



Oil mist filter Standard White Series

M1000/M2000/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	M2000-W	M3000-W	M4000-W	M6000-W	M8000-W
Appearance						
Working fluid	Compressed air					
Working pressure MPa	0.1 (≈15 psi, 1 bar) to 1.0 (≈150 psi, 10 bar) *2, *3					
Proof pressure MPa	1.5 (≈220 psi, 15 bar) *2					
Drain capacity cm ³	3	25	45	80	80	80
Port size Rc,NPT,G	1/8, 1/4 (3/8 uses an adaptor)	1/4, 3/8 (1/2 uses an adaptor)		1/4, 3/8, 1/2 (3/4 uses an adaptor)	3/4, 1 (1 1/4 uses an adaptor)	3/4, 1 (1 1/4 uses an adaptor)
Weight kg	0.096	0.25	0.28	0.52	0.95	1.35
Standard accessories	Bowl guard					

Mantle option name	Blank (M type)	S (S type)	X (X type)
Max. processing flow rate \varnothing /min(ANR)	150 *2	150 *2	150
Primary pressure 0.7 MPa	M1000-□-W	250	310
	M2000-□-W	360	450
	M3000-□-W	825	1000
	M4000-□-W	1270	1400
Ambient / fluid temperatures °C	M6000-□-W	2900	2900
	M8000-□-W	5 to 60	5 to 30
Filtration rating μ m	0.01 (nominal)	0.3	Suction by activated charcoal *4
Secondary side oil concentration mg/m ³	≤0.01 (≤0.1 after oil saturation) *5, 6	0.5 or less *5	0.003 or less *7
Mantle (element) change	1 year (6000 hours) or pressure drop 0.1 MPa		- *8

*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: When using M1000-W-F1 auto-drain, the min. working pressure is 0.2 MPa, the max. working pressure is 0.7 MPa and the proof pressure is 1.05 MPa. For the max. processing flow rate, refer to the max. processing flow rate graph (page 108).

*3: In the case of "F1" with auto-drain, the min. working pressure is 0.15 MPa.

*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.

*5: The secondary oil concentration is the value when the primary oil concentration is 30 mg/m³ and inlet air temperature is 21°C.

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

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

*8: The mantle (element) replacement period differs depending on 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 temperature is high, so provide heat dissipation measures.

Option weight

* Add to the weight of the standard accessories.

Unit: kg

Code	Drain disch	Bowl material		Indicator	Pipe adaptor set							Bracket
	F1	M	M1	Q1	A6*W	A8*W	A10*W	A15*W	A20*W	A25*W	A32*W	BW
M1000	0.007				0.09	0.09	0.09					0.1
M2000	0.02		0.1			0.16	0.16	0.16				0.15
M3000	0.02	0.1	0.1			0.16	0.16	0.16				0.17
M4000	0.02	0.1	0.1	0.024		0.16	0.16	0.16	0.16			0.21
M6000	0.02	0.1	0.1						0.53	0.53	0.53	0.34
M8000	0.02	0.1	0.1						0.53	0.53	0.53	0.36

Oil Mist Filter Series

How to order

How to order

M1000 - **6** - **W** - **S** - **A6W** -

A Model No.

B Port size

C Port thread

D Option

E Display unit

F Pipe adaptor set (attachments)

G Bracket (attachment)

⚠ Precautions for model No. selection

- *1: "Q1" with differential pressure indicator cannot be selected for port size "8".
- *2: G threads and NPT threads are available for IN, OUT and drain outlet (metal bowl with auto-drain).
- *3: Select options for drainage, bowl material and differential pressure detection.
When selecting options for several items, list options in order from the top.
- *4: NO auto-drain cannot be selected.
- *5: Refer to page 280 for the auto-drain usage conditions.
- *6: "Q1" with differential pressure indicator cannot be selected for bowl material "M".
- *7: "X" mantle cannot be combined with F1 option or "Q1" (with differential pressure indicator).
- *8: The pipe adaptor set and C type bracket cannot be used together.
- *9: The joiner set is enclosed with the pipe adaptor set.

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

- Anti-dust generation structure for use in cleanrooms

M*000 - - **P7***

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

A Model No.					
M1000	M2000	M3000	M4000	M6000	M8000
●	●	●	●	●	●
●	●	●	●	●	●
●	●	●	●	●	●
●	●	●	●	●	●
●	●	●	●	●	●
●	●	●	●	●	●

Code	Content	M1000	M2000	M3000	M4000	M6000	M8000
B Port size							
6	1/8	●					
8 *1	1/4	●	●	●	●		
10	3/8		●	●	●		
15	1/2				●		
20	3/4					●	●
25	1					●	●
C Port thread *2							
Blank	Rc thread	●	●	●	●	●	●
N	NPT thread	●	●	●	●	●	●
G	G thread	●	●	●	●	●	●
D Option *3							
Drain disch *4, 5	Blank	With manual drain cock		●	●	●	●
	F1	Auto-drain, man OVRD (NC: no press→no exhaust)		●	●	●	●
Bowl material	Blank	Polycarbonate bowl		●	●	●	●
	Z	Nylon bowl		●	●	●	●
	M	Metal bowl *6			●	●	●
Mantle (Element)	M1	Metal bowl with manual drain cock			●	●	●
	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 *7	X type (deodorization; remaining oil 0.003 mg/m ³)		●	●	●	●
Diff press detect	Blank	Without differential pressure detection port		●	●	●	●
	Q	With differential pressure detection port (Rc 1/4)				●	●
Diff press indicator	Blank	Without differential pressure indicator		●	●	●	●
	Q1 *6	With differential pressure indicator				●	
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 Pipe adaptor set (attachments) *8, *9 Page 270							
Blank	Not attached		●	●	●	●	●
A6*W	1/8 pipe adaptor set		●				
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		●	●	●	●	●

Specifications for rechargeable battery (Catalog No. CC-1226A)

- Structure compatible with rechargeable battery manufacturing process

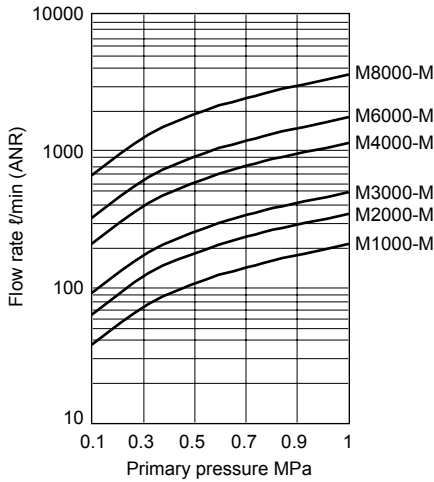
M*000 - - **P4***

Oil Mist Filter Series

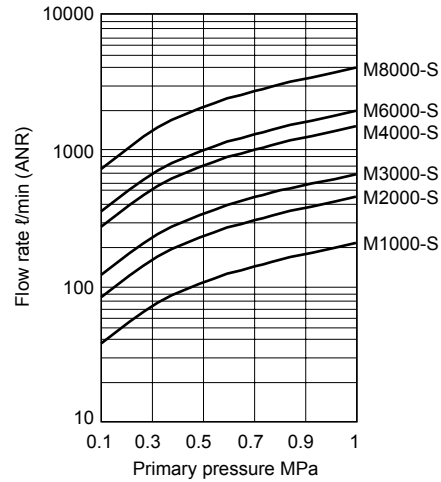
F.R.L Flow characteristics (max. processing flow rate)

- 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
- ElecPneR
- 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

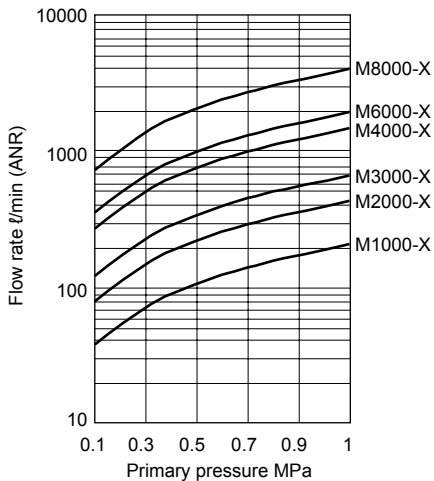
● M*000-W-M



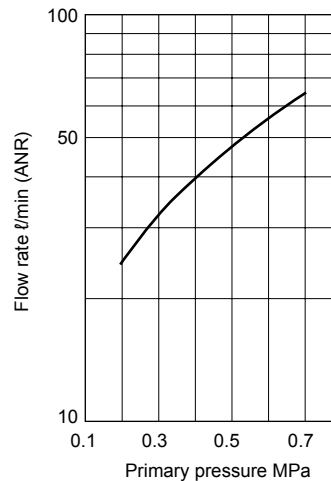
● M*000-W-S



● M*000-W-X



● M1000-W-F1 With auto-drain (M type, S type)



How to select oil mist filter and optional mantle

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)	Plastic foam End plate black
S (S type)	Plastic foam End plate green
X (X type)	Perforated metal End plate black

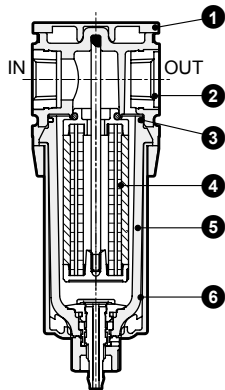
Note: Changes for product upgrades may be made without prior notice.
When placing an order, confirm the option code of the part model No. displayed on the body.

Oil Mist Filter Series

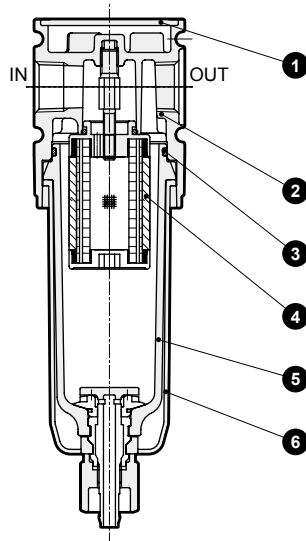
Internal structure and parts list

Internal structure and parts list

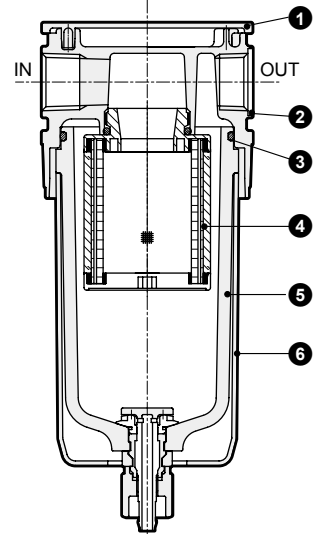
● M1000-W



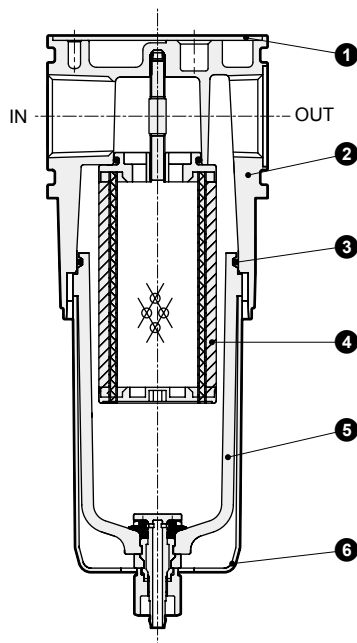
● M2000-W



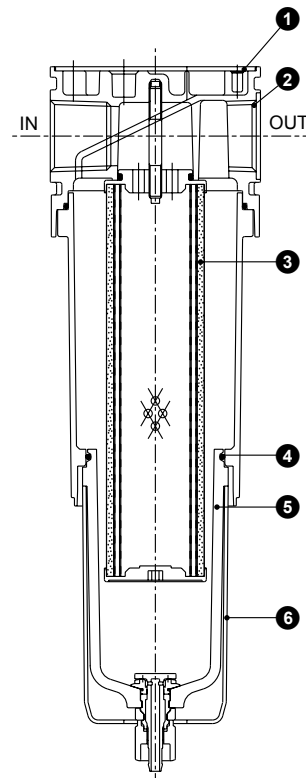
● M3000-W/M4000-W



● M6000-W



● M8000-W



No.	Part name	Material					
		M1000-W	M2000-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 *1	Special nitrile rubber					
4	Mantle assembly	-					
5	Bowl assembly	Polycarbonate resin, polyacetal resin, urethane resin					
6	Bowl guard	Polyamide resin	Polyamide resin, steel				

*1: The O-ring of the M1000-W has a special shape.

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

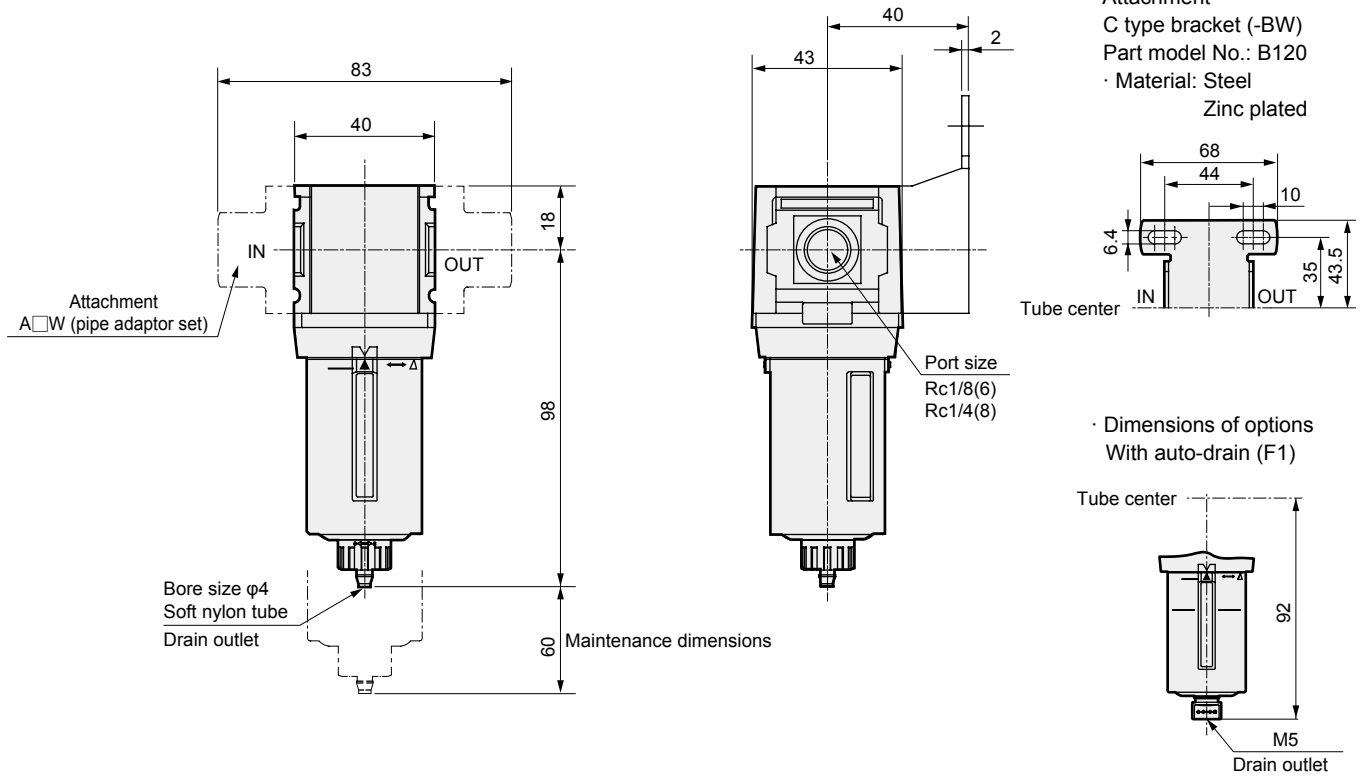
Oil Mist Filter Series



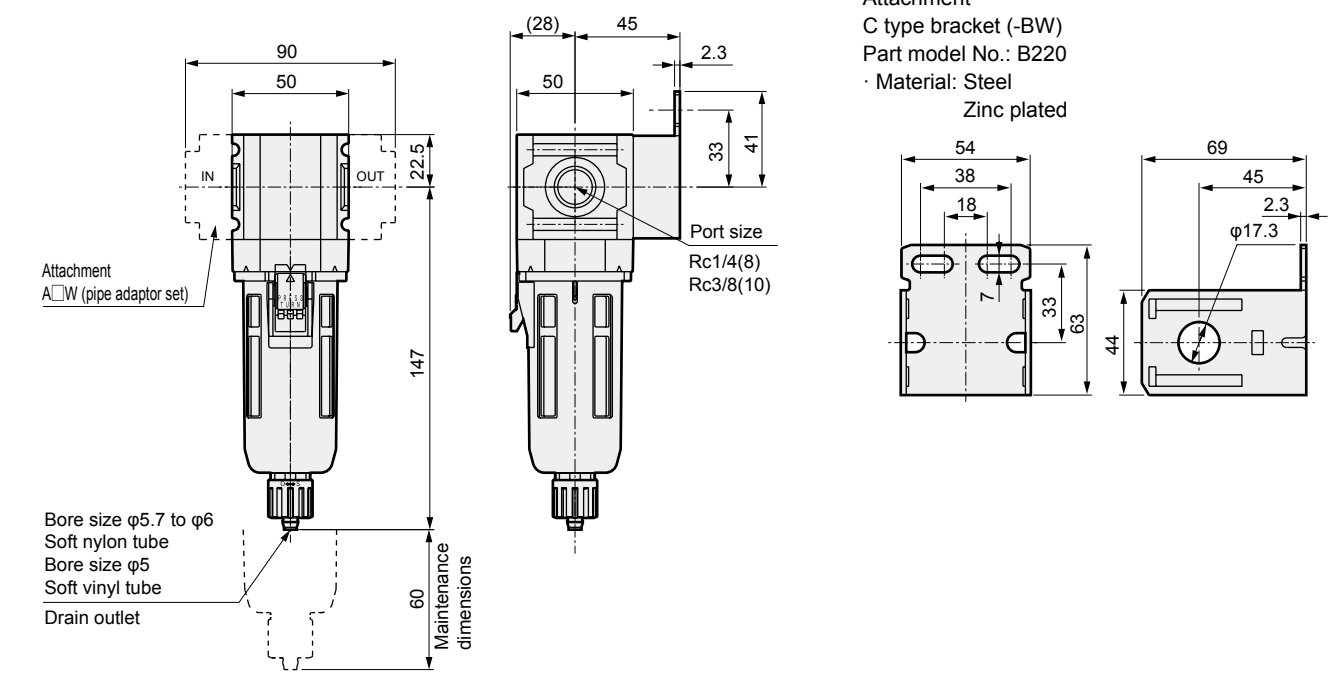
Dimensions

- 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
- PresCompn
- Mech/ElecPresSw
- ContactSW
- AirSens
- PresSW Cool
- AirFloSens/Contr
- WaterRtSens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending

● M1000-W

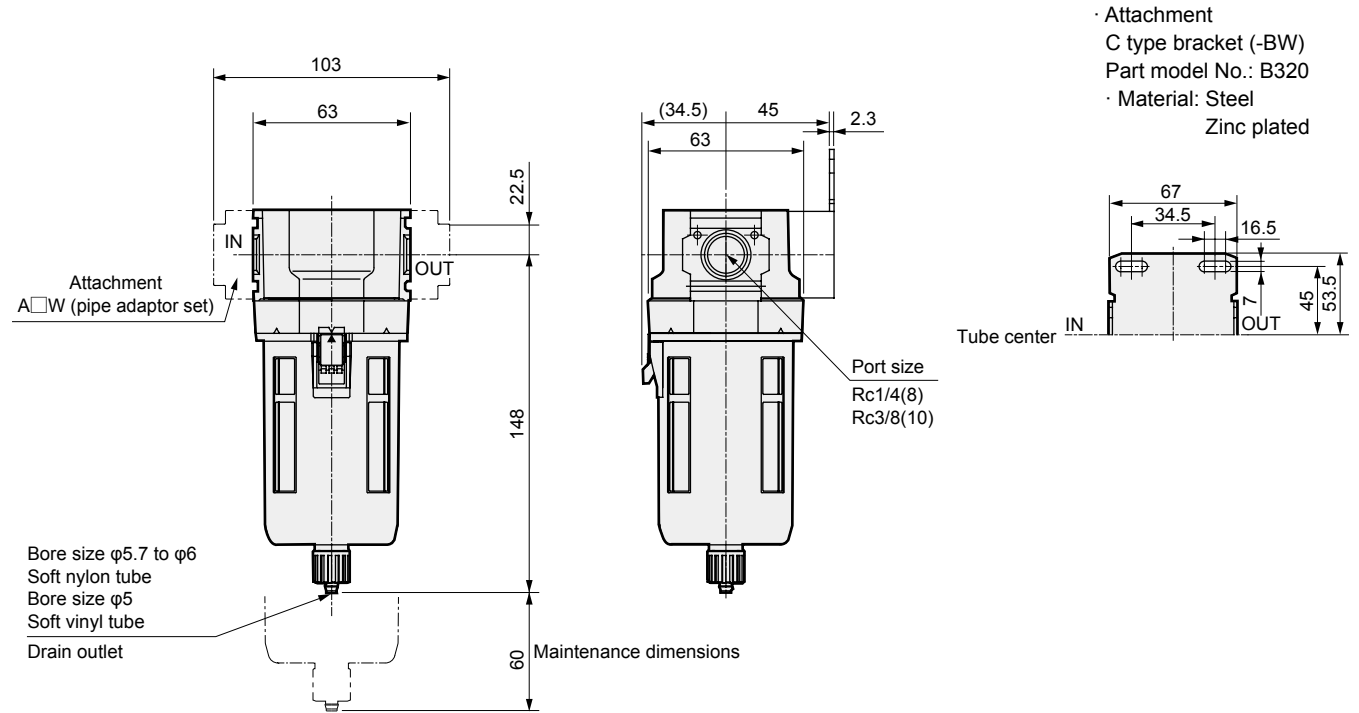


● M2000-W



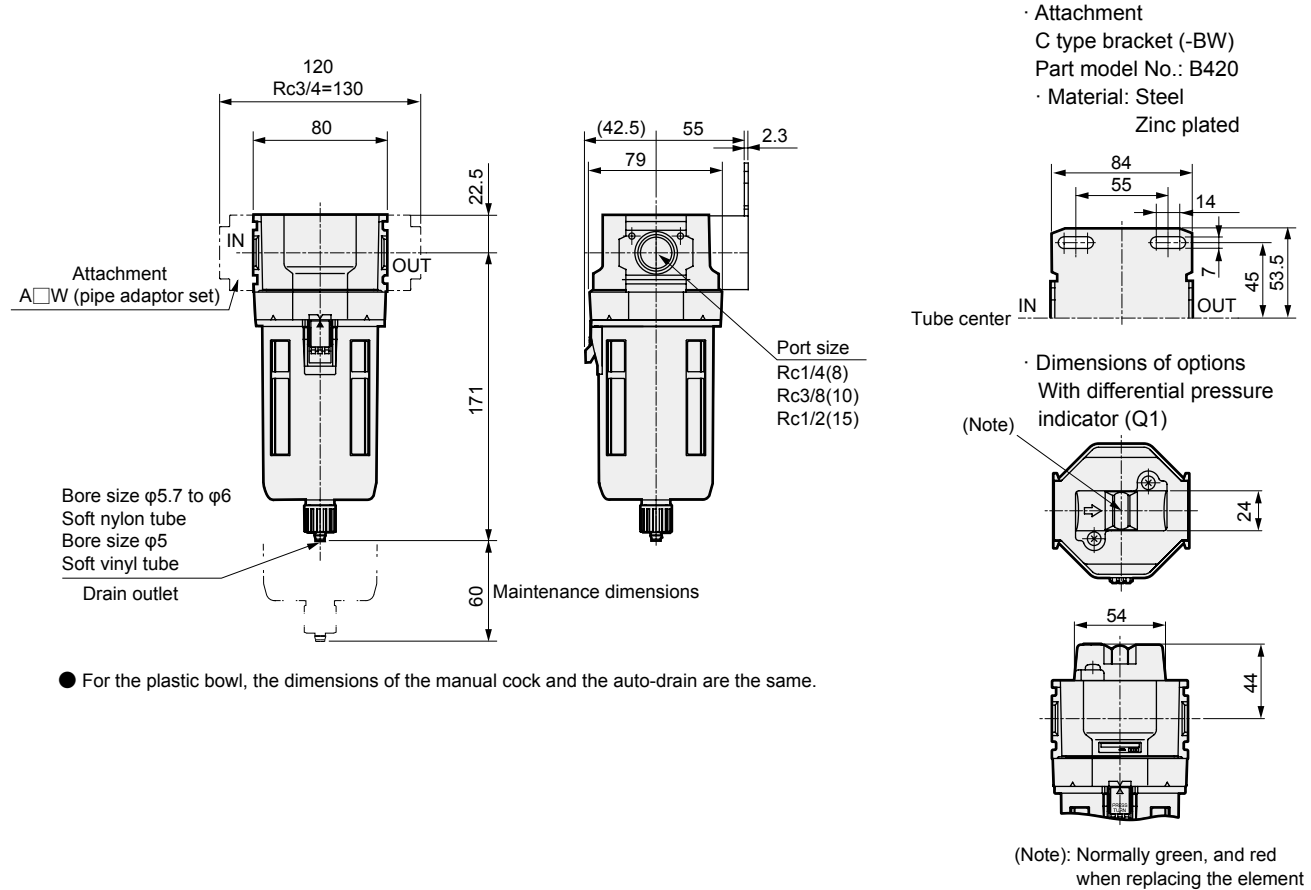
Dimensions

● M3000-W



● For the plastic bowl, the dimensions of the manual cock and the auto-drain are the same.
 Note: The C type bracket and pipe adaptor set attachments cannot be used together.

● M4000-W



● For the plastic bowl, the dimensions of the manual cock and the auto-drain are the same.

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

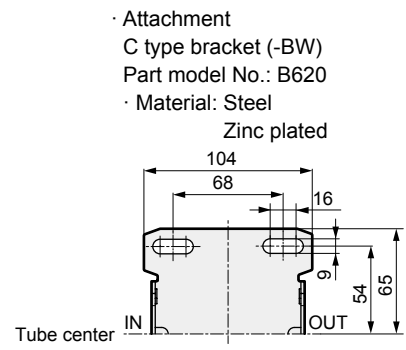
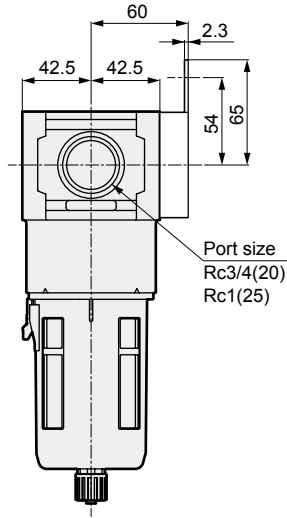
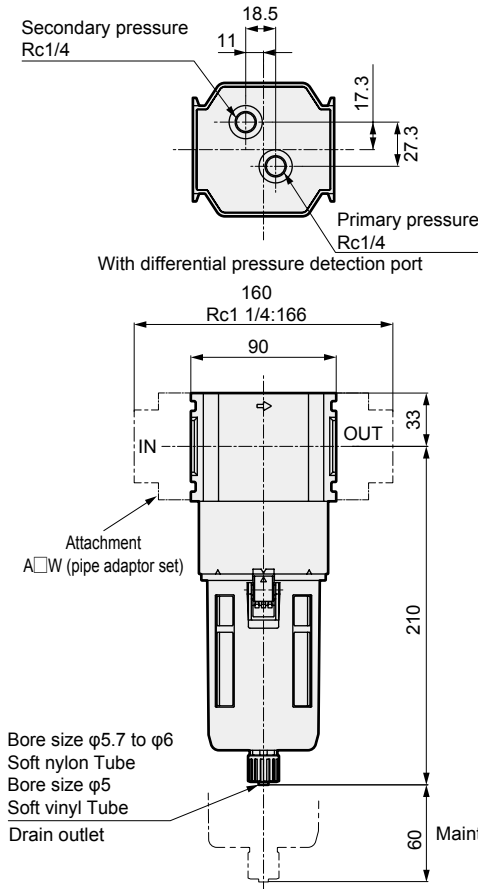
Oil Mist Filter Series



F.R.L Dimensions

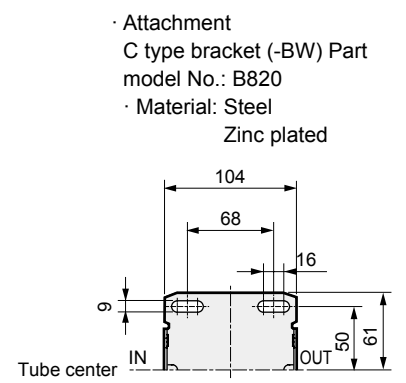
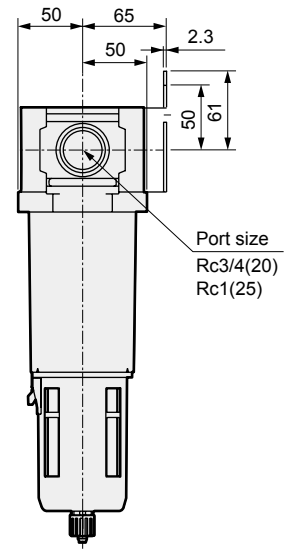
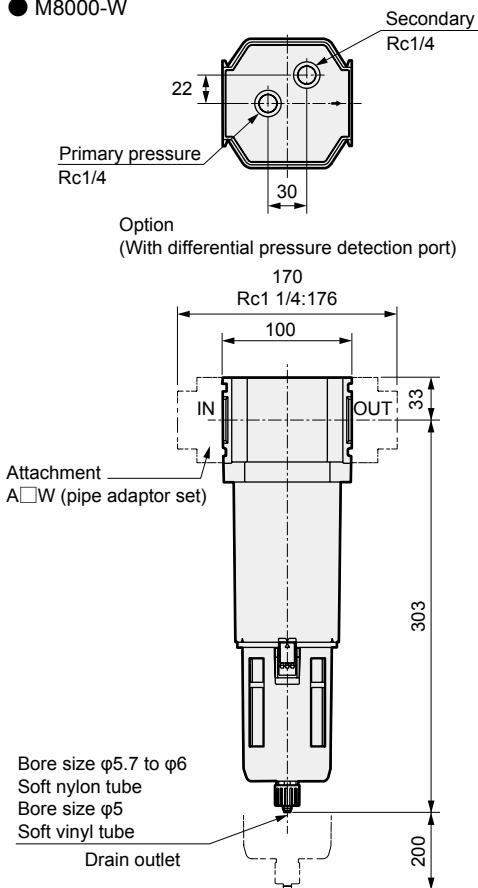
- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhR
- MedPresFR
- No Cu/PTFE FRL
- Outdrs FR
- F.R.L (Related)
- CompFRL
- LgFRL
- PrecsR
- VacF/R
- Clean FR
- ElecPneur
- AirBoost
- SpdContr
- Silncr
- CheckV/other
- Jnt/tube
- AirUnt
- PrecsCompn
- Mech/ElecPresSw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

● M6000-W



● For the plastic bowl, the dimensions of the manual cock and the auto-drain are the same.
Note: The C type bracket and pipe adaptor set attachments cannot be used together.

● M8000-W

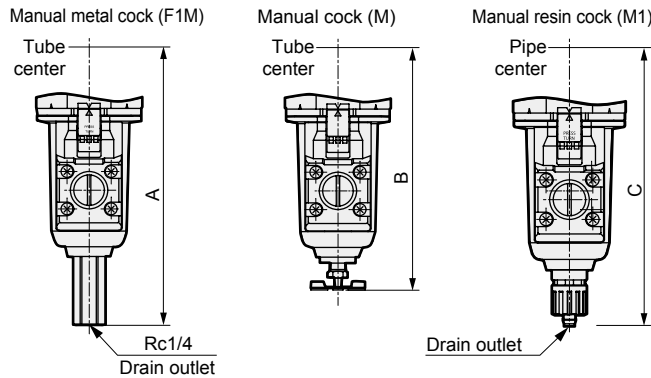


● For the plastic bowl, the dimensions of the manual cock and the auto-drain are the same.

Optional dimensions



- Metal bowl (option)
[M2000-W, M3000-W, M4000-W, M6000-W, M8000-W]

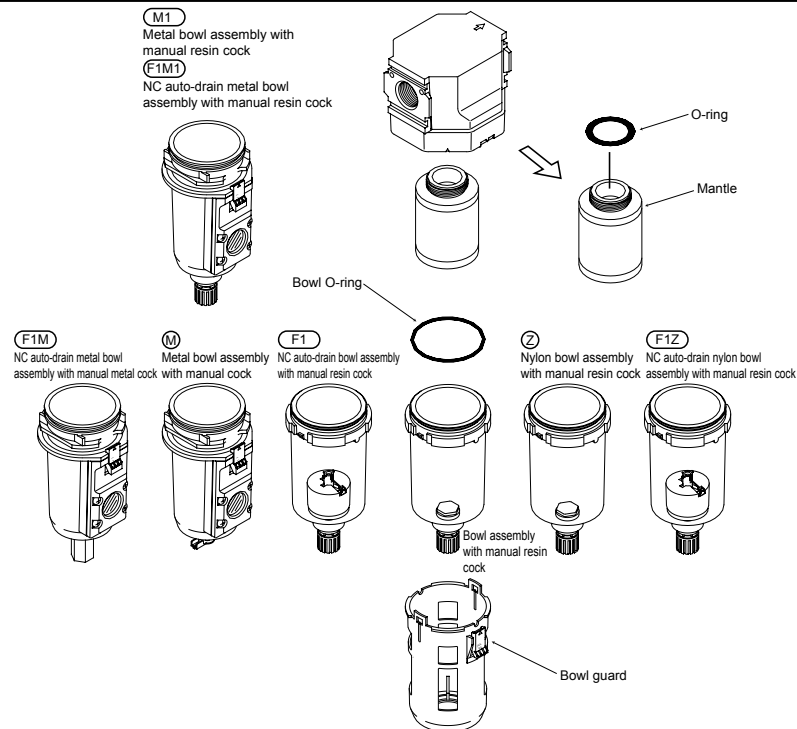


Dimensions table

Model No.	F1M	M	M1
	A	B	C
M2000-W	-	-	147
M3000-W	164	143.5	154
M4000-W	187	166.5	177
M6000-W	226	205	216
M8000-W	319	298	309

- Material of the metal bowl is aluminum die-casting.

Optional parts list - for oil mist filter



Repair parts kit model No. (set including O-ring, mantle and 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	-
M2000-W	M2000-KIT	M2000-KIT-S	M2000-KIT-X
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 parts kit model No. (set including O-ring and 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	-
M2000-W	M2000-MANTLE-ASSY	M2000-MANTLE-ASSY-S	M2000-MANTLE-ASSY-X
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

* M parts should be selected as they are compatible with M1000-W, 3000-W, 4000-W, and 8000-W Series products released before May 1998.

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

- 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
- WaterRISens
- TotAirSys (Total Air)
- TotAirSys (Gamma)
- RefrDry
- DesicDry
- HiPolymDry
- MainFiltr
- Dischrg etc
- Ending