

# Inline Ejektor

## PME Series



**Actual size!**



Mini type PMEM

■ **Convert pressurized air to vacuum in one touch**

**Can be used where space is limited.**

## Inline vacuum generator with quick fittings

# Inline Ejector

### ■ Convert pressurized air to vacuum in one touch

Can be used where space is limited.

### ■ Wide range of vacuum variations

- Standard specifications: Generates high vacuum from a supply pressure of 0.5 MPa [73 psi]
- High flow rate specifications: Generates nearly 1.7 times standard from a supply pressure of 0.5 MPa [73 psi]
- Low pressure specifications: Generates vacuum equal to standard specifications from a supply pressure of 0.35 MPa [51 psi]



#### PME Series (Standard Type)

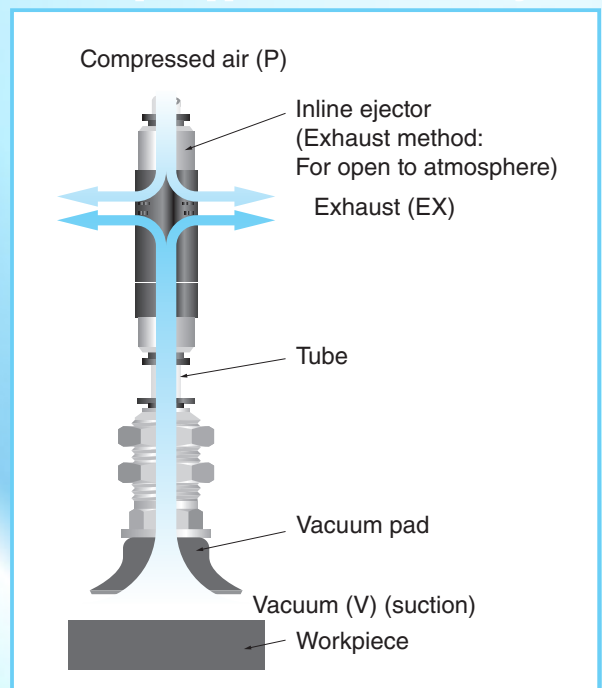
Nozzle diameter: 0.5 mm [0.020 in.],  
0.7 mm [0.028 in.]



#### PMEM Series (Mini Type)

Nozzle diameter: 0.3 mm [0.012 in.],  
0.4 mm [0.016 mm],  
0.5 mm [0.020 in.]

### ● Example application for inline ejector



\* Before using the product, read "Safety Precautions (for All Conditioning, Auxiliary, and Vacuum Devices)" and "Handling Instructions and General Precautions" in the general catalog or on our website for precautions and how to handle the product.

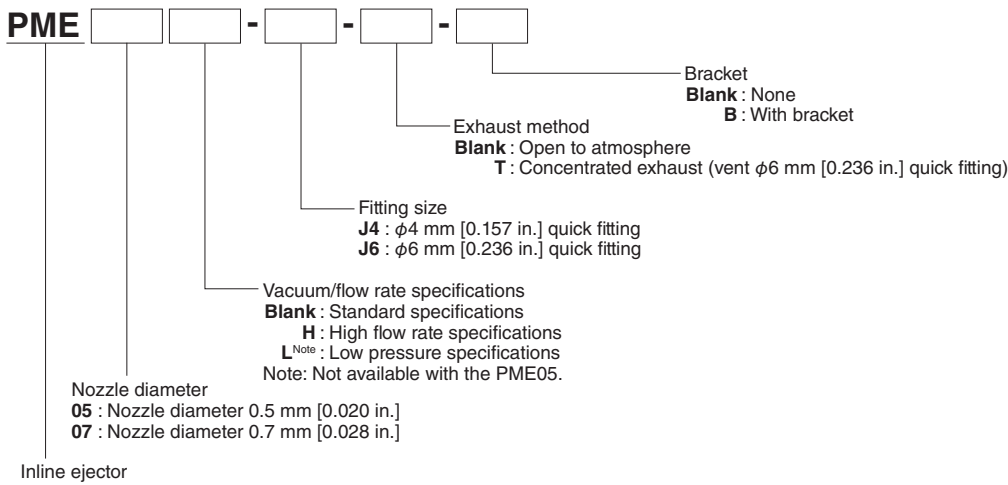
# Specifications

Item	Model	PME					PMEM						
		05	05H	07	07H	07L	03	03L	04	04L	05	05L	
Medium		Air											
Operating pressure range	MPa [psi]	0.15 to 0.7 [22 to 102]											
Rated supply pressure	MPa [psi]	0.5 [73]					0.35 [51]	0.5 [73]	0.35 [51]	0.5 [73]	0.35 [51]	0.5 [73]	0.35 [51]
Operating temperature range		0 to 60°C [32 to 140°F] (non-freezing)											
Nozzle diameter	mm [in.]	φ 0.5 [0.020]			φ 0.7 [0.028]			φ 0.3 [0.012]		φ 0.4 [0.016]		φ 0.5 [0.020]	
Base vacuum <sup>Note</sup>	kPa [inHg]	-90 [-26.586]	-66 [-19.496]	-92 [-27.177]	-66 [-19.496]	-90 [-26.586]	-90 [-26.586]	-88 [-25.995]	-90 [-26.586]	-90 [-26.586]	-90 [-26.586]	-90 [-26.586]	
Vacuum-side flow rate	L/min (ANR) [ft <sup>3</sup> /min] (SCFM)	7 [0.247]	12 [0.424]	12.5 [0.441]	20 [0.706]	10 [0.353]	2 [0.071]	1 [0.035]	4 [0.141]	2 [0.071]	7 [0.247]	3 [0.106]	
Compressed air consumption	L/min (ANR) [ft <sup>3</sup> /min] (SCFM)	11.5 [0.406]	11.5 [0.406]	23 [0.812]	23 [0.812]	17 [0.600]	4.5 [0.159]	3.5 [0.124]	8 [0.283]	6.5 [0.230]	11.5 [0.406]	8 [0.283]	
Port size		φ 4 mm [0.157 in.], φ 6 mm [0.236 in.] quick fitting selected					φ 4 mm [0.157 in.] quick fitting						

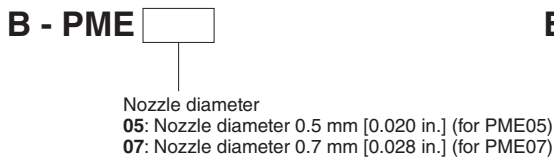
Note: Pressure at which vacuum is reached is calculated using standard atmospheric pressure to within a ±5% range.

## Order Codes

### ● Inline ejector Standard type



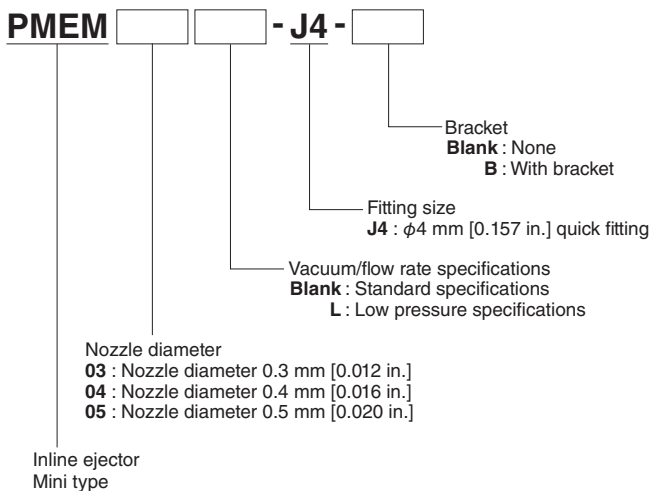
### ● Bracket (1 per bag)



### ● Replacement filter elements (10 per bag)

**E - PME** (nozzle diameter: common to 05, 07)

### ● Inline ejector Mini type



### ● Bracket (1 per bag)

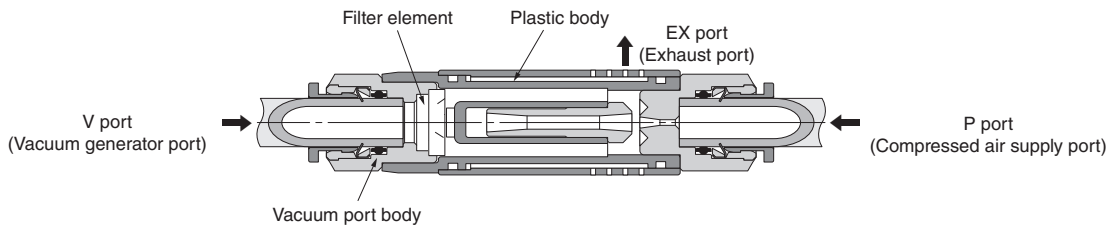
**B - PMEM**

### ● Replacement filter elements (10 per bag)

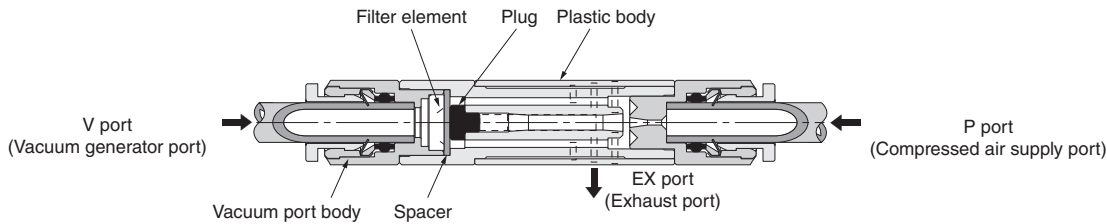
**E - PMEM** (nozzle diameter: common to 03, 04, 05)

## Inner construction diagram

### ● PME Standard type



### PMEM Mini type



## Handling Instructions and Precautions

### ⚠ WARNING

- Do not apply a load on the main unit in the pulling direction. A tensile load could cause the vacuum port unit to separate from the plastic body.
- Do not increase resistance on the exhaust side, such as by blocking the exhaust ports, when using the product. The vacuum port or supply port could come off the plastic body during vacuum generation, due to reduced vacuum pressure or vacuum flow rate, or to increased internal pressure.
- Be careful of reduced vacuum pressure caused by air supply trouble. This could result in no vacuum generation or reduced vacuum pressure.

### ⚠ CAUTION

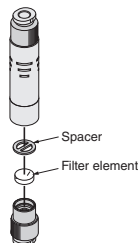
- Periodically do maintenance inspections of filter elements. Clogged elements could cause reduced performance or trouble.
- Do not use a lubricator.



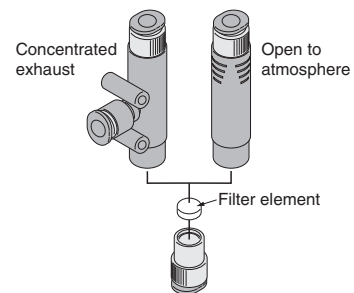
General precautions

### Filter element

- ① When assembling a PMEM (mini type) after maintenance of the filter element, before you assemble the spacer and filter element, confirm that the plug is in its designated position, as shown in the inner construction diagram above. Also, the plug does not need to be removed to do maintenance.



- ② When doing maintenance on the filter elements of the PME (standard type) and PMEM (mini type), hold the plastic body shown in the inner construction diagram as you pull out the vacuum port unit into the plastic body in the reverse order of the procedure. Also, please note that when doing filter element maintenance, if you do not assemble it in the correct position (with no gap between the plastic body and the vacuum unit) as shown in the inner construction diagram, the product will not perform adequately.



# Handling Instructions and Precautions

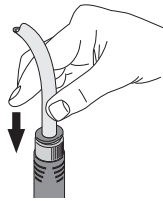
## Precautions for attaching tubes

- ① Confirm that the cut surface of the tube is cut straight across, that the outer surface of the tube is not damaged, and that the tube has not become oval shaped.
- ② When connecting tubes, if you do not insert the tube all the way to the tube end, it may result in leaks.
- ③ After installing the tube, pull on it to check that it does not come off.
- ④ Do not meaninglessly press on the release ring before attaching a tube. Doing so may cause the tube to become detached.

## How to attach and detach tubes

### 1. Attaching tubes

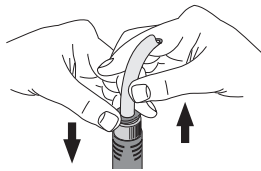
Push the tube all the way to the end so the lock claws hold it in place, and the elastic sleeve seals around the outside of the tube.



### 2. Removing tubes

When removing a tube, pressing the release ring opens the lock claws and the tube can be pulled out.

Be sure to stop the air before removing tubes.



## Usable tubes

Use of both nylon tubing and urethane tubing is supported. Tubing outside diameter precision should be within  $\pm 0.1$  mm [0.004 in] (nominal) for nylon tubing and within  $\pm 0.15$  mm [0.006 in] (nominal) for urethane tubing. Use tubing with ovality (difference between major axis and minor axis) within 0.2 mm [0.008 in]. (Use of Koganei tubing is recommended.) Use of tubing that is not a Koganei genuine product or a compatible (recommended) product may result in tube disconnection, air leakage, or other problems. Be sure to check on tubing before building a pneumatic system.



1. Use tubing with an exterior that is not damaged. If tubing becomes damaged after repeated use, cut off the damaged portion.
2. Do not allow tubing to become severely bent or twisted near the connection to a fitting. Such a condition creates the risk of air leakage. The table below shows minimum bending radius for nylon and urethane tubing.
3. Do not use extremely soft tubing, which causes a severe drop in pull-out strength.
4. Before removing any tubes, always turn off the air supply. Also, be sure to confirm that the air inside the pipes is completely vented before starting.

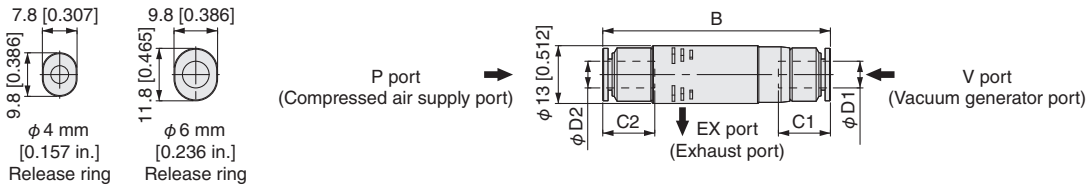
mm [in.]

Tube size	Minimum bending radius	
	Nylon tube	Urethane tube
$\phi 4$ [0.157]	20 [0.787]	10 [0.394]
$\phi 6$ [0.236]	30 [1.181]	15 [0.591]

## Dimensions (mm [in.])

### ● Inline ejector Standard type (PME/open to atmosphere)

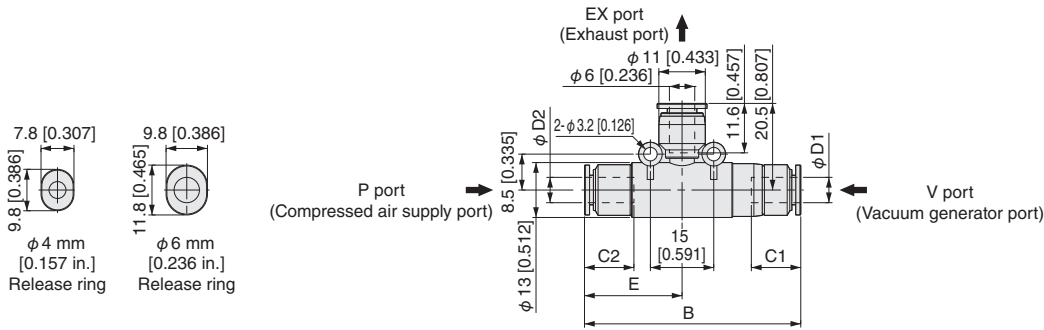
PME□□-□



Model	Tube outer dimension φ D1	Tube outer dimension φ D2	B	C1	C2	Mass (g [oz])
PME05-J4	4 [0.157]	4 [0.157]	49.3 [1.941]	10.9 [0.429]	10.9 [0.429]	19 [0.67]
PME05-J6	6 [0.236]	6 [0.236]	51.2 [2.016]	11.7 [0.461]	11.7 [0.461]	18 [0.63]
PME07-J4	4 [0.157]	4 [0.157]	56.1 [2.209]	10.9 [0.429]	10.9 [0.429]	20 [0.71]
PME07-J6	6 [0.236]	6 [0.236]	57.7 [2.272]	11.7 [0.461]	11.7 [0.461]	19 [0.67]
PME05H-J4	4 [0.157]	4 [0.157]	49.3 [1.941]	10.9 [0.429]	10.9 [0.429]	19 [0.67]
PME05H-J6	6 [0.236]	6 [0.236]	51.2 [2.016]	11.7 [0.461]	11.7 [0.461]	18 [0.63]
PME07H-J4	4 [0.157]	4 [0.157]	56.1 [2.209]	10.9 [0.429]	10.9 [0.429]	20 [0.71]
PME07H-J6	6 [0.236]	6 [0.236]	57.7 [2.272]	11.7 [0.461]	11.7 [0.461]	18 [0.63]
PME07L-J4	4 [0.157]	4 [0.157]	56.1 [2.209]	10.9 [0.429]	10.9 [0.429]	21 [0.74]
PME07L-J6	6 [0.236]	6 [0.236]	57.7 [2.272]	11.7 [0.461]	11.7 [0.461]	19 [0.67]

### ● Inline ejector Standard type (PME/concentrated exhaust)

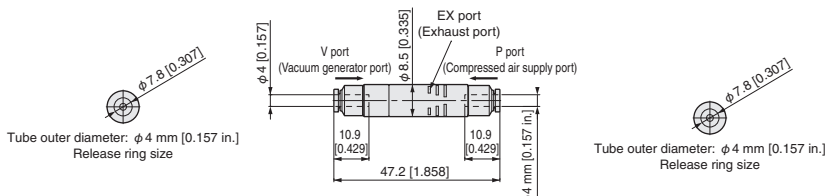
PME□□-□-**T**



Model	Tube outer dimension φ D1	Tube outer dimension φ D2	B	C1	C2	E	Mass (g [oz])
PME05-J4-T	4 [0.157]	4 [0.157]	49.3 [1.941]	10.9 [0.429]	10.9 [0.429]	22 [0.866]	21 [0.74]
PME05-J6-T	6 [0.236]	6 [0.236]	51.2 [2.016]	11.7 [0.461]	11.7 [0.461]	23.1 [0.909]	20 [0.71]
PME07-J4-T	4 [0.157]	4 [0.157]	56.1 [2.209]	10.9 [0.429]	10.9 [0.429]	28.8 [1.134]	23 [0.81]
PME07-J6-T	6 [0.236]	6 [0.236]	57.7 [2.272]	11.7 [0.461]	11.7 [0.461]	29.6 [1.165]	21 [0.74]
PME05H-J4-T	4 [0.157]	4 [0.157]	49.3 [1.941]	10.9 [0.429]	10.9 [0.429]	22 [0.866]	21 [0.74]
PME05H-J6-T	6 [0.236]	6 [0.236]	51.2 [2.016]	11.7 [0.461]	11.7 [0.461]	23.1 [0.909]	20 [0.71]
PME07H-J4-T	4 [0.157]	4 [0.157]	56.1 [2.209]	10.9 [0.429]	10.9 [0.429]	28.8 [1.134]	22 [0.78]
PME07H-J6-T	6 [0.236]	6 [0.236]	57.7 [2.272]	11.7 [0.461]	11.7 [0.461]	29.6 [1.165]	21 [0.74]
PME07L-J4-T	4 [0.157]	4 [0.157]	56.1 [2.209]	10.9 [0.429]	10.9 [0.429]	28.8 [1.134]	22 [0.78]
PME07L-J6-T	6 [0.236]	6 [0.236]	57.7 [2.272]	11.7 [0.461]	11.7 [0.461]	29.6 [1.165]	21 [0.74]

### ● Inline ejector Mini type (PMEM/open to atmosphere)

PMEM□□-**J4**

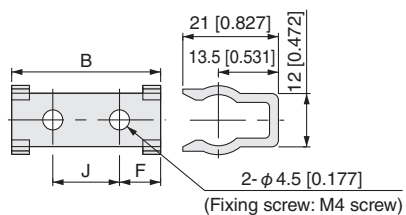


Model	Mass (g [oz])
PMEM03-J4	6.8 [0.24]
PMEM04-J4	
PMEM05-J4	
PMEM03L-J4	
PMEM04L-J4	
PMEM05L-J4	

## Additional Parts Dimensions (mm [in.])

### ● Bracket (standard type)

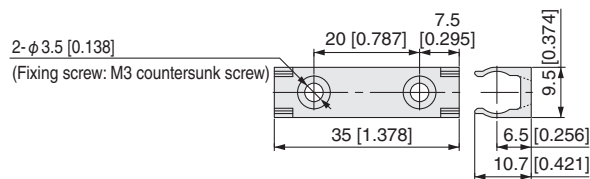
**B-PME** □



Model	B	F	J	Mass (g [oz])
<b>E-PME05</b>	33.2 [1.307]	9 [0.354]	15 [0.591]	2 [0.07]
<b>E-PME07</b>	39.2 [1.543]	10 [0.394]	20 [0.787]	2 [0.07]

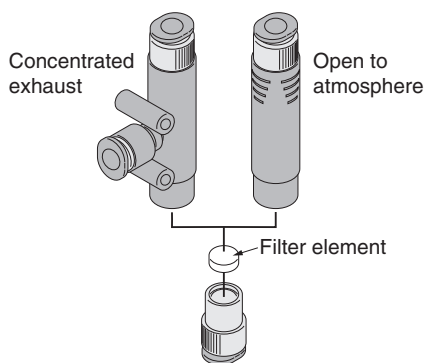
### ● Bracket (mini type)

**B-PMEM**



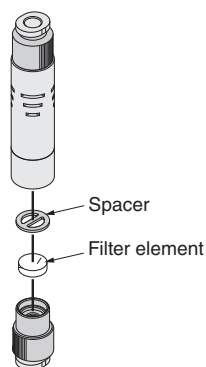
### ● Replacement filter elements (standard type)

**E-PME** (nozzle diameter: common to 05, 07)



### ● Replacement filter elements (mini type)

**E-PMEM** (nozzle diameter: common to 03, 04, 05)

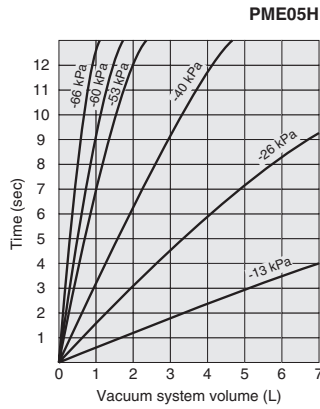
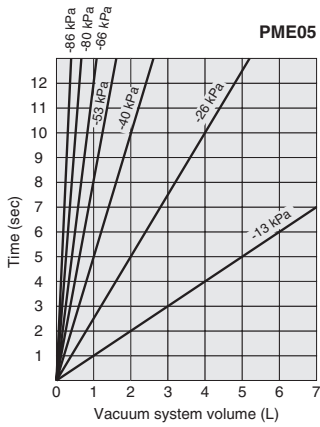




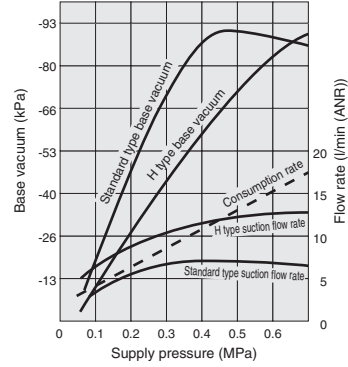
# Characteristics

## PME05, PME05H

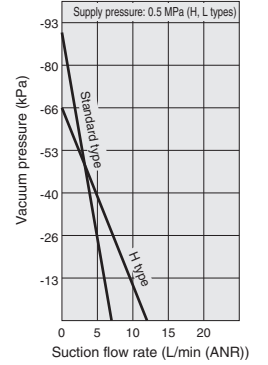
1 MPa = 145 psi  
 1 kPa = 0.2954 inHg  
 1 l/min (ANR) = 0.03532 ft<sup>3</sup>/min



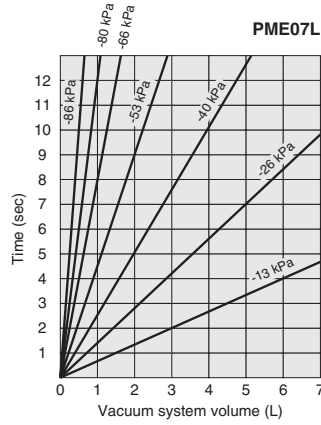
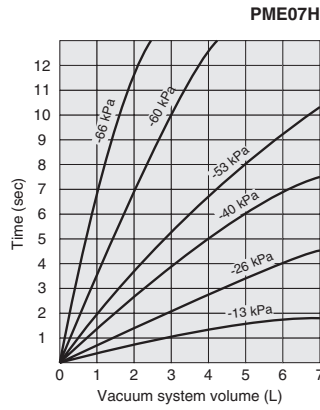
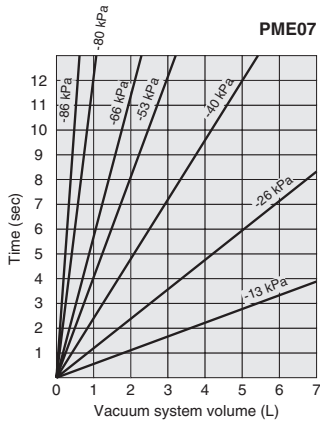
Vacuum characteristics



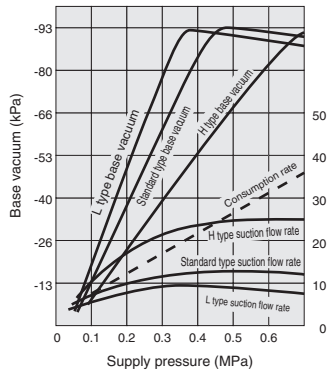
Flow rate characteristics



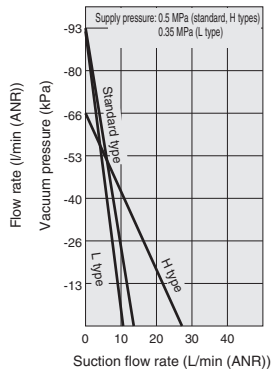
## PME07, PME07H, PME07L



Vacuum characteristics



Flow rate characteristics

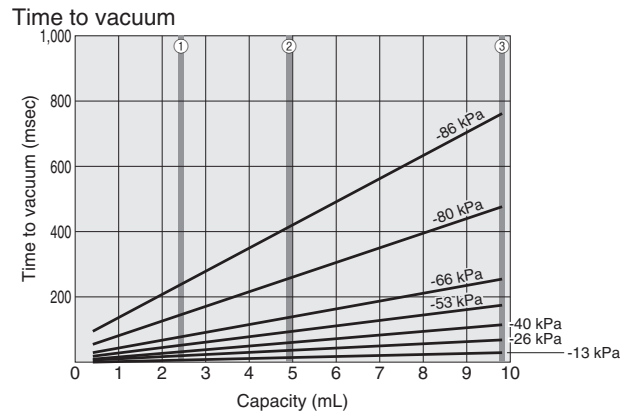
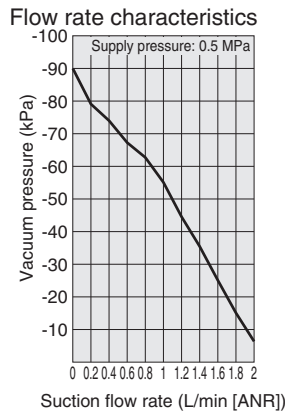
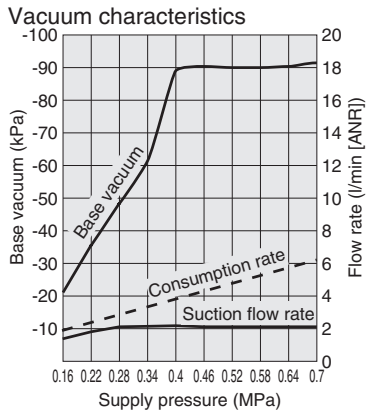




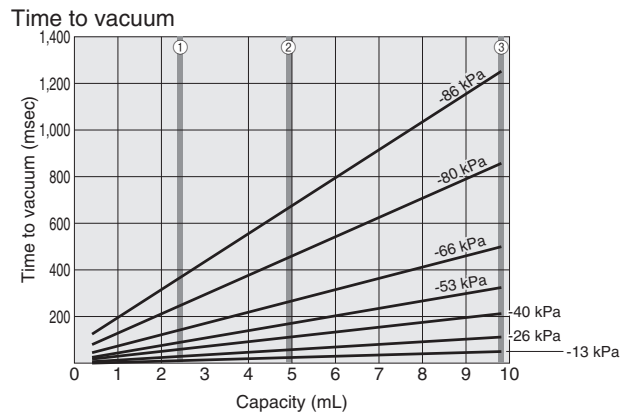
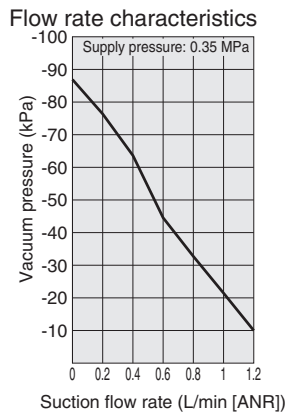
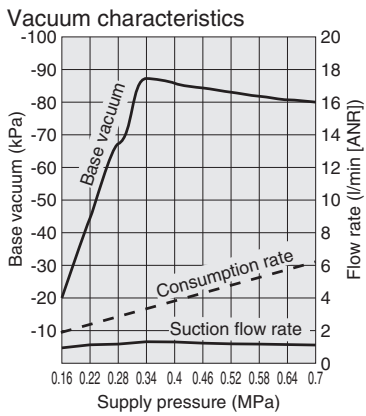
# Characteristics

## PMEM03

1 MPa = 145 psi  
 1 kPa = 0.2954 inHg  
 1 l/min (ANR) = 0.03532 ft<sup>3</sup>/min



## PMEM03L



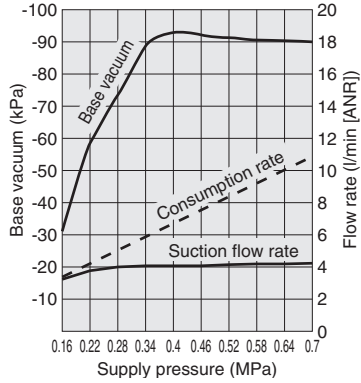
\* The shaded stripes, numbered ① to ③ in the "Time to vacuum" graph, indicate the piping tube codes (piping length (mm)).  
 For details, refer to the following.  
 ① U4 (L:500) ② U4 (L:1,000) ③ U4 (L:2,000)

# Characteristics

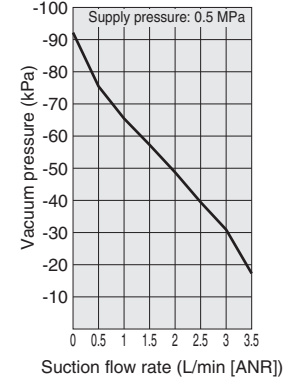
## PMEM04

1 MPa = 145 psi  
 1 kPa = 0.2954 inHg  
 1 l/min (ANR) = 0.03532 ft<sup>3</sup>/min

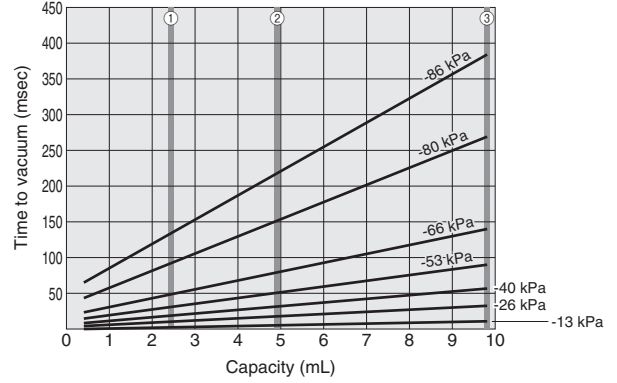
Vacuum characteristics



Flow rate characteristics

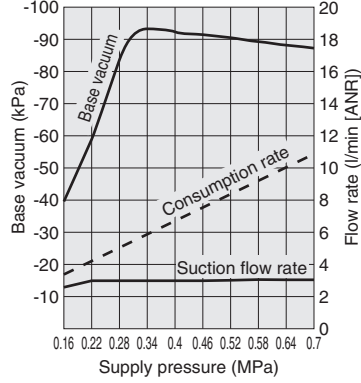


Time to vacuum

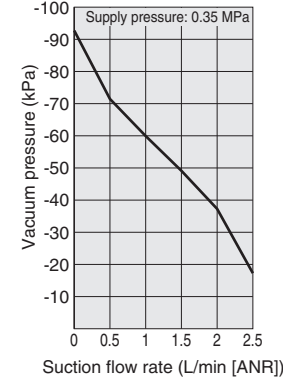


## PMEM04L

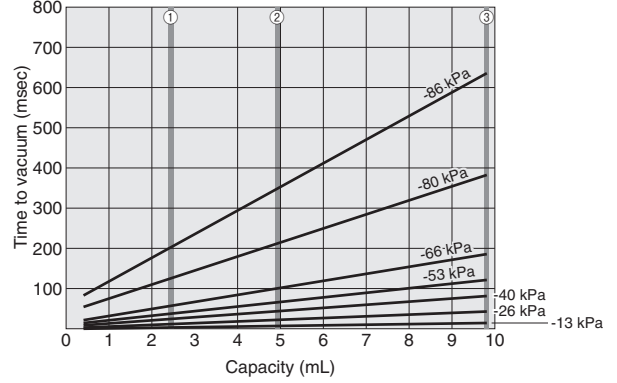
Vacuum characteristics



Flow rate characteristics



Time to vacuum



\* The grey stripes, numbered ① to ③ in the "Time to vacuum" graph, indicate the piping tube codes (piping length (mm)).

For details, refer to the following.

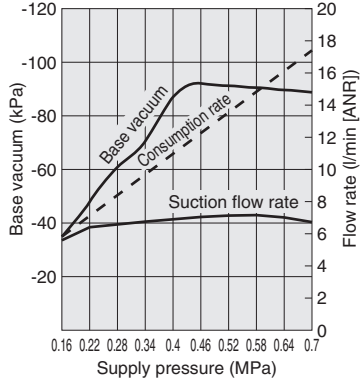
- ① U4 (L:500) ② U4 (L:1,000) ③ U4 (L:2,000)

# Characteristics

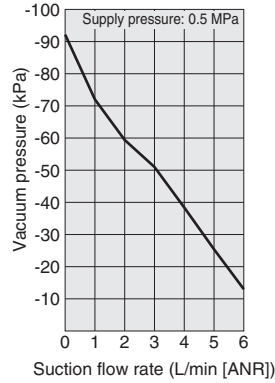
## PMEM05

1 MPa = 145 psi  
 1 kPa = 0.2954 inHg  
 1 l/min (ANR) = 0.03532 ft<sup>3</sup>/min

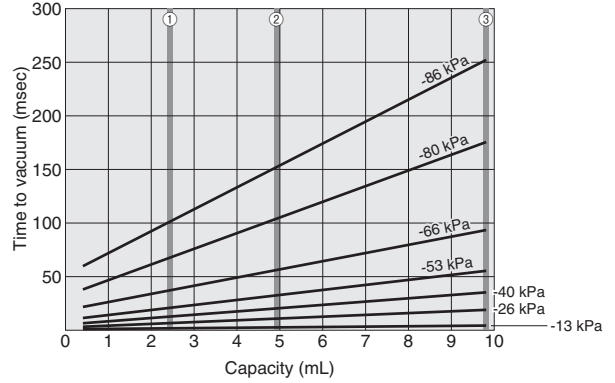
Vacuum characteristics



Flow rate characteristics

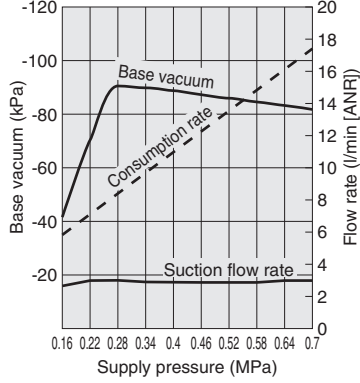


Time to vacuum

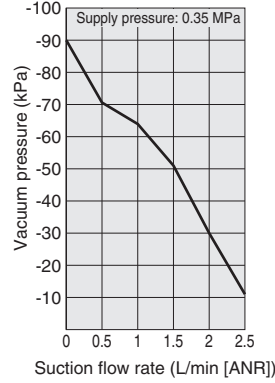


## PMEM05L

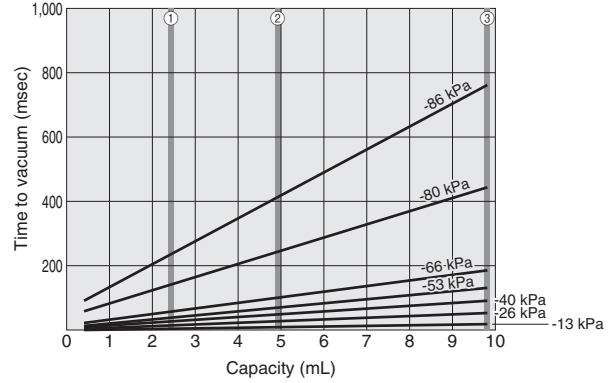
Vacuum characteristics



Flow rate characteristics



Time to vacuum



\* The stripes, numbered ① to ③ in the "Time to vacuum" graph, indicate the piping tube codes (piping length (mm)).

For details, refer to the following.

- ① U4 (L:500) ② U4 (L:1,000) ③ U4 (L:2,000)

# Limited Warranty

KOGANEI CORP. warrants its products to be free from defects in material and workmanship subject to the following provisions.

**Warranty Period** The warranty period is 180 days from the date of delivery.

**Koganei Responsibility** If a defect in material or workmanship is found during the warranty period, KOGANEI CORP. will replace any part proved defective under normal use free of charge and will provide the service necessary to replace such a part.

**Limitations**

- This warranty is in lieu of all other warranties, expressed or implied, and is limited to the original cost of the product and shall not include any transportation fee, the cost of installation or any liability for direct, indirect or consequential damage or delay resulting from the defects.

- KOGANEI CORP. shall in no way be liable or responsible for injuries or damage to persons or property arising out of the use or operation of the manufacturer's product.

- This warranty shall be void if the engineered safety devices are removed, made inoperative or not periodically checked for proper functioning.

- Any operation beyond the rated capacity, any improper use or application, or any improper installation of the product, or any substitution upon it with parts not furnished or approved by KOGANEI CORP., shall void this warranty.

- This warranty covers only such items supplied by KOGANEI CORP. The products of other manufacturers are covered only by such warranties made by those original manufacturers, even though such items may have been included as the components.

The specifications are subject to change without notice.

URL <http://www.koganei.co.jp>

E-mail: [overseas@koganei.co.jp](mailto:overseas@koganei.co.jp)



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