

<https://convum.co.jp/en>

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CONVUM WEB

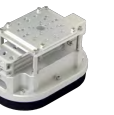


Kraft bag suction hand

SGP-H2 series

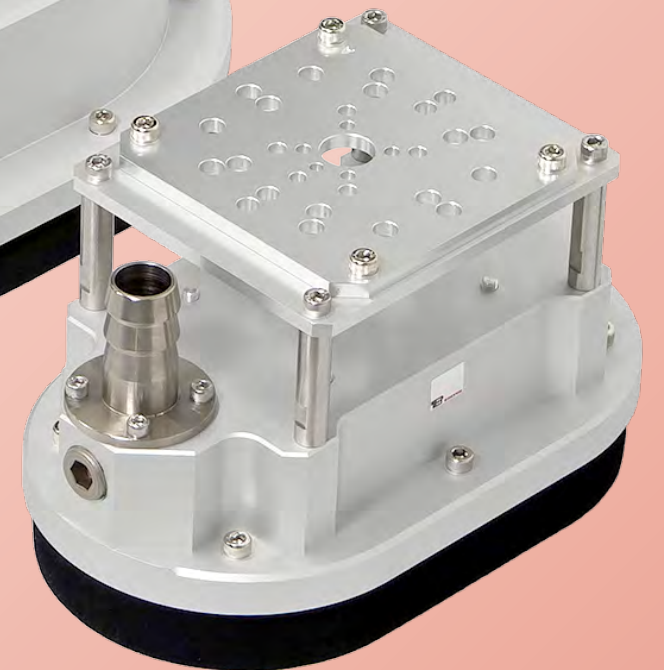
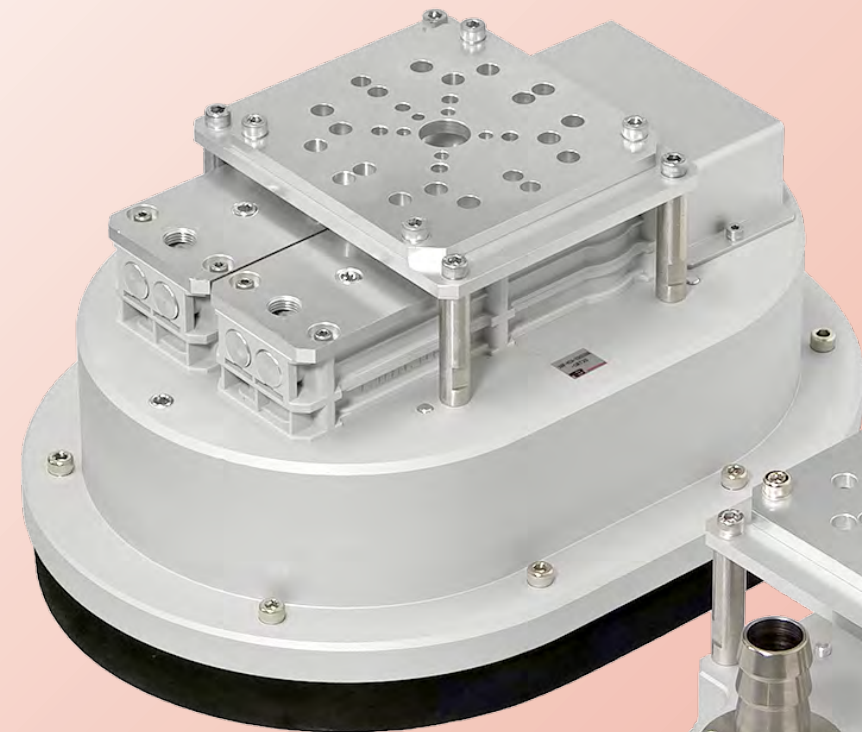
Suction device

SGP-H2



RoHS

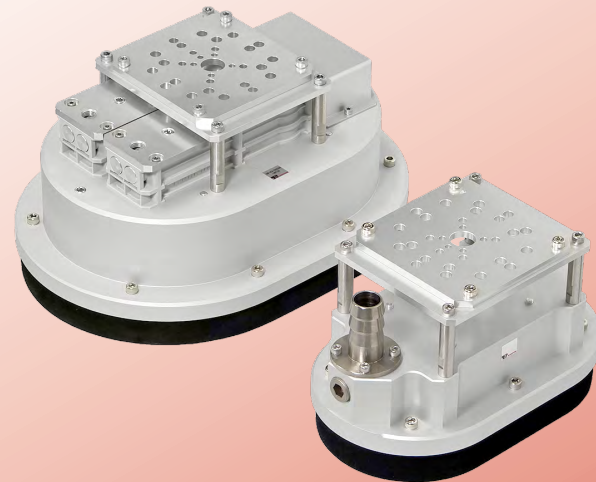
Sponge pad that follows bags shape. Large suction flow adsorbs large-capacity!



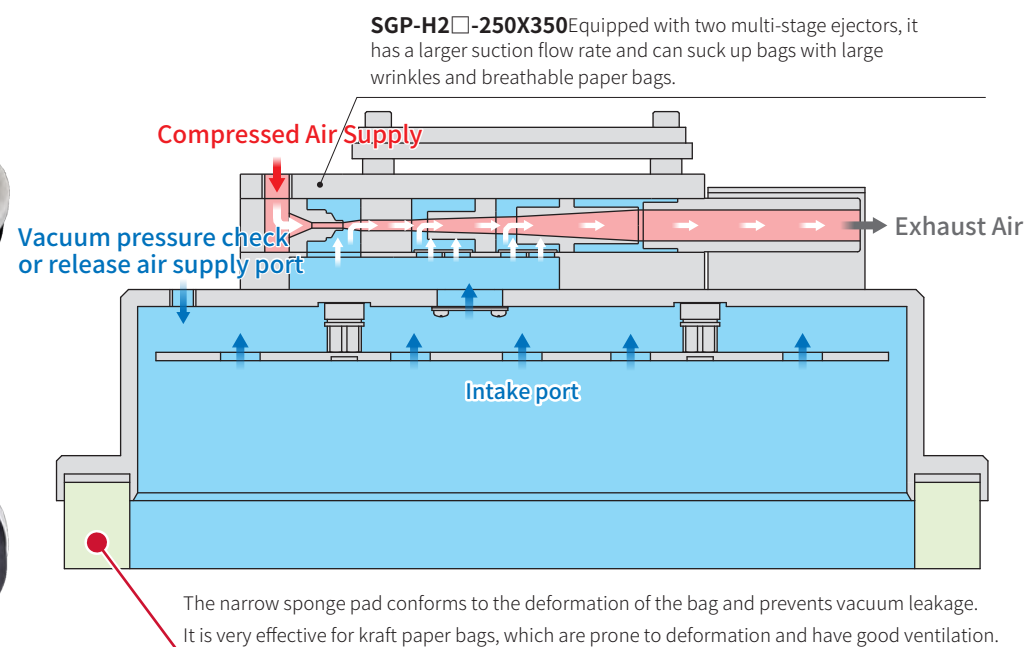
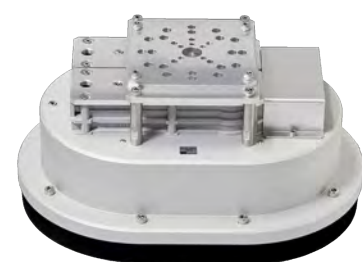
CONVUM

Bag Suction Hand

SGP-H2 series



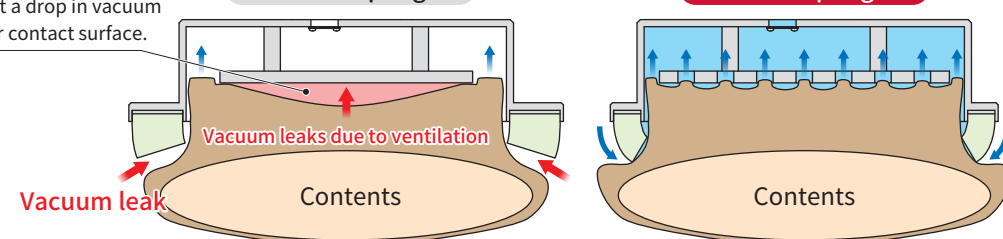
The sponge follows the deformation of the bag, making it possible to adsorb bags that are highly deformed or highly breathable.



By providing multiple suction ports on the stopper, we can prevent a drop in vacuum pressure on the stopper contact surface.

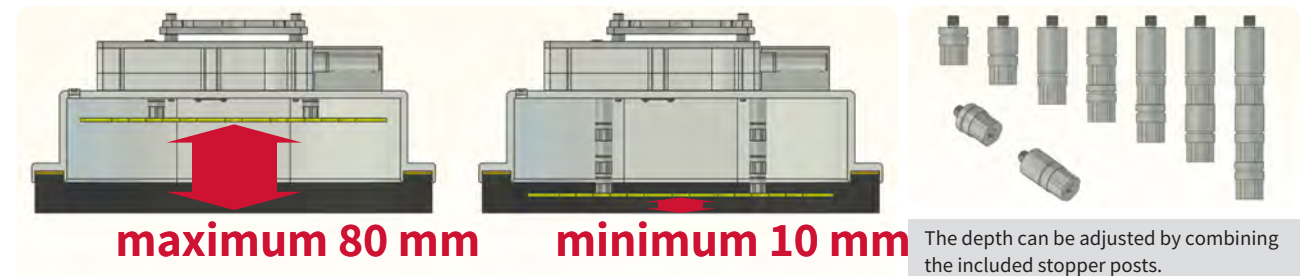
For thick sponges

For thin sponges



○ Shrink packaging (20kg) ○ Kraft Paper Bags (30kg) ○ Cardboard (with PP band)

Adjustable stopper depth reduces suction marks



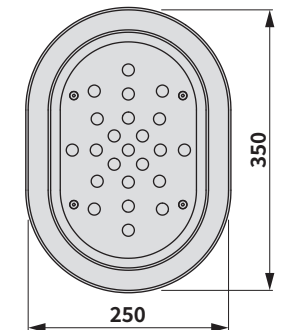
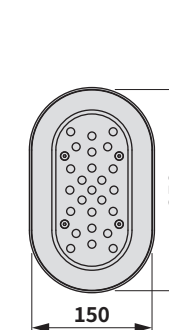
○ Plastic bags (30kg)

By making the stopper deeper, the deeper bags can be absorbed into the hand, increasing the contact area and improving suction power. Conversely, by making the stopper shallower, suction marks can be reduced, so please use it in a way that satisfies the conditions.

Available in two sizes to suit bag size.
External vacuum source option also available.



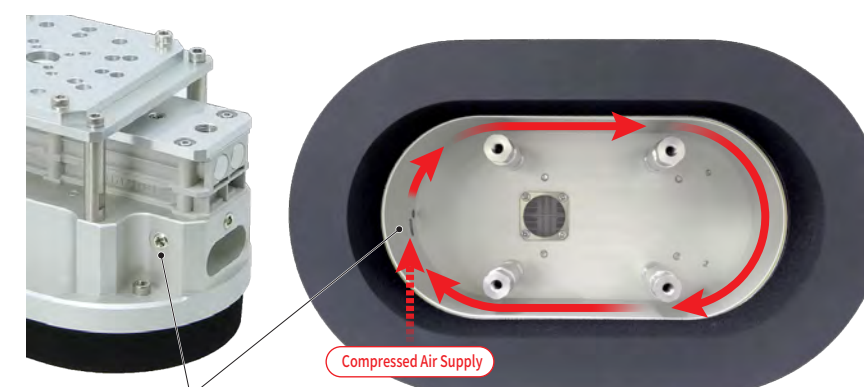
SGP-H2□-150X250-CRT30-G02
External vacuum source specifications



SGP-H2□-150X250

SGP-H2□-250X350

The inside can be cleaned by swirling air flow.




The upper flange allows for attachment to various robot
In the case of SGP-H2A, P.C.D.100/80/50/31.5
In the case of SGP-H2B, P.C.D.90/63/40

SGP-H2 Series

Model Number



SGP-H2 **A** - **250X350** - **CRT30** 

① ② ③ ④

① Flange plate

A	P.C.D.100/80/50/31.5
B	P.C.D.90/63/40

② Sponge Size

150X250	length 150mm width 250mm
250X350	length 250mm width 350mm

③ Sponge material and thickness

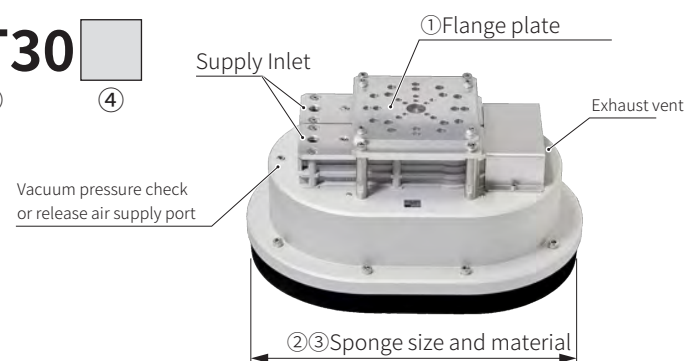
	Material	Hardness	Color	Heat Resistance	Thickness
CRT30	Chloroprene Rubber	ASKER C 8	Black	-55~150°C	30mm

Note 1) This is the heat resistance temperature of the rubber material only.
Performance may change near the upper and lower temperature limits,
so please test in the actual environment. The environmental temperature
range for using the kraft paper bag suction hand is 0 to 50°C.

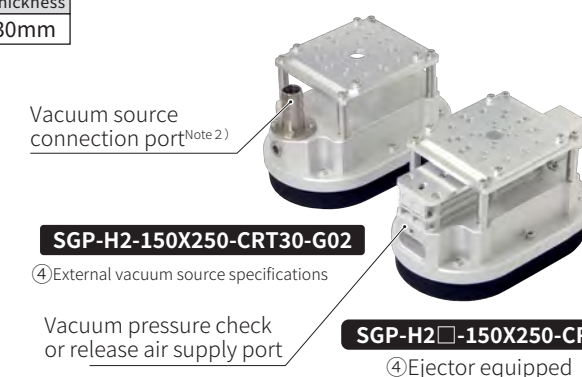
④ Vacuum source

No symbol	Ejector included
-G02	External vacuum source <small>note 2)</small>

Note 2) The recommended inner diameter of the connecting hose is 25 mm.
Secure it with a hose clip.



SGP-H2□-250X350-CRT30



SGP-H2-150X250-CRT30-G02

④ External vacuum source specifications

SGP-H2□-150X250-CRT30

④ Ejector equipped

Model number and weight

CODE	Model Number	Weight
502700280	SGP-H2A-150X250-CRT30	3.2 kg
502700281	SGP-H2B-150X250-CRT30	3.2 kg
502700282	SGP-H2A-150X250-CRT30-G02	3.0 kg
502700283	SGP-H2B-150X250-CRT30-G02	3.0 kg
502700277	SGP-H2A-250X350-CRT30	5.6 kg
502700278	SGP-H2B-250X350-CRT30	5.6 kg
502700285	SGP-H2A-250X350-CRT30-G02	4.8 kg
502700286	SGP-H2B-250X350-CRT30-G02	4.8 kg

Specification

	unit	SGP-H2□-250X350	SGP-H2□-150X250	SGP-H2□-G02
Fluid used		Oil-free compressed air		Air
Operating temperature	°C	0 ~ 50 (But not freezing.)		
Operating pressure range		0.15 ~ 0.60 [MPa]		0 ~ -85 [kPa]
Ejector performance	Rated Pressure	MPa	0.55	
	Vacuum pressure	kPa	-85	
	Suction flow rate	L/min(ANR)	1208	604
	Flow rate	L/min(ANR)	480	240
Exhaust	Adsorbed	dB(A)	72	72
	Not adsorbed		88	86

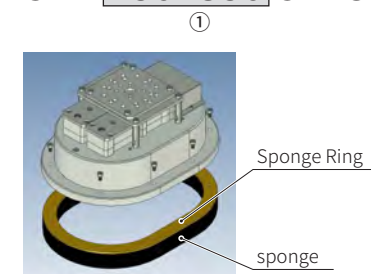
Note 4) When selecting, please carry out adsorption tests using the actual machine.

Also, do not judge whether adsorption is possible or not based solely on the size of the sponge.
We recommend testing with both sizes, as compatibility will vary depending on various conditions such
as the thickness, deformation, and wrinkles of the bag.

Maintenance parts and option model numbers

Replacement sponge (with sponge ring)

SPH **250X350** CRT30



① Sponge size (compatible formats)

150X250	SGP-H2□-150X250-CRT30□
250X350	SGP-H2□-250X350-CRT30□

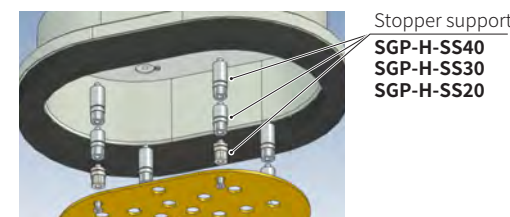
Model number list and weight

CODE	Model Number	Weight
518000195	SPH150X250CRT30	454g
518000179	SPH250X350CRT30	694g

Stopper support (4 pieces)

SGP-H-SS **20**

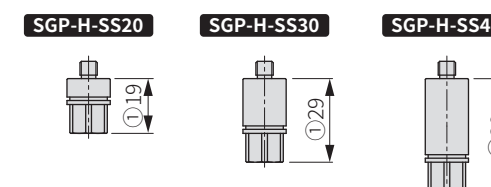
① Length	
20	19mm
30	29mm
40	39mm



Model number list and weight

CODE	Model Number	Weight ^{Note 3)}
518000185	SGP-H-SS20	31g
518000186	SGP-H-SS30	51g
518000187	SGP-H-SS40	71g

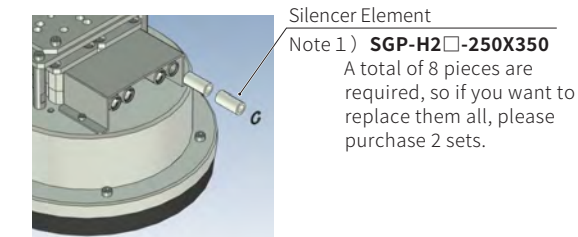
Note 3) It is the mass of four pieces.



Note 4) By combining the stopper posts and adjusting the depth,
you can reduce suction marks and adjust the suction strength.
All three types of stopper posts are included with the main unit,
so please purchase maintenance parts if they are damaged or lost.

Silencer element (4 pieces)

SGP-CVZ-SE



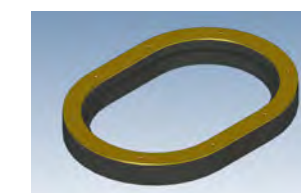
Model number list and weight

CODE	Model Number	Weight ^{Note 2)}
518000118	SGP-CVZ-SE	0.8g

Note 2) The mass is that of 4 pieces.

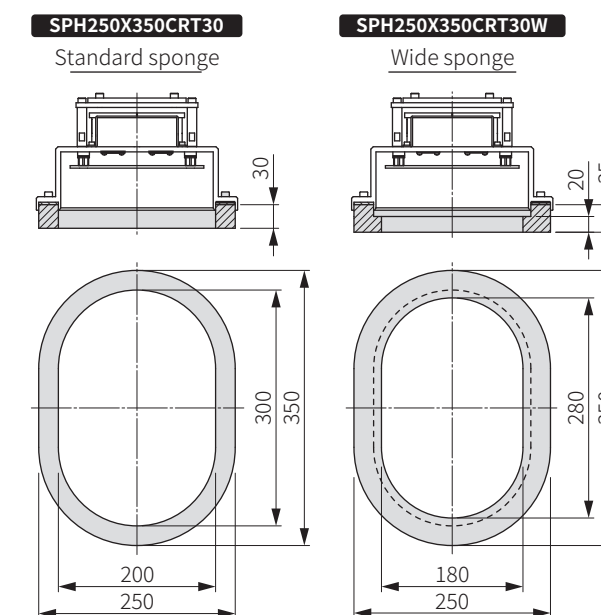
Wide sponge (with sponge ring)

SPH250X350CRT30W



Model number list and weight

CODE	Model Number	Weight
518000188	SPH250X350CRT30W	720g



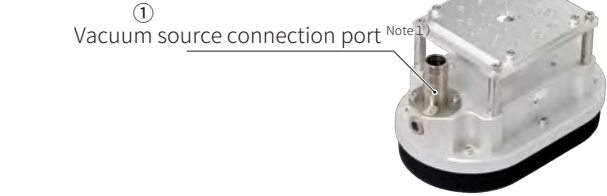
The increased thickness of the sponge reduces vacuum leakage.

Effective when there is little deformation of the bag and a lot of
vacuum leakage due to the shape of the contents, such as
shrink packaging and paper bags with high filling rates.

Maintenance parts and option model numbers

Vacuum source connection port (for external specifications)

SGP-G01P

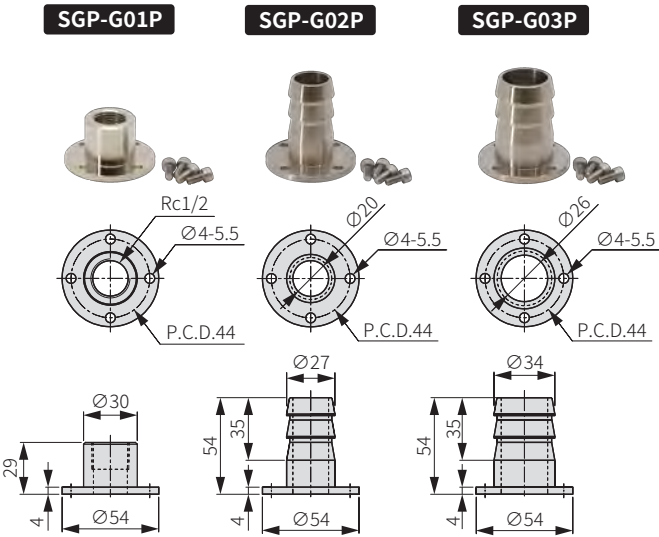


SGP-H2-150X250-CRT30-G02

Note 1) SGP-H2-150X250/250X350-CRT30-G02 SGP-G02P is delivered already installed. This is useful if you want to change to a threaded connection or connect a larger hose to reduce suction flow loss.

①Size

G01P	Female thread	Rc1/2
G02P	Barb outer diameter 27mm, hose inner diameter 25mm)	
G03P	Barb outer diameter 34mm, hose inner diameter 32mm)	

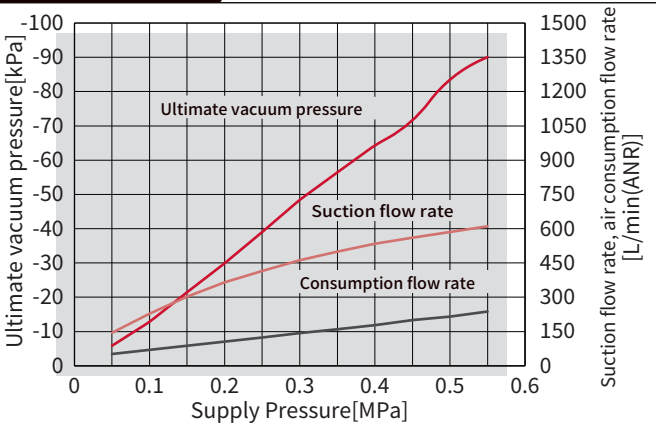


Model number list and weight

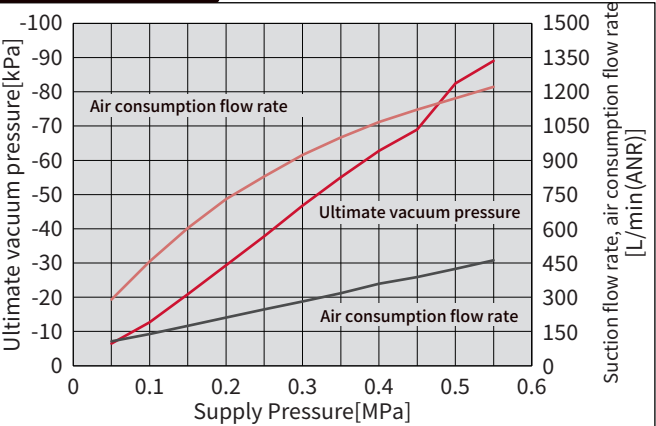
CODE	Model Number	Weight
518000119	SGP-G01P	150g
518000120	SGP-G02P	141g
518000121	SGP-G03P	176g

Ejector performance

SGP-H2-150X250



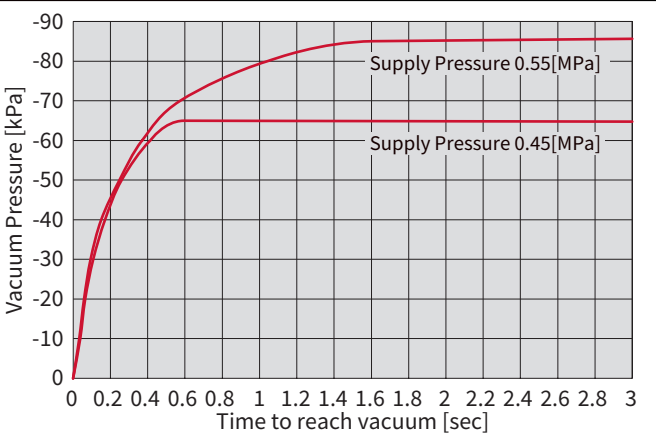
SGP-H2-250X350



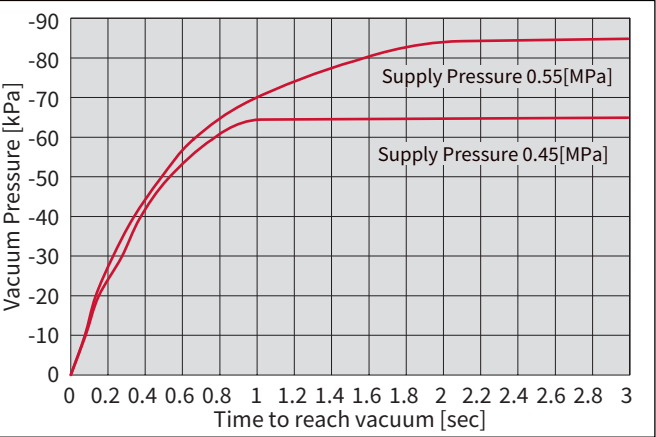
Note) The data are actual measurements taken under our own conditions and are not specifications. Please use them as reference values when selecting or using the product.

Response speed (adsorption time)

SGP-H2-150X250



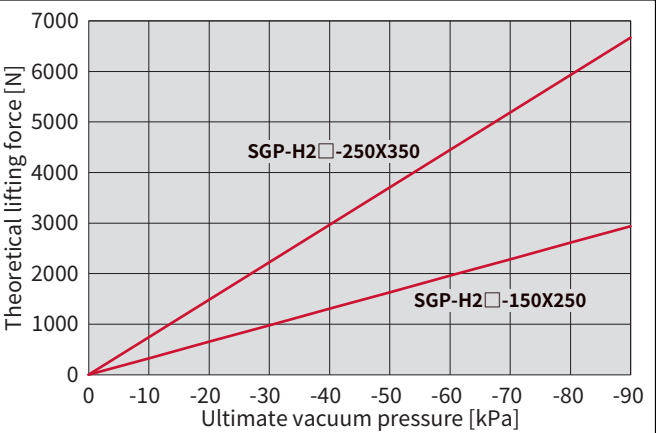
SGP-H2-250X350



Note) The data is actual measured values under our conditions and is not a specification; please use it as a reference value when selecting or using the product. The condition is the response speed when adsorbing a flat plate.

Theoretical lifting force

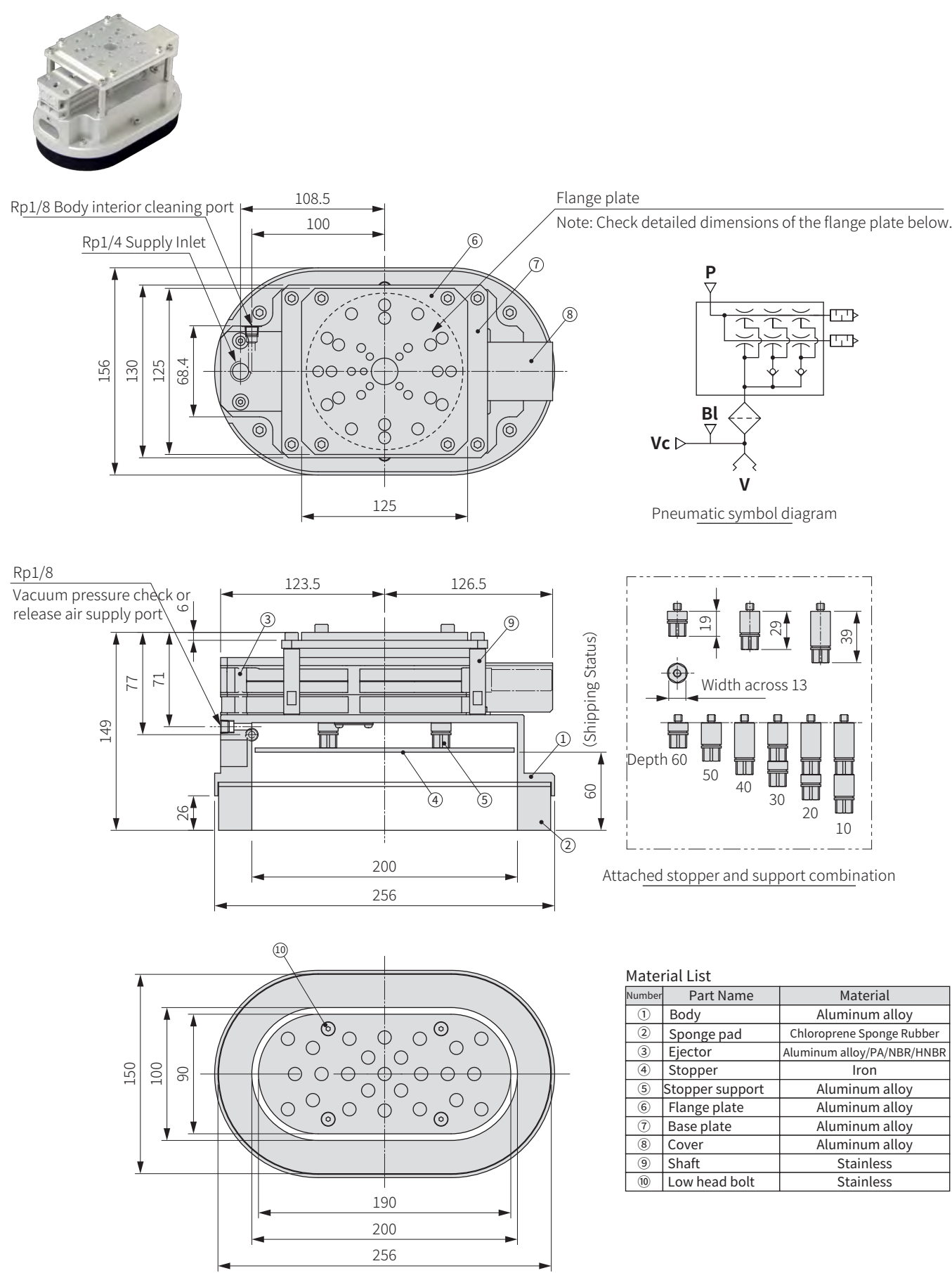
SGP-H2-150X250/250X350



Note) This is the theoretical lifting force against the vacuum pressure. Please use this as a reference value when checking how much lifting force (suction force) the adsorbed workpiece can theoretically hold.

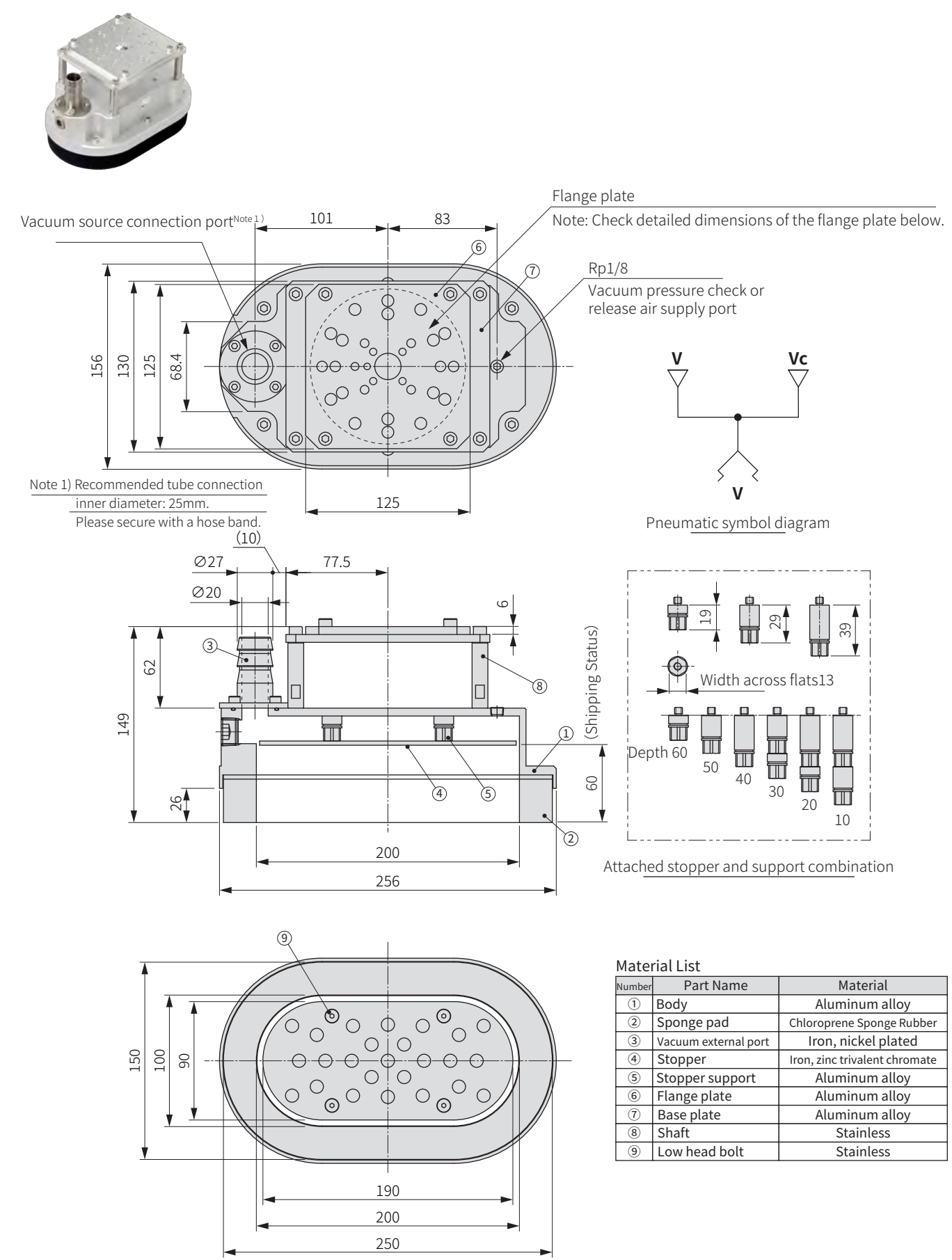
Dimensions

SGP-H2-150X250-CRT30



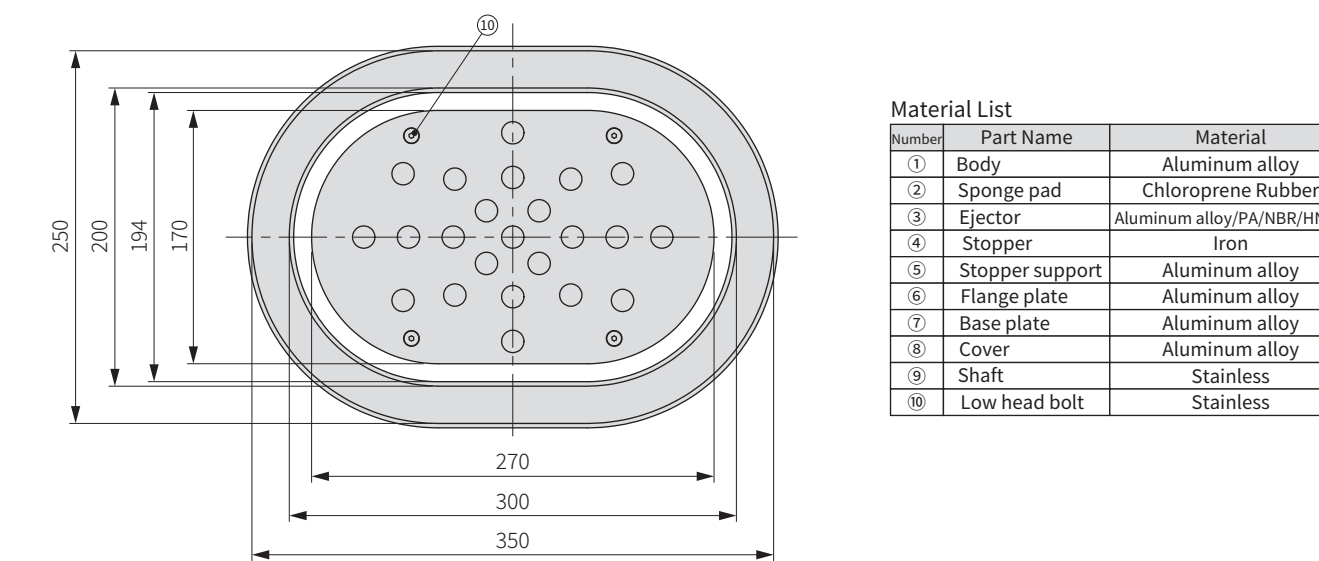
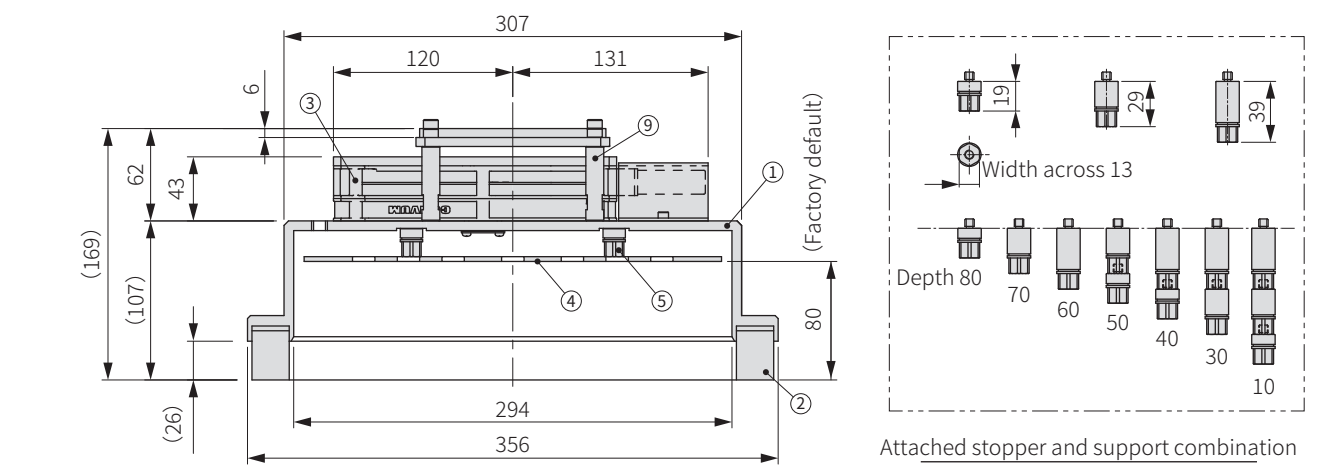
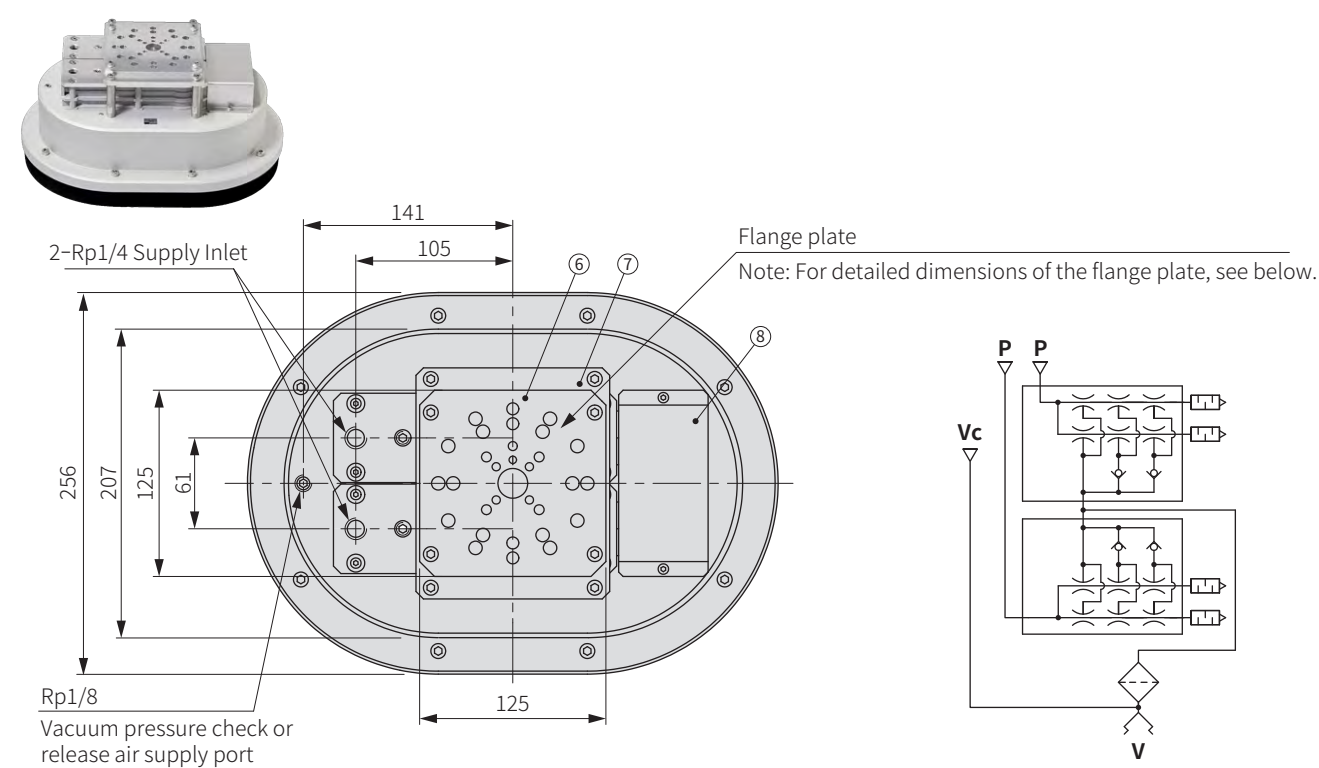
Dimensions

SGP-H2-150X250-CRT30-G02



Dimensions

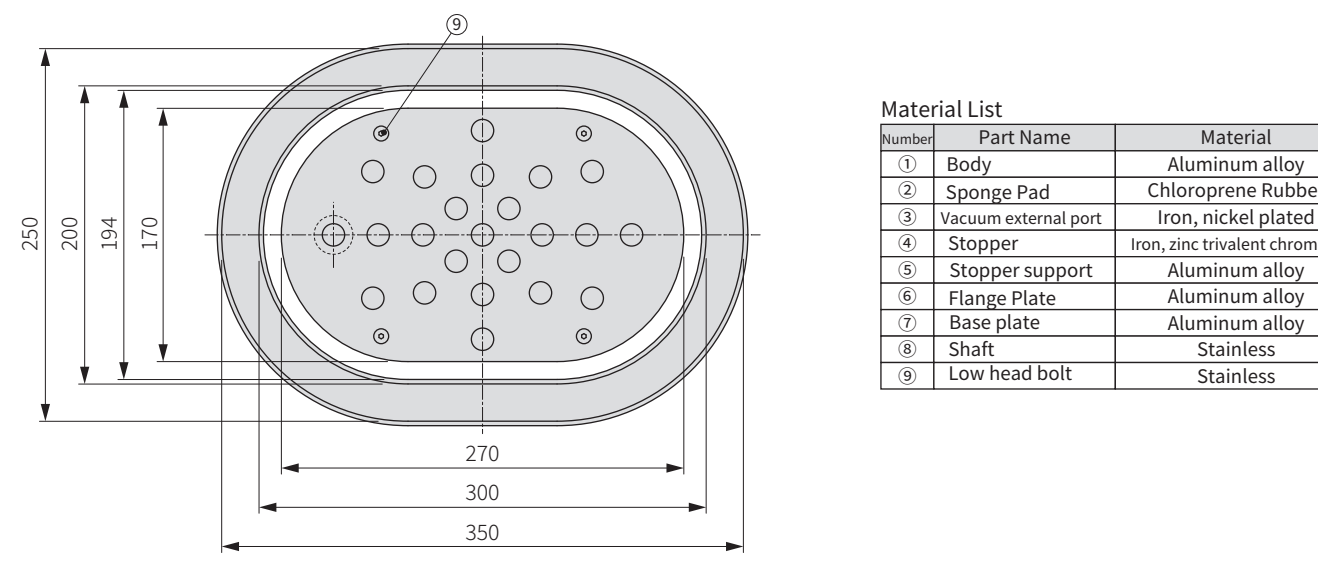
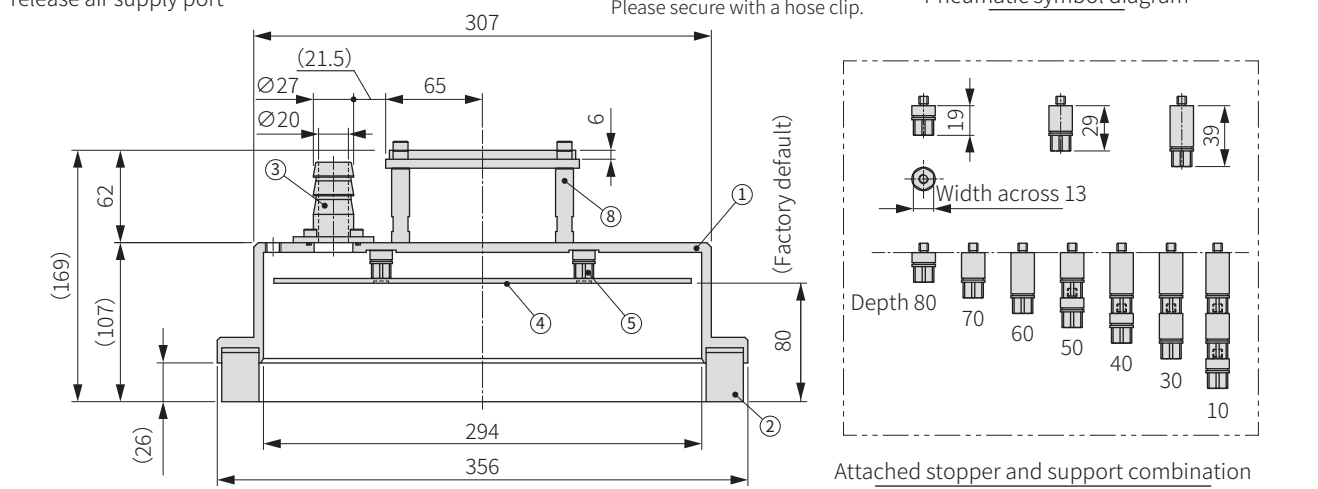
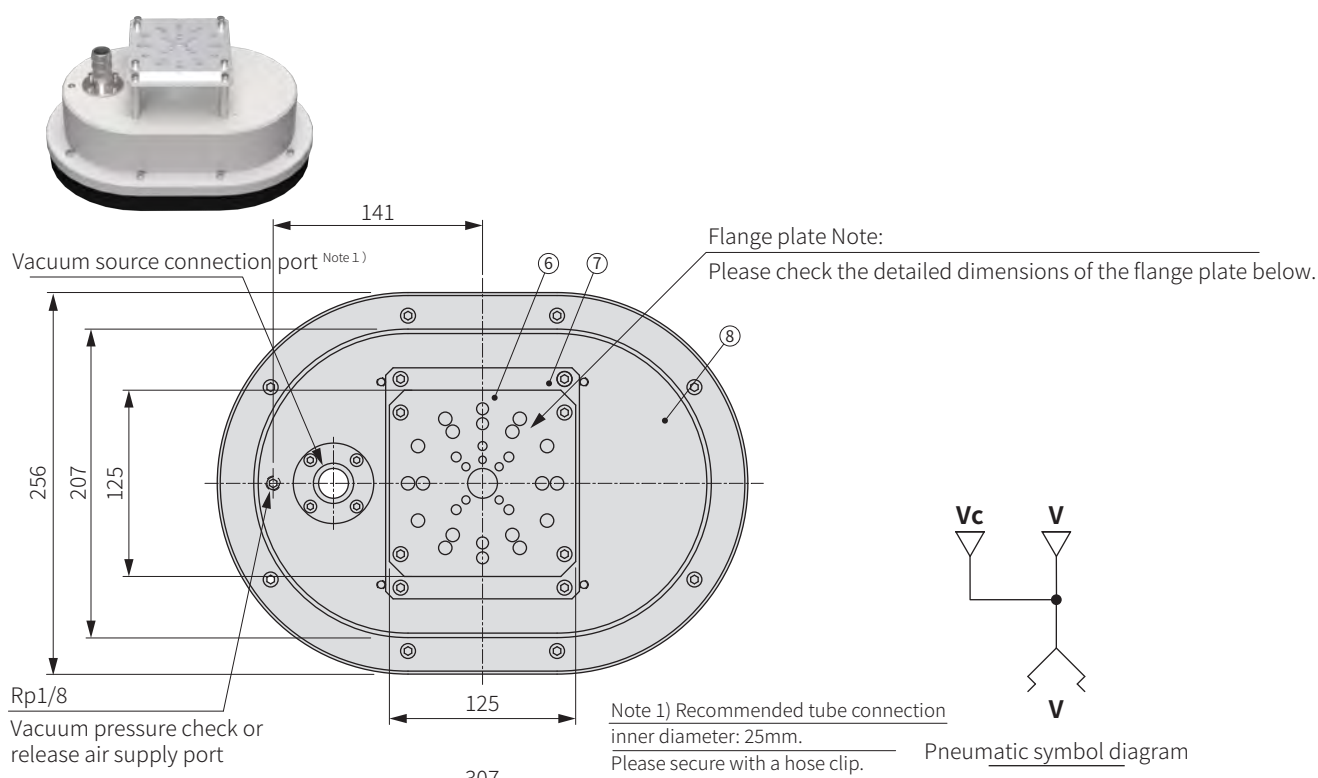
SGP-H2-250X350-CRT30



Material List		
Number	Part Name	Material
①	Body	Aluminum alloy
②	Sponge pad	Chloroprene Rubber
③	Ejector	Aluminum alloy/PA/NBR/HNBR
④	Stopper	Iron
⑤	Stopper support	Aluminum alloy
⑥	Flange plate	Aluminum alloy
⑦	Base plate	Aluminum alloy
⑧	Cover	Aluminum alloy
⑨	Shaft	Stainless
⑩	Low head bolt	Stainless

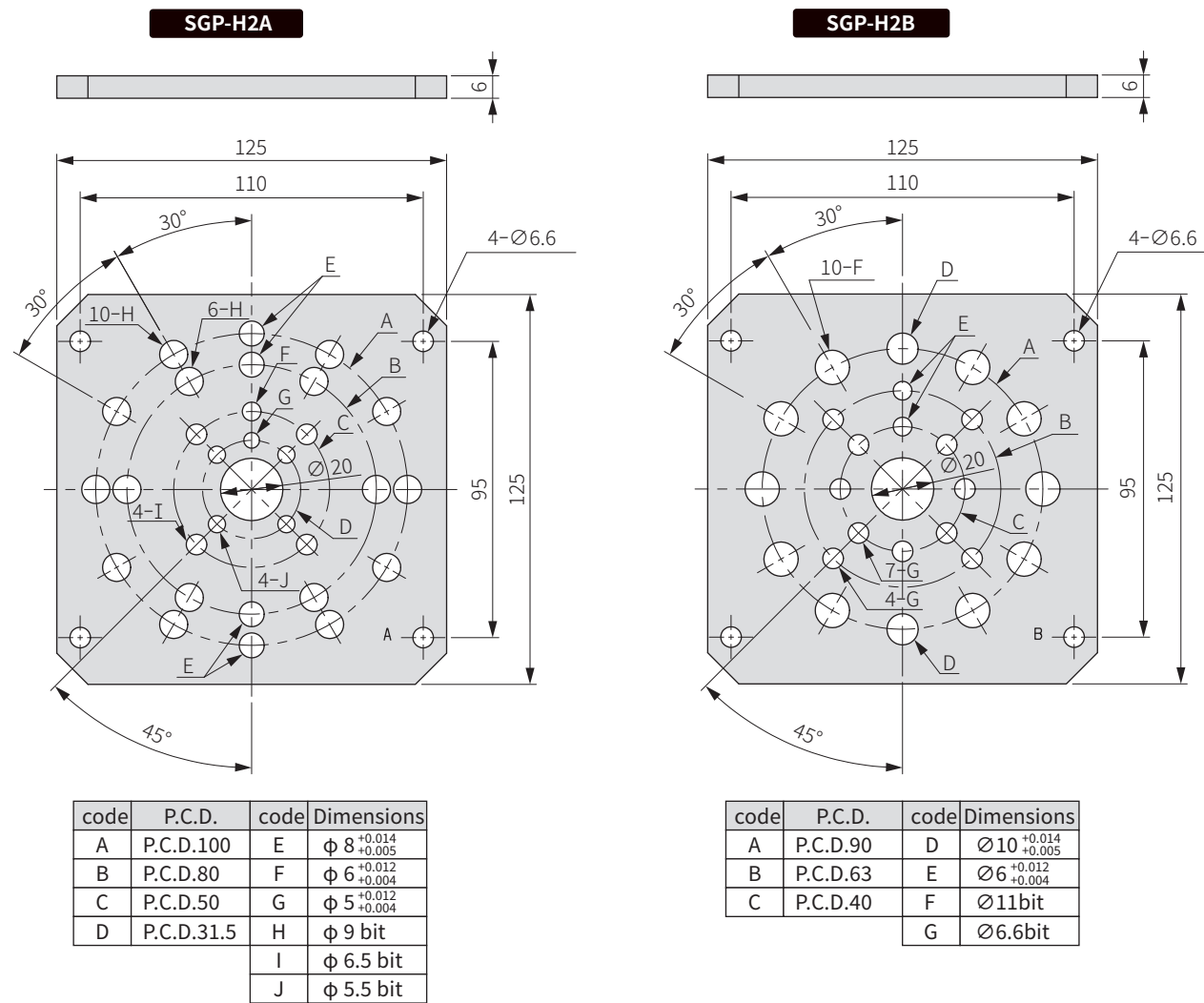
Dimensions

SGP-H2-250X350-CRT30-G02



Material List		
Number	Part Name	Material
①	Body	Aluminum alloy
②	Sponge Pad	Chloroprene Rubber
③	Vacuum external port	Iron, nickel plated
④	Stopper	Iron, zinc trivalent chromate
⑤	Stopper support	Aluminum alloy
⑥	Flange Plate	Aluminum alloy
⑦	Base plate	Aluminum alloy
⑧	Shaft	Stainless
⑨	Low head bolt	Stainless

Flange plate detailed dimensions



Please check the compatible robot table below for a list of models that can be installed with flange plates and robots from other manufacturers.

Robot compatibility chart

Model Number	Maker	Robot	Payload capacity (kg)	Flanges P.C.D	Mounting screw	Locating pin hole	
SGP-H2A-150X250-CRT30 SGP-H2A-150X250-CRT30-G02 SGP-H2A-250X350-CRT30 SGP-H2A-250X350-CRT30-G02	Kawasaki Heavy Industries	RS030N	30	P.C.D.80	6-M8	2-Ø8	
		RS050N	50				
		RS080N	80				
		RD080N	80				
	FANUC	CRX-10iA/10iAL	10	P.C.D.50	7-M6 Number of Bolts 4-M6		
		CRX-20iA/20iAL	20				
		CRX-25iA	25				
		M-710iC/50T	50	P.C.D.100	10-M8	Ø8	
		M-710iC/50S	50				
		M-710iC/50H	50				
		M-710iC/50E	50				
		M-710iC/70T	70				
		R-1000iA/80F	80				
		R-1000iA/80H	80				
		R-1000iA/100F	100				
		Denso	COBOTTA PRO900	6	P.C.D.50	7-M6 Number of bolts 4-M6	
	COBOTTA PRO1300		12				
	VLA-4025		40	P.C.D.100	10-M8	Ø8	
	VLA-6022		60				
	Mitsubishi Electric	RV-35F	35	P.C.D.80	6-M8	2-Ø8	
		RV-50F	50				
		RV-70F	70				
	Yaskawa Electric	MOTOMAN-HC20***	20	P.C.D.50	4-M6	-	
		MOTOMAN-HC30***	30				
		MOTOMAN-GP35L	35	P.C.D.80	6-M8	2-Ø8	
		MOTOMAN-GP50	50				
		MOTOMAN-GP88	88				
		MOTOMAN-MH50II-35	35				
		MOTOMAN-MH50II	50				
	MOTOMAN-MH80II	80					
	Toshiba	TVM1500	10	P.C.D.50	4-M6	-	
		TVM1200	15				
		TVM900	20				
	Universal Robots	UR10	10				
		UR16	16				
		UR20	20				
	OMRON	TM12	12				
		TM14	14				
	Model Number	Maker	Robot	Payload capacity (kg)	Flange P.C.D	Mounting screw	Locating pin hole
	SGP-H2B-150X250-CRT30 SGP-H2B-150X250-CRT30-G02 SGP-H2B-250X350-CRT30 SGP-H2B-250X350-CRT30-G02	Kawasaki Heavy Industries	RS010N	10	P.C.D.40	4-M6	Ø6
			RS010L	10	P.C.D.63		
			RS015X	15			
			RS020N	20	P.C.D.40		
		Denso	VM-6083	13			
VM-60B1			13				
VMB-2515			25				
VMB-2518			25				
FANUC		M-10iA/10M	10	P.C.D.40	4-M6	Ø6	
		M-10iA/10MS	10				
		M-20iA/20M	20				
		M-20iA/35M	35				
		M-20iA/20MT	20				
		M-20iA/35MT	35				
		M-20iB/25	25				
		M-20iB/25C	25				
		M-20iB/35S	35	P.C.D.90	10-M10	Ø10	
		CR-35iB	35				
		M-710iC/45M	45				
		M-710iC/50	50				
		M-710iC/70	70				
Toshiba		TV1000H	10	P.C.D.40	4-M6	Ø6	
Mitsubishi Electric		RV-13FR(M)(C)	13				
		RV-13FRL(M)(C)	13				
		RV-13F(M)(C)	13				
		RV-13FL(M)(C)	13				
		RV-20FR(M)(C)	20				
		RV-20F(M)(C)	20				
Yaskawa Electric	MOTOMAN-HP20F	20					
	MOTOMAN-MH50II-20	20					

Kraft paper bag suction hand (SGP-H2) Notes

Please read this before use. Please also refer to "For safe use" in this catalog, "Common precautions" and "Common precautions for Convum" in the general catalog, and the "Instruction manual" for this product. Please check our website. <https://convum.co.jp>

Website

Usage notes

⚠ Danger

- Do not touch or go near the suction port while the product is supplying compressed air and operating. The product has a large suction flow rate and suction area, so there is a risk of being sucked in and getting injured. If you need to touch the product, be sure to stop the product before doing so.

- This product uses vacuum suction to hold heavy workpieces, so if the vacuum stops due to an air supply line malfunction or emergency stop, the workpiece will fall immediately. Do not stand directly under the machine or in the transfer area while suction is in progress. If the vacuum stops or decreases, the workpiece will be released and fall. Failure to follow the above precautions may result in equipment malfunction or damage, or personal injury, including death.

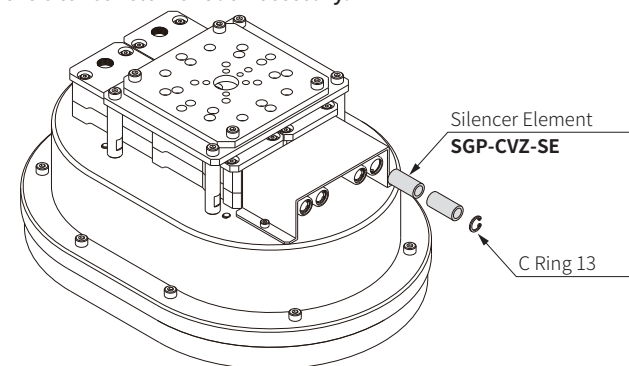
⚠ Attention

- Use without lubrication. If an air lubricator is used to lubricate the air being supplied, oil will adhere to the nozzle, reducing the vacuum performance and deteriorating the silencer element, decreasing the suction flow rate.

Silencer Element

⚠ warning

- When fluids such as oil and water or impurities adhere to the silencer element, the exhaust resistance increases (clogging), reducing the vacuum performance and silencing effect. Replace the silencer element as necessary.

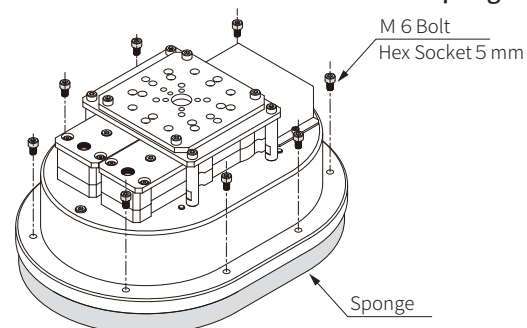


How to replace the sponge

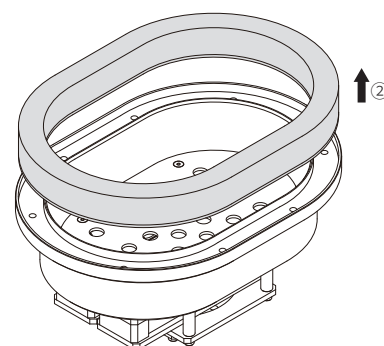
⚠ Attention

- The sponge may fall when you remove it, so take measures to prevent it from falling, such as removing it from the device and placing it on a table or floor.

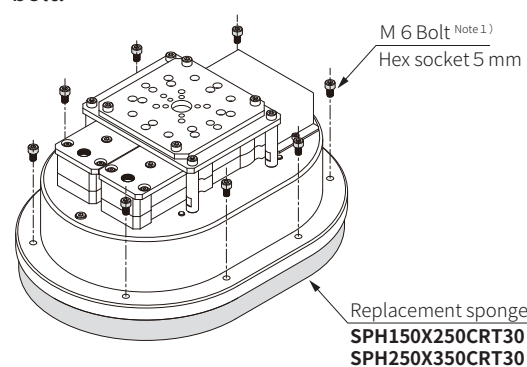
① Remove the M6 bolt that secures the sponge.



② Hold down the sponge and flip it over to remove it.



③ Insert a new replacement sponge, hold the sponge down while flipping it over, and secure it with an M6 bolt.



Note 1) Recommended tightening torque: 5.2 [N · m]
Please use a thread locking agent depending on the conditions of use.

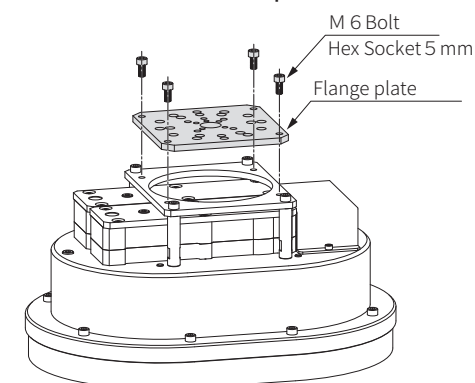
Kraft paper bag suction hand (SGP-H2) Notes

Installation

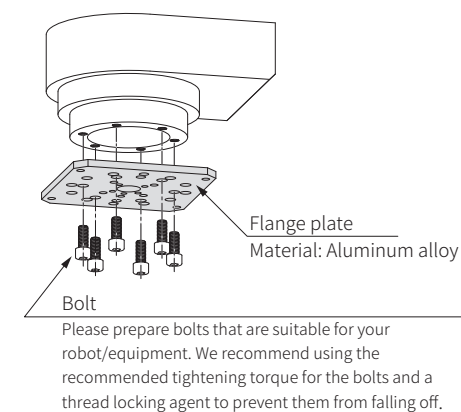
⚠ Danger

- When installing or removing the product, be sure to take measures to prevent it from falling. The product is heavy, so there is a risk of injury to personnel or damage to other equipment or products if the product falls. We recommend that two or more people carry out the work.

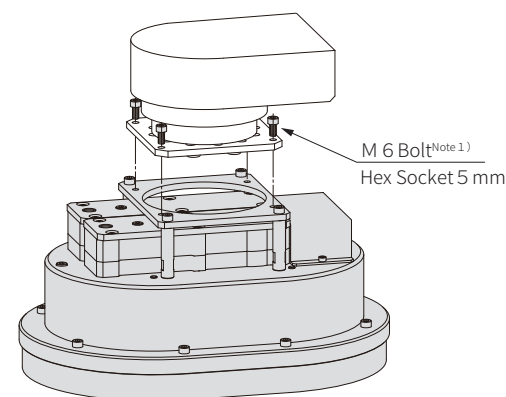
① Remove the four M6 bolts at the top and remove the flange plate.



② Fix the flange plate to the robot or machine.



③ Fix the body and flange plate



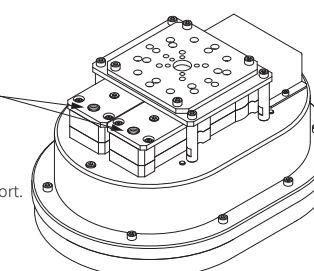
Note 1) Recommended tightening torque: 5.2 [N · m]
Please use a thread locking agent depending on the conditions of use.

Connection (ejector mounted type)

⚠ Attention

- As this product has a large air consumption flow rate, please be careful of reducing the supply pressure. Since the supply pressure at the compressed air supply port is assumed, depending on the piping length and inner diameter of the tube, the vacuum performance may not be achieved due to the effect of reduced pressure. Therefore, please keep the piping as short as possible and use tubes with a large inner diameter.

Compressed air supply port, Rp1/4
Recommended tube inner diameter
10mm or more Note 2)
For SGP-H2□-150X250
There is one compressed air supply port.



SGP-H2□-250X350

Note 2) Depending on the length of the piping, vacuum performance may not be achieved. In that case, please use a tube with an inner diameter larger than the recommended one.

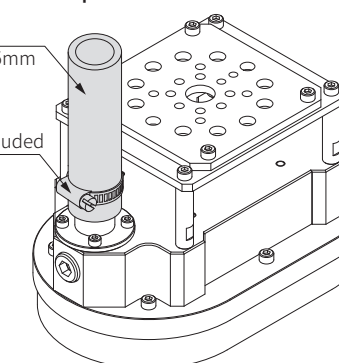
Connection (external vacuu specification)

⚠ Attention

- Be sure to secure the hose with a hose band. There is a risk that the hose may come loose during transportation, causing the workpiece to fall.

Hose Recommended
hose inner diameter: 25mm

Hose clip not included



SGP-H2□-150X250-CRT30-G02

Kraft paper bag suction hand (SGP-H2) preca

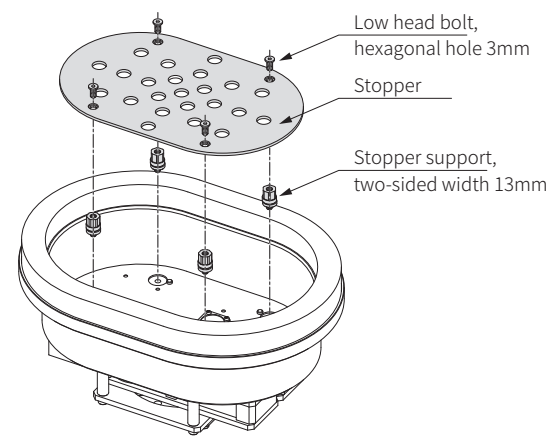
Please read this before use. Please also refer to "For safe use" in this catalog, "Common precautions" and "Common precautions for Convum" in the general catalog, and the "Instruction manual" for this product. Please check our website: <https://convum.co.jp>

Website

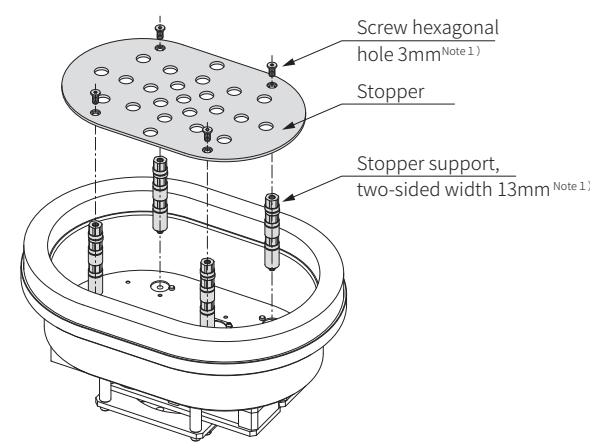
Depth Adjustment

⚠ Attention

- The stopper may fall when removing it, so take measures to prevent it from falling, such as removing it from the device and placing it on a table or floor.
- ① Turn it over and remove the four low-head bolts securing the stopper and the stopper support.

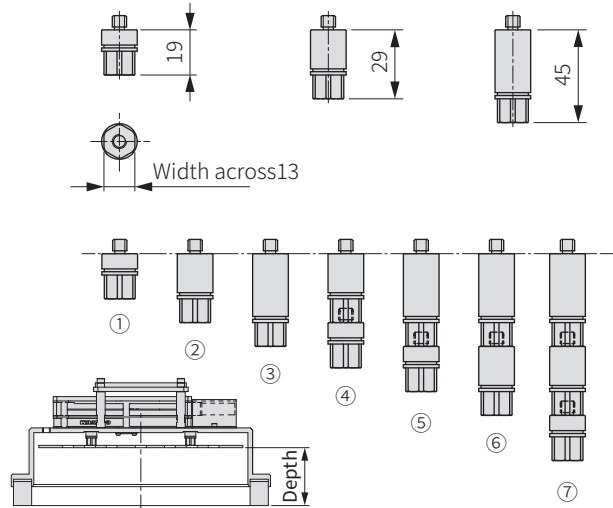


- ③ Install the adjusted support and the stopper.



Note 1) Recommended tightening torque: 2.6 [N · m]
We recommend using a thread locking agent to prevent the screws from falling off.

- ② Adjust the depth by combining the included stopper supports.



	Combination depth [mm]						
	①	②	③	④	⑤	⑥	⑦
SGP-H2□-150X250	60	50	40	30	20	10	-
SGP-H2□-250X350	80	70	60	50	40	30	10