

CONVUM

SGR
series

Compact Suction Hand for Bag Handling



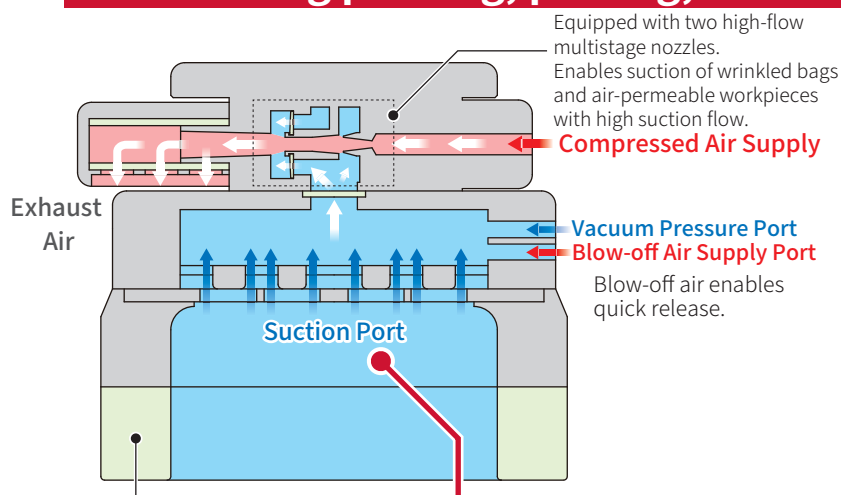
Compact Suction Hand for Bag Handling

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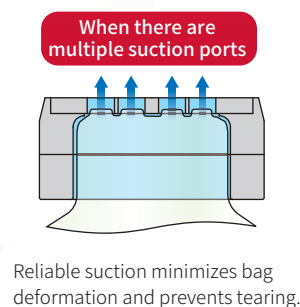
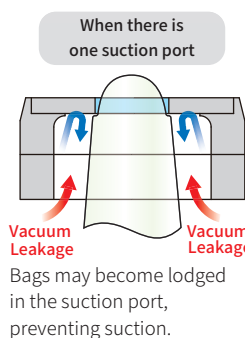


Enables suction of highly deformable bag workpieces that were difficult to handle.

Ideal for bag packing, picking, and unpacking operations.



The soft sponge conforms to the uneven surfaces of contents and wrinkles in bags to prevent vacuum leakage.



○ Suction of Vegetable Bags ○ Suction of Liquid-Filled Bags ○ Suction of Parts Bags

It becomes possible to suction various types of bag workpieces with one hand without changing tools, reducing setup time required for replacing suction hands and adjusting suction pad positions.

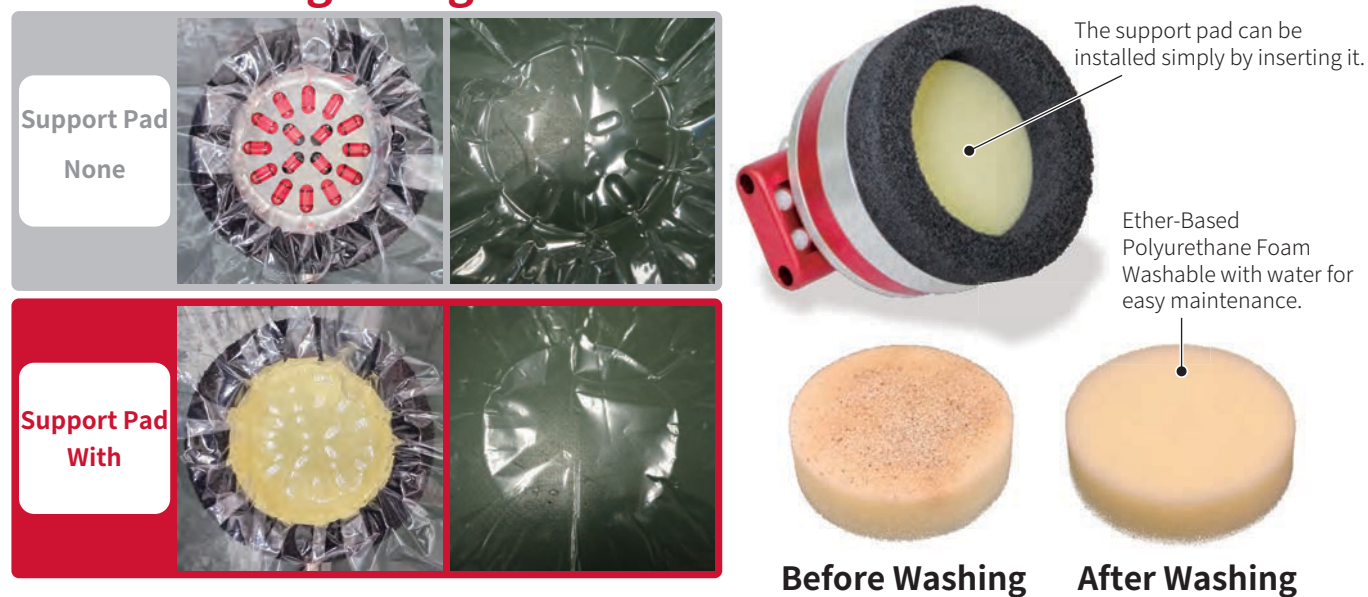
Available in Ø80 and Ø100 sizes.

Equipped with a water-resistant and hydrolysis-resistant EPDM sponge pad.

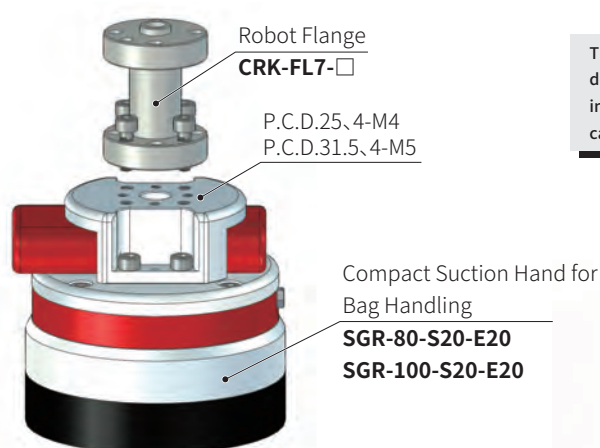


The use of a support pad reduces damage to bags.

Its breathable structure also allows it to be used as a filter for removing foreign matter.



Compatible with CRKT robot flanges for easy mounting to robots.



The protrusion-free design is ideal for packing into and picking from cardboard boxes.



Model Number

SGR- 80 -S20-E20

①

②

③

① Pad Outside Diameter

80	Outside Diameter 80mm
100	Outside Diameter 100mm

② Spacer Height

S20	20mm
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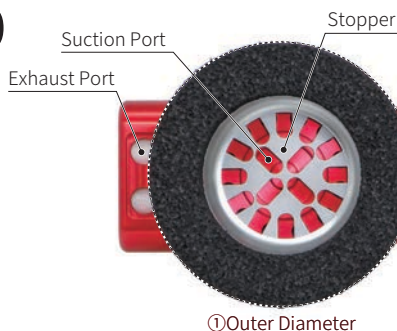
③ Pad Material / Thickness

	Material	Hardness	Color	Heat Resistance ^{Note 1)}	Thickness
E20	EPDM	40N (40% Compression)	Black	-30~90°C	20mm

Note 1) The heat resistance values apply only to the rubber material.
Performance may vary near the upper and lower temperature limits.
Please conduct testing under actual operating conditions.
The operating ambient temperature range for the compact hand for bag handling is 0 to 50°C.



Note) The support pad is supplied pre-installed on the main unit.
If the support pad is not required, remove it before use.



② Spacer Height

③ Pad Thickness



① Outer Diameter

Equipment Mounting Section

Supply Port

Vacuum Pressure Port
Blow-off Air Supply Port

SGR-100-S20-E20

SGR-80-S20-E20

Specifications

		Unit	SGR-80	SGR-100
Applicable Fluid			Non-Lubricated Compressed Air	
Ambient Temperature Range		°C	0 ~ 50 (Provided that freezing does not occur.)	
Operating Pressure Range		MPa	0.15 ~ 0.55	
Built-in Ejector Performance	Rated Pressure	MPa	0.42	
	Maximum Vacuum Pressure	kPa	-88	
	Suction Flow Rate	L/min(ANR)	200	
	Air Consumption	L/min(ANR)	190	
Exhaust Noise Level		dB(A)	90	
Mounting Dimensions		mm	P.C.D.25 (4-M4) 、P.C.D.31.5 (4-M5)	

Model Number List / Mass

CODE	Model Number	Mass
503200001	SGR-80-S20-E20	517g
503200002	SGR-100-S20-E20	661g

Spare Parts Model Numbers

Silencer Element (2 pcs.)

SGR-SE

Note) SGR-80/100 These are common parts.

Silencer Element
SGR-SE

Model Number List and Mass

CODE	Model Number	Mass
518000193	SGR-SE	0.2g

Spare Parts Model Numbers

Replacement Ring Pad (with Double-Sided Tape)

SGR-80-E20

① ②

① Pad Outside Diameter

80	SGR-80-□
100	SGR-100-□

② Pad Material / Thickness

	Material	Hardness	Color	Heat Resistance ^{Note 1)}	Thickness
E20	EPDM	40N (40%Compression)	Black	-30~90°C	20mm

Note 1) The heat resistance values apply only to the rubber material.
The operating ambient temperature range for the compact hand for bag handling is 0 to 50°C.

Model Number List / Mass

CODE	Model Number	Mass
518000189	SGR-80-E20	7g
518000190	SGR-100-E20	10g



Support Pad

SGR-80-P20

① ②

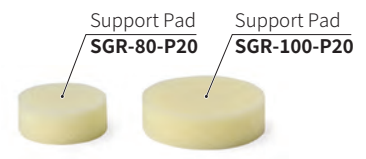
① Pad Outside Diameter

80	SGR-80-□
100	SGR-100-□

② Pad Material / Thickness

	Material	Hardness	Color	Heat Resistance ^{Note 2)}
P20	Ether-Based Polyurethane Foam	110N (40%Compression)	Light Yellow	-20~70°C
	Thickness			20mm

Note 2) The heat resistance values apply only to the rubber material.
The operating ambient temperature range for the compact hand for bag handling is 0 to 50°C.

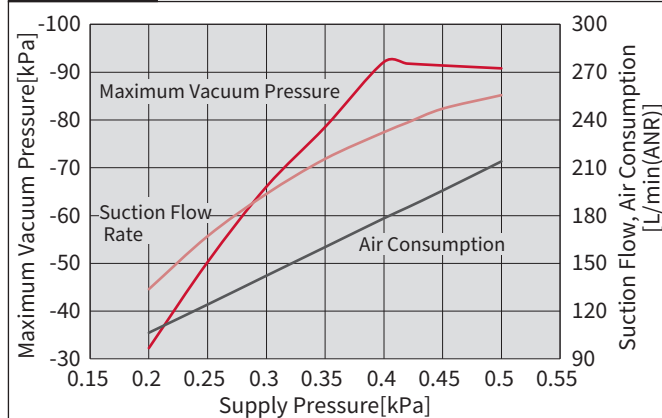


Model Number List / Mass

CODE	Model Number	Mass
518000191	SGR-80-P20	1g
518000192	SGR-100-P20	2g

Built-in Ejector Performance

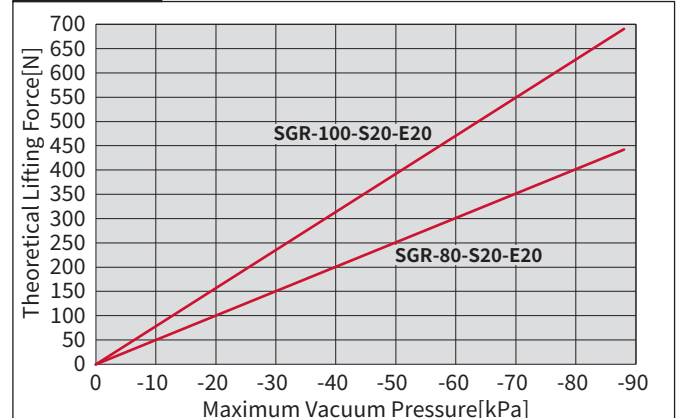
SGR-80/100



Note) The data shown are measured values obtained under our test conditions and are not guaranteed specifications.

Theoretical Lifting Force

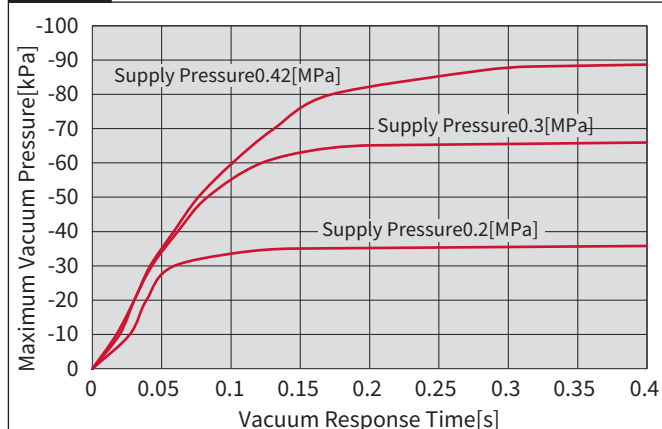
SGR-80/100



Note) This is the theoretical lifting force based on the vacuum pressure.
Use this value as a reference to determine the theoretical lifting force (suction force) that can be applied while maintaining the workpiece under suction.

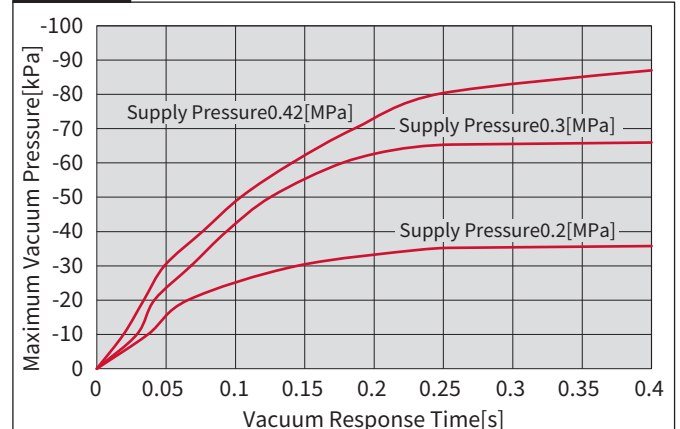
Suction Response Time

SGR-80

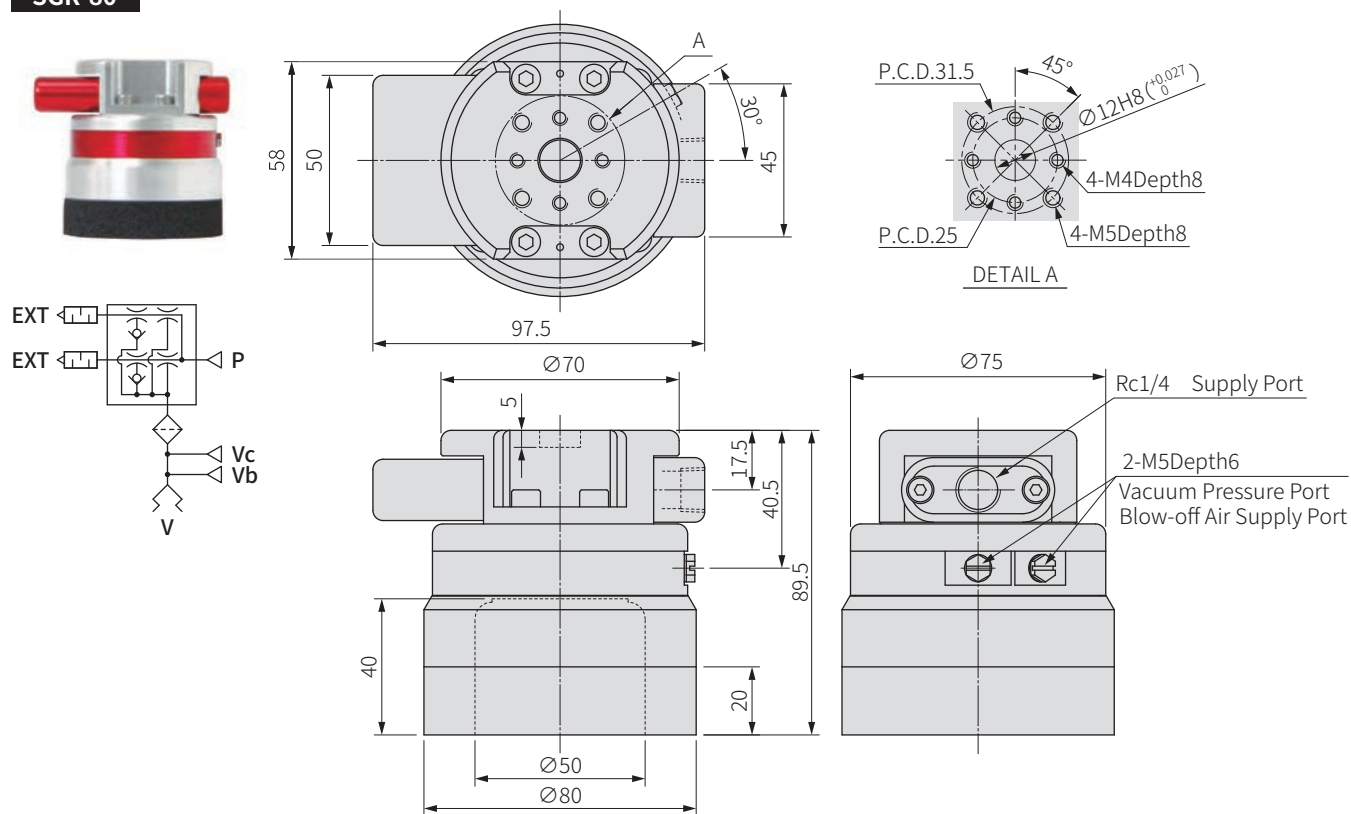


Note) The data shown are measured values obtained under our test conditions and are not guaranteed specifications.
The response speed is based on suction of a flat workpiece.

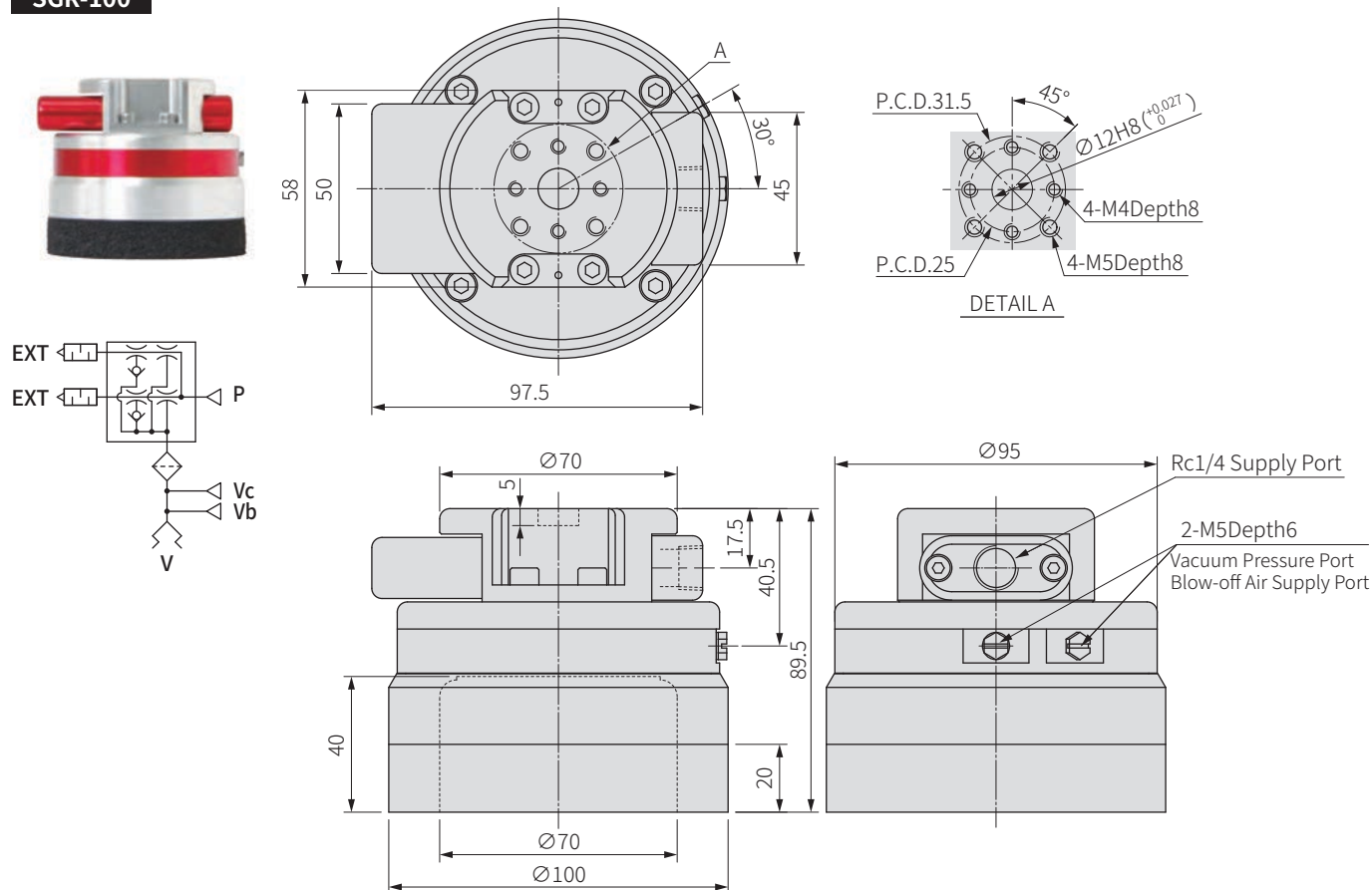
SGR-100



SGR-80

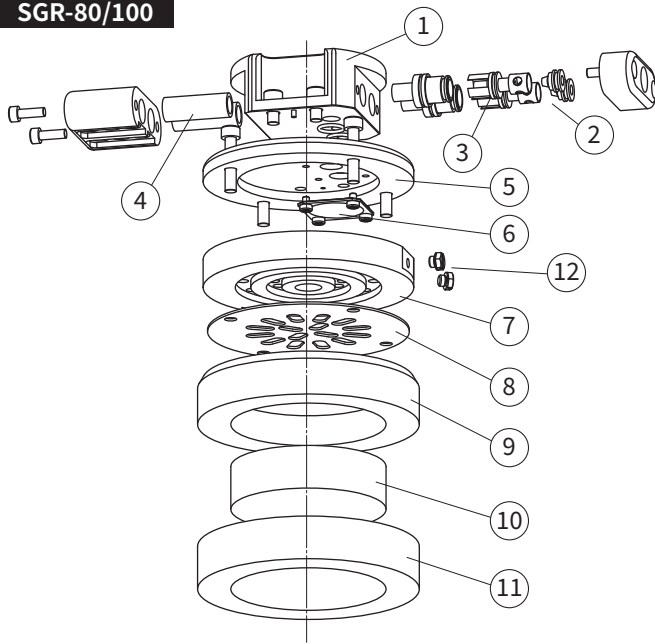


SGR-100



Construction

SGR-80/100



	Part Name	Material
01	Ejector Body	Aluminum Alloy
02	Nozzle Kit	Aluminum Alloy/ NBR
03	Check Valve	HNBR
04	Silencer Element	PVA
05	Connection Base	Aluminum Alloy
06	Mesh Filter	Stainless Steel
07	Vacuum Base	Aluminum Alloy
08	Stopper	Stainless Steel
09	Spacer	Aluminum Alloy
10	Support Pad	Ether-Based Polyurethane Foam
11	Ring Pad	EPDM
12	Plug	Brass / Nickel-Plated

Precautions for Compact Hand for Bag Handling (SGR)



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

- Do not touch or place your hands near the suction port while compressed air is being supplied and the product is in operation. Due to its high suction flow rate, there is a risk of injury caused by being drawn into the suction port.

Always stop the product before performing any work on or near it.

⚠ Caution

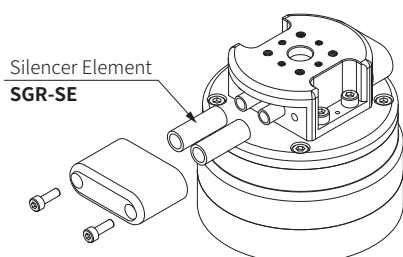
- Use the product without lubrication. If you use an air lubricator to lubricate the supply air, vacuum performance and suction flow rate will decrease due to oil buildup on the nozzle and deterioration of the silencer element.

Silencer Element

⚠ Warning

- The silencer element may become clogged due to the adhesion of fluids such as oil and water, as well as other contaminants, increasing exhaust resistance and reducing vacuum performance.

Replace the silencer element as necessary.



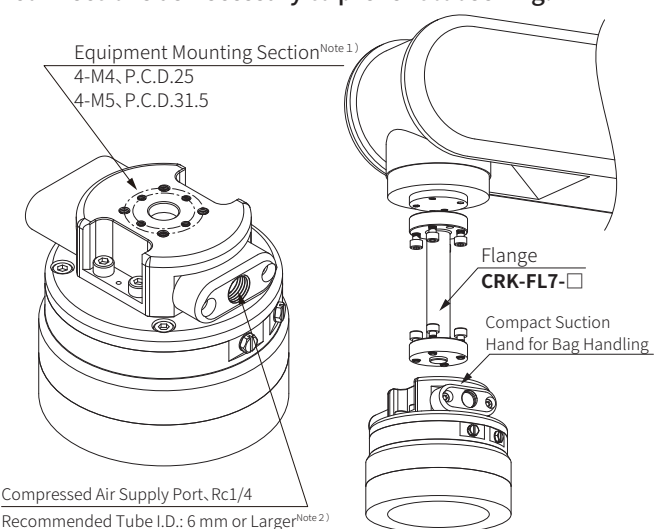
Mounting

⚠ Caution

Use the threaded holes on the top of the unit to secure it to the equipment.

Insufficient mounting may cause the unit to come loose, resulting in injury or damage to equipment.

Apply a thread-locking adhesive to the threaded connections as necessary to prevent loosening.



Note 1) For M4 bolts, the recommended tightening torque is 1.5 N·m.
Recommended tightening torque for M5 bolts: 3 N·m

Use a thread-locking adhesive as necessary depending on the operating conditions.

Note 2) Vacuum performance may not be achieved depending on the piping length.
In such cases, use tubing with an inner diameter larger than the recommended size.

CONVUM



Official website



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2025.10.17