



Oil mist filter/medium pressure

# MM3000-W/MM4000-W/MM6000-W/MM8000-W Series

M3000 to 8000 Series medium pressure specifications

● Port size: 1/4 to 1

JIS symbol



## Specifications

Model No.	MM3000-W	MM4000-W	MM6000-W	MM8000-W
Appearance				
Working fluid	Compressed air			
Max. working pressure	MPa 0.1 (≈15 psi, 1 bar) to 1.6 (≈230 psi, 16 bar) *2			
Proof pressure	MPa 2.4 (≈350 psi, 24 bar) *2			
Drain capacity	cm <sup>3</sup> 45	80	80	80
Port size	Rc,NPT,G 1/4,3/8	1/4,3/8,1/2	3/4,1	3/4,1
Weight	kg 0.35	0.55	1.0	1.48

Mantle option name		Blank (M type)	S (S type)	X (X type)
Flow rate *1	MM3000-□-W	490	610	610
ℓ/min. (ANR)	MM4000-□-W	1130	1370	1370
Primary pressure	MM6000-□-W	1740	1920	1920
1.4 MPa	MM8000-□-W	3560	3980	3980
Ambient temperature	°C	-5 (23°F) to 60 (140°F) (no freezing) *2		-5 (23°F) to 30 (86°F) (no freezing)
Fluid temperature	°C	5 (41°F) to 60 (140°F) *2		5 (41°F) to 30 (86°F)
Filtration rating	μm	0.01 (nominal)	0.3	Suction by activated charcoal
Secondary side oil concentration	mg/m <sup>3</sup>	0.01 or less (0.1 or less after oil saturation) *5, *6		0.003 or less *3, *5
Mantle (element) change		1 year (6000 hours) or pressure drop 0.1 MPa (≈14.6 psi, 1 bar)		- *6

\*1: Use within the max. processing flow rate.

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

\*2: In the case of "F1" with auto-drain, the min. working pressure of auto-drain is 0.15 MPa. The max. working pressure is 1.5 MPa, the proof pressure is 2.25 MPa, the ambient temperature is -5 to 45°C, and the fluid temperature is 5 to 45°C.

\*3: When primary side oil concentration is 30 mg/m<sup>3</sup>, and inlet air temperature is 21°C.

\*4: Install an oil mist filter (S type) as a pre-filter on the primary side to prevent early clogging.

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

\*6: The time to replace the "X" type mantle (element) cannot be clearly stated since it depends on the odor density in the compressed air.

Consider the total period from the initial installation to when the smell of oil can be confirmed as the effective deodorizing period, and regularly replace the mantle (element). Keep the primary air temperature at 30°C or less. The deodorizing effect will drop if temperature is high, so provide heat dissipation measures.

## Option weight

\* Add to the weight of the standard accessories.

Unit: kg

Code	Drain discharge	Attachment						Bracket
	F1	A8*W	A10*W	A15*W	A20*W	A25*W	A32*W	BW
MM3000	0.02	0.16	0.16	0.16				0.17
MM4000	0.02	0.16	0.16	0.16	0.16			0.21
MM6000	0.02				0.53	0.53	0.53	0.34
MM8000	0.02				0.53	0.53	0.53	0.36

F.R.L.  
F.R.  
F (Filtr)  
R (Reg)  
L (Lub)  
Drain Separ  
Mech Press SW  
Res press exh valve  
SlowStart  
Anti-bac/Bac-remove Filt  
Film Resist FR  
Oil-ProhrR  
Med Press FR  
No Cu/ PTFE FRL  
Outdrs FRL  
Adapter Joiner  
Press Gauge  
CompFRL  
LgFRL  
PrecsR  
VacF/R  
Clean FR  
ElecPneUR  
AirBoost  
Speed Ctrl  
Silncr  
CheckV/ other  
Fit/Tube  
Nozzle  
Air Unit  
PrecsCompn  
Electro Press SW  
ContactSW  
AirSens  
PresSW Cool  
Air Flo Sens/Ctrl  
WaterRISens  
TotAirSys (Total Air)  
TotAirSys (Gamma)  
Gas generator  
RefrDry  
DesiccDry  
HiPolymDry  
MainFiltr  
Dischrg etc  
Ending

# Oil Mist Filter Series

How to order

How to order

**MM3000** - **8** - **W** - **F1** - **A8W**

**A** Model No.

(White type)

**B** Port size

**C** Port thread

**D** Option

**E** Display unit

**F** Other attachments

**G** Bracket (included)

\* Refer to page 30 for the explanation of the option.

**A** Model No.

Code		Description				MM3000	MM4000	MM6000	MM8000
<b>B Port size</b>									
<b>8</b>	1/4					●	●		
<b>10</b>	3/8					●	●		
<b>15</b>	1/2						●		
<b>20</b>	3/4							●	●
<b>25</b>	1							●	●
<b>C Port thread</b> *1									
<b>Blank</b>	Rc thread					●	●	●	●
<b>N</b>	NPT thread					●	●	●	●
<b>G</b>	G thread					●	●	●	●
<b>D Option</b> *2									
<b>Drain discharge</b> *3, *4	<b>Blank</b>	With manual drain cock				●	●	●	●
	<b>F1</b>	NC auto-drain (no press→no exhaust) drain outlet Rc1/8 Max. working press 1.5 MPa, max. operating amb temp 45°C				●	●	●	●
<b>Bowl material</b>	<b>Blank</b>	Metal bowl				●	●	●	●
<b>Element</b>	<b>Blank</b>	M type (nominal 0.01 μm; remaining oil 0.01 mg/m <sup>3</sup> )				●	●	●	●
	<b>S</b>	S type (nominal 0.3 μm; remaining oil 0.5 mg/m <sup>3</sup> )				●	●	●	●
	<b>X</b>	X type (deodorization; remaining oil 0.003 mg/m <sup>3</sup> ) *5				●	●	●	●
<b>Diff press detect</b>	<b>Blank</b>	Without differential pressure detection port				●	●	●	●
	<b>Q</b>	With differential pressure detection port (Rc1/4)						●	●
<b>Flow direction</b>	<b>Blank</b>	Standard flow (left → right)				●	●	●	●
	<b>X1</b>	Reverse flow (right → left)				●	●	●	●
<b>E Display unit</b>									
<b>Blank</b>	MPa display (Rc thread), psi display (NPT thread), bar display (G thread)								
<b>J1</b>	MPa display (NPT, G thread)								
<b>F Other attachments</b> *6, *7 Page 350									
<b>Blank</b>	Not included								
<b>A8*W</b>	1/4 pipe adaptor set								
<b>A10*W</b>	3/8 pipe adaptor set								
<b>A15*W</b>	1/2 pipe adaptor set								
<b>A20*W</b>	3/4 pipe adaptor set								
<b>A25*W</b>	1 pipe adaptor set								
<b>A32*W</b>	1 1/4 pipe adaptor set								
<b>* Adaptor thread</b>									
<b>Blank</b>	Rc thread								
<b>N</b>	NPT thread								
<b>G</b>	G thread								
<b>G Bracket (included)</b> Page 346									
<b>Blank</b>	Not included								
<b>BW</b>	C type bracket								

## ⚠ Precautions for model No. selection

- \*1: NPT and G threads are available for IN, OUT, and drain ports.
- \*2: Select options for the drainage, bowl material, element and differential pressure detection. When selecting options for several items, list options in order from the top.
- \*3: NO auto-drain cannot be selected.
- \*4: Refer to page 354 for the auto-drain usage conditions.
- \*5: Combination with option F1 is not possible.
- \*6: The pipe adaptor set and C type bracket cannot be used together.
- \*7: The joiner set is enclosed with the pipe adaptor set.

F.R.L.  
F.R.  
F (Filtr)  
R (Reg)  
L (Lub)  
Drain Separ  
Mech Press SW  
Res press exh valve  
SlowStart  
Anti-bac/Bac-remove Filtr  
Film Resist FR  
Oil-ProhR  
Med Press FR  
No Cu/ PTFE FRL  
Outdrs FRL  
Adapter Joiner Press Gauge  
CompFRL  
LgFRL  
PrecsR  
VacF/R  
Clean FR  
ElecPneuR  
AirBoost  
Speed Ctrl  
Silncr  
CheckV/ other  
Fit/Tube  
Nozzle  
Air Unit  
PrecsCompn  
Electro Press SW  
ContactSW  
AirSens  
PresSW Cool  
Air Flo Sens/Ctrl  
WaterRSens  
TotAirSys (Total Air)  
TotAirSys (Gamma)  
Gas generator  
RefrDry  
DesicDry  
HiPolymDry  
MainFiltr  
Dischrg etc  
Ending

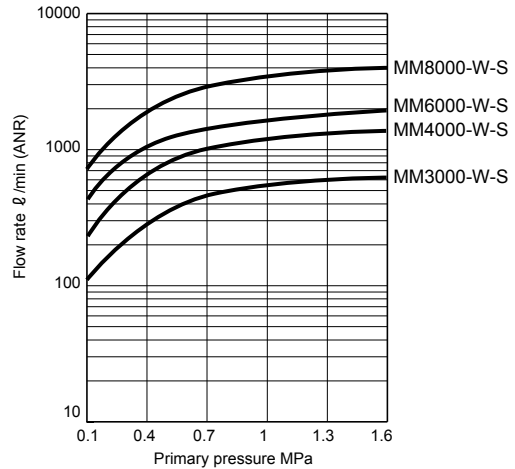
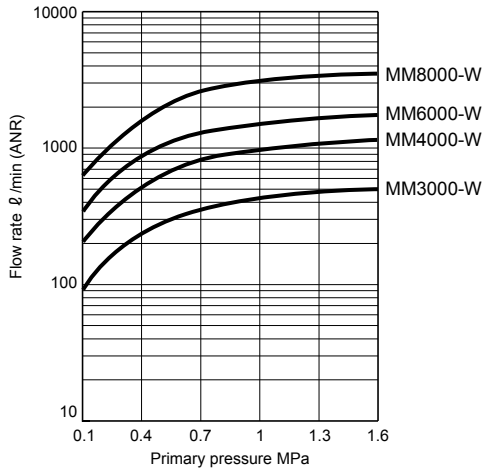
# Oil Mist Filter Series

## F.R.L. Flow characteristics (max. processing flow rate)

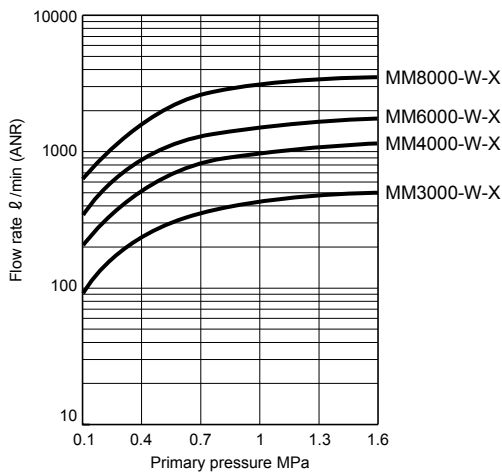
- F.R.
- F (Filtr)
- R (Reg)
- L (Lub)
- Drain Separ
- Mech Press SW
- Res press exh valve
- SlowStart
- Anti-bac/Bac-remove Filt
- Film Resist FR
- Oil-ProhR
- Med Press FR
- No Cu/PTFE FRL
- Outdrs FRL
- Adapter Joiner Press Gauge
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- Speed Ctrl
- Silncr
- CheckV/other
- Fit/Tube
- Nozzle
- Air Unit
- PrecsCompn
- Electro Press SW
- ContactSW
- AirSens
- PresSW Cool
- Air Flo Sens/Ctrl
- WaterRtSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- Gas generator
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending

● MM\*000-W

● MM\*000-W-S



● MM\*000-W-X



## How to select oil mist filter and optional mantle

Major recommended circuit

◆ S type



Applications

General industrial air

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

◆ M type



Oil-free air

- Instrumentation
- Measurement
- For sequence control
- Movable element/pure fluid element
- Luxury painting
- Precision industry

◆ X type



Odorless air

- Food industry
- Pharmaceutical industry
- Mixing
- Transportation
- Drying
- Packaging
- Brewing air

## Option code of mantle and shape

Option code	Appearance
Blank (M type)	End plate Black Plastic foam
S (S type)	End plate Green Plastic foam
X (X type)	End plate Black Perforated metal

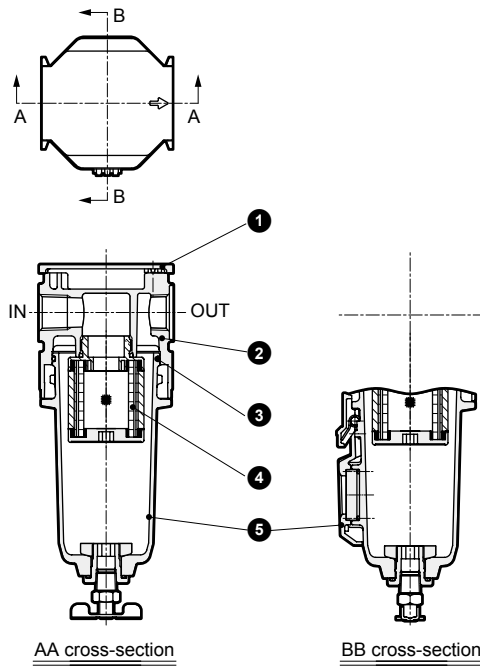
Note: Changes for product upgrades may be made without prior notice.  
When placing an order, confirm the option code of the part model No. displayed on the body.

# Oil Mist Filter Series

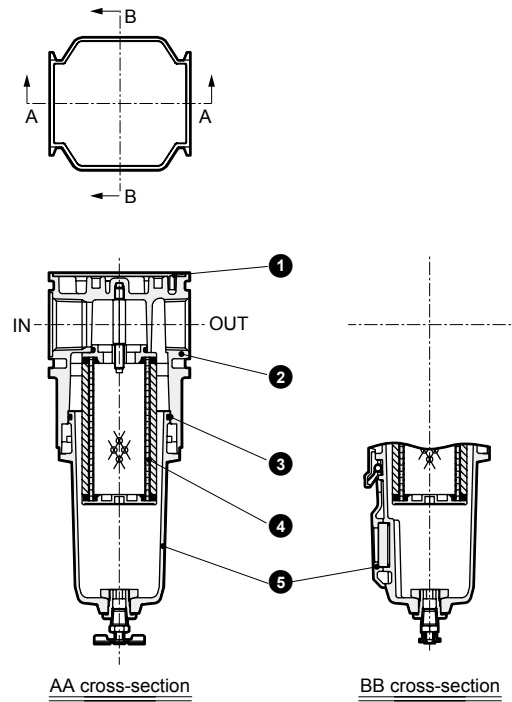
Internal structure and parts list

## Internal structure and parts list

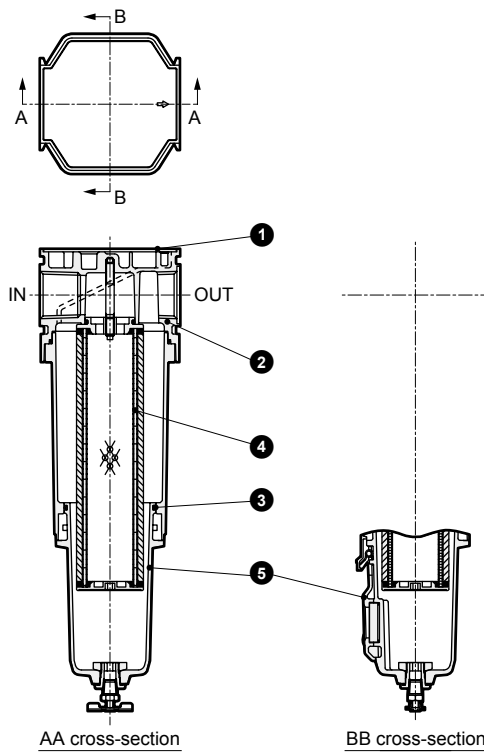
● MM3000-W/MM4000-W



● MM6000-W



● MM8000-W



No.	Part name	Material
(1)	Plate cover	ABS resin
(2)	Body	Aluminum alloy die-casting
(3)	O-ring	Special nitrile rubber
(4)	Mantle assembly	-
(5)	Metal bowl assembly	Aluminum alloy die-casting, copper alloy, glass, nitrile rubber, steel, stainless steel

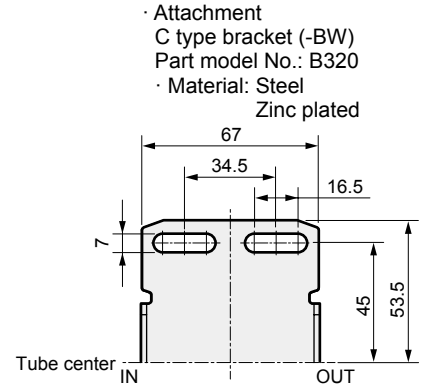
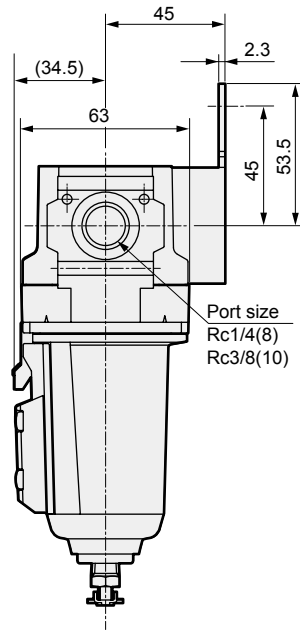
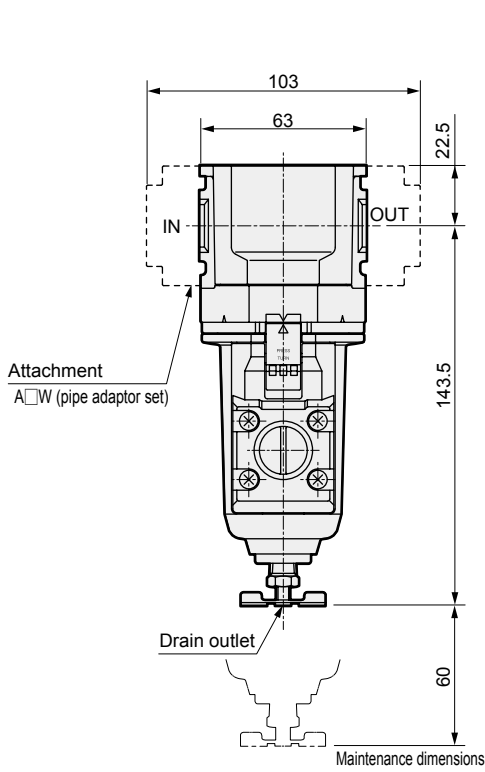
\*1: Repair mantle and repair kit are common for M\*000-W. Refer to repair parts on page 125.

F.R.L.
F.R.
F (Filtr)
R (Reg)
L (Lub)
Drain Separ
Mech Press SW
Res press exh valve
SlowStart
Anti-bac/Bac-remove Filtr
Film Resist FR
Oil-ProhR
Med Press FR
No Cu/ PTFE FRL
Outdrs FRL
Adapter Joiner Press Gauge
CompFRL
LgFRL
PreCsR
VacF/R
Clean FR
ElecPneuR
AirBoost
Speed Ctrl
Silncr
CheckV/ other
Fit/Tube
Nozzle
Air Unit
PreCsCompn
Electro Press SW
ContactSW
AirSens
PresSW Cool
Air Flo Sens/Ctrl
WaterRISens
TotAirSys (Total Air)
TotAirSys (Gamma)
Gas generator
RefrDry
DesicDry
HiPolymDry
MainFiltr Dischrg etc
Ending

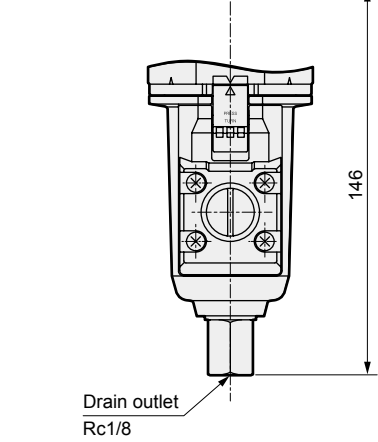
# Oil Mist Filter Series

## F.R.L. Dimensions

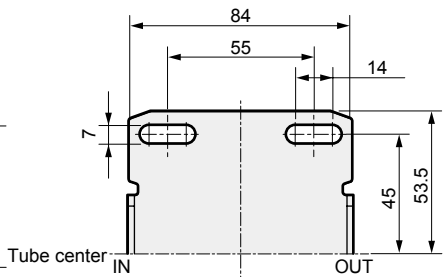
### ● MM3000-W



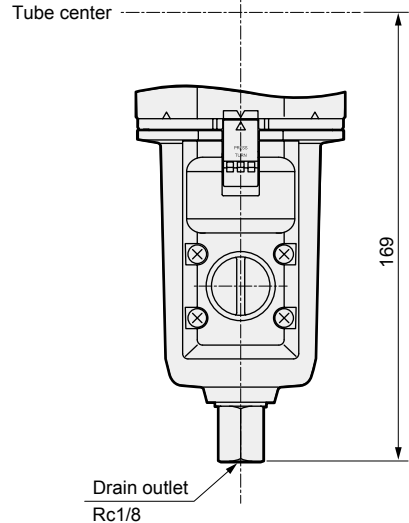
· Attachment  
C type bracket (-BW)  
Part model No.: B320  
· Material: Steel  
Zinc plated



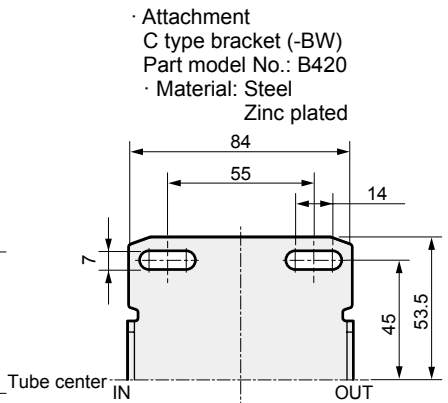
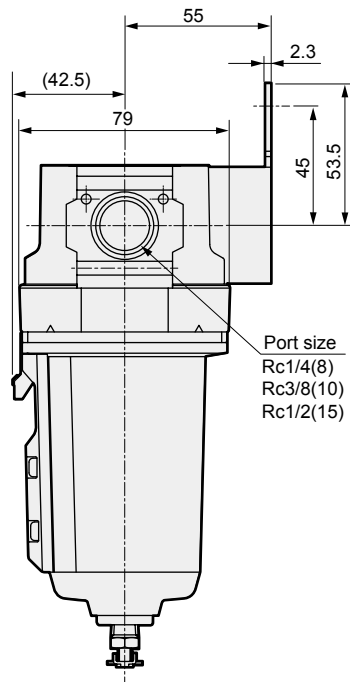
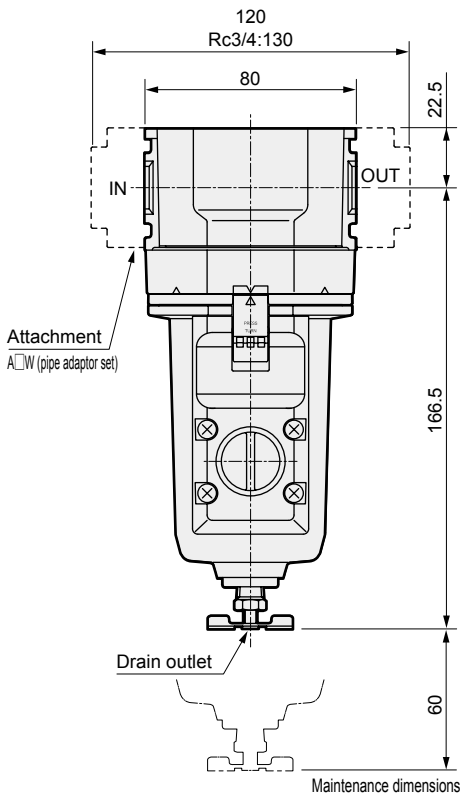
· Attachment  
C type bracket (-BW)  
Part model No.: B420  
· Material: Steel  
Zinc plated



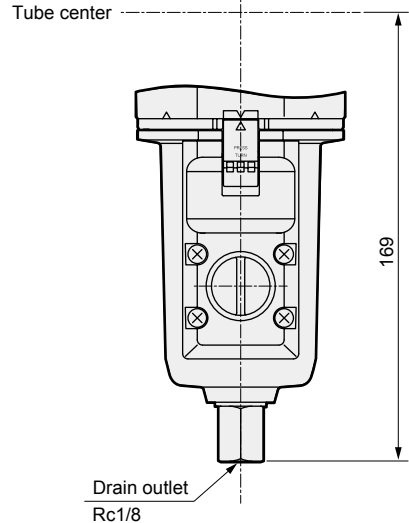
· Dimensions of options  
Auto-drain (F1)



### ● MM4000-W



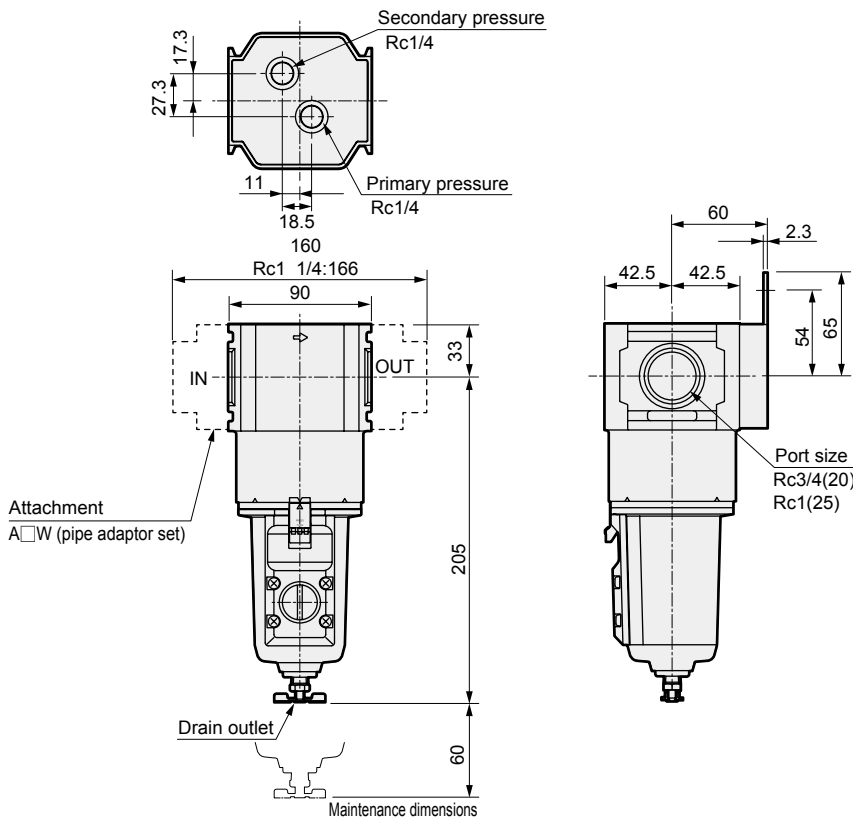
· Dimensions of options  
Auto-drain (F1)



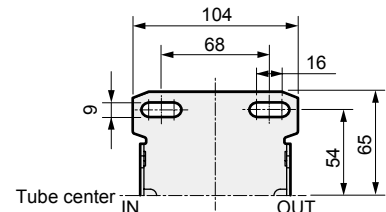
## Dimensions

### ● MM6000-W

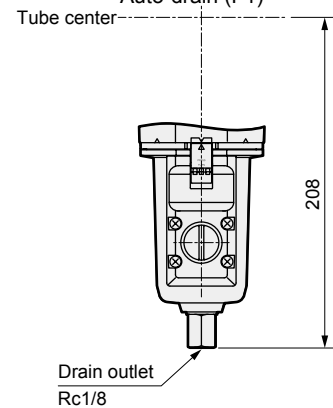
· Dimensions of options  
With differential pressure detection port (Q)



· Attachment  
C type bracket (-BW)  
Part model No.: B620  
· Material: Steel  
Zinc plated

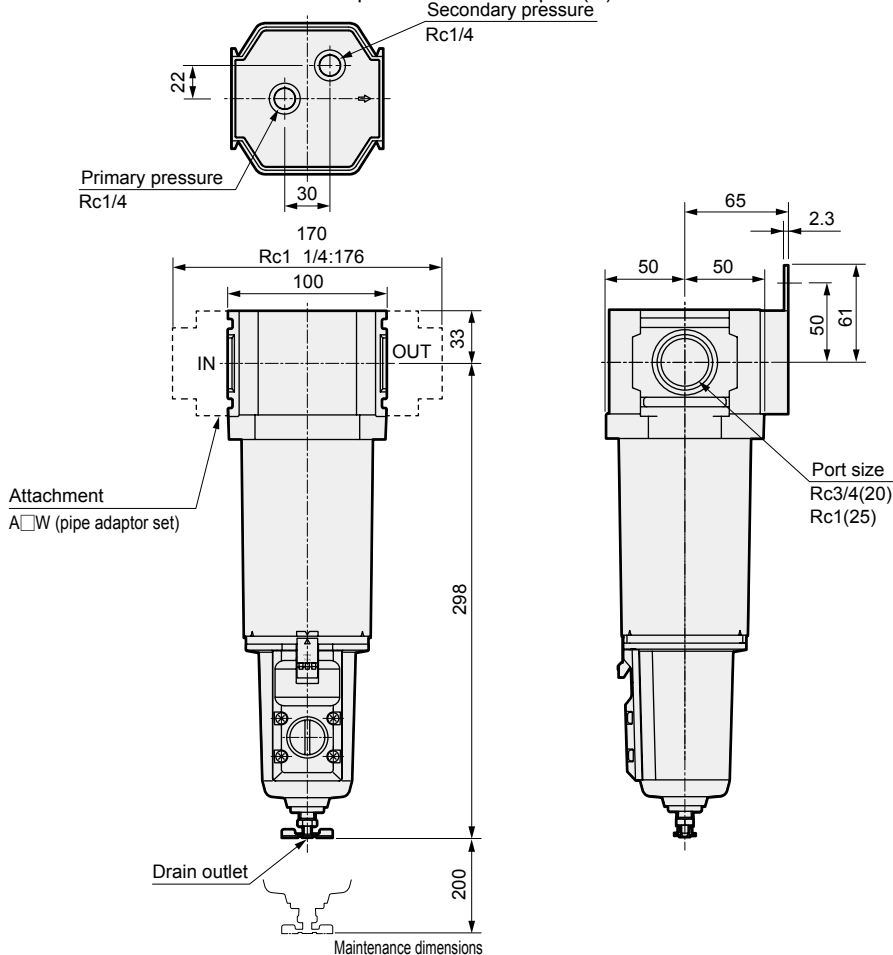


· Dimensions of options  
Auto-drain (F1)

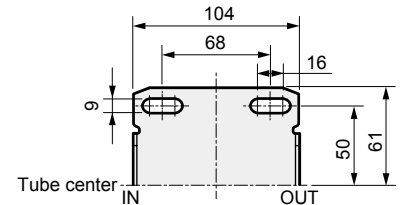


### ● MM8000-W

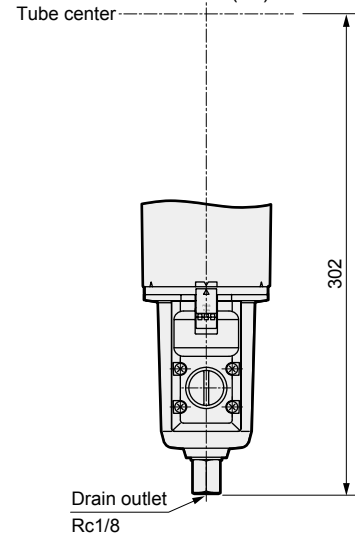
· Dimensions of options  
With differential pressure detection port (Q)



· Attachment  
C type bracket (-BW)  
Part model No.: B820  
· Material: Steel  
Zinc plated



· Dimensions of options  
Auto-drain (F1)



F.R.L.
F.R.
F (Filtr)
R (Reg)
L (Lub)
Drain Separ
Mech Press SW
Res press exh valve
SlowStart
Anti-bac/Bac-remove Filtr
Film Resist FR
Oil-Prohr
Med Press FR
No Cu/ PTFE FRL
Outdrs FRL
Adapter Joiner Press Gauge
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
Speed Ctrl
Silncr
CheckV/ other
Fit/Tube
Nozzle
Air Unit
PrecsCompn
Electro Press SW
ContactSW
AirSens
PresSW Cool
Air Flo Sens/Ctrl
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Ending