

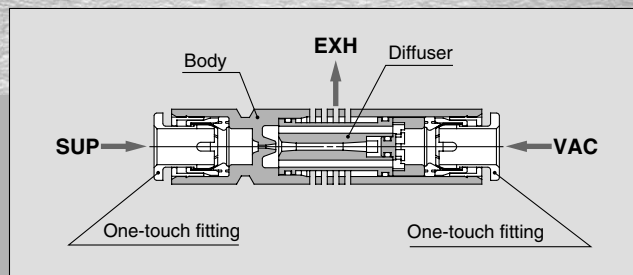


# Vacuum Ejector In-line Type *Series ZU*

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



Nozzle diameter:  $\varnothing 0.5$ ,  $\varnothing 0.7$   
Type **S**: High vacuum type  
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  $\varnothing 0.5$ : **6.5 g**  
 $\varnothing 0.7$ : **7.0 g**
- The white color matches bright operating environments
- Built-in One-touch fittings (copper-free measures implemented)

ZX

ZR

ZM

ZH

**ZU**

ZL

ZY

ZQ

ZF

ZP

ZCU

AMJ

Misc.

## 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

#### Caution

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

### Matching the Ejector to the Vacuum Circuit

#### Caution

For precautions associated with matching the ejector to the vacuum circuit, refer to the technical data on page 13-1-10 to 13-1-19.

### 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.

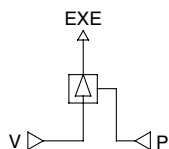
##### 2. Removing of the tube

- 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.

# Vacuum Ejector In-line Type Series ZU



Circuit diagram



## How to Order

ZU **05** **S**

● Maximum vacuum pressure

<b>S</b>	-85 kPa
<b>L</b>	-48 kPa

● Nozzle diameter

<b>05</b>	0.5 mm
<b>07</b>	0.7 mm

## Specifications

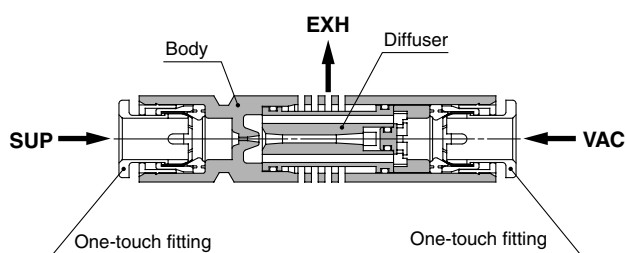
Fluid	Air
Maximum operating pressure	0.7 MPa
Standard supply pressure	0.45 MPa
Operating temperature range	5 to 60°C
Applicable tubing O.D.	SUP port: ø6 VAC port: ø6

## Model

Type	Model	Nozzle diameter (mm)ø	Max. vacuum pressure* (kPa)	Maximum suction flow rate (l/min(ANR))	Air consumption (l/min(ANR))	Weight (g)
High vacuum type	<b>ZU05S</b>	0.5	-85	7	9.5	6.5
	<b>ZU07S</b>	0.7	-85	12	19.0	7.0
Large flow type	<b>ZU05L</b>	0.5	-48	12	9.5	6.5
	<b>ZU07L</b>	0.7	-48	21	19.0	7.0

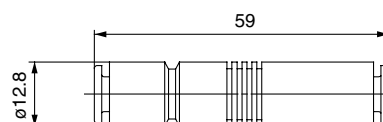
\* Supply pressure: 0.45 MPa

## Construction



## Dimensions

### ZU05S/ZU05L



### ZU07S/ZU07L



ZX  
ZR  
ZM  
ZH  
**ZU**  
ZL  
ZY  
ZQ  
ZF  
ZP  
ZCU  
AMJ  
Misc.

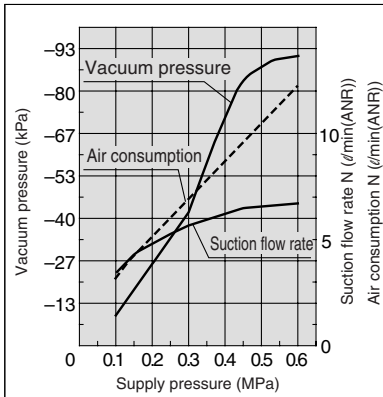
## Exhaust Characteristics/Flow Characteristics

Flow characteristics: at 0.45 MPa

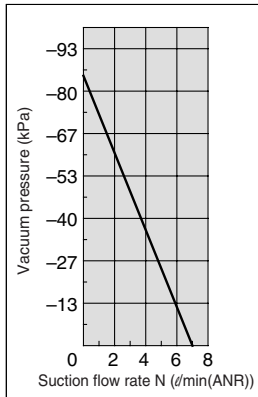
### ZU05S

Max. vacuum pressure: -85 kPa

#### Exhaust Characteristics



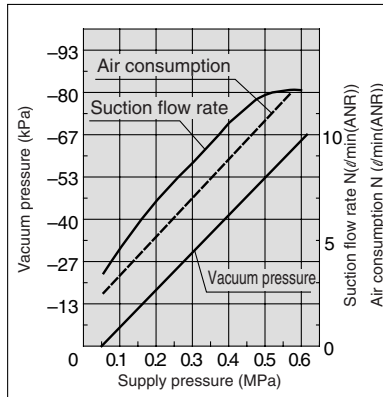
#### Flow Characteristics



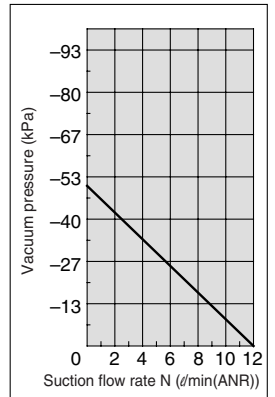
### ZU05L

Max. vacuum pressure: -48 kPa

#### Exhaust Characteristics



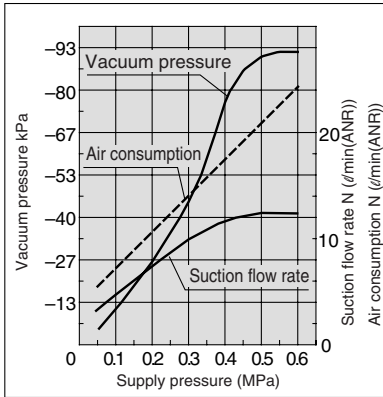
#### Flow Characteristics



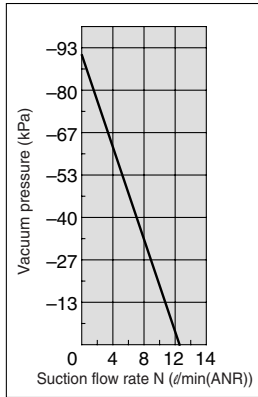
### ZU07S

Max. vacuum pressure: -85 kPa

#### Exhaust Characteristics



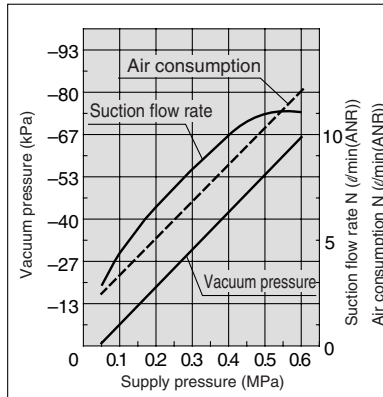
#### Flow Characteristics



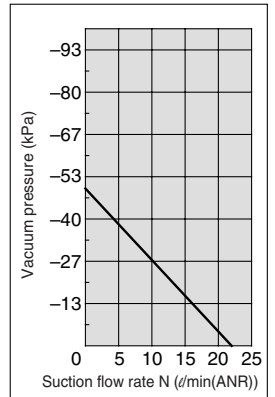
### ZU07L

Max. vacuum pressure: -48 kPa

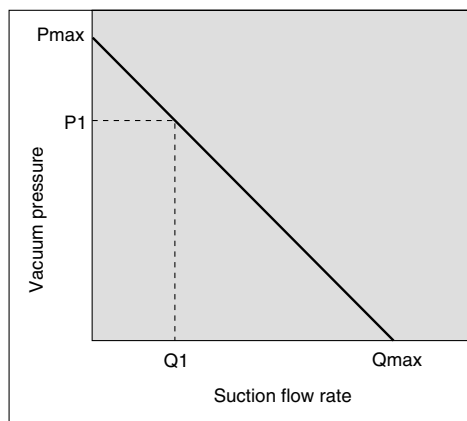
#### Exhaust Characteristics



#### Flow Characteristics



## How to Read Flow Characteristics Graph



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