

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 ³	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	490	610	610
ℓ/min. (ANR)	1130	1370	1370
Primary pressure	1740	1920	1920
1.4 MPa	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)		Suction by activated charcoal *3
Secondary side oil concentration mg/m ³	0.01 or less (0.1 or less after oil saturation) *4, *5		0.003 or less *4, *6
Mantle (element) change	1 year (6000 hours) or pressure drop 0.1 MPa (≈14.6 psi, 1 bar)		- *7

*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: 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.

*4: When primary side oil concentration is 30 mg/m³, and inlet air temperature is 21°C.

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

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

*7: 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

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 (attachment)

* Refer to page 28 for the explanation of the option.

A Model No.

Code		Content		MM3000	MM4000	MM6000	MM8000
B Port size							
8	1/4	●	●				
10	3/8	●	●				
15	1/2		●				
20	3/4			●	●		
25	1					●	●
C Port thread *1							
Blank	Rc thread	●	●	●	●		
N	NPT thread	●	●	●	●		
G	G thread	●	●	●	●		
D Option *2							
Drain discharge *3, *4	Blank	With manual drain cock	●	●	●	●	
	F1	NC auto-drain (no press→no exhaust) drain outlet Rc1/8 Max. working press 1.5 MPa, max. operating amb temp 45°C	●	●	●	●	
Bowl material	Blank	Metal bowl	●	●	●	●	
Element	Blank	M type (nominal 0.01 μm; remaining oil 0.01 mg/m ³)	●	●	●	●	
	S	S type (nominal 0.3 μm; remaining oil 0.5 mg/m ³)	●	●	●	●	
	X	X type (deodorization; remaining oil 0.003 mg/m ³) *5	●	●	●	●	
Diff press detect	Blank	Without differential pressure detection port	●	●	●	●	
	Q	With differential pressure detection port (Rc1/4)			●	●	
Flow direction	Blank	Standard flow (left → right)	●	●	●	●	
	X1	Reverse flow (right → left)	●	●	●	●	
E Display unit							
Blank	MPa display, Rc thread	●	●	●	●		
J1	MPa display, NPT/G thread	●	●	●	●		
F Other attachments *6, *7 Page 270							
Blank	Not attached	●	●	●	●		
A8*W	1/4 pipe adaptor set	●	●				
A10*W	3/8 pipe adaptor set	●	●				
A15*W	1/2 pipe adaptor set	●	●				
A20*W	3/4 pipe adaptor set		●	●	●		
A25*W	1 pipe adaptor set			●	●		
A32*W	1 1/4 pipe adaptor set				●	●	
* Adaptor thread							
Blank	Rc thread	●	●	●	●		
N	NPT thread	●	●	●	●		
G	G thread	●	●	●	●		
G Bracket (attachment) Page 267							
Blank	Not attached	●	●	●	●		
BW	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 280 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.

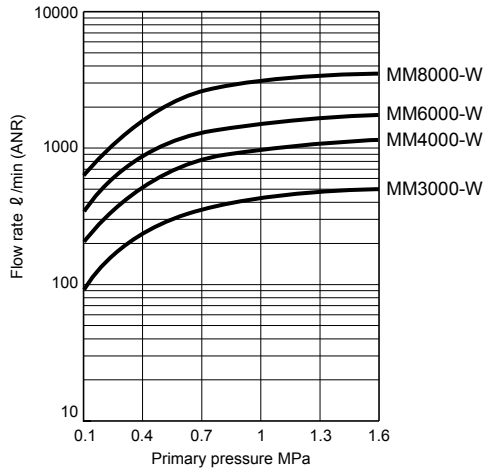
F.R.L
F (Filtr)
R (Reg)
L (Lub)
PresSW
Shutoff
SlowStart
FmResistFR
Oil-ProhR
MedPresFR
No Cu/PTFE FRL
Outdrs FR
F.R.L (Related)
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
SpdContr
Silncr
CheckV/other
Jnt/tube
AirUnt
PrecsCompn
Mech/ElecPresSw
ContactSW
AirSens
PresSW Cool
AirFloSens/Contr
WaterRtSens
TotAirSys (Total Air)
TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

Oil Mist Filter Series

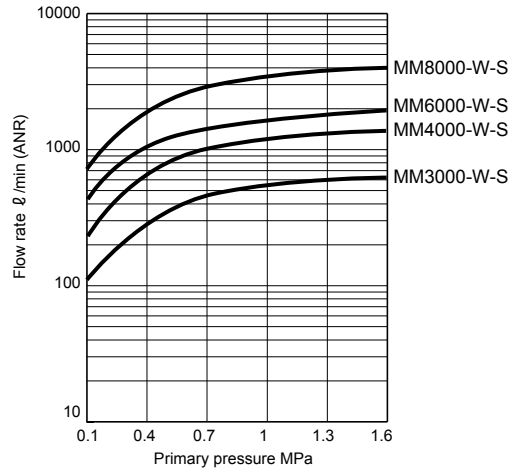
- F.R.L
- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/PTFE FRL
- Outdrs FR
- F.R.L (Related)
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneuR
- AirBoost
- SpdContr
- Silncr
- CheckV/other
- Jnt/tube
- AirUnt
- PrecsCompn
- Mech/ElecPresSw
- ContactSW
- AirSens
- PresSW Cool
- AirFloSens/Contr
- WaterRtSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending

Flow characteristics (max. processing flow rate)

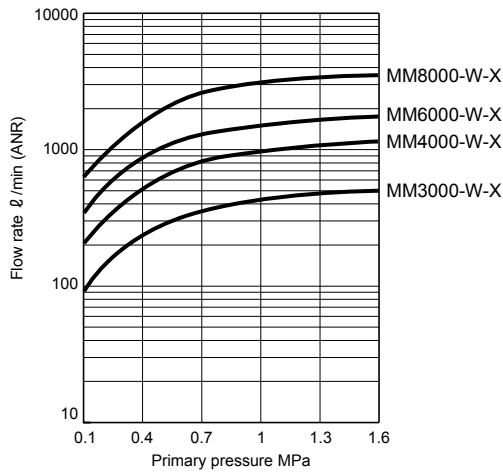
● MM*000-W



● 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.

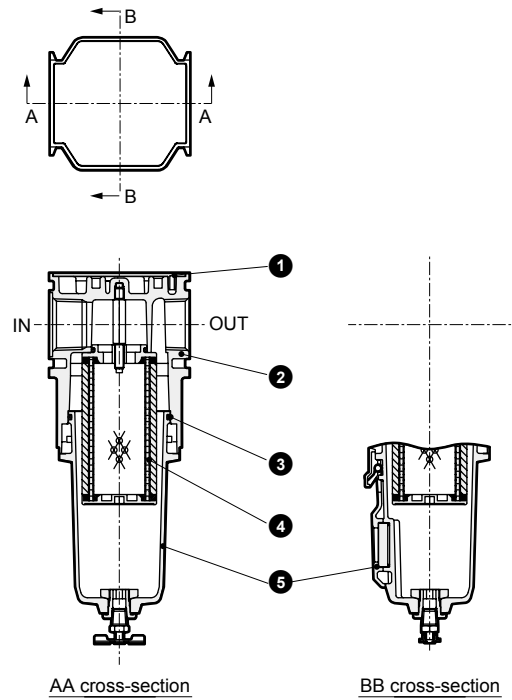
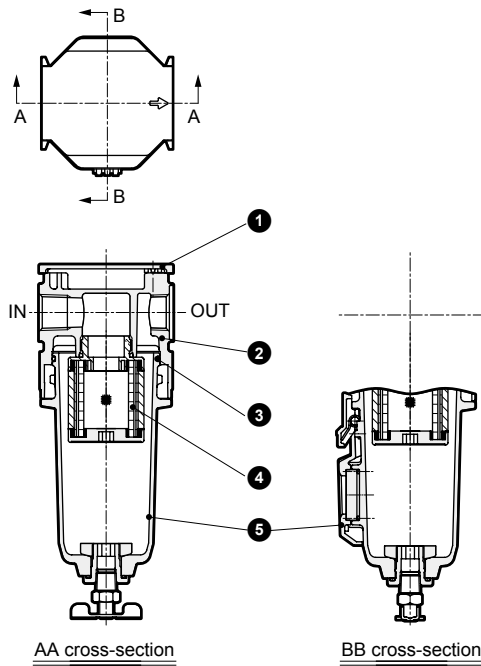
Oil Mist Filter Series

Internal structure and parts list

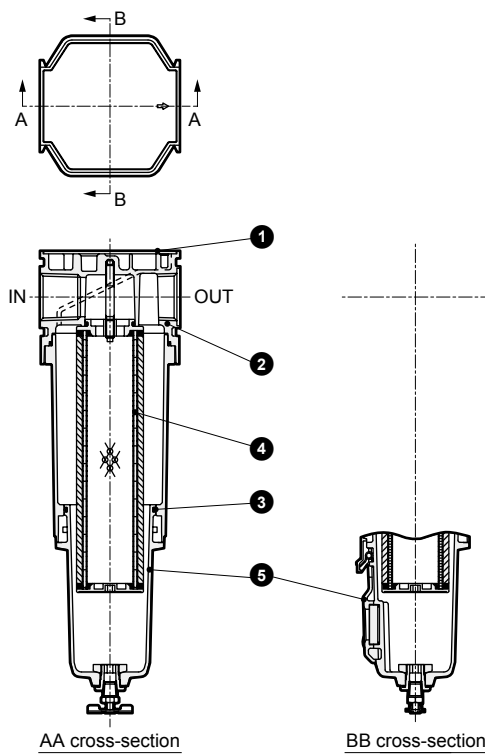
Internal structure and parts list

● 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 113.

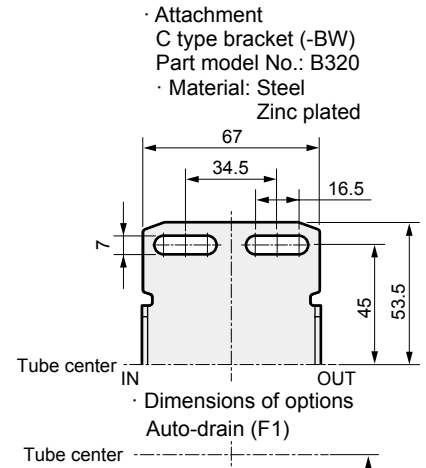
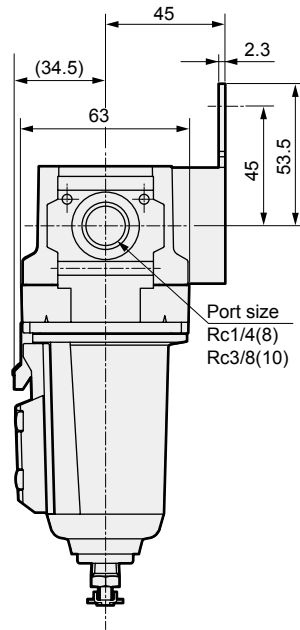
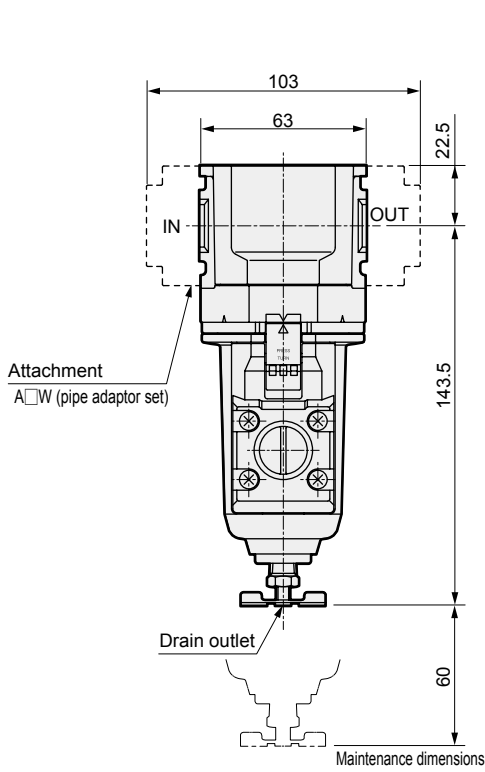
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F (Filtr)
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L (Lub)
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FmResistFR
Oil-ProhR
MedPresFR
No Cu/ PTFE FRL
Outdrs FR
F.R.L (Related)
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
SpdContr
Silncr
CheckV/ other
Jnt/tube
AirUnt
PresCompn
Mech/ ElecPresSw
ContactSW
AirSens
PresSW Cool
AirFloSens/ Contr
WaterRtSens
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TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

Oil Mist Filter Series

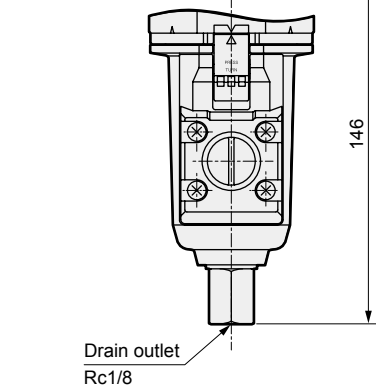
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ElecPneuR
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SpdContr
Silncr
CheckV/ other
Jnt/tube
AirUnt
PresCompn
Mech/ ElecPresSw
ContactSW
AirSens
PresSW Cool
AirFloSens/ Contr
WaterRtSens
TotAirSys (Total Air)
TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

Dimensions

● MM3000-W

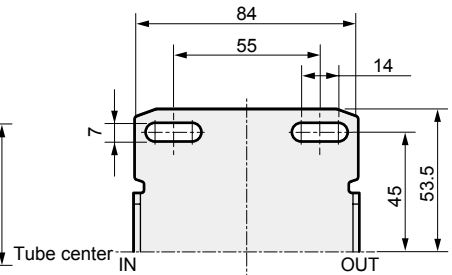
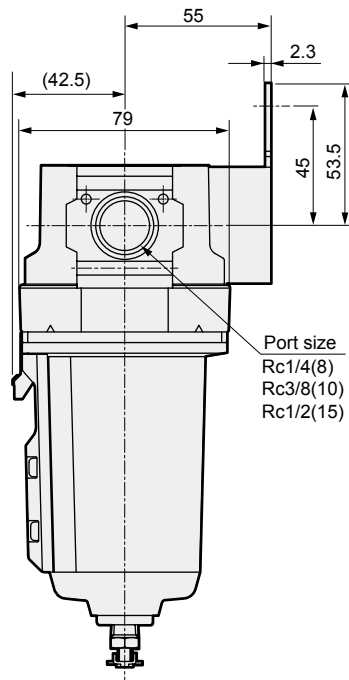
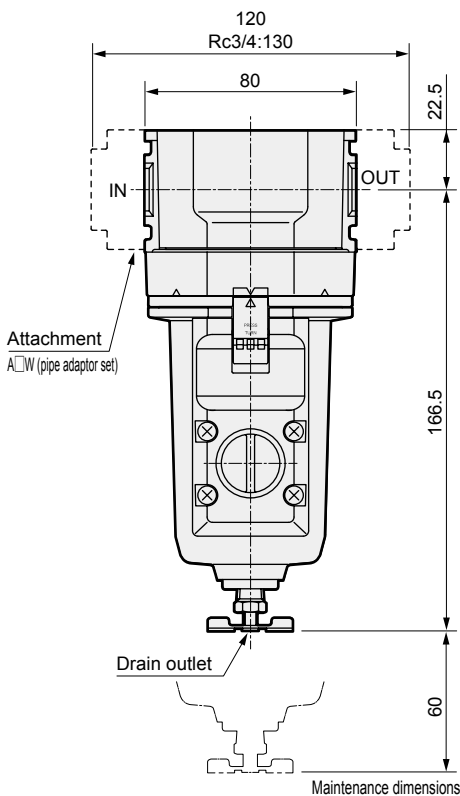


Dimensions of options
Auto-drain (F1)

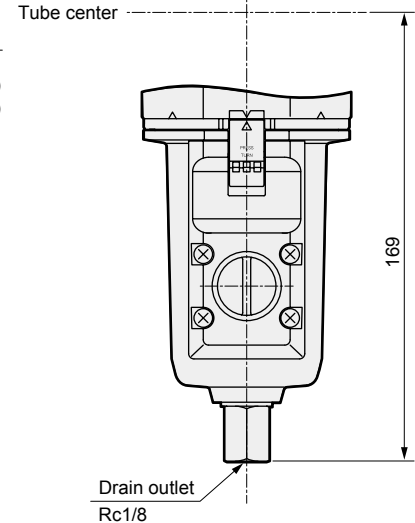


Attachment
C type bracket (-BW)
Part model No.: B420
Material: Steel
Zinc plated

● MM4000-W



Dimensions of options
Auto-drain (F1)



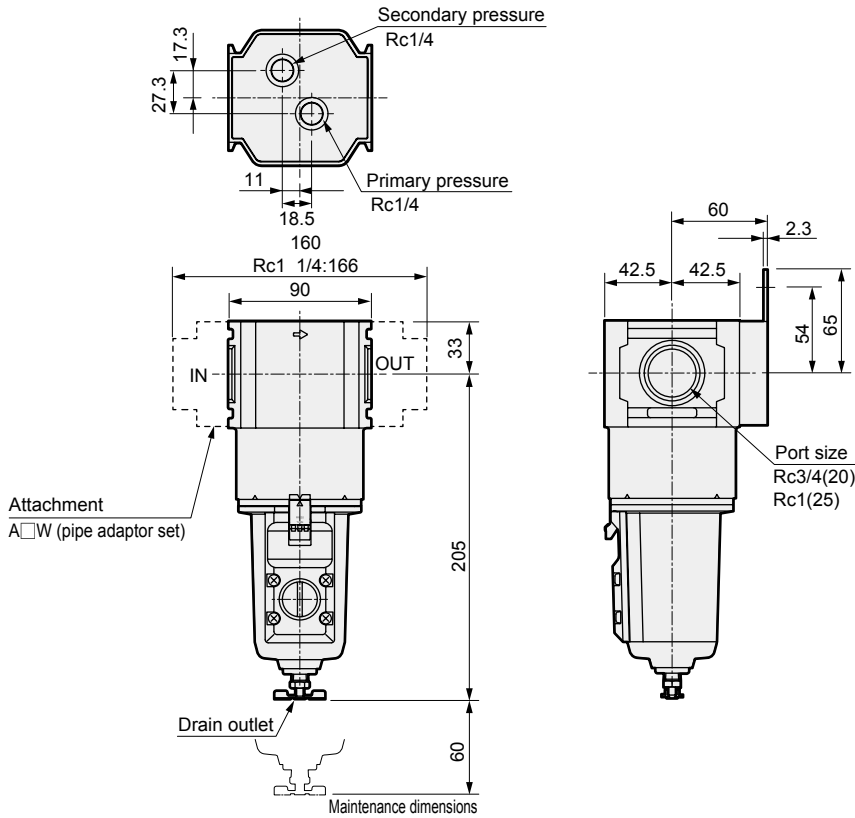
Oil Mist Filter series

Dimensions

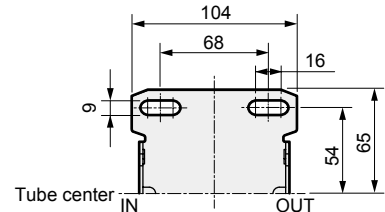
Dimensions

● MM6000-W

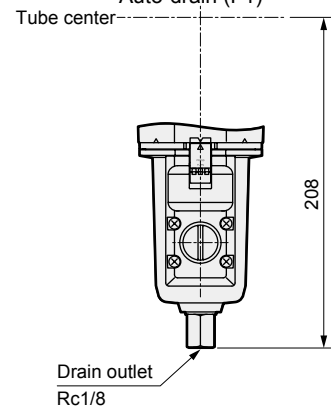
· Dimensions of options
With differential pressure detection port (Q)



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

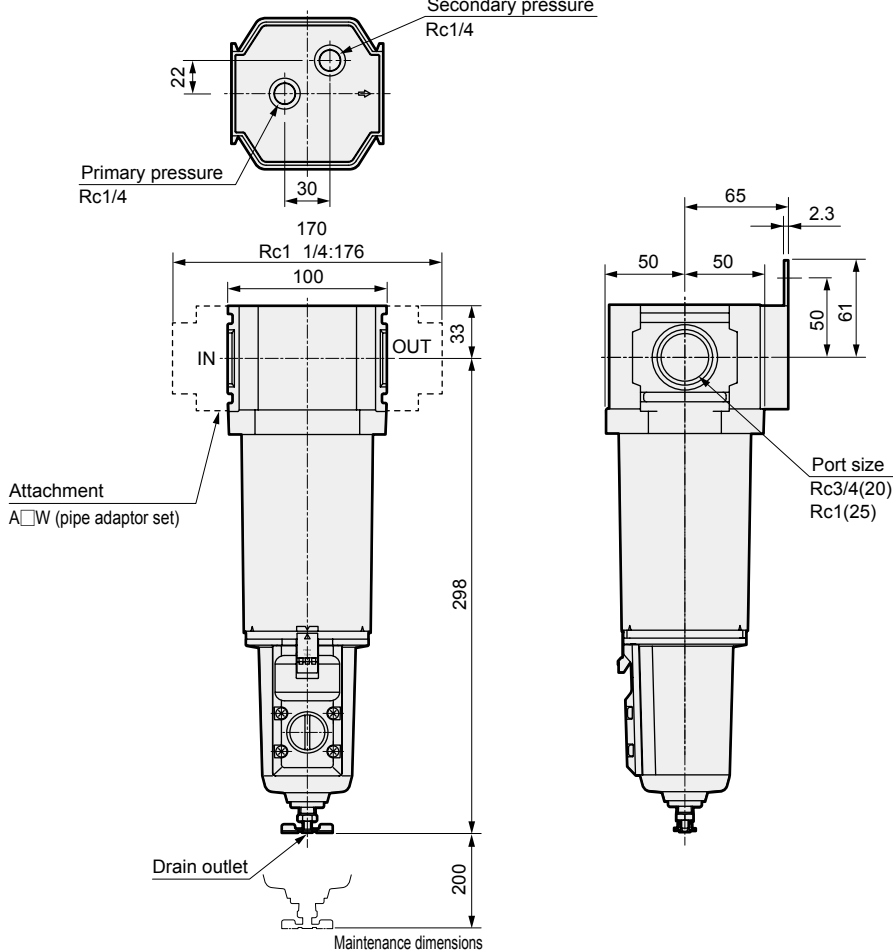


· Dimensions of options
Auto-drain (F1)

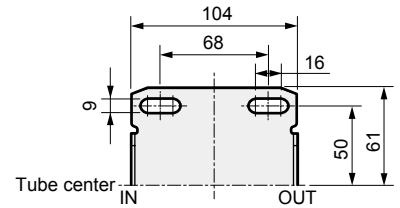


● MM8000-W

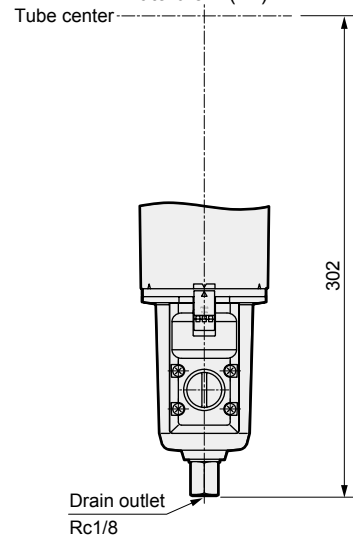
· Dimensions of options
With differential pressure detection port (Q)



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



· Dimensions of options
Auto-drain (F1)



F.R.L
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R (Reg)
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