

Air Suction Filter Series ZFA

Prevents vacuum equipment trouble due to airborne contaminants.

The collected dust does not remain in the case.

Dust is removed easily at the time the filter element is replaced. As a result, the dust does not remain in the case.

Compact and lightweight

The aluminum alloy case and box-shaped exterior design create a lightweight and compact package.

Adaptable for a manifold application

Up to 10 units can be linked in a manifold to save space.

Large filter element surface

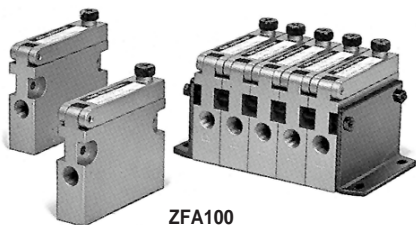
The pleat-shaped element provides a large filtering surface so that maintenance can be performed at longer intervals.

Easily replaced filter element

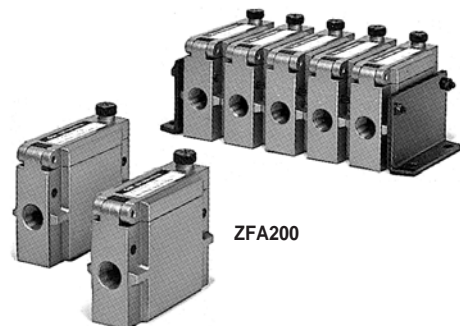
The filter element can be replaced in a short time without requiring any tools.

Mountable in any direction

The function of the filter is not affected by its mounting orientation.

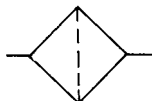


ZFA100



ZFA200

Symbol



Model

Model	Port size	Recommended air flow (l/min (ANR))	Weight (kg)
ZFA 100	1/8	50	0.14
ZFA 200	1/4	200	0.19

Specifications

Fluid	Air/Nitrogen
Operating pressure range	Negative pressure
Proof pressure	0.5MPa
Operating temperature range	5 to 60°C
Filtration	30µm
Element proof pressure differential	0.15MPa



Note 1) Consult SMC when INLET and OUTLET are to be prepared on the bottom of the case or if a vacuum switch is to be installed on the filter.

Note 2) Avoid use under pressurization.

Accessories/Options

Model	ZFA100	ZFA200	Note
Bracket Assembly	BP-1H-1A	BP-1H-2A	With bolt, nut, washer
Bracket for manifold (1 to 10 stations)	ZZFA1-[Number of station]	ZZFA2-[Number of station]	With bracket, connection bolt, nut, washer, each 2 pcs.

Base Material

Description	Material
Cover	Zinc die cast
Case	Aluminum die cast
Gasket/Seal	NBR
Element	Polyester, ABS

Part No. of Element

Part No.	Applicable filter model	Element size (mm)
EJ001H-030N	ZFA100	43 X 42 X 12
EJ101H-030N	ZFA200	43 X 40 X 22

How to Order

ZFA 100 01

Air suction filter

Applicable filter
(Recommended air flow)

100	50 l/min (ANR)
200	200 l/min (ANR)

Port thread

—	Rc(PT)
T	NPTF
F	G(PF)

Accessories (Bracket)

—	None
L	With bracket (1 pc. on the left)
R	With bracket (1 pc. on the right)

*L or R shows the left or right of the filter IN when viewed from front.

Port Size

01	1/8 ^B (ZFA100)
02	1/4 ^B (ZFA200)

How to Order Manifold

Indicate both the symbols for air suction filter and bracket for manifold.

Example: In case of 6 stations of air suction filter ZFA (single)

ZFA100-01..... 6 pcs.

(Brackets for 6 stations)*

ZZFA1-06..... 1 pc.

*Both left and right brackets.

ZX

ZR

ZM

ZY

ZH

ZU

ZL

ZF

ZP

ZCU

CYV

Vacuum related

Series ZFA

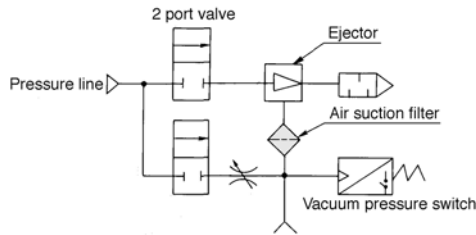
Application Example

Field Semiconductor/Electronics Related Industry, Automobile Assembly, Food Industry, Medical Instruments, General Assembly Machines.

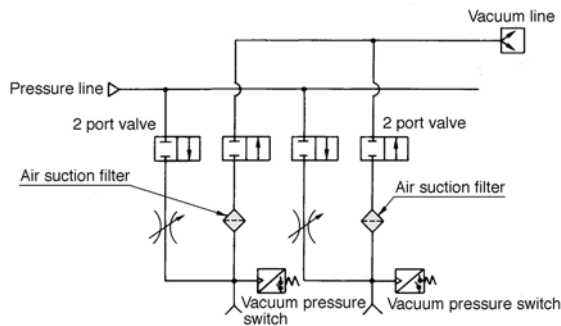
Machines Robot Hand/Material Handling, Automatic Assembly Machine, Automatic Transport Machine, Pick And Place, Printing.

Functions Vacuum Adsorption Transporting, Vacuum Adsorption Affixing, Vacuum Generated Air Flow.

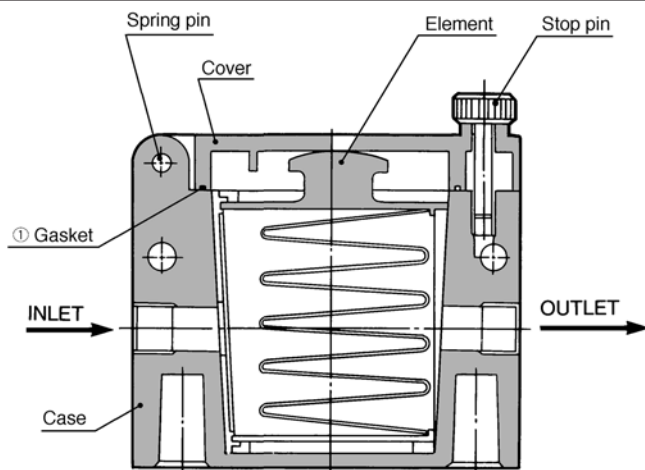
Application of Ejector System



Application of External Vacuum Supply System



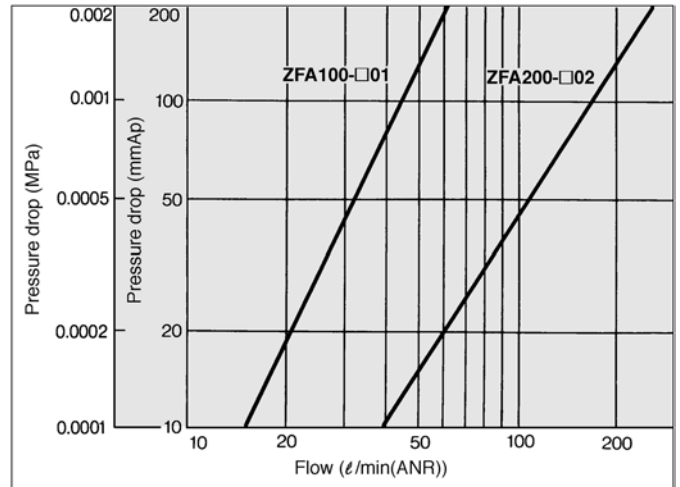
Construction



Replacement Parts

No.	Description	Part No.	
		ZFA100	ZFA200
①	Gasket for cover case	AL-204H	AL-205H

Flow Characteristics



Fluid — Air
Material — Polyester
Filtration — 30 μ m
Pressure — Secondary pressure side is opened to air

⚠ Precautions

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 Be extremely careful with the piping connection screw seal to prevent leakage. Failure to observe this precaution could cause a picking malfunction.

⚠ 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 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

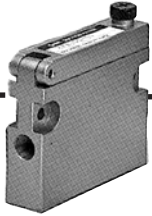
- ① Replace the filter element when the pressure drops approximately 0.02 MPa {0.2 kgf/cm²}.
- ② During disassembly or reassembly, make sure the gaskets and the seals are not cut or damaged.
- ③ To install the filter element in the case, verify the IN and OUT flow directions that are indicated on the filter element. If the direction is reversed, the filter element will not be properly installed on the cover.
- ④ For maintenance purposes, provide ample space on the side of the cover so that the filter element can be removed.

Selection

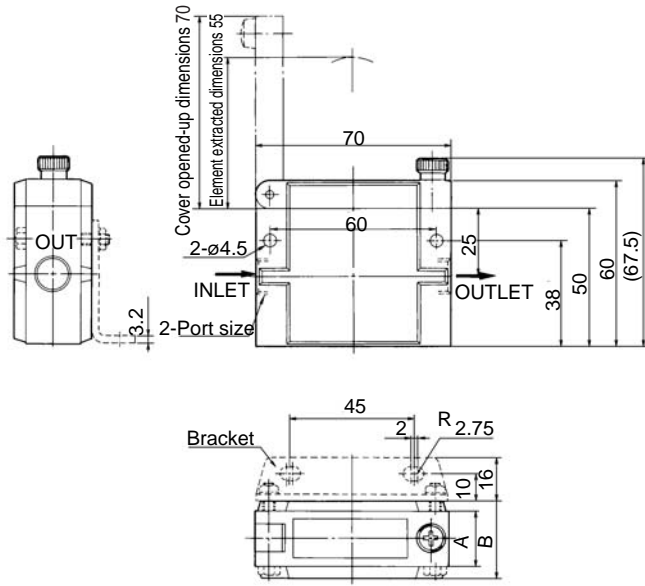
⚠ Warning

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

Air Suction Filter/Series ZFA

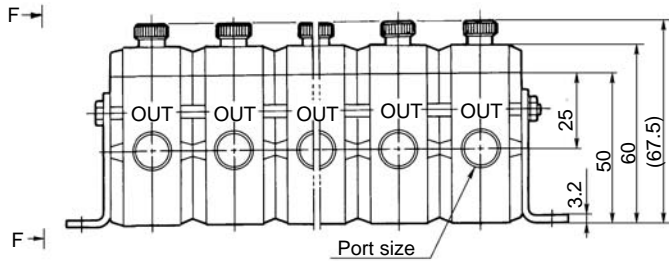


Series ZFA: ZFA $\begin{matrix} 100 \\ 200 \end{matrix}$ -□□□

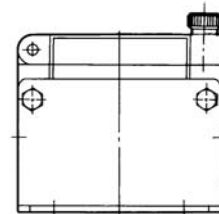
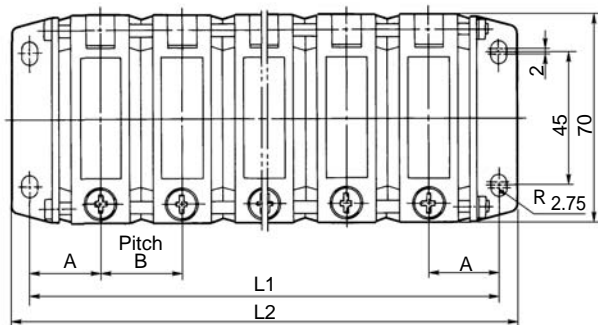


Note) The diagram on the left is for ZFA200.
The bracket location is on the left side.

Model	Symbol	Port size	A	B
ZFA100		1/8	—	18
ZFA200		1/4	20	28



(The above diagram is for ZFA200)



F-F' Cross-sectional drawing

Model	Symbol	Port size	A	B
ZFA100		1/8	19	18
ZFA200		1/4	24	28

Model	Symbol	Number of stations									
		1	2	3	4	5	6	7	8	9	10
ZFA100	L1	38	56	74	92	110	128	148	164	182	200
	L2	50	68	86	104	122	140	158	176	194	212
ZFA200	L1	48	76	104	132	160	188	216	244	272	300
	L2	60	88	116	144	172	200	228	256	284	312

ZX

ZR

ZM

ZY

ZH

ZU

ZL

ZF

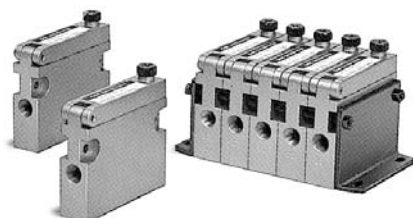
ZP

ZCU

CYV

Vacuum related

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.