

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-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



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 

RoHS

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
Port size	Rc,NPT,G	1/4,3/8	3/4,1	3/4,1
Weight	kg	0.35	0.55	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 ³	0.01 or less (0.1 or less after oil saturation) *3, *4		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/m³, 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

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 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), psi display (NPT thread), bar display (G thread)				
	●	●	●	●	●
J1	MPa display (NPT, G thread)				
	●	●	●	●	●
F Other attachments *6, *7 Page 350					
Blank	Not included				
	●	●	●	●	●
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 (included) Page 346					
Blank	Not included				
	●	●	●	●	●
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 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.

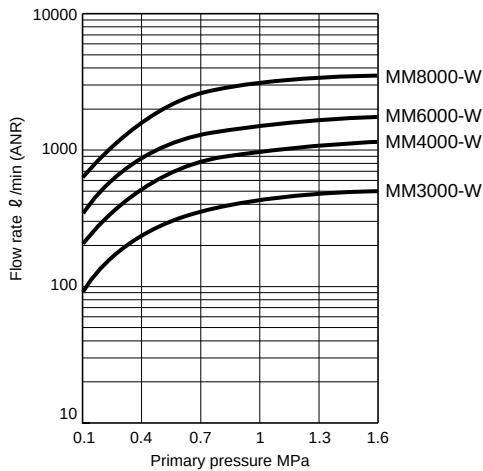
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F.R.
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R (Reg)
L (Lub)
Drain Separ
Mech Press SW
Res press exh valve
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Anti-bac/Bac-remove Filtr
Film Resist FR
Oil-ProhR
Med Press FR
No Cu/ PTFE 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

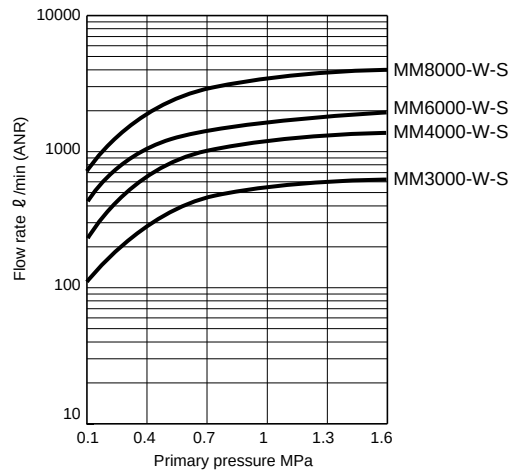
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TotAirSys (Total Air)
TotAirSys (Gamma)
Gas generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

Flow characteristics (max. processing flow rate)

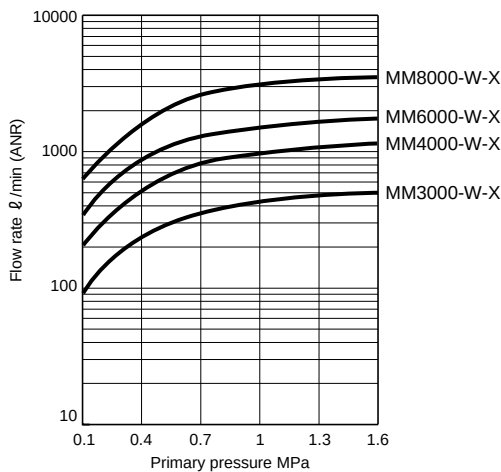
● MM*000-W



● 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
S (S type)	 End plate Green
X (X type)	 End plate Black

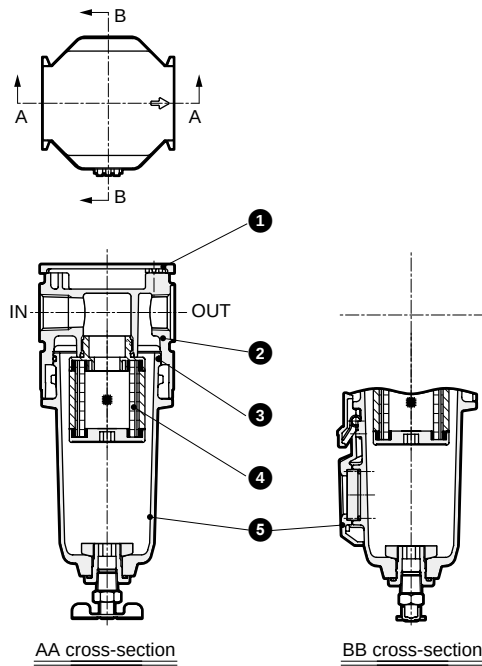
Note: Changes for product upgrades may be made without prior notice.
When placing an order, confirm the option code of the part model
No. displayed on the body.

Oil Mist Filter Series

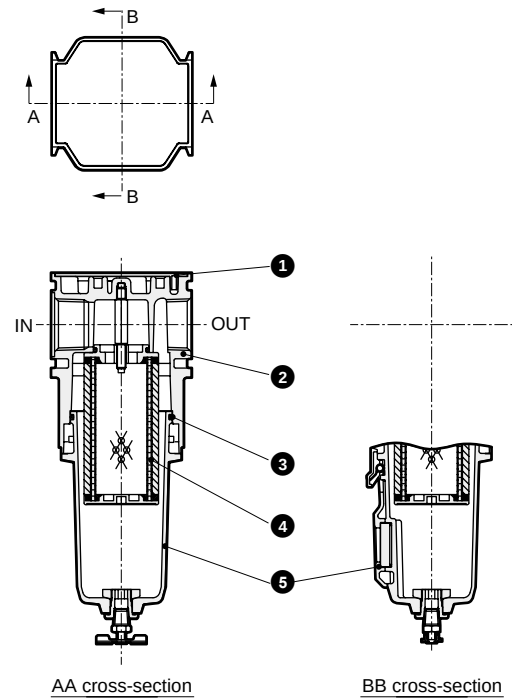
Internal structure and parts list

Internal structure and parts list

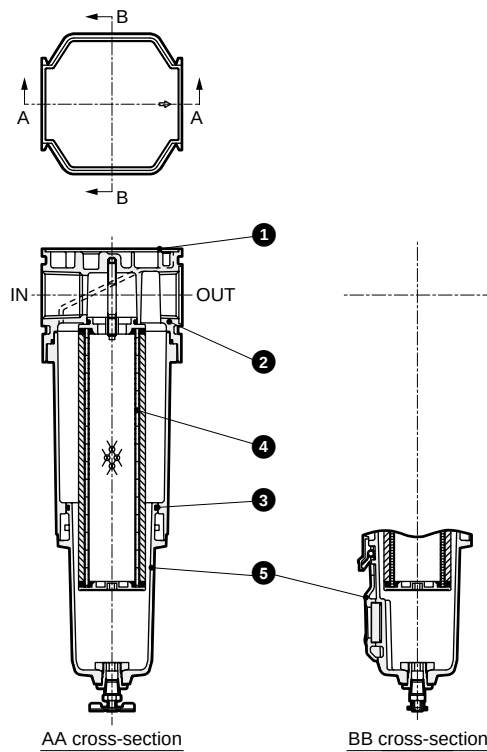
● MM3000-W/MM4000-W



● 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.

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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
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

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

WaterRtSens

TotAirSys

(Total Air)

TotAirSys

(Gamma)

Gas

generator

RefrDry

DesicDry

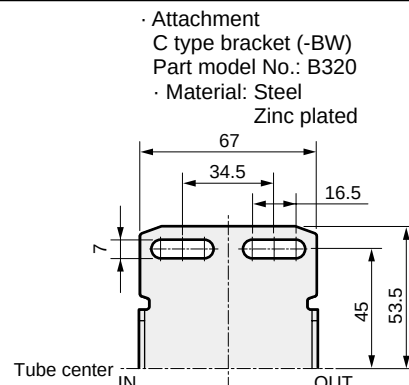
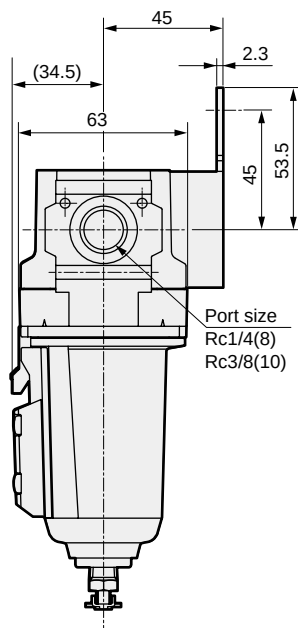
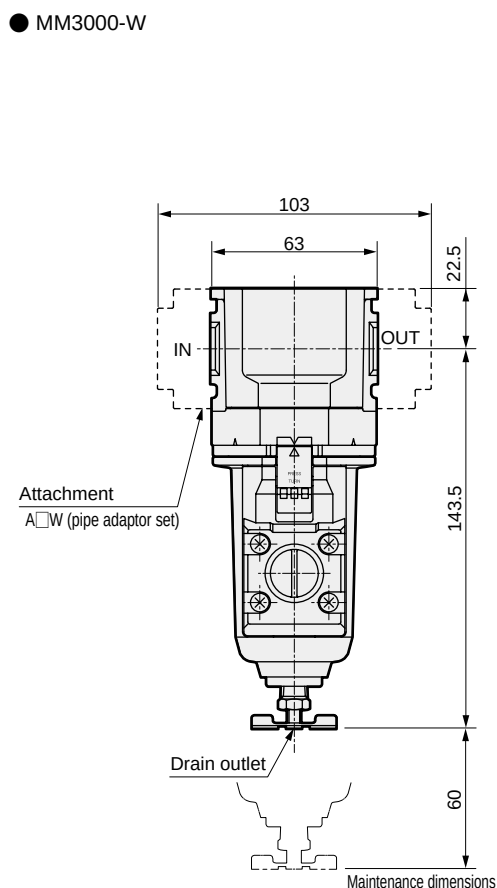
HiPolymDry

MainFiltr

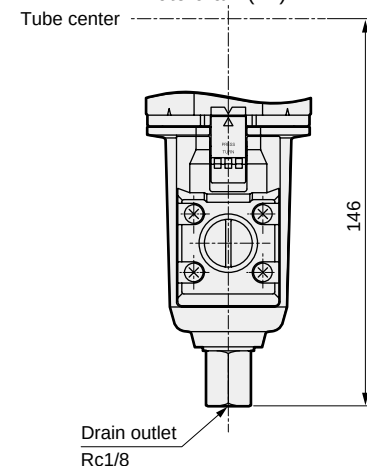
Dischrg

etc

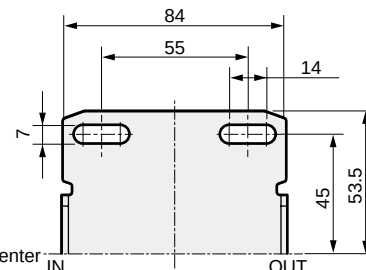
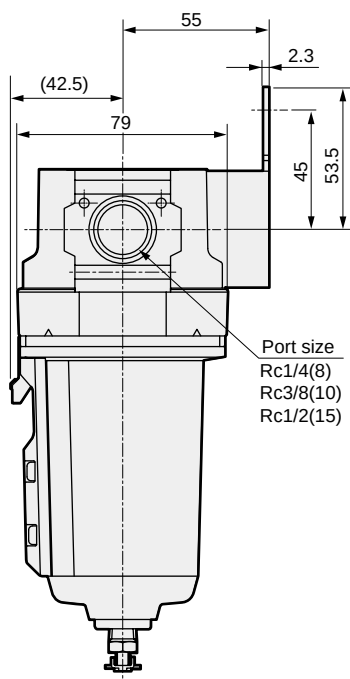
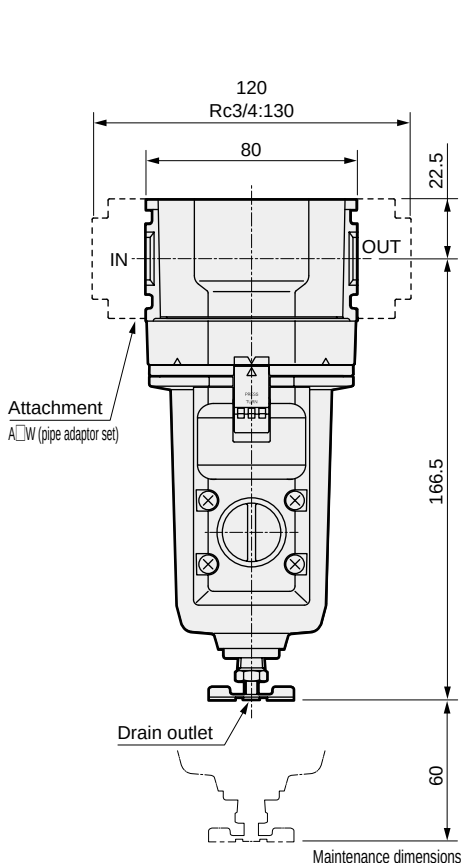
Ending



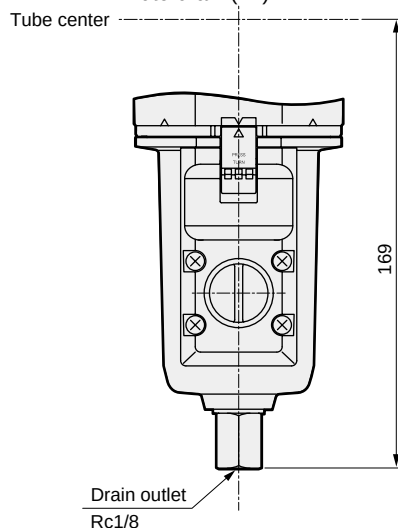
· Attachment
C type bracket (-BW)
Part model No.: B320
· Material: Steel
Zinc plated



● MM4000-W



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



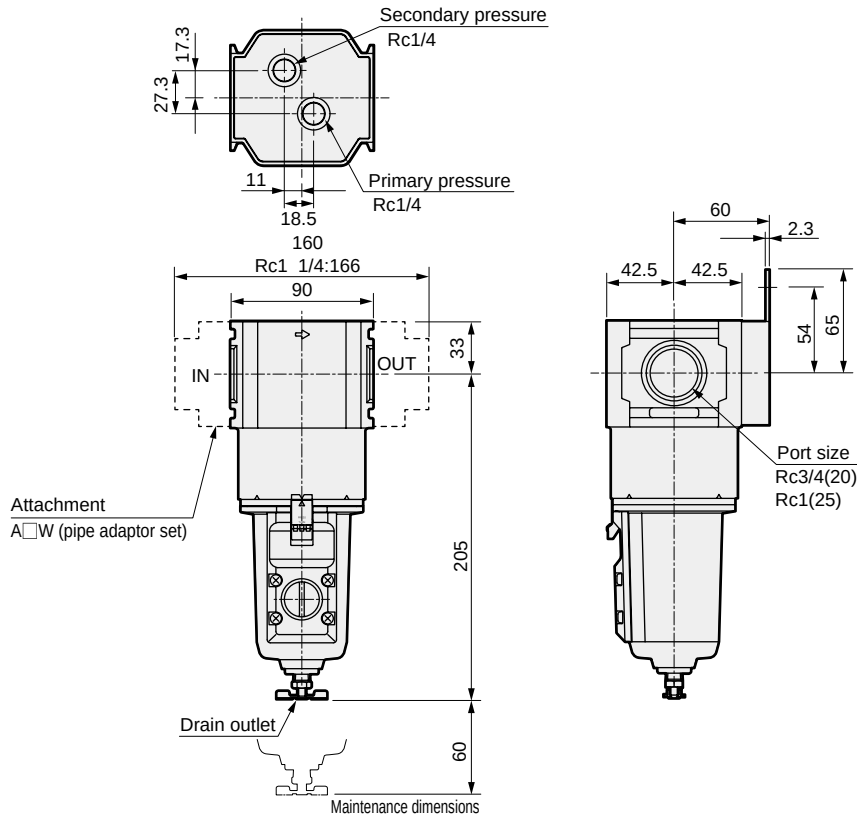
Oil Mist Filter series

Dimensions

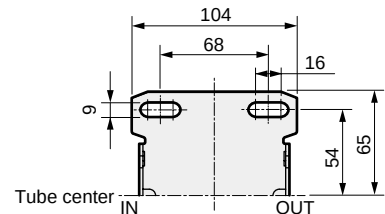
Dimensions

● MM6000-W

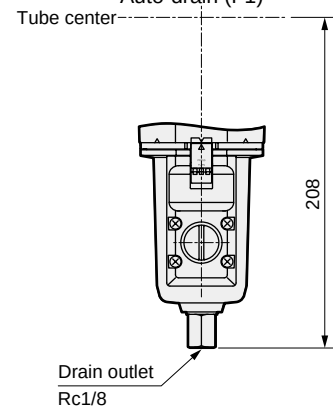
- Dimensions of options
- With differential pressure detection port (Q)



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

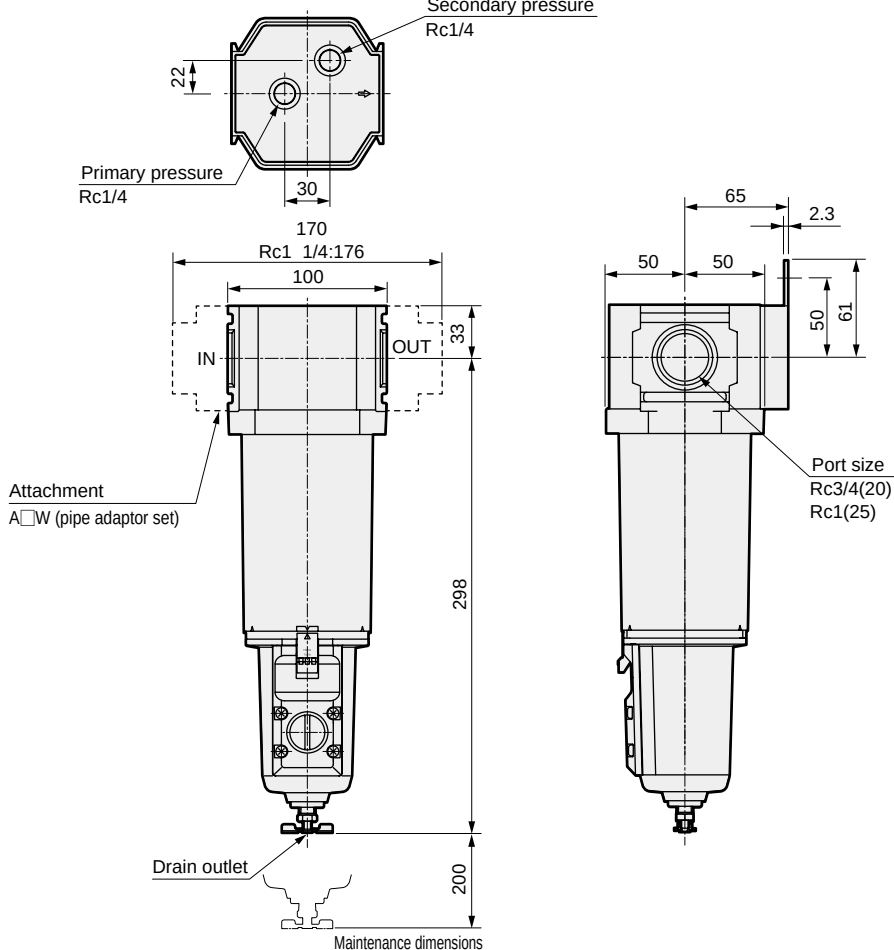


- Dimensions of options
- Auto-drain (F1)

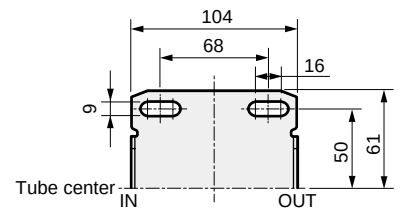


● MM8000-W

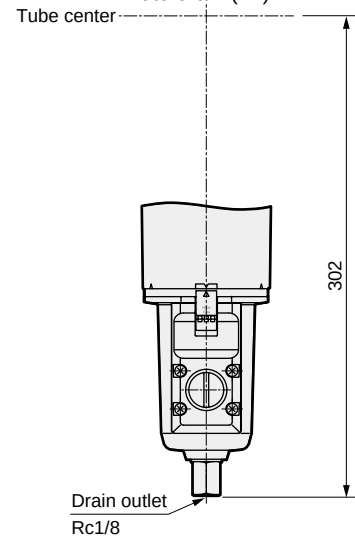
- Dimensions of options
- With differential pressure detection port (Q)



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



- Dimensions of options
- Auto-drain (F1)



CKD

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
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Med Press FR
No Cu/ PTFE FRL
Outdrs FRL
Adapter Joiner Press Gauge
CompFRL
LgFRL
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Speed Ctrl
Silncr
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Air Unit
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