

# FC, MFF100, MFF300

## Mist Separators and Filters



FC Series



MFF300 Series



MFF100 Series

FC, MFF100 and MFF300 filters protect products by filtering gas to remove foreign matter such as dust, oil mist, and welding fumes. There is a wide variety of available models, not only for compressed air and low pressure air applications, but also for natural gas, propane, and other flammable gases, carbon dioxide, and for inert gases like argon.

These filters fit Yamatake's Micro Flow product series: CMS, CMQ-V, CMG, CML, MPC, and MVF.

### FC Filter

This is an optimal filter for eliminating rust and welding fumes. It cannot be used to eliminate oil or water.

#### Specifications

Model No.	FC50	FC80	FC100	FC150
Pipe size	50A (2B)	80A (3B)	100A (4B)	150A (6B)
Flange rating	JIS 10K FF			
Compatible gases	Air, nitrogen, argon gas, carbon dioxide gas, and city gas			
Max. operating flow rate	160m <sup>3</sup> /h (normal)	400m <sup>3</sup> /h (normal)	650m <sup>3</sup> /h (normal)	1600m <sup>3</sup> /h (normal)
Max. operating pressure	0.5MPa (0.3MPa when used for gas industry)			0.5MPa
Air tight test pressure	0.55MPa (0.33MPa when used for gas industry)			0.55MPa
Resistance test pressure	0.75MPa (0.45MPa when used for gas industry)			0.75MPa
Pressure drop at max. operating flow rate	0.36kPa	0.34kPa	0.33kPa	0.30kPa
Gas flow direction	(when air is used under a primary pressure of 0.15MPa) Down → Left, or Down → Right			
Operating temperature range	-10 to +60°C			
Material	Housing	FC250		SS400, SGP
	Element	Cellulose/resin coating		
Replacement element	80394037-001	80394038-001	80394039-001	80394040-001
Effective filtration area	0.34m <sup>2</sup>	0.92m <sup>2</sup>	1.96m <sup>2</sup>	6.84m <sup>2</sup>
Coating color	Gray (Munsell N6)			
Mass	14kg	31kg	49kg	92kg
Compatible flowmeter	CMP050/CML050	CMP080/CML080	CMP100/CML100	CMP150/CML150
Assembly	Assembled at the factory. User does not need to attach the element.			

### MFF100 Mist Separator

This is an advanced filter for eliminating oil mist, rust, and welding fumes. It cannot be used to eliminate water.

#### Specifications

Model No.	MFF100N_G _ _ _ A000	MFF100N_G _ _ _ G000
Compatible gases	Air only	<ul style="list-style-type: none"> <li>Flammable gases: methane, natural gas, propane, butane, butane-air, and propane-butane mixed gas.</li> <li>Air</li> <li>Inert gases: nitrogen, argon, carbon dioxide gas.</li> </ul>
Operating pressure range	0.2 to 0.98MPa	0 to 0.98MPa
Pressure resistance	1.6MPa	
Gas flow direction	Horizontal only	
Mounting position	Vertical only	
Operating temperature range	0 to 60°C	
Material	Housing	MFF100NAG _ _ _ : aluminum. MFF100NGG _ _ _ : steel.
	O-ring	NBR
	Element	SUS304, aluminum, epoxy resin, polyurethane, Cerex
Trapping efficiency	99.99999 % for 0.01μm solid particles	
Residual oil density	0.01mg/m <sup>3</sup> max. when inlet density is 3mg/m <sup>3</sup>	
Drain	Automatic drain is a standard feature.	Use this model No. if a drain cannot be installed. There is no drain on flammable gas or inert gas models.
Differential pressure gauge	Mounted on the body.	None (cannot be mounted)
Coating	Polyester resin	
Element replacement cycle	Every year, or before element differential pressure reaches 0.05MPa.	
Assembly	Since housing and element are separately packed, the element is user-mounted.	

## Selection Guide

### ● Rc thread connection

Segment	Model No. selection		Description
I	Basic No.	<b>MFF</b>	Filter for Micro Flow products
II	Filter type	<b>100</b>	Mist separator
III	Identification	<b>N</b>	Housing + element set
IV	Connection	<b>AG</b>	Rc thread
V	Treated flow rate	Pipe size	Treated flow rate
		<b>0002</b>	Rc 1/4" 20m <sup>3</sup> /h (normal)
		<b>0006</b>	Rc 3/8" 60m <sup>3</sup> /h (normal)
		<b>0012</b>	Rc 1/2" 120m <sup>3</sup> /h (normal)
		<b>0027</b>	Rc 1" 270m <sup>3</sup> /h (normal)
		<b>0048</b>	Rc 1 1/2" 480m <sup>3</sup> /h (normal)
		<b>0108</b>	Rc 2" 1080m <sup>3</sup> /h (normal)
		<b>0288</b>	Rc 3" 2880m <sup>3</sup> /h (normal)
VI	Drain	<b>A</b>	Air model with drain (with differential pressure gauge)
		<b>G</b>	For flammable and inert gases, without drain (and without differential pressure gauge)
VII	Design code	<b>000</b>	None

### ● DIN flange connection

Segment	Model No. selection		Description
I	Basic No.	<b>MFF</b>	Filter for Micro Flow products
II	Filter type	<b>100</b>	Mist separator
III	Identification	<b>N</b>	Housing + element set
IV	Connection	<b>SG</b>	DIN flange
V	Treated flow rate	Pipe size	Treated flow rate
		<b>0576</b>	DIN100A (4B) 5760m <sup>3</sup> /h (normal)
		<b>1152</b>	DIN150A (6B) 11520m <sup>3</sup> /h (normal)
VI	Drain	<b>A</b>	Air model with drain (with differential pressure gauge)
		<b>G</b>	For flammable and inert gases, without drain (and without differential pressure gauge)
VII	Design code	<b>000</b>	None

## MFF300 Dust Filter

This is an optimal filter for eliminating rust and welding fumes. It cannot be used to eliminate oil or water.

### Specifications

Model No.	Y type	MFF300NY050000	MFF300NY080000	MFF300NY100000	MFF300NY150000
	L type	MFF300NL050000	MFF300NL080000	MFF300NL100000	MFF300NL150000
Pipe size		50A (2B)	80A (3B)	100A (4B)	150A (6B)
Flange rating	JIS 10K RF				
Compatible gases	Air, nitrogen, argon gas, carbon dioxide gas, and city gas				
Max. operating flow rate		160 m <sup>3</sup> /h (normal)	400 m <sup>3</sup> /h (normal)	650 m <sup>3</sup> /h (normal)	1600 m <sup>3</sup> /h (normal)
Max. operating pressure		0.98MPa			0.5MPa
Air tight test pressure		1.1MPa			0.55MPa
Resistance test pressure		1.5MPa			0.75MPa
Pressure drop at max. operating flow rate		0.19kPa	0.12kPa	0.17kPa	0.26kPa
Gas flow direction	(when air is used under a primary pressure of 0.5MPa) Left → Right (Y type), or Left → Down (L type)				
Operating temperature range	-25 to +60°C				
Operating gas temperature	-25 to +60°C				
Material	Housing	Pipe section: STPG370, SGP. Flange/grip/bolt/nut: SS400.			
	Element	Cellulose/resin coating			
	Gasket	T#1995 non-asbestos, 2 mm thick			
Effective filtration area		0.44m <sup>2</sup>	1.71m <sup>2</sup>	3.24m <sup>2</sup>	6.61m <sup>2</sup>
Coating specifications	Hot dip galvanizing. Quality HDZ 45 (JIS H 8461)				
Mass	Y type:	22 kg	44 kg	50 kg	101 kg
	L type:	21 kg	42 kg	47 kg	90 kg
Compatible flowmeter		CML050/CMP050	CML080/CMP080	CML100/CMP100	CML150/CMP150
Assembly	Assembled at the factory. User does not need to attach the element.				

## Selection Guide

### ● Y-type filter

Segment	Model No. selection		Description
I	Basic No.	<b>MFF</b>	Filter for Micro Flow products
II	Filter type	<b>300</b>	Dust filter
III	Identification	<b>N</b>	Housing + element set
IV	Shape	<b>Y</b>	Y-type filter
V	Pipe size	Pipe size	Treated flow rate
		<b>050</b>	50A (2B) 160m <sup>3</sup> /h (normal)
		<b>080</b>	80A (3B) 400m <sup>3</sup> /h (normal)
		<b>100</b>	100A (4B) 650m <sup>3</sup> /h (normal)
		<b>150</b>	150A (6B) 1600m <sup>3</sup> /h (normal)
VI	Design code	<b>000</b>	None

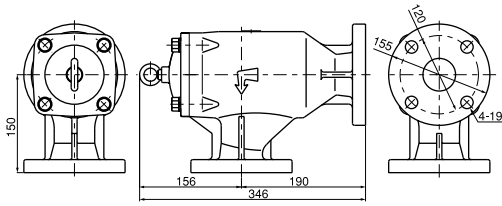
### ● L-type filter

Segment	Model No. selection		Description
I	Basic No.	<b>MFF</b>	Filter for Micro Flow products
II	Filter type	<b>300</b>	Dust filter
III	Identification	<b>N</b>	Housing + element set
IV	Shape	<b>L</b>	L-type filter
V	Pipe size	Pipe size	Treated flow rate
		<b>050</b>	50A (2B) 160m <sup>3</sup> /h (normal)
		<b>080</b>	80A (3B) 400m <sup>3</sup> /h (normal)
		<b>100</b>	100A (4B) 650m <sup>3</sup> /h (normal)
		<b>150</b>	150A (6B) 1600m <sup>3</sup> /h (normal)
VI	Design code	<b>000</b>	None

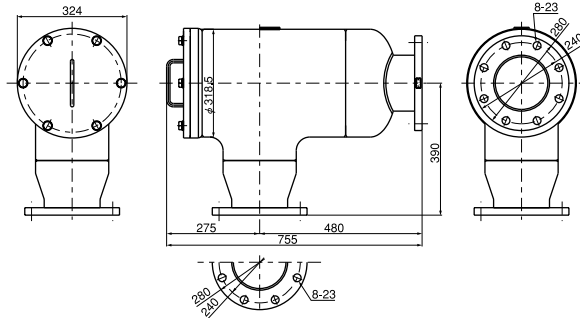
**Dimensions**

(Unit: mm)

• **FC Filter**  
• **FC50**



• **FC150**



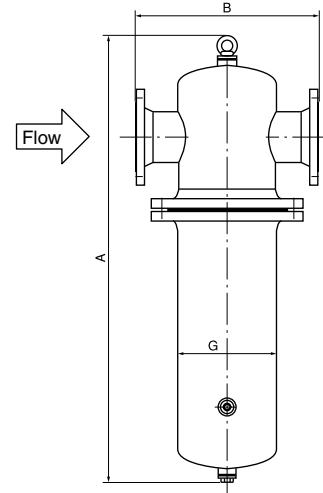
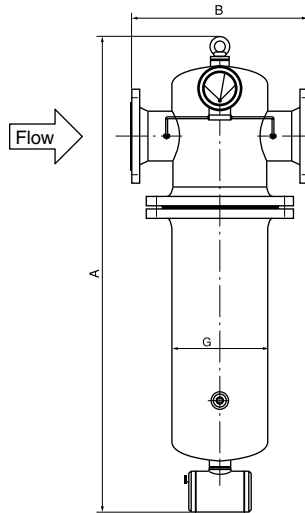
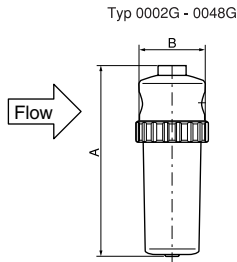
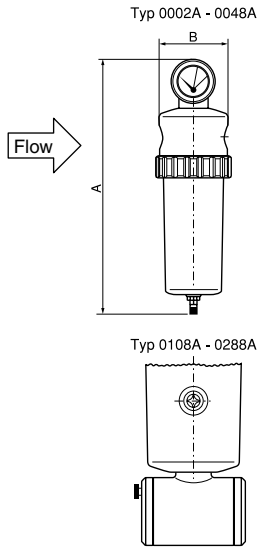
• **MFF100 Mist Separator**

Model No.	A	B
MFF100NAG0002A	285	70
MFF100NAG0006A	335	80
MFF100NAG0012A	360	95
MFF100NAG0027A	430	110
MFF100NAG0048A	585	150
MFF100NAG0108A	795	160
MFF100NAG0288A	1195	210

Model No.	A	B
MFF100NAG0002G	210	70
MFF100NAG0006G	260	80
MFF100NAG0012G	280	95
MFF100NAG0027G	355	110
MFF100NAG0048G	470	150
MFF100NAG0108G	610	160
MFF100NAG0288G	1010	210

Model No.	A	B
MFF100NSG0576A	1370	410
MFF100NSG1152A	1515	540

Model No.	A	B
MFF100NSG0576G	1280	410
MFF100NSG1152G	1430	540

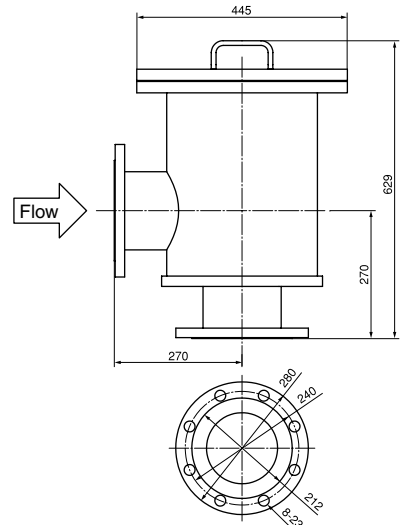
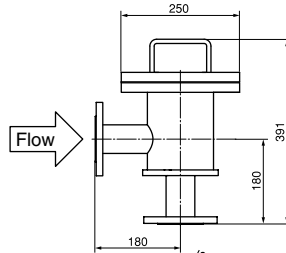
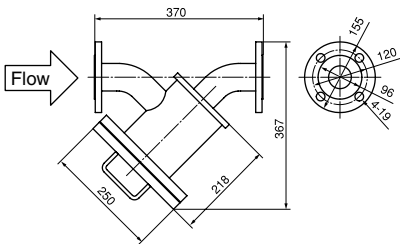


• **MFF300 Dust Filter**

• MFF300NY050000 Y-type pipe size 50A

• MFF300NL050000 L-type pipe size 50A

• MFF300NL150000 L-type pipe size 150A



• MFF300NL050000 Y-type pipe size 150A

