

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

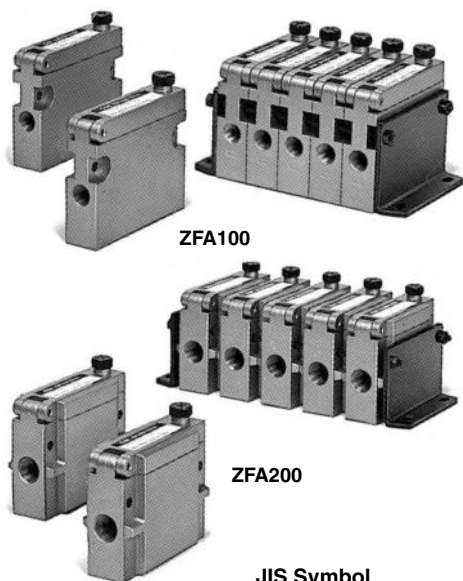
The pleat-shaped element provides a large filtering surface so that maintenance can be performed at longer intervals.

Easily replaced filter element

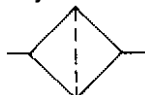
The filter element can be replaced in a short time without requiring any tools.

Mountable in any direction

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



JIS Symbol



Model

Model	Port size	Recommended air flow (l/min (ANR))	Weight (kg)
ZFA100	1/8	50	0.14
ZFA200	1/4	200	0.19

Specifications

Fluid	Air, Nitrogen
Operating pressure range	-100 to 0 kPa
Proof pressure	0.5 MPa
Operating temperature range	5 to 60°C
Filtration	30 μm
Element differential pressure resistance	0.15 MPa



Note 1) Please consult with 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.

Accessory/Option

Model	ZFA100	ZFA200	Note
Bracket assembly	BP-1H-1A	BP-1H-2A	With Bolt, Nut, Washer
Bracket for manifold (1 to 10 stations)	ZZFA1- [Stations]	ZZFA2- [Stations]	With Bracket, Connection bolt, Nut, Washer, each 2 pcs.

Principal Parts Material

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

Element Part No.

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** **Bracket**

Air suction filter

Type (Recommended flow rate)

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

Thread type

Nil	Rc
T	NPTF
F	G

Bracket

Nil	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

ZH

ZU

ZL

ZY

ZQ

ZF

ZP

ZCU

AMJ

Misc.

Series ZFA

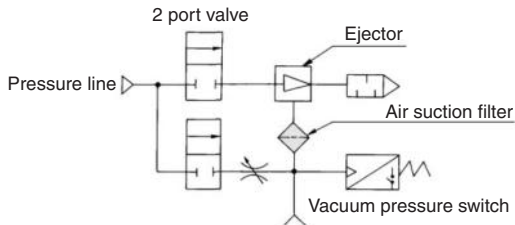
Application Example

Field: Semiconductor, electronics, automotive assembly, food processing and medical equipment, all types of manufacturing assembly equipment

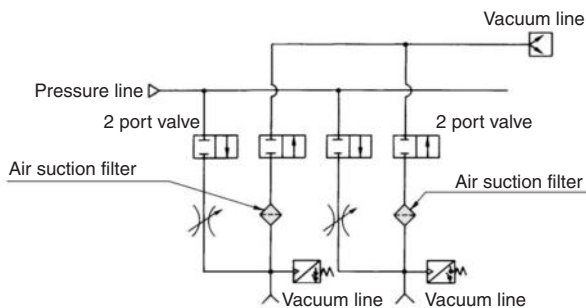
Machinery: Robotic hand/material handling, automotive assembling machines, automatic transfer equipment, pick and place, printing machinery

Application: Vacuum adsorption transfer, vacuum adsorption retention, vacuum generated air flow

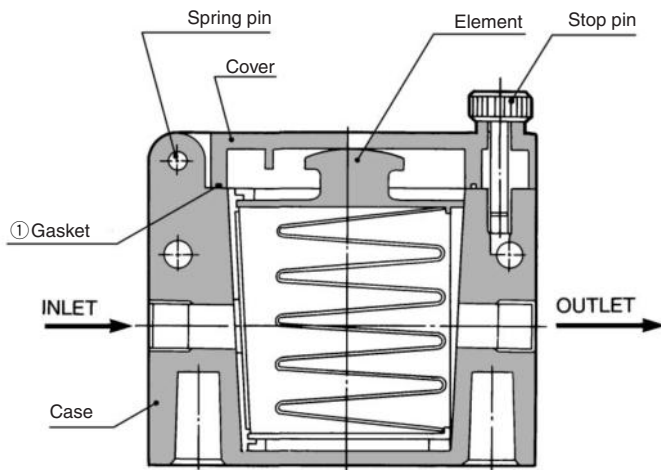
Application to ejector system



Application to vacuum pump system



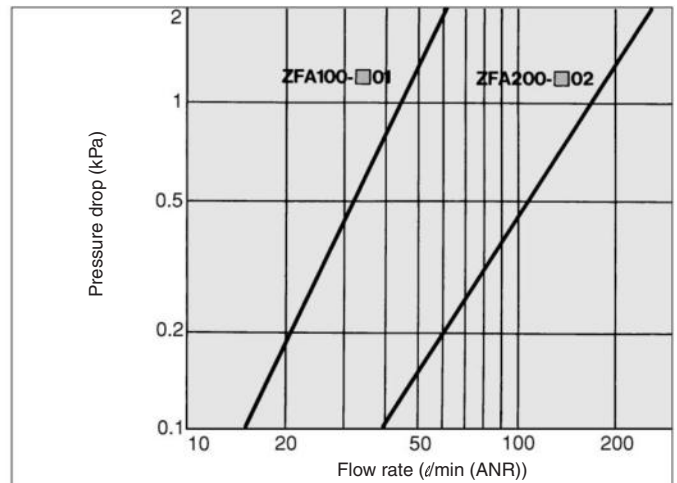
Construction



Replacement Parts

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

Flow Characteristics



Fluid — Air Filtration — 30 μm
Material — Polyester Pressure — Outlet pressure side is opened to air

⚠ Precautions

Be sure to read before handling. Refer to pages 13-15-3 to 13-15-4 for Safety Instructions and Common Precautions on the products mentioned in this catalog, and refer to page 13-1-5 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.
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 direction 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

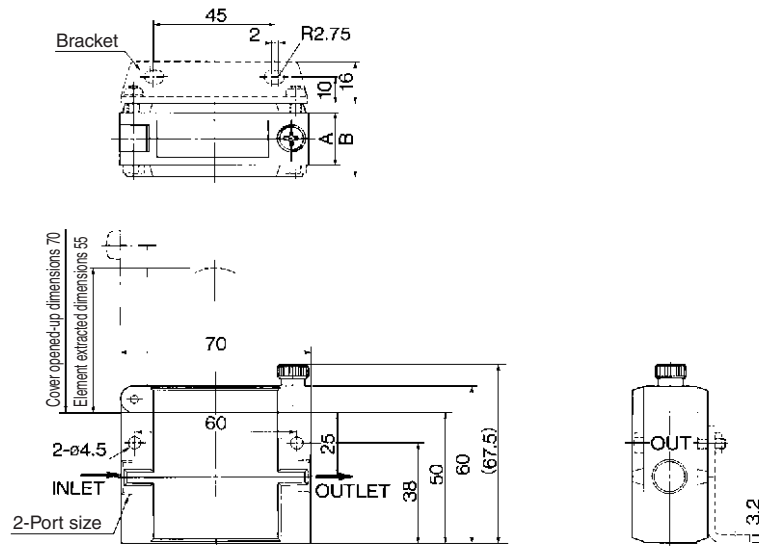
1. Do not use it in a line that is kept pressurized because it could cause the body to break.

Air Suction Filter Series ZFA



Dimensions: ZFA ¹⁰⁰ - □ □ □
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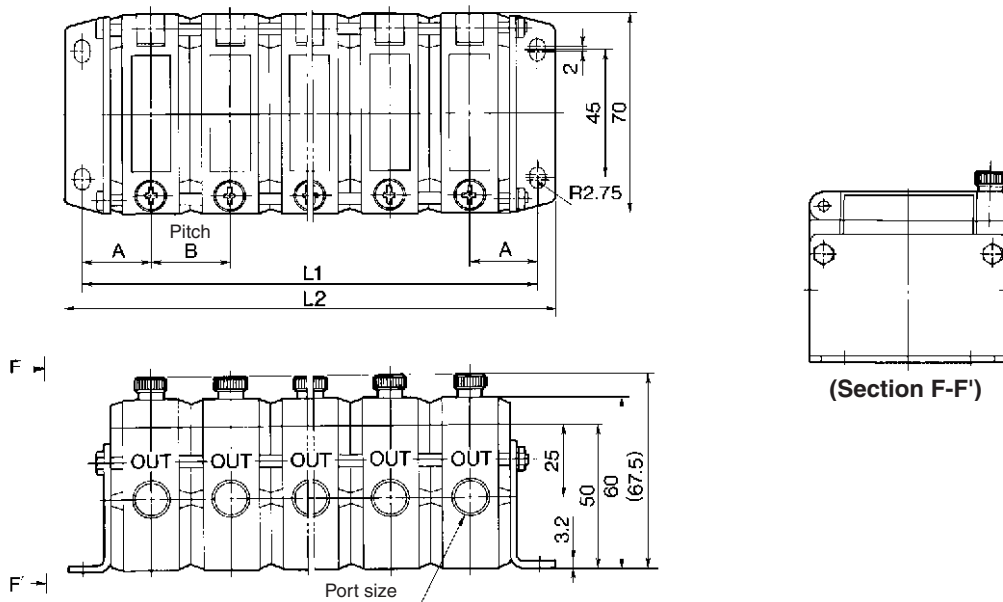
Single unit



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

Manifold



(The above diagram is for ZFA200)

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

Model	Symbol	Number of manifold 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
- ZH
- ZU
- ZL
- ZY
- ZQ
- ZF**
- ZP
- ZCU
- AMJ
- Misc.