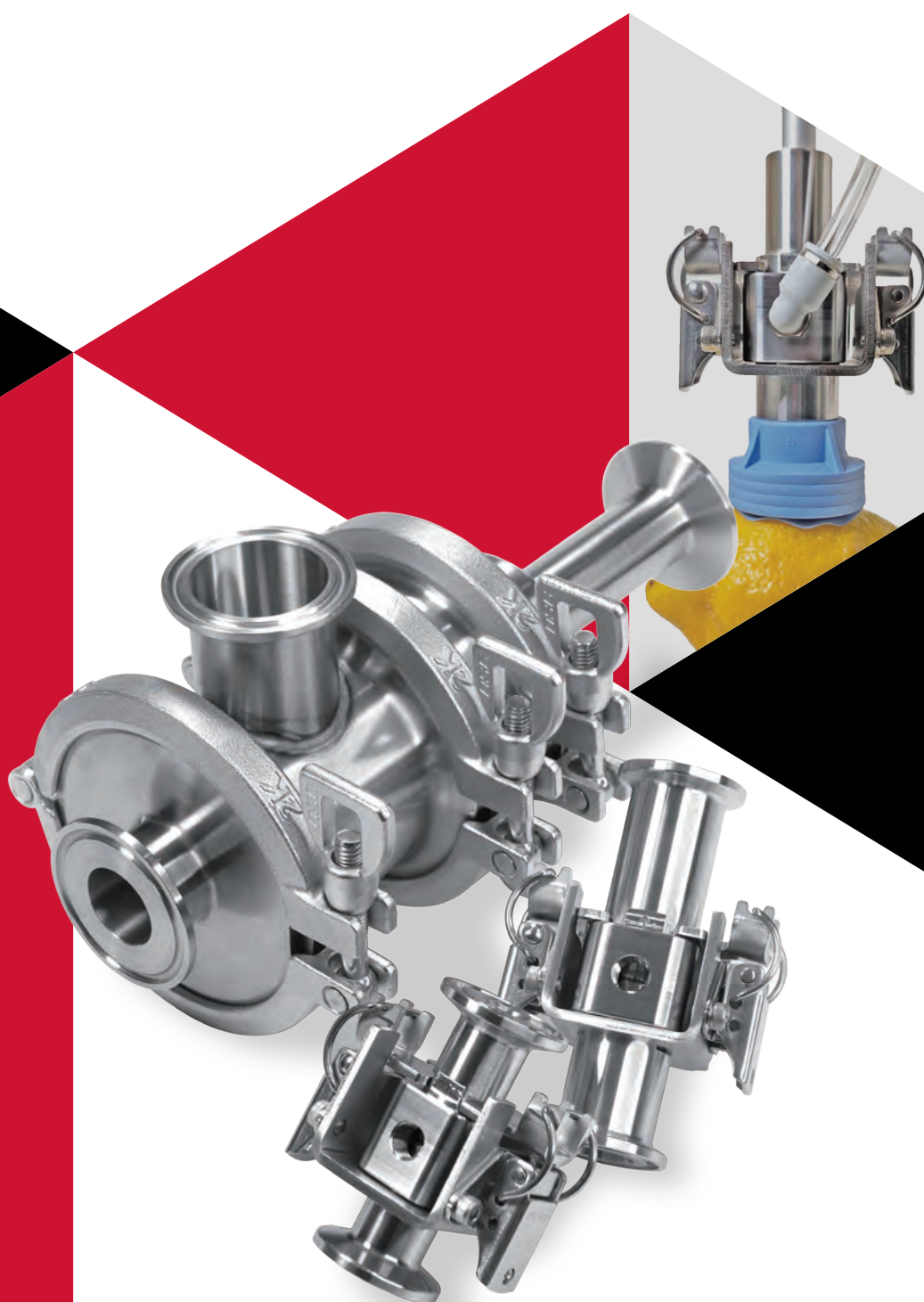


CONVUM

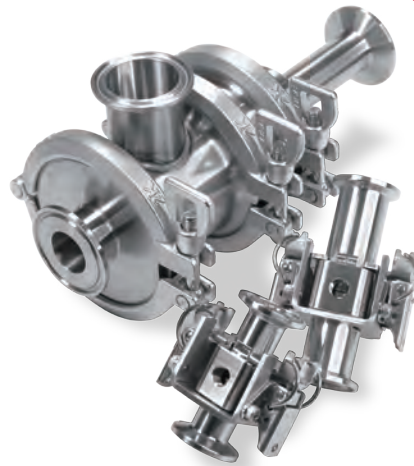
MVE
series

Washable Ejector



Washable Ejector

MVE
series



Vacuum Generator Specialized for Food Processing Facilities.
No tools are required for disassembly and cleaning.
All-stainless-steel construction, ideal for food handling and vacuum conveying.

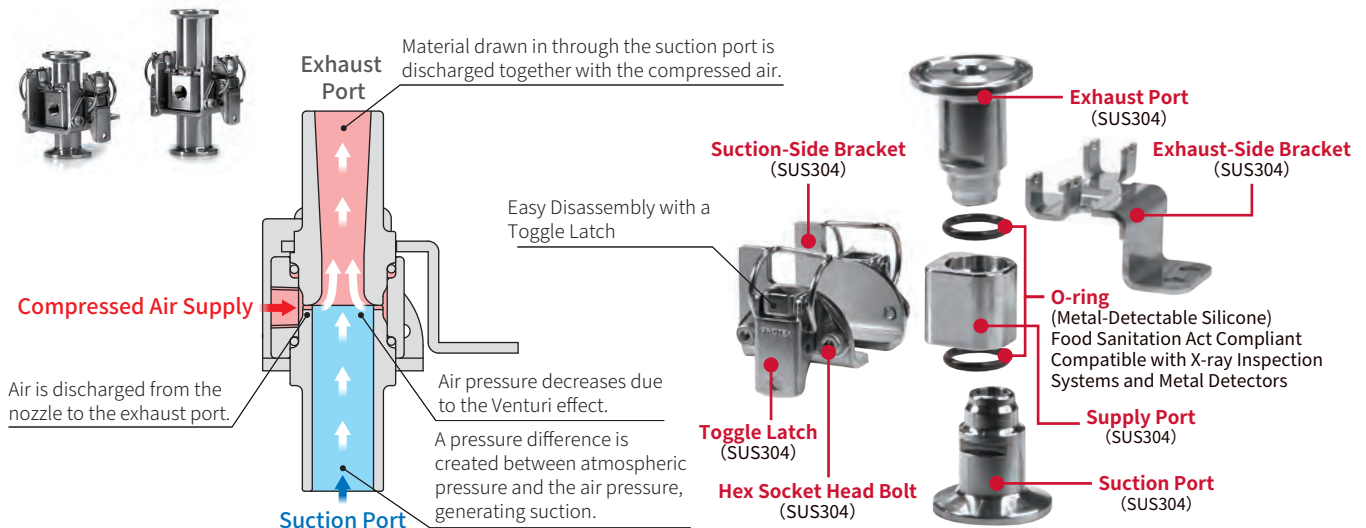
High-Flow Type

MVE

High Flow Type

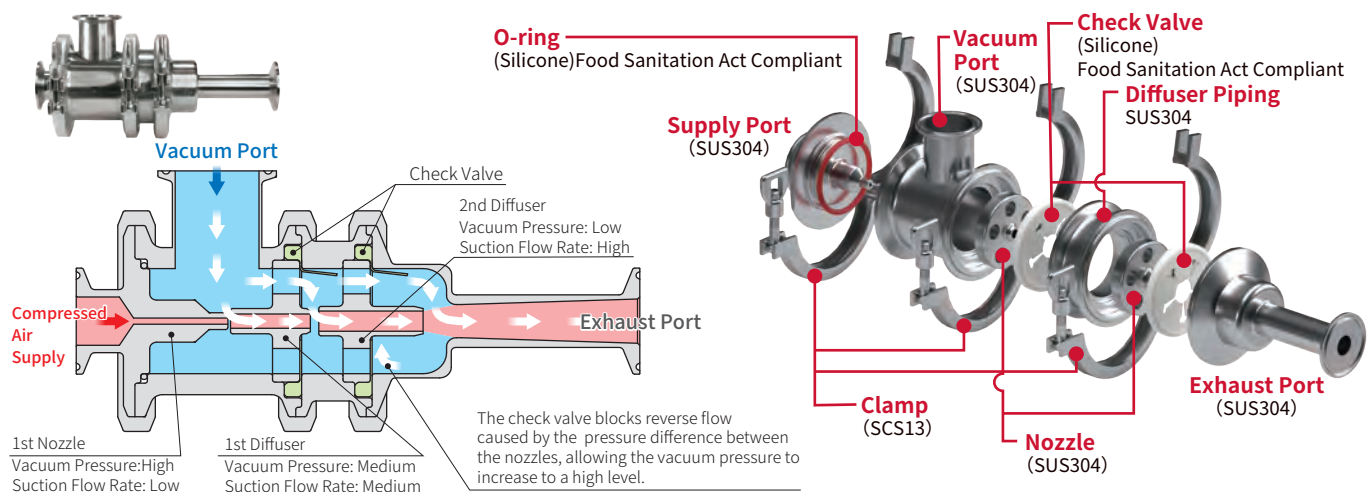
MVE

Flow Type Multistage

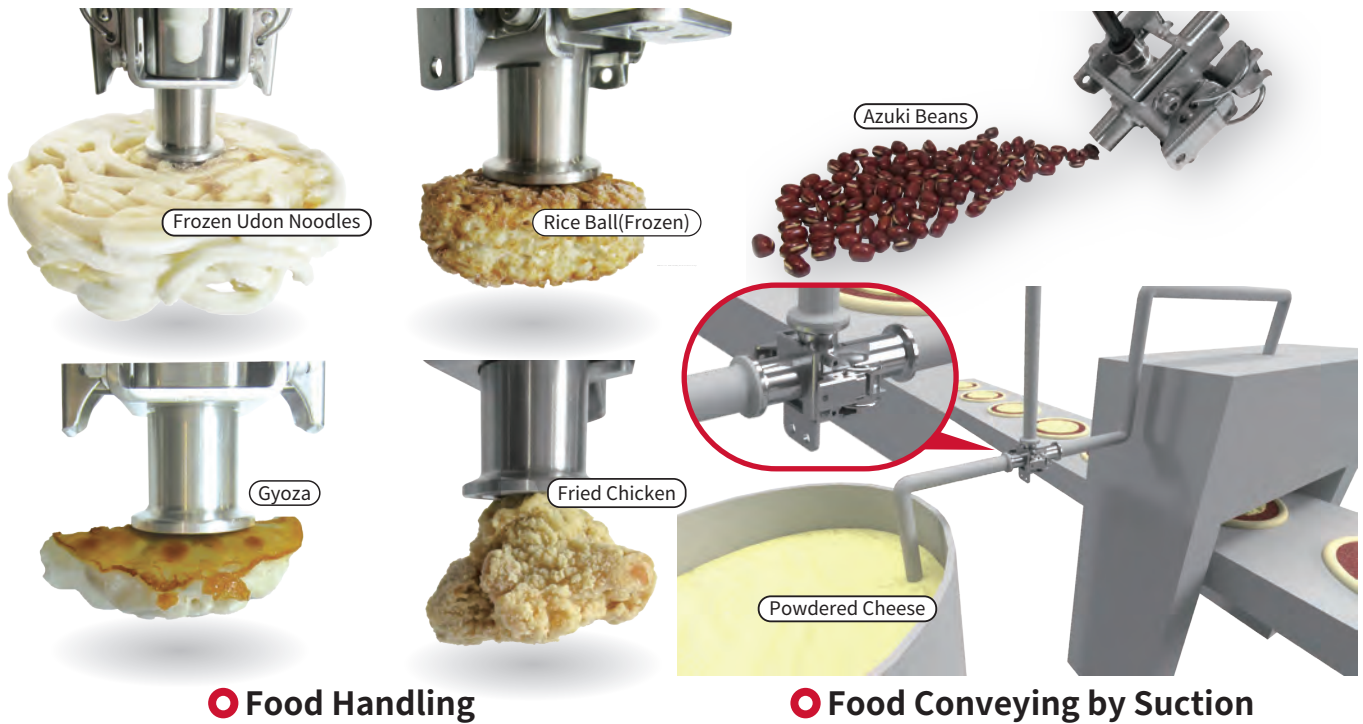


All metal parts are made of stainless steel, and because there are no rotating or moving parts unlike a vacuum pump, no dust is generated. The use of silicone rubber provides excellent heat resistance and allows sterilization by boiling or with sodium hypochlorite, making this a highly hygienic product.

Flow Type Multistage



The three-stage multi-nozzle design achieves both a high suction flow rate of 1000 L/min (ANR) and a high vacuum pressure of -90 kPa. This highly efficient design utilizes the exhaust from the high-vacuum-pressure nozzle as the supply pressure for the high-suction-flow-rate nozzle.



The High-Flow Type can be used as a vacuum handling unit by installing a suction cup.

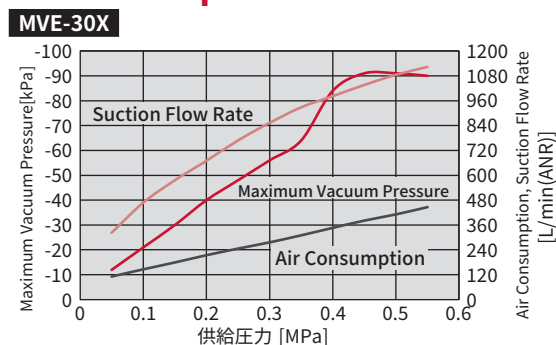


Model Number	Maximum Vacuum Pressure	Suction Flow Rate	Air Consumption
MVE-06	-18kPa	200L/min(ANR)	110L/min(ANR)
MVE-10	-14kPa	530L/min(ANR)	180L/min(ANR)

Note) Performance at a Supply Pressure of 0.5 MPa

Because the suction flow rate is high and the vacuum source is close to the suction cup, workpieces can be vacuum-held even when air permeability or leakage is present.

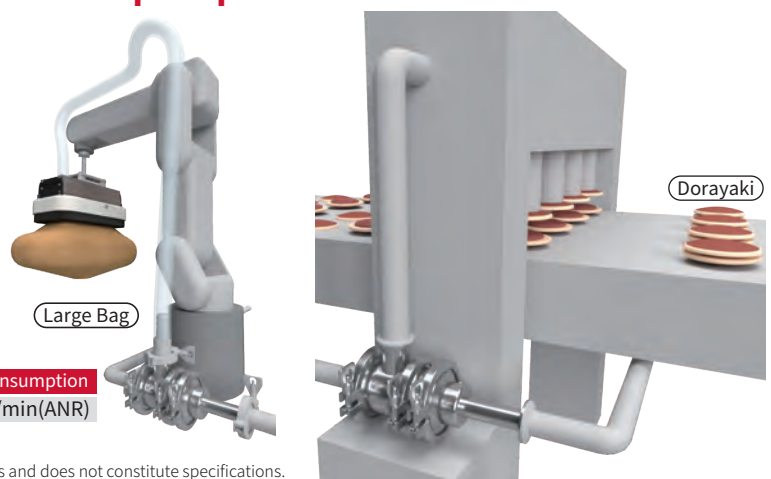
The Flow Type Multistage generates vacuum pressure and suction flow rate comparable to those of a vacuum pump.



Model Number	Maximum Vacuum Pressure	Suction Flow Rate	Air Consumption
MVE-30X	-90kPa	1000L/min(ANR)	450L/min(ANR)

Note) Performance at a Supply Pressure of 0.5 MPa.

The graph shows actual measured values obtained under our test conditions and does not constitute specifications.



Model Number(High-Flow Type)**MVE-06-RFF-SM**

①

②

③

① Size (Minimum Flow Passage Diameter)

06	Inner Diameter 6 mm
10	Inner Diameter 10 mm

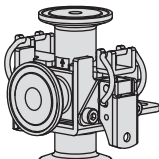
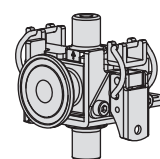
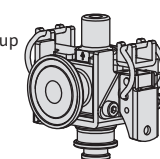
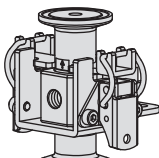
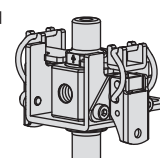
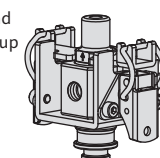
MVE-06-RFF-SM**MVE-10-RFF-SM**

② Exhaust Port

② Supply Port

② Suction Port

② Supply Port, Suction Port, and Exhaust Port Connection Configuratio

FFF	Supply Port: Ferrule Suction Port: Ferrule Exhaust Port: Ferrule		FSS	Supply Port: Ferrule Suction Port: Straight Exhaust Port: Straight		FPS	Supply Port: Ferrule Suction Port: Suction Cup Mounting Exhaust Port: Straight	
RFF	Supply Port: Pipe Thread Suction Port: Ferrule Exhaust Port: Ferrule		RSS	Supply Port: Pipe Thread Suction Port: Straight Exhaust Port: Straight		RPS	Supply Port: Pipe Thread Suction Port: Suction Cup Mounting Exhaust Port: Straight	

③ O-ring Material

SM	Metal-Detectable Silicone Rubber ^{Note 1)}
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Note 1) Compatible with X-ray Inspection Systems and Metal Detectors, Food Sanitation Act Compliant.

Specification

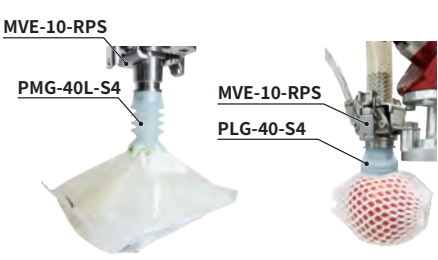
	Unit	MVE-06	MVE-10
Operating Fluid		Oil-Free Compressed Air	
Operating Temperature	°C	-40 ~ 180 (However, no freezing.)	
Operating Temperature	MPa	0.15 ~ 0.50	0.15 ~ 0.60
Maximum Vacuum Pressure	kPa	-18	-14
Suction Flow Rate	L/min(ANR)	200	530
Air Consumption	L/min(ANR)	110	180
Minimum Flow Passage Diameter	mm	6	10

Model Number List, Mass, and Maintenance Parts Compatibility Table

			Maintenance Parts Model Number List				
CODE	Model Number	Mass	Supply Port	Suction Port	Exhaust Port	O-ring	Bracket
204600002	MVE-06-FFF-SM	416g	MVE-06PF	MVE-06VF	MVE-06EF	MVE-06SM	MVE-06B
204600012	MVE-06-FSS-SM	336g		MVE-06VS	MVE-06ES		
204600008	MVE-06-FPS-SM	345g		MVE-06VP			
204600014	MVE-06-RFF-SM	389g	MVE-06PR	MVE-06VF	MVE-06EF		
204600024	MVE-06-RSS-SM	309g		MVE-06VS	MVE-06ES		
204600020	MVE-06-RPS-SM	318g		MVE-06VP			
204600026	MVE-10-FFF-SM	546g	MVE-10PF	MVE-10VF	MVE-10EF	MVE-10SM	MVE-10B
204600036	MVE-10-FSS-SM	418g		MVE-10VS	MVE-10ES		
204600032	MVE-10-FPS-SM	437g		MVE-10VP			
204600038	MVE-10-RFF-SM	526g	MVE-10PR	MVE-10VF	MVE-10EF		
204600048	MVE-10-RSS-SM	398g		MVE-10VS	MVE-10ES		
204600044	MVE-10-RPS-SM	417g		MVE-10VP			

Note) Models not listed in the Model Number List are not available for sale.

Applicable Suction Cups

Model Number	Suction Cup Series	Pad Model	Pad Diameter	Pad Material
MVE-06-□P□-SM	PLGseries Multi-Bellows	PLG	15 (Φ15)	S4: 40 Shore A Silicone Rubber S5: 50 Shore A Silicone Rubber SM: 55 Shore A Metal-Detectable Silicone Rubber
			20 (Φ20)	
			30 (Φ30)	
	PN-Gseries Low-Profile Two-Bellows	PNG	132B (Φ18)	
			133B (Φ25)	
			134B (Φ35)	
	PMGseries Star-Shaped Suction Cup	PMG	24 (Equivalent to Ø20)	
			40 (Equivalent to Ø30)	
MVE-10-□P□-SM	PLGseries Multi-Bellows	PLG	30 (Φ30)	
			40 (Φ40)	
	PMGseries Star-Shaped Suction Cup	PMG	40 (Equivalent to Ø30)	
			56 (Equivalent to Ø48)	

Maintenance Parts Model Number

Supply Port

MVE- 06 P R

① ②

①Size (Applicable Models)

06	MVE-06
10	MVE-10

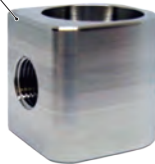
②Connection Type(Applicable Models)

R	Pipe Thread	MVE-□-R□□
F	Ferrule	MVE-□-F□□

Model Number List and Mass

CODE	Model Number	Mass
218000792	MVE-06PR	59g
218000793	MVE-06PF	86g
218000799	MVE-10PR	85g
218000800	MVE-10PF	105g

Supply Port
MVE-06-PR



Exhaust Port

MVE- 06 E S

① ②

①Size (Applicable Models)

06	MVE-06
10	MVE-10

②Connection Type(Applicable Models)

S	Straight	MVE-□-□□F
F	Ferrule	MVE-□-□□F

Model Number List and Mass

CODE	Model Number	Mass
218000797	MVE-06ES	35g
218000798	MVE-06EF	80g
218000804	MVE-10ES	78g
218000805	MVE-10EF	158g

Exhaust Port
MVE-06-EF



Suction Port

MVE- 06 V S

① ②

①Size (Applicable Models)

06	MVE-06
10	MVE-10

②Connection Type(Applicable Models)

S	Straight	MVE-□-□S□
F	Ferrule	MVE-□-□F□
P	Suction Cup Mounting	MVE-□-□P□

Model Number List and Mass

CODE	Model Number	Mass
218000794	MVE-06VS	32g
218000795	MVE-06VF	67g
218000796	MVE-06VP	41g
218000801	MVE-10VS	59g
218000802	MVE-10VF	107g
218000803	MVE-10VP	78g

Suction Port
MVE-06-VF



O-ring (2 pcs)

MVE- 06 SM

① ②

①Size (Applicable Models)

06	MVE-06
10	MVE-10

②O-ring Material

SM	Silicone ^{Note 1)}
----	-----------------------------

Note 1) Compatible with X-ray Inspection Systems and Metal Detectors, Food Sanitation Act Compliant

Model Number List and Mass

CODE	Model Number	Mass
218000806	MVE-06SM	1g
218000808	MVE-06SM	2g

O-ring (2 pcs)^{Note 2)}
MVE-06-SM



Note 2) O-rings are supplied as a set of two, one for the suction port and one for the exhaust port. The suction port and exhaust port use O-rings of the same size.

Bracket

MVE- 06 B

①

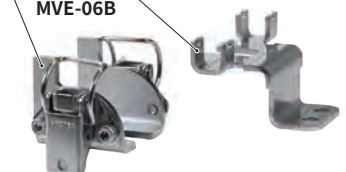
①Size (Applicable Models)

06	MVE-06
10	MVE-10

Model Number List and Mass

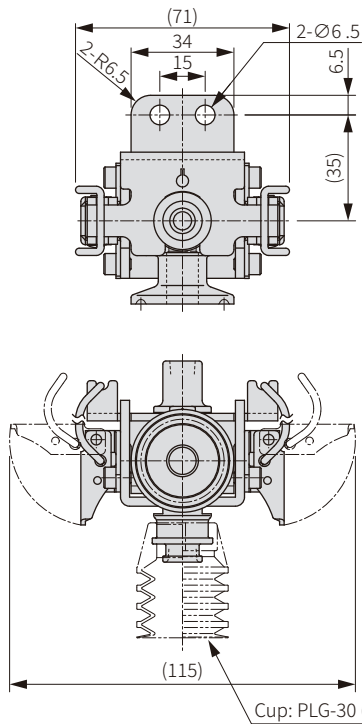
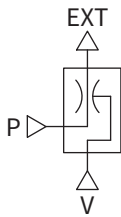
CODE	Model Number	Mass
218000810	MVE-06B	182g
218000811	MVE-10B	174g

Bracket
MVE-06B

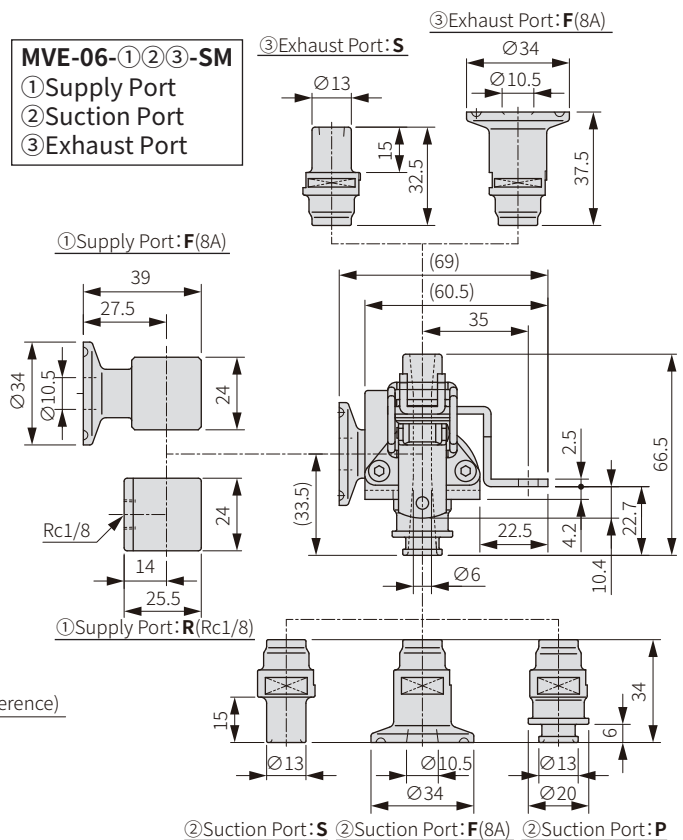


Dimensions

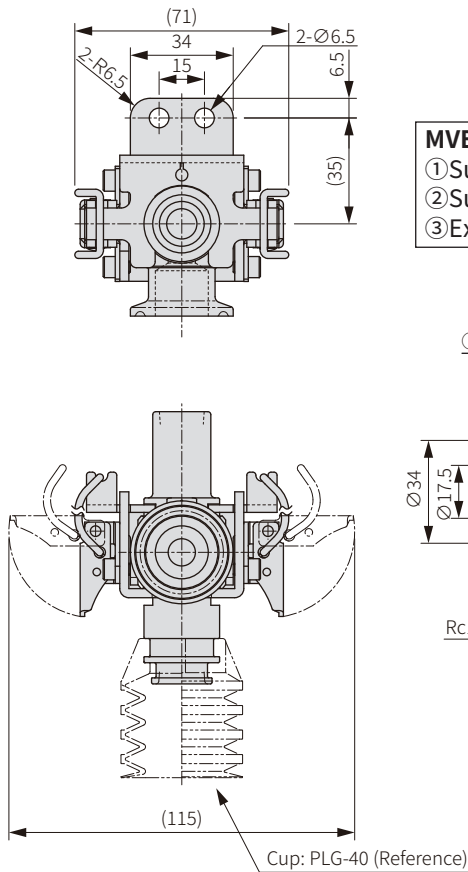
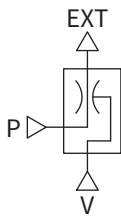
MVE-06



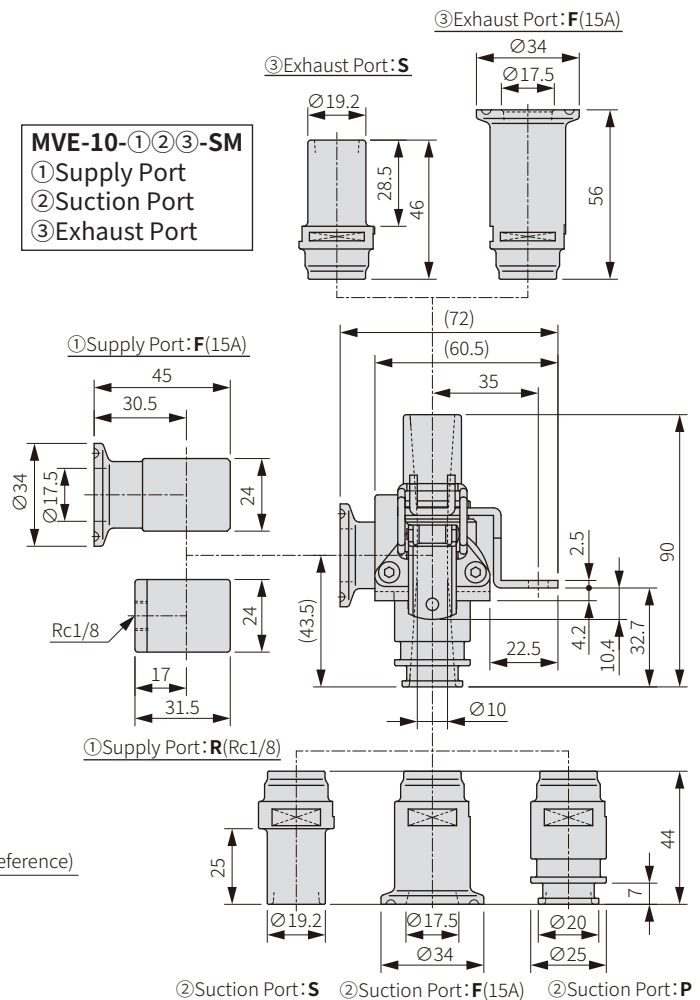
MVE-06-①②③-SM
 ① Supply Port
 ② Suction Port
 ③ Exhaust Port



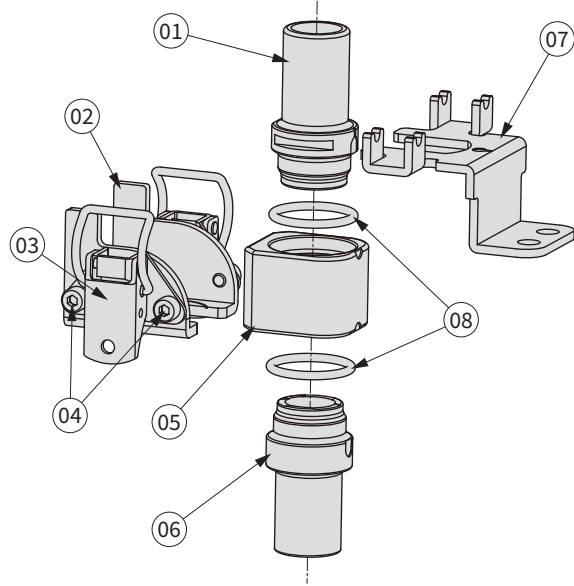
MVE-10



MVE-10-①②③-SM
 ① Supply Port
 ② Suction Port
 ③ Exhaust Port



Structure Diagram

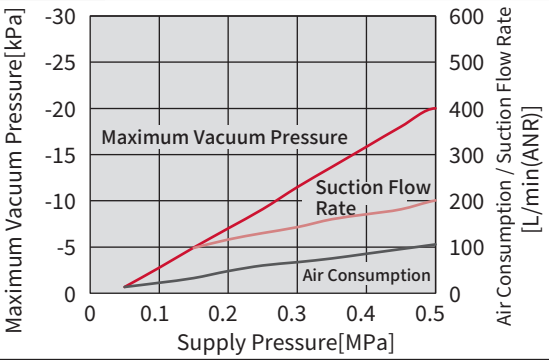


	Part Name	Material
01	Exhaust Port	SUS304
02	Suction-Side Bracket	SUS304
03	Toggle Latch	SUS304
04	Bolt	SUS304
05	Supply Port	SUS304
06	Suction Port	SUS304
07	Exhaust-Side Bracket	SUS304
08	O-ring	Silicone ^{Note 1)}

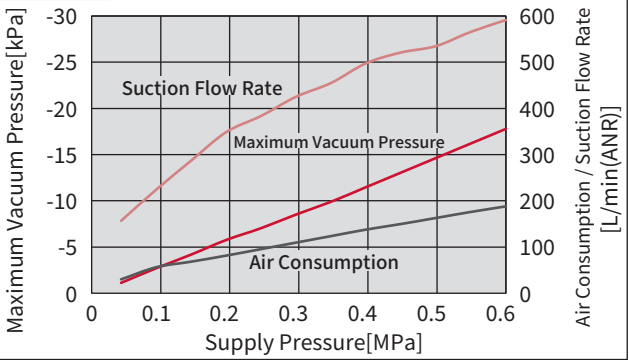
Note 1) Detectable by X-ray Inspection Systems and Metal Detectors, Food Sanitation Act Compliant

Performance Graph

MVE-06



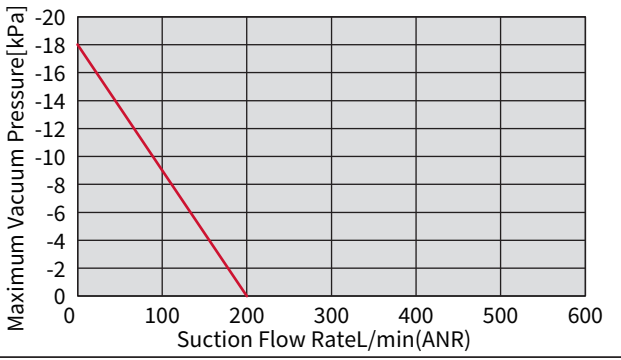
MVE-10



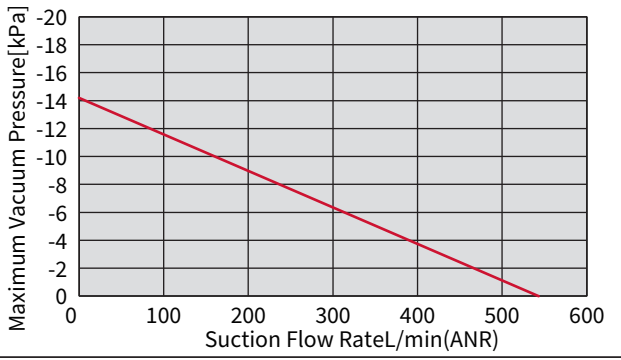
Note) The data are actual measured values obtained under our test conditions and are not specifications.
Please use them as reference values for product selection and operation.

Suction Flow Rate - Vacuum Pressure Characteristics

MVE-06



MVE-10



Note) The data are actual measured values obtained under our test conditions and are not specifications.
Please use them as reference values for product selection and operation.

MVE

High Flow Type

MVE

Flow Type Multistage

Model Number(Flow Type Multistage)**MVE-30X**

①

① Ejector Nozzle Specifications**30X** 3 mm Nozzle Diameter, Multi-Stage Nozzle**Model Number List and Mass**

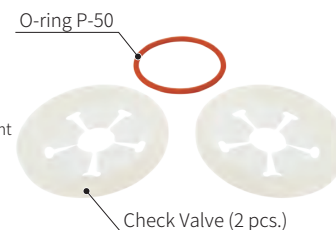
CODE	Model Number	Mass
204600049	MVE-30X	4.2kg

Specifications

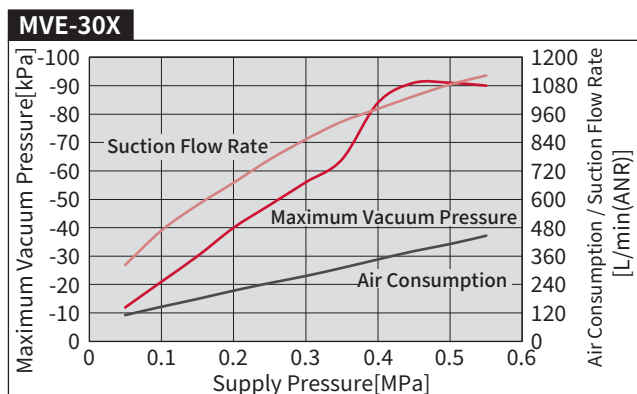
	Unit	MVE-30X
Operating Fluid		Oil-Free Compressed Air
Operating Temperature	°C	0 ~ 50 (However, freezing must not occur.)
Operating Pressure Range	MPa	0.1 ~ 0.6
Rated Pressure	MPa	0.5
Maximum Vacuum Pressure	kPa	-90
Suction Flow Rate	L/min(ANR)	1000
Air Consumption	L/min(ANR)	450

Maintenance Parts Model Number**O-ring and Check Valve Set****MVE-30X-PAC**

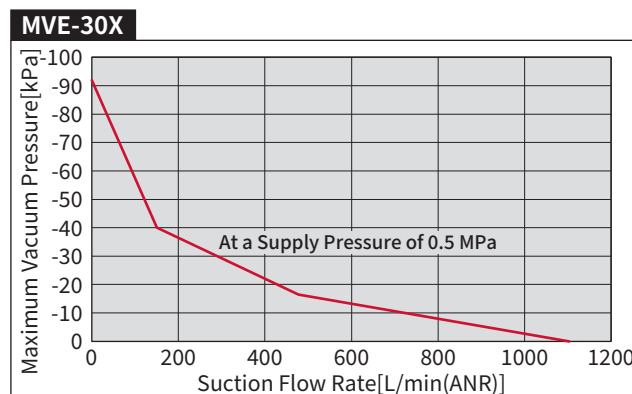
Material: Silicone Rubber
Food Sanitation Act Compliant

**Model Number List and Mass**

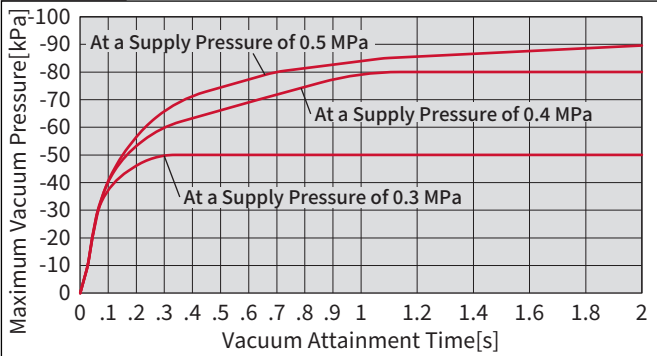
CODE	Model Number	Mass
218000814	MVE-30X-PAC	53g

Performance Graph

Note) The data are actual measured values obtained under our test conditions and are not specifications.
Please use them as reference values when selecting or using the product.

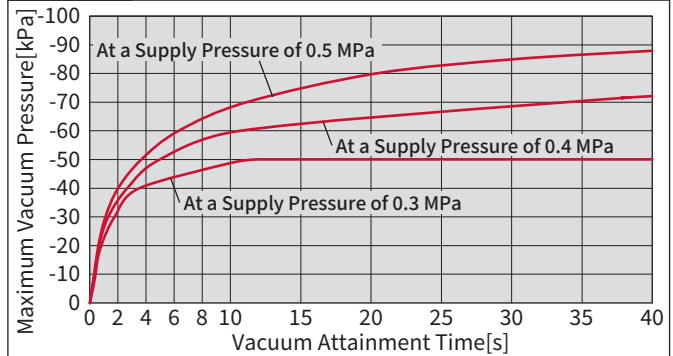
Suction Flow Rate - Vacuum Pressure Characteristics

MVE-30X



Conditions) Connected to a ferrule pipe with ferrules on both ends using clamps.
Ferrule size: 1.5S
Pipe inner diameter: Ø35.7 mm
Pipe length: 1 m
Pipe volume: 1 L
Measured from the moment compressed air was supplied.
Note) The data are actual measured values obtained under our test conditions and are not specifications.
Please use them as reference values when selecting or using the product.

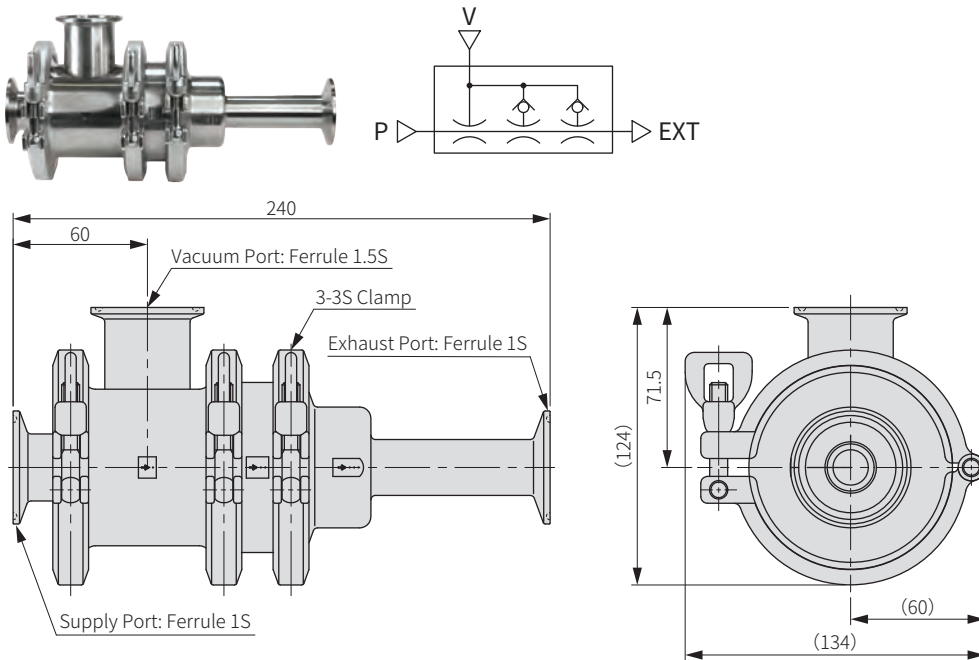
MVE-30X



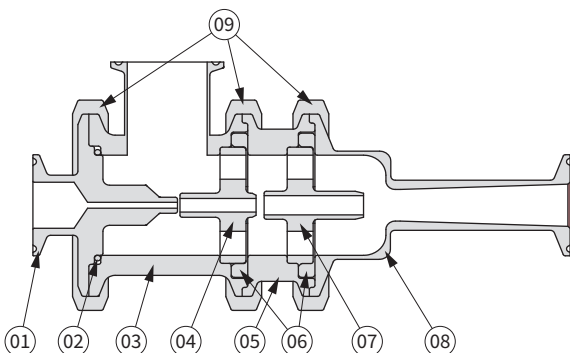
Conditions) Connected to a 39 L air tank via an Rc 1/2 pipe thread connection.
Measurement was taken from the moment compressed air was supplied.
Note) The data are actual measured values obtained under our test conditions and are not specifications.
Please use them as reference values when selecting or using the product.

Dimensions

MVE-30X



Structure Drawing



	Part Names	Material
01	Part Names	SUS304
02	O-ring	Silicone (Compliant with the Food Sanitation Act)
03	Vacuum Port	SUS304
04	1st Diffuser	SUS304
05	Diffuser Piping Section	SUS304
06	Check Valve	Silicone (Compliant with the Food Sanitation Act)
07	2nd Diffuser	SUS304
08	3rd Diffuser	SUS304
09	Clamp	SCS13



Official website

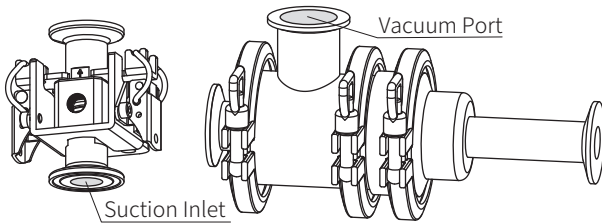
Before use, be sure to read the "For Safe Use" section in this catalog, the "General Precautions" and "Common Precautions for CONVUM Products" in the General Catalog, as well as the Instruction Manual for this product.

<https://www.convum.co.jp/english/index.html>

Precautions for Use

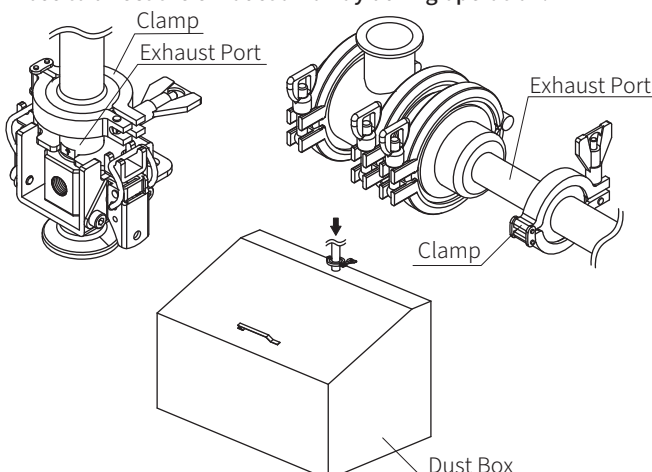
⚠ Warning

- Use clean air.
Do not use compressed air containing corrosive gases, chemicals, salt, or other contaminants, as they may cause damage or air leakage.
- Do not perform maintenance on the product or bring your hands near the suction inlet or vacuum port while the ejector is operating.
Because this product has a large port diameter and a high suction flow rate, there is a risk of injury due to being drawn into the suction flow.
When performing maintenance, be sure to stop the supply of compressed air before starting any work.



⚠ Caution

- When using this product at low temperatures (5°C or below), take measures such as installing an air dryer to prevent condensate or moisture in the compressed air from freezing. Moisture in the air discharged from the nozzle may freeze, resulting in reduced vacuum performance.
- This product is designed to discharge through the exhaust port whatever is drawn in through the suction inlet. Therefore, do not direct the exhaust port toward people or equipment.
If the purpose is not to convey powders or other materials through the ejector, it is recommended to connect the exhaust port to a dust box using a hose or sanitary piping.
- This product is not equipped with any sound-absorbing material or silencer for ease of cleaning and operational reasons. Therefore, exhausting air directly to the atmosphere may generate a high level of noise. Attach an exhaust pipe or hose to direct the exhaust air away during operation.



Piping

⚠ Caution

- If the piping connected to the suction inlet or exhaust port is too small, performance will be reduced due to piping resistance.
Do not use piping with a reduced inner diameter.
In addition, elbow fittings and excessively long piping can also cause performance degradation and should be avoided whenever possible.

Maintenance and Inspection

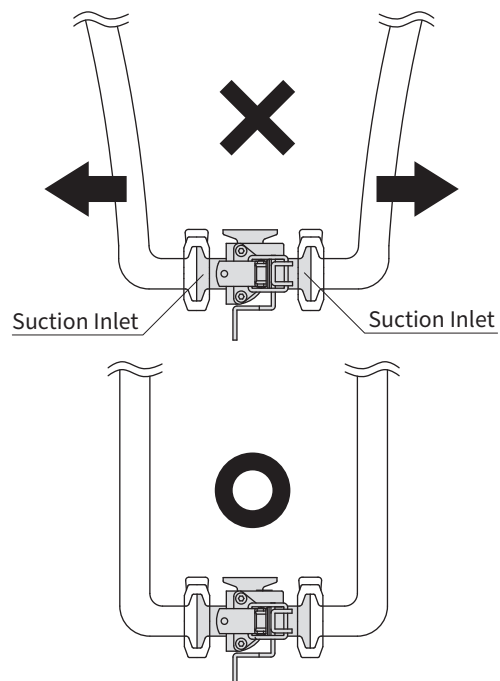
⚠ Caution

- This product is intended for sterilization by boiling in hot water and by disinfection using sodium hypochlorite. If any other chemicals are used, verify the materials of this product and confirm their chemical resistance before use.
- Handle all parts with care during cleaning to prevent damage caused by dropping or impact.
In addition, do not use abrasive materials or metal brushes, as they may scratch functional components and reduce product performance.

Piping

⚠ Caution

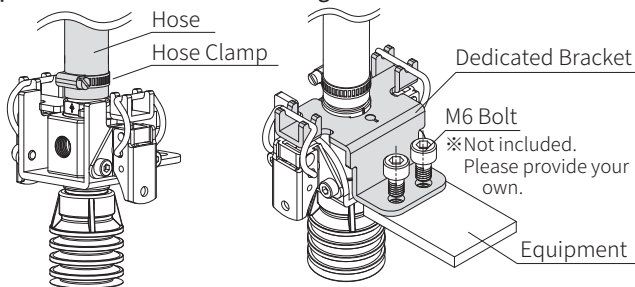
- Do not use incorrect piping or piping that applies excessive stress to the product. In particular, when using sanitary clamp connections, ensure that no force is applied that would pull the suction inlet and exhaust port away from each other. Excessive force on the clamp latch may damage the product.



Mounting Method

⚠ Warning

- Be sure to securely mount the product using the dedicated bracket.
- Improper mounting methods or insufficient installation may result in reduced performance or cause the ejector to come loose, potentially leading to injury or damage to equipment.
- When connecting a hose to the suction inlet or exhaust port, be sure to secure it firmly with a hose clamp or similar device to prevent the hose from becoming disconnected.

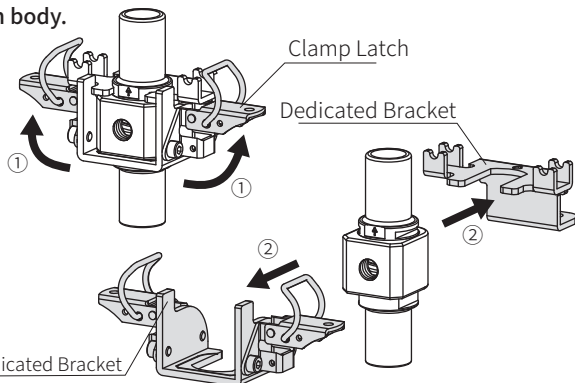


Disassembly Procedure

⚠ Warning

- To prevent damage to parts caused by dropping, take appropriate precautions such as performing the work on a workbench.

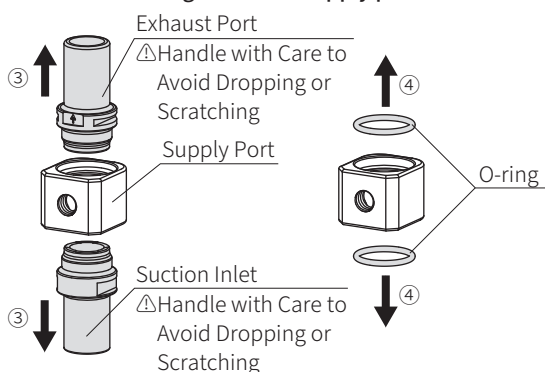
- ① Release the clamp latch by lifting it.
- ② Remove the dedicated bracket by pulling it away from the main body.



Note) The suction inlet and exhaust port are critical functional components.

Handle them with care to avoid dropping, scratching, or otherwise damaging them.

- ③ Remove the suction inlet and exhaust port from the supply port by pulling them away.
- ④ Remove the two O-rings from the supply port.

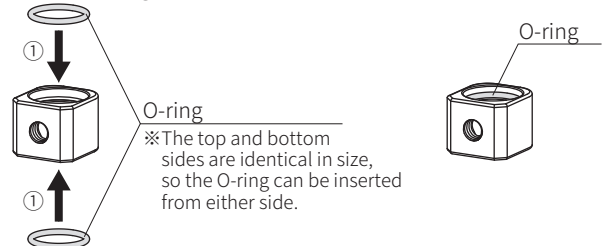


Assembly Procedure

⚠ Warning

- Follow the assembly procedure.
- Failure to do so may result in incorrect installation orientation or damage to components.
- To prevent damage to parts caused by dropping, take appropriate precautions, such as performing the assembly work on a workbench.

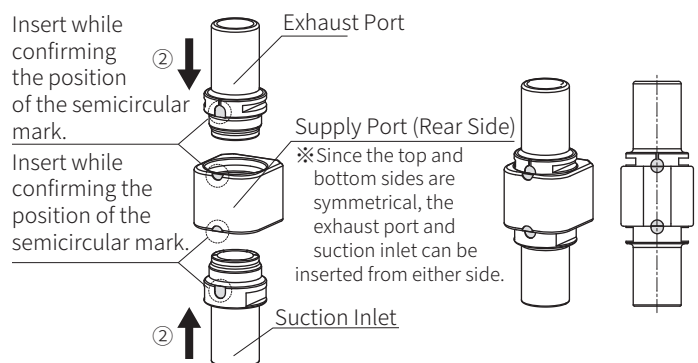
- ① Insert the O-rings into the supply port.



Note) Be sure to perform Step ① first.

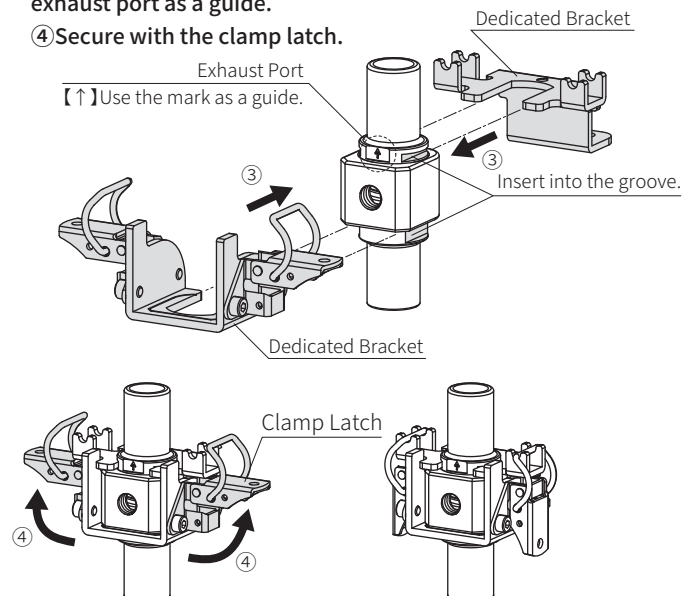
Failure to do so may cause the O-ring to become twisted, resulting in malfunction due to leakage or damage caused by the O-ring being cut.

- ② Insert the exhaust port and suction inlet into the supply port, aligning the semicircular marks on the rear side of the supply port.



- ③ Insert the dedicated bracket using the [↑] mark on the exhaust port as a guide.

- ④ Secure with the clamp latch.





Official website

Before use, be sure to read the "For Safe Use" section in this catalog, the "General Precautions" and "Common Precautions for CONVUM Products" in the General Catalog, as well as the Instruction Manual for this product.

<https://www.convum.co.jp/english/index.html>

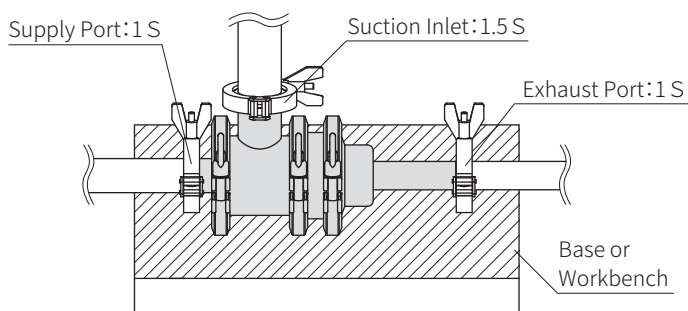
Installation and Removal

⚠ Danger

- When installing or removing the product from piping, always take measures to prevent it from falling. Because the product is heavy, dropping it may cause personal injury or damage to other equipment or the product itself. We recommend that the work be performed by two or more people.

⚠ Caution

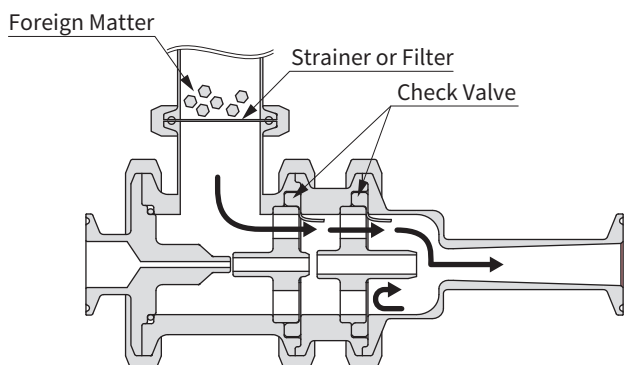
- Prepare a sanitary clamp of the appropriate size for the supply port, exhaust port, and suction inlet, and secure each connection firmly.



Precautions for Use

⚠ Caution

- Because this product is equipped with a check valve, vacuum pressure may decrease if foreign matter becomes trapped in the check valve. If there is a possibility that large or long foreign objects may be sucked in, take appropriate measures by installing a strainer or filter at the vacuum port.

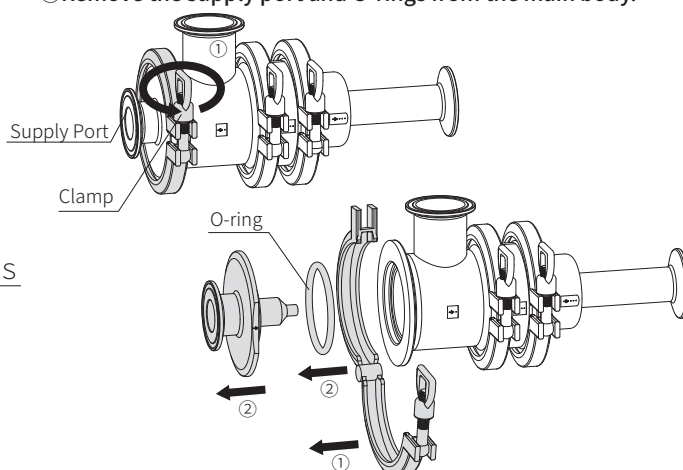


Disassembly Procedure

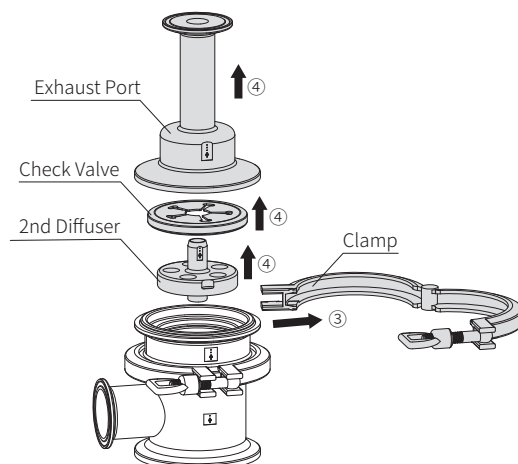
⚠ Warning

- Take appropriate precautions to prevent injury to personnel or damage to other equipment and components caused by falling parts.

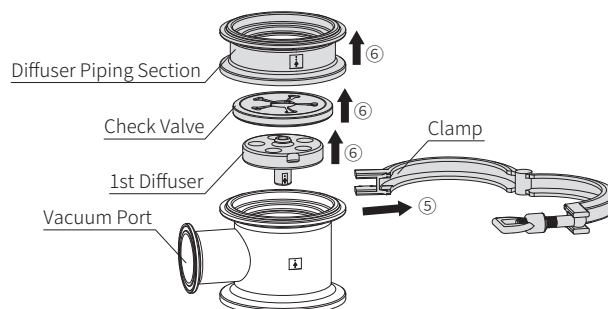
- Remove the clamp from the supply port.
- Remove the supply port and O-rings from the main body.



- Turn the product upright, then remove the clamp from the exhaust port.
- Remove the exhaust port, check valve, and 2nd diffuser.



- Remove the clamp from the vacuum port.
- Remove the diffuser piping section, the 1st diffuser, and the check valve.

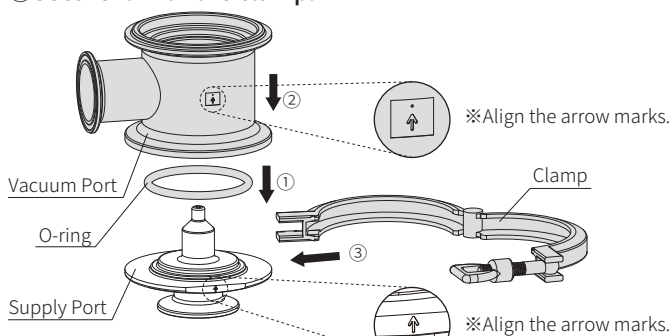


Assembly Procedure

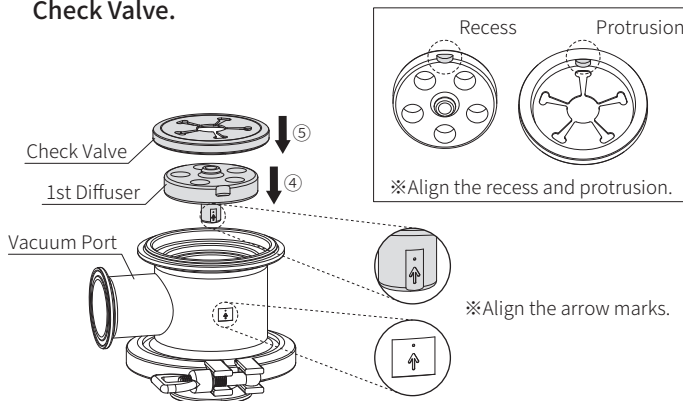
⚠ CAUTION

- If the orientation of the parts is incorrect, assembly cannot be completed. Be sure to assemble the parts with the correct orientation.

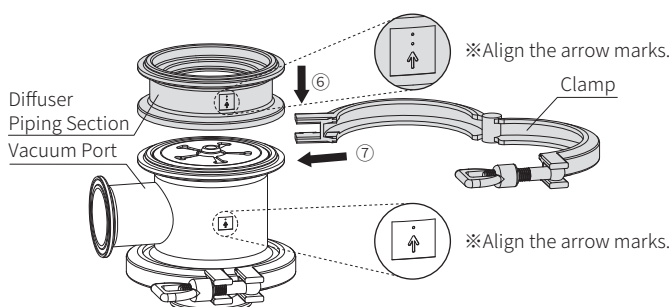
- ① Install the O-ring on the supply port.
- ② Align the supply port and vacuum port so that the direction of the [↑] marks matches.
- ③ Secure it with the clamp.



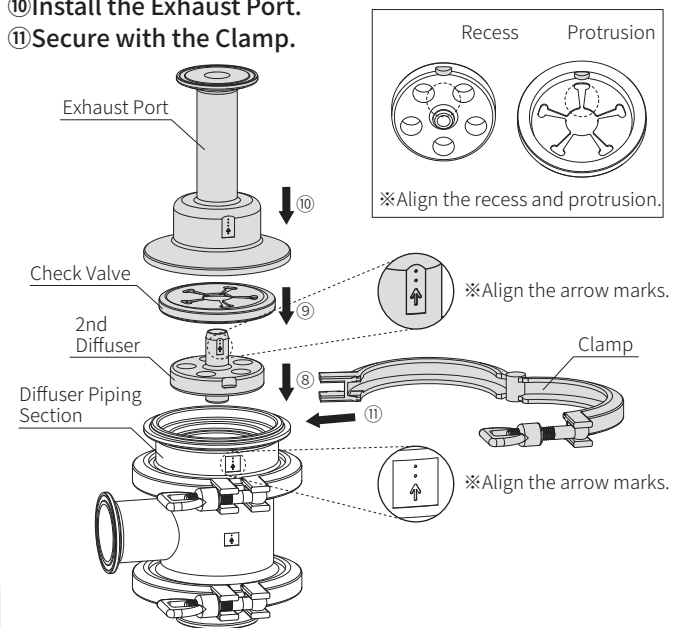
- ④ Insert the 1st Diffuser into the Vacuum Port so that the [↑] mark on the 1st Diffuser matches the [↑] mark on the Vacuum Port.
- ⑤ Insert the Check Valve into the 1st Diffuser, aligning the recess on the 1st Diffuser with the protrusion on the Check Valve.



- ⑥ Position the Diffuser Piping Section against the Vacuum Port so that the [↑] mark on the Diffuser Piping Section matches the [↑] mark on the Vacuum Port.
- ⑦ Secure it with the Clamp.



- ⑧ Insert the 2nd Diffuser so that the [↑] marks on the 2nd Diffuser and Diffuser Piping Section are aligned.
- ⑨ Insert the Check Valve into the 2nd Diffuser, aligning the recess on the 2nd Diffuser with the protrusion on the Check Valve.
- ⑩ Install the Exhaust Port.
- ⑪ Secure with the Clamp.



MVE

High Flow Type

MVE

Flow Type Multistage

Safety Instructions

Be sure to read these precautions before use.

Also read and understand the safety instructions provided for each product series.

These safety instructions are intended to prevent personal injury and damage to equipment.
Potential hazards are classified using the labels[DANGER],[WARNING], and[CAUTION].
All of these notices are important and must be observed.

 **DANGER** DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING** WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION** CAUTION indicates a hazardous situation which, if not avoided, may result in minor or moderate injury, or property damage.

Please also refer to JIS B 8370*¹ and ISO 4414*². Please comply with the Industrial Safety and Health Law, the High Pressure Gas Safety Act, and other applicable safety regulations.

* 1 JIS B 8370 : Pneumatic fluid power — General rules relating to systems.

* 2 ISO 4414 : Pneumatic fluid power — Recommendations for the application of equipment to transmission and control systems.

Even the matters described under [CAUTION] may result in serious consequences depending on the circumstances.

All of these notices are important and must be observed.

WARNING

● Vacuum and pneumatic equipment shall be selected properly.

The compatibility of the vacuum and pneumatic equipment is the responsibility of the person who designs the equipment or decides its specifications.

Since the products specified here are used under various operating conditions, its compatibility with specific equipment must be decided by the person who designs the equipment or decides its specifications based on necessary analysis and test results.

The expected performance and safety assurance of the equipment will be the responsibility of the person who has determined its compatibility with the product.

This person should also continuously review all specifications of the product referring to its latest catalog information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

● Only personnel with appropriate training should operate machinery and equipment.

Inappropriate usage or handling may cause injury, equipment damage or indirect damage.

Vacuum and pneumatic equipment is intended for industrial use. The assembly, operation and maintenance of machinery or equipment including our products must be performed by an operator who is appropriately trained and experienced.

● Do not operate or reinstall the equipment or machine without first performing a safety check.

• When inspecting or adjusting the equipment, make sure to take measures against the dropping or uncontrolled movements of the actuators.

• Before reinstallation, make sure to switch off power and compressed air supply.

• Before restart, make sure that no parts can break off.

● Use this pneumatic equipment only in accordance with the specifications.

Contact CONVUM when using it outside the specifications.

• Environments outside the specifications, like using in outdoor applications.

• nuclear energy, railways, airplanes, railway cars, ships, medical equipment, food or beverage processing equipment, pharmaceutical equipment, emergency, cutout and similar devices with security issues.

• All machinery which in case of wrong handling or operating might pose hazardous effects on human life or property.

Warranty and Disclaimer

1. Warranty

① If a failure occurs during the warranty period and is determined to be the responsibility of CONVUM, we will provide a replacement product or the necessary replacement parts free of charge, or repair the product free of charge.

② The warranty period for our products is one year from the start of operation or 18 months from the date of delivery, whichever comes first.

However, some products may have specified durability limits, such as operating cycles or sliding distance. For details, please contact our Customer Support Center.

③ The suction cup is a consumable component. Therefore, the one-year warranty period from the start of operation does not apply, and the warranty period is one year from the date of delivery.

However, deterioration of the rubber material or wear resulting from the use of the suction cup is not covered by the warranty, even during the warranty period.

2. Disclaimer

① The warranty does not apply in the following cases:

• Use outside the specifications stated in this catalog or other specification documents.

• Failures caused by factors other than this product.

• Failures or damage resulting from modifications or any other causes not attributable to CONVUM.

• Failures caused by factors that could not reasonably have been foreseen based on the state of technical knowledge at the time of delivery.

• Failures or damage caused by natural disasters, accidents, actions of third parties, intentional acts or negligence by the customer, or other force majeure events.

② This warranty applies only to the product itself and does not cover any indirect, incidental, or consequential damages resulting from product failure.

Specifications are subject to change without notice.

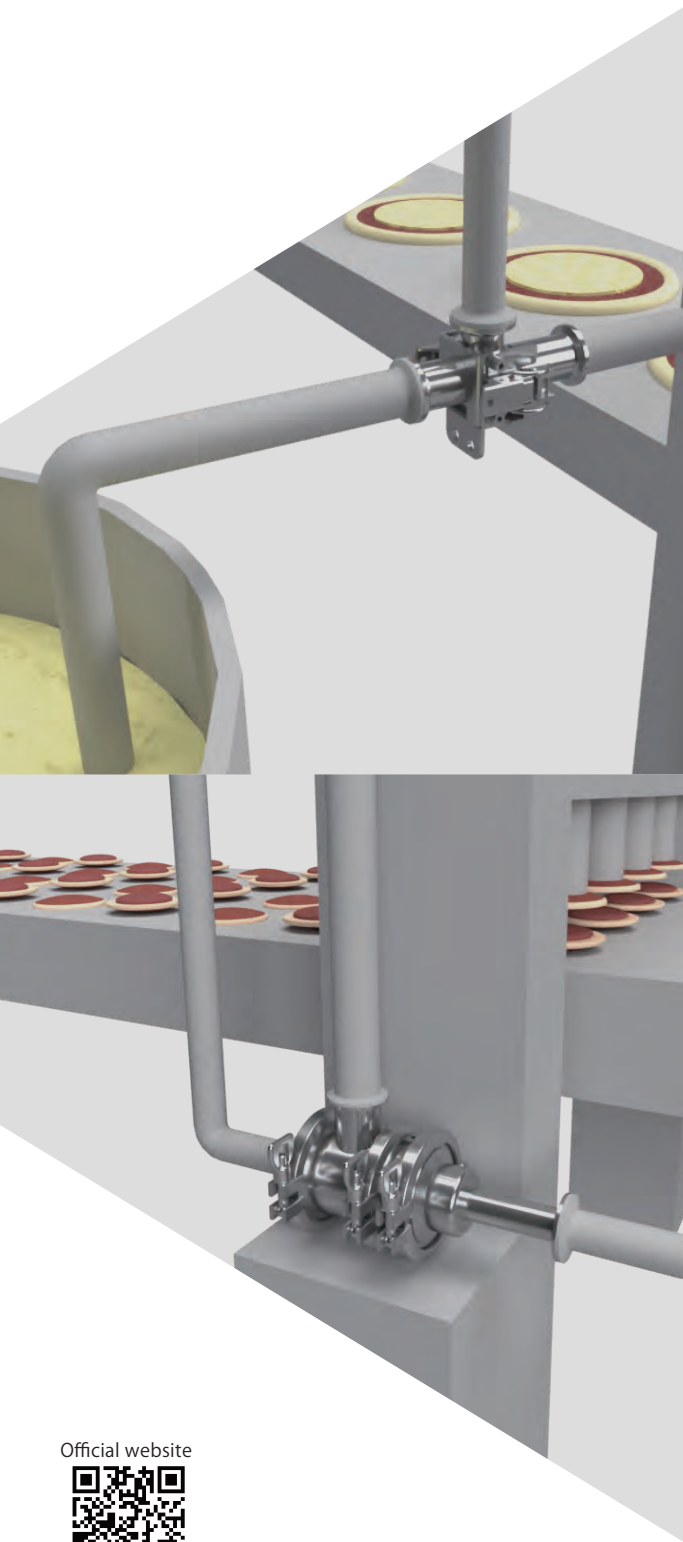
For operating instructions and precautions, refer to our catalog and instruction manual.

For delivery lead times, please contact our Customer Support Center.

CONVUM Ltd.

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TEL +81-3-5741-7201

Contact Information
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Official website



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2025.9.12