

VACUUM PAD
FOR PACKAGING BAG

NEW ***PB*** TYPE



NEW PRODUCT

NEW

VACUUM PAD for **PB**

Two selections for pad hardness and bellows layers, three selections for pad size.



Soft Grain

Use on packaging containing liquid



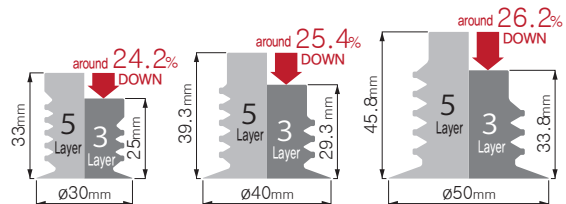
Hard Grain

Use for pouch pack

Features

1. Contributing space-saving and followability to high-speed conveyance. 3 bellows layers type is also available.

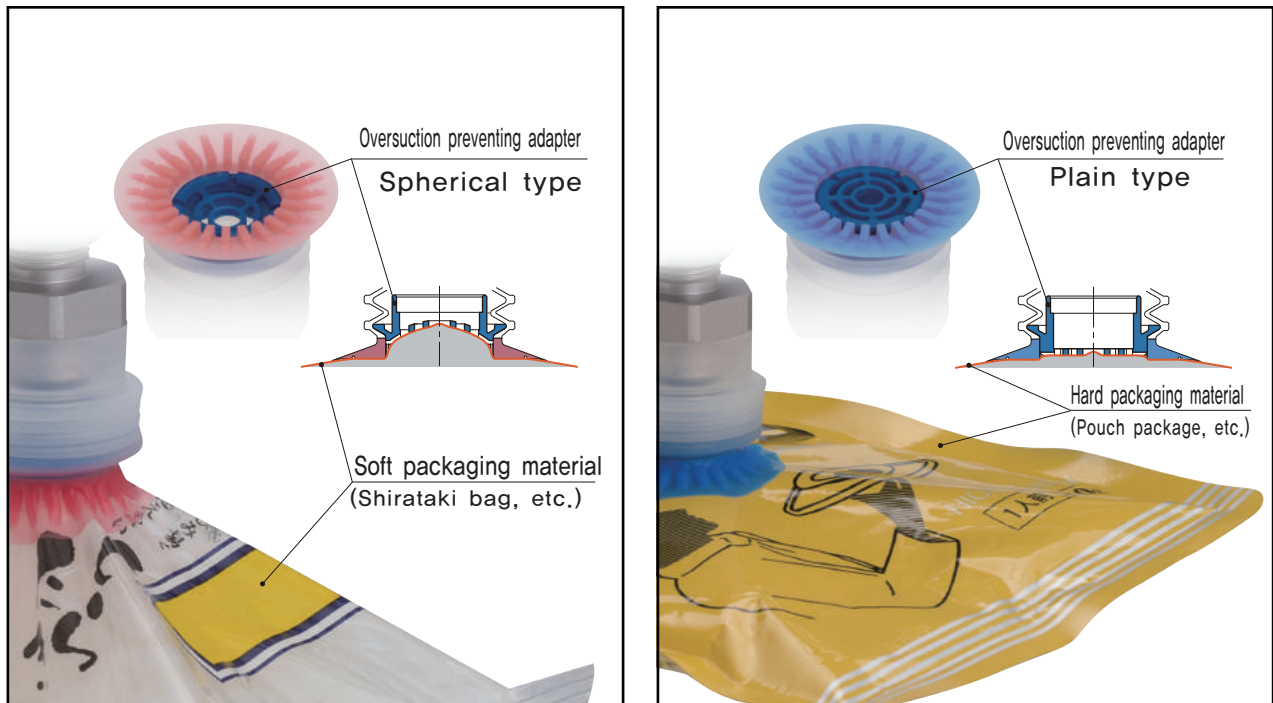
✓ Compared to 5 bellows layers, approx. **25.3% shorter.**



✓ Less bellows layers contribute the further posture stability of **a work-piece in conveyance.**

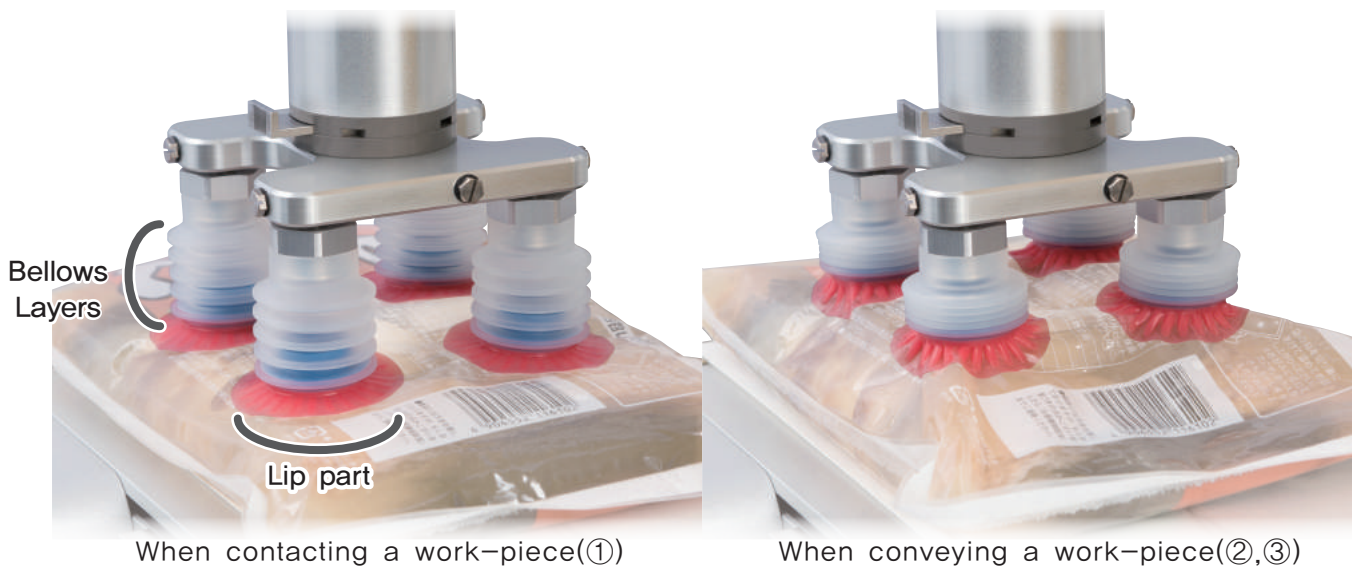


2. Two selections for oversuction preventing adapter, according to the packaging material.



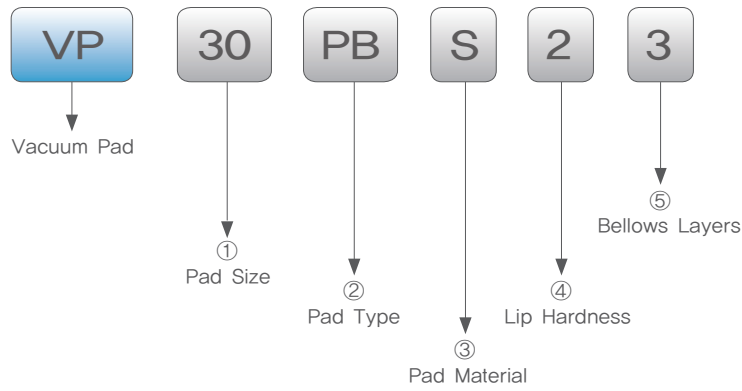
3. Three features realize followability to speedy and precise movement of conveyance robot.

- ① 5 layers of bellows absorb the shock when contacting a work-piece and follow the inclined surface. (3 layers and 5 layers can be selected according to a work-piece angle and conveyance speed.)
- ② Lip part follows the surface of a work-piece.
(Two selections for lip hardness according to work-pieces)
- ③ Bellows layers contract and help the posture stability of a work-piece in conveyance.



4. The work-piece contact part uses materials suitable for the Food Sanitation Law in accordance with FDA.

Model designation of Pad rubber only (Example)



① Pad Size

Code	30	40	50
Size(mm)	Ø30	Ø40	Ø50

② Pad Type

Code	PB
Type	For packaging bag

③ Pad material, application

Code	S
Material	Silicone rubber

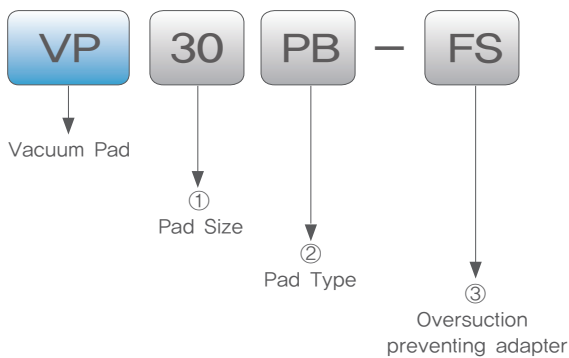
④ Lip hardness

Code	2	4
Hardness	20°	40°
Color	Red	Blue

⑤ Bellows layers

Code	3	5
Layers	3	5

Model designation of Oversuction preventing adapter (Example)



① Pad Size

Code	30	40	50
Size(mm)	Ø30	Ø40	Ø50

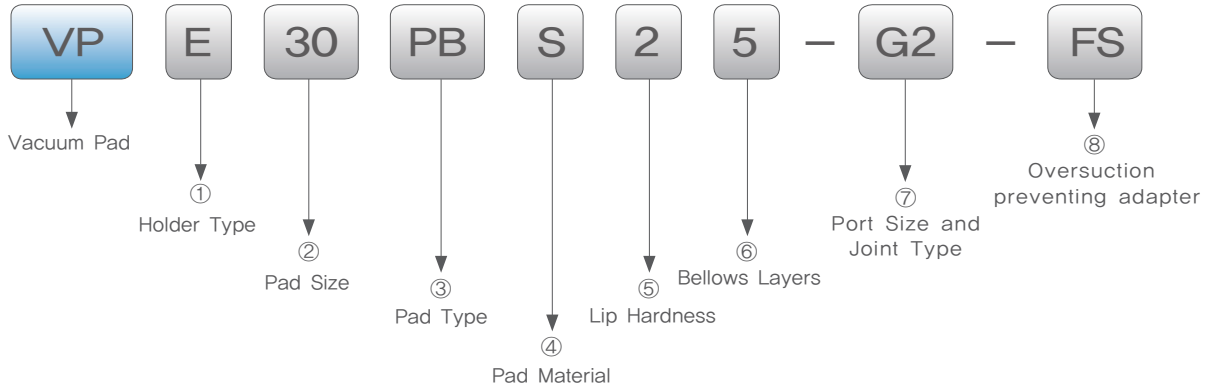
② Pad Type

Code	PB
Type	For packaging bag



③ Oversuction preventing adapter

Code	FS	FF
Type	Spherical Type	Plain Type



Model designation (Example)



① Holder Type

Code	A	E
Type	Fixed type, Top port 	Fixed type, Direct mount 

⑥ Bellows Layers

Code	3	5
Layer		

② Pad Size

Code	30	40	50
Size(mm)	Ø30	Ø40	Ø50

⑦ Port Size and Joint Type

■ VPA Type

Port type	Push-in fitting			
Code	6J	8J	10J	12J
Size(mm)	Ø6	Ø8	Ø10	Ø12

■ VPE Type

Port type	Metric male thread			
Code	M5	M6	M8	M14
Size(mm)	M5x0.8	M6x1	M8x1	M14x1

Port type	Parallel pipe female thread			
Code	G1	G2	G3	G4
Size(mm)	G1/8A	G1/4A	G3/8A	G1/2A

③ Pad Type

Code	PB
Type	For packaging bag



④ Pad Material

Code	S
Material	Silicone rubber

⑤ Lip Hardness

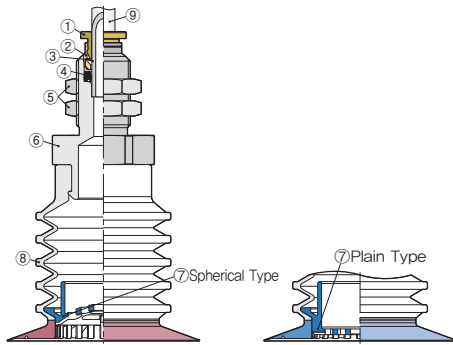
Code	2	4
Hardness	20° 	40° 
Color	Red	Blue

⑧ Oversuction preventing adapter

Code	FS	FF
Type	Spherical Type 	Plain Type 

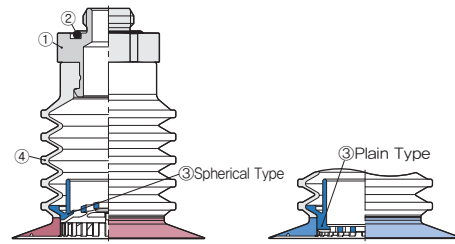
Structure

- In the case of fixed type, port size upward one-touch fitting type(VPA)



No.	Item	Material
①	Opening ring	POM
②	Guide ring	Brass (Electroless Nickel Plating)
③	Lock device	Stainless
④	Elastomer sleeve	EPDM
⑤	Nut	Carbon Steel (Trivalent Chromate)
⑥	Metal body	Aluminum
⑦	Suction Prevention Adapter	PP
⑧	For packaging bag	Silicon
⑨	Tube	Polyurethane, Nylon, etc.

- In the case of fixed type, direct mounting type /parallel parallel thread type(VPE)



No.	Item	Material
①	Metal body	Aluminum
②	O-Ring	Silicon
③	Suction Prevention Adapter	PP
④	For packaging bag	Silicon

※ In the case of a metric thread type (size: M8, M14), the same O-ring as a conventional parallel thread type. Although it is standard, the gasket (material: SIS316 + FKM) is standard for M5 and M6 screws.

The gasket type for the M5 and M6 screws is shown below.

M5 : GAS-M5SUS, M6 : GAS-M6SUS

Cautions

⚠ Warning

1. When installing the vacuum pad holder for bulkhead to the product, see Table 1 below. See fitting nut tightening torque for pad holder bulkhead. Using a tool, check that it is tight.

● Table 1. Fitting Nut for Torque Pad Holder Bulkhead

Nut size	Tightening torque
M14 x 1	18~21N·m
M16 x 1	18~21N·m
M20 x 1	19~21N·m
M22 x 1	19~21N·m

2. When the direct mounting type vacuum pad holder is mounted on the product, see Table 2 below. Refer to the tightening torque and tighten using a titration tool. Please check if it is lost.

● Table 2. Tightening torque

Screw Type	Nut size	Tightening torque
Metric Screws	M5 x 0.8	1~1.5N·m
	M6 x 1	2~2.7N·m
	M8 x 1	2.5~3.5N·m
	M14 x 1	18~21N·m
Parallel thread	G1/8	7~9N·m
	G1/4	12~14N·m
	G3/8	22~24N·m
	G1/2	28~30N·m

3. Parallel mounting type and Metric thread type (Size: M8, M14) of direct mounting type vacuum pad holder are O-ring seals, Metric thread type(Size: M5, M5) is equipped with a gasket seal. O-ring on the side of the product and the contact part of the gasket make sure that it is flat and free of scratches and scratches.
4. Due to the characteristics of the pad, the adsorption power of food packaging vacuum pads may exceed the strength of the pad itself, depending on the degree of vacuum. Use the safety factor more than 1/16 for horizontal use and 1/25 or more for vertical use. After testing the product by all means, Please use it.

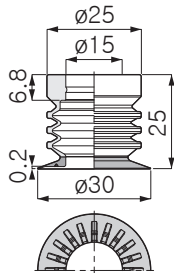
⚠ Caution

1. Be sure to install the Suction Adapter on the food packaging vacuum pad. Use without suction adapter doing so may deform the vacuum pads and cause adsorption failure.
2. When installing the Suction Adapter on the vacuum packaging pad, excessive traction on the lip can damage the lip.

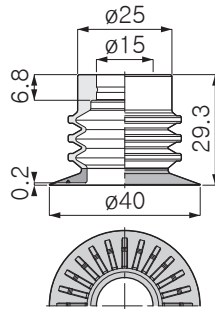
Dimension

Bellows 3-stage type → Minimize space, suitable for high speed transfer robot

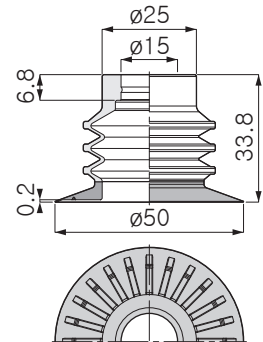
VP30PBS [4] 3



VP40PBS [4] 3



VP50PBS [4] 3



Dimensions for Vacuum pad and holder

VPA Fixed, Port size, Upward / One-touch fitting type



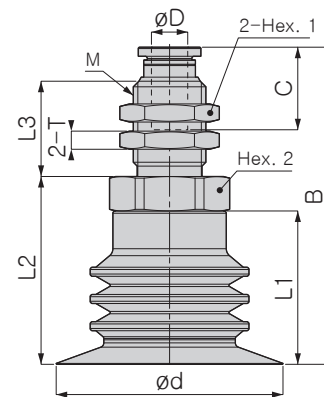
In basic form [5]

▶ In case of 2(Lip hardness : 20 °)



In basic form [5]

▶ In case of 4(Lip hardness : 40 °)



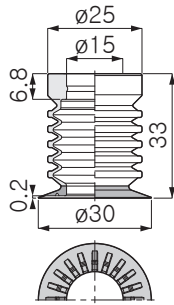
Unit : mm

Model code	Tube O.D. øD	PAD O.D. ød	M	B	L1	L2	L3	C	T	Hex.1	Hex.2	Mass (g)	
VPA30PBS [5]36J-[8]	6	30	M14×1	59.6	25	32.6	20.5	17	4	17	24	31	
VPA30PBS [5]38J-[8]	8		M16×1	61.1			21	18.2		19		34	
VPA30PBS [5]310J-[8]	10		M20×1	64			22.5	20.7		5		24	46
VPA30PBS [5]312J-[8]	12		M22×1	68.3			25.5	23.3		6		22	27
VPA40PBS [5]36J-[8]	6	40	M14×1	63.9	29.3	36.9	20.5	17	4	17	24	34	
VPA40PBS [5]38J-[8]	8		M16×1	65.4			21	18.2		19		37	
VPA40PBS [5]310J-[8]	10		M20×1	68.3			22.5	20.7		5		24	49
VPA40PBS [5]312J-[8]	12		M22×1	72.6			25.5	23.3		6		22	27
VPA50PBS [5]36J-[8]	6	50	M14×1	68.4	33.8	41.4	20.5	17	4	17	24	37	
VPA50PBS [5]38J-[8]	8		M16×1	69.9			21	18.2		19		40	
VPA50PBS [5]310J-[8]	10		M20×1	72.8			22.5	20.7		5		24	52
VPA50PBS [5]312J-[8]	12		M22×1	77.1			25.5	23.3		6		22	27

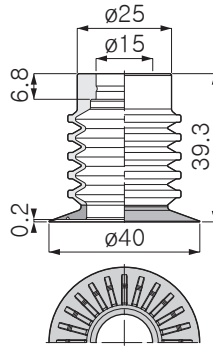
※ Please fill in the lap part hardness symbol for [5] in the basic model and the shape of the suction prevention adapter in [8] in the pad holder set order form (Example) on page 4, respectively.

Bellows 5-stage type → Absorption at work contact

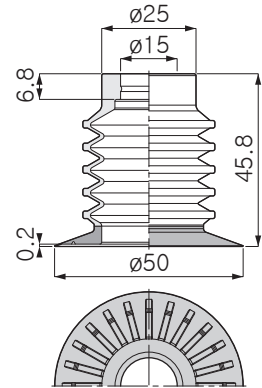
VP30PBS [4] 5



VP40PBS [4] 5



VP50PBS [4] 5



VPA Fixed, Port size, Upward / One-touch fitting type



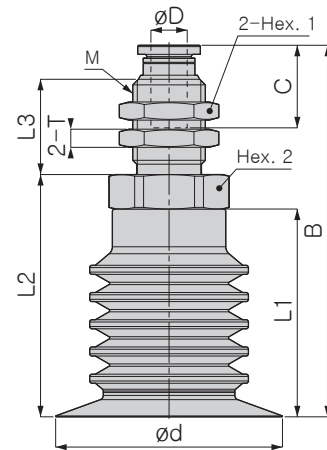
In basic form [5]

▶ In case of 2(Lip hardness : 20 °)



In basic form [5]

▶ In case of 4(Lip hardness : 40 °)



Unit : mm

Model code	Tube O.D. øD	PAD O.D. ød	M	B	L1	L2	L3	C	T	Hex. 1	Hex. 2	Mass (g)
VPA30PBS [5] 56J-[8]	6	30	M14×1	67.6	33	40.6	20.5	17	4	17	24	32
VPA30PBS [5] 58J-[8]	8		M16×1	69.1			21	18.2		19		
VPA30PBS [5] 510J-[8]	10		M20×1	72			22.5	20.7	5	24		
VPA30PBS [5] 512J-[8]	12		M22×1	76.3			25.5	23.3	6	22		
VPA40PBS [5] 56J-[8]	6	40	M14×1	73.9	39.3	46.9	20.5	17	4	17	24	36
VPA40PBS [5] 58J-[8]	8		M16×1	75.4			21	18.2		19		
VPA40PBS [5] 510J-[8]	10		M20×1	78.3			22.5	20.7	5	24		
VPA40PBS [5] 512J-[8]	12		M22×1	82.6			25.5	23.3	6	22		
VPA50PBS [5] 56J-[8]	6	50	M14×1	80.4	45.8	53.4	20.5	17	4	17	24	40
VPA50PBS [5] 58J-[8]	8		M16×1	81.9			21	18.2		19		
VPA50PBS [5] 510J-[8]	10		M20×1	84.8			22.5	20.7	5	24		
VPA50PBS [5] 512J-[8]	12		M22×1	89.1			25.5	23.3	6	22		

* Please fill in the lap part hardness symbol for [5] in the basic model and the shape of the suction prevention adapter in [8] in the pad holder set order form (Example) on page 4, respectively.

Bellows 3-stage type → Minimize space, suitable for high speed transfer robot

VPE Fixed type, Direct mounting type / Metric thread type



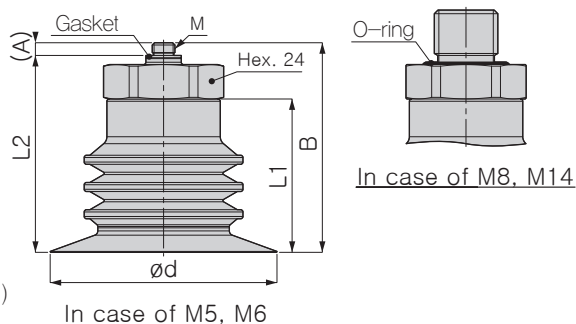
In basic form 5

▶ In case of 2(Lip hardness : 20 °)



In basic form 5

▶ In case of 4(Lip hardness : 40 °)



Unit : mm

Model code	PAD O.D. ød	M	A	B	L1	L2	Mass (g)
VPE30PBS 53M5-8	30	M5×0.8	2.8	37.4	25	34.6	18
VPE30PBS 53M6-8		M6×1	3.8	38.4			
VPE30PBS 53M8-8		M8×1	6	38.6		32.6	
VPE30PBS 53M14-8		M14×1	12	44.6			
VPE40PBS 53M5-8	40	M5×0.8	2.8	41.7	29.3	38.9	21
VPE40PBS 53M6-8		M6×1	3.8	42.7			
VPE40PBS 53M8-8		M8×1	6	42.9		36.9	
VPE40PBS 53M14-8		M14×1	12	48.9			
VPE50PBS 53M5-8	50	M5×0.8	2.8	46.2	33.8	43.4	24
VPE50PBS 53M6-8		M6×1	3.8	47.2			
VPE50PBS 53M8-8		M8×1	6	47.4		41.4	
VPE50PBS 53M14-8		M14×1	12	53.4			

※ Please fill in the lap part hardness symbol for 5 in the basic model and the shape of the suction prevention adapter in 8 in the pad holder set order form (Example) on page 4, respectively.

VPE Fixed, Direct Mounting / Parallel Parallel Screw Type



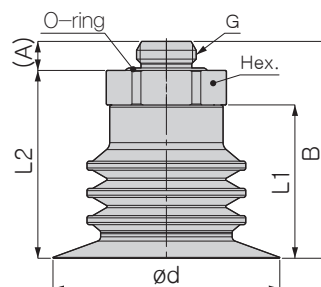
In basic form 5

▶ In case of 2(Lip hardness : 20 °)



In basic form 5

▶ In case of 4(Lip hardness : 40 °)



Unit : mm

Model code	PAD O.D. ød	G	A	B	L1	L2	Hex.	Mass (g)
VPE30PBS 53G1-8	30	G1/8A	5.3	37.9	25	32.6	24	18
VPE30PBS 53G2-8		G1/4A	6.4	39				
VPE30PBS 53G3-8		G3/8A	7.9	40.5			27	
VPE30PBS 53G4-8		G1/2A	8.4	41				
VPE40PBS 53G1-8	40	G1/8A	5.3	42.2	29.3	36.9	24	21
VPE40PBS 53G2-8		G1/4A	6.4	43.3				
VPE40PBS 53G3-8		G3/8A	7.9	44.8			27	
VPE40PBS 53G4-8		G1/2A	8.4	45.3				
VPE50PBS 53G1-8	50	G1/8A	5.3	46.7	33.8	41.4	24	24
VPE50PBS 53G2-8		G1/4A	6.4	47.8				
VPE50PBS 53G3-8		G3/8A	7.9	49.3			27	
VPE50PBS 53G4-8		G1/2A	8.4	49.8				

※ Please fill in the lap part hardness symbol for 5 in the basic model and the shape of the suction prevention adapter in 8 in the pad holder set order form (Example) on page 4, respectively.

Bellows 5-stage type → Absorption at work contact

VPE Fixed type, Direct mounting type / Metric thread type



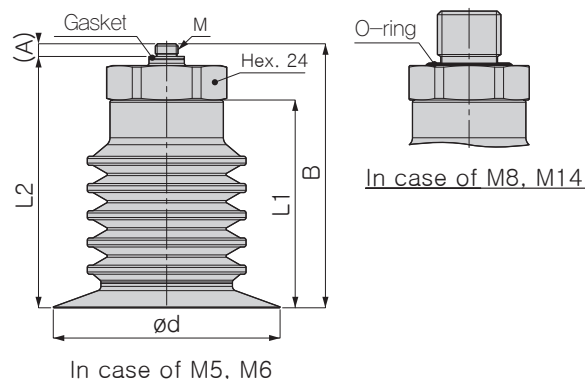
In basic form 5

▶ In case of 2(Lip hardness : 20 °)



In basic form 5

▶ In case of 4(Lip hardness : 40 °)



In case of M5, M6

Unit : mm

Model code	PAD O.D. ød	M	A	B	L1	L2	Mass (g)
VPE30PBS 5M5-8	30	M5×0.8	2.8	45.4	33	42.6	19
VPE30PBS 5M6-8		M6×1	3.8	46.4			
VPE30PBS 5M8-8		M8×1	6	46.6		40.6	
VPE30PBS 5M14-8		M14×1	12	52.6			
VPE40PBS 5M5-8	40	M5×0.8	2.8	51.7	39.3	48.9	23
VPE40PBS 5M6-8		M6×1	3.8	52.7			
VPE40PBS 5M8-8		M8×1	6	52.9		46.9	
VPE40PBS 5M14-8		M14×1	12	58.9			
VPE50PBS 5M5-8	50	M5×0.8	2.8	58.2	45.8	55.4	27
VPE50PBS 5M6-8		M6×1	3.8	59.2			
VPE50PBS 5M8-8		M8×1	6	59.4		53.4	
VPE50PBS 5M14-8		M14×1	12	65.4			

※ Please fill in the lap part hardness symbol for 5 in the basic model and the shape of the suction prevention adapter in 8 in the pad holder set order form (Example) on page 4, respectively.

VPE Fixed, Direct Mounting / Parallel Parallel Screw Type



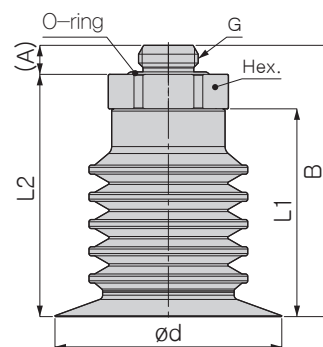
In basic form 5

▶ In case of 2(Lip hardness : 20 °)



In basic form 5

▶ In case of 4(Lip hardness : 40 °)



Unit : mm

Model code	PAD O.D. ød	G	A	B	L1	L2	Hex.	Mass (g)
VPE30PBS 5G1-8	30	G1/8A	5.3	45.9	33	40.6	24	19
VPE30PBS 5G2-8		G1/4A	6.4	47				
VPE30PBS 5G3-8		G3/8A	7.9	48.5			27	
VPE30PBS 5G4-8		G1/2A	8.4	49				
VPE40PBS 5G1-8	40	G1/8A	5.3	52.2	39.3	46.9	24	23
VPE40PBS 5G2-8		G1/4A	6.4	53.3				
VPE40PBS 5G3-8		G3/8A	7.9	54.8			27	
VPE40PBS 5G4-8		G1/2A	8.4	55.3				
VPE50PBS 5G1-8	50	G1/8A	5.3	58.7	45.8	53.4	24	27
VPE50PBS 5G2-8		G1/4A	6.4	59.8				
VPE50PBS 5G3-8		G3/8A	7.9	61.3			27	
VPE50PBS 5G4-8		G1/2A	8.4	61.8				

※ Please fill in the lap part hardness symbol for 5 in the basic model and the shape of the suction prevention adapter in 8 in the pad holder set order form (Example) on page 4, respectively.

Product composition

■ O-Ring(Maintenance parts)

Model code	Holder Thread size
9×2 (VMQ)	M8×1
15×2 (VMQ)	M14×1
10×2 (VMQ)	G1/8A
14×2 (VMQ)	G1/4A
17×2 (VMQ)	G3/8A
21×2 (VMQ)	G1/2A

■ Gasket (holder attached)

■ Direct Mounting Fixed Holders

Model code	Holder Thread size
VPE-PB15-M5	M5×0.8
VPE-PB15-M6	M6×1

※ The above mentioned gasket part number.

■ Direct Mounting Fixed Holders

Model code	Holder Thread size
VPE-PB15-M8	M8×1
VPE-PB15-M14	M14×1
VPE-PB15-G1	G1/8A
VPE-PB15-G2	G1/4A
VPE-PB15-G3	G3/8A
VPE-PB15-G4	G1/2A

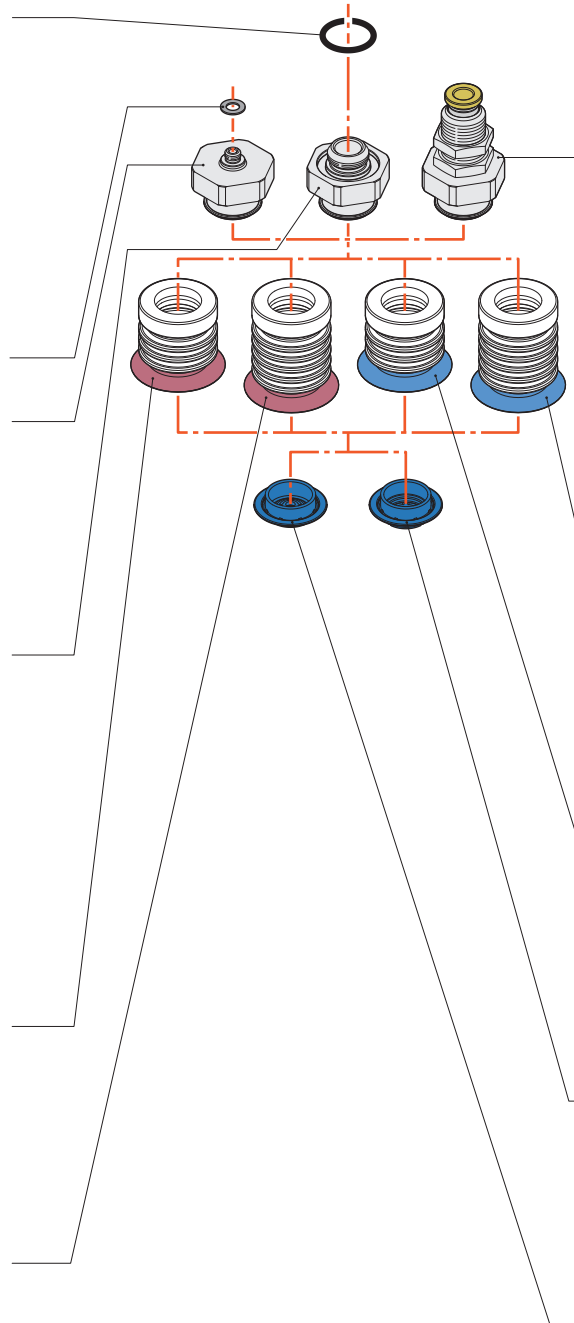
※ The above O-ring is part number.

■ Vacuum pad for packaging bag (Lip hardness : 20°)

Model code	PAD O.D. (ømm)
VP30PBS23	30
VP40PBS23	40
VP50PBS23	50

■ Pad bellows for packaging bag 5 steps type(Lip hardness:20°)

Model code	PAD O.D. (ømm)
VP30PBS25	30
VP40PBS25	40
VP50PBS25	50



■ Fixed vacuum outlet: upper holder

Model code	Tube O.D. (ømm)
VPA-PB15-6J	6
VPA-PB15-8J	8
VPA-PB15-10J	10
VPA-PB15-12J	12

■ Pad bellows for packaging bag 5 steps type(Lip hardness:40°)

Model code	PAD O.D. (ømm)
VP30PBS45	30
VP40PBS45	40
VP50PBS45	50

■ Pad bellows for packaging bag 3 steps type(Lip hardness:40°)

Model code	PAD O.D. (ømm)
VP30PBS43	30
VP40PBS43	40
VP50PBS43	50

■ Suction Proof Adapter Parallel Type

Model code	PAD O.D. (ømm)
VP30PB-FF	30
VP40PB-FF	40
VP50PB-FF	50

■ Suction Proof Adapter Spherical Type

Model code	PAD O.D. (ømm)
VP30PB-FS	30
VP40PB-FS	40
VP50PB-FS	50

PISCO