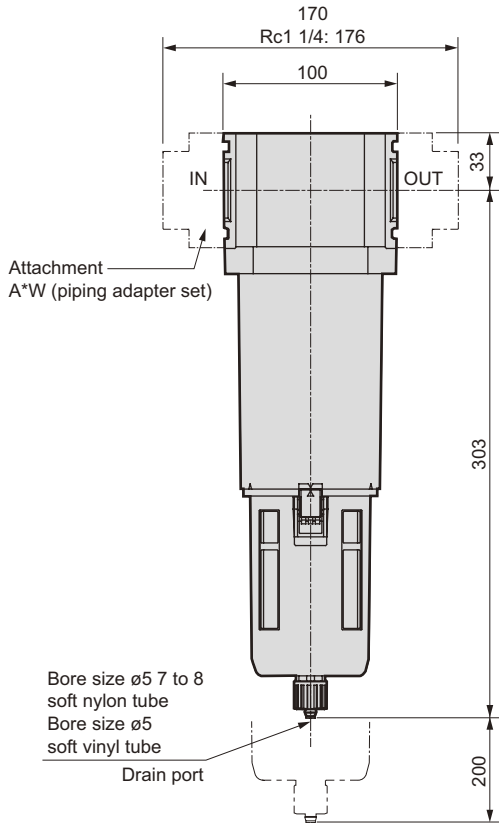
# Oil Mist Filter Series

## Dimensions

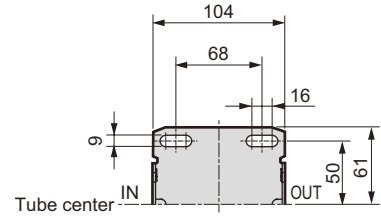
### ● M8000-W



Option  
(With differential pressure detection port)



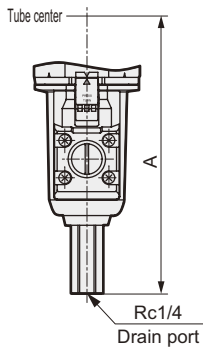
### ● Attachment C type bracket (-BW) Part model no.: B820



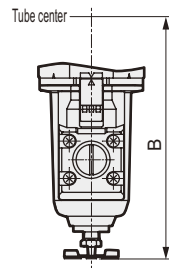
● For the plastic bowl, the dimensions are the same regardless of whether the manual cock or automatic drain is installed.

### ● Metal bowl (option) (M3000-W, M4000-W, M6000-W, M8000-W)

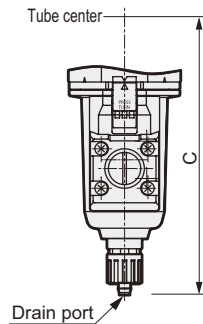
Metal manual cock  
with automatic drain (F1M)



With petcock (M)



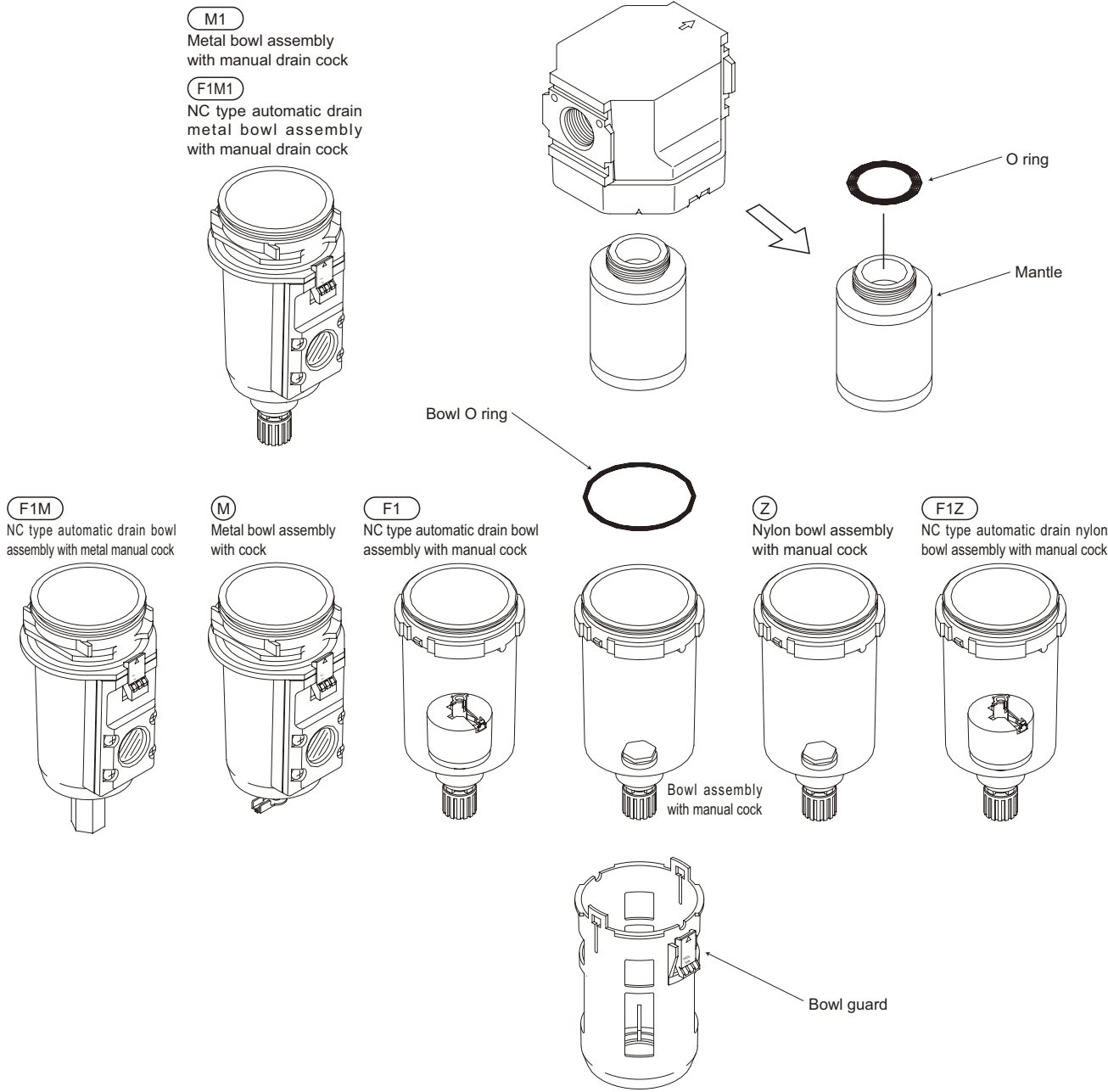
Standard manual drain cock  
(M1)



## Dimensions table

Model no.	F1M	M	M1
	A	B	C
M3000-W	164	143.5	154
M4000-W	187	166.5	177
M6000-W	226	205	216
M8000-W	319	298	309

## Optional parts table - Oil mist filter



### Repair kits model no. (Set consisting of O ring, mantle, bowl O ring)

Model	M type	S type	X type
M1000-W	M1000-KIT	M1000-KIT-S	M1000-KIT-X
M1000-W-F1	M1000-KIT-F1	M1000-KIT-F1S	-
M3000-W, MM3000-W	M3000-KIT	M3000-KIT-S	M3000-KIT-X
M4000-W, MM4000-W	M4000-KIT	M4000-KIT-S	M4000-KIT-X
M6000-W, MM6000-W	M6000-KIT	M6000-KIT-S	M6000-KIT-X
M8000-W, MM8000-W	M8000-KIT	M8000-KIT-S	M8000-KIT-X

### Repair kits model no. (Set consisting of O ring, mantle)

Model	M type	S type	X type
M1000-W	M1000-MANTLE-ASSY	M1000-MANTLE-ASSY-S	M1000-MANTLE-ASSY-X
M1000-W-F1	M1000-MANTLE-ASSY-F1	M1000-MANTLE-ASSY-F1S	-
M3000-W, MM3000-W	M3000-MANTLE-ASSY	M3000-MANTLE-ASSY-S	M3000-MANTLE-ASSY-X
M4000-W, MM4000-W	M4000-MANTLE-ASSY	M4000-MANTLE-ASSY-S	M4000-MANTLE-ASSY-X
M6000-W, MM6000-W	M6000-MANTLE-ASSY	M6000-MANTLE-ASSY-S	M6000-MANTLE-ASSY-X
M8000-W, MM8000-W	M8000-MANTLE-ASSY	M8000-MANTLE-ASSY-S	M8000-MANTLE-ASSY-X

\* M1000-W, 3000-W, 4000-W, and 8000-W Series products released before May 1998 are compatible with M parts, so select M parts.

\* Refer to the air filter options and parts table for details on the bowl assembly and bowl guard.