

Air Suction Filter With One-touch Fittings Series ZFB

Prevents vacuum equipment trouble due to airborne contaminants.

Unrestricted 360° piping tube mounting

The connector for the IN side is a universal joint type that enables a tube to be connected in any direction within 360°.

Easily replaced filter element

The filter element can be replaced quickly through One-touch removal of the transparent cover without having to disconnect the tubing.

One-touch tube installation and removal

The metric size tube connector has a blue release bushing and the inch size tube connector has a red release bushing.

Lightweight and compact

It has been made compact with composite formed resin.



Part No. of Element

Part No.	Applicable filter model	Element size (mm)
I-34S	ZFB100	ø10 X ø6 X L33
	ZFB101	
I-35S	ZFB200	ø12 X ø8 X L42
	ZFB201	
I-36S	ZFB300	ø14 X ø10 X L45
	ZFB301	
I-39S	ZFB401	ø18 X ø14 X L60

Note) Place a "-A" at the end of the part number when ordering spare elements. 10 spare elements and 10 O rings are included in one set. Example) I-34S-A

Model

	Model	Port size (Applicable tube O.D.)		Recommended air flow l/min (ANR) ⁽¹⁾	Weight g
		IN side	OUT side		
Metric size	ZFB100-04	ø4		10	22
	ZFB100-06	ø6		20	22
	ZFB200-06	ø6		30	30
	ZFB200-08	ø8		50	30
	ZFB300-08	ø8		75	39
	ZFB300-10	ø10		75	39
Inch size ⁽²⁾	ZFB101-05	ø $3/16$ "		20	22
	ZFB101-07	ø $1/4$ "		20	22
	ZFB201-07	ø $1/4$ "		30	30
	ZFB301-11	ø $3/8$ "		75	40
	ZFB401-13	ø $1/2$ "		100	62



Note 1) Flow rate is less than 0.003MPa of the initial pressure drop.

Note 2) Will be manufactured upon receipt of order.

Note 3) Avoid use under pressurization.

Specifications

Fluid	Air/Nitrogen
Operating pressure	Negative pressure
Proof pressure	0.5MPa
Operating and ambient range	0 to 60°C (Non-freezing)
Filtration	30µm
Element proof pressure differential	0.15MPa
Applicable tube material ⁽¹⁾	Nylon/Soft Nylon/Polyurethane



Note 1) Refer to p.3.8-6 for applicable tube model.

How to Order

ZFB		100	04
Air suction filter with One-touch fittings		Basic	IN/OUT applicable tube O.D.
Metric size	Symbol	Tube size	Model
	04	ø4	ZFB100
	06	ø6	ZFB100 ZFB200
	08	ø8	ZFB200 ZFB300
10	ø10	ZFB300	
Inch size	Symbol	Tube size	Model
	05	ø $3/16$ "	ZFB101
	07	ø $1/4$ "	ZFB101 ZFB201
	11	ø $3/8$ "	ZFB301
13	ø $1/2$ "	ZFB401	

Component Parts

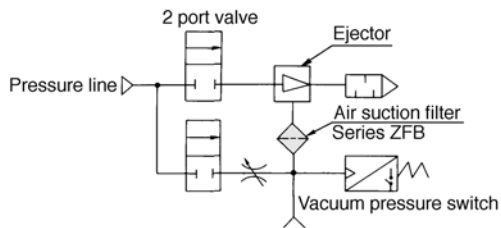
Description	Material
Body	Polyester
Cover	Transparent special nylon
Universal joint	Polyester
Plug	Brass (Electroless nickel plated)
Element	PVF
O ring/Seal	NBR

Air Suction Filter with One-touch Fittings/Series ZFB

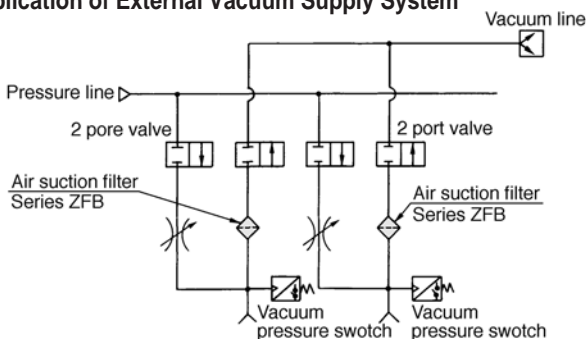
Application Example

Field	Semiconductor/Electronics Related Industry, Automobile Assembly, Food Industry, Medical Instruments, General Assembly Machines
Machines	Robot Hand/Material Handling, Automatic Assembly machine, Automatic Transport Machine, Pick And Place, Printing
Functions	Vacuum Adsorption Transporting, Vacuum Adsorption Affixing, Vacuum Generated Air Flow

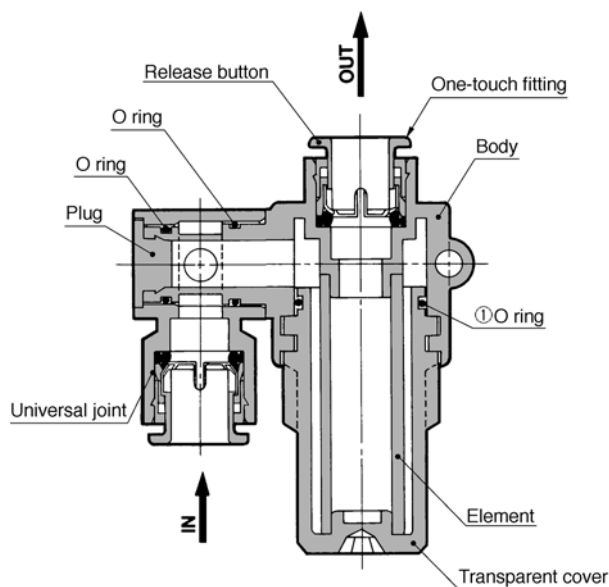
Application of Ejector System



Application of External Vacuum Supply System



Construction

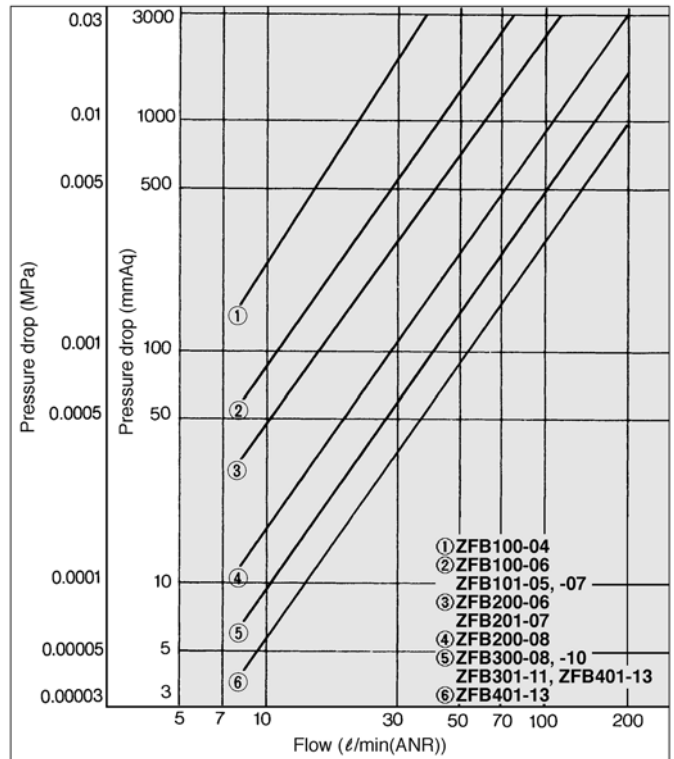


No.	Description	Part No.			
		ZFB100/101	ZFB200/201	ZFB300/301	ZFB401
①	O ring for transparent cover	S11.2	S12.5	S16	S18

*O ring is a set with spare element.

Flow Characteristics (Piping Tube: Metric size, Inch size)

Fluid ——— Air Temperature ——— Ambient temperature
 Measuring pressure ——— Secondary pressure side is opened to air
 (Pressurization)



- ZX
- ZR
- ZM
- ZY
- ZH
- ZU
- ZL
- ZF
- ZP
- ZCU
- CYV
- Vacuum related

⚠ Precaution

Be sure to read before handling.
 Refer to p.0-20 and 0-21 for Safety Instructions and common precautions on the products mentioned in this catalogue, and refer to p.3-0-2 for precautions on every series.

Mounting

⚠ Warning

① To connect the tube to the IN and OUT One-touch fitting, observe the precautions that are provided for using One-touch fittings.

⚠ Caution

① Verify the "▷" marks for IN and OUT that are indicated on the body to ensure a proper connection. It is not possible to ensure the sealing performance of the filter element if the connections are reversed.

Maintenance

⚠ Warning

① If the filter element becomes clogged, stop operation. After the internal pressure in the filter has reached atmospheric pressure, clean or replace the filter element.

⚠ Caution

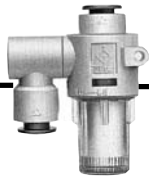
① Replace the filter element when the pressure drops approximately 0.02 MPa.
 ② During disassembly or reassembly, make sure that the O ring is not cut or damaged.

Selection

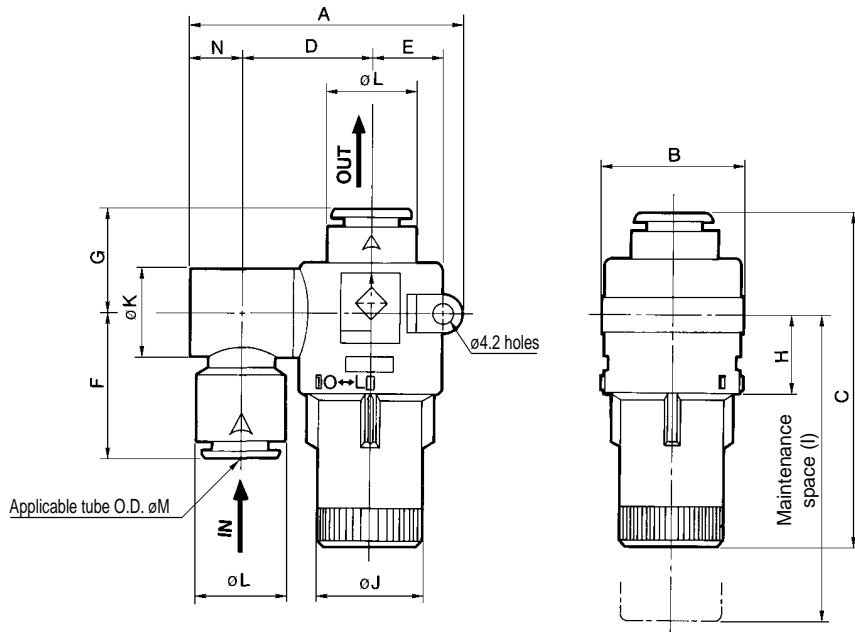
⚠ Warning

① Do not use it in a line that is kept pressurized because it could cause the body to break.

Series ZFB



Dimensions

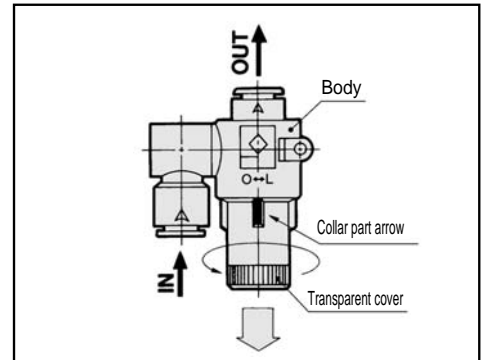


	Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Metric size	ZFB100-04	48	26	53	22.5	12.5	24	17.5	15	50	15.5	14.4	12.8	4	8.5
	ZFB100-06													6	
	ZFB200-06	52	28	65	24.5	13.5	27	19.5	16	61	17.5	16.6	15.2	6	9.5
	ZFB200-08													8	
	ZFB300-08	57	30	69.5	27	14.5	29.5	21	17	65	21.5	18	18.5	8	11
ZFB300-10	10														
Inch size	ZFB101-05	48	26	53	22.5	12.5	24	17.5	15	50	15.5	14.4	12.8	3/16"	8.5
	ZFB101-07			54			24.2	17.7						1/4"	
	ZFB201-07	52	28	65	24.5	13.5	27.2	19.7	16	61	17.5	16.6	15.2	1/4"	9.5
	ZFB301-11													30	
	ZFB401-13	64.5	34	87.5	30.5	16.5	34	24	21.5	81	25.6	23	21.7	1/2"	13.5

Element Changing Procedure

- 1) Stop the operation and reduce the internal pressure of the filter to atmospheric pressure.
- 2) Turn the transparent cover in counterclockwise direction and position the arrowhead of the collar in the transparent cover from the protruding in the "L" (LOCK) side to the protruding portion in the "O" (OPEN) side.
- 3) Pull the transparent cover downward to take out the element. Eliminate any dust in the transparent cover by blowing air. (Make sure no damage of the O-ring.)
- 4) Insert a new element into the body.
- 5) Set the arrowhead on the collar of the transparent cover to the protruding portion on the "O" side, push the transparent cover into the body and set the arrowhead from the protruding portion on the "O" side to the protruding portion on the "L" side to make the LOCK complete.
- 6) Restart the operation.

Element Exchange Procedure Diagram

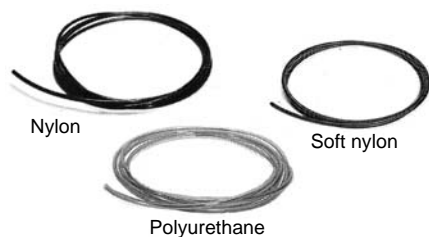


Related Products/Tubing: Nylon, Soft Nylon, Polyurethane

Use the kind of tubing indicated at the right for suction filter with One-touch fitting (Series ZFB).

How to Order/Tubing

Refer to p.2.4-1 to 2.4-3 in Best Pneumatics 4 for details.



T 0604 B 20

		Tube Material				
Metric size	T	Nylon		Inch size	TI	Nylon
	TS	Soft nylon			TIS	Soft nylon
	TU	Polyurethane			TIU	Polyurethane

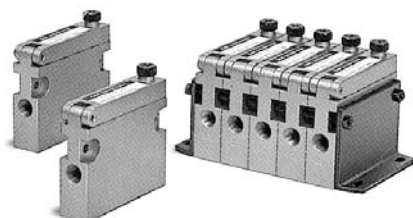
		Length per roll (m)	
Symbol	Winding	20	20m (Standard)

		Tube size						
Metric size	0425	ø4	ø2.5	Inch size	A05	3/16"	4.76	3.48
	0604	ø6	ø4		A07	1/4"	6.35	4.57
	0805	ø8	ø5		A11	3/8"	9.53	6.99
	0806	ø8	ø6		A13	1/2"	12.7	9.56
	1065	ø10	ø6.5		B05	3/16"	4.76	3.18
	1075	ø10	ø7.5		B07	1/4"	6.35	4.23
						B11	3/8"	9.53
				B13	1/2"	12.7	8.46	

		colour				
Metric size	B	Black		Inch size	B	Black
	W	White			BU	Blue
	R	Red			W	White
	Y	Blue				
	Y	Yellow				
	G	Green				
C (Note)	Transparent					

Note) Polyurethane only.

Air Suction Filter Series ZFA/ZFB



ZFA100



ZFB

Models

Model		Port size (applicable tube O.D.)	Recommended flow rate	Weight g
			ℓ/min (ANR)	
High flow rate square type	ZFA100	1/8	50	140
	ZFA200	1/4	200	190
Universal type	ZFB10□	ø4, ø6, ø3/16", ø1/4"	10 to 20	22
	ZFB20□	ø6, ø8, ø1/4"	30 to 50	30
	ZFB30□	ø10, ø3/8"	75	40
	ZFB401	ø1/2"	100	62

Specifications

Fluid	Air, Nitrogen
Operating pressure	Negative pressure
Withstand pressure	0.5MPa
Operating and ambient temperature range	0 to 60°C (with no freezing)
Filtration degree	30μm
Element differential pressure resistance	0.15MPa
Applicable tubing material	Nylon, Soft nylon, Polyurethane, Soft polyurethane

Note) Do not use series ZFB in a line where a pressurized condition is maintained, since the body may be damaged.