

Vacuum pad

VSP

■ Pneumatic components



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Vacuum pad

Compact

General/Deep

Sponge

Bellows

Multi-level
bellows

Oval

Soft













Soft bellows

Nonskid

Thin

Long stroke

○: Option

Pad shape	Holder shape		Pad size	Pad material	Free holder (swinging)	Position locking valve	Page
	With buffer	Vacuum outlet					
Compact vacuum pad: VSP-M* various pads shapes · Space conserved by downsizing existing holder 	<Small> None (fixed type)	Top/joint Side/joint Direct mount type	● Standard small type (ø0.7, ø1, ø1.5, ø2, ø3, ø4) is added to conventional pad type series	● Material for compact type Nitrile rubber, silicon rubber, urethane rubber, Fluoro rubber, antistatic silicon rubber, Antistatic butadiene rubber, Food Sanitation Law compliant NBR		○	246
Standard type (General type): VSP-*R · Ideal for thick, flat work pieces 	None (fixed type) None (with stopper)	Top/joint Side/joint Direct mount type Top/joint Side/joint Direct mount type	ø1, ø2, ø3, ø4, ø6, ø8, ø10, ø15, ø20, ø25, ø30, ø40, ø50, ø60, ø80, ø100, ø150, ø200	Nitrile rubber, silicon rubber, Urethane rubber, fluoro rubber, Antistatic silicon rubber, Antistatic butadiene rubber, Food Sanitation Law compliant NBR	○	○	258
Standard type (Deep type): VSP-*A · Ideal for picking up round balls, etc. 	None (fixed type) None (with stopper)	Top/joint Side/joint Direct mount type Top/joint Side/joint Direct mount type	ø15, ø20, ø25, ø30, ø40, ø50, ø60, ø80, ø100	Nitrile rubber, silicon rubber, Urethane rubber, fluoro rubber, Antistatic silicon rubber, Antistatic butadiene rubber, Food Sanitation Law compliant NBR	○	○	258
Sponge type: VSP-*S · Ideal for workpieces with uneven surfaces, such as exterior walls 	None (fixed type) Provided (with stopper)	Top/joint Side/joint Top/joint Side/joint Direct mount type	ø10, ø15, ø20, ø20, ø30, ø35, ø50, ø70, ø100	Cloroplane rubber	○	○	280
Bellows type: VSP-*B · Ideal for soft workpieces, such as paper or vinyl-packed products 	None (fixed type) Provided (with stopper)	Top/joint Side/joint Top/joint Side/joint Direct mount type	ø10, ø20, ø30, ø40, ø50, ø80	Nitrile rubber, Silicon rubber, Antistatic silicon rubber	○	○	290
Multi-level bellows type: VSP-*W · Ideal for transferring inclined work pieces or vinyl-packed products 	None (fixed type) Provided (with stopper)	Top/joint Side/joint Top/joint Side/joint Direct mount type	ø10, ø20, ø30, ø40, ø50	Nitrile rubber, Silicon rubber, Food Sanitation Law compliant NBR		○	300
Oval type: VSP-*E · Ideal for workpieces with limited suction space, such as IC circuit boards 	None (fixed type) None (screw fixed type) Provided (with stopper)	Top/joint Side/joint Top/joint Side/joint Direct mount type Top/joint Side/joint Direct mount type	4 x 10, 4 x 20, 4 x 30, 5 x 10, 5 x 20, 5 x 30, 6 x 10, 6 x 20, 6 x 30, 8 x 20, 8 x 30	Nitrile rubber, Silicon rubber, Antistatic butadiene rubber	○	○	310
Soft type: VSP-*L · Ideal for unloading molded parts, and transferring delicate workpieces 	None (fixed type) Provided (with stopper) Provided (without stopper)	Top/joint Side/joint Side/joint (Direct mounting type) Top/joint Side/joint Direct mount type Top/joint Side/joint Direct mount type	ø4, ø6, ø8, ø10, ø15, ø20, ø30, ø40	Nitrile rubber, silicon rubber, Fluoro silicon rubber, Antistatic silicon rubber	○	○	324
Soft bellows type: VSP-*LB · Ideal for unloading molded parts, and picking up paper, etc. 	None (fixed type) Provided (with stopper) Provided (without stopper)	Top/joint Side/joint Side/joint (Direct mounting type) Top/joint Side/joint Direct mount type Top/joint Side/joint Direct mount type	ø6, ø8, ø10, ø15, ø20	Nitrile rubber, Silicon rubber	○	○	338
Nonskid type: VSP-*K* · Ideal of workpieces covered with oil, such as pressed parts 	None (fixed type) Provided (with stopper)	Top/joint Side/joint Top/joint Side/joint Direct mount type	ø10, ø20, ø30, ø40, ø50	Oil-resistant NBR	○	○	352
Thin type: VSP-*P · Ideal for transferring thin workpieces, such as photocopy paper and vinyl 	None (fixed type) Provided (with stopper)	Top/joint Side/joint Direct mount type Top/joint Side/joint Direct mount type	ø8, ø10, ø15, ø20	Nitrile rubber, Fluoro silicon rubber			360
Long stroke: VSP various pads shapes · Ideal when distance from pad to workpiece is not specific 			● Corresponding pad shape Standard type (general), Bellows type, Oval type Standard type (deep), Nonskid type, Sponge type	● Compatible stroke 10mm, 15mm, 20mm, 30mm, 40mm, 50mm	○	○	368

Vacuum pad

Compact

General/Deep

Sponge

Bellows

Multi-level bellows

Oval

Soft

Soft bellows

Nonskid

Thin

Long stroke

Vacuum pad

Compact

General/Deep

Sponge

Bellows

Multi-level bellows

Oval

Soft

Soft bellows

Nonskid

Thin

Long stroke

How to select vacuum pad

Theoretical lift force (General pad)

■ Theoretical lift force is obtained with the pad area and the vacuum generated when using that pad.

<kPa, N display>

$$W = \frac{C \times P}{101} \times 10.13 \times f$$

W: Theoretical lift force (N)

C: Pad area (cm²)

P: Vacuum (-kPa)

f: Safety factor

<mmHg, kg display>

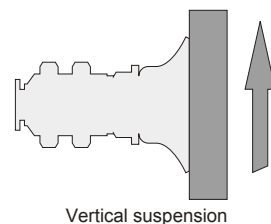
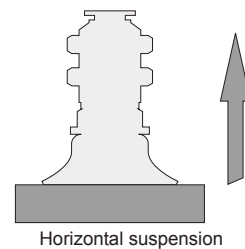
$$W = \frac{C \times P}{760} \times 1.0332 \times f$$

W: Theoretical lift force (kg)

C: Pad area (cm²)

P: Vacuum (-mmHg)

f: Safety factor



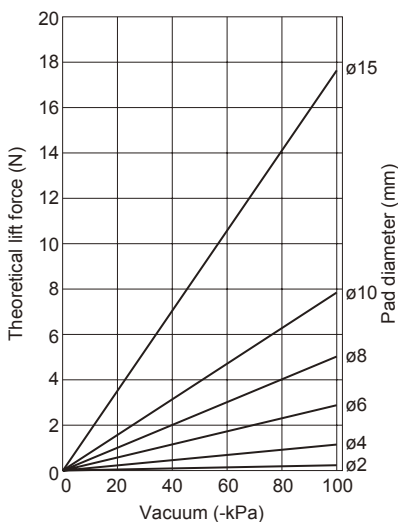
*1: When using a sponge pad, the value is calculated with the inner diameter of the sponge pad so see the separate table.

*2: Due to the characteristics of the pad, the lift force of the bellows type (multistage bellows) and soft type (soft bellows) pad may differ from the theoretical lift force.

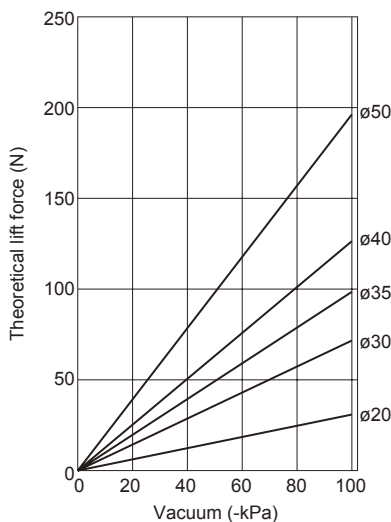
*3: The theoretical lift force is a value calculated under static conditions. When actually using the value, provide a 1/4 safety factor for the horizontal suspension, and a 1/8 safety factor for a vertical suspension. Acceleration when moving must also be considered. (Refer to the drawing at right.)

● General pad (rubber pad)

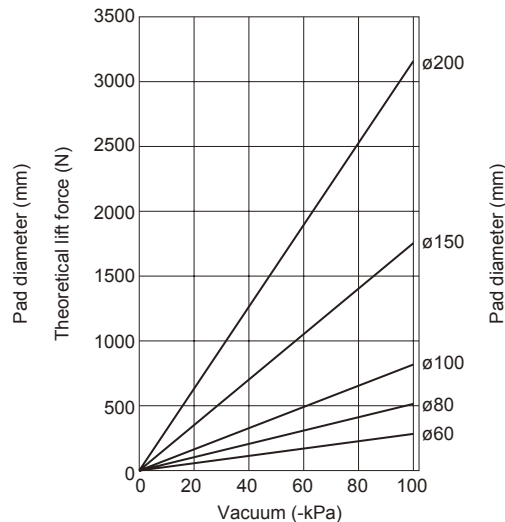
· Pad diameter: ø2mm to ø15mm



· Pad diameter: ø20mm to ø50mm

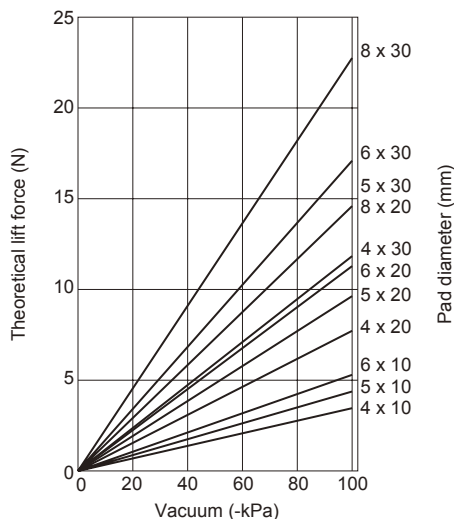


· Pad diameter: ø60mm to ø200mm



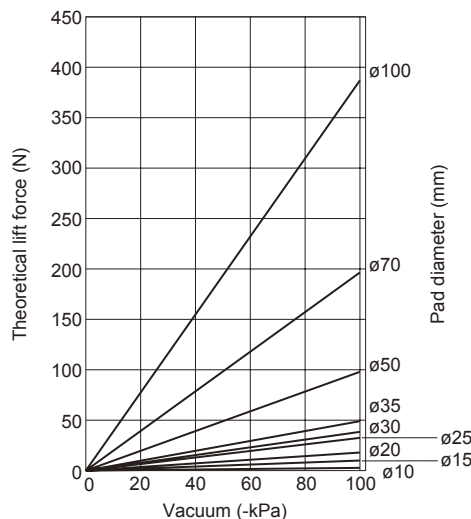
● Oval pad

· Pad diameter: * x 10mm, * x 20mm, * x 30mm



● Sponge pad

· Pad diameter: ø10mm to ø100mm



Selection guide

Characteristics of each pad

Pad material		Nitrile rubber	Silicon rubber	Urethane rubber	Fluorine rubber	Fluoro silicon rubber	Butadiene rubber (low-resistance type)	Cloroplane rubber (sponge type)
		NBR	Si	U	FKM	FSi	BR	CR
Item								
Pad color		Black ^{*2}	White	Blue	Gray	Light blown	Black	Black
Properties	Surface hardness (Shear A)	40 to 60	40 to 50	60	60	40	60	-
	High temperature working limit temperature	110	180	60	230	180	100	80
	Low temperature working limit temperature	-30	-40	-20	-10	-50	-50	-45
	Weather resistance	△	◎	○	○	○	○	○
	Ozone resistance	△	◎	◎	◎	◎	X	○
	Acid resistance	△	○	X	◎	○	△	△
	Alkaline resistance	○	◎	X	X	◎	○	◎
	Oil resistance	(Gasoline, light oil)	◎	△	◎	◎	△	X
(Benzene, toluene)		△	△	△	◎	△	X	△

Reading the evaluation ⇒ ◎: Best, ○: Appropriate, △: Acceptable, X: Incompatible

*1: The surface resistance rate of the low resistance pad is 200 Ω or less.

*2: Food Sanitation Law compliant pads are in gray.

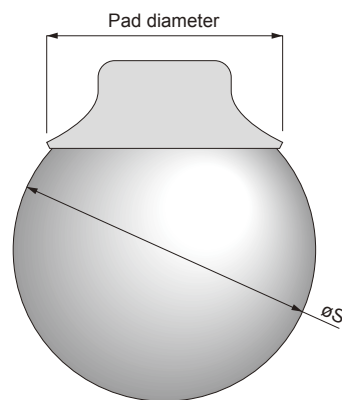
Note 1: The listed properties are the characteristics of typical synthetic rubber used for pad materials.

Note 2: The working limit temperature is an instant temperature. This must be carefully confirmed if the temperature continues for a set time.

Sucking up a spherical surface (deep pad)

Minimum pickup diameter

Pad diameter (mm)	ø15	ø20	ø25	ø30	ø40	ø50	ø60	ø80	ø100
Sphere diameter (ø Smm)	20	30	40	50	80	100	120	160	200



Vacuum pad

Pad diameter conformity table according to material

Material Pad diameter	N Nitrile						
	Standard (general type)	Standard (deep type)	Bellows type	Multi-level bellows	Soft type	Soft bellows	Thin type
1	●						
2	●						
3	●						
4	●				●		
6	●				●	●	
8	●				●	●	●
10	●		●	●	●	●	●
15	●	●			●	●	●
20	●	●	●	●	●	●	●
25	●	●					
30	●	●	●	●	●		
35							
40	●	●	●	●	●		
50	●	●	●	●			
60	●	●					
70							
80	●	●	●				
100	●	●					
150	●						
200	●						

Material Pad diameter	S Silicon					FS Fluoro silicon		
	Standard (general type)	Standard (deep type)	Bellows type	Multi-level bellows	Soft type	Soft bellows	Soft type	Thin type
1	●							
2	●							
3	●							
4	●				●		●	
6	●				●	●	●	
8	●				●	●	●	●
10	●		●	●	●	●	●	●
15	●	●			●	●	●	●
20	●	●	●	●	●	●	●	●
25	●	●						
30	●	●	●	●	●		●	
35								
40	●	●	●	●	●		●	
50	●	●	●	●				
60	●	●						
70								
80	●	●	●					
100	●	●						
150	●							
200	●							

Material Pad diameter	U Urethane		F Fluorine rubber		SE Antistatic rubber			E Antistatic rubber (low-resistance type)
	Standard (general type)	Standard (deep type)	Standard (general type)	Standard (deep type)	Standard (general type)	Bellows type	Soft type	Standard (general type)
1	●		●		●			●
2	●		●		●			●
3	●		●		●			●
4	●		●		●		●	●
6	●		●		●		●	●
8	●		●		●		●	●
10	●		●		●	●	●	●
15	●	●	●	●	●		●	●
20	●	●	●	●	●	●	●	●
25	●	●	●	●	●			●
30	●	●	●	●	●	●	●	●
35								
40	●	●	●	●	●	●	●	●
50	●	●	●	●	●	●		●
60	●	●	●	●				
70								
80	●	●	●	●				
100	●	●	●	●				
150	●		●					
200	●		●					

Material Pad diameter	G Food Sanitation Law compliant NBR			Cloroplane rubber	KNH Oil-resistant NBR
	Standard (general type)	Standard (deep type)	Multi-level bellows	Sponge type	Nonskid type
1	●				
2	●				
3	●				
4	●				
6	●				
8	●				
10	●		●	●	●
15	●	●		●	
20	●	●	●	●	●
25	●	●		●	
30	●	●	●	●	●
35				●	
40	●	●	●		●
50	●		●	●	●
60					
70				●	
80					
100				●	
150					
200					

Vacuum pad

Compact

General/Deep

Sponge

Bellows

Multi-level bellows

Oval

Soft

Soft bellows

Nonskid

Thin

Long stroke



Vacuum pad for retort packed
Vacuum pad bellows type

VSP-*B* Series

● Pad diameter: $\varnothing 10$ to $\varnothing 80$

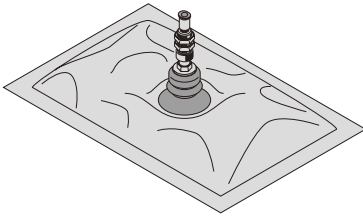


Features

- Extreme □
 - Pad diameter: $\varnothing 10\text{mm}$, $\varnothing 20\text{mm}$, $\varnothing 30\text{mm}$, $\varnothing 40\text{mm}$, $\varnothing 50\text{mm}$, $\varnothing 80\text{mm}$
 - Pad material: Nitrile rubber, silicon rubber
 - Holder shape: five types

Application

- Retort pack or bag-packed food



Vacuum pad

Compact

General/Deep

Sponge

Bellows

Multi-level bellows

Oval

Soft

Soft bellows

Nonskid

Thin

Long stroke

How to order *Refer to the table on page 292 to 298 for the model combination.

● Vacuum pad/bellows type



● Pad rubber only/bellows type



A Holder shape

B Pad diameter

C Pad shape

D Pad material

E Frame

F Port size/shape

G Free holder (swinging)

H Position locking valve

⚠ Note on model no. selection

Note 1: Item B "80" cannot be selected when "V" is selected for Item H.

Note 2: Item G "F1" and "F2" and Item H "V" cannot be selected at the same time.

Note 3: See page 417 for details on the free holder (F1, F2), and page 422 for details on the position locking valve (V).

See the list of target vacuum pads (page 424) for details on applicable pad sizes and shapes.

Symbol	Descriptions
A Holder shape	
A	Fixed type with vacuum outlet on top
B	Fixed type with vacuum outlet on side
C	Top vacuum outlet with buffer
D	Side vacuum outlet with buffer
F	Direct mount type with buffer
B Pad diameter Note 1	
See Appendix Table 1 for the pad diameter.	
C Pad shape	
B	Bellows type
D Pad material	
N	Nitrile rubber
S	Silicon rubber
SE	Antistatic silicon rubber
E Frame	
Blank	Without frame
A	With frame
F Port size/shape	
6	ø6 push-in joint
6T	ø6 barbed joint
6A	Rp1/8
G Free holder (shaking) Note 2 Page 417	
F1	With free holder 30° swinging angle type
F2	With free holder 15° swinging angle type
Blank	No free holder
H Position locking valve Note1, 2 Page 422	
V	With position locking valve
Blank	Without

Appendix Table 1

Pad diameter						
Symbol	10	20	30	40	50	80
Pad diameter (mm)	ø10	ø20	ø30	ø40	ø50	ø80

Characteristic of pad materials

Item	Pad material	Nitrile rubber	Silicon rubber	
		NBR	Si	
Pad color		Black	White	
Properties	Surface hardness (Shear A)	40 to 60	40 to 50	
	High temperature working limit temperature	110	180	
	Low temperature working limit temperature	-30	-40	
	Weather resistance	△	◎	
	Ozone resistance	△	◎	
	Acid resistance	△	○	
	Alkaline resistance	○	◎	
	Oil resistance	(Gasoline, light oil)	◎	△
		(Benzene, toluene)	△	△

Reading the evaluation ⇒ ◎: Best, ○: Appropriate, △: Acceptable, X: Incompatible
 Note 1: The listed properties are the characteristics of typical synthetic rubber used for pad materials.

Note 2: The working limit temperature is an instant temperature. This must be carefully confirmed if the temperature continues for a set time.

Vacuum pad
Compact
General/Deep
Sponge
Bellows
Multi-level bellows
Oval
Soft
Soft bellows
Nonskid
Thin
Long stroke

VSP-*B* Series

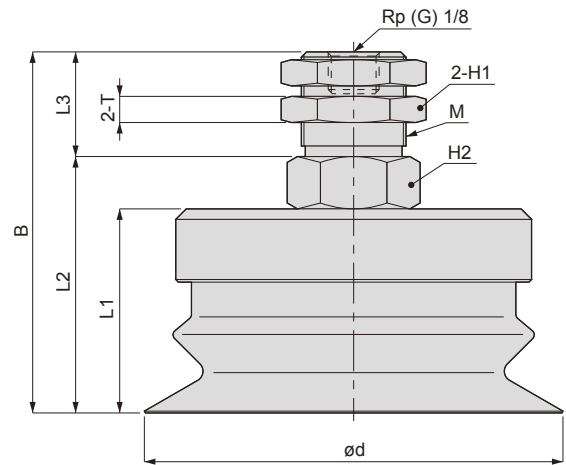
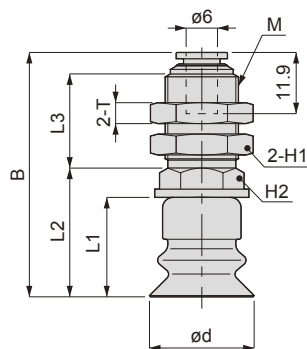
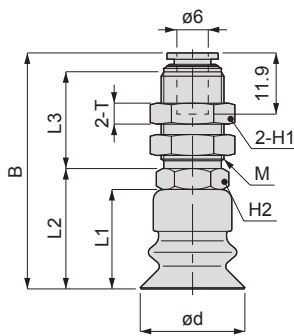
Dimensions (fixed type, top vacuum outlet VSP-A)

● Push-in joint type VSP-A**B-6/6A

· VSP-A10B*

· VSP-A20 to 50B*

· VSP-A80B*



Vacuum pad

Compact

General/Deep

Sponge

Bellows

Multi-level bellows

Oval

Soft

Soft bellows

Nonskid

Thin

Long stroke

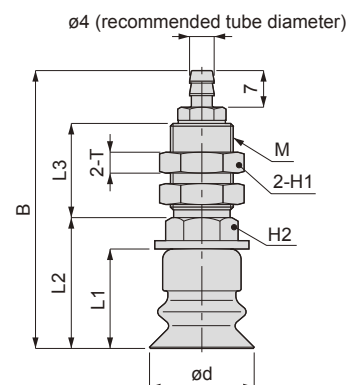
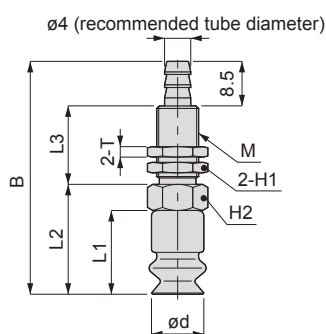
Unit: mm

Model No.	Pad diameter ød	Set screw M	B	L1	L2	L3	Opposite side H1	Opposite side H2	T	Weight (g)
VSP-A 10B*-6	10	M12 x 1	42.3	16	20	18.5	14	12	4	21.5
VSP-A 20B*-6	20	M14 x 1	46.9	19	24.6	18	17	14	4	36.5
VSP-A 30B*-6	30	M14 x 1	50.9	23	28.6	18	17	14	4	40
VSP-A 40B*-6	40	M14 x 1	57.9	30	35.6	18	17	14	4	48.5
VSP-A 50B*-6	50	M14 x 1	59.9	32	37.6	18	17	14	4	54.5
VSP-A 80B*-6A	80	M20 x 1	69	39	49	20	24	22	5	223

● Barbed joint type VSP-A**B-6T

· VSP-A10B*

· VSP-A20 to 50B*



Unit: mm

Model No.	Pad diameter ød	Set screw M	B	L1	L2	L3	Opposite side H1	Opposite side H2	T	Weight (g)
VSP-A 10B*-6T	10	M8 x 0.75	44.5	16	21	15	10	10	2	12
VSP-A 20B*-6T	20	M12 x 1	53	19	25	18	14	12	4	30
VSP-A 30B*-6T	30	M12 x 1	57	23	29	18	14	12	4	33.5
VSP-A 40B*-6T	40	M12 x 1	64	30	36	18	14	12	4	42
VSP-A 50B*-6T	50	M12 x 1	66	32	38	18	14	12	4	48

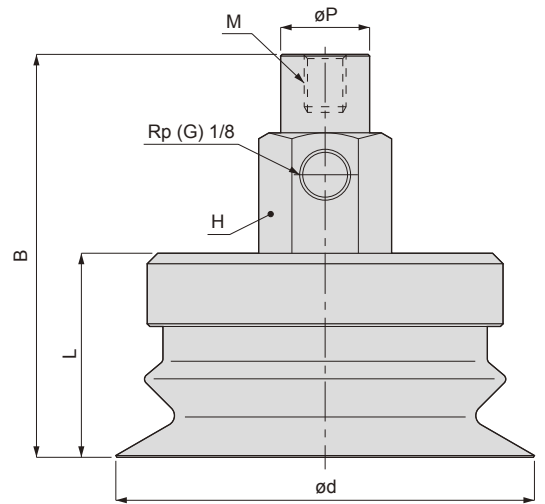
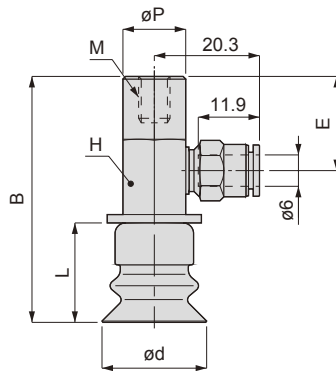
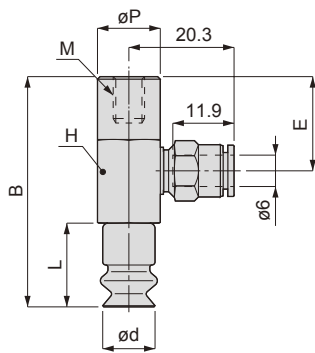
Dimensions (fixed type, side vacuum outlet VSP-B)

● Push-in joint type VSP-B**B-6/6A

· VSP-B10B*

· VSP-B20 to 50B*

· VSP-B80B*



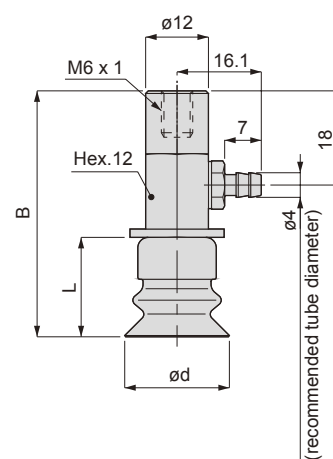
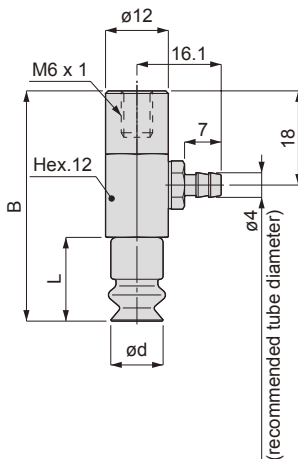
Unit: mm

Model No.	Pad diameter ød	Set screw M	B	L	øP	E	Opposite side H	Weight (g)
VSP-B 10B*-6	10	M6 x 1	44	16	12	18	12	30.5
VSP-B 20B*-6	20	M6 x 1	47	19	12	18	12	34
VSP-B 30B*-6	30	M6 x 1	51	23	12	18	12	37.5
VSP-B 40B*-6	40	M6 x 1	58	30	12	18	12	46
VSP-B 50B*-6	50	M6 x 1	60	32	12	18	12	52
VSP-B 80B*-6A	80	M8 x 1.25	77	39	17	23	22	229.5

● Barbed joint type VSP-B**B-6T

· VSP-B10B*

· VSP-B20 to 50B*



Unit: mm

Model No.	Pad diameter ød	B	L	Weight (g)
VSP-B 10B*-6T	10	44	16	29
VSP-B 20B*-6T	20	47	19	32
VSP-B 30B*-6T	30	51	23	35.5
VSP-B 40B*-6T	40	58	30	44
VSP-B 50B*-6T	50	60	32	50

Vacuum pad

Compact

General/Deep

Sponge

Bellows

Multi-level bellows

Oval

Soft

Soft bellows

Nonskid

Thin

Long stroke

VSP-*B* Series

Dimensions (with buffer, top vacuum outlet VSP-C)

● Push-in joint type VSP-C**B-6/6A

• VSP-C10B*

• VSP-C20 to 50B*

• VSP-C80B*

Vacuum pad

Compact

General/Deep

Sponge

Bellows

Multi-level bellows

Oval

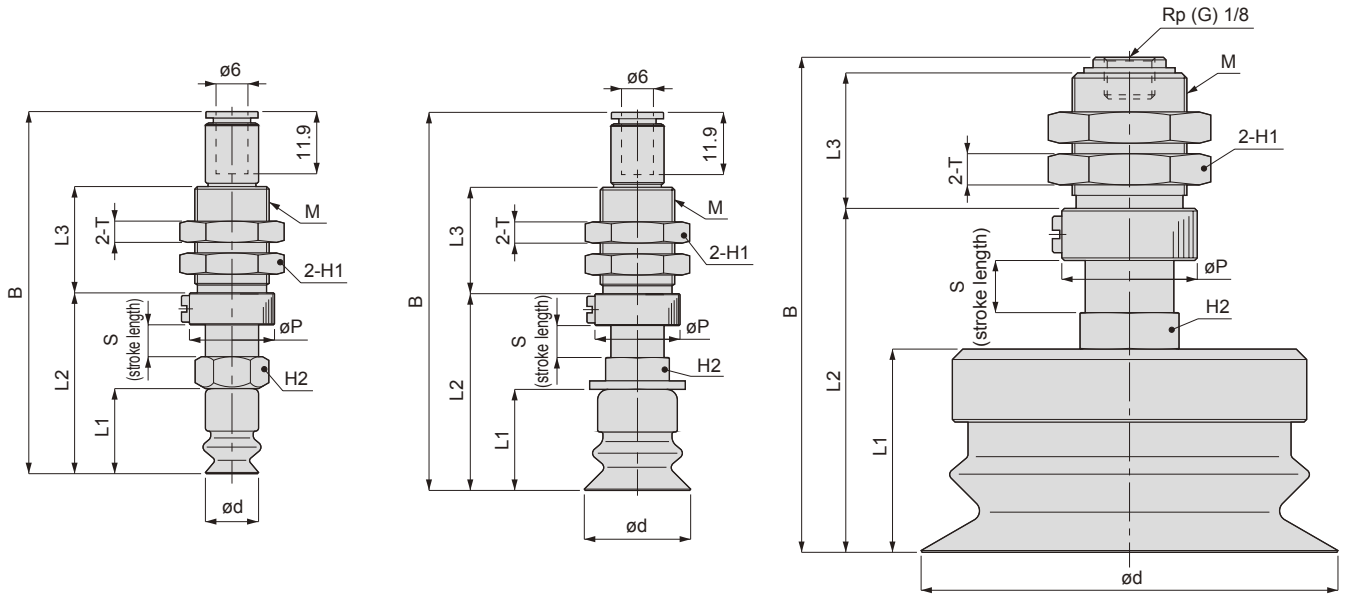
Soft

Soft bellows

Nonskid

Thin

Long stroke



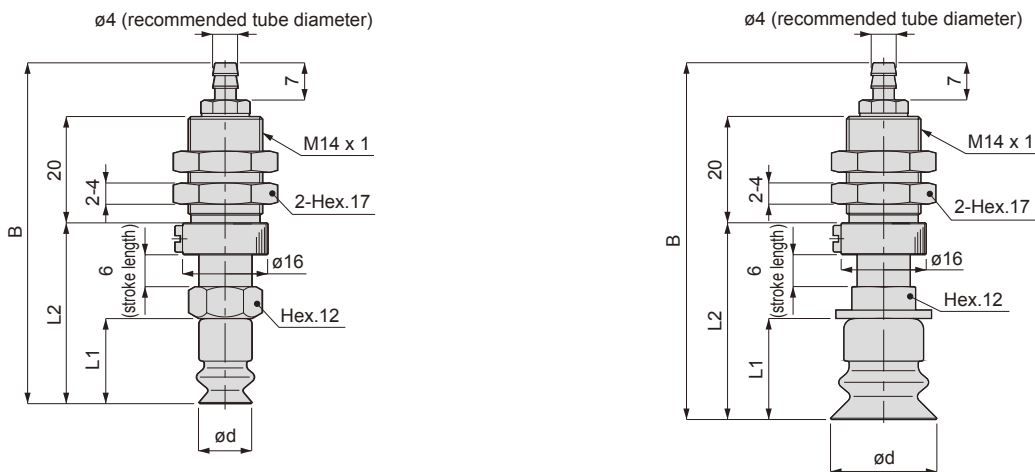
Unit: mm

Model No.	Pad diameter ϕd	Set screw M	B	L1	L2	L3	ϕP	stroke S	Opposite side H1	Opposite side H2	T	Spring force (N)	Weight (g)
VSP-C 10B*-6	10	M14 x 1	68.3	16	34	20	16	6	17	12	4	5 to 7	36
VSP-C 20B*-6	20	M14 x 1	71.3	19	37	20	16	6	17	12	4	8 to 12	39.5
VSP-C 30B*-6	30	M14 x 1	75.3	23	41	20	16	6	17	12	4	8 to 12	43.5
VSP-C 40B*-6	40	M14 x 1	82.3	30	48	20	16	6	17	12	4	8 to 12	52
VSP-C 50B*-6	50	M14 x 1	84.3	32	50	20	16	6	17	12	4	8 to 12	57.5
VSP-C 80B*-6A	80	M22 x 1	95	39	66	26	26	10	27	19	6	12 to 15	251

● Barbed joint type VSP-C**B-6T

• VSP-C10B*

• VSP-C20 to 50B*



Unit: mm

Model No.	Pad diameter ϕd	B	L1	L2	Spring force (N)	Weight (g)
VSP-C 10B*-6T	10	64.1	16	34	5 to 7	34
VSP-C 20B*-6T	20	67.1	19	37	8 to 12	37.5
VSP-C 30B*-6T	30	71.1	23	41	8 to 12	41
VSP-C 40B*-6T	40	78.1	30	48	8 to 12	49.5
VSP-C 50B*-6T	50	80.1	32	50	8 to 12	55.5

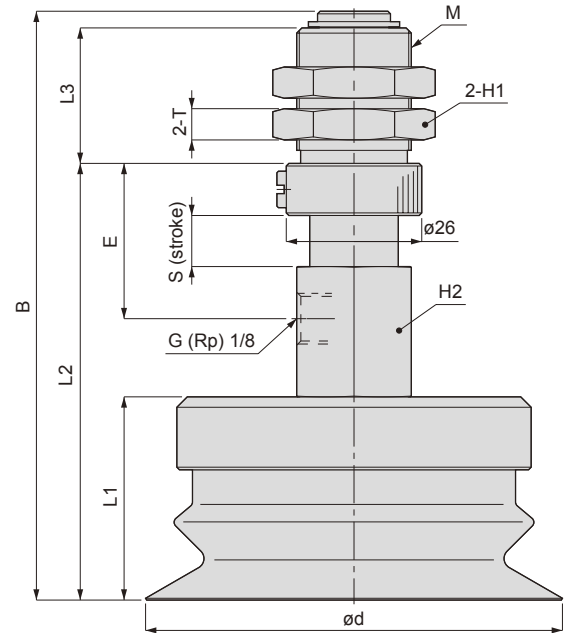
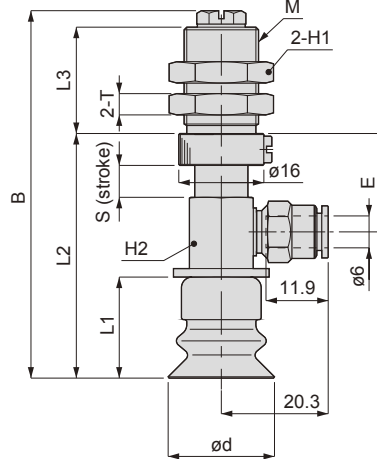
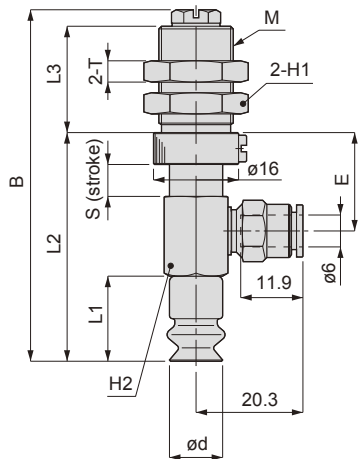
Dimensions (with buffer, side vacuum outlet VSP-D)

● Push-in joint type VSP-D**B-6/6A

• VSP-D10B*

• VSP-D20 to 50B*

• VSP-D80B*



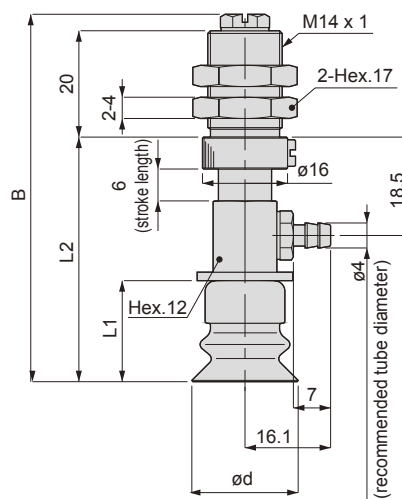
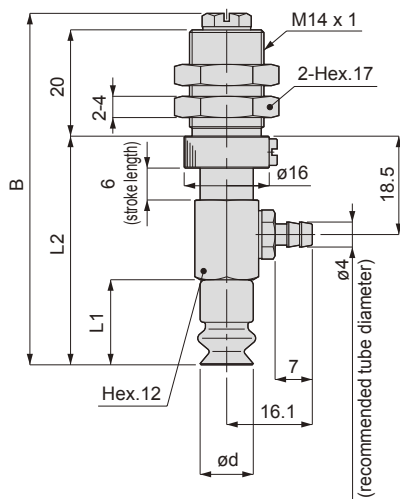
Unit: mm

Model No.	Pad diameter ød	Set screw M	B	L1	L2	L3	stroke S	E	Opposite side H1	Opposite side H2	T	Spring force (N)	Weight (g)
VSP-D 10B*-6	10	M14 x 1	66.1	16	43	20	6	18.5	17	12	4	5 to 7	48
VSP-D 20B*-6	20	M14 x 1	69.1	19	46	20	6	18.5	17	12	4	8 to 12	51.5
VSP-D 30B*-6	30	M14 x 1	73.1	23	50	20	6	18.5	17	12	4	8 to 12	55
VSP-D 40B*-6	40	M14 x 1	80.1	30	57	20	6	18.5	17	12	4	8 to 12	63.5
VSP-D 50B*-6	50	M14 x 1	82.1	32	59	20	6	18.5	17	12	4	8 to 12	69.5
VSP-D 80B*-6A	80	M22 x 1	113	39	84	26	10	30	27	22	6	12 to 15	333.5

● Barbed joint type VSP-D**B-6T

• VSP-D10B*

• VSP-D20 to 50B*



Unit: mm

Model No.	Pad diameter ød	B	L1	L2	Spring force (N)	Weight (g)
VSP-D 10B*-6T	10	66	16	43	5 to 7	48
VSP-D 20B*-6T	20	69	19	46	8 to 12	51.5
VSP-D 30B*-6T	30	73	23	50	8 to 12	55
VSP-D 40B*-6T	40	80	30	57	8 to 12	63.5
VSP-D 50B*-6T	50	82	32	59	8 to 12	69.5

Vacuum pad
 Compact
 General/Deep
 Sponge
 Bellows
 Multi-level bellows

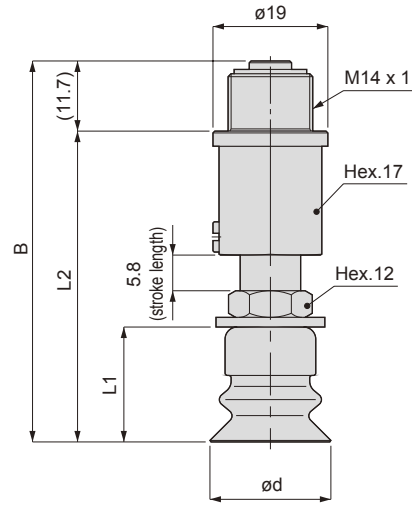
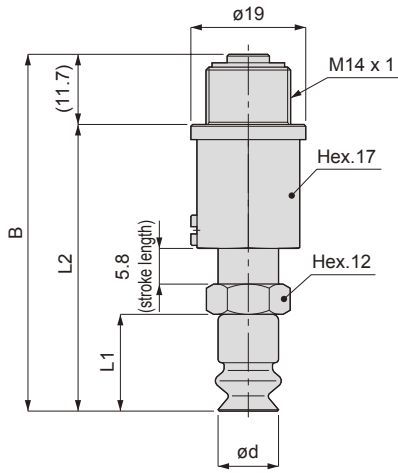
Oval
 Soft
 Soft bellows
 Nonskid
 Thin

Long stroke

Dimensions (direct mount type with buffer)

• VSP-F10B*

• VSP-F20 to 50B*



Vacuum pad

Compact

General/Deep

Sponge

Bellows

Multi-level bellows

Oval

Soft

Soft bellows

Nonskid

Thin

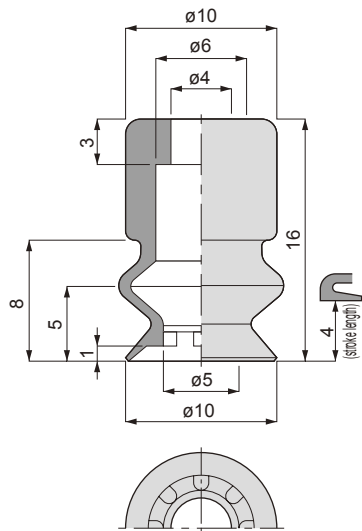
Long stroke

Unit: mm

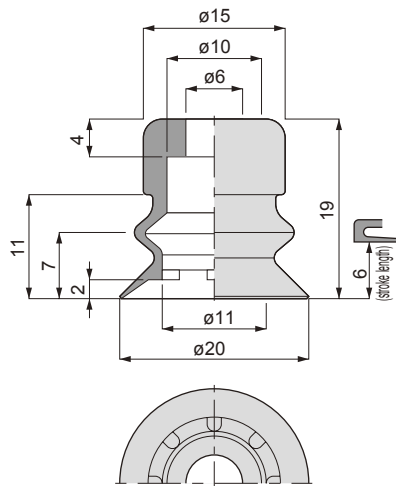
Model No.	Pad diameter ϕd	B	L1	L2	Spring force (N)	Weight (g)
VSP-F 10B*	10	59	16	47.3	9 to 13	56
VSP-F 20B*	20	63	19	51.3	9 to 13	58.5
VSP-F 30B*	30	67	23	55.3	9 to 13	62
VSP-F 40B*	40	74	30	62.3	9 to 13	70.5
VSP-F 50B*	50	76	32	64.3	9 to 13	76.5

Dimensions for only pad type

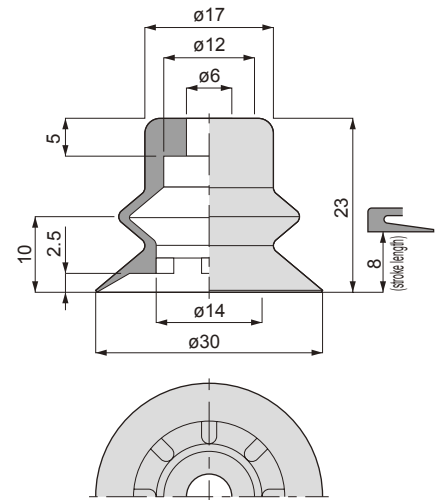
● VSPG-10B*



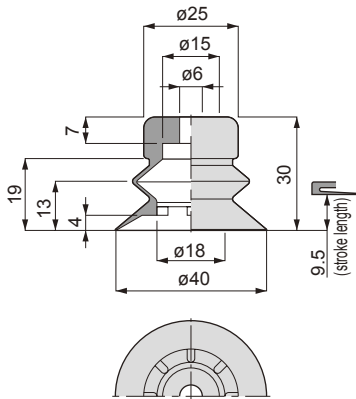
● VSPG-20B*



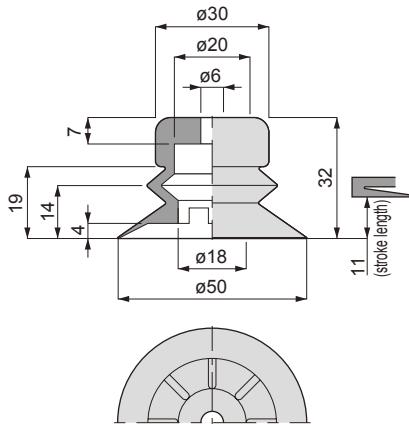
● VSPG-30B*



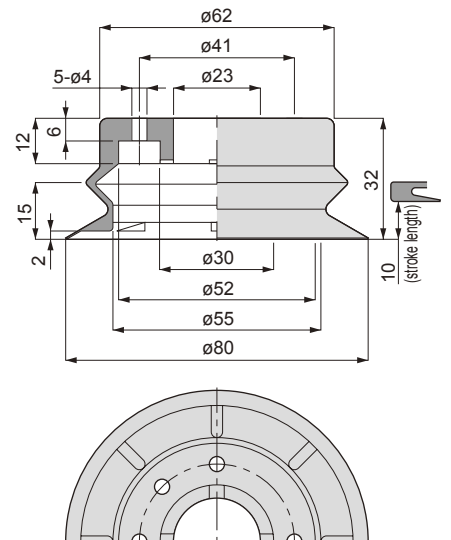
● VSPG-40B*



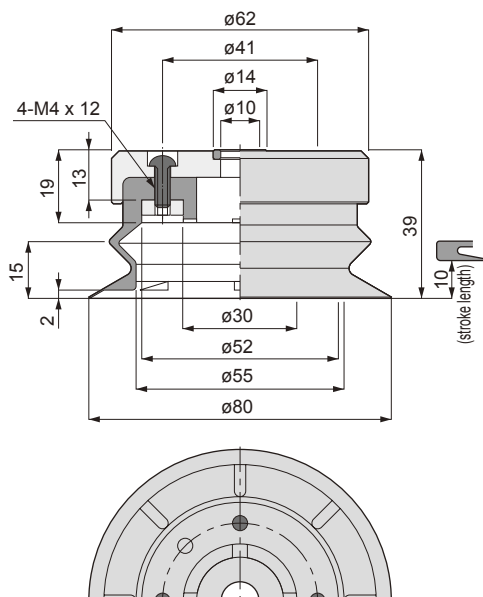
● VSPG-50B*



● VSPG-80B*



● VSPG-80B*A



Vacuum pad

Compact

General/Deep

Sponge

Bel lows

Multi-level bel lows

Oval

Soft

Soft bel lows

Nonskid

Thin

Long stroke

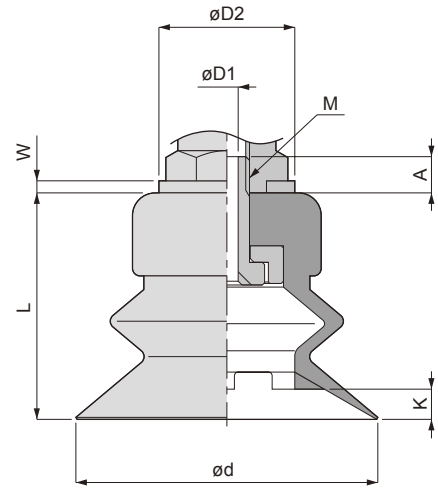
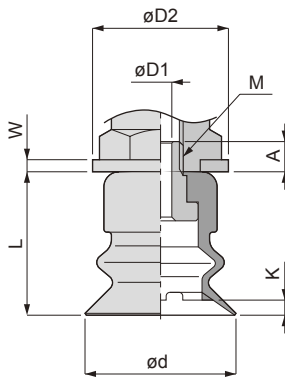
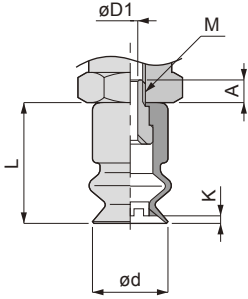
Detailed drawing of pad and holder fixing section

● VSPG-10B*

● VSPG-20, 30B*

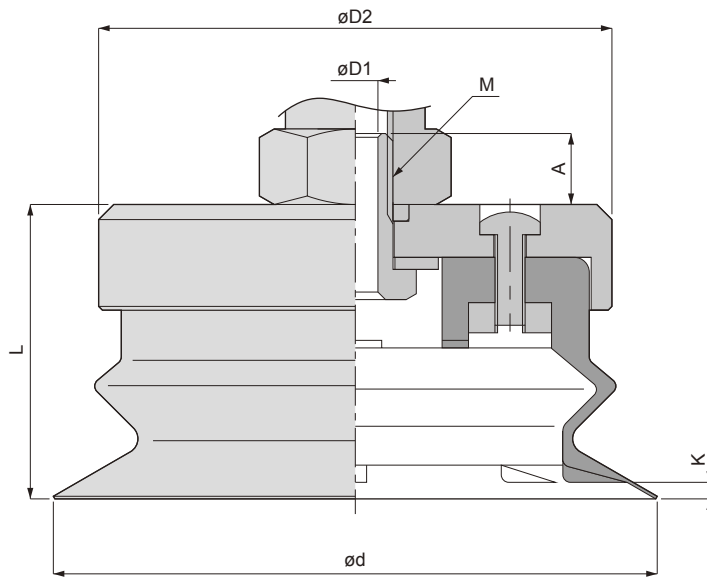
● VSPG-40, 50B*

Vacuum pad



Compact

● VSPG-80B*A



General/Deep

Sponge

Bellows

Multi-level bellows

Oval

Soft

Soft bellows

Nonskid

Thin

Long stroke

Unit: mm

Model No.	Pad diameter ϕd	L	Lip inner height K	Set screw M	A	$\phi D1$	$\phi D2$	W
VSPG-10B*	10	16	1	M4 x 0.7	3.5	2	-	-
VSPG-20B*	20	19	2	M6 x 1	4.5	3	18	1.6
VSPG-30B*	30	23	2.5	M6 x 1	5.5	3	18	1.6
VSPG-40B*	40	30	4	M6 x 1	5.3	3	22	1.6
VSPG-50B*	50	32	4	M6 x 1	5.3	3	22	1.6
VSPG-80B*A	80	39	2	M10 x 1.5	9.4	6	68	-

Vacuum pad

Compact

General/Deep

Sponge

Bellows

Multi-level
bellows

Oval

Soft

Soft bellows

Nonskid

Thin

Long stroke