




High performance oil mist filter Standard White Series

# MX1000/MX3000/MX4000 MX6000/MX8000-W Series

Secondary oil content 0.001 mg/m<sup>3</sup>






Ideal for optical devices, such as optical positioning devices and laser processing systems.

● Port size: 1/8 to 1

JIS symbol 



## Specifications

Descriptions	MX1000-W	MX3000-W	MX4000-W	MX6000-W	MX8000-W
Appearance					
Working fluid	Compressed air				
Working pressure MPa	0.1 (≈15 psi, 1 bar) to 1.0 (≈150 psi, 10 bar) *2				
Proof pressure MPa	1.5 (≈220 psi, 15 bar)				
Ambient / fluid temperatures °C	5 (41°F) to 60 (140°F)				
Filtration rating μm	0.01 (nominal)				
Secondary side oil concentration mg/m <sup>3</sup>	0.001 or less *3				
Max. processing flow rate ℓ /min(ANR) *1	75	180	370	670	1480
Drain capacity cm <sup>3</sup>	3	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	0.28	0.52	0.95	1.35
Mantle (element) change	1 year (6000 hours) or pressure drop 0.1 MPa				
Standard accessories	Bowl guard				

\*1: Values when primary pressure is 0.7 MPa and pressure drop is 0.01 MPa. Use the product 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 is 0.15 MPa.

\*3: The secondary oil content is the value when the primary oil content is 30 mg/m<sup>3</sup>, the inlet air temperature is 21°C, and before the oil is saturated.

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

## Option weight

\* Add to the weight of the standard accessories.

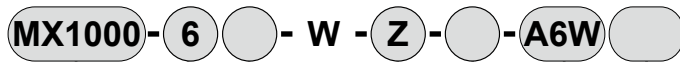
Unit: kg

Code	Drain discharge	Bowl material			Pipe adaptor set						Bracket	
		F1	M	M1	A6*W	A8*W	A10*W	A15*W	A20*W	A25*W		A32*W
MX1000	0.007				0.09	0.09	0.09					0.1
MX3000	0.02		0.1	0.1		0.16	0.16	0.16				0.17
MX4000	0.02		0.1	0.1		0.16	0.16	0.16	0.16			0.21
MX6000	0.02		0.1	0.1					0.53	0.53	0.53	0.34
MX8000	0.02		0.1	0.1					0.53	0.53	0.53	0.36

# Super Oil Mist Filter Series

How to order

How to order



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

A Model No.

B Port size

C Port thread

D Option

E Display unit

F Pipe adaptor set (attachments)

G Bracket (attachment)

A Model No.

Code		Content	MX1000	MX3000	MX4000	MX6000	MX8000	
<b>B Port size</b>								
6	1/8		●					
8	1/4		●	●	●			
10	3/8			●	●			
15	1/2				●			
20	3/4					●	●	
25	1					●	●	
<b>C Port thread</b>								
<b>Blank</b>			Rc thread					*1
<b>N</b>			NPT thread					
<b>G</b>			G thread					
<b>D Option</b>								
Drain discharge	<b>Blank</b>	With manual drain cock	●	●	●	●	●	
	<b>F1</b>	Auto-drain manual override		●	●	●	●	
	<b>*3, 4</b>	(NC: no exhaust when not pressurized)		●	●	●	●	
Bowl material	<b>Blank</b>	Polycarbonate bowl	●	●	●	●	●	
	<b>Z</b>	Nylon bowl	●	●	●	●	●	
	<b>M</b>	Metal bowl		●	●	●	●	
	<b>M1</b>	Metal bowl with manual drain cock		●	●	●	●	
Diff press detect	<b>Blank</b>	Without differential pressure detection port	●	●	●	●	●	
	<b>Q</b>	With differential pressure detection port (Rc 1/4)				●	●	
Flow direction	<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					
<b>J1</b>			MPa display, NPT, G thread					
<b>F Pipe adaptor set (attachments)</b>								
<b>Blank</b>			Not attached					*5 Page 270 *6
<b>A6*W</b>			1/8 pipe adaptor set					
<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 (attachment)</b>								
<b>Blank</b>			Not attached					Page 267
<b>BW</b>			C type bracket					

## ⚠ Precautions for model No. selection

- \*1: G threads and NPT threads are available for IN, OUT and drain outlet (metal bowl with auto-drain).
- \*2: Select options for drainage, bowl material 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 282 for the auto-drain usage conditions.
- \*5: The pipe adaptor set and C type bracket cannot be used together.
- \*6: 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

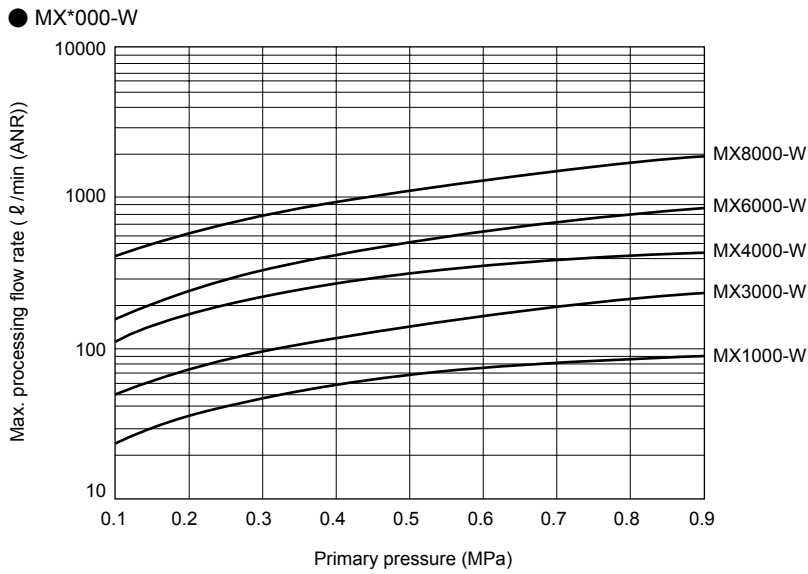
MX\*000 - ..... - P7\*

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

# Super Oil Mist Filter series

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

- F (Filtr)
- R (Reg)
- L (Lub)
- PresSW
- Shutoff
- SlowStart
- FimResistFR
- Oil-ProhrR
- MedPresFR
- No Cu/PTFE FRL
- Outdrs FR
- F.R.L (Related)
- CompFRL
- LgFRL
- PrecsR
- VacFR
- 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



## How to select oil mist filter and optional mantle

### Major recommended circuit

### Applications

#### ◆ S type



- General industrial air (Secondary oil concentration 0.5 mg/m<sup>3</sup> or less)
- 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 (Secondary oil concentration 0.01 mg/m<sup>3</sup> or less)
- Instrumentation
  - Measurement
  - For sequence control
  - Movable element/pure fluid element
  - Luxury painting
  - Precision industry

#### ◆ X type



- Odorless air (Secondary oil concentration 0.003 mg/m<sup>3</sup> or less)
- Food industry
  - Pharmaceutical industry
  - Mixing
  - Transportation
  - Drying
  - Packaging
  - Brewing air

#### ◆ MX type



- Super oil-free air (Secondary oil concentration 0.001 mg/m<sup>3</sup> or less)
- Optical positioning device
  - Laser finishing machine

Note: The secondary oil concentration is the value when the primary oil concentration is 30 mg/m<sup>3</sup>, the inlet air temperature is 21°C, and before the oil is saturated. When using MX, be sure to use the S or M type oil mist filter in the previous stage.

## Option code of mantle and shape

	Option code	Appearance
M*000-W	Blank (M type)	
	S (S type)	
	X (X type)	
MX*000-W		

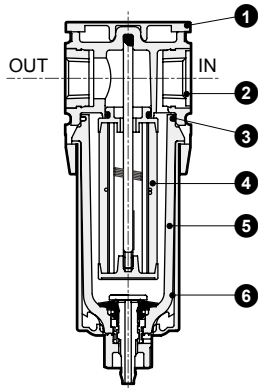
Note: Changes for product upgrades may be made without prior notice. When placing an order, confirm the option code of the part model No. displayed on the body.

# Super Oil Mist Filter series

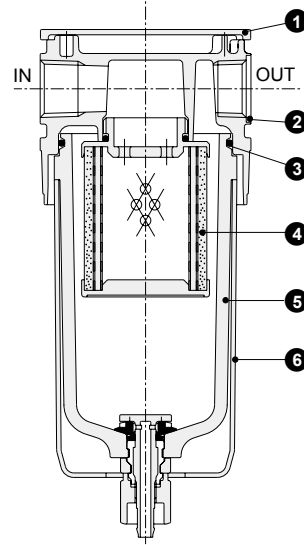
Internal structure and parts list

## Internal structure and parts list

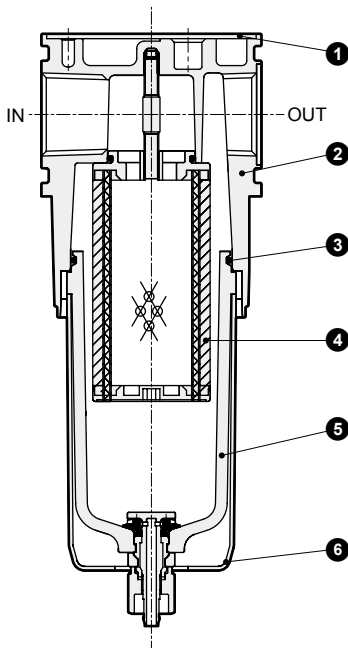
● MX1000-W



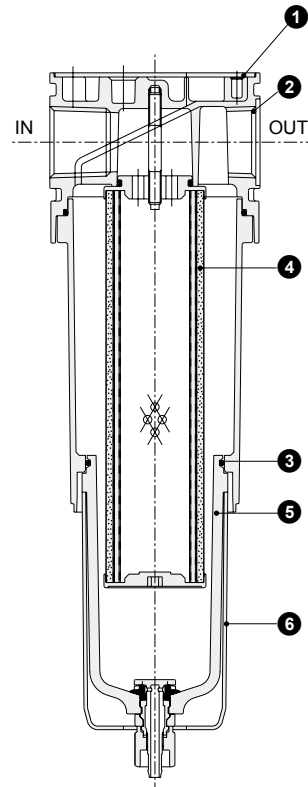
● MX3000-W/MX4000-W



● MX6000-W



● MX8000-W



No.	Part name	Material				
		MX1000-W	MX3000-W	MX4000-W	MX6000-W	MX8000-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 MX1000-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
WaterRtSens
TotAirSys (Total Air)
TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

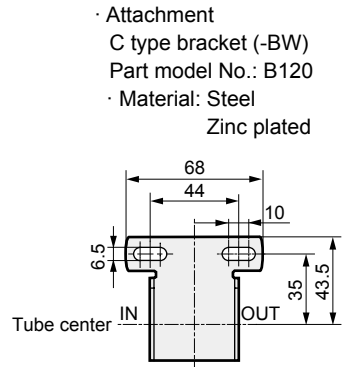
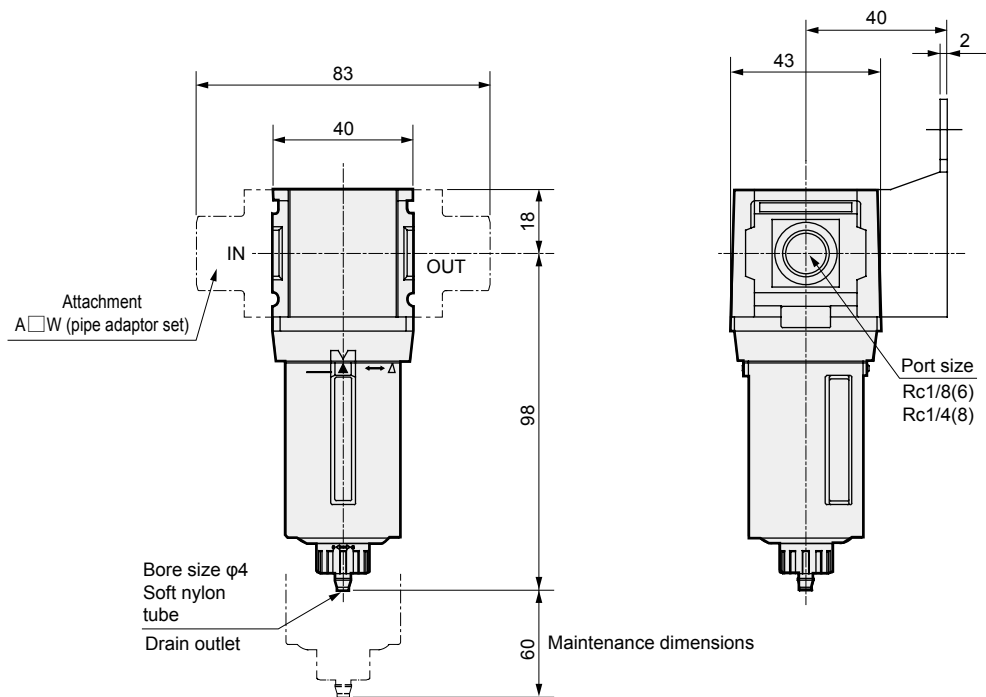
# Super Oil Mist Filter Series



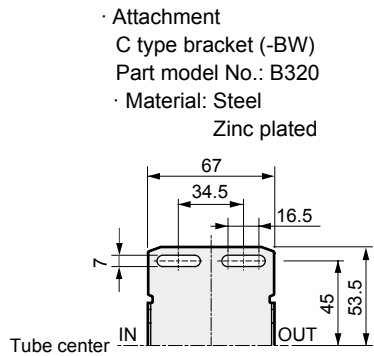
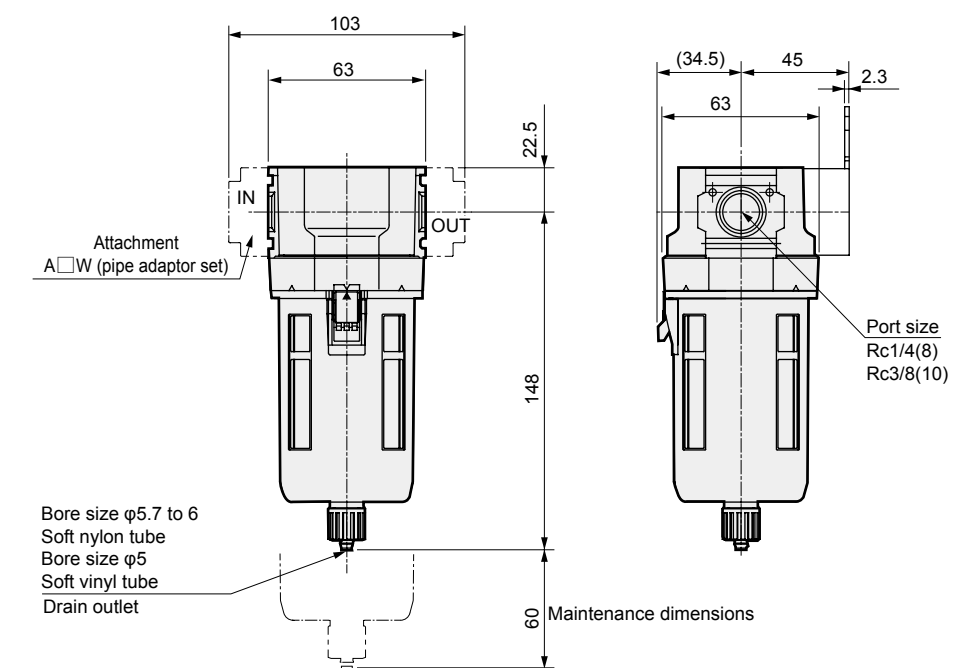
## F.R.L Dimensions

- 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

### ● MX1000-W



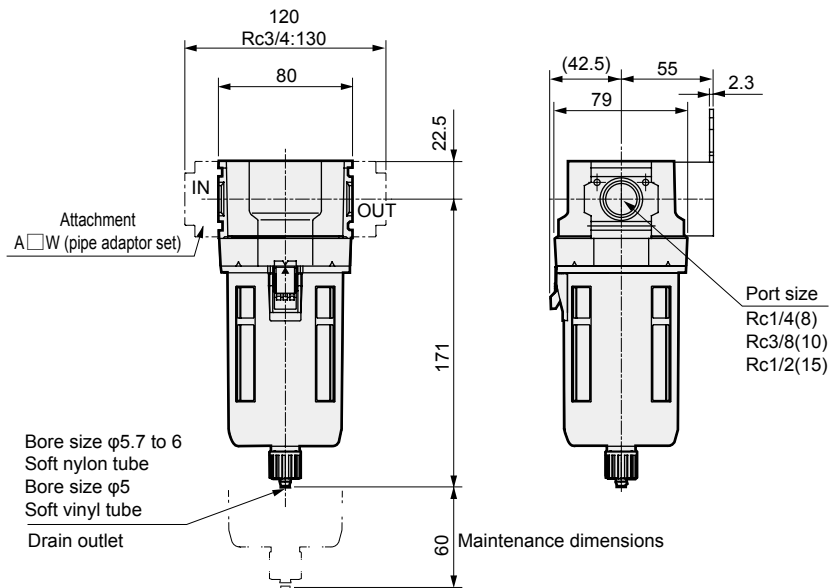
### ● MX3000-W



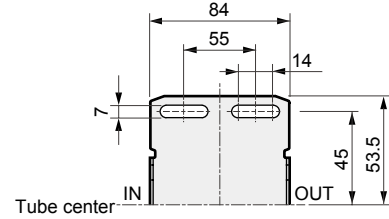
● For the plastic bowl, the dimensions of the manual cock and the auto-drain are the same.  
 Note: The C type bracket and pipe adaptor set attachments cannot be used together.

### Dimensions

#### ● MX4000-W

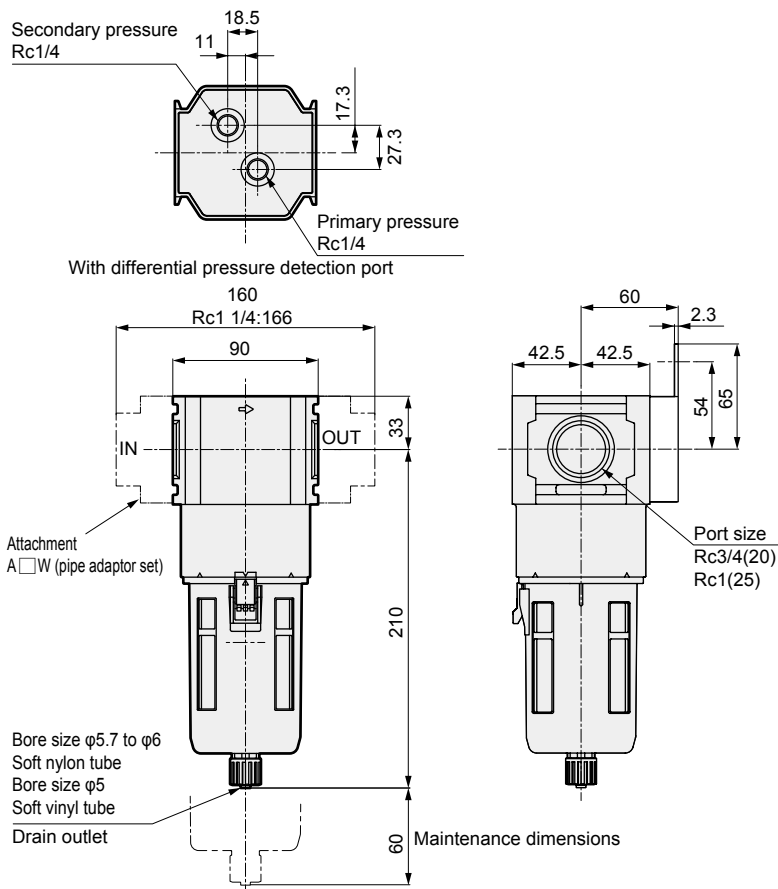


- Attachment  
C type bracket (-BW)  
Part model No.: B420
- Material: Steel  
Zinc plated

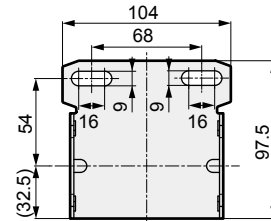


● For the plastic bowl, the dimensions of the manual cock and the auto-drain are the same.

#### ● MX6000-W



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



● 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.

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
PrescR
VacF/R
Clean FR
ElecPneuR
AirBoost
SpdContr
Silncr
CheckV/ other
Jnt/tube
AirUnt
PresCompn
Mech/ ElecPresSw
ContactSW
AirSens
PresSW Cool
AirFloSens/ Contr
WaterRISens
TotAirSys (Total Air)
TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

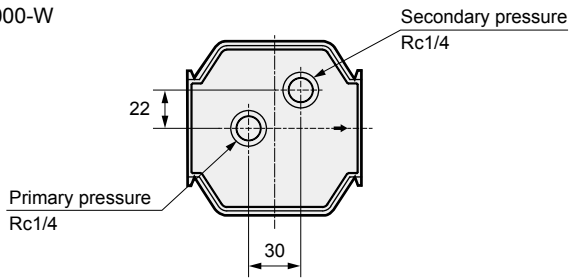
# Super Oil Mist Filter Series



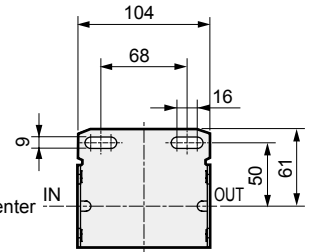
## Dimensions

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

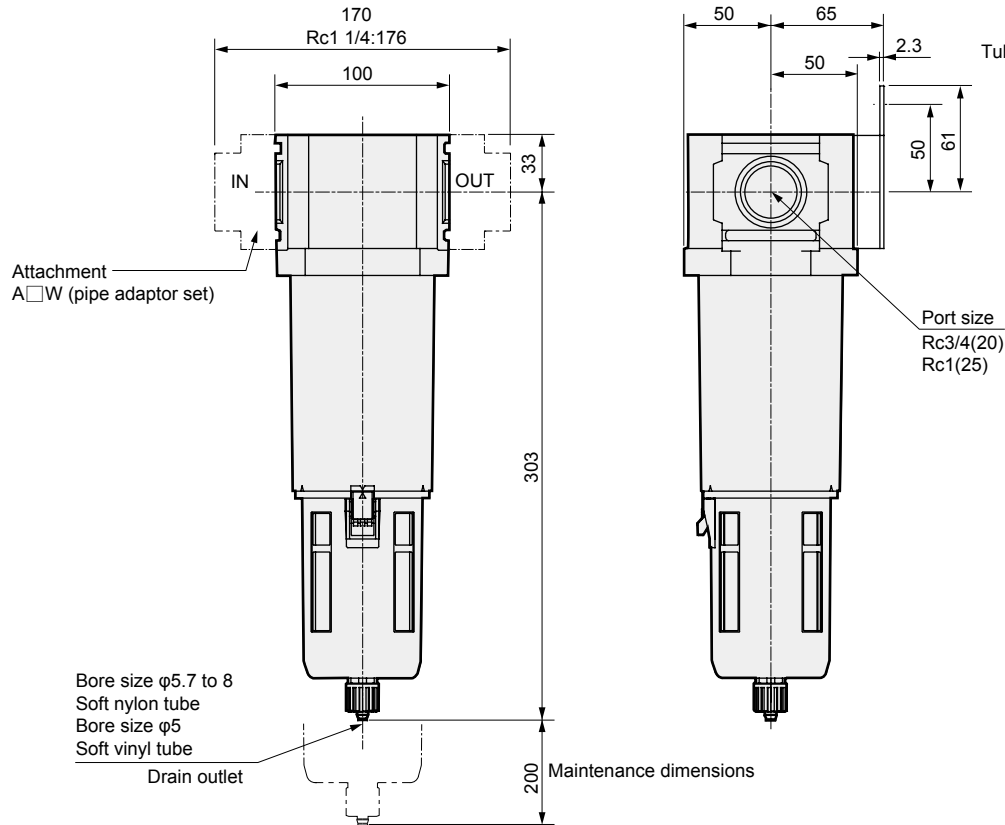
### ● MX8000-W



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



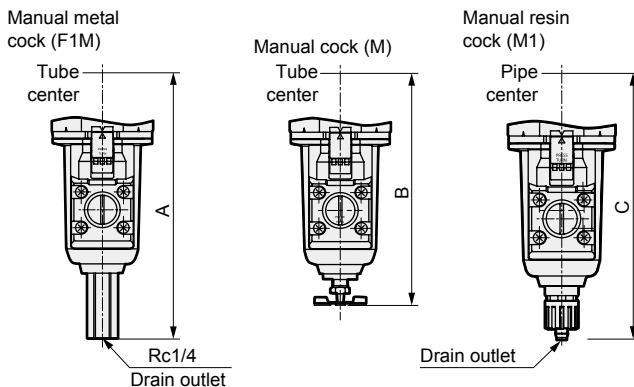
Option  
(With differential pressure detection port)



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

### ● Metal bowl (option)

[MX3000-W, MX4000-W, MX6000-W, MX8000-W]



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

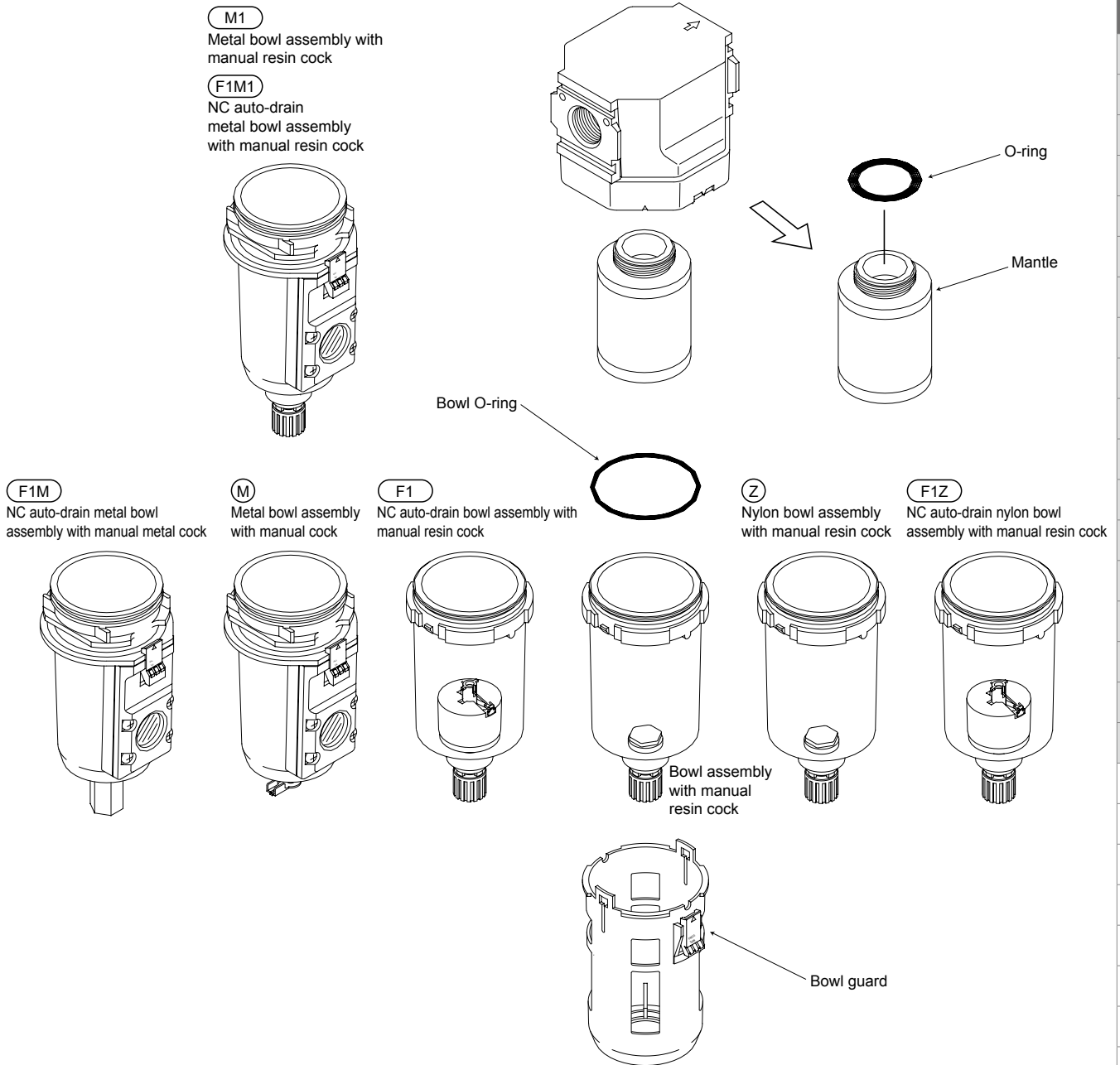
## Dimensions table

Model No.	F1M	M	M1
	A	B	C
MX3000-W	164	143.5	154
MX4000-W	187	166.5	177
MX6000-W	226	205	216
MX8000-W	319	298	309

# Super Oil Mist Filter series

Optional parts table

## Optional parts list - for oil mist filter



### Repair parts kit model No. (set including O-ring, mantle and bowl O-ring)

Model	
MX1000-W	MX1000-KIT
MX3000-W	MX3000-KIT
MX4000-W	MX4000-KIT
MX6000-W	MX6000-KIT
MX8000-W	MX8000-KIT

### Repair parts kit model No. (set including O-ring and mantle)

Model	
MX1000-W	MX1000-MANTLE-ASSY
MX3000-W	MX3000-MANTLE-ASSY
MX4000-W	MX4000-MANTLE-ASSY
MX6000-W	MX6000-MANTLE-ASSY
MX8000-W	MX8000-MANTLE-ASSY

\* Refer to the air filter options and parts table on pages 104 and 105 for 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
WaterRtSens
TotAirSys (Total Air)
TotAirSys (Gamma)
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending