



Air filter standard white Series

F1000/F2000/F3000 F4000/F6000/F8000-W Series

Introducing the 5µm element for dust removal and 0.3µm element for tar removal.
(Excluding F1000 Series.) Port size: 1/8 to 1

JIS symbol



Specifications

Descriptions	F1000-W	F2000-W	F3000-W	F4000-W	F6000-W	F8000-W
Appearance						
Working fluid	Compressed air					
Max. working pressure MPa	1.0 Notes 1, 2, 3					
Withstanding pressure MPa	1.5 Note 1					
Ambient temperature range °C	5 to 60					
Filtration rating µm	5			5 or 0.3		
Drain capacity cm ³	12	25	45	80	80	80 (Note 4)
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)
Product weight kg	0.087	0.24	0.25	0.45	0.9	1.16
Standard accessories	Bowl guard					

Note 1: When selecting "F1" with automatic drain for the F1000-W Series, the minimum operation pressure is 0.2MPa, maximum operation pressure is 0.7MPa, the guaranteed withstand pressure is 1.05MPa. For the maximum flow rate, refer to the maximum working flow rate (table below) for F1000-W-F1 with automatic drain. The working flow rate must be less than the maximum working flow rate value. When selecting "F1" with automatic drain for the F2000-W Series, refer to the maximum working flow rate (table below). The working flow rate must be less than the maximum working flow rate.

Note 2: When "F" with an automatic drain is selected, minimum operation pressure must be 0.1 MPa. Initially generated drainage and air are purged until pressure reaches 0.1 MPa.

Note 3: When "F1" with an automatic drain is selected, minimum operation pressure must be 0.15 MPa.

Note 4: Up to 170 m³ is stored only with the manual drain cock type.

Clean room specifications (catalog No. CB-033S)

- Dust generation preventing structure for use in cleanrooms

F*000 - - P7*

Secondary battery compatible specifications (catalog No. CC-947)

- Structured for use in secondary battery manufacturing processes

F*000 - - P4*

- Max. usage rate with F1000-W-F1 automatic drain (m³/min. (ANR))

Primary pressure MPa	0.2	0.3	0.4	0.5	0.6	0.7
Port size						
6	0.185	0.250	0.310	0.375	0.435	0.500
8	0.225	0.300	0.375	0.450	0.525	0.600

- Max. usage rate with F2000-W-F1 automatic drain (m³/min. (ANR))

Primary pressure MPa	0.15	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1
Flow	0.50	0.60	0.80	1.00	1.20	1.40	1.65	1.85	2.05	2.25

How to order



A Model no.

B Port size

C Port thread type

D Option

E Display unit

F Piping adaptor set (attached)

G Bracket (Attached)

* Refer to page 274 for the explanation of the option.

A Model no.					
F	F	F	F	F	F
1	2	3	4	6	8
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0

Symbol	Descriptions						
B Port size							
6	1/8	●					
8	1/4	●	●	●	●		
10	3/8		●	●	●		
15	1/2				●		
20	3/4					●	●
25	1					●	●
C Port thread type							
Blank	Rc thread	●	●	●	●	●	●
N	NPT thread	●	●	●	●	●	●
G	G thread	●	●	●	●	●	●
D Option							
Drainage	Blank	With manual drain cock	●	●	●	●	●
	F	Auto. drain with manual override (NO type: Exhaust w/o pressurized)			●	●	●
	F1	Auto. drain with manual override (NC type: No exhaust w/o pressurized)	●	●	●	●	●
	FF	Large auto. drain with manual override (NO type: Exhaust w/o pressurized)					●
	FF1	Large auto. drain with manual override (NC type: No exhaust w/o pressurized)					●
Bowl material	Blank	Polycarbonate bowl	●	●	●	●	●
	Z	Nylon bowl	●	●	●	●	●
	M	Metal bowl			●	●	●
	M1	Metal bowl with manual drain cock		●	●	●	●
Element	Blank	5μm	●	●	●	●	●
	Y	0.3μm (submicron)			●	●	●
Differential pressure detection	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 Piping adaptor set (attached)							
Blank	Not attached	●	●	●	●	●	●
A6*W	Rc1/8 piping adaptor set	●					
A8*W	Rc1/4 piping adaptor set	●	●	●	●		
A10*W	Rc3/8 piping adaptor set	●	●	●	●		
A15*W	Rc1/2 piping adaptor set		●	●	●		
A20*W	Rc3/4 piping adaptor set				●	●	●
A25*W	Rc1 piping adaptor set					●	●
A32*W	Rc1 1/4 piping adaptor set					●	●
*Adaptor screw type							
Blank	Rc thread	●	●	●	●	●	●
N	NPT thread	●	●	●	●	●	●
G	G thread	●	●	●	●	●	●
G Bracket (attached)							
Blank	Not attached	●	●	●	●	●	●
BW	C type bracket	●	●	●	●	●	●

⚠ Note on model no. selection

Note 1: When G threads or NPT threads are selected, the IN, OUT, and drainage discharge port (metal bowl automatic drain) are the target.

Note 2: Select the options from drainage, bowl material, element, and differential pressure detection. When selecting options for several items, list options in order from the top.

Note 3: Refer to page 276 for the automatic drain use conditions.

Note 4: The C-type bracket and piping adaptor set attachments cannot be used at the same time.

Note 5: The joiner set is enclosed with the piping adaptor set.

Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending

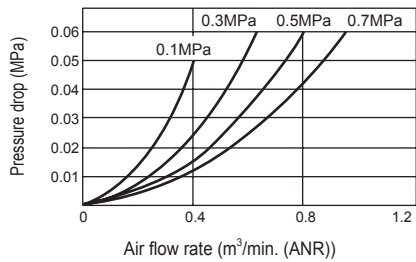
Standard series
F.R.L. unit

Air Filter Series

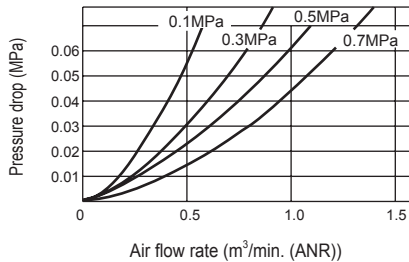
Flow characteristic

Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending

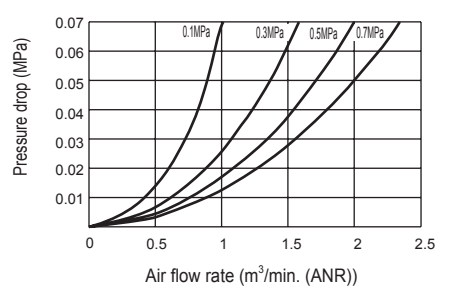
● F1000-6-W



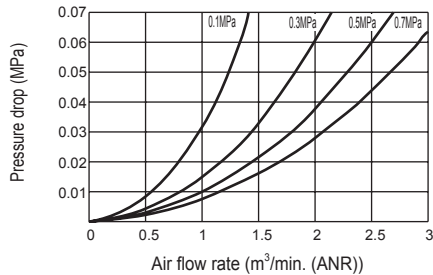
● F1000-8-W



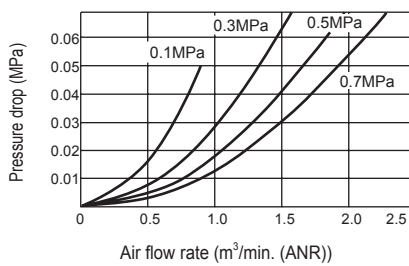
● F2000-8-W



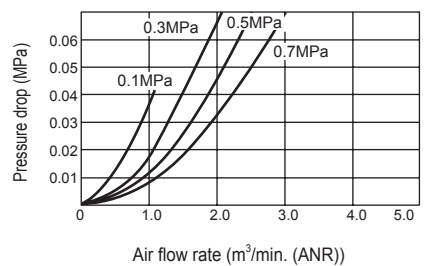
● F2000-10-W



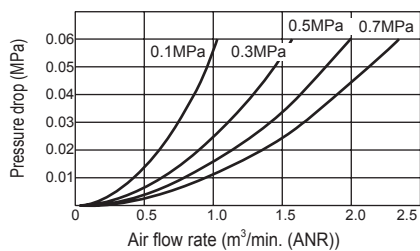
● F3000-8-W



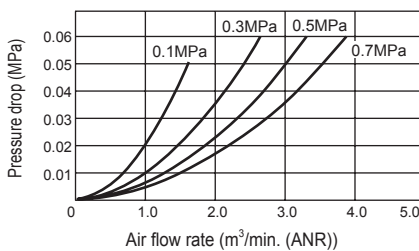
● F3000-10-W



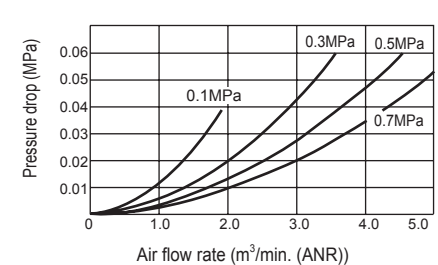
● F4000-8-W



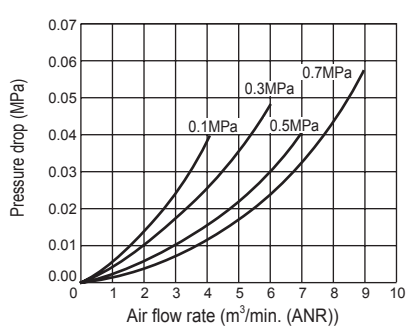
● F4000-10-W



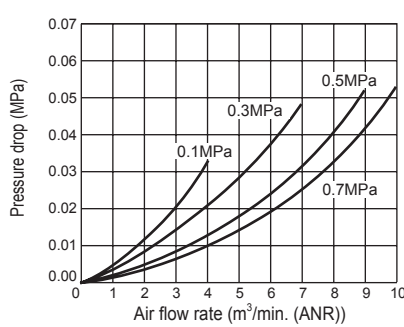
● F4000-15-W



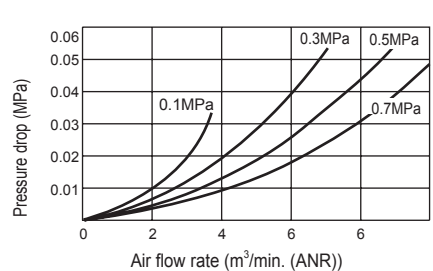
● F6000-20-W



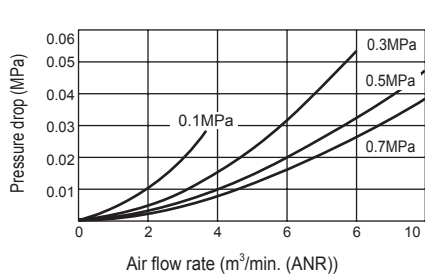
● F6000-25-W



● F8000-20-W



● F8000-25-W



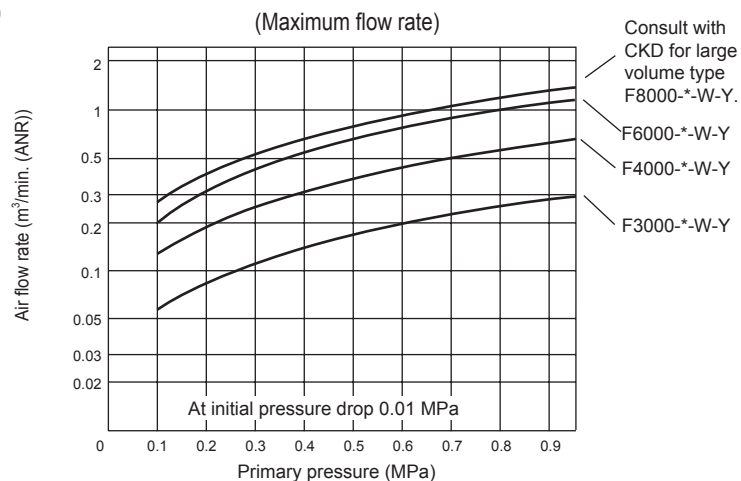
F3000

F4000

● F6000

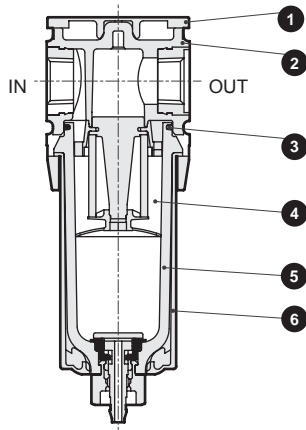
F8000

-*-W-Y (0.3µm element)

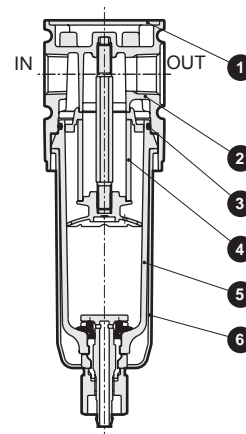


Internal structure and parts list

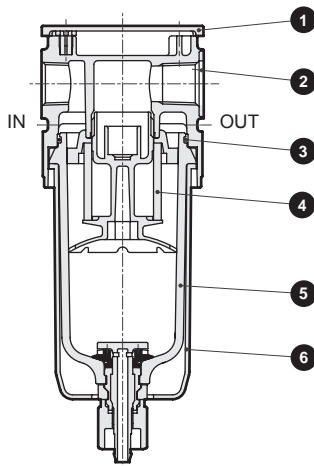
● F1000-W



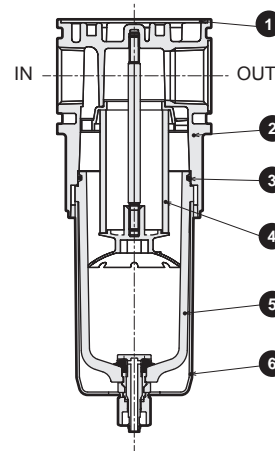
● F2000-W



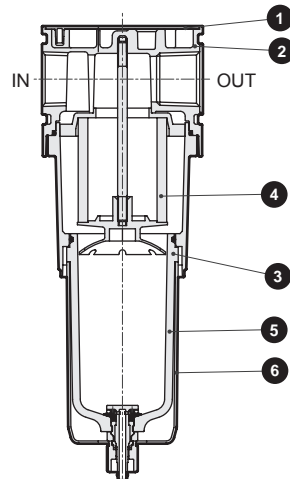
● F3000-W / F4000-W



● F6000-W



● F8000-W



No.	Parts name	Material					
		F1000-W	F2000-W	F3000-W	F4000-W	F6000-W	F8000-W
1	Plate cover	ABS resin					
2	Body	Polyamide resin, steel	Aluminum alloy die-casting				
3	O ring	Note 1	Special nitrile rubber				
4	Element (5μm)	Note 2	Polyacetal resin Polypropylene		Polypropylene		
	Element (0.3μm)						
5	Bowl assembly	Polycarbonate resin, polyacetal resin, urethane resin					
6	Bowl guard	Polyamide resin	Polyamide resin, steel				

Note 1: O-ring of F1000-W is special shaped.

Note 2: F1000-W is element assembly.

Note 3: Refer to page 358 for repair kits.

Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto, drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending

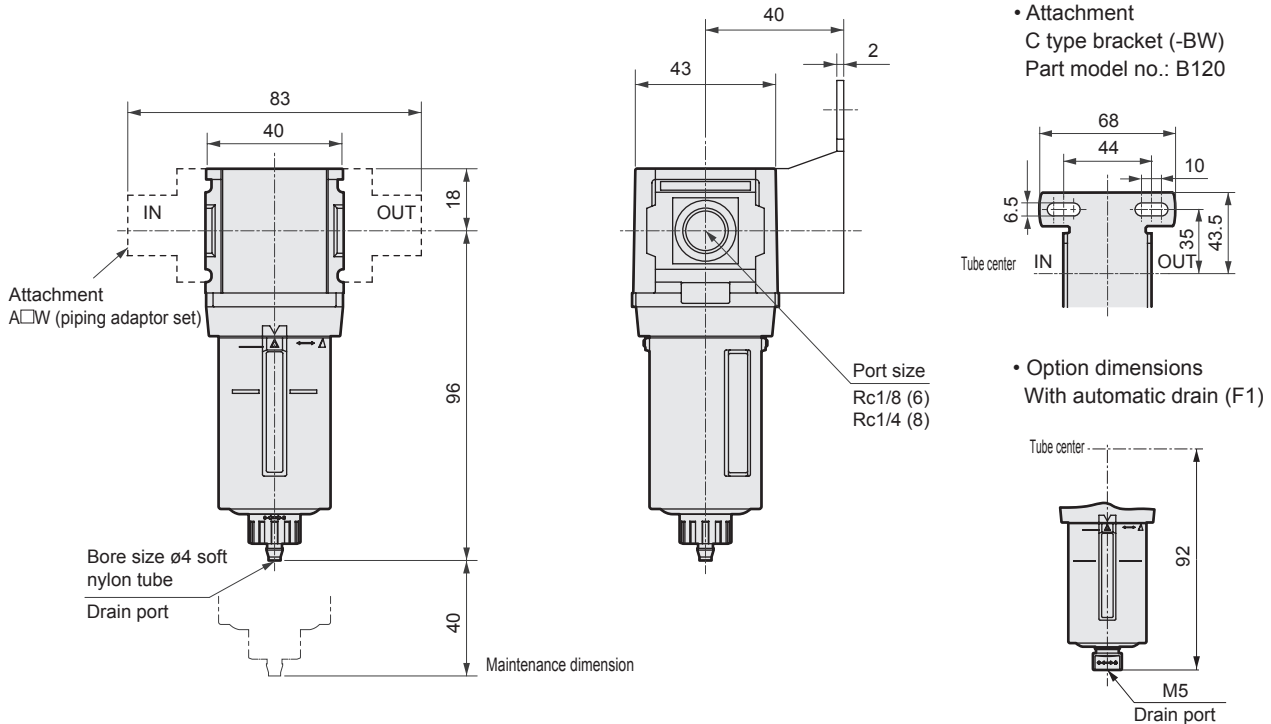
Standard series
F.R.L. unit

Air Filter Series

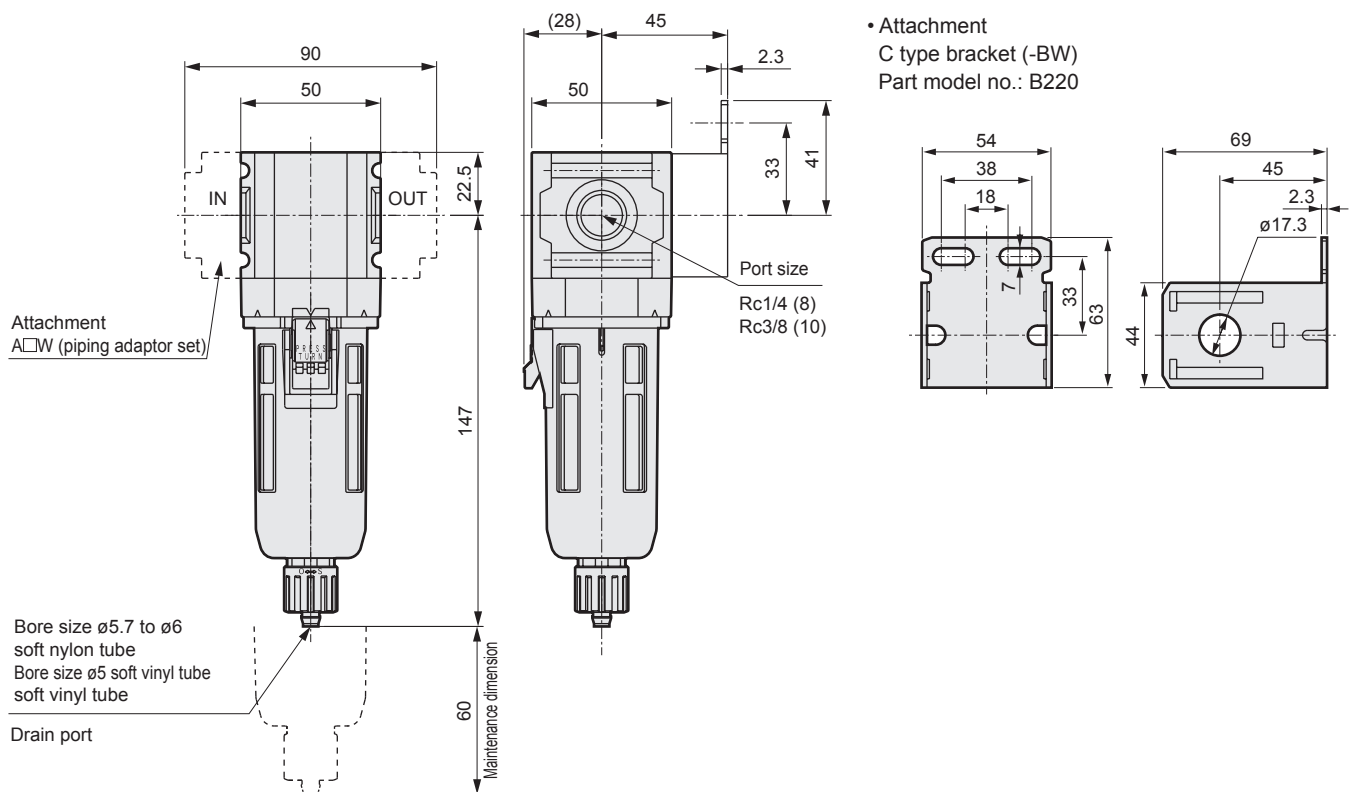
Dimensions



● F1000-W



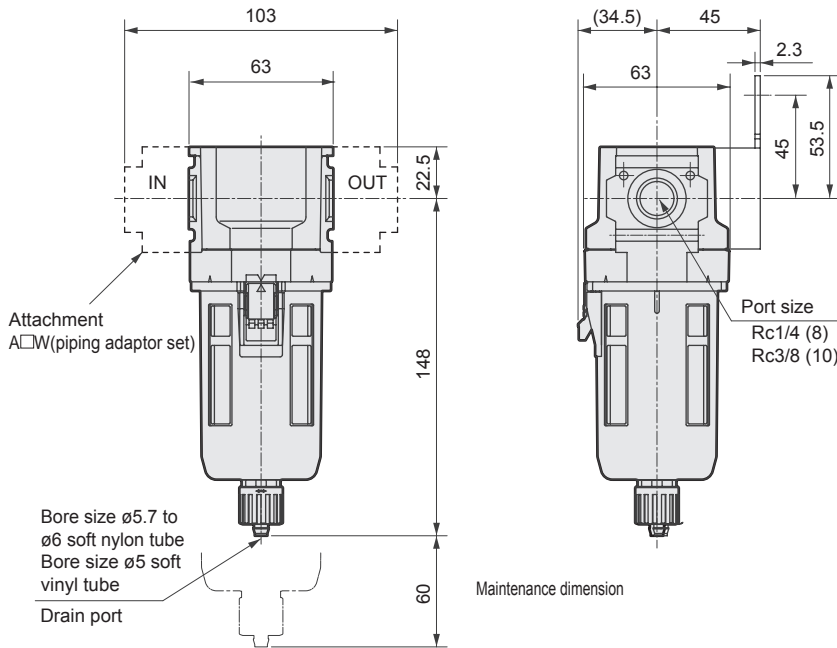
● F2000-W



Dimensions



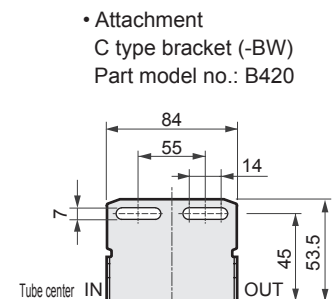
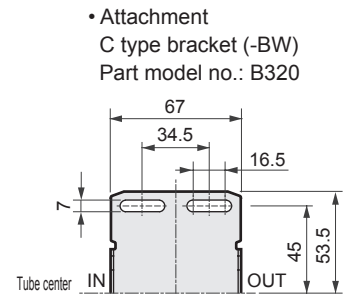
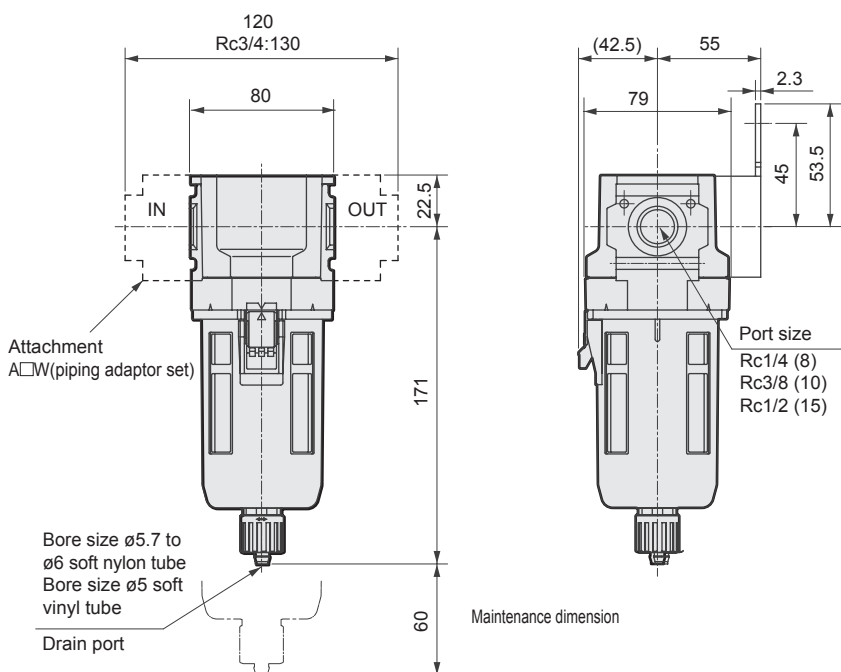
● F3000-W



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

Note: The C-type bracket and piping adaptor set attachments cannot be used at the same time.

● F4000-W



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

Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending

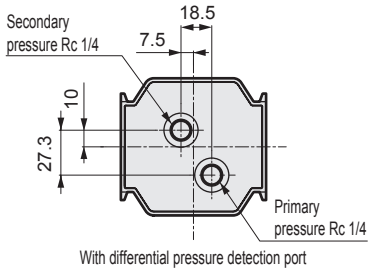
Standard series
F.R.L. unit

Air Filter Series

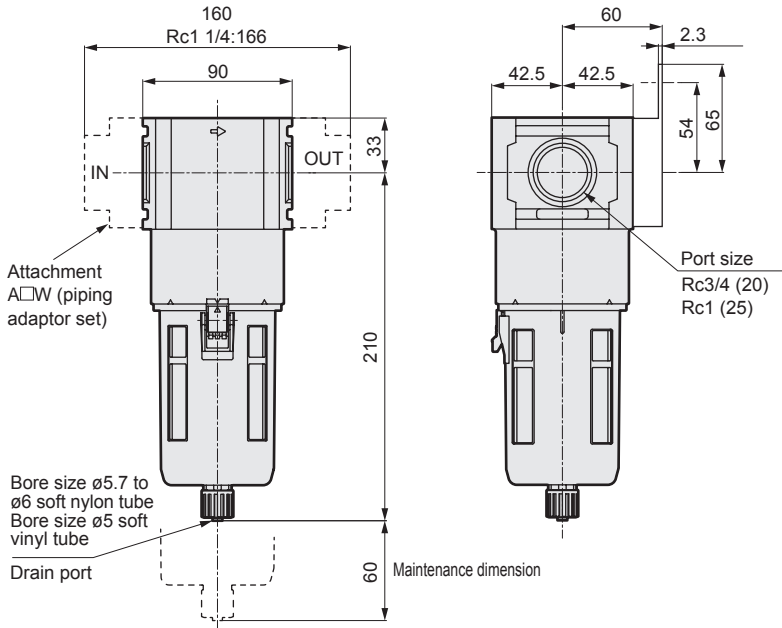
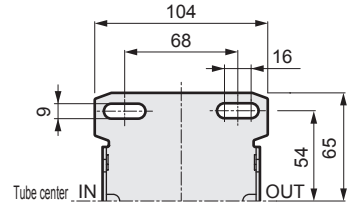
Dimensions



● F6000-W

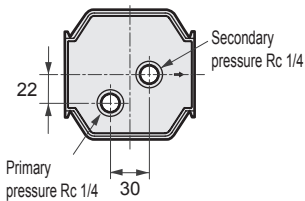


• Attachment
C type bracket (-BW)
Part model no.: B620

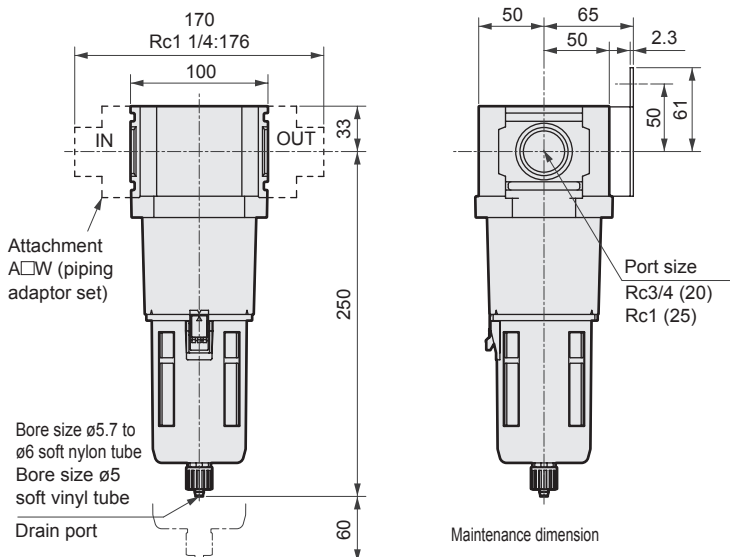
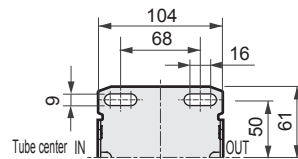


● F8000-W

With differential pressure detection port (Q)



• Attachment
C type bracket (-BW)
Part model no.: B820



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

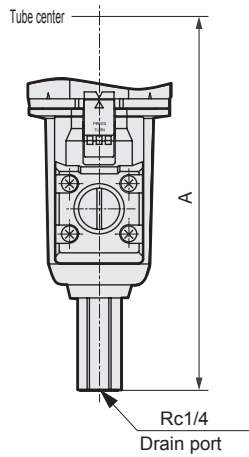
Note: The C-type bracket and piping adaptor set attachments cannot be used at the same time.

Optional dimensions

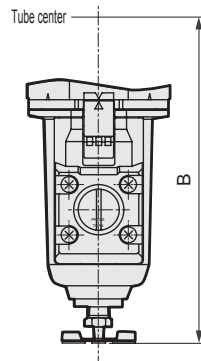


- Metal bowl F2000-W/F3000-W/F4000-W/F6000-W/F8000-W(option)

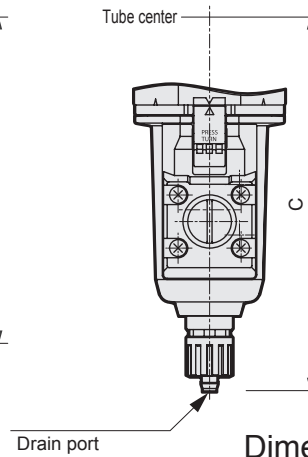
Metal manual cock with automatic drain (F1M)



With petcock (M)



Standard manual drain cock (M1)



Dimensions

Model no.	F1M	M	M1
	A	B	C
F2000-W	-	-	147
F3000-W	164	143.5	154
F4000-W	187	166.5	177
F6000-W	226	205	216
F8000-W	266	245.5	256

Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending

Standard series
F.R.L. unit

Air Filter Series

Optional parts diagram

Element

Element model no.	5µm Element	0.3µm Element (Y)
F1000-W	F1000-ELEMENT-ASSY	-
W1000-W, W1100-W	W1000-ELEMENT-ASSY	-
F2000-W	F2000-ELEMENT	-
W2000-W, W2100-W	W2000-ELEMENT	-
F3000-W, FM3000-W	F3000-ELEMENT	F3000-ELEMENT-Y
W3000-W, W3100-W	W3000-ELEMENT	W3000-ELEMENT-Y
F4000-W, FM4000-W	F4000-ELEMENT	F4000-ELEMENT-Y
W4000-W, W4100-W	W4000-ELEMENT	W4000-ELEMENT-Y </td
F6000-W, FM6000-W	F6000-ELEMENT	F6000-ELEMENT-Y
F8000-W, FM8000-W	F8000-ELEMENT	F8000-ELEMENT-Y
W8000-W, W8100-W	W8000-ELEMENT	W8000-ELEMENT-Y

Note: For the F1000-W and W1000-W, the baffle and element are assembly parts.

(M1)

Metal bowl assembly with manual drain cock

(FM1)

Automatic drain NO type metal bowl assembly with manual drain cock

(F1M1)

Automatic drain NC type metal bowl assembly with manual drain cock



*8000 series large emission

(FFM1)

High discharge automatic drain NO type metal bowl assembly with manual drain cock

(FF1M1)

High discharge automatic drain NC type metal bowl assembly with manual drain cock

(FM)

NO type automatic drain bowl assembly with metal manual cock

(F1M)

NC type automatic drain bowl assembly with metal manual cock



Rc1/4

*8000 series large emission

(FFM)

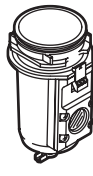
NO type large automatic drain bowl assembly with metal manual cock

(FF1M)

NC type large automatic drain bowl assembly with metal manual cock

(M)

Metal bowl assembly with cock



(F)

NO type automatic drain bowl assembly with manual cock

(F1)

NC type automatic drain bowl assembly with manual cock



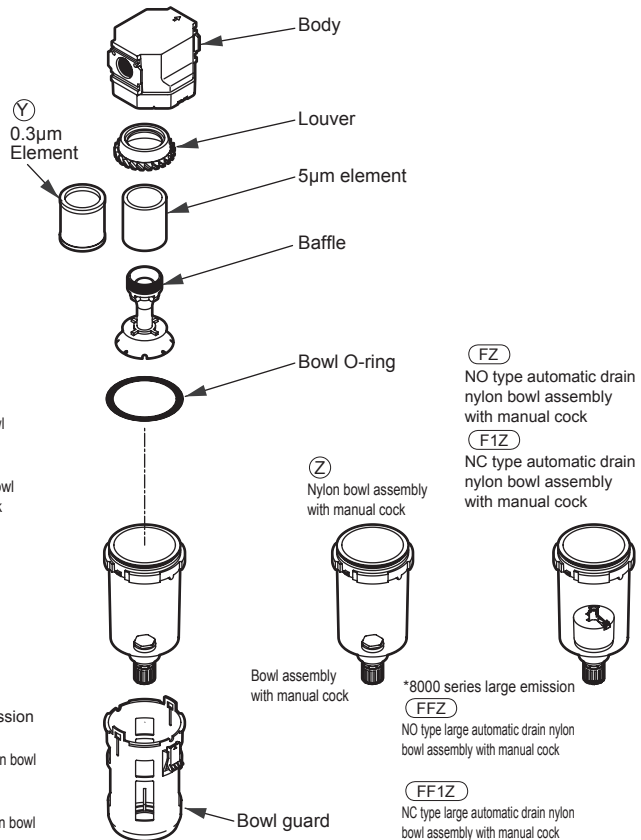
*8000 series large emission

(FF)

NO type large automatic drain bowl assembly with manual cock

(FF1)

NC type large automatic drain bowl assembly with manual cock



Repair kits model no.

(Set of louver, baffle, element, bowl O-ring)

Repair kits model no.	5µm Element	0.3µm Element (Y)
F1000-W Note 1	F1000-KIT	-
F2000-W	F2000-KIT	-
F3000-W, FM3000-W	F3000-KIT	F3000-KIT-Y
F4000-W, FM4000-W	F4000-KIT	F4000-KIT-Y
F6000-W, FM6000-W	F6000-KIT	F6000-KIT-Y
F8000-W, FM8000-W Note 2	F8000-KIT	F8000-KIT-Y

Note 1: For the F1000-W, the baffle and element are assembly parts, so the set consists of the element assembly and bowl O-ring.

Note 2: For the F8000-W, the set consists of the baffle, element, and bowl O-ring.

Bowl guard

Bowl guard model no.	Polycarbonate bowl	Nylon bowl
F1000-W, W1000-W, W1100-W	F1000-W-BOWL-GUARD	F1000-W-BOWL-GUARD-Z
L1000-W	L1000-W-BOWL-GUARD	L1000-W-BOWL-GUARD-Z
M1000-W	M1000-W-BOWL-GUARD	M1000-W-BOWL-GUARD-Z
F2000-W, W2000-W, W2100-W	F2000-W-BOWL-GUARD	F2000-W-BOWL-GUARD-Z
W3100-W, F3000-W, W3000-W, M3000-W	F3000-W-BOWL-GUARD	F3000-W-BOWL-GUARD-Z
L3000-W	L3000-W-BOWL-GUARD	L3000-W-BOWL-GUARD-Z
F4000-W, W4000-W, M4000-W, W4100-W, F6000-W, M6000-W, W8100-W, F8000-W, W8000-W, M8000-W	F4000-W-BOWL-GUARD	F4000-W-BOWL-GUARD-Z
L4000-W, L8000-W	L4000-W-BOWL-GUARD	L4000-W-BOWL-GUARD-Z
W8100-W, F8000-W, W8000-W-FF, FF1	DT4000-W-BOWL-GUARD	DT4000-W-BOWL-GUARD-Z

Note: The bowl guard for the 1000 Series F1 is sold as a set with the bowl assembly. The model is "F1000-W-BOWL-BOWL-GUARD-F1".

Bowl assembly (set of bowl assembly and bowl O-ring)

Bowl assembly Model	With manual cock PC bowl assembly	With manual cock PA bowl assembly	With manual cock Metal bowl assembly	With standard manual cock Metal bowl assembly	With manual cock NO type Automatic drain PC bowl assembly Note 1	With manual cock NC type Automatic drain PC bowl assembly
F1000-W, W1000-W M1000-W, W1100-W	F1000-W-BOWL	F1000-W-BOWL-Z	-	-	-	F1000-W-BOWL-BOWL GUARD-F1 Note 3
F2000-W, W2000-W M2000-W, W2100-W	F2000-W-BOWL	F2000-W-BOWL-Z	-	F2000-W-BOWL-M1	-	M2000-W-BOWL-F1
F3000-W, M3000-W W3000-W, W3100-W	F3000-W-BOWL	F3000-W-BOWL-Z	F3000-W-BOWL-M	F3000-W-BOWL-M1	F3000-W-BOWL-F	M3000-W-BOWL-F1
FM3000-W, MM3000-W	-	-	-	-	-	-
F4000-W, F6000-W M4000-W, M6000-W F8000-W, M8000-W W4000-W, W4100-W W8000-W, W8100-W	F4000-W-BOWL	F4000-W-BOWL-Z	F4000-W-BOWL-M	F4000-W-BOWL-M1	F4000-W-BOWL-F	M4000-W-BOWL-F1
FM4000-W, FM6000-W FM8000-W, MM4000-W MM6000-W, MM8000-W	-	-	-	-	-	-

Bowl assembly Model	With manual cock NO type Automatic drain PA bowl assembly Note 1	With manual cock NC type Automatic drain PA bowl assembly	With metal manual cock NO type Automatic drain Metal bowl assembly Note 1	With standard manual cock NO type Automatic drain Metal bowl assembly	With metal manual cock NC type Automatic drain Metal bowl assembly	With standard manual cock NC type Automatic drain Metal bowl assembly	For medium pressure NO type Automatic drain Bowl assembly Note 1	For medium pressure NC type Automatic drain Bowl assembly
F1000-W, W1000-W M1000-W, W1100-W	-	F1000-W-BOWL- BOWL GUARD- F1Z Note 3	-	-	-	-	-	-
F2000-W, W2000-W M2000-W, W2100-W	-	M2000-W-BOWL-F1Z	-	-	-	M2000-W-BOWL-F1M1	-	-
F3000-W, M3000-W W3000-W, W3100-W	F3000-W-BOWL-FZ	M3000-W-BOWL-F1Z	F3000-W-BOWL-FM	F3000-W-BOWL-FM1	M3000-W-BOWL-F1M	M3000-W-BOWL-F1M1	-	-
FM3000-W, MM3000-W	-	-	-	-	-	-	FM3000-W-BOWL-F	MM3000-W-BOWL-F1
F4000-W, F6000-W M4000-W, M6000-W F8000-W, M8000-W W4000-W, W4100-W W8000-W, W8100-W	F4000-W-BOWL-FZ	M4000-W-BOWL-F1Z	F4000-W-BOWL-FM	F4000-W-BOWL-FM1	M4000-W-BOWL-F1M	M4000-W-BOWL-F1M1	-	-
FM4000-W, FM6000-W FM8000-W, MM4000-W MM6000-W, MM8000-W	-	-	-	-	-	-	FM4000-W-BOWL-F	MM4000-W-BOWL-F1

Bowl assembly Model	With manual cock NO type Large automatic drain PC bowl assembly	With manual cock NC type Large automatic drain PC bowl assembly	With manual cock NO type Large automatic drain PA bowl assembly	With manual cock NC type Large automatic drain PA bowl assembly	With metal manual cock NO type Large automatic drain Metal bowl assembly	With metal manual cock NC type Large automatic drain Metal bowl assembly	With standard manual cock NO type Large automatic drain Metal bowl assembly	With standard manual cock NC type Large automatic drain Metal bowl assembly
F8000-W, W8000-W W8100-W	F8000-W-BOWL-FF	F8000-W-BOWL-FF1	F8000-W-BOWL-FFZ	F8000-W-BOWL-FF1Z	F8000-W-BOWL-FFM	F8000-W-BOWL-FF1M	F8000-W-BOWL-FFM1	F8000-W-BOWL-FF1M1

Note 1: The NO automatic drain cannot be selected for the oil Mist filter M1000-W, M3000-W, M4000-W, M6000-W, or M-8000W and oil Mist filter for Medium pressure MM3000-W, MM4000-W, MM6000-W, MM8000-W.

Note 2: The large discharge automatic drain cannot be installed on the M8000-W.

Note 3: The bowl assembly for the 1000 Series F1 is sold as a set with the bowl guard.

Refrigerating type dryer
Desiccant type dryer
High polymer membrane type dryer
Air filter
Auto. drain / others
F.R.L. (Module unit)
F.R.L. (Separate)
Compact F.R.
Precise regulator
F.R.L. (Related products)
Clean F.R.
Electro pneumatic regulator
Air booster
Speed control valve
Silencer
Check valve / others
Joint / tube
Vacuum filter
Vacuum regulator
Suction plate
Magnetic spring buffer
Mechanical pressure SW
Electronic pressure SW
Contact / close contact cont. SW
Air sensor
Pressure SW for coolant
Small flow sensor
Small flow controller
Flow sensor for air
Flow sensor for water
Total air system
Total air system (Gamma)
Ending

Standard series
F.R.L. unit