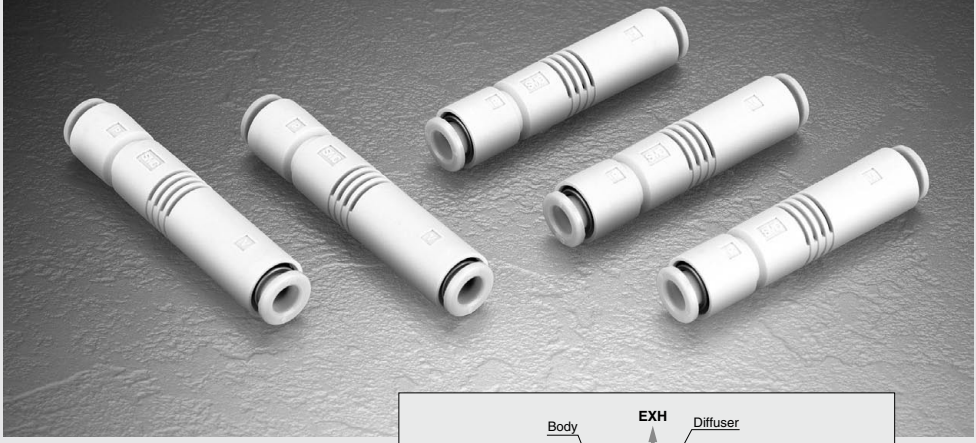
Vacuum Ejector In-line Type

ZU Series

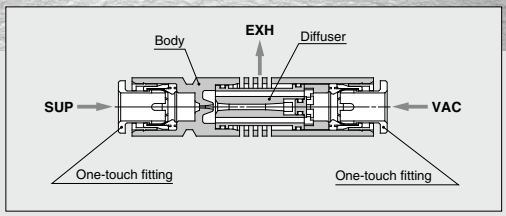
Space-saving ejector that can be installed in-line with the piping



Nozzle diameter: ø0.5, ø0.7

Type S: High vacuum type

L: Large flow type



- Vacuum port and supply port are located collinearly to facilitate piping
- Lightweight construction achieved through the use of a resin body
  Nozzle diameter ø**0.5: 6.5 g**
  ø**0.7: 7.0 g**
- Built-in One-touch fittings
  (Suitable for copper-free and fluorine-free applications)

Vacuum Ejector
In-line Type
ZU Series

RoHS

How to Order

ZU 05 S

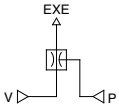
Maximum vacuum pressure

S	–85 kPa
L	–48 kPa

Nozzle diameter

05	0.5
07	0.7

Circuit diagram



Specifications

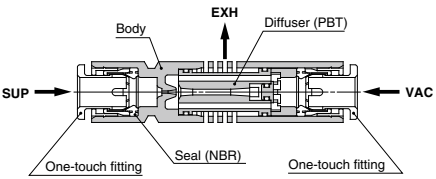
Fluid	Air
Maximum operating pressure	0.6 MPa
Standard supply pressure	0.45 MPa
Operating temperature range	5 to 60˚C
Applicable tubing O.D.	SUP port: 6 VAC port: 6

Model

Type	Model	Nozzle diameter (mm)	Max. vacuum pressure * (kPa)	Maximum suction flow rate (L/min(ANR))	Air consumption (L/min(ANR))	Weight (g)
High vacuum type	**ZU05S**	0.5	–84	7	14	6.5
	ZU07S	0.7	–84	10	29	7.0
Large flow type	**ZU05L**	0.5	–48	12	14	6.5
	ZU07L	0.7	–48	16	29	7.0

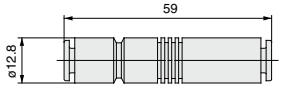
* Supply pressure: 0.45 MPa

Construction

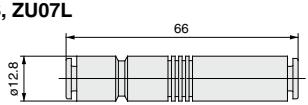


Dimensions

ZU05S, ZU05L



ZU07S, ZU07L

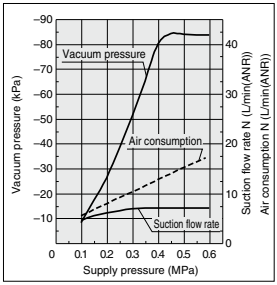


Exhaust Characteristics/Flow Rate Characteristics

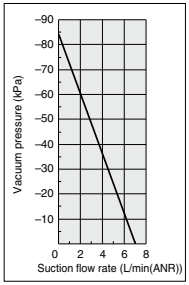
Flow rate characteristics: at 0.45 MPa

ZU05S

Exhaust Characteristics

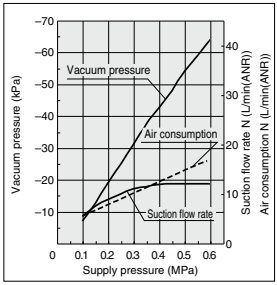


Flow Rate Characteristics

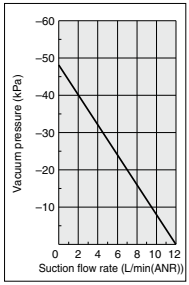


ZU05L

Exhaust Characteristics

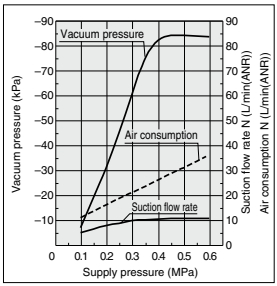


Flow Rate Characteristics

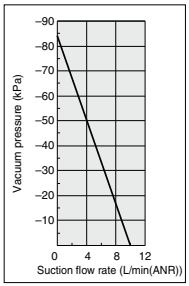


ZU07S

Exhaust Characteristics

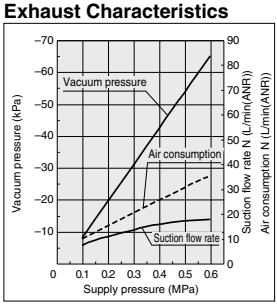


Flow Rate Characteristics

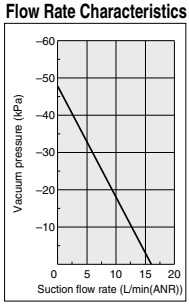


ZU07L

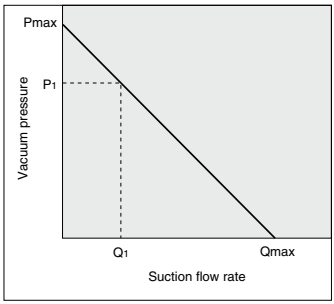
Exhaust Characteristics



Flow Rate Characteristics



How to Read Flow Rate Characteristics Graph



Flow rate characteristics are expressed in ejector vacuum pressure and suction flow. If suction flow rate changes, a change in vacuum pressure will also be noticed. Normally this relationship is expressed in ejector standard use.

In the graph, Pmax is max. vacuum pressure and Qmax is max. suction flow. The values are specified according to the catalog.

Changes in vacuum pressure are expressed in the order below.

1. When ejector suction flow becomes 0, vacuum pressure is at maximum (Pmax).

2. When suction port is opened gradually, air can flow through, (air leakage), suction flow increases, but vacuum pressure decreases. (condition P1 and Q1)

3. When suction port is opened further, suction flow moves to maximum value (Qmax), but vacuum pressure approaches 0 (atmospheric pressure).

When vacuum port (vacuum piping) has no leakage, vacuum pressure becomes maximum. Vacuum pressure decreases as leakage increases. When leakage amount equals max. suction flow, vacuum pressure is near 0.

When ventirative or leaky work must be adsorbed, please note that vacuum pressure will not be high.

ZU Series
Specific Product Precautions

Be sure to read this before handling the products. Refer to back page 50 for Safety Instructions and pages 49 to 51 for Vacuum Equipment Precautions.

Mounting

⚠Caution

Make sure that excessive loads or moments are not applied to the ejector body because of pipe connections.

Selection and sizing

⚠Caution

Refer to the vacuum equipment model selection on pages 25 to 48.

Handling of One-touch Fittings

⚠Caution

Connection and disconnection of the tube with One-touch fitting

1. Installing of the tube

1) Cut the tubing at a right angle. The tube must not have any cuts on its periphery. Use a tube cutter TK-1, 2, or 3. Do not use a pair of pliers, nippers, or scissors because they could result in an uneven cut or cause the tube to become flattened. As a result, it might not be possible to connect the tubing, or after the tube has been connected, it could pull out or allow air to leak. Make sure to cut the tube with sufficient length.
2) Grasp the tube, push it in slowly, and make sure to insert it to the hilt.
3) After inserting the tube to the hilt, pull the tube lightly to make sure that it will not come out. If the tube is not inserted all the way, it could be pulled out or cause air leakage.

2. Removing of the tube

1) Fully push in the release bushing. At the same time, push the collar evenly.
2) Keeping the release bushing pushed so that it will not retract, pull out the tube. If the release bushing is not pushed in sufficiently, it could wedge in further, making it difficult to pull out the tube.
3) The removed tube can be reused by cutting off the portion that was wedged in. If the tubing is reused without cutting off the wedged portion, it could lead to air leakage, or the inability to remove the tube.