Pad shape - pad size/pad material/option list

Pad shape		Pad Shape Code	Pad size 0.7	1	1.5	2	3	3.5	4	5	6	8	10	15	20	25	30	35	40	50	60	70	80
Standard Type	Standard	R	-	●	-	●	●	-	●	-	●	●	●	●	●	●	●	-	●	●	●	-	●
	Deep type	A	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	-	●	●	●	-	●
	Compact	RM	●	●	●	●	●	-	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sponge		S	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●	●	-	●	-	●	-
Bellows		B	-	-	-	●	-	-	●	-	●	●	●	●	●	●	●	-	●	●	●	-	●
Multi-stage bellows		W	-	-	-	-	-	-	-	-	●	●	●	-	●	-	●	-	●	●	-	-	-
Oval		E	-	-	-	2x4 ●	-	3.5x7 ●	4x10 4x20 4x30 ●	5x10 5x20 5x30 ●	6x10 6x20 6x30 ●	8x20 8x30 ●	-	-	-	-	-	-	-	-	-	-	-
Soft		L	-	-	-	-	-	-	●	-	●	●	●	●	●	-	●	-	●		-	-	-
Soft bellows		LB	-	-	-	-	-	-	-	-	●	●	●	●	●	-	-	-	-	-	-	-	-
Anti-slip		K	-	-	-	-	-	-	-	-	-	-	●	-	●	-	●	-	●	●	-	-	-
Thin object type		P	-	-	-	-	-	-	-	-	-	●	●	●	●	-	-	-	-	-	-	-	-
Flat Type	Intake flow rate standard	F	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●	-	-	-	-	-	-
	Intake flow rate Increase	FH	-	-	-	-	-	-	-	-	-	-	●	●	●	●	●	-	-	-	-	-	-
Suction mark prevention		Q	-	-	-	-	-	-	-	-	-	-	●	-	●	-	●	-	-	-	-	-	-

Pad shape - holder shape list

Holder type / Pad shape	VSP-A VSP-MA	VSP-B VSP-MB	VSP-C VSP-MC	VSP-D VSP-MD	VSP-E VSP-ME	VSP-F	VSP-LFC	VSP-LFD	VSP-HC	VSP-HD	VSP-HDW	VSP-HE	VSP-HEW	VSP-AE	VSP-BE
Standard	● ●	● ●	● ●	● ●	● ●	●	●	●	●	●	●	●	●	-	-
Sponge	● ●	● ●	● ●	● ●	- -	●	●	●	●	●	●	●	●	-	-
Bellows	● ●	● ●	● ●	● ●	● ●	●	●	●	●	●	●	●	●	-	-
Multi-stage bellows	● ●	● ●	● ●	● ●	● ●	●	●	●	●	●	●	●	●	-	-
Oval	● ●	● ●	● ●	● ●	- -	●	●	●	●	●	●	●	●	●	●
Soft	● ●	● ●	● ●	● ●	- -	●	●	●	●	●	●	●	●	-	-
Soft bellows	● ●	● ●	● ●	● ●	- -	●	●	●	●	●	●	●	●	-	-
Anti-slip	● ●	● ●	● ●	● ●	- -	●	●	●	●	●	●	●	●	-	-
Thin object type	● ●	● ●	● ●	● ●	● ●	●	●	●	-	●	●	●	●	-	-
Flat	● ●	● ●	● ●	● ●	- -	●	●	●	●	●	●	●	●	-	-
Suction mark prevention	● ●	● ●	● ●	● ●	- -	●	●	●	●	●	●	●	●	-	-

				Pad material																		Option					
	100	150	200	Nitrile rubber	Silicone rubber	Urethane rubber	Fluoro rubber	Conductive silicone rubber	Conductive butadiene rubber (Low resistance Type)	Conductive NBR (Low resistance Type)	NBR compatible with the Food Sanitation Act	HNBR	EPDM	Fluorosilicone rubber	Oil-resistant NBR	Super soft silicone rubber 20°	Super soft silicone rubber 40°	Chloroprene rubber	PEEK	POM	Conductive PEEK	Free holder (swinging)	Flexible holder (swinging)	Position locking valve	Surface-treated rubber	Resin attachment	Specifications for rechargeable battery
				N	S	U	F	SE	E	NE	G	HN	EP	FS	NH	YS2	YS4	Blank	K	M	KE						
	●	●	●	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	●	●	●	●	-	●
	●	-	-	●	●	●	●	●	-	●	●	●	●	-	-	-	-	-	-	-	-	●	●	●	●	-	●
	-	-	-	●	●	●	●	●	●	●	●	●	●	-	-	-	-	-	-	-	-	-	●	●	●	-	●
	●	-	-	-	●	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	●	●	●	-	-	●
	●	-	-	●	●	●	●	●	-	●	-	●	●	-	-	●	●	-	-	-	-	●	●	●	●	● Parts for installation	●
	-	-	-	●	●	●	●	-	-	●	●	●	●	-	-	●	●	-	-	-	-	●	●	●	●	-	●
	-	-	-	●	●	●	●	●	●	●	-	●	●	-	-	-	-	-	-	-	-	●	●	●	●	-	●
	-	-	-	●	●	-	-	●	-	●	-	-	-	●	-	-	-	-	-	-	-	●	●	●	●	-	●
	-	-	-	●	●	●	-	●	-	●	-	●	●	-	-	-	-	-	-	-	-	●	●	●	●	-	●
	-	-	-	-	●	●	●	-	-	●	-	-	-	-	●	-	-	-	-	-	-	●	●	●	-	-	●
	-	-	-	●	●	●	●	-	-	●	-	-	-	●	-	-	-	-	-	-	-	-	●	●	●	-	●
	-	-	-	●	●	●	●	●	-	●	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	-	●
	-	-	-	●	●	-	●	●	-	●	-	-	-	-	-	-	-	-	-	-	-	●	●	●	●	-	●
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●	●	-	Standard ●	●	-	-	●

Holder type

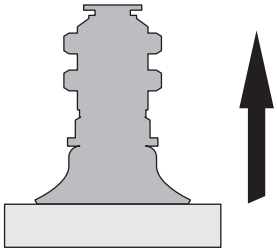
Code								
Standard	VSP-A	VSP-B	VSP-C	VSP-D	VSP-E	VSP-F	VSP-LFC	VSP-LFD
Compact	VSP-MA	VSP-MB	VSP-MC	VSP-MD	VSP-ME	-	-	-
Shape	Fixed Vacuum outlet top 	Fixed Vacuum outlet side 	Buffer type Vacuum outlet top 	Buffer type Vacuum outlet side 	Direct mounting Fixed 	Direct mounting Buffer type 	Low dust generation Buffer type Vacuum outlet top 	Low dust generation Buffer type Vacuum outlet side 

Code	Standard	VSP-HC	VSP-HD	VSP-HDW	VSP-HE	VSP-HEW	VSP-AE	VSP-BE
Shape		Lightweight With buffer Vacuum outlet top 	Lightweight With buffer Vacuum outlet side 	Lightweight With buffer Vacuum outlet both sides 	Low back Direct mounting, fixed Vacuum outlet side 	Low back Direct mounting, fixed Vacuum outlet both sides 	Screw fixing Vacuum outlet top 	Screw fixing Vacuum outlet side 

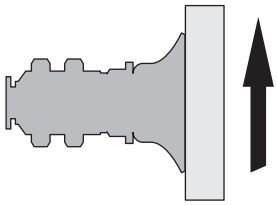
Selection method for suction pad

Theoretical suction force

The theoretical suction force is determined by the area of the pad and the vacuum pressure created when the pad is used. Use the calculated value as a reference value, carry out suction testing as necessary and confirm. Theoretical suction force is a value for static conditions, so please allow enough margin considering the mass of the workpiece and the force due to acceleration during movement (lifting, stopping, turning, etc.). Also, please allow sufficient margin when determining the number and placement of pads.



Horizontal plane lifting



Vertical plane lifting

①Using the formula

$$W = \frac{CxP}{101} x10.13xf$$

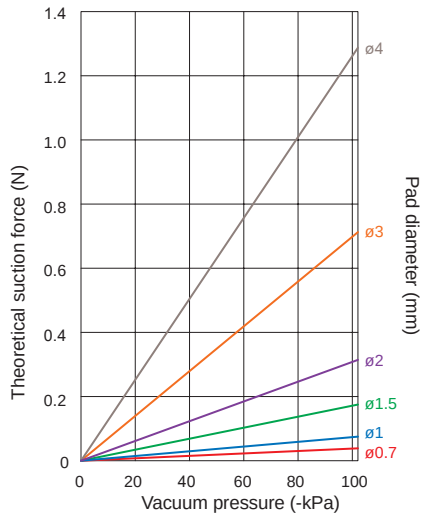
W: Suction force (N)
C: Pad area (cm²)
P: Vacuum pressure (-kPa)
f : Safety factor during horizontal lifting (refer to the figure at right): 1/4
During vertical lifting (refer to the figure at right): 1/8

*1: For the sponge pad, refer to the table on the right, as calculation uses the inner diameter of the sponge pad section.
*2: For the flat type pad, refer to the table on the following page, as calculation uses the grooves on the suction surface.
*3: For the suction force of bellows (multi-stage bellows)/soft (soft bellows)/thin pads, the theoretical suction force may exceed the strength of the pad itself depending on the pad characteristics and degree of vacuum, so please check with an actual device.

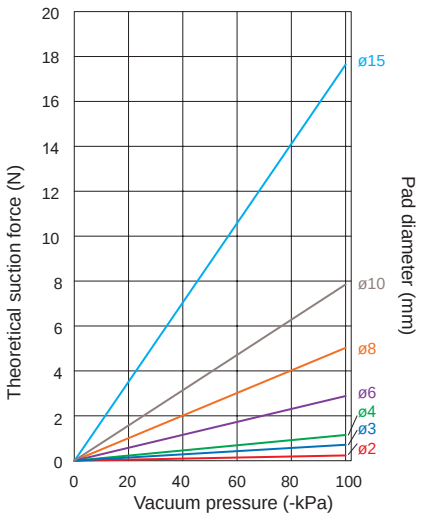
(2) Theoretical suction force graph < Add the safety factor to the numerical value obtained from the graph. >

Standard/bellows/multi-stage bellows/soft/soft bellows/anti-slip/for thin objects/suction mark prevention pad (*)

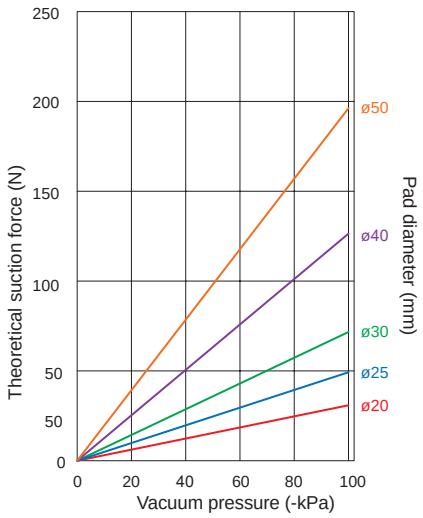
●Pad diameter (compact): ø0.7 mm to ø4 mm



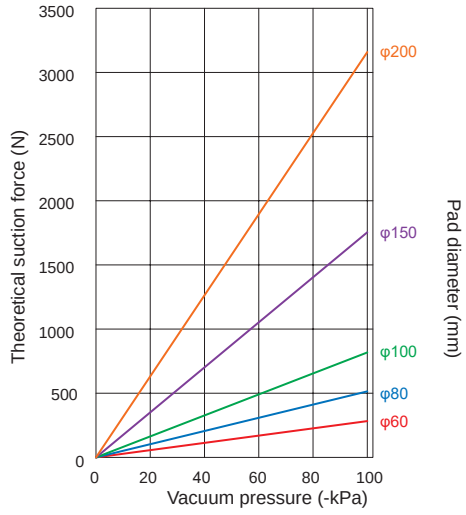
●Pad diameter ø2 mm to ø15 mm



●Pad diameter: ø20 mm to 50 mm



●Pad diameter ø60 mm to ø200 mm

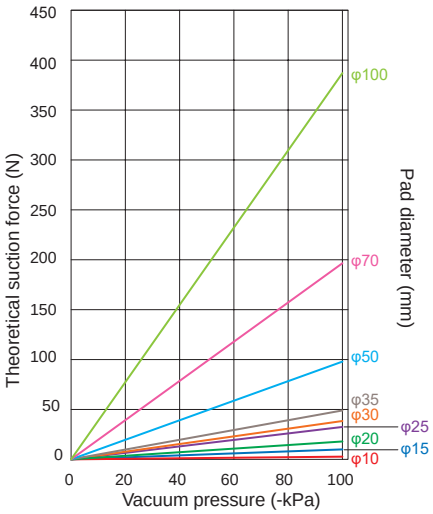


*Depending on the pad shape, there are pads with no setting for the pad diameter indicated in the graph. Check the size with the pad size list in the table below.

Pad shape		Standard	Bellows	Multi-Stage bellows	Soft	Soft bellows	Anti-slip	For thin objects	Suction mark prevention
Pad diameter (mm)	ø0.7	●	-	-	-	-	-	-	-
	ø1	●	-	-	-	-	-	-	-
	ø1.5	●	-	-	-	-	-	-	-
	ø2	●	●	-	-	-	-	-	-
	ø4	●	●	-	●	-	-	-	-
	ø6	●	●	●	●	●	-	-	-
	ø8	●	●	●	●	●	-	●	-
	ø10	●	●	●	●	●	●	●	●
	ø15	●	●	-	●	●	-	●	-
	ø20	●	●	●	●	●	●	●	●
	ø25	●	●	-	-	-	-	-	-
	ø30	●	●	●	●	-	●	-	●
	ø40	●	●	●	●	-	●	-	-
	ø50	●	●	●	-	-	●	-	-
	ø60	●	●	-	-	-	-	-	-
	ø80	●	●	-	-	-	-	-	-
	ø100	●	●	-	-	-	-	-	-
	ø150	●	-	-	-	-	-	-	-
	ø200	●	-	-	-	-	-	-	-

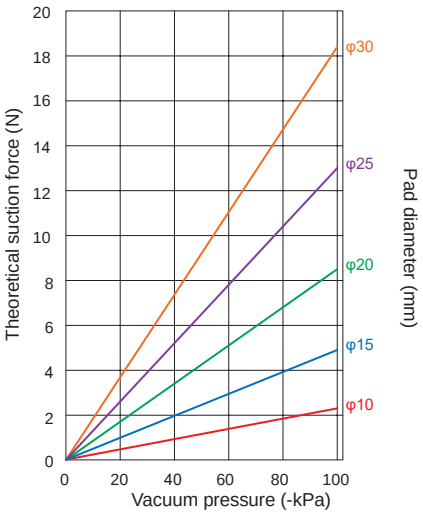
Sponge pad

●Pad diameter: ø10 mm to ø100 mm



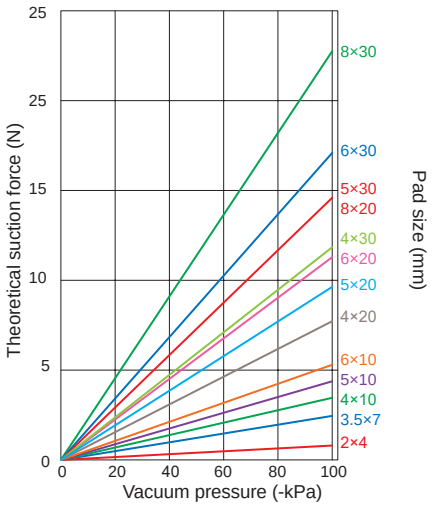
Flat pad

●Pad diameter: ø10 mm to ø30 mm



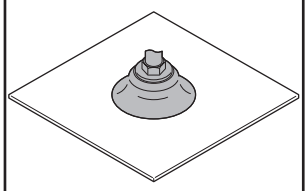
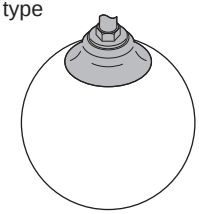
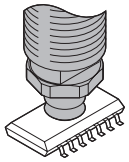
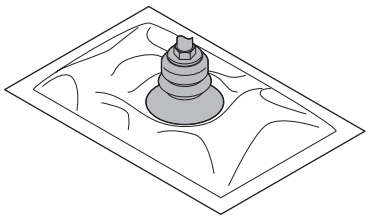
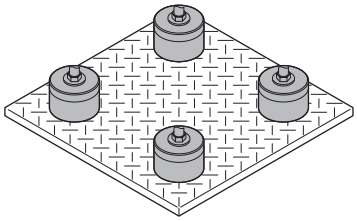
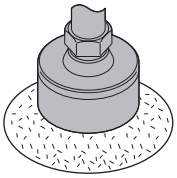
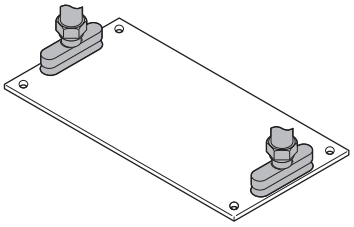
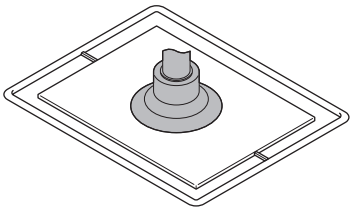
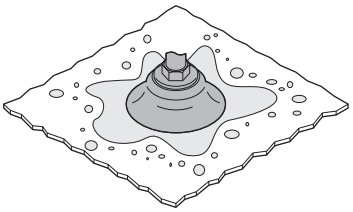
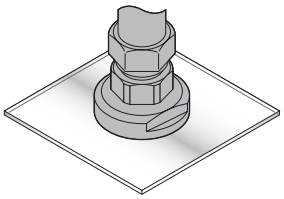
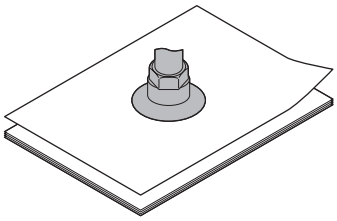
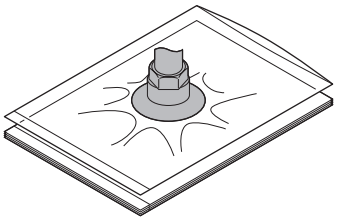
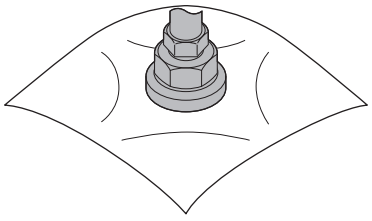
Oval pad

●Pad size: 2x4 mm to 8x30 mm



Suction pad

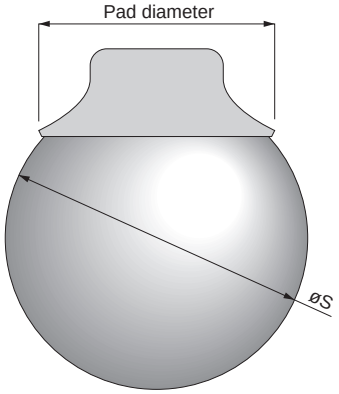
Suction pad shape

<table>
<tr><th colspan="3">Standard</th><th>Bellows/multi-stage bellows</th></tr>
<tr><td>Standard
  </td><td>Deep type
  </td><td>Compact
  </td><td>  </td></tr>
<tr><td>Thick and flat workpieces.</td><td>Round fruits (apples, etc.) and Round ball.</td><td>Compact workpieces and semiconductor manufacturing facilities.</td><td>Retort-packs and bags containing food, etc.</td></tr>
<tr><th colspan="2">Sponge</th><th colspan="2">Oval</th></tr>
<tr><td colspan="2"> 
  </td><td colspan="2">  </td></tr>
<tr><td colspan="2">Workpieces such as building outer wall materials, small stones and shells</td><td colspan="2">Long workpieces like substrates and semiconductors.</td></tr>
<tr><th>Soft/Soft bellows</th><th>Anti-slip</th><th colspan="2">Suction mark prevention</th></tr>
<tr><td>  </td><td>  </td><td colspan="2">  </td></tr>
<tr><td>Taking out molded products and easily damaged workpieces.</td><td>Workpieces with oil adhered such as press parts.</td><td colspan="2">Liquid crystal glass, painting process, semiconductor manufacturing facilities.</td></tr>
<tr><th colspan="2">Thin object type</th><th colspan="2">Flat type/flat intake flow rate increase type</th></tr>
<tr><td colspan="2"> 
  </td><td colspan="2">  </td></tr>
<tr><td colspan="2">Thin workpieces such as copy paper and vinyl.</td><td colspan="2">Thin workpieces such as sheets and vinyl.</td></tr>
</table>

●Suction of spherical surfaces (deep pad)

Minimum adsorbable diameter

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



Characteristics of each pad material

Rubber material, sponge material

Item	Pad material	Nitriles Rubber	NBR compatible with the Food Sanitation Act	HNBR	Silicone rubber	Conductive silicone rubber	Super soft silicone rubber		Urethane rubber	Fluorine Rubber	Fluorosilicone rubber	EPDM	Conductive butadiene rubber (low resistance)	Conductive NBR (Low resistance)	Chloroprene rubber (sponge)	Silicone rubber (sponge)
	Order code	N, NH (* 1)	G	HN	S	SE	YS2	YS4	U	F	FS	EP	E	NE	Blank	S
Applications		Cardboard Plywood Iron plate Food-related Other general workpieces		Cardboard Plywood Iron plate Food-related Other general workpieces Low-concentration ozone Working in an environment	Semiconductor Taking out molded products Thin workpieces Food-related		Food-related		Cardboard Plywood Iron plate	Chemical atmospheres High temperature workpieces	Molded parts Remove	Used in applications requiring light resistance and ozone resistance, wet atmospheres	General semiconductor workpieces	Semiconductor	Workpieces with uneven surface	Workpieces with uneven surface Food-related
Pad color		Black	Light gray	Black	Clear White	Black	Pink	Blue	Dark blue	Gray	Dark orange	Black	Black	Black	Black	Dark orange
Characteristics: Surface hardness by pad shape (Shore A)	Standard	50° to 80°	60° to 70°	50° to 70°	50°	60°	–	–	55° to 70°	60° to 70°	-	50° to 70°	70°	60° to 70°	-	–
	Bellows	50°	–	50°	50°	60°	20°	40°	55°	60°	-	50°	–	60°	–	–
	Multi-Stage bellows	50°	50°	50°	50°	–	20°	40°	55°	50°	-	50°	–	60°	–	–
	Oval	40° to 50°	–	50°	40° to 50°	50° to 60°	–	–	55°	50°	–	50°	70°	70°	–	–
	Soft	40°	–	–	40°	60°	–	–	–	–	40°	–	–	50°	–	–
	Soft bellows	40°	–	50°	40°	60°	–	–	55°	–	–	50°	–	60°	–	–
	Anti-Slip	50°	–	–	50°	–	–	–	55°	60°	–	–	–	60°	–	–
	Flat type	60°	–	–	40°	40°	–	–	50°	50°	–	–	–	60°	–	–
	Flat intake flow rate increase type								–							
	Thin object type	40°	–	–	40°	–	–	–	55°	50°	40°	–	–	60°	–	–
High-temperature usage limits		110°C		140°C	180°C		180°C		60°C	230°C	180°C	150°C	100°C	110°C	80°C	180°C
Low-temperature usage limits		-30°C		-30°C	-40°C		-40°C		-20°C	-10°C	-50°C	-40°C	-50°C	-30°C	-45°C	-40°C
Weather resistance		△		○	◎		◎		○	○	○	◎	○	△	○	◎
Ozone resistance		x		○	◎		◎		◎	◎	◎	◎	x	x	○	◎
Acid resistance		△		△	○		○		x	◎	○	◎	△	△	△	○
Alkali resistance		○		○	◎		◎		x	x	◎	◎	○	○	◎	◎
Oil resistance	(Gasoline/Light oil)	◎		◎	△		△		◎	◎	△	x	x	◎	x	△
	(Benzene/Toluene)	△		x	△		△		△	◎	△	x	x	△	△	△
Volume resistance ratio		–		–	–	10^8 Ω·cm or less	–		–	–	–	–	200 Ω·cm or less	200 Ω·cm or less	–	–

Reading the rating ➡ ◎: Ideal, ○: Suitable, △: Good, x: Unsuitable

*1: Pad material order code: NH is available only for the anti-slip type.

Note 1: Characteristics of general synthetic rubbers used for the pad material are indicated in the table of characteristics.

Note 2: The values for the temperature usage limits are for very short periods of use. Therefore, careful consideration should be employed for usage extending for a constant period of time.

Note 3: When surface-treated (option) fiber raised type is selected, the high temperature usage limit temperature for fluoro rubber is 200°C.

Resin material

Item	Pad material	PEEK	POM	Conductive PEEK
	Order code	K	M	KE
Applications		Semiconductor/LCD manufacturing equipment	Various manufacturing lines Food-related products Packaging machine	Semiconductor/LCD manufacturing equipment Electronic device parts
Pad color		Beige	White	Black
Various properties: High-temperature usage limits		250°C	95°C	250°C
Low-Temperature usage limits		-50°C	-60°C	-50°C
Weather resistance		◎	x	◎
Acid resistance		◎	x	◎
Alkali resistance		◎	△	◎
Self-Lubrication		○	◎	○
Abrasion resistance		◎	◎	◎
Volume resistance ratio		–	–	10^5 to 10^6 Ω·cm

Reading the rating ➡ ◎: Ideal, ○: Suitable, △: Good, x: Unsuitable

*1: Characteristics are those of pad resin material and do not include the suction mark prevention pad holder. Select with consideration to the vacuum pad holder to be used and the specifications of the suction mark prevention pad holder.

*2: Characteristics are general characteristics of each material and not guaranteed values. Confirm performance with an actual device before use.

*3: The values for the high temperature usage limits are for very short periods of use. Therefore, careful consideration should be employed for usage extending for a constant period of time.

*4: The volume resistance ratio is a representative value released by the material manufacturers and not a guaranteed value.

Suction pad

Pad diameter compatibility table by material

Pad material		N: Nitriles								
Pad shape		Standard			Bellows	Multi-Stage bellows	Soft	Soft bellows	Thin object type	Flat type
		Standard	Deep type	Compact						
Pad diameter (mm)	ø0.7			●						
	ø1	●		●						
	ø1.5			●						
	ø2	●		●	●					
	ø3	●		●						
	ø4	●		●	●		●			
	ø6	●			●	●	●	●		
	ø8	●			●	●	●	●	●	
	ø10	●			●	●	●	●	●	●
	ø15	●	●		●		●	●	●	●
	ø20	●	●		●	●	●	●	●	●
	ø25	●	●		●					●
	ø30	●	●		●	●	●			●
	ø40	●	●		●	●	●			
	ø50	●	●		●	●				
	ø60	●	●		●					
	ø80	●	●		●					
	ø100	●	●		●					
	ø150	●								
	ø200	●								

Pad material		S: Silicone										
Pad shape		Standard			Bellows	Multi-Stage bellows	Soft	Soft bellows	Flat type	Anti-Slip	Thin object type	Sponge
		Standard	Deep type	Compact								
Pad diameter (mm)	ø0.7			●								
	ø1	●		●								
	ø1.5			●								
	ø2	●		●	●							
	ø3	●		●								
	ø4	●		●	●		●					
	ø6	●			●	●	●	●				
	ø8	●			●	●	●	●			●	
	ø10	●			●	●	●	●	●	●	●	●
	ø15	●	●		●		●	●	●		●	●
	ø20	●	●		●	●	●	●	●	●	●	●
	ø25	●	●		●				●			●
	ø30	●	●		●	●	●		●	●		●
	ø35											●
	ø40	●	●		●	●	●			●		
	ø50	●	●		●	●				●		●
	ø60	●	●		●							
	ø70											●
	ø80	●	●		●							
	ø100	●	●		●							●
	ø150	●										
	ø200	●										

Pad material		U: Urethane								
Pad shape		Standard			Bellows	Multi-Stage bellows	Soft bellows	Anti-Slip	Thin object type	Flat type (*1)
		Standard	Deep type	Compact						
Pad diameter (mm)	ø0.7			●						
	ø1	●		●						
	ø1.5			●						
	ø2	●		●						
	ø3	●		●						
	ø4	●		●						
	ø6	●			●		●			
	ø8	●			●		●		●	
	ø10	●			●	●	●	●	●	●
	ø15	●	●		●		●		●	●
	ø20	●	●		●	●	●	●	●	●
	ø25	●	●		●					●
	ø30	●	●		●	●		●		●
	ø40	●	●		●	●		●		
	ø50	●	●		●	●		●		
	ø60	●	●		●					
	ø80	●	●		●					
	ø100	●	●		●					
	ø150	●								
	ø200	●								

*1: Increased intake flow rate FH is not supported.

Pad material		F: Fluorine								G: NBR compatible with the Food Sanitation Act			
Pad shape		Standard			Bellows	Multi-Stage bellows	Anti-Slip	Thin object type	Flat type	Standard			Multi-Stage bellows
		Standard	Deep type	Compact						Standard	Deep type	Compact	
Pad diameter (mm)	ø0.7			●								●	
	ø1	●		●						●		●	
	ø1.5			●								●	
	ø2	●		●						●		●	
	ø3	●		●						●		●	
	ø4	●		●						●		●	
	ø6	●			●	●				●			●
	ø8	●			●	●		●		●			●
	ø10	●			●	●	●	●	●	●			●
	ø15	●	●		●			●	●	●	●		
	ø20	●	●		●	●	●	●	●	●	●		●
	ø25	●	●		●				●	●	●		
	ø30	●	●		●	●	●		●	●	●		●
	ø40	●	●		●	●	●			●	●		●
	ø50	●	●		●	●	●			●	●		●
	ø60	●	●		●								
	ø80	●	●		●								
	ø100	●	●		●								
	ø150	●											
	ø200	●											

Suction pad

Pad material		SE: Conductive silicone							E: Conductive butadiene rubber (low resistance)		Blank: Chloroprene	NH:Oil-resistant NBR
Pad shape		Standard			Bellows	Soft	Soft bellows	Flat type	Standard		Sponge	Anti-Slip
		Standard	Deep type	Compact					Standard	Compact		
Pad diameter (mm)	ø0.7			●						●		
	ø1	●		●					●	●		
	ø1.5			●						●		
	ø2	●		●					●	●		
	ø3	●		●					●	●		
	ø4	●		●	●	●			●	●		
	ø6	●			●	●	●		●			
	ø8	●			●	●	●		●			
	ø10	●			●	●	●	●	●		●	●
	ø15	●	●		●	●	●	●	●		●	
	ø20	●	●		●	●	●	●	●		●	●
	ø25	●	●		●			●	●		●	
	ø30	●	●		●	●		●	●		●	●
	ø35										●	
	ø40	●	●		●	●			●			●
	ø50	●	●		●				●		●	●
	ø60	●			●							
	ø70										●	
	ø80	●			●							
	ø100	●			●						●	
	ø150	●										
	ø200	●										

Pad material		NE: Conductive NBR (low resistance)											YS2, YS4: Super soft silicone	
Pad shape		Standard			Bellows	Multi-Stage bellows	Soft	Soft bellows	Anti-Slip	Thin object type	Flat type		Bellows	Multi-Stage bellows
		Standard	Deep type	Compact										
Pad diameter (mm)	ø0.7			●										
	ø1	●		●										
	ø1.5			●										
	ø2	●		●										
	ø3	●		●										
	ø4	●		●			●							
	ø6	●			●	●	●	●						
	ø8	●			●	●	●	●		●				
	ø10	●			●	●	●	●	●	●	●		●	●
	ø15	●	●		●		●	●		●	●		●	
	ø20	●	●		●	●	●	●	●	●	●		●	●
	ø25	●	●		●						●		●	
	ø30	●	●		●	●	●		●		●		●	●
	ø40	●	●		●	●	●		●				●	●
	ø50	●	●		●	●			●				●	●
	ø60	●	●		●									
	ø80	●			●									
	ø100	●	●		●									
	ø150	●												
	ø200	●												

Pad material		HN: HNBR						EP: EPDM						FS: Fluorosilicone	
Pad shape		Standard			Bellows	Multi-Stage bellows	Soft bellows	Standard			Bellows	Multi-Stage bellows	Soft bellows	Soft	Thin object type
		Standard	Deep type	Compact				Standard	Deep type	Compact					
Pad diameter (mm)	ø0.7			●						●					
	ø1	●		●				●		●					
	ø1.5			●						●					
	ø2	●		●				●		●					
	ø3	●		●				●		●					
	ø4	●		●				●		●				●	
	ø6	●			●	●	●	●			●	●	●	●	
	ø8	●			●	●	●	●			●	●	●	●	●
	ø10	●			●	●	●	●			●	●	●	●	●
	ø15	●	●		●		●	●	●		●		●	●	●
	ø20	●	●		●	●	●	●	●		●	●	●	●	●
	ø25	●	●		●			●	●		●				
	ø30	●	●		●	●		●	●		●	●		●	
	ø40	●	●		●	●		●	●		●	●		●	
	ø50	●	●		●	●		●	●		●	●			
	ø60	●	●		●			●	●		●				
	ø80	●	●		●			●	●		●				
	ø100	●	●		●			●	●		●				
	ø150	●						●							
	ø200	●						●							

Pad material		N: Nitriles	S: Silicone	U: Urethane	F: Fluorine	SE: Conductive silicone	E: Conductive butadiene rubber (low resistance)	NE: Conductive NBR (low resistance)	HN: HNBR	EP: EPDM
Pad shape		Oval								
Pad size (mm)	2 x 4	●	●	●	●	●		●	●	●
	3.5 x 7	●	●	●	●	●		●	●	●
	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	●	●	●	●	●	●	●	●	●

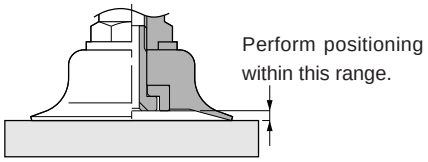
Pad material		K: PEEK	M: POM	KE: Conductive PEEK
Pad shape		Suction mark prevention		
Pad diameter (mm)	ø10	●	●	●
	ø20	●	●	●
	ø30	●	●	●

Pad material		K: PEEK	M: POM	KE: Conductive PEEK
Pad shape		Resin attachment for suction mark prevention bellows		
Pad diameter (mm)	ø10	●	●	●
	ø15	●	●	●
	ø20	●	●	●
	ø25	●	●	●
	ø30	●	●	●

Reference materials for using vacuum pads

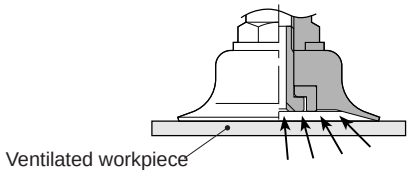
Shock to the pad

When pressing the pad against the workpiece, do not apply impact or great force. The pad may deform, crack and wear out faster. Therefore, use it within the deformation range of the pad skirt or until it touches the rib part lightly. In particular, position accurately for small diameter pads.



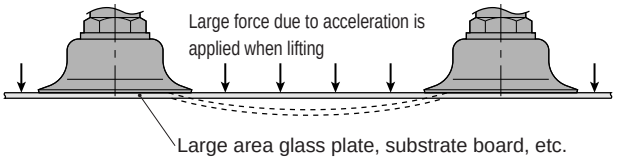
For ventilated workpieces or those with holes

For suction of ventilated workpieces, the suction force decreases due to the amount of air leakage. Measures such as increasing the capacity of the ejector and vacuum pump and increasing the effective cross-sectional area of the piping path are required. Selecting a pad with a small diameter is one way to reduce the amount of air leakage.



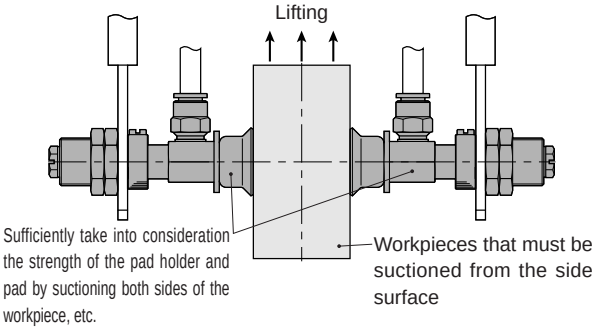
For flat workpieces with large area

When lifting a glass plate or circuit board with a large area, it may be subject to large force due to acceleration or undulation due to its own weight, so it is necessary to allow sufficient margin in consideration of the pad layout and size.



When lifting workpiece sides with suction

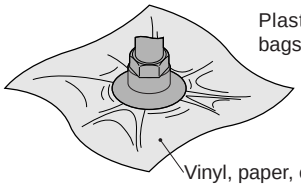
All pad holders are designed to be lifted from the horizontal plane. Therefore, when the side of the workpiece is sucked and lifted (vertical plane lifting), carefully consider the strength of the pad holder and pads.



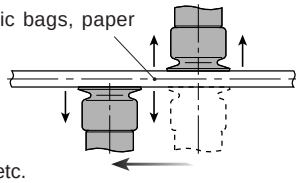
When suctioning soft workpieces

If a soft workpiece such as vinyl, paper or thin plate is sucked, the vacuum pressure will deform the workpiece or cause wrinkles. Therefore, it is necessary to use a small pad and lower the vacuum pressure (see Figure 1). The small diameter pad is appropriate when opening plastic bags, paper bags, etc. When mounting the opposing pad center at a position slightly off-center, opening is easier (see Fig.2).

● Fig.1

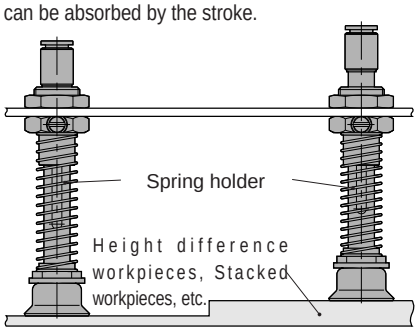


● Fig.2



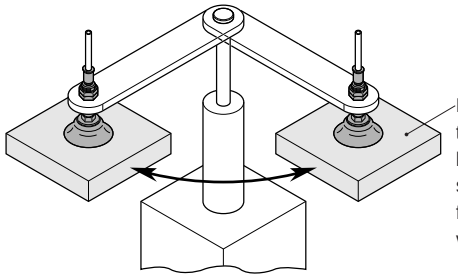
When the distance between the pad and the workpiece is irregular

Use the spring type when the pad and workpiece cannot be positioned, such as suctioning workpieces with height difference or stacked workpieces. Even if the distance between the pad and the workpiece changes, it can be absorbed by the stroke.



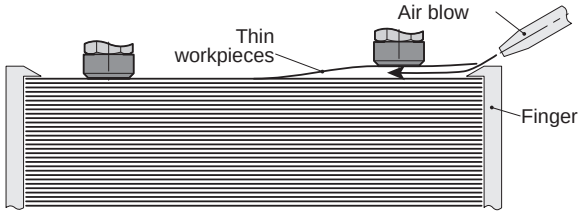
For swiveling transport

If swiveling transport is carried out with a pad fixed with screws, the screws may loosen and the pad may come off, so design with sufficient margin. Also, special attention is required when the suction position and the center of gravity of the workpiece are misaligned.



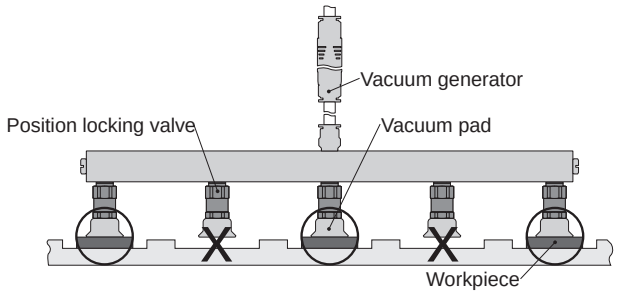
When suctioning multiple thin stacked workpieces

Since multiple workpieces may be suctioned at once, it is necessary to use a small-diameter pad and further lower the vacuum pressure. Moreover, one way to prevent suction of multiple workpieces is to use air blow and claw as shown in the figure below.



When using multiple pads with one vacuum source

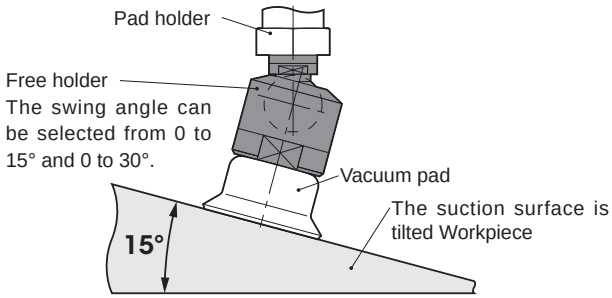
If a position locking valve is installed between the pad and the pad holder, suction when the workpiece comes off the pad or contacts the pad is not contacted is automatically reduced, so problems such as stopping handling can be prevented from stopping, since the vacuum loss of the entire system is reduced.



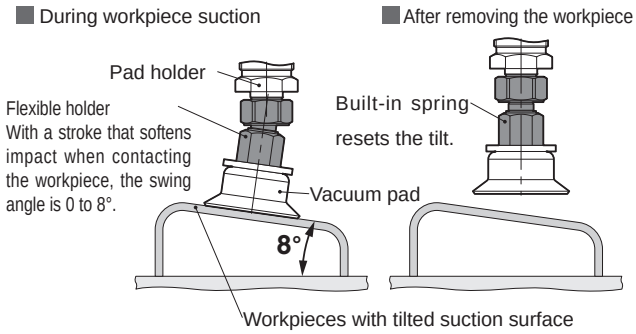
When the work surface to be suctioned is not flat

If the surface of the workpiece to be suctioned is not flat (tilted or curved), use a pad swinging device.

● For free holder



● For flexible holder



If there are problems with the suction marks of the vacuum pad

Although it does not completely prevent suction marks, it can be reduced by using a suction mark prevention series with a special treatment on the pad surface or with a resin material suction mark prevention type as a countermeasure. (The degree of suction mark reduction differs depending on the environment and workpiece, so select a model by performing suction test with an actual device.)

Suction mark countermeasure surface treatment series

Fiber raised type (-NF, -SF)

The fibers (nylon or silk) on the pad surface prevent rubber material transfer by not directly touching the workpiece.



- Pad material (2 types)
  Silicone rubber, fluoro rubber
- Pad diameter (mm) (9 types)
  ø10 to ø80
- Pad shape (5 types)
  Standard (standard/deep), soft, soft bellows, bellows

Anti-sticking (-DL)

Special coating with good slip. Effective for preventing adhesion of lightweight and thin workpieces.

- Pad material (3 types)
  Silicone rubber, fluoro rubber, conductive silicone
- Pad diameter (mm) (23 types)
  ø4 to ø50 (circular), 2x4 to 8x30 (oval)
- Pad shape (10 types)
  Standard (standard/deep), soft, soft bellows, bellows, multi-stage bellows, thin object, flat, flat intake flow rate increase, oval

Suction mark reduction (-ER)

Reduces suction marks by modifying the surface of nitrile rubber with chemical liquids.



- Pad material (2 types)
  Nitrile rubber, conductive NBR (low resistance)
- Pad diameter (mm) (29 types)
  ø0.7 to ø60 (circular), 2x4 to 8x30 (oval)
- Pad shape (11 types)
  Standard (standard/deep/compact), soft, soft bellows, bellows, multi-stage bellows, thin object, flat, flat intake flow rate increase, oval

Fluorine coating (-FG)

The fluorine coating prevents adhesion to the workpiece or the bellows part. Improved pad durability and wear resistance.



- Pad material (4 types)
  Silicone rubber, conductive silicone
  Super soft silicone rubber (hardness 20°, 40°)
- Pad diameter (mm) (33 types)
  ø0.7 to ø200 (round), 2x4 to 8x30 (oval)
- Pad shape (11 types)
  Standard (standard/deep/compact), soft, soft bellows, bellows, multi-stage bellows, thin object, flat, flat suction flow rate increase, oval

Suction mark prevention

Suction mark prevention

The resin pad, which prevents workpiece marks, is integrated with the flexible holder. Tilted workpieces can also be suctioned.



- Resin material (3 types)
  PEEK, POM, conductive PEEK
- Pad diameter (mm) (3 types)
  ø10 to ø30

Suction mark prevention resin attachment (for bellows)

Simply attach the dedicated resin attachment to the bellows. Compatible with workpieces that must not have suction marks. Tilted workpieces can also be suctioned.



- Resin material (3 types)
  PEEK, POM, conductive PEEK
- Applicable pad diameter (mm) (5 types)
  ø10 to ø30



Suction pad standard (standard, deep, compact)

VSP-*R*,*A*, *RM* Series

Suction pad with a basic shape that can be used in general applications

RoHS

Three types of shapes are available: general type ideal for flat workpieces, deep type ideal for round workpieces and compact type ideal for small workpieces

A wide range of holder variations

Shape 18types

- Standard6 types
- Compact5 types
- Low dust generation . 2 types
- Lightweight, 3 types
- Low height: 2 types

Piping 12types

- Push-in fitting (ø 1.8 to ø 12)Six types
- Barbed fitting (ø 4, ø 6)Two types
- Screw-in (M3, M5, G1/8, G1/4),4 types

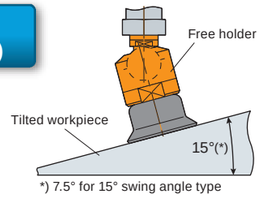
Stroke 12types

2mm to 50mm
(Depends on pad diameter and holder)

Low dust generation holders (LFC, LFD) are available, with minimal friction powder and low noise caused by sliding

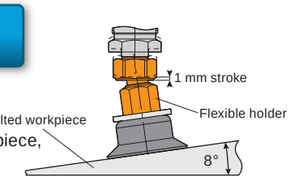
Supports assembly options of track swinging (free holder, flexible holder) on a workpiece surface with an angle

Free holder (F1:30°, F2:15°)



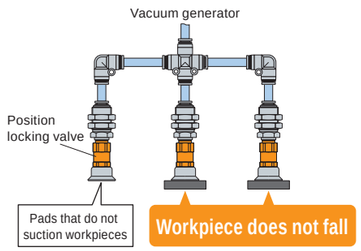
*) 7.5° for 15° swing angle type

Flexible holder (CF)



After removing the workpiece, returns to the normal position (vertical)

Supports assembly option of position locking valve (V) that reduces vacuum drop in another circuit even without a workpiece



Pad surface treatment (option) is available for special treatment to reduce suction marks

	-NF	-SF	-DL	-ER	-FG
Surface-Treated	Fiber raising		Anti-sticking	Suction mark relief	Fluorine coating
	Nylon	Silk			
					
Compatible materials	Silicone Fluorine	Silicone Fluorine	Silicone Fluorine Conductive silicone	Nitriles Conductive NBR (low resistance)	Silicone Conductive silicone
Features	The fibers (nylon or silk) on the pad surface prevent rubber material transfer by avoiding direct contact with the workpiece.		Special coating with good slip. Effective for preventing adhesion of lightweight and thin workpieces.	Reduces suction marks by modifying the surface with an environmentally friendly chemical liquid.	Surface modification for special treatment to prevent adhesion to workpieces. Improved pad durability and wear resistance.
Compatible types	Standard, deep			Standard, deep, compact	

Pad shape

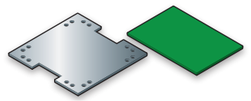
Standard

the most basic shape of a pad that can be used universally



Recommended workpiece

something that is thick and flat



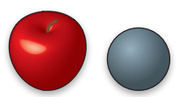
Deep type

Deeper lip for good track to curved surfaces



Recommended workpiece

round things such as fruit or balls



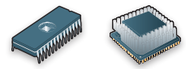
Compact

Specializing in small diameter sizes, it supports suction of small parts (IC chip, etc.)



Recommended workpiece

Small objects such as semiconductor components



Pad diameter

Standard 18 types

1 2 3 4 6 8 10 15 20 25 30 40 50 60 80 100 150 200

Deep type 9 types

15 20 25 30 40 50 60 80 100

Compact 6 types

0.7 1 1.5 2 3 4

Pad material

Standard 10 types

Nitriles, Silicone, Urethane, Fluorine, Conductive silicone, Conductive butadiene (low resistance), Conductive NBR (low resistance), NBR compatible with the Food Sanitation Act, HNBR, EPDM

Deep type 9 types

Nitriles, Silicone, Urethane, Fluorine, Conductive silicone, Conductive NBR (low resistance), NBR compatible with the Food Sanitation Act, HNBR, EPDM

Compact 10 types

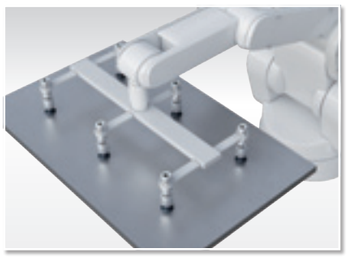
Nitriles, Silicone, Urethane, Fluorine, Conductive silicone, Conductive butadiene (low resistance), Conductive NBR (low resistance), NBR compatible with the Food Sanitation Act, HNBR, EPDM

* Compatible with the Food Sanitation Act NBR (G) and silicone (S) are compatible with the Food Sanitation Act. (holder is not supported/ suction pad is compatible only with workpiece contact part)

Solution examples

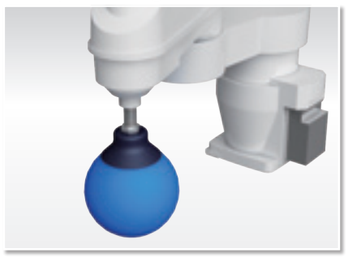
Conveying heavy steel plates

press, laser, etc.



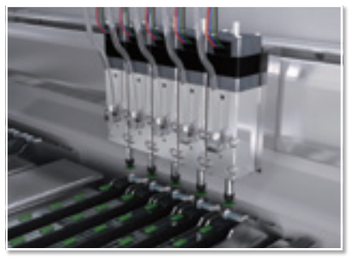
Conveying spherical workpieces

Food processing machinery, etc.



Compact transport unit

Electronic parts, semiconductor



How to order

●Standard, general (R), deep (A), compact (RM)

Suction pad

VSP	C	40	-20	R	N	-ER	6		F1	V
Model No.	❶ Holder type	❷ Pad diameter	❸ Stroke option	❹ Pad shape	❺ Pad material	❻ Surface-treated	❼ Port size/shape	❽ Buffer load	❾ Pad Swinging	❿ Position locking valve

Pad rubber only

VSPG	40	R	N	-ER
Model No.	❷	❹	❺	❻

Pad rubber + Set with fixing screw

VSPG	40	R	N	-ER	A
Model No.	❷ Pad diameter	❹ Pad shape	❺ Pad material	❻ Surface-treated	

*1: ❹R ❷10 to 200, and ❹For A, pad rubber + fixed screw set can be selected.

❶ Holder type

With/without buffer	Type	Vacuum outlet	Code
Fixed	Standard	Upward direction	A
	Compact		MA
	Standard	Lateral direction	B
	Compact		MB
	Low height		HE
		Both lateral directions	HEW
	Standard	Direct mounting	E
	Compact		ME

With/without buffer	Type	Vacuum outlet	Code
Buffer type	Standard	Upward direction	C
	Compact		MC
	Low dust generation		LFC
	Lightweight		HC
	Standard	Lateral direction	D
	Compact		MD
	Low dust generation		LFD
	Lightweight		HD
		Both lateral directions	HDW
	Standard	Direct mounting	F

❷ Pad diameter

Pad shape	R										A										RM									
Pad material	N	S	U	F	SE	E	NE	G	HN	EP	N	S	U	F	SE	E	NE	G	HN	EP	N	S	U	F	SE	E	NE	G	HN	EP
Pad diameter																														Code
ø0.7																					●	●	●	●	●	●	●	●	●	0.7
ø1	●	●	●	●	●	●	●	●	●												●	●	●	●	●	●	●	●	●	1
ø1.5																					●	●	●	●	●	●	●	●	●	1.5
ø2	●	●	●	●	●	●	●	●	●												●	●	●	●	●	●	●	●	●	2
ø3	●	●	●	●	●	●	●	●	●												●	●	●	●	●	●	●	●	●	3
ø4	●	●	●	●	●	●	●	●	●												●	●	●	●	●	●	●	●	●	4
ø6	●	●	●	●	●	●	●	●	●																					6
ø8	●	●	●	●	●	●	●	●	●																					8
ø10	●	●	●	●	●	●	●	●	●																					10
ø15	●	●	●	●	●	●	●	●	●		●	●	●	●	●		●	●	●	●										15
ø20	●	●	●	●	●	●	●	●	●		●	●	●	●	●		●	●	●	●										20
ø25	●	●	●	●	●	●	●	●	●		●	●	●	●	●		●	●	●	●										25
ø30	●	●	●	●	●	●	●	●	●		●	●	●	●	●		●	●	●	●										30
ø40	●	●	●	●	●	●	●	●	●		●	●	●	●	●		●	●	●	●										40
ø50	●	●	●	●	●	●	●	●	●		●	●	●	●	●		●	●	●	●										50
ø60	●	●	●	●	●		●		●	●	●	●	●	●			●		●	●										60
ø80	●	●	●	●	●		●		●	●	●	●	●	●			●		●	●										80
ø100	●	●	●	●	●		●		●	●	●	●	●	●			●		●	●										100
ø150	●	●	●	●	●		●		●	●																				150
ø200	●	●	●	●	●		●		●	●																				200

❸ Stroke option

Description	Holder type C	D	HC	LFC	LFD	Code
Specified stroke or without buffer	●	●				Blank
Stroke 2 mm				●		-2
Stroke 5 mm				●	●	- 5
Stroke 10 mm	●	●	●	●	●	- 10
Stroke 15 mm	●	●	●	●	●	- 15
Stroke 20 mm	●	●	●	●	●	- 20
Stroke 25 mm			●			- 25
Stroke 30 mm	●	●	●			- 30
Stroke 40 mm	●	●	●			- 40
Stroke 50 mm	●	●	●			- 50

*1: ❶ Other than C, D, HC, LFC, LFD, ❸ is blank.
*2: ❸ For a blank designated stroke, check the stroke dimensions on the O.D. dimension drawing.
*3: ❷ For 0.7 to 15, ❸ -2 can be selected for .

❹ Pad shape

Code	Description
R	Standard, general
A	Standard, deep
RM	Standard, compact

❺ Pad material

Code	Description
N	Nitrile rubber
S	Silicone rubber
U	Urethane rubber
F	Fluoro rubber
SE	Conductive silicone rubber
E	Conductive butadiene rubber (low resistance)
NE	Conductive NBR (low resistance)
G	NBR compatible with the Food Sanitation Act
HN	HNBR
EP	EPDM

Refer to the following page for holder shape - pad diameter - pad shape - port size/shape combinations.

Specifications for rechargeable battery (Catalog No.CC-1226A)
●Design compatible with rechargeable battery manufacturing process
VSP -..... - P4*

Specifications for food manufacturing processes (Catalog No.CC-1271A)
●Food-grade lubricants that can be used in food manufacturing processes, and resin/rubber materials that are compatible with the Food Sanitation Act are used
VSP -..... - FP*

❻ Surface-treated

Description	Compatible pad material N	S	F	SE	NE	Supported pad diameter Standard (R)	Deep (A)	Compact (RM)	Code
No surface treatment	All pads material, all pad diameters								Blank
Fiber nap (nylon)		●	●			ø15 to ø80	ø15 to ø80		-NF
Fiber raising (silk)		●	●			ø15 to ø80	ø15 to ø80		-SF
Anti-stick special coating		●	●	●		ø6 to ø50	ø15 to ø50		-DL
Suction mark reduction surface modification	●				●	ø6 to ø60	ø15 to ø60	ø0.7 to ø4	-ER
Fluorine coating		●		●		ø6 to ø200	ø15 to ø100	ø0.7 to ø4	-FG

❼ Port size/shape

Description	Holder type A	B	C	D	MA	MB	MC	MD	ME	LFC	LFD	HC	HD	HDW	HE	HEW	Code
(❶: For E and F)																	Blank
ø1.8 push-in fitting		●	●	●	●	●	●	●				●	●	●	●	●	2
ø4 push-in fitting	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	4
ø6 push-in fitting	●	●	●	●		●		●		●	●	●	●	●	●	●	6
ø8 push-in fitting	●	●	●	●													8
ø10 push-in fitting	●	●	●	●													10
ø12 push-in fitting	●		●														12
ø4 Push-in fitting, without spring cover			●	●													4C
ø6 Push-in fitting, without spring cover			●	●													6C
ø4 barbed fitting	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	4T
ø6 barbed fitting	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	6T
ø4 barbed fitting, without spring cover			●	●													4TC
ø6 Barbed fitting, without spring cover			●	●													6TC
M 3 x 0.5									●								M3
M5x0.8									●								M5
G1/8	●	●	●	●													6A
G1/4	●	●	●	●													8A

*1: ❶C, D ❸-20 up-For 50, ❼4C, 6C, 4TC, 6TC can be selected.
*2: ❷The port size and shape that can be selected differ depending on the pad diameter. Refer to the combination table on the following page.

❽ Buffer load

Code	Description
Blank	Standard load or without buffer
L	Low load (1/4 of standard load)

*1
*2

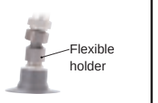
*1: ❶With the exception of LFC, ❽ is blank.
*2: ❸For -2, ❽ is blank.

❾ Swiveling pad

Code	Description
Blank	None
F1	Free holder With swing angle 30°
F2	Free holder With swing angle 15°
CF	With flexible holder angle 8°



*2



*1: ❷For 10 to 100, ❾F1 or F2 can be selected.
*2: ❶E ❷6, 8, and, ❶ME ❼M5, and ❷For 10 to 50, ❾CF can be selected.

❿ Position locking valve

Code	Description
Blank	None
V	With position locking valve *1



*1: ❶E, ME and ❷For 10 to 100, ❿V can be selected.
*2: ❻For -NF and -SF, ❿ is blank.

Holder shape - pad diameter - pad shape - port size/shape combinations

Holder type	Pad diameter	Pad shape	Push-in fitting								Barbed fitting				Thread	
			ø1.8	ø4		ø6		ø8	ø10	ø12	ø4		ø6		G1/8	G1/4
			2	4	4C	6	6C	8	10	12	4T	4TC	6T	6TC	6A	8A
A	ø1 to ø4	R		●							●					
	ø6 to ø8			●		●					●		●			
	ø10 to ø15	R(A)				●							●			
	ø20 to ø50			●		●					●		●			
	ø60 to ø100			●		●		●							●	
	ø150 to ø200	R				●		●	●	●						●
B	ø1 to ø4	R	●	●							●		●			
	ø6 to ø8		●	●		●					●		●			
	ø10 to ø50	R(A)		●		●					●		●			
	ø60 to ø100			●		●		●							●	
	ø150 to ø200	R				●		●	●							●
C	ø1 to ø4	R	●	●		●					●		●			
	ø6 to ø8		●	●	●	●	●				●	●	●	●		
	ø10 to ø50	R(A)		●	●	●	●				●	●	●	●		
	ø60 to ø100			●		●		●							●	
	ø150 to ø200	R				●		●	●	●						●
D	ø1 to ø4	R	●	●		●					●		●			
	ø6 to ø8		●	●	●	●	●				●	●	●	●		
	ø10 to ø50	R(A)		●	●	●	●				●	●	●	●		
	ø60 to ø100			●		●		●							●	
	ø150 to ø200	R				●		●	●							●

Holder type	Pad diameter	Pad shape	Thread	
			M3	M5
			Blank	
E	R	RM		●
	ø1 to ø4	R	●	
	ø6 to ø8			●

Holder type	Pad diameter	Pad shape	Thread	
			M10	M14
			Blank	
F	ø1 to ø8	R	●	
	ø10 to ø50	R(A)		●

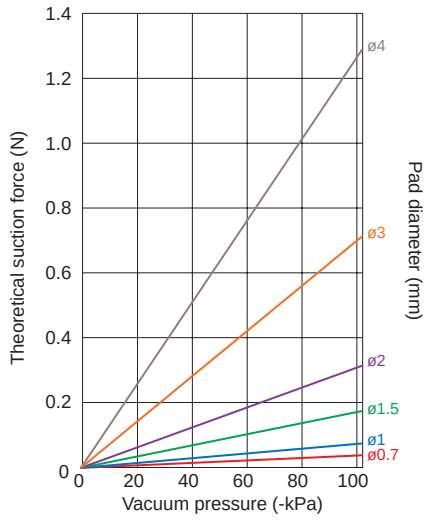
Holder type	Pad diameter	Pad shape	Push-in fitting			Barbed fitting	
			ø1.8	ø4	ø6	ø4	ø6
			2	4	6	4T	6T
MA	ø0.7 to ø4	RM	●			●	
	ø6 to ø8	R	●			●	
	ø10 to ø15	R(A)		●		●	
	ø20 to ø50			●		●	●
MB	ø0.7 to ø4	RM	●	●		●	●
	ø6 to ø8	R	●	●		●	●
	ø10 to ø50	R(A)	●	●	●	●	●
MC	ø0.7 to ø4	RM	●			●	●
	ø6 to ø8	R	●			●	●
	ø10 to ø50	R(A)	●	●		●	●
MD	ø0.7 to ø4	RM	●	●		●	●
	ø6 to ø8	R	●	●		●	●
	ø10 to ø50	R(A)	●	●	●	●	●

Holder type	Pad diameter	Pad shape	Push-in fitting			Barbed fitting	
			ø1.8	ø4	ø6	ø4	ø6
			2	4	6	4T	6T
LFC	ø0.7 to ø4	RM		●		●	●
	ø6 to ø15	R(A)		●		●	●
	ø20 to ø50	R(A)		●	●	●	●
LFD	ø0.7 to ø4	RM		●		●	●
	ø6 to ø15	R(A)		●		●	●
	ø20 to ø50	R(A)		●	●	●	●
HC	ø10 to ø50	R(A)	●	●	●	●	●
HD	ø6 to ø50	R(A)	●	●	●	●	●
HDW	ø6 to ø50	R(A)	●	●	●	●	●
HE	ø6 to ø50	R(A)	●	●	●	●	●
HEW	ø6 to ø50	R(A)	●	●	●	●	●

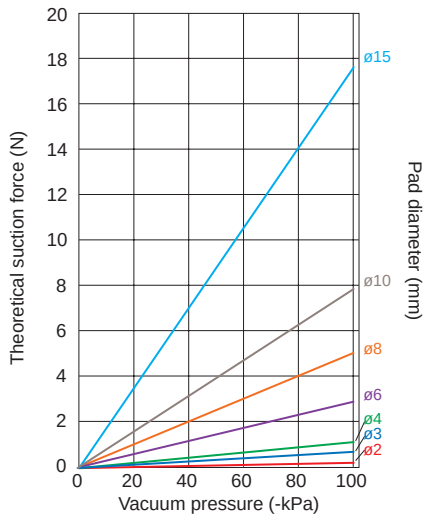
Holder type	Pad diameter	Pad shape	Thread	
			M3	M5
			Blank	
ME	ø0.7 to ø4	RM	●	
	ø6 to ø8	R		●

Theoretical suction force

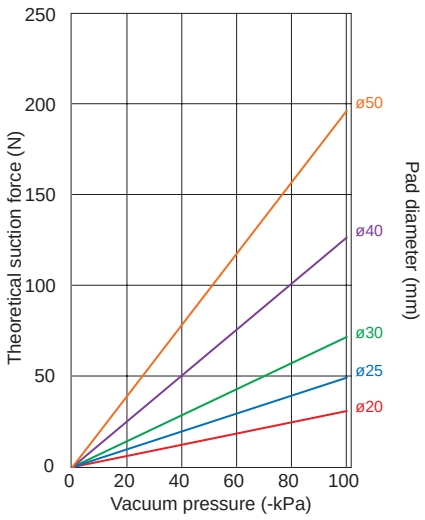
Pad diameter (compact): ø0.7 mm to ø4 mm



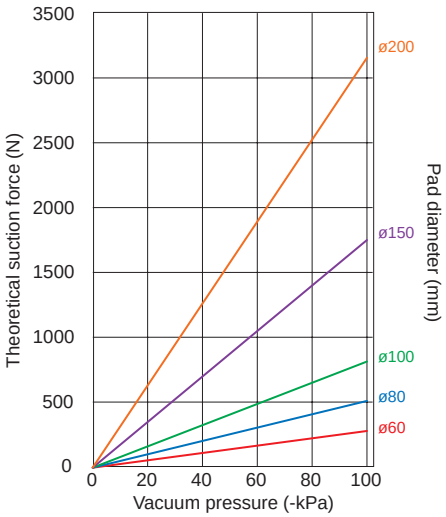
Pad diameter: ø2 mm to 15 mm



Pad diameter: ø20 mm to 50 mm



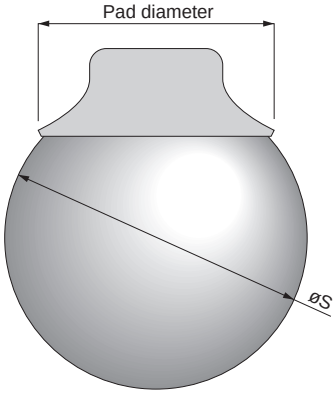
Pad diameter: ø60 mm to ø200 mm



Because the theoretical suction force is the value at static conditions, adopt a safety factor of 1/4 for horizontal lifting and 1/8 for vertical lifting in actual use.

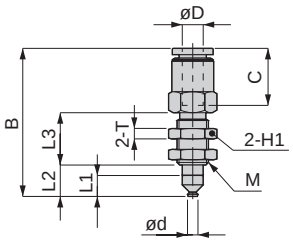
●Suction of spherical surfaces (deep pad)
Minimum adsorbable diameter

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

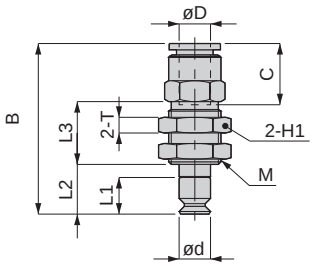


Dimensions (fixed, vacuum outlet top VSP-A, push-in fitting)

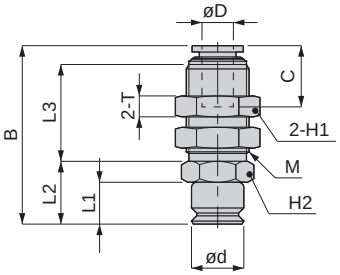
●VSP-A1 to 4R*-4



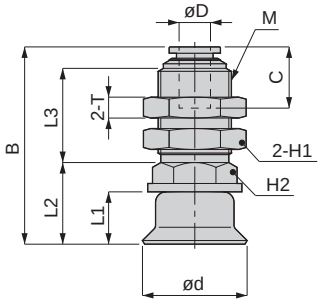
●VSP-A6, 8R*-4/6



●VSP-A10R*6
●VSP-A15R(A)*-6



●VSP-A20 to 50R(A)*-4/6



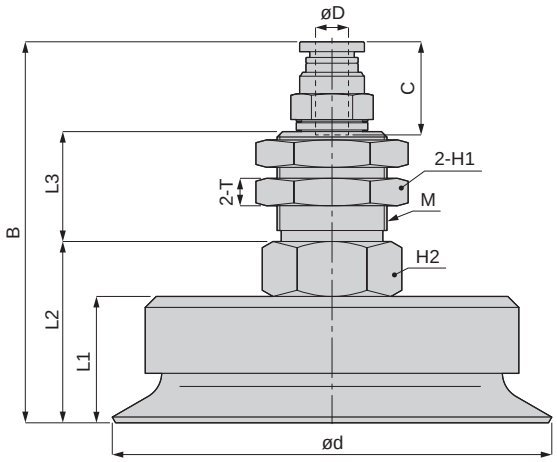
Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	Tube end C	Hexagon H1	Hexagon H2	T	Weight (g)
VSP-A1R*4	1	4	M6 x 0.75	28.6	4	6	10	11.2	8	—	2	5.7
VSP-A2R*4	2	4	M6 x 0.75	28.6	4	6	10	11.2	8	—	2	5.7
VSP-A3R*4	3	4	M6 x 0.75	28.6	4	6	10	11.2	8	—	2	5.7
VSP-A4R*4	4	4	M6 x 0.75	28.6	4	6	10	11.2	8	—	2	5.7
VSP-A6R*4	6	4	M8 x 0.75	32.1	7	9.5	18.5	11.2	12	—	3	8.5
VSP-A6R*6		6	M10 x 1	32.8				11.9				13
VSP-A8R*4	8	4	M8 x 0.75	30.6	5.5	8	18.5	11.2	12	—	3	8.5
VSP-A8R*6		6	M10 x 1	31.3				11.9				13
VSP-A10R*6	10	6	M12 x 1	34.3	8	12	18	11.9	14	12	4	21
VSP-A15R(A)*-6	15	6	M12 x 1	35.3 (36.3)	9 (10)	13 (14)	18	11.9	14	12	4	21 (21)
VSP-A20R(A)*-4	20	4	M12 x 1	46.9 (47.9)	10 (11)	16 (17)	18	11.2	17	12	4	31 (31)
VSP-A20R(A)*-6		6	M14 x 1	37.9 (38.9)		15.6 (16.6)		11.9				37 (37)
VSP-A25R(A)*-4	25	4	M12 x 1	47.9 (48.9)	11 (12)	17 (18)	18	11.2	17	12	4	31 (31)
VSP-A25R(A)*-6		6	M14 x 1	38.9 (39.9)		16.6 (17.6)		11.9				37 (37)
VSP-A30R(A)*-4	30	4	M12 x 1	47.9 (50.9)	11 (14)	17 (20)	18	11.2	17	12	4	33 (33)
VSP-A30R(A)*-6		6	M14 x 1	38.9 (41.9)		16.6 (19.6)		11.9				39 (39)
VSP-A40R(A)*-4	40	4	M12 x 1	50.9 (54.4)	14 (17.5)	20 (23.5)	18	11.2	17	12	4	40 (41)
VSP-A40R(A)*-6		6	M14 x 1	41.9 (45.4)		19.6 (23.1)		11.9				46 (47)
VSP-A50R(A)*-4	50	4	M12 x 1	51.9 (54.9)	15 (18)	21 (24)	18	11.2	17	12	4	46 (48)
VSP-A50R(A)*-6		6	M14 x 1	42.9 (45.9)		20.6 (23.6)		11.9				52 (54)

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (fixed, vacuum outlet top VSP-A, push-in fitting)

●VSP-A60 to 100R(A)*-4/6/8
●VSP-A150, 200R*-6/8/10/12



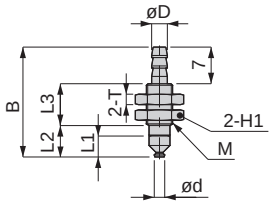
Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	Tube end C	Hexagon H1	Hexagon H2	T	Weight (g)
VSP-A60R(A)*-4	60	4	M20 x 1	61.2 (68.2)	18 (25)	30.6 (37.6)	20	11.2	24	22	5	141 (142)
VSP-A60R(A)*-6		6		63.4 (70.4)				11.9				142 (143)
VSP-A60R(A)*-8		8		71.8 (78.8)				18.2				147 (148)
VSP-A80R(A)*-4	80	4	M20 x 1	63.6 (73.6)	23 (33)	33 (43)	20	11.2	24	22	5	225 (234)
VSP-A80R(A)*-6		6		65.8 (75.8)				11.9				226 (235)
VSP-A80R(A)*-8		8		74.2 (84.2)				18.2				231 (240)
VSP-A100R(A)*-4	100	4	M20 x 1	65.6 (74.6)	25 (34)	35 (44)	20	11.2	24	22	5	315 (321)
VSP-A100R(A)*-6		6		67.8 (76.8)				11.9				316 (322)
VSP-A100R(A)*-8		8		76.2 (85.2)				18.2				321 (327)
VSP-A150R*-6	150	6	M 24 x 2	111	45	65	30	11.9	30	27	10	938
VSP-A150R*-8		8		111.7				18.2				937
VSP-A150R*-10		10		118.7				20.7				942
VSP-A150R*-12		12		123.9				23.3				960
VSP-A200R*-6	200	6	M24 x 2	116	50	70	30	11.9	30	27	10	1418
VSP-A200R*-8		8		116.7				18.2				1417
VSP-A200R*-10		10		123.7				20.7				1422
VSP-A200R*-12		12		128.9				23.3				1440

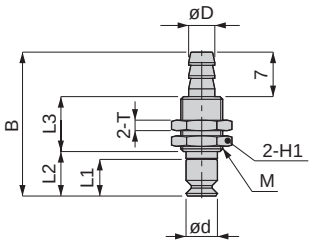
*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (fixed, vacuum outlet top VSP-A, barbed fitting)

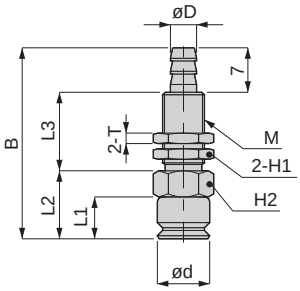
●VSP-A1 to 4R*-4T



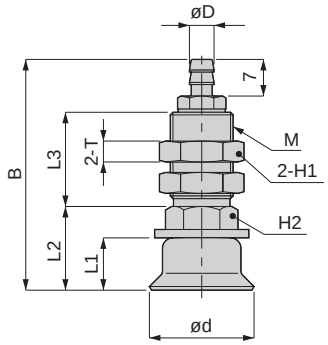
●VSP-A6, 8R*-4T/6T



●VSP-A10R*-6T
●VSP-A15R(A)*-6T



●VSP-A20 to 50R(A)*-4T/6T



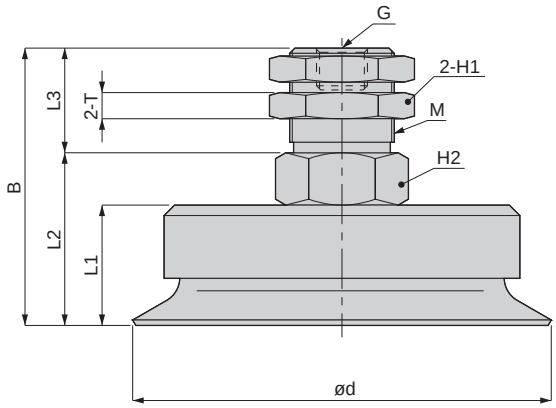
Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	Hexagon H1	Hexagon H2	T	Weight (g)
VSP-A1R*-4T	1	2.5	M5 x 0.5	21	4	6	8	8	—	2	3
VSP-A2R*-4T	2	2.5	M5 x 0.5	21	4	6	8	8	—	2	3
VSP-A3R*-4T	3	2.5	M5 x 0.5	21	4	6	8	8	—	2	3
VSP-A4R*-4T	4	2.5	M5 x 0.5	21	4	6	8	8	—	2	3
VSP-A6R*-4T	6	2.5	M5 x 0.5	24.5	7	9.5	8	8	—	2	4
VSP-A6R*-6T		4	M8 x 0.75	26		8.5	10.5	10	—		6
VSP-A8R*-4T	8	2.5	M5 x 0.5	23	5.5	8	8	8	—	2	5
VSP-A8R*-6T		4	M8 x 0.75	24.5		7	10.5	10	—		7
VSP-A10R*-6T	10	4	M8 x 0.75	35	8	12	15	10	10	2	12
VSP-A15R(A)*-6T	15	4	M8 x 0.75	36 (37)	9 (10)	13 (14)	15	10	10	2	12
VSP-A20R(A)*-4T	20	2.5	M12 x 1	44 (45)	10 (11)	16 (17)	18	14	12	4	28 (28)
VSP-A20R(A)*-6T		4									
VSP-A25R(A)*-4T	25	2.5	M12 x 1	45 (46)	11 (12)	17 (18)	18	14	12	4	29 (29)
VSP-A25R(A)*-6T		4									
VSP-A30R(A)*-4T	30	2.5	M12 x 1	45 (48)	11 (14)	17 (20)	18	14	12	4	33 (33)
VSP-A30R(A)*-6T		4									
VSP-A40R(A)*-4T	40	2.5	M12 x 1	48 (51.5)	14 (17.5)	20 (23.5)	18	14	12	4	40 (41)
VSP-A40R(A)*-6T		4									
VSP-A50R(A)*-4T	50	2.5	M12 x 1	49 (52)	15 (18)	21 (24)	18	14	12	4	46 (47)
VSP-A50R(A)*-6T		4									

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (fixed, vacuum outlet top VSP-A, female thread)

●VSP-A60 to 100R(A)*-6A
●VSP-A150, 200R*-8A



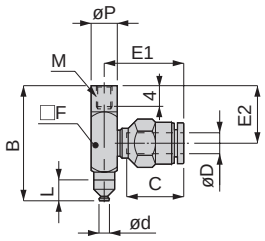
Unit: mm

Model No.	Pad diameter ød	Vacuum outlet size G	Mounting screw M	B	L1	L2	L3	Hexagon H1	Hexagon H2	T	Weight (g)
VSP-A60R(A)*-6A	60	G1/8	M20 x 1	50.6 (57.6)	18 (25)	30.6 (37.6)	20	24	22	5	133 (133)
VSP-A80R(A)*-6A	80	G1/8	M20 x 1	53 (63)	23 (33)	33 (43)	20	24	22	5	217 (226)
VSP-A100R(A)*-6A	100	G1/8	M20 x 1	55 (64)	25 (34)	35 (44)	20	24	22	5	307 (313)
VSP-A150R*-8A	150	G1/4	M24 x 2	95	45	65	30	30	27	10	923
VSP-A200R*-8A	200	G1/4	M24 x 2	100	50	70	30	30	27	10	1403

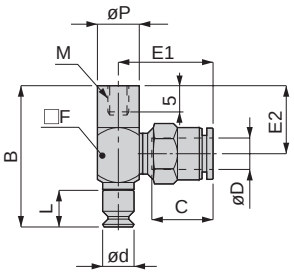
*1: Dimensions in ( ) are that of the deep pad.

Dimensions (fixed, vacuum outlet side VSP-B, push-in fitting)

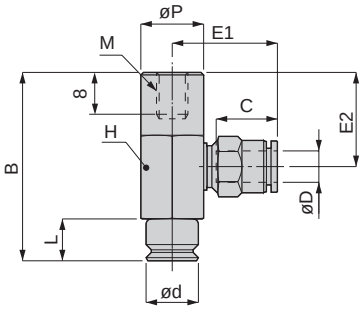
●VSP-B1 to 4R*-2/4



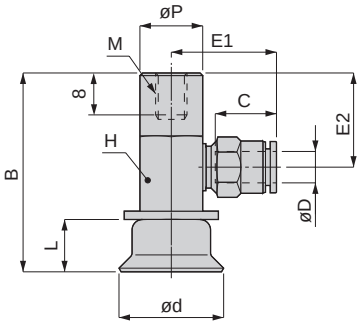
●VSP-B6, 8R*-2/4/6



●VSP-B10R*-4/6
●VSP-B15R(A)*-4/6



●VSP-B20 to 50R(A)*-4/6



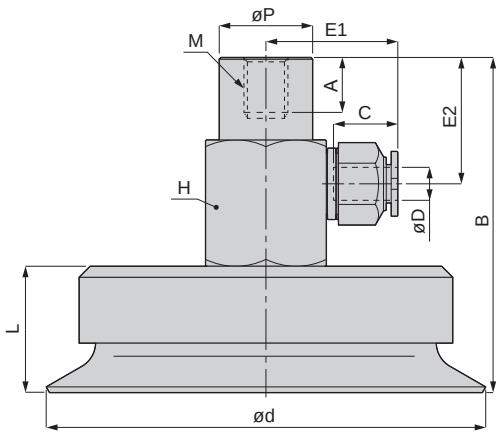
Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L	Tube end C	øP	E1	E2	Hexagon H	□F	Weight (g)
VSP-B1R*-2	1	1.8	M3 x 0.5	22	4	8.4	5	12	11	—	5	5
VSP-B1R*-4		4				11.2		15.3				6
VSP-B2R*-2	2	1.8	M3 x 0.5	22	4	8.4	5	12	11	—	5	5
VSP-B2R*-4		4				11.2		15.3				6
VSP-B3R*-2	3	1.8	M3 x 0.5	22	4	8.4	5	12	11	—	5	5
VSP-B3R*-4		4				11.2		15.3				6
VSP-B4R*-2	4	1.8	M3 x 0.5	22	4	8.4	5	12	11	—	5	5
VSP-B4R*-4		4				11.2		15.3				6
VSP-B6R*-2	6	1.8	M4 x 0.7	27	7	8.4	8	12.7	13	—	8	11
VSP-B6R*-4		4				11.2		16.8				12
VSP-B6R*-6		6				11.9		18.6				13
VSP-B8R*-2	8	1.8	M4 x 0.7	25.5	5.5	8.4	8	12.7	13	—	8	11
VSP-B8R*-4		4				11.2		16.8				12
VSP-B8R*-6		6				11.9		18.6				13
VSP-B10R*-4	10	4	M6 x 1	36	8	11.2	12	18.8	18	12	—	29
VSP-B10R*-6		6				11.9		20.1				30
VSP-B15R(A)*-4	15	4	M6 x 1	37 (38)	9 (10)	11.2	12	18.8	18	12	—	30 (30)
VSP-B15R(A)*-6		6				11.9		20.1				31 (31)
VSP-B20R(A)*-4	20	4	M6 x 1	38 (39)	10 (11)	11.2	12	18.8	18	12	—	33 (33)
VSP-B20R(A)*-6		6				11.9		20.1				34 (34)
VSP-B25R(A)*-4	25	4	M6 x 1	39 (40)	11 (12)	11.2	12	18.8	18	12	—	34 (34)
VSP-B25R(A)*-6		6				11.9		20.1				35 (35)
VSP-B30R(A)*-4	30	4	M6 x 1	39 (42)	11 (14)	11.2	12	18.8	18	12	—	36 (36)
VSP-B30R(A)*-6		6				11.9		20.1				37 (37)
VSP-B40R(A)*-4	40	4	M6 x 1	42 (45.5)	14 (17.5)	11.2	12	18.8	18	12	—	43 (44)
VSP-B40R(A)*-6		6				11.9		20.1				44 (45)
VSP-B50R(A)*-4	50	4	M6 x 1	43 (46)	15 (18)	11.2	12	18.8	18	12	—	49 (50)
VSP-B50R(A)*-6		6				11.9		20.1				50 (51)

*1: Dimensions in ( ) are that of the deep pad.

Dimensions (fixed, vacuum outlet side VSP-B, push-in fitting)

●VSP-B60 to 100R(A)*-4/6/8
●VSP-B150, 200R*-6/8/10



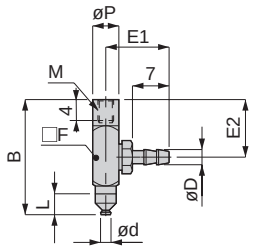
Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	A	B	L	Tube end C	øP	E1	E2	Hexagon H	Weight (g)
VSP-B60R(A)*-4	60	4	M8 x 1.25	10	58.6 (65.6)	18 (25)	11.2	17	21.5	23	22	148 (147)
VSP-B60R(A)*-6		6					11.9		23.7			149 (148)
VSP-B60R(A)*-8		8					18.2		32.1			154 (153)
VSP-B80R(A)*-4	80	4	M8 x 1.25	10	61 (71)	23 (33)	11.2	17	21.5	23	22	232 (240)
VSP-B80R(A)*-6		6					11.9		23.7			233 (241)
VSP-B80R(A)*-8		8					18.2		32.1			237 (245)
VSP-B100R(A)*-4	100	4	M8 x 1.25	10	63 (72)	25 (34)	11.2	17	21.5	23	22	321 (327)
VSP-B100R(A)*-6		6					11.9		23.7			322 (328)
VSP-B100R(A)*-8		8					18.2		38.6			327 (333)
VSP-B150R*-6	150	6	M16 x 2	20	110	45	17	26	30.9	40	30	1008
VSP-B150R*-8		8					18.2		31.6			1008
VSP-B150R*-10		10					20.7		38.6			1115
VSP-B200R*-6	200	6	M16 x 2	20	115	50	17	26	30.9	40	30	1487
VSP-B200R*-8		8					18.2		31.6			1487
VSP-B200R*-10		10					20.7		38.6			1494

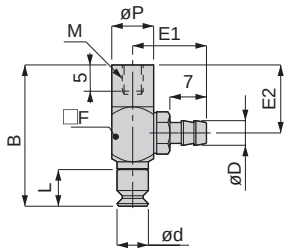
*1: Dimensions in ( ) are that of the deep pad.

Dimensions (fixed. vacuum outlet side VSP-B, barbed fitting)

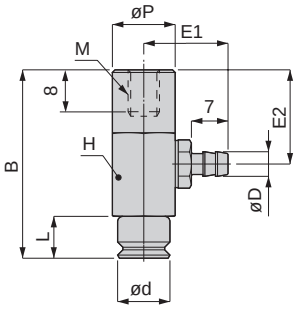
●VSP-B1 to 4R*-4T/6T



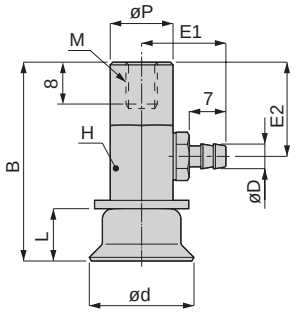
●VSP-B6, 8R*-4T/6T



●VSP-B10R*-4T/6T
●VSP-B15R(A)*-4T/6T



●VSP-B20 to 50R(A)*-4T/6T



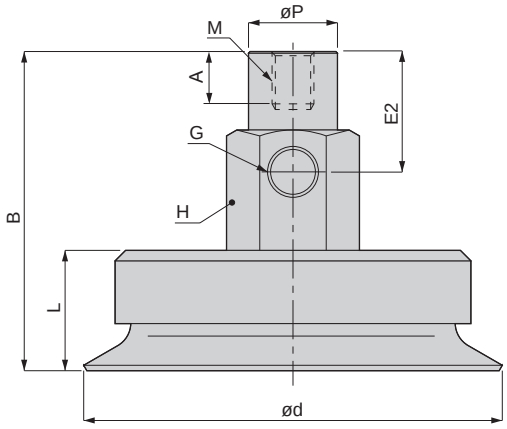
Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L	øP	E1	E2	Hexagon H	□F	Weight (g)
VSP-B1R*-4T	1	2.5	M3 x 0.5	22	4	5	11.9	11	—	5	4
VSP-B1R*-6T		4									
VSP-B2R*-4T	2	2.5	M3 x 0.5	22	4	5	11.9	11	—	5	4
VSP-B2R*-6T		4									
VSP-B3R*-4T	3	2.5	M3 x 0.5	22	4	5	11.9	11	—	5	4
VSP-B3R*-6T		4									
VSP-B4R*-4T	4	2.5	M3 x 0.5	22	4	5	11.9	11	—	5	4
VSP-B4R*-6T		4									
VSP-B6R*-4T	6	2.5	M4 x 0.7	27	7	8	13.9	13	—	8	11
VSP-B6R*-6T		4									
VSP-B8R*-4T	8	2.5	M4 x 0.7	25.5	5.5	8	13.9	13	—	8	11
VSP-B8R*-6T		4									
VSP-B10R*-4T	10	2.5	M6 x 1	36	8	12	15.9	18	12	—	29
VSP-B10R*-6T		4									
VSP-B15R(A)*-4T	15	2.5	M6 x 1	37 (38)	9 (10)	12	15.9	18	12	—	29 (29)
VSP-B15R(A)*-6T		4									
VSP-B20R(A)*-4T	20	2.5	M6 x 1	38 (39)	10 (11)	12	15.9	18	12	—	32 (32)
VSP-B20R(A)*-6T		4									
VSP-B25R(A)*-4T	25	2.5	M6 x 1	39 (40)	11 (12)	12	15.9	18	12	—	33 (33)
VSP-B25R(A)*-6T		4									
VSP-B30R(A)*-4T	30	2.5	M6 x 1	39 (42)	11 (14)	12	15.9	18	12	—	35 (35)
VSP-B30R(A)*-6T		4									
VSP-B40R(A)*-4T	40	2.5	M6 x 1	42 (45.5)	14 (17.5)	12	15.9	18	12	—	42 (43)
VSP-B40R(A)*-6T		4									
VSP-B50R(A)*-4T	50	2.5	M6 x 1	43 (46)	15 (18)	12	15.9	18	12	—	48 (49)
VSP-B50R(A)*-6T		4									

*1: Dimensions in ( ) are that of the deep pad.

Dimensions (fixed, vacuum outlet side VSP-B, female thread)

●VSP-B60 to 100R(A)*-6A
●VSP-B150, 200R*-8A



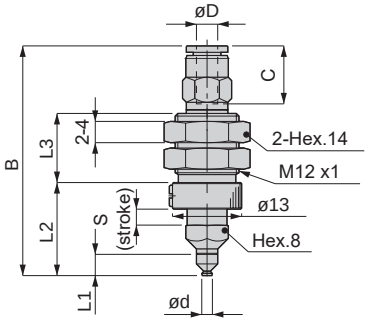
Unit: mm

Model No.	Pad diameter ød	Vacuum outlet size G	Mounting screw M	A	B	L	øP	E2	Hexagon H	Weight (g)
VSP-B60R(A)*-6A	60	G1/8	M8 x 1.25	10	58.6 (65.6)	18 (25)	17	23	22	140 (139)
VSP-B80R(A)*-6A	80	G1/8	M8 x 1.25	10	61 (71)	23 (33)	17	23	22	224 (232)
VSP-B100R(A)*-6A	100	G1/8	M8 x 1.25	10	63 (72)	25 (34)	17	23	22	313 (319)
VSP-B150R*-8A	150	G1/4	M16 x 2	20	110	45	26	40	30	995
VSP-B200R*-8A	200	G1/4	M16 x 2	20	115	50	26	40	30	1474

*1: Dimensions in ( ) are that of the deep pad.

Dimensions (buffer, vacuum outlet top VSP-C, push-in fitting)

●VSP-C1 to 4R*-2/4/6
●VSP-C1 to 4-□R*-2/4/6

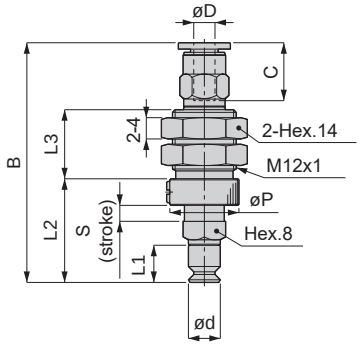


Unit: mm

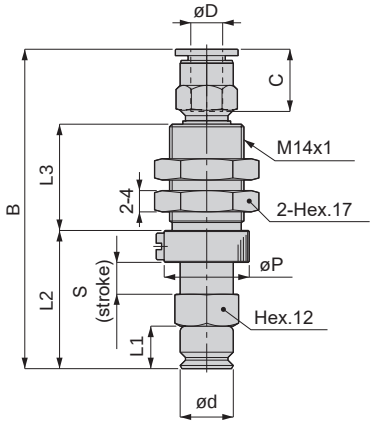
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C1R*-2	1	1.8	39.4	4	17.5	13	8.4	3	0.9 to 1.9	16
VSP-C1R*-4		4	43.5				11.2			17
VSP-C1R*-6		6	45.3				11.9			20
VSP-C1-10R*-2		1.8	53.4		27	17.5	8.4	10	0.6 to 1.7	20
VSP-C1-10R*-4		4	57.5				11.2			21
VSP-C1-10R*-6		6	59.3				11.9			24
VSP-C1-15R*-2		1.8	64.4		32	23.5	8.4	15	0.4 to 1.7	23
VSP-C1-15R*-4		4	68.5				11.2			24
VSP-C1-15R*-6		6	70.3				11.9			27
VSP-C1-20R*-2		1.8	74.4		37	28.5	8.4	20	0.3 to 1.8	26
VSP-C1-20R*-4		4	78.5				11.2			27
VSP-C1-20R*-6		6	80.3				11.9			30
VSP-C2R*-2	2	1.8	39.4	4	17.5	13	8.4	3	0.9 to 1.9	16
VSP-C2R*-4		4	43.5				11.2			17
VSP-C2R*-6		6	45.3				11.9			20
VSP-C2-10R*-2		1.8	53.4		27	17.5	8.4	10	0.6 to 1.7	20
VSP-C2-10R*-4		4	57.5				11.2			21
VSP-C2-10R*-6		6	59.3				11.9			24
VSP-C2-15R*-2		1.8	64.4		32	23.5	8.4	15	0.4 to 1.7	23
VSP-C2-15R*-4		4	68.5				11.2			24
VSP-C2-15R*-6		6	70.3				11.9			27
VSP-C2-20R*-2		1.8	74.4		37	28.5	8.4	20	0.3 to 1.8	26
VSP-C2-20R*-4		4	78.5				11.2			27
VSP-C2-20R*-6		6	80.3				11.9			30
VSP-C3R*-2	3	1.8	39.4	4	17.5	13	8.4	3	0.9 to 1.9	16
VSP-C3R*-4		4	43.5				11.2			17
VSP-C3R*-6		6	45.3				11.9			20
VSP-C3-10R*-2		1.8	53.4		27	17.5	8.4	10	0.6 to 1.7	20
VSP-C3-10R*-4		4	57.5				11.2			21
VSP-C3-10R*-6		6	59.3				11.9			24
VSP-C3-15R*-2		1.8	64.4		32	23.5	8.4	15	0.4 to 1.7	23
VSP-C3-15R*-4		4	68.5				11.2			24
VSP-C3-15R*-6		6	70.3				11.9			27
VSP-C3-20R*-2		1.8	74.4		37	28.5	8.4	20	0.3 to 1.8	26
VSP-C3-20R*-4		4	78.5				11.2			27
VSP-C3-20R*-6		6	80.3				11.9			30
VSP-C4R*-2	4	1.8	39.4	4	17.5	13	8.4	3	0.9 to 1.9	16
VSP-C4R*-4		4	43.5				11.2			17
VSP-C4R*-6		6	45.3				11.9			20
VSP-C4-10R*-2		1.8	53.4		27	17.5	8.4	10	0.6 to 1.7	20
VSP-C4-10R*-4		4	57.5				11.2			21
VSP-C4-10R*-6		6	59.3				11.9			24
VSP-C4-15R*-2		1.8	64.4		32	23.5	8.4	15	0.4 to 1.7	23
VSP-C4-15R*-4		4	68.5				11.2			24
VSP-C4-15R*-6		6	70.3				11.9			27
VSP-C4-20R*-2		1.8	74.4		37	28.5	8.4	20	0.3 to 1.8	26
VSP-C4-20R*-4		4	78.5				11.2			27
VSP-C4-20R*-6		6	80.3				11.9			30

Dimensions (buffer, vacuum outlet top VSP-C, push-in fitting)

●VSP-C6, 8R*-2/4/6
●VSP-C6, 8-□R*-2/4/6



●VSP-C10R*-4/6
●VSP-C10-□R*-4/6
●VSP-C15R(A)*-4/6
●VSP-C15-□R(A)*-4/6



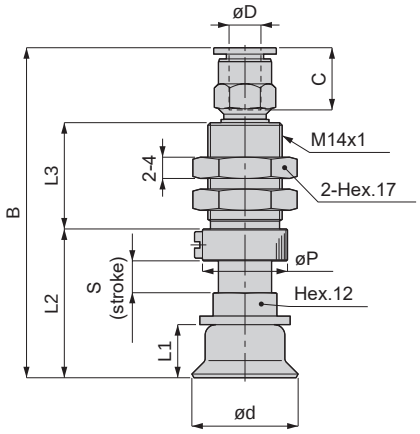
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	øP	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C6R*-2	6	1.8	41.4	7	19.5	13	13	8.4	3	0.9 to 1.9	17
VSP-C6R*-4		4	45.5					11.2			18
VSP-C6R*-6		6	47.3					11.9			19
VSP-C6-10R*-2		1.8	52.9		26.5	17.5		8.4	10	0.8 to 2.7	19
VSP-C6-10R*-4		4	57					11.2			20
VSP-C6-10R*-6		6	58.8					11.9			21
VSP-C6-15R*-2		1.8	63.9		31.5	23.5		8.4	15	0.7 to 3.0	23
VSP-C6-15R*-4		4	68					11.2			24
VSP-C6-15R*-6		6	69.8					11.9			25
VSP-C6-20R*-2		1.8	73.9		36.5	28.5		8.4	20	0.9 to 3.4	25
VSP-C6-20R*-4		4	78					11.2			26
VSP-C6-20R*-6		6	79.8					11.9			26
VSP-C8R*-2	8	1.8	39.9	5.5	18	13	13	8.4	3	0.9 to 1.9	17
VSP-C8R*-4		4	44					11.2			18
VSP-C8R*-6		6	45.8					11.9			19
VSP-C8-10R*-2		1.8	51.4		25	17.5		8.4	10	0.8 to 2.7	19
VSP-C8-10R*-4		4	55.5					11.2			20
VSP-C8-10R*-6		6	57.3					11.9			21
VSP-C8-15R*-2		1.8	62.4		30	23.5		8.4	15	0.7 to 3.0	23
VSP-C8-15R*-4		4	66.5					11.2			24
VSP-C8-15R*-6		6	68.3					11.9			25
VSP-C8-20R*-2		1.8	72.4		35	28.5		8.4	20	0.9 to 3.4	25
VSP-C8-20R*-4		4	76.5					11.2			26
VSP-C8-20R*-6		6	78.3					11.9			27
VSP-C10R*-4	10	4	59	8	26	20	16	11.2	6	4.0 to 7.1	35
VSP-C10R*-6		6	60.3					11.9			36
VSP-C10-10R*-4		4	63.5		30.5			11.2	10	2.0 to 5.2	36
VSP-C10-10R*-6		6	64.8					11.9			37
VSP-C10-15R*-4		4	73.5		35.5	25		11.2	15	2.0 to 5.9	41
VSP-C10-15R*-6		6	74.8					11.9			42
VSP-C10-20R*-4		4	89.5		42.5	34		11.2	20	1.1 to 4.8	48
VSP-C10-20R*-6		6	90.8					11.9			49
VSP-C15R(A)*-4	15	4	60 (61)	9 (10)	27 (28)	20	16	11.2	6	4.0 to 7.1	35 (35)
VSP-C15R(A)*-6		6	61.3 (62.3)					11.9			36 (36)
VSP-C15-10R(A)*-4		4	64.5 (65.5)		31.5 (32.5)			11.2	10	2.0 to 5.2	36 (36)
VSP-C15-10R(A)*-6		6	65.8 (66.8)					11.9			37 (37)
VSP-C15-15R(A)*-4		4	74.5 (75.5)		36.5 (37.5)	25		11.2	15	2.0 to 5.9	41 (41)
VSP-C15-15R(A)*-6		6	75.8 (76.8)					11.9			42 (42)
VSP-C15-20R(A)*-4		4	90.5 (91.5)		43.5 (44.5)	34		11.2	20	1.1 to 4.8	49 (49)
VSP-C15-20R(A)*-6		6	91.8 (92.8)					11.9			50 (50)

*1: Dimensions in ( ) are of the deep pad.

Dimensions (buffer, vacuum outlet top VSP-C, push-in fitting)

●VSP-C20 to 50R(A)*-4/6
●VSP-C20 to 50-□R(A)*-4/6



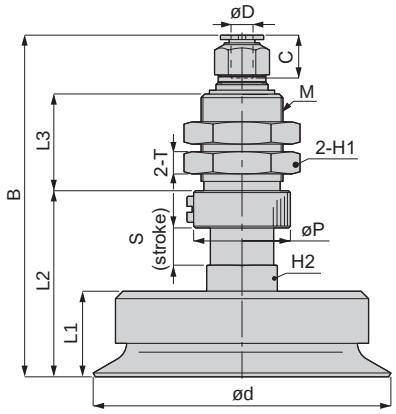
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C20R(A)*-4	20	4	61 (62)	10 (11)	28 (29)	20	11.2	6	7.0 to 12.6	39 (40)
VSP-C20R(A)*-6		6	62.3 (63.3)				11.9			40 (41)
VSP-C20-10R(A)*-4		4	67 (68)		34 (35)		11.2	10	3.3 to 10.0	41 (42)
VSP-C20-10R(A)*-6		6	68.3 (69.3)				11.9			42 (43)
VSP-C20-15R(A)*-4		4	77 (78)		39 (40)	25	11.2	15	3.3 to 10.4	46 (47)
VSP-C20-15R(A)*-6		6	78.3 (79.3)				11.9			47 (48)
VSP-C20-20R(A)*-4		4	93 (94)		46 (47)	34	11.2	20	2.0 to 8.7	53 (54)
VSP-C20-20R(A)*-6		6	94.3 (95.3)				11.9			54 (55)
VSP-C25R(A)*-4	25	4	62 (63)	11 (12)	29 (30)	20	11.2	6	7.0 to 12.6	39 (40)
VSP-C25R(A)*-6		6	63.3 (64.3)				11.9			40 (41)
VSP-C25-10R(A)*-4		4	68 (69)		35 (36)		11.2	10	3.3 to 10.0	42 (43)
VSP-C25-10R(A)*-6		6	69.3 (70.3)				11.9			43 (44)
VSP-C25-15R(A)*-4		4	78 (79)		40 (41)	25	11.2	15	3.3 to 10.4	47 (48)
VSP-C25-15R(A)*-6		6	79.3 (80.3)				11.9			48 (49)
VSP-C25-20R(A)*-4		4	94 (95)		47 (48)	34	11.2	20	2.0 to 8.7	53 (54)
VSP-C25-20R(A)*-6		6	95.3 (96.3)				11.9			54 (55)
VSP-C30R(A)*-4	30	4	62 (65)	11 (14)	29 (32)	20	11.2	6	7.0 to 12.6	42 (43)
VSP-C30R(A)*-6		6	63.3 (66.3)				11.9			43 (44)
VSP-C30-10R(A)*-4		4	68 (71)		35 (38)		11.2	10	3.3 to 10.0	44 (45)
VSP-C30-10R(A)*-6		6	69.3 (72.3)				11.9			45 (46)
VSP-C30-15R(A)*-4		4	78 (81)		40 (43)	25	11.2	15	3.3 to 10.4	49 (50)
VSP-C30-15R(A)*-6		6	79.3 (82.3)				11.9			50 (51)
VSP-C30-20R(A)*-4		4	94 (97)		47 (50)	34	11.2	20	2.0 to 8.7	56 (57)
VSP-C30-20R(A)*-6		6	95.3 (98.3)				11.9			57 (58)
VSP-C40R(A)*-4	40	4	65 (68.5)	14 (17.5)	32 (35.5)	20	11.2	6	7.0 to 12.6	49 (50)
VSP-C40R(A)*-6		6	66.3 (69.8)				11.9			50 (51)
VSP-C40-10R(A)*-4		4	71 (74.5)		38 (41.5)		11.2	10	3.3 to 10.0	51 (52)
VSP-C40-10R(A)*-6		6	72.3 (75.8)				11.9			52 (53)
VSP-C40-15R(A)*-4		4	81 (84.5)		43 (46.5)	25	11.2	15	3.3 to 10.4	56 (57)
VSP-C40-15R(A)*-6		6	82.3 (85.8)				11.9			57 (58)
VSP-C40-20R(A)*-4		4	97 (100.5)		50 (53.5)	34	11.2	20	2.0 to 8.7	63 (64)
VSP-C40-20R(A)*-6		6	98.3 (101.8)				11.9			64 (65)
VSP-C50R(A)*-4	50	4	66 (69)	15 (18)	33 (36)	20	11.2	6	7.0 to 12.6	54 (56)
VSP-C50R(A)*-6		6	67.3 (70.3)				11.9			55 (57)
VSP-C50-10R(A)*-4		4	72 (75)		39 (42)		11.2	10	3.3 to 10.0	57 (58)
VSP-C50-10R(A)*-6		6	73.3 (76.3)				11.9			58 (59)
VSP-C50-15R(A)*-4		4	82 (85)		44 (47)	25	11.2	15	3.3 to 10.4	62 (63)
VSP-C50-15R(A)*-6		6	83.3 (86.3)				11.9			63 (64)
VSP-C50-20R(A)*-4		4	98 (101)		51 (54)	34	11.2	20	2.0 to 8.7	68 (70)
VSP-C50-20R(A)*-6		6	99.3 (102.3)				11.9			69 (71)

*1: Dimensions in ( ) are of the deep pad.

Dimensions (buffer, vacuum outlet top VSP-C, push-in fitting)

●VSP-C60 to 100R(A)*-4/6/8
●VSP-C150, 200R*-6/8/10/12



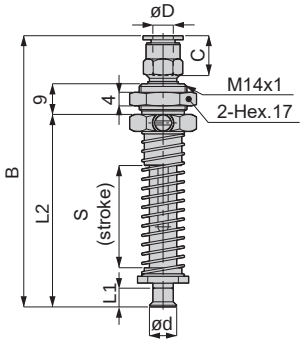
Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	øP	Tube end C	H1 HEX	H2 HEX	T	Stroke S	Spring force (N)	Weight (g)
VSP-C60R(A)*-4	60	4	M22x1	87.2 (95.2)	18 (25)	47.6 (54.6)	26	26	10.9	27	19	6	10	10.1 to 15.8	169 (169)
VSP-C60R(A)*-6		6		89.4 (97.4)					11.7						170 (170)
VSP-C60R(A)*-8		8		97.8 (105.8)					18.2						175 (175)
VSP-C80R(A)*-4	80	4	M22x1	89.6 (99.6)	23 (33)	50 (60)	26	26	10.9	27	19	6	10	10.1 to 15.8	253 (262)
VSP-C80R(A)*-6		6		91.8 (101.8)					11.7						254 (263)
VSP-C80R(A)*-8		8		100.2 (110.2)					18.2						259 (268)
VSP-C100R(A)*-4	100	4	M22x1	91.6 (100.6)	25 (34)	52 (61)	26	26	10.9	27	19	6	10	10.1 to 15.8	343 (349)
VSP-C100R(A)*-6		6		93.8 (102.8)					11.7						344 (350)
VSP-C100R(A)*-8		8		102.2 (111.2)					18.2						349 (361)
VSP-C150R*-6	150	6	M30x2	180	45	112.1	48	35	11.7	36	30	10	20.1	14.0 to 25.5	1205
VSP-C150R*-8		8		180.7					18.2						1210
VSP-C150R*-10		10		187.7					20.7						1215
VSP-C150R*-12		12		192.9					23.3						1242
VSP-C200R*-6	200	6	M30x2	185	50	117.1	48	35	11.7	36	30	10	20.1	14.0 to 25.5	1684
VSP-C200R*-8		8		185.7					18.2						1689
VSP-C200R*-10		10		192.7					20.7						1694
VSP-C200R*-12		12		197.9					23.3						1712

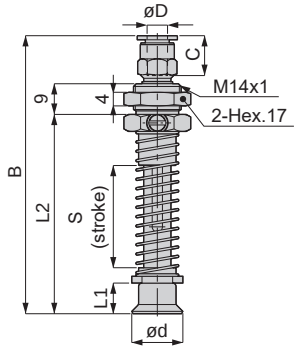
*1: Dimensions in ( ) are of the deep pad.

Dimensions (buffer, vacuum outlet top VSP-C, push-in fitting without spring cover)

●VSP-C6, 8-□R*-4C/6C



●VSP-C10-□R*-4C/6C
●VSP-C15-□R(A)*-4C/6C



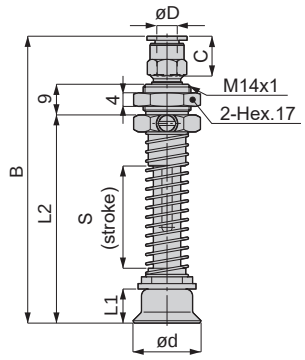
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C6-20R*-4C	6	4	67	7	45	11.2	20	1.5 to 4.9	43
VSP-C6-20R*-6C		6	68.3			11.9			44
VSP-C6-30R*-4C		4	80		58	11.2	30	1.1 to 4.8	48
VSP-C6-30R*-6C		6	81.3			11.9			49
VSP-C6-40R*-4C		4	93		71	11.2	40	1.0 to 4.5	54
VSP-C6-40R*-6C		6	94.3			11.9			55
VSP-C6-50R*-4C		4	106		84	11.2	50	0.9 to 4.5	59
VSP-C6-50R*-6C		6	107.3			11.9			60
VSP-C8-20R*-4C	8	4	65.5	5.5	43.5	11.2	20	1.5 to 4.9	43
VSP-C8-20R*-6C		6	66.8			11.9			44
VSP-C8-30R*-4C		4	78.5		56.5	11.2	30	1.1 to 4.8	48
VSP-C8-30R*-C		6	79.8			11.9			49
VSP-C8-40R*-4C		4	91.5		69.5	11.2	40	1.0 to 4.5	54
VSP-C8-40R*-6C		6	92.8			11.9			55
VSP-C8-50R*-4C		4	104.5		82.5	11.2	50	0.9 to 4.5	59
VSP-C8-50R*-6C		6	105.8			11.9			60
VSP-C10-20R*-4C	10	4	66.5	8	44.5	11.2	20	1.5 to 4.9	43
VSP-C10-20R*-6C		6	67.8			11.9			44
VSP-C10-30R*-4C		4	79.5		57.5	11.2	30	1.1 to 4.8	48
VSP-C10-30R*-6C		6	80.8			11.9			49
VSP-C10-40R*-4C		4	92.5		70.5	11.2	40	1.0 to 4.5	54
VSP-C10-40R*-6C		6	93.8			11.9			55
VSP-C10-50R*-4C		4	105.5		83.5	11.2	50	0.9 to 4.5	59
VSP-C10-50R*-6C		6	106.8			11.9			60
VSP-C15-20R(A)*-4C	15	4	67.5 (68.5)	9 (10)	45.5 (46.5)	11.2	20	1.5 to 4.9	43 (43)
VSP-C15-20R(A)*-6C		6	68.8 (69.8)			11.9			44 (44)
VSP-C15-30R(A)*-4C		4	80.5 (81.5)		58.5 (59.5)	11.2	30	1.1 to 4.8	48 (48)
VSP-C15-30R(A)*-6C		6	81.8 (82.8)			11.9			49 (49)
VSP-C15-40R(A)*-4C		4	93.5 (94.5)		71.5 (72.5)	11.2	40	1.0 to 4.5	54 (54)
VSP-C15-40R(A)*-6C		6	94.8 (95.8)			11.9			55 (55)
VSP-C15-50R(A)*-4C		4	106.5 (107.5)		84.5 (85.5)	11.2	50	0.9 to 4.5	59 (59)
VSP-C15-50R(A)*-6C		6	107.8 (108.8)			11.9			60 (60)

*1: Dimensions in ( ) are of the deep pad.

Dimensions (buffer, vacuum outlet top VSP-C, push-in fitting without spring cover)

●VSP-C20 to 50-□R(A)*-4C/6C



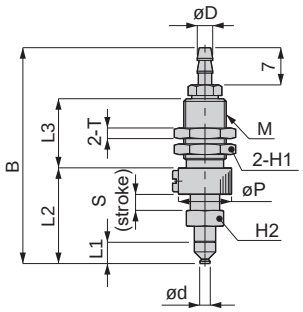
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C20-20R(A)*-4C	20	4	70 (71)	10 (11)	48 (49)	11.2	20	1.5 to 4.9	49 (50)
VSP-C20-20R(A)*-6C		6	71.3 (72.3)			11.9			50 (51)
VSP-C20-30R(A)*-4C		4	83 (84)		61 (62)	11.2	30	1.1 to 4.8	54 (55)
VSP-C20-30R(A)*-6C		6	84.3 (85.3)			11.9			55 (56)
VSP-C20-40R(A)*-4C		4	96 (97)		74 (75)	11.2	40	1.0 to 4.5	59 (60)
VSP-C20-40R(A)*-6C		6	97.3 (98.3)			11.9			60 (61)
VSP-C20-50R(A)*-4C		4	109 (110)		87 (88)	11.2	50	0.9 to 4.5	64 (65)
VSP-C20-50R(A)*-6C		6	110.3 (111.3)			11.9			65 (66)
VSP-C25-20R(A)*-4C	25	4	71 (72)	11 (12)	49 (50)	11.2	20	1.5 to 4.9	49 (50)
VSP-C25-20R(A)*-6C		6	72.3 (73.3)			11.9			50 (51)
VSP-C25-30R(A)*-4C		4	84 (85)		62 (63)	11.2	30	1.1 to 4.8	54 (55)
VSP-C25-30R(A)*-6C		6	85.3 (86.3)			11.9			55 (56)
VSP-C25-40R(A)*-4C		4	97 (98)		75 (76)	11.2	40	1.0 to 4.5	60 (61)
VSP-C25-40R(A)*-6C		6	98.3 (99.3)			11.9			61 (62)
VSP-C25-50R(A)*-4C		4	110 (111)		88 (89)	11.2	50	0.9 to 4.5	65 (66)
VSP-C25-50R(A)*-6C		6	111.3 (112.3)			11.9			66 (67)
VSP-C30-20R(A)*-4C	30	4	71 (74)	11 (14)	49 (52)	11.2	20	1.5 to 4.9	51 (52)
VSP-C30-20R(A)*-6C		6	72.3 (75.3)			11.9			52 (53)
VSP-C30-30R(A)*-4C		4	84 (87)		62 (65)	11.2	30	1.1 to 4.8	56 (57)
VSP-C30-30R(A)*-6C		6	85.3 (88.3)			11.9			57 (58)
VSP-C30-40R(A)*-4C		4	97 (100)		75 (78)	11.2	40	1.0 to 4.5	62 (61)
VSP-C30-40R(A)*-6C		6	98.3 (101.3)			11.9			63 (62)
VSP-C30-50R(A)*-4C		4	110 (113)		88 (91)	11.2	50	0.9 to 4.5	67 (68)
VSP-C30-50R(A)*-6C		6	111.3 (114.3)			11.9			68 (69)
VSP-C40-20R(A)*-4C	40	4	74 (77.5)	14 (17.5)	52 (55.5)	11.2	20	1.5 to 4.9	58 (59)
VSP-C40-20R(A)*-6C		6	75.3 (78.8)			11.9			59 (60)
VSP-C40-30R(A)*-4C		4	87 (90.5)		65 (68.5)	11.2	30	1.1 to 4.8	64 (65)
VSP-C40-30R(A)*-6C		6	88.3 (91.8)			11.9			65 (66)
VSP-C40-40R(A)*-4C		4	100 (103.5)		78 (81.5)	11.2	40	1.0 to 4.5	69 (70)
VSP-C40-40R(A)*-6C		6	101.3 (104.8)			11.9			70 (71)
VSP-C40-50R(A)*-4C		4	113 (116.5)		91 (94.5)	11.2	50	0.9 to 4.5	74 (75)
VSP-C40-50R(A)*-6C		6	114.3 (117.8)			11.9			75 (76)
VSP-C50-20R(A)*-4C	50	4	75 (78)	15 (18)	53 (56)	11.2	20	1.5 to 4.9	64 (65)
VSP-C50-20R(A)*-6C		6	76.3 (79.3)			11.9			65 (67)
VSP-C50-30R(A)*-4C		4	88 (91)		66 (69)	11.2	30	1.1 to 4.8	69 (71)
VSP-C50-30R(A)*-6C		6	89.3 (92.3)			11.9			70 (72)
VSP-C50-40R(A)*-4C		4	101 (104)		79 (82)	11.2	40	1.0 to 4.5	75 (76)
VSP-C50-40R(A)*-6C		6	102.3 (105.3)			11.9			76 (77)
VSP-C50-50R(A)*-4C		4	114 (117)		92 (95)	11.2	50	0.9 to 4.5	80 (81)
VSP-C50-50R(A)*-6C		6	115.3 (118.3)			11.9			81 (82)

*1: Dimensions in ( ) are of the deep pad.

Dimensions (buffer, vacuum outlet top VSP-C, barbed fitting)

●VSP-C1 to 4R*-4T/6T
●VSP-C1 to 4-□R*-4T/6T



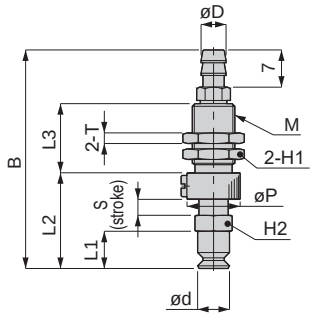
Unit: mm

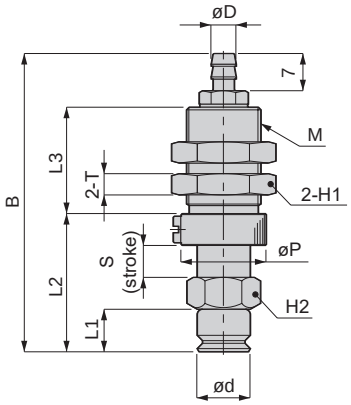
Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	øP	H1 HEX	H2 HEX	T	Stroke S	Spring force (N)	Weight (g)
VSP-C1R*-4T	1	2.5	M8x0.75	40.6	4	18	13	10	10	7	2	3	0.9 to 1.9	8
VSP-C1R*-6T		4												
VSP-C1-10R*-4T		2.5	M12x1	54.6		27	17.5	13	14	8	4	10	0.6 to 1.7	19
VSP-C1-10R*-6T		4												
VSP-C1-15R*-4T		2.5		65.6		32	23.5					15	0.4 to 1.7	22
VSP-C1-15R*-6T		4												
VSP-C1-20R*-4T		2.5		75.6		37	28.5					20	0.3 to 1.8	25
VSP-C1-20R*-6T		4												
VSP-C2R*-4T	2	2.5	M8x0.75	40.6	4	18	13	10	10	7	2	3	0.9 to 1.9	8
VSP-C2R*-6T		4												
VSP-C2-10R*-4T		2.5	M12x1	54.6		27	17.5	13	14	8	4	10	0.6 to 1.7	19
VSP-C2-10R*-6T		4												
VSP-C2-15R*-4T		2.5		65.6		32	23.5					15	0.4 to 1.7	22
VSP-C2-15R*-6T		4												
VSP-C2-20R*-4T		2.5		75.6		37	28.5					20	0.3 to 1.8	25
VSP-C2-20R*-6T		4												
VSP-C3R*-4T	3	2.5	M8x0.75	40.6	4	18	13	10	10	7	2	3	0.9 to 1.9	8
VSP-C3R*-6T		4												
VSP-C3-10R*-4T		2.5	M12x1	54.6		27	17.5	13	14	8	4	10	0.6 to 1.7	19
VSP-C3-10R*-6T		4												
VSP-C3-15R*-4T		2.5		65.6		32	23.5					15	0.4 to 1.7	22
VSP-C3-15R*-6T		4												
VSP-C3-20R*-4T		2.5		75.6		37	28.5					20	0.3 to 1.8	25
VSP-C3-20R*-6T		4												
VSP-C4R*-4T	4	2.5	M8x0.75	40.6	4	18	13	10	10	7	2	3	0.9 to 1.9	8
VSP-C4R*-6T		4												
VSP-C4-10R*-4T		2.5	M12x1	54.6		27	17.5	13	14	8	4	10	0.6 to 1.7	19
VSP-C4-10R*-6T		4												
VSP-C4-15R*-4T		2.5		65.6		32	23.5					15	0.4 to 1.7	22
VSP-C4-15R*-6T		4												
VSP-C4-20R*-4T		2.5		75.6		37	28.5					20	0.3 to 1.8	25
VSP-C4-20R*-6T		4												

Dimensions (buffer, vacuum outlet top VSP-C, barbed fitting)

●VSP-C6, 8R*-4T/6T
●VSP-C6, 8-□R*-4T/6T

●VSP-C10R*-4T/6T
●VSP-C10-□R*-4T/6T
●VSP-C15R(A)*-4T/6T
●VSP-C15-□R(A)*-4T/6T





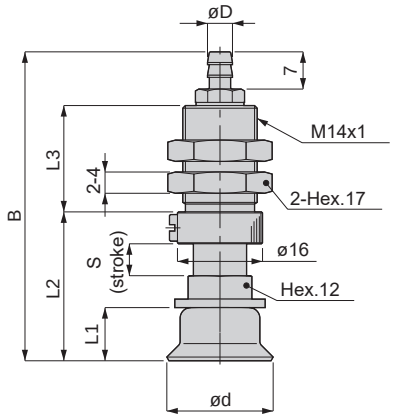
Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	øP	H1 HEX	H2 HEX	T	Stroke S	Spring force (N)	Weight (g)
VSP-C6R*-4T	6	2.5	M8x0.75	40.6	7	18	13	10	10	7	2	3	0.9 to 1.9	8
VSP-C6R*-6T		4												
VSP-C6-10R*-4T		2.5	M12x1	54.1		26.5	17.5	13	14	8	4	10	0.8 to 2.7	19
VSP-C6-10R*-6T		4												
VSP-C6-15R*-4T		2.5		65.1		31.5	23.5					15	0.7 to 3.0	22
VSP-C6-15R*-6T		4												
VSP-C6-20R*-4T		2.5		75.1		36.5	28.5					20	0.9 to 3.4	24
VSP-C6-20R*-6T		4												
VSP-C8R*-4T	8	2.5	M8x0.75	39.1	5.5	16.5	13	10	10	7	2	3	0.9 to 1.9	8
VSP-C8R*-6T		4												
VSP-C8-10R*-4T		2.5	M12x1	52.6		25	17.5	13	14	8	4	10	0.8 to 2.7	19
VSP-C8-10R*-6T		4												
VSP-C8-15R*-4T		2.5		63.6		30	23.5					15	0.7 to 3.0	22
VSP-C8-15R*-6T		4												
VSP-C8-20R*-4T		2.5		73.6		35	28.5					20	0.9 to 3.4	24
VSP-C8-20R*-6T		4												
VSP-C10R*-4T	10	2.5	M14x1	56.1	8	26	20	16	17	12	4	6	4.0 to 7.1	34
VSP-C10R*-6T		4												
VSP-C10-10R*-4T		2.5		60.6		30.5						10	2.0 to 5.2	35
VSP-C10-10R*-6T		4												
VSP-C10-15R*-4T		2.5		70.6		35.5	25					15	2.0 to 5.9	40
VSP-C10-15R*-6T		4												
VSP-C10-20R*-4T		2.5		86.6		42.5	34					20	1.1 to 4.8	47
VSP-C10-20R*-6T		4												
VSP-C15R(A)*-4T	15	2.5	M14x1	57.1 (58.1)	9 (10)	27 (28)	20	16	17	12	4	6	4.0 to 7.1	34 (34)
VSP-C15R(A)*-6T		4												
VSP-C15-10R(A)*-4T		2.5		61.6 (62.6)		31.5 (32.5)						10	2.0 to 5.2	35 (35)
VSP-C15-10R(A)*-6T		4												
VSP-C15-15R(A)*-4T		2.5		71.6 (72.6)		36.5 (37.5)	25					15	2.0 to 5.9	40 (40)
VSP-C15-15R(A)*-6T		4												
VSP-C15-20R(A)*-4T		2.5		87.6 (88.6)		43.5 (44.5)	34					20	1.1 to 4.8	48 (48)
VSP-C15-20R(A)*-6T		4												

*1: Dimensions in ( ) are of the deep pad.

Dimensions (buffer, vacuum outlet top VSP-C, barbed fitting)

●VSP-C20 to 50R(A)*-4T/6T
●VSP-C20 to 50-□R(A)*-4T/6T



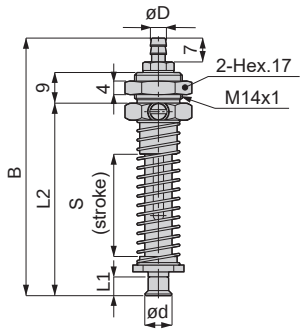
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-C20R(A)*-4T	20	2.5	58.1 (59.1)	10 (11)	28 (29)	20	6	7.0 to 12.6	38 (39)
VSP-C20R(A)*-6T		4							
VSP-C20-10R(A)*-4T		2.5	64.1 (65.1)		34 (35)		10	3.3 to 10.0	40 (41)
VSP-C20-10R(A)*-6T		4							
VSP-C20-15R(A)*-4T		2.5	74.1 (75.1)		39 (40)	25	15	3.3 to 10.4	45 (46)
VSP-C20-15R(A)*-6T		4							
VSP-C20-20R(A)*-4T		2.5	90.1 (91.1)		46 (47)	34	20	2.0 to 8.7	52 (52)
VSP-C20-20R(A)*-6T		4							
VSP-C25R(A)*-4T	25	2.5	59.1 (60.1)	11 (12)	29 (30)	20	6	7.0 to 12.6	39 (40)
VSP-C25R(A)*-6T		4							
VSP-C25-10R(A)*-4T		2.5	65.1 (66.1)		35 (36)		10	3.3 to 10.0	43 (44)
VSP-C25-10R(A)*-6T		4							
VSP-C25-15R(A)*-4T		2.5	75.1 (76.1)		40 (41)	25	15	3.3 to 10.4	48 (49)
VSP-C25-15R(A)*-6T		4							
VSP-C25-20R(A)*-4T		2.5	91.1 (92.1)		47 (48)	34	20	2.0 to 8.7	54 (55)
VSP-C25-20R(A)*-6T		4							
VSP-C30R(A)*-4T	30	2.5	59.1 (62.1)	11 (14)	29 (32)	20	6	7.0 to 12.6	40 (41)
VSP-C30R(A)*-6T		4							
VSP-C30-10R(A)*-4T		2.5	65.1 (68.1)		35 (38)		10	3.3 to 10.0	43 (44)
VSP-C30-10R(A)*-6T		4							
VSP-C30-15R(A)*-4T		2.5	75.1 (78.1)		40 (43)	25	15	3.3 to 10.4	48 (49)
VSP-C30-15R(A)*-6T		4							
VSP-C30-20R(A)*-4T		2.5	91.1 (94.1)		47 (50)	34	20	2.0 to 8.7	54 (55)
VSP-C30-20R(A)*-6T		4							
VSP-C40R(A)*-4T	40	2.5	62.1 (65.6)	14 (17.5)	32 (35.5)	20	6	7.0 to 12.6	47 (48)
VSP-C40R(A)*-6T		4							
VSP-C40-10R(A)*-4T		2.5	68.1 (71.6)		38 (41.5)		10	3.3 to 10.0	50 (51)
VSP-C40-10R(A)*-6T		4							
VSP-C40-15R(A)*-4T		2.5	78.1 (81.6)		43 (46.5)	25	15	3.3 to 10.4	55 (56)
VSP-C40-15R(A)*-6T		4							
VSP-C40-20R(A)*-4T		2.5	94.1 (97.6)		50 (53.5)	34	20	2.0 to 8.7	61 (62)
VSP-C40-20R(A)*-6T		4							
VSP-C50R(A)*-4T	50	2.5	63.1 (66.1)	15 (18)	33 (36)	20	6	7.0 to 12.6	53 (55)
VSP-C50R(A)*-6T		4							
VSP-C50-10R(A)*-4T		2.5	69.1 (72.1)		39 (42)		10	3.3 to 10.0	56 (57)
VSP-C50-10R(A)*-6T		4							
VSP-C50-15R(A)*-4T		2.5	79.1 (82.1)		44 (47)	25	15	3.3 to 10.4	61 (62)
VSP-C50-15R(A)*-6T		4							
VSP-C50-20R(A)*-4T		2.5	95.1 (98.1)		51 (54)	34	20	2.0 to 8.7	67 (69)
VSP-C50-20R(A)*-6T		4							

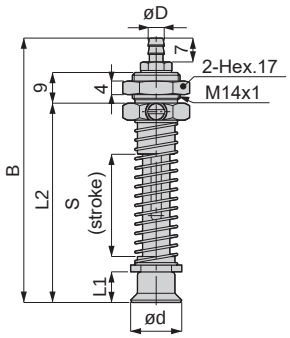
*1: Dimensions in ( ) are of the deep pad.

Dimensions (buffer, vacuum outlet top VSP-C, barbed fitting without spring cover)

●VSP-C6, 8-□R*-4TC/6TC



●VSP-C10-□R*-4TC/6TC
●VSP-C15-□R(A)*-4TC/6TC



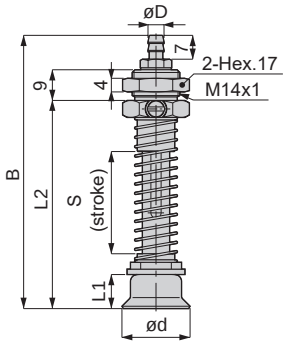
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-C6-20R*-4TC	6	2.5	64.1	7	45	20	1.5 to 4.9	42
VSP-C6-20R*-6TC		4						
VSP-C6-30R*-4TC		2.5	77.1		58	30	1.1 to 4.8	47
VSP-C6-30R*-6TC		4						
VSP-C6-40R*-4TC		2.5	90.1		71	40	1.0 to 4.5	52
VSP-C6-40R*-6TC		4						
VSP-C6-50R*-4TC		2.5	103.1		84	50	0.9 to 4.5	58
VSP-C6-50R*-6TC		4						
VSP-C8-20R*-4TC	8	2.5	62.6	5.5	43.5	20	1.5 to 4.9	42
VSP-C8-20R*-6TC		4						
VSP-C8-30R*-4TC		2.5	75.6		56.5	30	1.1 to 4.8	47
VSP-C8-30R*-6TC		4						
VSP-C8-40R*-4TC		2.5	88.6		69.5	40	1.0 to 4.5	52
VSP-C8-40R*-6TC		4						
VSP-C8-50R*-4TC		2.5	101.6		82.5	50	0.9 to 4.5	58
VSP-C8-50R*-6TC		4						
VSP-C10-20R*-4TC	10	2.5	63.6	8	44.5	20	1.5 to 4.9	43
VSP-C10-20R*-6TC		4						
VSP-C10-30R*-4TC		2.5	76.6		57.5	30	1.1 to 4.8	48
VSP-C10-30R*-6TC		4						
VSP-C10-40R*-4TC		2.5	89.6		70.5	40	1.0 to 4.5	53
VSP-C10-40R*-6TC		4						
VSP-C10-50R*-4TC		2.5	102.6		83.5	50	0.9 to 4.5	59
VSP-C10-50R*-6TC		4						
VSP-C15-20R(A)*-4TC	15	2.5	64.6 (65.6)	9 (10)	45.5 (46.5)	20	1.5 to 4.9	43 (43)
VSP-C15-20R(A)*-6TC		4						
VSP-C15-30R(A)*-4TC		2.5	77.6 (78.6)		58.5 (59.5)	30	1.1 to 4.8	48 (48)
VSP-C15-30R(A)*-6TC		4						
VSP-C15-40R(A)*-4TC		2.5	90.6 (91.6)		71.5 (72.5)	40	1.0 to 4.5	53 (53)
VSP-C15-40R(A)*-6TC		4						
VSP-C15-50R(A)*-4TC		2.5	103.6 (104.6)		84.5 (85.5)	50	0.9 to 4.5	59 (59)
VSP-C15-50R(A)*-6TC		4						

*1: Dimensions in ( ) are of the deep pad.

Dimensions (buffer, vacuum outlet top VSP-C, barbed fitting without spring cover)

●VSP-C20 to 50-□R(A)*-/6TC



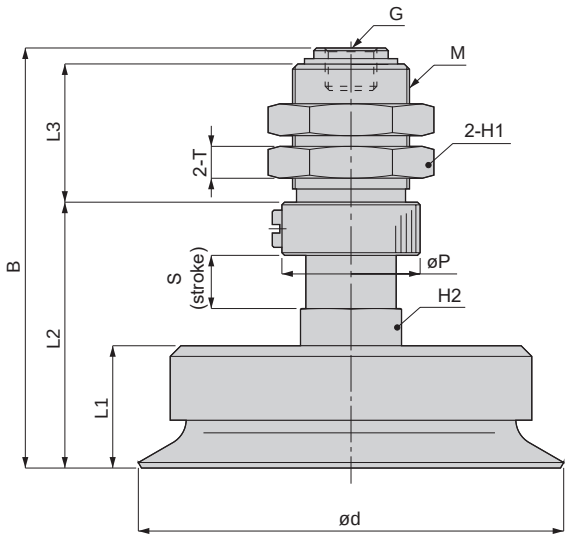
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-C20-20R(A)*-4TC	20	2.5	67.1 (68.1)	10 (11)	48 (49)	20	1.5 to 4.9	48
VSP-C20-20R(A)*-6TC		4						
VSP-C20-30R(A)*-4TC		2.5	80.1 (81.1)		61 (62)	30	1.1 to 4.8	53
VSP-C20-30R(A)*-6TC		4						
VSP-C20-40R(A)*-4TC		2.5	93.1 (94.1)		74 (75)	40	1.0 to 4.5	58
VSP-C20-40R(A)*-6TC		4						
VSP-C20-50R(A)*-4TC		2.5	106.1 (107.1)		87 (88)	50	0.9 to 4.5	63
VSP-C20-50R(A)*-6TC		4						
VSP-C25-20R(A)*-4TC	25	2.5	68.1 (69.1)	11 (12)	49 (50)	20	1.5 to 4.9	48
VSP-C25-20R(A)*-6TC		4						
VSP-C25-30R(A)*-4TC		2.5	81.1 (82.1)		62 (63)	30	1.1 to 4.8	53
VSP-C25-30R(A)*-6TC		4						
VSP-C25-40R(A)*-4TC		2.5	94.1 (95.1)		75 (76)	40	1.0 to 4.5	58
VSP-C25-40R(A)*-6TC		4						
VSP-C25-50R(A)*-4TC		2.5	107.1 (108.1)		88 (89)	50	0.9 to 4.5	64
VSP-C25-50R(A)*-6TC		4						
VSP-C30-20R(A)*-4TC	30	2.5	68.1 (71.1)	11 (14)	49 (52)	20	1.5 to 4.9	49
VSP-C30-20R(A)*-6TC		4						
VSP-C30-30R(A)*-4TC		2.5	81.1 (84.1)		62 (65)	30	1.1 to 4.8	54
VSP-C30-30R(A)*-6TC		4						
VSP-C30-40R(A)*-4TC		2.5	94.1 (97.1)		75 (78)	40	1.0 to 4.5	59
VSP-C30-40R(A)*-6TC		4						
VSP-C30-50R(A)*-4TC		2.5	107.1 (110.1)		88 (91)	50	0.9 to 4.5	64
VSP-C30-50R(A)*-6TC		4						
VSP-C40-20R(A)*-4TC	40	2.5	71.1 (74.6)	14 (17.5)	52 (55.5)	20	1.5 to 4.9	57 (58)
VSP-C40-20R(A)*-6TC		4						
VSP-C40-30R(A)*-4TC		2.5	84.1 (87.6)		65 (68.5)	30	1.1 to 4.8	62 (63)
VSP-C40-30R(A)*-6TC		4						
VSP-C40-40R(A)*-4TC		2.5	97.1 (100.6)		78 (81.5)	40	1.0 to 4.5	68 (69)
VSP-C40-40R(A)*-6TC		4						
VSP-C40-50R(A)*-4TC		2.5	110.1 (113.6)		91 (94.5)	50	0.9 to 4.5	73 (74)
VSP-C40-50R(A)*-6TC		4						
VSP-C50-20R(A)*-4TC	50	2.5	72.1 (75.1)	15 (18)	53 (56)	20	1.5 to 4.9	63 (65)
VSP-C50-20R(A)*-6TC		4						
VSP-C50-30R(A)*-4TC		2.5	85.1 (88.1)		66 (69)	30	1.1 to 4.8	68 (70)
VSP-C50-30R(A)*-6TC		4						
VSP-C50-40R(A)*-4TC		2.5	98.1 (101.1)		79 (82)	40	1.0 to 4.5	73 (75)
VSP-C50-40R(A)*-6TC		4						
VSP-C50-50R(A)*-4TC		2.5	111.1 (114.1)		92 (95)	50	0.9 to 4.5	79 (80)
VSP-C50-50R(A)*-6TC		4						

*1: Dimensions in ( ) are of the deep pad.

Dimensions (buffer, vacuum outlet top VSP-C, female thread)

●VSP-C60 to 100R(A)*-6A
●VSP-C150, 200R*-8A



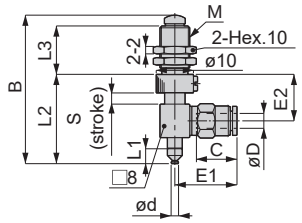
Unit: mm

Model No.	Pad diameter ød	Vacuum outlet size G	Mounting screw M	B	L1	L2	L3	øP	H1 HEX	H2 HEX	T	Stroke S	Spring force (N)	Weight (g)
VSP-C60R(A)*-6A	60	G1/8	M22x1	76.6 (83.6)	18 (25)	47.6 (54.6)	26	26	27	19	6	10	10.1 to 15.8	161 (161)
VSP-C80R(A)*-6A	80	G1/8	M22x1	79 (89)	23 (33)	50 (60)	26	26	27	19	6	10	10.1 to 15.8	245 (254)
VSP-C100R(A)*-6A	100	G1/8	M22x1	81 (90)	25 (34)	52 (61)	26	26	27	19	6	10	10.1 to 15.8	335 (341)
VSP-C150R*-8A	150	G1/4	M30x2	164	45	112.1	48	35	36	30	10	20.1	14.0 to 25.5	1196
VSP-C200R*-8A	200	G1/4	M30x2	169	50	117.1	48	35	36	30	10	20.1	14.0 to 25.5	1675

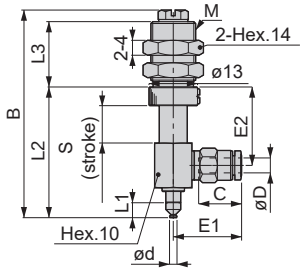
*1: Dimensions in ( ) are of the deep pad.

Dimensions (buffer, vacuum outlet side VSP-D, push-in fitting)

●VSP-D1 to 4R*-2/4/6



●VSP-D1 to 4-□R*-2/4/6



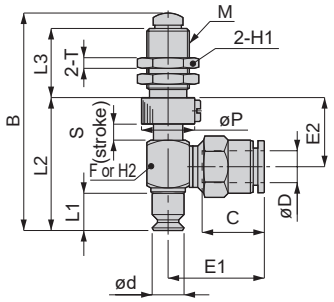
Unit: mm

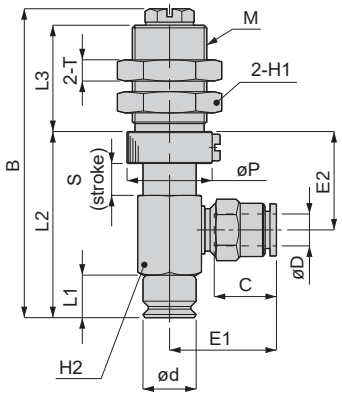
Model No.	Pad diameter ød	Bore size ød	Mounting screw M	B	L1	L2	L3	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D1R*-2	1	1.8	M8x0.75	40	4	24	13	8.4	12.7	12.5	3	0.9 to 1.9	13
VSP-D1R*-4		4						11.2	16.8				14
VSP-D1R*-6		6						11.9	18.6				15
VSP-D1-10R*-2		1.8	M12x1	55.6		35	17.5	8.4	13.7	21	10	0.6 to 1.7	29
VSP-D1-10R*-4		4						11.2	17.8				30
VSP-D1-10R*-6		6						11.9	19.1				31
VSP-D1-15R*-2		1.8		66.6		40	23.5	8.4	13.7	26	15	0.4 to 1.7	33
VSP-D1-15R*-4		4						11.2	17.8				34
VSP-D1-15R*-6		6						11.9	19.1				35
VSP-D1-20R*-2		1.8		76.6		45	28.5	8.4	13.7	31	20	0.3 to 1.8	36
VSP-D1-20R*-4		4						11.2	17.8				37
VSP-D1-20R*-6		6						11.9	19.1				38
VSP-D2R*-2	2	1.8	M8x0.75	40	4	24	13	8.4	12.7	12.5	3	0.9 to 1.9	13
VSP-D2R*-4		4						11.2	16.8				14
VSP-D2R*-6		6						11.9	18.6				15
VSP-D2-10R*-2		1.8	M12x1	55.6		35	17.5	8.4	13.7	21	10	0.6 to 1.7	29
VSP-D2-10R*-4		4						11.2	17.8				30
VSP-D2-10R*-6		6						11.9	19.1				31
VSP-D2-15R*-2		1.8		66.6		40	23.5	8.4	13.7	26	15	0.4 to 1.7	33
VSP-D2-15R*-4		4						11.2	17.8				34
VSP-D2-15R*-6		6						11.9	19.1				35
VSP-D2-20R*-2		1.8		76.6		45	28.5	8.4	13.7	31	20	0.3 to 1.8	36
VSP-D2-20R*-4		4						11.2	17.8				37
VSP-D2-20R*-6		6						11.9	19.1				38
VSP-D3R*-2	3	1.8	M8x0.75	40	4	24	13	8.4	12.7	12.5	3	0.9 to 1.9	13
VSP-D3R*-4		4						11.2	16.8				14
VSP-D3R*-6		6						11.9	18.6				15
VSP-D3-10R*-2		1.8	M12x1	55.6		35	17.5	8.4	13.7	21	10	0.6 to 1.7	29
VSP-D3-10R*-4		4						11.2	17.8				30
VSP-D3-10R*-6		6						11.9	19.1				31
VSP-D3-15R*-2		1.8		66.6		40	23.5	8.4	13.7	26	15	0.4 to 1.7	33
VSP-D3-15R*-4		4						11.2	17.8				34
VSP-D3-15R*-6		6						11.9	19.1				35
VSP-D3-20R*-2		1.8		76.6		45	28.5	8.4	13.7	31	20	0.3 to 1.8	36
VSP-D3-20R*-4		4						11.2	17.8				37
VSP-D3-20R*-6		6						11.9	19.1				38
VSP-D4R*-2	4	1.8	M8x0.75	40	4	24	13	8.4	12.7	12.5	3	0.9 to 1.9	13
VSP-D4R*-4		4						11.2	16.8				14
VSP-D4R*-6		6						11.9	18.6				15
VSP-D4-10R*-2		1.8	M12x1	55.6		35	17.5	8.4	13.7	21	10	0.6 to 1.7	29
VSP-D4-10R*-4		4						11.2	17.8				30
VSP-D4-10R*-6		6						11.9	19.1				31
VSP-D4-15R*-2		1.8		66.6		40	23.5	8.4	13.7	26	15	0.4 to 1.7	33
VSP-D4-15R*-4		4						11.2	17.8				34
VSP-D4-15R*-6		6						11.9	19.1				35
VSP-D4-20R*-2		1.8		76.6		45	28.5	8.4	13.7	31	20	0.3 to 1.8	36
VSP-D4-20R*-4		4						11.2	17.8				37
VSP-D4-20R*-6		6						11.9	19.1				38

Dimensions (buffer, vacuum outlet side VSP-D, push-in fitting)

●VSP-D6, 8R*-2/4/6
●VSP-D6, 8-□R*-2/4/6

●VSP-D10R*-4/6
●VSP-D10-□R*-4/6
●VSP-D15R(A)*-4/6
●VSP-D15-□R(A)*-4/6





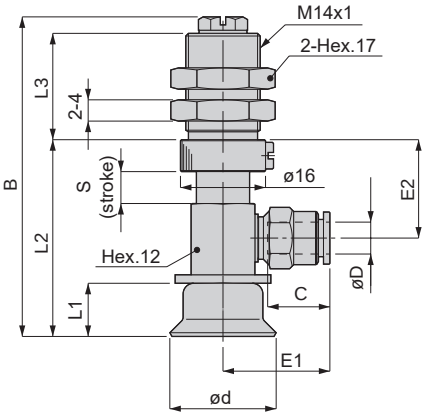
Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	øP	Tube end C	E1	E2	Hexagon H1	Hexagon H2	□F	T	Stroke S	Spring force (N)	Weight (g)
VSP-D6R*-2	6	1.8	M8x0.75	41	7	25	13	10	8.4	12.7	13	10	-	8	2	3	0.9 to 1.9	13
VSP-D6R*-4		4							11.2	16.8								14
VSP-D6R*-6		6							11.9	18.6								15
VSP-D6-10R*-2		1.8	M12x1	56.1		35.5	17.5	13	8.4	14.7	21	14	12	-	4	10	0.6 to 1.7	33
VSP-D6-10R*-4		4							11.2	18.8								34
VSP-D6-10R*-6		6							11.9	20.1								35
VSP-D6-15R*-2		1.8		67.1		40.5	23.5		8.4	14.7	26					15	0.4 to 1.7	37
VSP-D6-15R*-4		4							11.2	18.8								38
VSP-D6-15R*-6		6							11.9	20.1								39
VSP-D6-20R*-2		1.8		77.1		45.5	28.5		8.4	14.7	31					20	0.3 to 1.8	40
VSP-D6-20R*-4		4							11.2	18.8								41
VSP-D6-20R*-6		6							11.9	20.1								42
VSP-D8R*-2	8	1.8	M8x0.75	39.5	5.5	23.5	13	10	8.4	12.7	13	10	-	8	2	3	0.9 to 1.9	13
VSP-D8R*-4		4							11.2	16.8								14
VSP-D8R*-6		6							11.9	18.6								15
VSP-D8-10R*-2		1.8	M12x1	54.6		34	17.5	13	8.4	14.7	21	14	12	-	4	10	0.6 to 1.7	33
VSP-D8-10R*-4		4							11.2	18.8								34
VSP-D8-10R*-6		6							11.9	20.1								35
VSP-D8-15R*-2		1.8		65.6		39	23.5		8.4	14.7	26					15	0.4 to 1.7	37
VSP-D8-15R*-4		4							11.2	18.8								38
VSP-D8-15R*-6		6							11.9	20.1								39
VSP-D8-20R*-2		1.8		75.6		44	28.5		8.4	14.7	31					20	0.3 to 1.8	40
VSP-D8-20R*-4		4							11.2	18.8								41
VSP-D8-20R*-6		6							11.9	20.1								42
VSP-D10R*-4	10	4	M14x1	58.1	8	35	20	16	11.2	18.8	18.5	17	12	-	4	6	4.0 to 7.1	47
VSP-D10R*-6		6							11.9	20.1								48
VSP-D10-10R*-4		4		63.1		40			11.2	18.8	25					10	2.0 to 5.2	50
VSP-D10-10R*-6		6							11.9	20.1								51
VSP-D10-15R*-4		4		73.1		45	25		11.2	18.8	30					15	2.0 to 5.9	56
VSP-D10-15R*-6		6							11.9	20.1								57
VSP-D10-20R*-4		4		89.1		52	34		11.2	18.8	37					20	1.1 to 4.8	66
VSP-D10-20R*-6		6							11.9	20.1								67
VSP-D15R(A)*-4	15	4	M14x1	59.1 (60.1)	9 (10)	36 (37)	20	16	11.2	18.8	18.5	17	12	-	4	6	4.0 to 7.1	47 (47)
VSP-D15R(A)*-6		6							11.9	20.1								48 (48)
VSP-D15-10R(A)*-4		4		64.1 (65.1)		41 (42)			11.2	18.8	25					10	2.0 to 5.2	50 (50)
VSP-D15-10R(A)*-6		6							11.9	20.1								51 (51)
VSP-D15-15R(A)*-4		4		74.1 (75.1)		46 (47)	25		11.2	18.8	30					15	2.0 to 5.9	56 (56)
VSP-D15-15R(A)*-6		6							11.9	20.1								57 (57)
VSP-D15-20R(A)*-4		4		90.1 (91.1)		53 (54)	34		11.2	18.8	37					20	1.1 to 4.8	66 (66)
VSP-D15-20R(A)*-6		6							11.9	20.1								67 (67)

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (buffer, vacuum outlet side VSP-D, push-in fitting)

●VSP-D20 to 50R(A)*-4/6



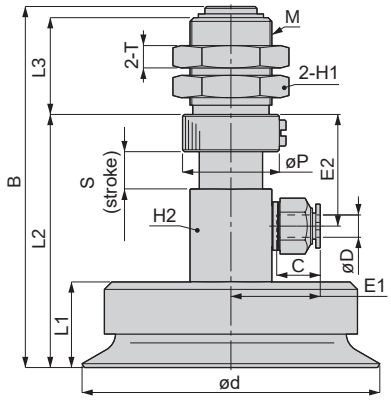
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D20R(A)*-4	20	4	60.1 (61.1)	10 (11)	37 (38)	20	11.2	18.8	18.5	6	7.0 to 12.6	51 (52)
VSP-D20R(A)*-6		6					11.9	20.1				52 (53)
VSP-D20-10R(A)*-4		4	66.1 (67.1)		43 (44)		11.2	18.8	24.5	10	3.3 to 10.0	54 (55)
VSP-D20-10R(A)*-6		6					11.9	20.1				55 (56)
VSP-D20-15R(A)*-4		4	76.1 (77.1)		48 (49)	25	11.2	18.8	29.5	15	3.3 to 10.4	61 (62)
VSP-D20-15R(A)*-6		6					11.9	20.1				62 (63)
VSP-D20-20R(A)*-4		4	92.1 (93.1)		55 (56)	34	11.2	18.8	36.5	20	2.0 to 8.7	71 (72)
VSP-D20-20R(A)*-6		6					11.9	20.1				72 (73)
VSP-D25R(A)*-4	25	4	61.1 (62.1)	11 (12)	38 (39)	20	11.2	18.8	18.5	6	7.0 to 12.6	51 (52)
VSP-D25R(A)*-6		6					11.9	20.1				52 (53)
VSP-D25-10R(A)*-4		4	67.1 (68.1)		44 (45)		11.2	18.8	24.5	10	3.3 to 10.0	55 (56)
VSP-D25-10R(A)*-6		6					11.9	20.1				56 (57)
VSP-D25-15R(A)*-4		4	77.1 (78.1)		49 (50)	25	11.2	18.8	29.5	15	3.3 to 10.4	61 (62)
VSP-D25-15R(A)*-6		6					11.9	20.1				62 (63)
VSP-D25-20R(A)*-4		4	93.1 (94.1)		56 (57)	34	11.2	18.8	36.5	20	2.0 to 8.7	71 (72)
VSP-D25-20R(A)*-6		6					11.9	20.1				72 (73)
VSP-D30R(A)*-4	30	4	61.1 (64.1)	11 (14)	38 (41)	20	11.2	18.8	18.5	6	7.0 to 12.6	53 (54)
VSP-D30R(A)*-6		6					11.9	20.1				54 (55)
VSP-D30-10R(A)*-4		4	67.1 (70.1)		44 (47)		11.2	18.8	24.5	10	3.3 to 10.0	57 (58)
VSP-D30-10R(A)*-6		6					11.9	20.1				58 (59)
VSP-D30-15R(A)*-4		4	77.1 (80.1)		49 (52)	25	11.2	18.8	29.5	15	3.3 to 10.4	63 (64)
VSP-D30-15R(A)*-6		6					11.9	20.1				64 (65)
VSP-D30-20R(A)*-4		4	93.1 (96.1)		56 (59)	34	11.2	18.8	36.5	20	2.0 to 8.7	73 (74)
VSP-D30-20R(A)*-6		6					11.9	20.1				74 (75)
VSP-D40R(A)*-4	40	4	64.1 (67.6)	14 (17.5)	41 (44.5)	20	11.2	18.8	18.5	6	7.0 to 12.6	60 (61)
VSP-D40R(A)*-6		6					11.9	20.1				61 (62)
VSP-D40-10R(A)*-4		4	70.1 (73.6)		47 (50.5)		11.2	18.8	24.5	10	3.3 to 10.0	64 (65)
VSP-D40-10R(A)*-6		6					11.9	20.1				65 (66)
VSP-D40-15R(A)*-4		4	80.1 (83.6)		52 (55.5)	25	11.2	18.8	29.5	15	3.3 to 10.4	70 (71)
VSP-D40-15R(A)*-6		6					11.9	20.1				71 (72)
VSP-D40-20R(A)*-4		4	96.1 (99.6)		59 (62.5)	34	11.2	18.8	36.5	20	2.0 to 8.7	80 (81)
VSP-D40-20R(A)*-6		6					11.9	20.1				81 (82)
VSP-D50R(A)*-4	50	4	65.1 (68.1)	15 (18)	42 (45)	20	11.2	18.8	18.5	6	7.0 to 12.6	66 (68)
VSP-D50R(A)*-6		6					11.9	20.1				67 (69)
VSP-D50-10R(A)*-4		4	71.1 (74.1)		48 (51)		11.2	18.8	24.5	10	3.3 to 10.0	70 (71)
VSP-D50-10R(A)*-6		6					11.9	20.1				71 (72)
VSP-D50-15R(A)*-4		4	81.1 (84.1)		53 (56)	25	11.2	18.8	29.5	15	3.3 to 10.4	80 (81)
VSP-D50-15R(A)*-6		6					11.9	20.1				81 (82)
VSP-D50-20R(A)*-4		4	97.1 (100.1)		60 (63)	34	11.2	18.8	36.5	20	2.0 to 8.7	86 (88)
VSP-D50-20R(A)*-6		6					11.9	20.1				87 (89)

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (buffer, vacuum outlet side VSP-D, push-in fitting)

●VSP-D60 to 100R(A)*-4/6/8
●VSP-D150, 200R*-6/8/10



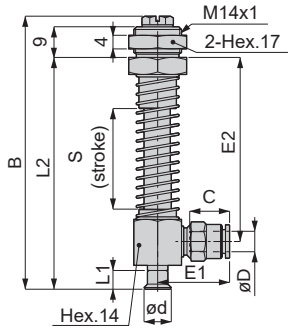
Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	øP	Tube end C	E1	E2	Hexagon H1	Hexagon H2	T	Stroke S	Spring force (N)	Weight (g)
VSP-D60R(A)*-4	60	4	M22x1	94.6 (101.6)	18 (25)	65.6 (72.6)	26	26	11.2	21.5	30	27	22	6	10	10.1 to 15.8	252 (251)
VSP-D60R(A)*-6		6							11.9	23.7							253 (252)
VSP-D60R(A)*-8		8							18.2	32.1							258 (257)
VSP-D80R(A)*-4	80	4	M22x1	97 (107)	23 (33)	68 (78)	26	26	11.2	21.5	30	27	22	6	10	10.1 to 15.8	332 (344)
VSP-D80R(A)*-6		6							11.9	23.7							333 (345)
VSP-D80R(A)*-8		8							18.2	32.1							338 (350)
VSP-D100R(A)*-4	100	4	M22x1	99 (108)	25 (34)	70 (79)	26	26	11.2	21.5	30	27	22	6	10	10.1 to 15.8	425 (431)
VSP-D100R(A)*-6		6							11.9	23.7							426 (432)
VSP-D100R(A)*-8		8							18.2	32.1							431 (437)
VSP-D150R*-6	150	6	M30x2	168.3	45	112.1	48	35	17	30.9	42.1	36	30	10	20.1	14.0 to 25.5	1205
VSP-D150R*-8		8							18.2	31.6							1210
VSP-D150R*-10		10							20.7	38.6							1215
VSP-D200R*-6	200	6	M30x2	173.3	50	117.1	48	35	17	30.9	42.1	36	30	10	20.1	14.0 to 25.5	1684
VSP-D200R*-8		8							18.2	31.6							1689
VSP-D200R*-10		10							20.7	38.6							1694

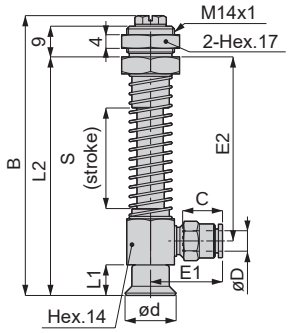
*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (buffer, vacuum outlet side VSP-D, push-in fitting without spring cover)

●VSP-D6, 8-□R*-4C/6C



●VSP-D10-□R*-4C/6C
●VSP-D15-□R(A)*-4C/6C



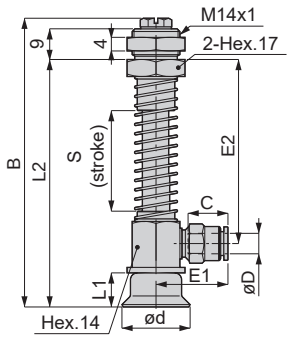
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D6-20R*-4C	6	4	67.1	7	55	11.2	19.8	40.5	20	1.5 to 4.9	62
VSP-D6-20R*-6C		6				11.9	21.1				63
VSP-D6-30R*-4C		4	80.1		68	11.2	19.8	53.5	30	1.1 to 4.8	68
VSP-D6-30R*-6C		6				11.9	21.1				69
VSP-D6-40R*-4C		4	93.1		81	11.2	19.8	66.5	40	1.0 to 4.5	75
VSP-D6-40R*-6C		6				11.9	21.1				76
VSP-D6-50R*-4C		4	106.1		94	11.2	19.8	79.5	50	0.9 to 4.5	82
VSP-D6-50R*-6C		6				11.9	21.1				83
VSP-D8-20R*-4C	8	4	65.6	5.5	53.5	11.2	19.8	40.5	20	1.5 to 4.9	62
VSP-D8-20R*-6C		6				11.9	21.1				63
VSP-D8-30R*-4C		4	78.6		56.5	11.2	19.8	53.5	30	1.1 to 4.8	68
VSP-D8-30R*-6C		6				11.9	21.1				69
VSP-D8-40R*-4C		4	91.6		69.5	11.2	19.8	66.5	40	1.0 to 4.5	75
VSP-D8-40R*-6C		6				11.9	21.1				76
VSP-D8-50R*-4C		4	104.6		82.5	11.2	19.8	79.5	50	0.9 to 4.5	82
VSP-D8-50R*-6C		6				11.9	21.1				83
VSP-D10-20R*-4C	10	4	68.1	8	56	11.2	19.8	40.5	20	1.5 to 4.9	69
VSP-D10-20R*-6C		6				11.9	21.1				70
VSP-D10-30R*-4C		4	81.1		69	11.2	19.8	53.5	30	1.1 to 4.8	75
VSP-D10-30R*-6C		6				11.9	21.1				76
VSP-D10-40R*-4C		4	94.1		82	11.2	19.8	66.5	40	1.0 to 4.5	82
VSP-D10-40R*-6C		6				11.9	21.1				83
VSP-D10-50R*-4C		4	107.1		95	11.2	19.8	79.5	50	0.9 to 4.5	89
VSP-D10-50R*-6C		6				11.9	21.1				90
VSP-D15-20R(A)*-4C	15	4	69.1 (70.1)	9 (10)	57 (58)	11.2	19.8	40.5	20	1.5 to 4.9	69 (69)
VSP-D15-20R(A)*-6C		6				11.9	21.1				70 (70)
VSP-D15-30R(A)*-4C		4	82.1 (83.1)		70 (71)	11.2	19.8	53.5	30	1.1 to 4.8	75 (75)
VSP-D15-30R(A)*-6C		6				11.9	21.1				76 (76)
VSP-D15-40R(A)*-4C		4	95.1 (96.1)		83 (84)	11.2	19.8	66.5	40	1.0 to 4.5	82 (82)
VSP-D15-40R(A)*-6C		6				11.9	21.1				83 (83)
VSP-D15-50R(A)*-4C		4	108.1 (109.1)		106 (107)	11.2	19.8	79.5	50	0.9 to 4.5	89 (89)
VSP-D15-50R(A)*-6C		6				11.9	21.1				90 (90)

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (buffer, vacuum outlet side VSP-D, push-in fitting without spring cover)

●VSP-D20 to 50-□R(A)*-4C/6C



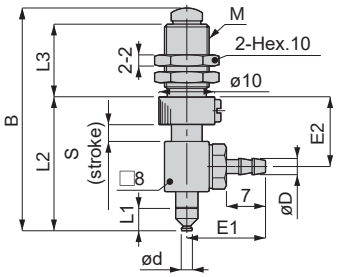
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D20-20R(A)*-4C	20	4	71.6 (72.6)	10 (11)	59.5 (60.5)	11.2	19.8	41	20	1.5 to 4.9	69 (70)
VSP-D20-20R(A)*-6C		6				11.9	21.1				70 (71)
VSP-D20-30R(A)*-4C		4	84.6 (85.6)		72.5 (73.5)	11.2	19.8	54	30	1.1 to 4.8	76 (77)
VSP-D20-30R(A)*-6C		6				11.9	21.1				77 (78)
VSP-D20-40R(A)*-4C		4	97.6 (98.6)		85.5 (86.5)	11.2	19.8	67	40	1.0 to 4.5	82 (83)
VSP-D20-40R(A)*-6C		6				11.9	21.1				83 (84)
VSP-D20-50R(A)*-4C		4	110.6 (111.6)		98.5 (99.5)	11.2	19.8	80	50	0.9 to 4.5	89 (90)
VSP-D20-50R(A)*-6C		6				11.9	21.1				90 (91)
VSP-D25-20R(A)*-4C	25	4	72.6 (73.6)	11 (12)	60.5 (61.5)	11.2	19.8	41	20	1.5 to 4.9	69 (70)
VSP-D25-20R(A)*-6C		6				11.9	21.1				70 (71)
VSP-D25-30R(A)*-4C		4	85.6 (86.6)		73.5 (74.5)	11.2	19.8	54	30	1.1 to 4.8	76 (77)
VSP-D25-30R(A)*-6C		6				11.9	21.1				77 (78)
VSP-D25-40R(A)*-4C		4	98.6 (99.6)		86.5 (87.5)	11.2	19.8	67	40	1.0 to 4.5	83 (84)
VSP-D25-40R(A)*-6C		6				11.9	21.1				84 (85)
VSP-D25-50R(A)*-4C		4	111.6 (112.6)		99.5 (100.5)	11.2	19.8	80	50	0.9 to 4.5	90 (91)
VSP-D25-50R(A)*-6C		6				11.9	21.1				91 (92)
VSP-D30-20R(A)*-4C	30	4	72.6 (75.6)	11 (14)	60.5 (63.5)	11.2	19.8	41	20	1.5 to 4.9	71 (72)
VSP-D30-20R(A)*-6C		6				11.9	21.1				72 (73)
VSP-D30-30R(A)*-4C		4	85.6 (88.6)		73.5 (76.5)	11.2	19.8	54	30	1.1 to 4.8	78 (79)
VSP-D30-30R(A)*-6C		6				11.9	21.1				79 (80)
VSP-D30-40R(A)*-4C		4	98.6 (101.6)		86.5 (89.5)	11.2	19.8	67	40	1.0 to 4.5	85 (86)
VSP-D30-40R(A)*-6C		6				11.9	21.1				86 (87)
VSP-D30-50R(A)*-4C		4	111.6 (114.6)		99.5 (102.5)	11.2	19.8	80	50	0.9 to 4.5	92 (93)
VSP-D30-50R(A)*-6C		6				11.9	21.1				93 (94)
VSP-D40-20R(A)*-4C	40	4	75.6 (79.1)	14 (17.5)	63.5 (67)	11.2	19.8	41	20	1.5 to 4.9	78 (79)
VSP-D40-20R(A)*-6C		6				11.9	21.1				79 (80)
VSP-D40-30R(A)*-4C		4	88.6 (92.1)		76.5 (80)	11.2	19.8	54	30	1.1 to 4.8	85 (86)
VSP-D40-30R(A)*-6C		6				11.9	21.1				86 (87)
VSP-D40-40R(A)*-4C		4	101.6 (105.1)		89.5 (93)	11.2	19.8	67	40	1.0 to 4.5	92 (93)
VSP-D40-40R(A)*-6C		6				11.9	21.1				93 (94)
VSP-D40-50R(A)*-4C		4	114.6 (118.1)		102.5 (106)	11.2	19.8	80	50	0.9 to 4.5	99 (100)
VSP-D40-50R(A)*-6C		6				11.9	21.1				100 (101)
VSP-D50-20R(A)*-4C	50	4	76.6 (79.6)	15 (18)	64.5 (67.5)	11.2	19.8	41	20	1.5 to 4.9	84 (85)
VSP-D50-20R(A)*-6C		6				11.9	21.1				85 (86)
VSP-D50-30R(A)*-4C		4	89.6 (92.6)		77.5 (80.5)	11.2	19.8	54	30	1.1 to 4.8	91 (92)
VSP-D50-30R(A)*-6C		6				11.9	21.1				92 (93)
VSP-D50-40R(A)*-4C		4	102.6 (105.6)		90.5 (93.5)	11.2	19.8	67	40	1.0 to 4.5	98 (99)
VSP-D50-40R(A)*-6C		6				11.9	21.1				99 (100)
VSP-D50-50R(A)*-4C		4	115.6 (118.6)		103.5 (106.5)	11.2	19.8	80	50	0.9 to 4.5	105 (107)
VSP-D50-50R(A)*-6C		6				11.9	21.1				106 (108)

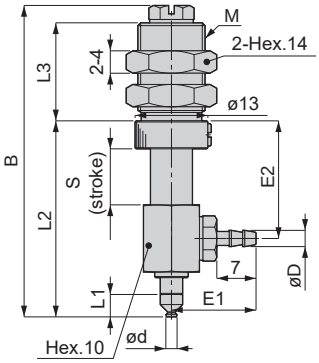
*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (buffer, vacuum outlet side VSP-D, barbed fitting)

●VSP-D1 to 4R*-4T/6T



●VSP-D1 to 4-□R*-4T/6T



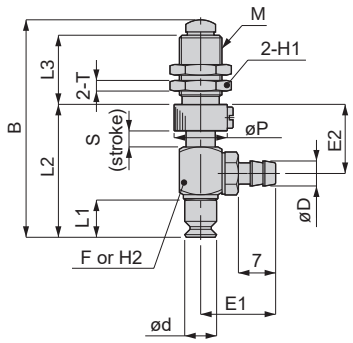
Unit: mm

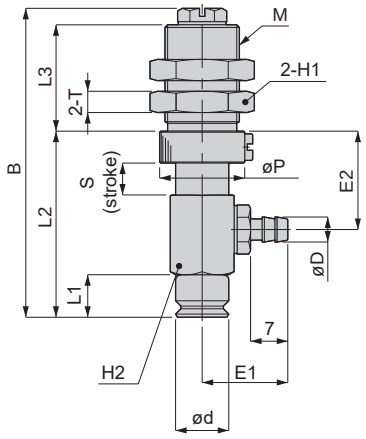
Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D1R*-4T	1	2.5	M8x0.75	40	4	24	13	13.9	12.5	3	0.9 to 1.9	12
VSP-D1R*-6T		4										
VSP-D1-10R*-4T		2.5	M12x1	55.6		35	17.5	14.9	21	10	0.6 to 1.7	27
VSP-D1-10R*-6T		4										
VSP-D1-15R*-4T		2.5		66.6		40	23.5		26	15	0.4 to 1.7	32
VSP-D1-15R*-6T		4										
VSP-D1-20R*-4T		2.5		76.6		45	28.5		31	20	0.3 to 1.8	35
VSP-D1-20R*-6T		4										
VSP-D2R*-4T	2	2.5	M8x0.75	40	4	24	13	13.9	12.5	3	0.9 to 1.9	12
VSP-D2R*-6T		4										
VSP-D2-10R*-4T		2.5	M12x1	55.6		35	17.5	14.9	21	10	0.6 to 1.7	27
VSP-D2-10R*-6T		4										
VSP-D2-15R*-4T		2.5		66.6		40	23.5		26	15	0.4 to 1.7	32
VSP-D2-15R*-6T		4										
VSP-D2-20R*-4T		2.5		76.6		45	28.5		31	20	0.3 to 1.8	35
VSP-D2-20R*-6T		4										
VSP-D3R*-4T	3	2.5	M8x0.75	40	4	24	13	13.9	12.5	3	0.9 to 1.9	12
VSP-D3R*-6T		4										
VSP-D3-10R*-4T		2.5	M12x1	55.6		35	17.5	14.9	21	10	0.6 to 1.7	27
VSP-D3-10R*-6T		4										
VSP-D3-15R*-4T		2.5		66.6		40	23.5		26	15	0.4 to 1.7	32
VSP-D3-15R*-6T		4										
VSP-D3-20R*-4T		2.5		76.6		45	28.5		31	20	0.3 to 1.8	35
VSP-D3-20R*-6T		4										
VSP-D4R*-4T	4	2.5	M8x0.75	40	4	24	13	13.9	12.5	3	0.9 to 1.9	12
VSP-D4R*-6T		4										
VSP-D4-10R*-4T		2.5	M12x1	55.6		35	17.5	14.9	21	10	0.6 to 1.7	27
VSP-D4-10R*-6T		4										
VSP-D4-15R*-4T		2.5		66.6		40	23.5		26	15	0.4 to 1.7	32
VSP-D4-15R*-6T		4										
VSP-D4-20R*-4T		2.5		76.6		45	28.5		31	20	0.3 to 1.8	35
VSP-D4-20R*-6T		4										

Dimensions (buffer, vacuum outlet side VSP-D, barbed fitting)

●VSP-D6, 8R*-4T/6T
●VSP-D6, 8-□R*-4T/6T

●VSP-D10R*-4T/6T
●VSP-D10-□R*-4T/6T
●VSP-D15R(A)*-4T/6T
●VSP-D15-□R(A)*-4T/6T





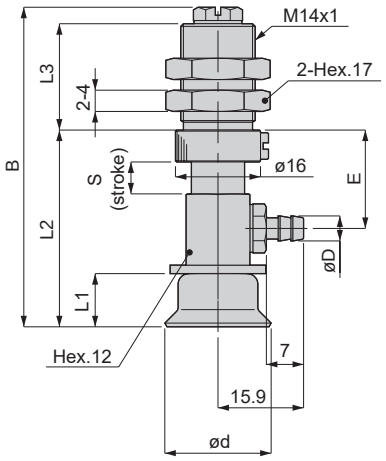
Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	øP	E1	E2	Hexagon H1	Hexagon H2	□F	T	Stroke S	Spring force (N)	Weight (g)
VSP-D6R*-4T	6	2.5	M8x0.75	41	7	25	13	10	13.9	13	10	-	8	2	3	0.9 to 1.9	13
VSP-D6R*-6T		4															
VSP-D6-10R*-4T		2.5	M12x1	56.1		35.5	17.5	13	15.9	21	14	12	-	4	10	0.8 to 2.7	32
VSP-D6-10R*-6T		4															
VSP-D6-15R*-4T		2.5		67.1		40.5	23.5			26					15	0.7 to 3.0	36
VSP-D6-15R*-6T		4															
VSP-D6-20R*-4T		2.5		77.1		45.5	28.5			31					20	0.9 to 3.4	39
VSP-D6-20R*-6T		4															
VSP-D8R*-4T	8	2.5	M8x0.75	39.5	5.5	23.5	13	10	13.9	13	10	-	8	2	3	0.9 to 1.9	13
VSP-D8R*-6T		4															
VSP-D8-10R*-4T		2.5	M12x1	54.6		34	17.5	13	15.9	21	14	12	-	4	10	0.8 to 2.7	32
VSP-D8-10R*-6T		4															
VSP-D8-15R*-4T		2.5		65.6		39	23.5			26					15	0.7 to 3.0	36
VSP-D8-15R*-6T		4															
VSP-D8-20R*-4T		2.5		75.6		44	28.5			31					20	0.9 to 3.4	39
VSP-D8-20R*-6T		4															
VSP-D10R*-4T	10	2.5	M14x1	58.1	8	35	20	16	15.9	18.5	17	12	-	4	6	4.0 to 7.1	46
VSP-D10R*-6T		4															
VSP-D10-10R*-4T		2.5		63.1		40				25					10	2.0 to 5.2	49
VSP-D10-10R*-6T		4															
VSP-D10-15R*-4T		2.5		73.1		45	25			30					15	2.0 to 5.9	54
VSP-D10-15R*-6T		4															
VSP-D10-20R*-4T		2.5		89.1		52	34			37					20	1.1 to 4.8	65
VSP-D10-20R*-6T		4															
VSP-D15R(A)*-4T	15	2.5	M14x1	59.1 (60.1)	9 (10)	36 (37)	20	16	15.9	18.5	17	12	-	4	6	4.0 to 7.1	46
VSP-D15R(A)*-6T		4															
VSP-D15-10R(A)*-4T		2.5		64.1 (65.1)		41 (42)				25					10	2.0 to 5.2	49
VSP-D15-10R(A)*-6T		4															
VSP-D15-15R(A)*-4T		2.5		74.1 (75.1)		46 (47)	25			30					15	2.0 to 5.9	55
VSP-D15-15R(A)*-6T		4															
VSP-D15-20R(A)*-4T		2.5		90.1 (91.1)		53 (54)	34			37					20	1.1 to 4.8	65
VSP-D15-20R(A)*-6T		4															

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (buffer, vacuum outlet side VSP-D, barbed fitting)

●VSP-D20 to 50R(A)*-4T/6T



Unit: mm

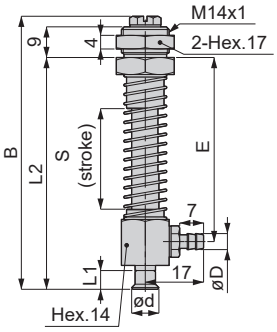
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	E	Stroke S	Spring force (N)	Weight (g)
VSP-D20R(A)*-4T	20	2.5	60.1 (61.1)	10 (11)	37 (38)	20	18.5	6	7.0 to 12.6	49 (49)
VSP-D20R(A)*-6T		4								
VSP-D20-10R(A)*-4T		2.5	66.1 (67.1)		43 (44)		24.5	10	3.3 to 10.0	53 (53)
VSP-D20-10R(A)*-6T		4								
VSP-D20-15R(A)*-4T		2.5	76.1 (77.1)		48 (49)	25	29.5	15	3.3 to 10.4	60 (60)
VSP-D20-15R(A)*-6T		4								
VSP-D20-20R(A)*-4T		2.5	92.1 (93.1)		55 (56)	34	36.5	20	2.0 to 8.7	70 (70)
VSP-D20-20R(A)*-6T		4								
VSP-D25R(A)*-4T	25	2.5	61.1 (62.1)	11 (12)	38 (39)	20	18.5	6	7.0 to 12.6	50 (50)
VSP-D25R(A)*-6T		4								
VSP-D25-10R(A)*-4T		2.5	67.1 (68.1)		44 (45)		24.5	10	3.3 to 10.0	54 (54)
VSP-D25-10R(A)*-6T		4								
VSP-D25-15R(A)*-4T		2.5	77.1 (78.1)		49 (50)	25	29.5	15	3.3 to 10.4	60 (60)
VSP-D25-15R(A)*-6T		4								
VSP-D25-20R(A)*-4T		2.5	93.1 (94.1)		56 (57)	34	36.5	20	2.0 to 8.7	70 (70)
VSP-D25-20R(A)*-6T		4								
VSP-D30R(A)*-4T	30	2.5	61.1 (64.1)	11 (14)	38 (41)	20	18.5	6	7.0 to 12.6	52 (52)
VSP-D30R(A)*-6T		4								
VSP-D30-10R(A)*-4T		2.5	67.1 (70.1)		44 (47)		24.5	10	3.3 to 10.0	54 (54)
VSP-D30-10R(A)*-6T		4								
VSP-D30-15R(A)*-4T		2.5	77.1 (80.1)		49 (52)	25	29.5	15	3.3 to 10.4	61 (61)
VSP-D30-15R(A)*-6T		4								
VSP-D30-20R(A)*-4T		2.5	93.1 (96.1)		56 (59)	34	36.5	20	2.0 to 8.7	71 (71)
VSP-D30-20R(A)*-6T		4								
VSP-D40R(A)*-4T	40	2.5	64.1 (67.6)	14 (17.5)	41 (44.5)	20	18.5	6	7.0 to 12.6	59 (60)
VSP-D40R(A)*-6T		4								
VSP-D40-10R(A)*-4T		2.5	70.1 (73.6)		47 (50.5)		24.5	10	3.3 to 10.0	63 (64)
VSP-D40-10R(A)*-6T		4								
VSP-D40-15R(A)*-4T		2.5	80.1 (83.6)		52 (55.5)	25	29.5	15	3.3 to 10.4	69 (70)
VSP-D40-15R(A)*-6T		4								
VSP-D40-20R(A)*-4T		2.5	96.1 (99.6)		59 (62.5)	34	36.5	20	2.0 to 8.7	79 (80)
VSP-D40-20R(A)*-6T		4								
VSP-D50R(A)*-4T	50	2.5	65.1 (68.1)	15 (18)	42 (45)	20	18.5	6	7.0 to 12.6	65 (66)
VSP-D50R(A)*-6T		4								
VSP-D50-10R(A)*-4T		2.5	71.1 (74.1)		48 (51)		24.5	10	3.3 to 10.0	69 (70)
VSP-D50-10R(A)*-6T		4								
VSP-D50-15R(A)*-4T		2.5	81.1 (84.1)		53 (56)	25	29.5	15	3.3 to 10.4	75 (77)
VSP-D50-15R(A)*-6T		4								
VSP-D50-20R(A)*-4T		2.5	97.1 (100.1)		60 (63)	34	36.5	20	2.0 to 8.7	85 (87)
VSP-D50-20R(A)*-6T		4								

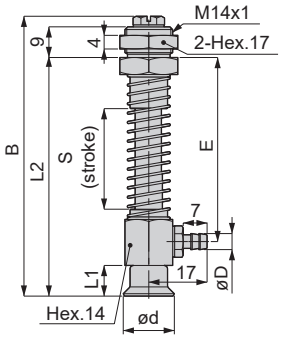
*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (buffer, vacuum outlet side VSP-D, barbed fitting without spring cover)

●VSP-D6, 8-□R*-4TC/6TC

●VSP-D10-□R*-4TC/6TC
●VSP-D15-□R(A)*-4TC/6TC





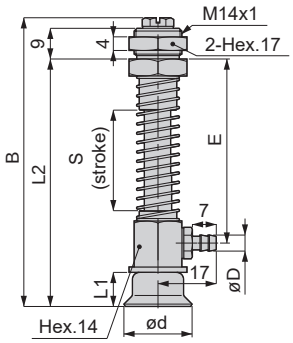
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-D6-20R*-4TC	6	2.5	67.1	7	55	40.5	20	1.5 to 4.9	60
VSP-D6-20R*-6TC		4							
VSP-D6-30R*-4TC		2.5	80.1		68	53.5	30	1.1 to 4.8	67
VSP-D6-30R*-6TC		4							
VSP-D6-40R*-4TC		2.5	93.1		81	66.5	40	1.0 to 4.5	74
VSP-D6-40R*-6TC		4							
VSP-D6-50R*-4TC		2.5	106.1		94	79.5	50	0.9 to 4.5	80
VSP-D6-50R*-6TC		4							
VSP-D8-20R*-4TC	8	2.5	65.6	5.5	53.5	40.5	20	1.5 to 4.9	60
VSP-D8-20R*-6TC		4							
VSP-D8-30R*-4TC		2.5	78.6		56.5	53.5	30	1.1 to 4.8	67
VSP-D8-30R*-6TC		4							
VSP-D8-40R*-4TC		2.5	91.6		69.5	66.5	40	1.0 to 4.5	74
VSP-D8-40R*-6TC		4							
VSP-D8-50R*-4TC		2.5	104.6		82.5	79.5	50	0.9 to 4.5	80
VSP-D8-50R*-6TC		4							
VSP-D10-20R*-4TC	10	2.5	68.1	8	56	40.5	20	1.5 to 4.9	60
VSP-D10-20R*-6TC		4							
VSP-D10-30R*-4TC		2.5	81.1		69	53.5	30	1.1 to 4.8	67
VSP-D10-30R*-6TC		4							
VSP-D10-40R*-4TC		2.5	94.1		82	66.5	40	1.0 to 4.5	74
VSP-D10-40R*-6TC		4							
VSP-D10-50R*-4TC		2.5	107.1		95	79.5	50	0.9 to 4.5	80
VSP-D10-50R*-6TC		4							
VSP-D15-20R(A)*-4TC	15	2.5	69.1 (70.1)	9 (10)	57 (58)	40.5	20	1.5 to 4.9	60 (61)
VSP-D15-20R(A)*-6TC		4							
VSP-D15-30R(A)*-4TC		2.5	82.1 (83.1)		70 (71)	53.5	30	1.1 to 4.8	67 (68)
VSP-D15-30R(A)*-6TC		4							
VSP-D15-40R(A)*-4TC		2.5	95.1 (96.1)		83 (84)	66.5	40	1.0 to 4.5	74 (75)
VSP-D15-40R(A)*-6TC		4							
VSP-D15-50R(A)*-4TC		2.5	108.1 (109.1)		106 (107)	79.5	50	0.9 to 4.5	80 (81)
VSP-D15-50R(A)*-6TC		4							

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (buffer, vacuum outlet side VSP-D, barbed fitting without spring cover)

●VSP-D20 to 50-□R(A)*-4TC/6TC



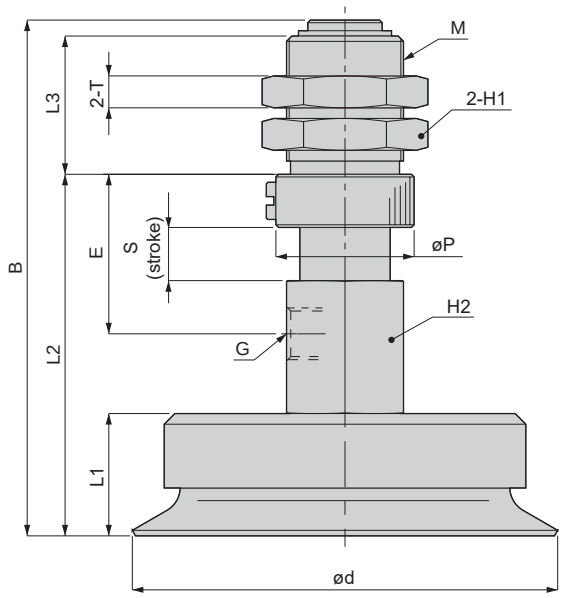
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-D20-20R(A)*-4TC	20	4	71.6 (72.6)	10 (11)	59.5 (60.5)	41	20	1.5 to 4.9	68 (69)
VSP-D20-20R(A)*-6TC		6							
VSP-D20-30R(A)*-4TC		4	84.6 (85.6)		72.5 (73.5)	54	30	1.1 to 4.8	75 (76)
VSP-D20-30R(A)*-6TC		6							
VSP-D20-40R(A)*-4TC		4	97.6 (98.6)		85.5 (86.5)	67	40	1.0 to 4.5	81 (82)
VSP-D20-40R(A)*-6TC		6							
VSP-D20-50R(A)*-4TC		4	110.6 (111.6)		98.5 (99.5)	80	50	0.9 to 4.5	88 (89)
VSP-D20-50R(A)*-6TC		6							
VSP-D25-20R(A)*-4TC	25	4	72.6 (73.6)	11 (12)	60.5 (61.5)	41	20	1.5 to 4.9	68 (69)
VSP-D25-20R(A)*-6TC		6							
VSP-D25-30R(A)*-4TC		4	85.6 (86.6)		73.5 (74.5)	54	30	1.1 to 4.8	75 (76)
VSP-D25-30R(A)*-6TC		6							
VSP-D25-40R(A)*-4TC		4	98.6 (99.6)		86.5 (87.5)	67	40	1.0 to 4.5	82 (83)
VSP-D25-40R(A)*-6TC		6							
VSP-D25-50R(A)*-4TC		4	111.6 (112.6)		99.5 (100.5)	80	50	0.9 to 4.5	89 (90)
VSP-D25-50R(A)*-6TC		6							
VSP-D30-20R(A)*-4TC	30	4	72.6 (75.6)	11 (14)	60.5 (63.5)	41	20	1.5 to 4.9	69 (70)
VSP-D30-20R(A)*-6TC		6							
VSP-D30-30R(A)*-4TC		4	85.6 (88.6)		73.5 (76.5)	54	30	1.1 to 4.8	76 (77)
VSP-D30-30R(A)*-6TC		6							
VSP-D30-40R(A)*-4TC		4	98.6 (101.6)		86.5 (89.5)	67	40	1.0 to 4.5	82 (83)
VSP-D30-40R(A)*-6TC		6							
VSP-D30-50R(A)*-4TC		4	111.6 (114.6)		99.5 (102.5)	80	50	0.9 to 4.5	89 (90)
VSP-D30-50R(A)*-6TC		6							
VSP-D40-20R(A)*-4TC	40	4	75.6 (79.1)	14 (17.5)	63.5 (67)	41	20	1.5 to 4.9	77 (78)
VSP-D40-20R(A)*-6TC		6							
VSP-D40-30R(A)*-4TC		4	88.6 (92.1)		76.5 (80)	54	30	1.1 to 4.8	84 (85)
VSP-D40-30R(A)*-6TC		6							
VSP-D40-40R(A)*-4TC		4	101.6 (105.1)		89.5 (93)	67	40	1.0 to 4.5	91 (92)
VSP-D40-40R(A)*-6TC		6							
VSP-D40-50R(A)*-4TC		4	114.6 (118.1)		102.5 (106)	80	50	0.9 to 4.5	98 (99)
VSP-D40-50R(A)*-6TC		6							
VSP-D50-20R(A)*-4TC	50	4	76.6 (79.6)	15 (18)	64.5 (67.5)	41	20	1.5 to 4.9	83 (85)
VSP-D50-20R(A)*-6TC		6							
VSP-D50-30R(A)*-4TC		4	89.6 (92.6)		77.5 (80.5)	54	30	1.1 to 4.8	90 (92)
VSP-D50-30R(A)*-6TC		6							
VSP-D50-40R(A)*-4TC		4	102.6 (105.6)		90.5 (93.5)	67	40	1.0 to 4.5	97 (98)
VSP-D50-40R(A)*-6TC		6							
VSP-D50-50R(A)*-4TC		4	115.6 (118.6)		103.5 (106.5)	80	50	0.9 to 4.5	104 (105)
VSP-D50-50R(A)*-6TC		6							

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (buffer, vacuum outlet side VSP-D, female thread)

●VSP-D60 to 100R(A)*-6A
●VSP-D150, 200R*-8A



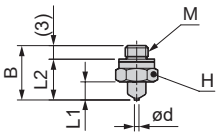
Unit: mm

Model No.	Pad diameter ød	Vacuum outlet size G	Mounting screw M	B	L1	L2	L3	øP	E	Hexagon H1	Hexagon H2	T	Stroke S	Spring force (N)	Weight (g)
VSP-D60R(A)*-6A	60	G1/8	M22x1	94.6 (101.6)	18 (25)	65.6 (72.6)	26	26	30	27	22	6	10	10.1 to 15.8	244 (243)
VSP-D80R(A)*-6A	80	G1/8	M22x1	97 (107)	23 (33)	68 (78)	26	26	30	27	22	6	10	10.1 to 15.8	328 (336)
VSP-D100R(A)*-6A	100	G1/8	M22x1	99 (108)	25 (34)	70 (79)	26	26	30	27	22	6	10	10.1 to 15.8	417 (423)
VSP-D150R*-8A	150	G1/4	M30x2	168.3	45	112.1	48	35	42.1	36	30	10	20.1	14.0 to 25.5	1196
VSP-D200R*-8A	200	G1/4	M30x2	173.3	50	117.1	48	35	42.1	36	30	10	20.1	14.0 to 25.5	1675

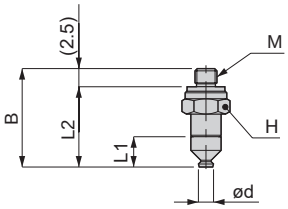
*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (fixed, direct mounting, VSP-E, male thread)

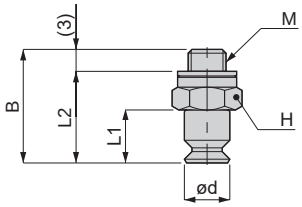
●VSP-E0.7 to 4RM*



●VSP-E1 to 4R*



●VSP-E6, 8R*

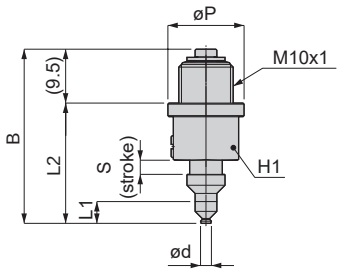


Unit: mm

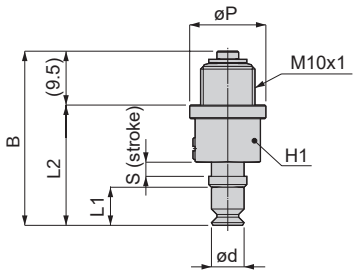
Model No.	Pad diameter ød	M	B	L1	L2	Hexagon H	Weight (g)
VSP-E0.7RM*	0.7	M5x0.8	12	4	9	8	1
VSP-E1RM*	1	M5x0.8	12	4	9	8	1
VSP-E1.5RM*	1.5	M5x0.8	12	4	9	8	1
VSP-E2RM*	2	M5x0.8	12	4	9	8	1
VSP-E3RM*	3	M5x0.8	12	4	9	8	1
VSP-E4RM*	4	M5x0.8	12	4	9	8	1
VSP-E1R*	1	M3x0.5	13	4	10.5	5.5	1.5
VSP-E2R*	2	M3x0.5	13	4	10.5	5.5	1.5
VSP-E3R*	3	M3x0.5	13	4	10.5	5.5	1.5
VSP-E4R*	4	M3x0.5	13	4	10.5	5.5	1.5
VSP-E6R*	6	M5x0.8	15	7	12	8	3
VSP-E8R*	8	M5x0.8	13.5	5.5	10.5	8	3

Dimensions (buffer direct mounting VSP-F, male thread)

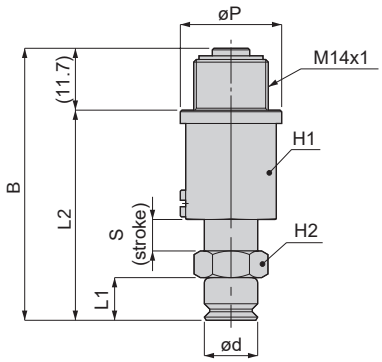
●VSP-F1 to 4R*



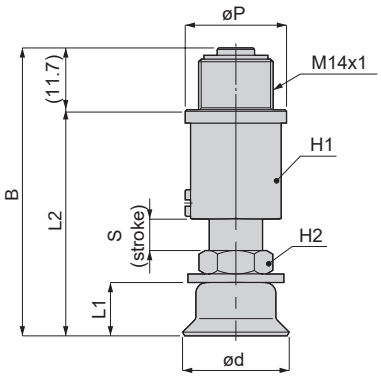
●VSP-E6, 8R*



●VSP-F10R*



●VSP-F15 to 50R(A)*



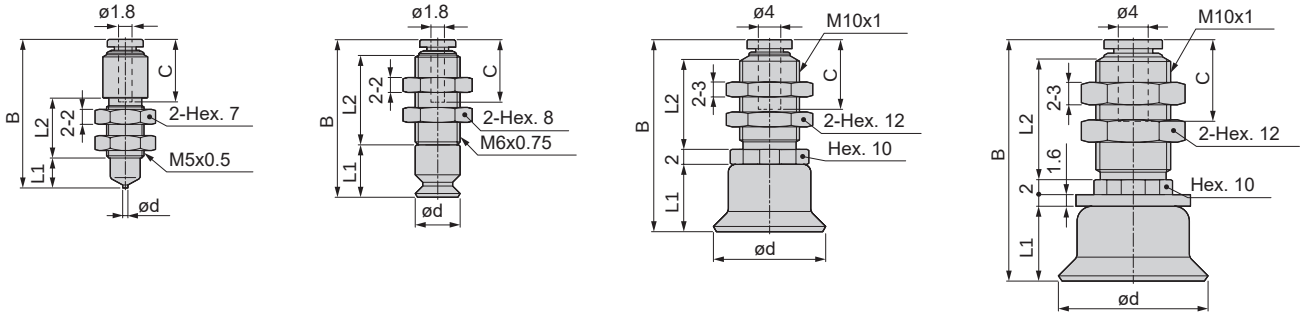
Unit: mm

Model No.	Pad diameter ød	B	L1	L2	øP	Stroke S	Hexagon H1	Hexagon H2	Spring force (N)	Weight (g)
VSP-F1R*	1	32	4	22.5	14	3	12	-	2.3 to 3.9	15
VSP-F2R*	2	32	4	22.5	14	3	12	-	2.3 to 3.9	15
VSP-F3R*	3	32	4	22.5	14	3	12	-	2.3 to 3.9	15
VSP-F4R*	4	32	4	22.5	14	3	12	-	2.3 to 3.9	15
VSP-F6R*	6	32	7	22.5	14	3	12	-	2.3 to 3.9	15
VSP-F8R*	8	30.5	5.5	21	14	3	12	-	2.3 to 3.9	15
VSP-F10R*	10	51	8	39.3	19	5.8	17	12	7.9 to 15	56 (56)
VSP-F15R(A)*	15	52 (53)	9 (10)	40.3 (41.3)	19	5.8	17	12	7.9 to 15	56 (56)
VSP-F20R(A)*	20	54 (55)	10 (11)	42.3 (43.3)	19	5.8	17	12	7.9 to 15	59 (59)
VSP-F25R(A)*	25	55 (56)	11 (12)	43.3 (44.3)	19	5.8	17	12	7.9 to 15	59 (59)
VSP-F30R(A)*	30	55 (58)	11 (14)	43.3 (46.3)	19	5.8	17	12	7.9 to 15	61 (61)
VSP-F40R(A)*	40	58 (61.5)	14 (17.5)	46.3 (49.8)	19	5.8	17	12	7.9 to 15	68 (69)
VSP-F50R(A)*	50	59 (62)	15 (18)	47.3 (50.3)	19	5.8	17	12	7.9 to 15	74 (76)

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (compact fixed, vacuum outlet top VSP-MA, push-in fitting)

●VSP-MA0.7 to 4RM*-2 ●VSP-MA6, 8R*-2 ●VSP-MA10R*-4 ●VSP-MA15R(A)*-4 ●VSP-MA20 to 50R(A)*-4



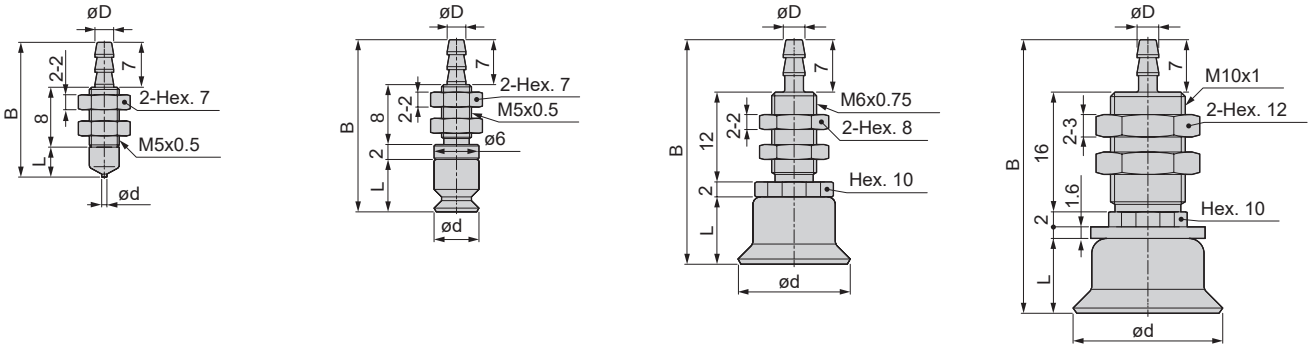
Unit: mm

Model No.	Pad diameter ød	B	L1	L2	Tube end C	Weight (g)
VSP-MA0.7RM*-2	0.7	19.9	4	8	8.4	1.8
VSP-MA1RM*-2	1	19.9	4	8	8.4	1.8
VSP-MA1.5RM*-2	1.5	19.9	4	8	8.4	1.8
VSP-MA2RM*-2	2	19.9	4	8	8.4	1.8
VSP-MA3RM*-2	3	19.9	4	8	8.4	1.8
VSP-MA4RM*-2	4	19.9	4	8	8.4	1.8
VSP-MA6R*-2	6	21.1	7	12	8.4	2
VSP-MA8R*-2	8	19.6	5.5	12	8.4	2
VSP-MA10R*-4	10	29	8	16.4	11.2	6.4
VSP-MA15R(A)*-4	15	30 (31)	9 (10)	16.4	11.2	6.7 (6.8)
VSP-MA20R(A)*-4	20	32.6 (33.6)	10 (11)	16.4	11.2	12 (12)
VSP-MA25R(A)*-4	25	33.6 (34.6)	11 (12)	16.4	11.2	13 (13)
VSP-MA30R(A)*-4	30	33.6 (36.6)	11 (14)	16.4	11.2	15 (15)
VSP-MA40R(A)*-4	40	36.6 (40.1)	14 (17.5)	16.4	11.2	22 (23)
VSP-MA50R(A)*-4	50	37.6 (40.6)	15 (18)	16.4	11.2	28 (30)

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (compact fixed, vacuum outlet top VSP-MA, barbed fitting)

●VSP-MA0.7 to 4RM*-4T ●VSP-MA6, 8R*-4T ●VSP-MA10R*-4T ●VSP-MA15R(A)*-4T ●VSP-MA20 to 50R(A)*-4T/6T



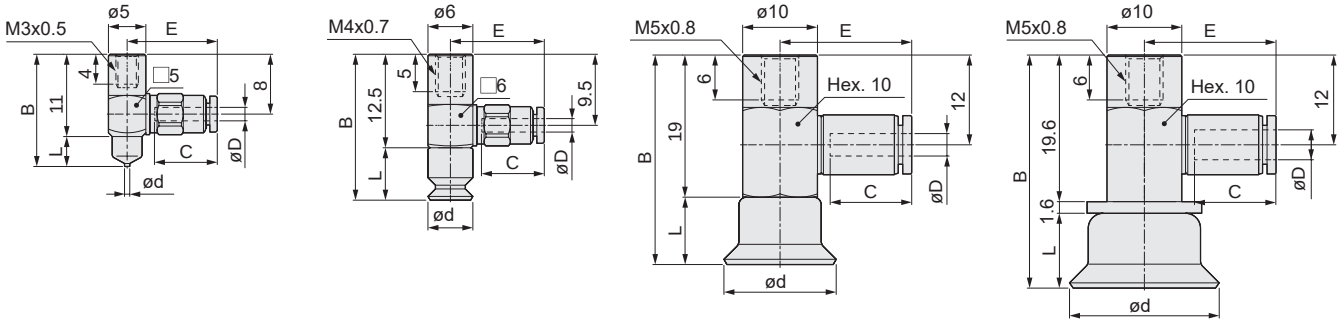
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-MA0.7RM*-4T	0.7	2.5	19	4	1.3
VSP-MA1RM*-4T	1	2.5	19	4	1.3
VSP-MA1.5RM*-4T	1.5	2.5	19	4	1.3
VSP-MA2RM*-4T	2	2.5	19	4	1.3
VSP-MA3RM*-4T	3	2.5	19	4	1.3
VSP-MA4RM*-4T	4	2.5	19	4	1.3
VSP-MA6R*-4T	6	2.5	24	7	1.6
VSP-MA8R*-4T	8	2.5	22.5	5.5	1.6
VSP-MA10R*-4T	10	2.5	29	8	3.6
VSP-MA15R(A)*-4T	15	2.5	30 (31)	9 (10)	3.9 (4)
VSP-MA20R(A)*-4T	20	2.5	36.6 (37.6)	10 (11)	12 (12)
VSP-MA20R(A)*-6T		4			
VSP-MA25R(A)*-4T	25	2.5	37.6 (38.6)	11 (12)	13 (13)
VSP-MA25R(A)*-6T		4			
VSP-MA30R(A)*-4T	30	2.5	37.6 (40.6)	11 (14)	15 (15)
VSP-MA30R(A)*-6T		4			
VSP-MA40R(A)*-4T	40	2.5	40.6 (44.1)	14 (17.5)	22 (23)
VSP-MA40R(A)*-6T		4			
VSP-MA50R(A)*-4T	50	2.5	41.6 (44.6)	15 (18)	28 (30)
VSP-MA50R(A)*-6T		4			

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (compact fixed, vacuum outlet side VSP-MB, push-in fitting)

●VSP-MB0.7 to 4RM*-2/4 ●VSP-MB6, 8R*-2/4 ●VSP-MB10R*-2/4/6 ●VSP-MB15R(A)*-2/4/6 ●VSP-MB20 to 50R(A)*-2/4/6



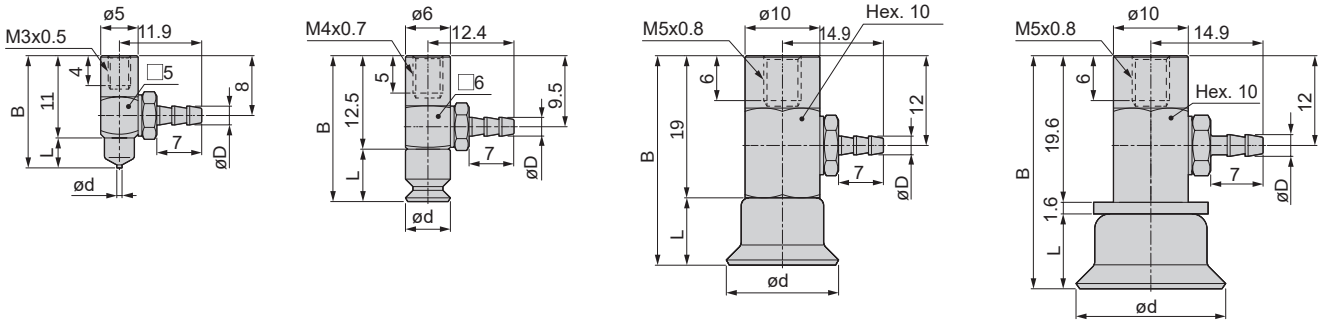
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-MB0.7RM*-2	0.7	1.8	15	4	8.4	12	1.5
VSP-MB0.7RM*-4		4			11.2	15.3	2.9
VSP-MB1RM*-2	1	1.8	15	4	8.4	12	1.5
VSP-MB1RM*-4		4			11.2	15.3	2.9
VSP-MB1.5RM*-2	1.5	1.8	15	4	8.4	12	1.5
VSP-MB1.5RM*-4		4			11.2	15.3	2.9
VSP-MB2RM*-2	2	1.8	15	4	8.4	12	1.5
VSP-MB2RM*-4		4			11.2	15.3	2.9
VSP-MB3RM*-2	3	1.8	15	4	8.4	12	1.5
VSP-MB3RM*-4		4			11.2	15.3	2.9
VSP-MB4RM*-2	4	1.8	15	4	8.4	12	1.5
VSP-MB4RM*-4		4			11.2	15.3	2.9
VSP-MB6R*-2	6	1.8	19.5	7	8.4	12.5	2
VSP-MB6R*-4		4			11.2	15.8	3.4
VSP-MB8R*-2	8	1.8	18	5.5	8.4	12.5	2
VSP-MB8R*-4		4			11.2	15.8	3.4
VSP-MB10R*-2	10	1.8	27	8	8.4	13.7	7.4
VSP-MB10R*-4		4			11.2	17.8	8.1
VSP-MB10R*-6		6			11.9	19.6	9.5
VSP-MB15R(A)*-2	15	1.8	28 (29)	9 (10)	8.4	13.7	7.8 (7.8)
VSP-MB15R(A)*-4		4			11.2	17.8	8.5 (8.5)
VSP-MB15R(A)*-6		6			11.9	19.6	9.9 (9.9)
VSP-MB20R(A)*-2	20	1.8	31.2 (32.2)	10 (11)	8.4	13.7	12 (12)
VSP-MB20R(A)*-4		4			11.2	17.8	13 (13)
VSP-MB20R(A)*-6		6			11.9	19.6	14 (14)
VSP-MB25R(A)*-2	25	1.8	32.2 (33.2)	11 (12)	8.4	13.7	13 (13)
VSP-MB25R(A)*-4		4			11.2	17.8	14 (14)
VSP-MB25R(A)*-6		6			11.9	19.6	15 (15)
VSP-MB30R(A)*-2	30	1.8	32.2 (35.2)	11 (14)	8.4	13.7	15 (15)
VSP-MB30R(A)*-4		4			11.2	17.8	16 (16)
VSP-MB30R(A)*-6		6			11.9	19.6	17 (17)
VSP-MB40R(A)*-2	40	1.8	35.2 (38.7)	14 (17.5)	8.4	13.7	22 (22)
VSP-MB40R(A)*-4		4			11.2	17.8	23 (23)
VSP-MB40R(A)*-6		6			11.9	19.6	24 (24)
VSP-MB50R(A)*-2	50	1.8	36.2 (39.2)	15 (18)	8.4	13.7	28 (28)
VSP-MB50R(A)*-4		4			11.2	17.8	29 (29)
VSP-MB50R(A)*-6		6			11.9	19.6	30 (30)

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (compact fixed, vacuum outlet side VSP-MB, barbed fitting)

●VSP-MB0.7 to 4RM*-4T/6T ●VSP-MB6, 8R*-4T/6T ●VSP-MB10R*-4T/6T ●VSP-MB15R(A)*-4T/6T ●VSP-MB20 to 50R(A)*-4T/6T



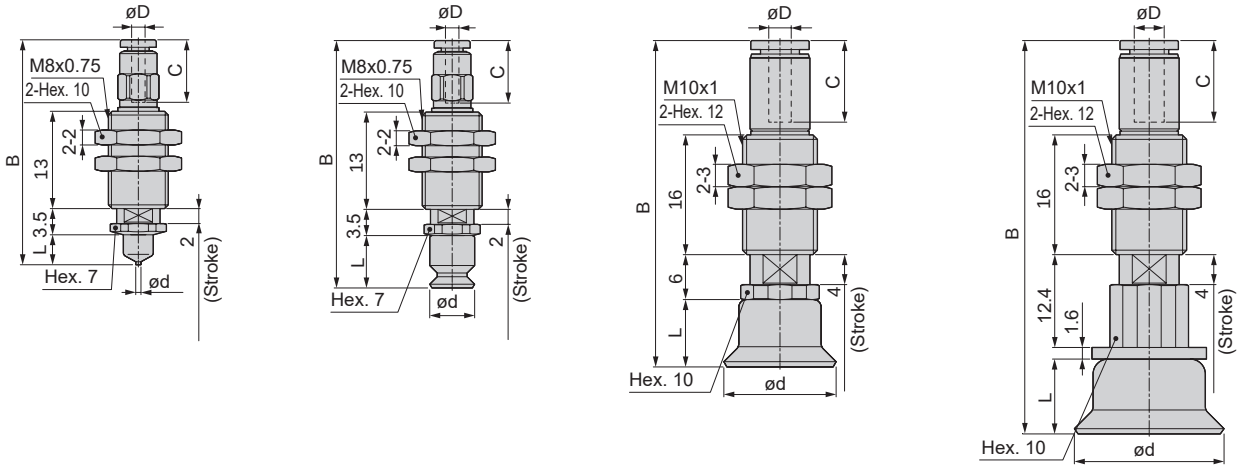
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-MB0.7RM*-4T	0.7	1.8	15	4	1.7
VSP-MB0.7RM*-6T		4			
VSP-MB1RM*-4T	1	1.8	15	4	1.7
VSP-MB1RM*-6T		4			
VSP-MB1.5RM*-4T	1.5	1.8	15	4	1.7
VSP-MB1.5RM*-6T		4			
VSP-MB2RM*-4T	2	1.8	15	4	1.7
VSP-MB2RM*-6T		4			
VSP-MB3RM*-4T	3	1.8	15	4	1.7
VSP-MB3RM*-6T		4			
VSP-MB4RM*-4T	4	1.8	15	4	1.7
VSP-MB4RM*-6T		4			
VSP-MB6R*-4T	6	1.8	19.5	7	2.1
VSP-MB6R*-6T		4			
VSP-MB8R*-4T	8	1.8	18	5.5	2.1
VSP-MB8R*-6T		4			
VSP-MB10R*-4T	10	6.2	27	8	6.9
VSP-MB10R*-6T		8.4			
VSP-MB15R(A)*-4T	15	10.6	28 (29)	9 (10)	7.4 (7.4)
VSP-MB15R(A)*-6T		12.8			
VSP-MB20R(A)*-4T	20	15	31.2 (32.2)	10 (11)	12 (12)
VSP-MB20R(A)*-6T		17.2			
VSP-MB25R(A)*-4T	25	19.4	32.2 (33.2)	11 (12)	13 (13)
VSP-MB25R(A)*-6T		21.6			
VSP-MB30R(A)*-4T	30	23.8	32.2 (35.2)	11 (14)	15 (15)
VSP-MB30R(A)*-6T		26			
VSP-MB40R(A)*-4T	40	28.2	35.2 (38.7)	14 (17.5)	23 (23)
VSP-MB40R(A)*-6T		30.4			
VSP-MB50R(A)*-4T	50	32.6	36.2 (39.2)	15 (18)	30 (30)
VSP-MB50R(A)*-6T		34.8			

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (compact buffer, vacuum outlet top VSP-MC, push-in fitting)

●VSP-MC0.7 to 4RM*-2 ●VSP-MC6, 8R*-2 ●VSP-MC10R*-2/4 ●VSP-MC15R(A)*-2/4 ●VSP-MC20 to 50R(A)*-2/4



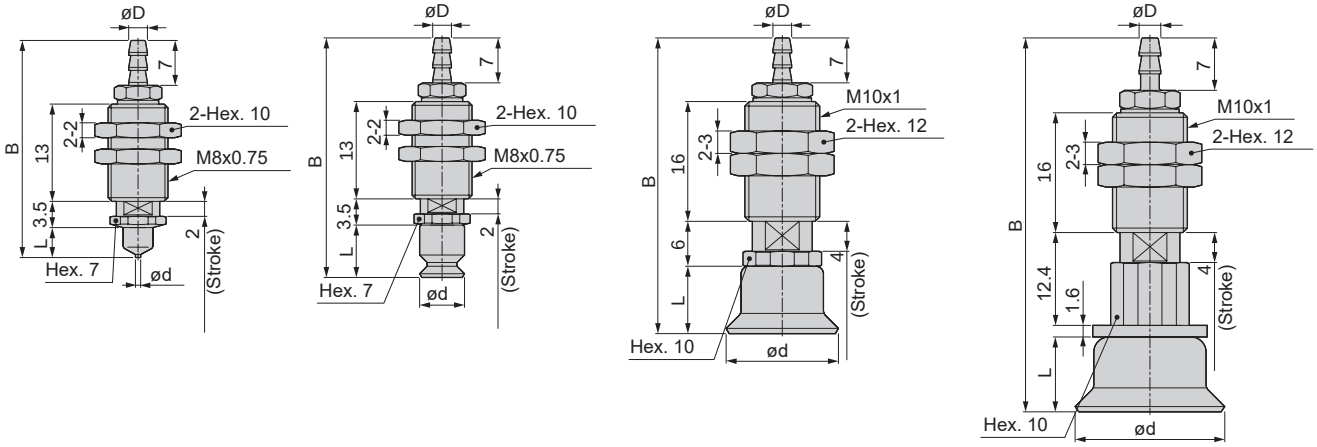
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	Spring force (N)	Weight (g)
VSP-MC0.7RM*-2	0.7	1.8	30.2	4	8.4	0.2 to 0.3	6.5
VSP-MC1RM*-2	1	1.8	30.2	4	8.4	0.2 to 0.3	6.5
VSP-MC1.5RM*-2	1.5	1.8	30.2	4	8.4	0.2 to 0.3	6.5
VSP-MC2RM*-2	2	1.8	30.2	4	8.4	0.2 to 0.3	6.5
VSP-MC3RM*-2	3	1.8	30.2	4	8.4	0.2 to 0.3	6.5
VSP-MC4RM*-2	4	1.8	30.2	4	8.4	0.2 to 0.3	6.5
VSP-MC6R*-2	6	1.8	33.2	7	8.4	0.2 to 0.3	6.8
VSP-MC8R*-2	8	1.8	31.7	5.5	8.4	0.2 to 0.3	6.8
VSP-MC10R*-2	10	1.8	38.9	8	8.4	0.5 to 0.6	15
VSP-MC10R*-4		4	43		11.2		16
VSP-MC15R(A)*-2	15	1.8	39.9 (49.9)	9 (10)	8.4	0.5 to 0.6	15 (15)
VSP-MC15R(A)*-4		4	44 (45)		11.2		16 (16)
VSP-MC20R(A)*-2	20	1.8	48.9 (49.9)	10 (11)	8.4	1 to 1.3	23 (23)
VSP-MC20R(A)*-4		4	53 (54)		11.2		24 (24)
VSP-MC25R(A)*-2	25	1.8	49.9 (50.9)	11 (12)	8.4	1 to 1.3	24 (24)
VSP-MC25R(A)*-4		4	54 (55)		11.2		25 (25)
VSP-MC30R(A)*-2	30	1.8	49.9 (52.9)	11 (14)	8.4	1 to 1.3	26 (26)
VSP-MC30R(A)*-4		4	54 (57)		11.2		27 (27)
VSP-MC40R(A)*-2	40	1.8	52.9 (56.4)	14 (17.5)	8.4	1 to 1.3	33 (33)
VSP-MC40R(A)*-4		4	57 (60.5)		11.2		34 (34)
VSP-MC50R(A)*-2	50	1.8	53.9 (56.9)	15 (18)	8.4	1 to 1.3	39 (39)
VSP-MC50R(A)*-4		4	58 (61)		11.2		40 (40)

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (compact buffer, vacuum outlet top VSP-MC, barbed fitting)

●VSP-MC0.7 to 4RM*-4T/6T ●VSP-MC6, 8R*-4T/6T ●VSP-MC10R*-4T/6T ●VSP-MC15R(A)*-4T/6T ●VSP-MC20 to 50R(A)*-4T/6T



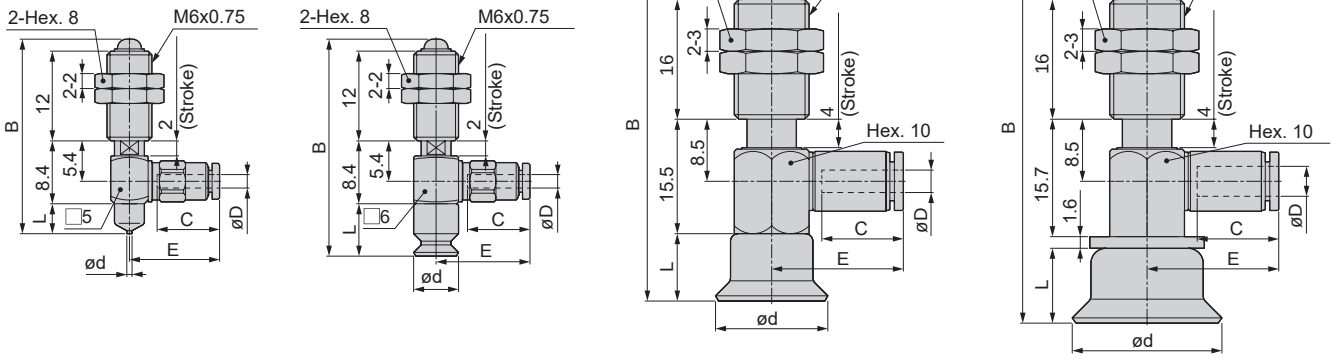
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Spring force (N)	Weight (g)
VSP-MC0.7RM*-4T	0.7	2.5	30.1	4	0.2 to 0.3	6.6
VSP-MC0.7RM*-6T		4				
VSP-MC1RM*-4T	1	2.5	30.1	4	0.2 to 0.3	6.7
VSP-MC1RM*-6T		4				
VSP-MC1.5RM*-4T	1.5	2.5	30.1	4	0.2 to 0.3	6.7
VSP-MC1.5RM*-6T		4				
VSP-MC2RM*-4T	2	2.5	30.1	4	0.2 to 0.3	6.7
VSP-MC2RM*-6T		4				
VSP-MC3RM*-4T	3	2.5	30.1	4	0.2 to 0.3	6.6
VSP-MC3RM*-6T		4				
VSP-MC4RM*-4T	4	2.5	30.1	4	0.2 to 0.3	6.7
VSP-MC4RM*-6T		4				
VSP-MC6R*-4T	6	2.5	33.1	7	0.2 to 0.3	6.9
VSP-MC6R*-6T		4				
VSP-MC8R*-4T	8	2.5	31.6	5.5	0.2 to 0.3	6.9
VSP-MC8R*-6T		4				
VSP-MC10R*-4T	10	2.5	40.1	8	0.5 to 0.6	14
VSP-MC10R*-6T		4				
VSP-MC15R(A)*-4T	15	2.5	41.1 (42.1)	9 (10)	0.5 to 0.6	15 (15)
VSP-MC15R(A)*-6T		4				
VSP-MC20R(A)*-4T	20	2.5	50.1 (51.1)	10 (11)	1 to 1.3	23 (23)
VSP-MC20R(A)*-6T		4				
VSP-MC25R(A)*-4T	25	2.5	51.1 (52.1)	11 (12)	1 to 1.3	24 (24)
VSP-MC25R(A)*-6T		4				
VSP-MC30R(A)*-4T	30	2.5	51.1 (54.1)	11 (14)	1 to 1.3	25 (25)
VSP-MC30R(A)*-6T		4				
VSP-MC40R(A)*-4T	40	2.5	54.1 (57.6)	14 (17.5)	1 to 1.3	33 (33)
VSP-MC40R(A)*-6T		4				
VSP-MC50R(A)*-4T	50	2.5	55.1 (58.1)	15 (18)	1 to 1.3	40 (40)
VSP-MC50R(A)*-6T		4				

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (compact buffer, vacuum outlet side VSP-MD, push-in fitting)

●VSP-MD0.7 to 4RM*-2/4 ●VSP-MD6, 8R*-2/4 ●VSP-MD10R*-2/4/6 ●VSP-MD15R(A)*-2/4/6 ●VSP-MD20 to 50R(A)*-2/4/6



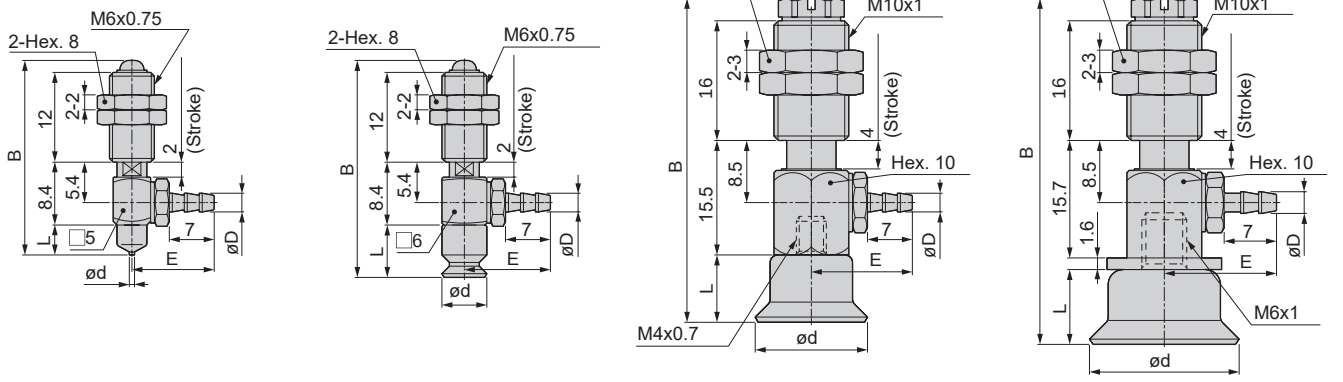
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Spring force (N)	Weight (g)
VSP-MD0.7RM*-2	0.7	1.8	26	4	8.4	12.1	0.2 to 0.3	5.3
VSP-MD0.7RM*-4		4			11.2	15.4		6.7
VSP-MD1RM*-2	1	1.8	26	4	8.4	12.1	0.2 to 0.3	5.3
VSP-MD1RM*-4		4			11.2	15.4		6.7
VSP-MD1.5RM*-2	1.5	1.8	26	4	8.4	12.1	0.2 to 0.3	5.3
VSP-MD1.5RM*-4		4			11.2	15.4		6.7
VSP-MD2RM*-2	2	1.8	26	4	8.4	12.1	0.2 to 0.3	5.3
VSP-MD2RM*-4		4			11.2	15.4		6.7
VSP-MD3RM*-2	3	1.8	26	4	8.4	12.1	0.2 to 0.3	5.3
VSP-MD3RM*-4		4			11.2	15.4		6.7
VSP-MD4RM*-2	4	1.8	26	4	8.4	12.1	0.2 to 0.3	5.3
VSP-MD4RM*-4		4			11.2	15.4		6.7
VSP-MD6R*-2	6	1.8	29	7	8.4	12.6	0.5 to 0.6	6.1
VSP-MD6R*-4		4			11.2	15.9		7.5
VSP-MD8R*-2	8	1.8	27.5	5.5	8.4	12.6	0.5 to 0.6	6.1
VSP-MD8R*-4		4			11.2	15.9		7.5
VSP-MD10R*-2	10	1.8	42.5	8	8.4	13.6	1 to 1.3	22
VSP-MD10R*-4		4			11.2	17.7		23
VSP-MD10R*-6		6			11.9	19.5		25
VSP-MD15R(A)*-2	15	1.8	43.5 (44.5)	9 (10)	8.4	13.6	1 to 1.3	23 (23)
VSP-MD15R(A)*-4		4			11.2	17.7		24 (24)
VSP-MD15R(A)*-6		6			11.9	19.5		26 (26)
VSP-MD20R(A)*-2	20	1.8	46.3 (47.3)	10 (11)	8.4	13.6	1 to 1.3	27 (27)
VSP-MD20R(A)*-4		4			11.2	17.7		28 (28)
VSP-MD20R(A)*-6		6			11.9	19.5		30 (30)
VSP-MD25R(A)*-2	25	1.8	47.3 (48.3)	11 (12)	8.4	13.6	1 to 1.3	27 (27)
VSP-MD25R(A)*-4		4			11.2	17.7		28 (28)
VSP-MD25R(A)*-6		6			11.9	19.5		30 (30)
VSP-MD30R(A)*-2	30	1.8	47.3 (50.3)	11 (14)	8.4	13.6	1 to 1.3	29 (29)
VSP-MD30R(A)*-4		4			11.2	17.7		30 (30)
VSP-MD30R(A)*-6		6			11.9	19.5		32 (32)
VSP-MD40R(A)*-2	40	1.8	50.3 (53.8)	14 (17.5)	8.4	13.6	1 to 1.3	36 (36)
VSP-MD40R(A)*-4		4			11.2	17.7		37 (37)
VSP-MD40R(A)*-6		6			11.9	19.5		39 (39)
VSP-MD50R(A)*-2	50	1.8	51.3 (54.3)	15 (18)	8.4	13.6	1 to 1.3	42 (42)
VSP-MD50R(A)*-4		4			11.2	17.7		43 (43)
VSP-MD50R(A)*-6		6			11.9	19.5		45 (45)

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (compact buffer, vacuum outlet side VSP-MD, barbed fitting)

●VSP-MD0.7 to 4RM*-4T/6T ●VSP-MD6, 8R*-4T/6T ●VSP-MD10R*-4T/6T ●VSP-MD15R(A)*-4T/6T ●VSP-MD20 to 50R(A)*-4T/6T



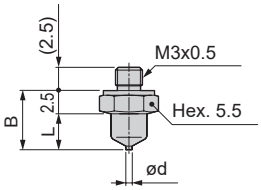
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	E	Spring force (N)	Weight (g)
VSP-MD0.7RM*-4T	0.7	2.5	26	4	12	0.2 to 0.3	5.5
VSP-MD0.7RM*-6T		4					
VSP-MD1RM*-4T	1	2.5	26	4	12	0.2 to 0.3	5.5
VSP-MD1RM*-6T		4					
VSP-MD1.5RM*-4T	1.5	2.5	26	4	12	0.2 to 0.3	5.5
VSP-MD1.5RM*-6T		4					
VSP-MD2RM*-4T	2	2.5	26	4	12	0.2 to 0.3	5.5
VSP-MD2RM*-6T		4					
VSP-MD3RM*-4T	3	2.5	26	4	12	0.2 to 0.3	5.5
VSP-MD3RM*-6T		4					
VSP-MD4RM*-4T	4	2.5	26	4	12	0.2 to 0.3	5.5
VSP-MD4RM*-6T		4					
VSP-MD6R*-4T	6	2.5	29	7	12.5	0.5 to 0.6	6.2
VSP-MD6R*-6T		4					
VSP-MD8R*-4T	8	2.5	27.5	5.5	12.5	0.5 to 0.6	6.2
VSP-MD8R*-6T		4					
VSP-MD10R*-4T	10	2.5	42.5	8	14.8	1 to 1.3	22
VSP-MD10R*-6T		4					
VSP-MD15R(A)*-4T	15	2.5	43.5 (44.5)	9 (10)	14.8	1 to 1.3	22 (22)
VSP-MD15R(A)*-6T		4					
VSP-MD20R(A)*-4T	20	2.5	46.3 (47.3)	10 (11)	14.8	1 to 1.3	26 (26)
VSP-MD20R(A)*-6T		4					
VSP-MD25R(A)*-4T	25	2.5	47.3 (48.3)	11 (12)	14.8	1 to 1.3	27 (27)
VSP-MD25R(A)*-6T		4					
VSP-MD30R(A)*-4T	30	2.5	47.3 (50.3)	11 (14)	14.8	1 to 1.3	29 (29)
VSP-MD30R(A)*-6T		4					
VSP-MD40R(A)*-4T	40	2.5	50.3 (53.8)	14 (17.5)	14.8	1 to 1.3	37 (37)
VSP-MD40R(A)*-6T		4					
VSP-MD50R(A)*-4T	50	2.5	51.3 (54.3)	15 (18)	14.8	1 to 1.3	44 (44)
VSP-MD50R(A)*-6T		4					

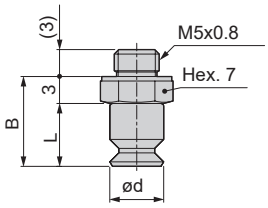
*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (compact fixed, direct mounting VSP-ME, male thread)

●VSP-ME0.7 to 4RM*-M3



●VSP-ME6, 8R*-M5

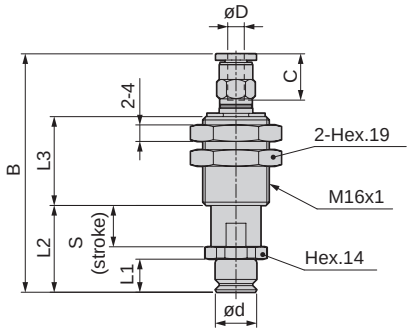


Unit: mm

Model No.	Pad diameter ød	B	L	Weight (g)
VSP-ME0.7RM*-M3	0.7	6.5	4	0.6
VSP-ME1RM*-M3	1	6.5	4	0.6
VSP-ME1.5RM*-M3	1.5	6.5	4	0.6
VSP-ME2RM*-M3	2	6.5	4	0.6
VSP-ME3RM*-M3	3	6.5	4	0.6
VSP-ME4RM*-M3	4	6.5	4	0.6
VSP-ME6R*-M5	6	10	7	1.6
VSP-ME8R*-M5	8	8.5	5.5	1.6

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, push-in fitting)

●VSP-HC10-□R*-2/4/6
●VSP-HC15-□R(A)*-2/4/6



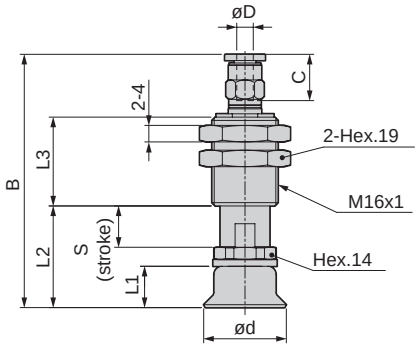
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC10-10R*-2	10	1.8	53.6	8	21	21.5	8.4	10	1.0 to 2.4	22
VSP-HC10-10R*-4		4	57.7				11.2			23
VSP-HC10-10R*-6		6	59				11.9			24
VSP-HC10-15R*-2		1.8	63.6		26	26.5	8.4	15	1.0 to 2.7	24
VSP-HC10-15R*-4		4	67.7				11.2			25
VSP-HC10-15R*-6		6	69				11.9			26
VSP-HC10-20R*-2		1.8	73.6		31	31.5	8.4	20	1.0 to 3.0	26
VSP-HC10-20R*-4		4	77.7				11.2			27
VSP-HC10-20R*-6		6	79				11.9			28
VSP-HC10-25R*-2		1.8	84.1		36	37	8.4	25	1.0 to 3.0	28
VSP-HC10-25R*-4		4	88.2				11.2			29
VSP-HC10-25R*-6		6	89.5				11.9			30
VSP-HC10-30R*-2		1.8	95.1		41	43	8.4	30	1.0 to 3.0	30
VSP-HC10-30R*-4		4	99.2				11.2			31
VSP-HC10-30R*-6		6	100.5				11.9			32
VSP-HC10-40R*-2		1.8	117.1		51	55	8.4	40	1.0 to 3.0	34
VSP-HC10-40R*-4		4	121.2				11.2			35
VSP-HC10-40R*-6		6	122.5				11.9			36
VSP-HC10-50R*-2		1.8	138.6		61	66.5	8.4	50	1.0 to 3.1	39
VSP-HC10-50R*-4		4	142.7				11.2			40
VSP-HC10-50R*-6		6	144				11.9			41
VSP-HC15-10R(A)*-2	15	1.8	54.6 (55.6)	9 (10)	22 (23)	21.5	8.4	10	1.0 to 2.4	22 (22)
VSP-HC15-10R(A)*-4		4	58.7 (59.7)				11.2			23 (23)
VSP-HC15-10R(A)*-6		6	60 (61)				11.9			24 (24)
VSP-HC15-15R(A)*-2		1.8	64.6 (65.6)		27 (28)	26.5	8.4	15	1.0 to 2.7	24 (24)
VSP-HC15-15R(A)*-4		4	68.7 (69.7)				11.2			25 (25)
VSP-HC15-15R(A)*-6		6	70 (71)				11.9			26 (26)
VSP-HC15-20R(A)*-2		1.8	74.6 (75.6)		32 (33)	31.5	8.4	20	1.0 to 3.0	26 (26)
VSP-HC15-20R(A)*-4		4	78.7 (79.7)				11.2			27 (27)
VSP-HC15-20R(A)*-6		6	80 (81)				11.9			28 (28)
VSP-HC15-25R(A)*-2		1.8	85.1 (86.1)		37 (38)	37	8.4	25	1.0 to 3.0	28 (28)
VSP-HC15-25R(A)*-4		4	89.2 (90.2)				11.2			29 (29)
VSP-HC15-25R(A)*-6		6	90.5 (91.5)				11.9			30 (30)
VSP-HC15-30R(A)*-2		1.8	96.1 (97.1)		42 (43)	43	8.4	30	1.0 to 3.0	30 (30)
VSP-HC15-30R(A)*-4		4	100.2 (101.2)				11.2			31 (31)
VSP-HC15-30R(A)*-6		6	101.5 (102.5)				11.9			32 (32)
VSP-HC15-40R(A)*-2		1.8	118.1 (119.1)		52 (53)	55	8.4	40	1.0 to 3.0	34 (34)
VSP-HC15-40R(A)*-4		4	122.2 (123.2)				11.2			35 (35)
VSP-HC15-40R(A)*-6		6	123.5 (124.5)				11.9			36 (36)
VSP-HC15-50R(A)*-2		1.8	139.6 (140.6)		62 (63)	66.5	8.4	50	1.0 to 3.1	39 (39)
VSP-HC15-50R(A)*-4		4	143.7 (144.7)				11.2			40 (40)
VSP-HC15-50R(A)*-6		6	145 (146)				11.9			41 (41)

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, push-in fitting)

●VSP-HC20, 25-□R(A)*-2/4/6



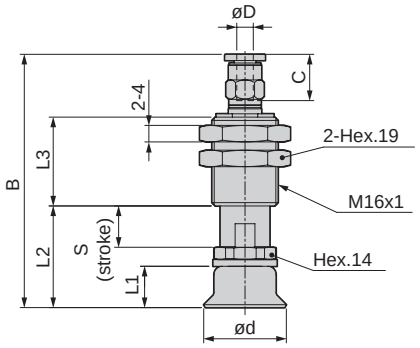
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC20-10R(A)*-2	20	1.8	57.2 (58.2)	10 (11)	24.6 (25.6)	21.5	8.4	10	1.0 to 2.4	27 (27)
VSP-HC20-10R(A)*-4		4	61.3 (62.3)				11.2			28 (28)
VSP-HC20-10R(A)*-6		6	62.6 (63.6)				11.9			29 (29)
VSP-HC20-15R(A)*-2		1.8	67.2 (68.2)		29.6 (30.6)	26.5	8.4	15	1.0 to 2.7	29 (29)
VSP-HC20-15R(A)*-4		4	71.3 (72.3)				11.2			30 (30)
VSP-HC20-15R(A)*-6		6	72.6 (73.6)				11.9			31 (31)
VSP-HC20-20R(A)*-2		1.8	77.2 (78.2)		34.6 (35.6)	31.5	8.4	20	1.0 to 3.0	31 (31)
VSP-HC20-20R(A)*-4		4	81.3 (82.3)				11.2			32 (32)
VSP-HC20-20R(A)*-6		6	82.6 (83.6)				11.9			33 (33)
VSP-HC20-25R(A)*-2		1.8	87.7 (88.7)		39.6 (40.6)	37	8.4	25	1.0 to 3.0	33 (33)
VSP-HC20-25R(A)*-4		4	91.8 (92.8)				11.2			34 (34)
VSP-HC20-25R(A)*-6		6	93.1 (94.1)				11.9			35 (35)
VSP-HC20-30R(A)*-2		1.8	98.7 (99.7)		44.6 (45.6)	43	8.4	30	1.0 to 3.0	35 (35)
VSP-HC20-30R(A)*-4		4	102.8 (103.8)				11.2			36 (36)
VSP-HC20-30R(A)*-6		6	104.1 (105.1)				11.9			37 (37)
VSP-HC20-40R(A)*-2		1.8	120.7 (121.7)		54.6 (55.6)	55	8.4	40	1.0 to 3.0	39 (39)
VSP-HC20-40R(A)*-4		4	124.8 (125.8)				11.2			40 (40)
VSP-HC20-40R(A)*-6		6	126.1 (127.1)				11.9			41 (41)
VSP-HC20-50R(A)*-2		1.8	142.2 (143.2)		64.6 (65.6)	66.5	8.4	50	1.0 to 3.1	43 (43)
VSP-HC20-50R(A)*-4		4	146.3 (147.3)				11.2			44 (44)
VSP-HC20-50R(A)*-6		6	147.6 (148.6)				11.9			45 (45)
VSP-HC25-10R(A)*-2	25	1.8	58.2 (59.2)	11 (12)	24.6 (25.6)	21.5	8.4	10	1.0 to 2.4	27 (27)
VSP-HC25-10R(A)*-4		4	62.3 (63.3)				11.2			28 (28)
VSP-HC25-10R(A)*-6		6	63.6 (64.6)				11.9			29 (29)
VSP-HC25-15R(A)*-2		1.8	68.2 (69.2)		29.6 (30.6)	26.5	8.4	15	1.0 to 2.7	29 (29)
VSP-HC25-15R(A)*-4		4	72.3 (73.3)				11.2			30 (30)
VSP-HC25-15R(A)*-6		6	73.6 (74.6)				11.9			31 (31)
VSP-HC25-20R(A)*-2		1.8	78.2 (79.2)		34.6 (35.6)	31.5	8.4	20	1.0 to 3.0	31 (31)
VSP-HC25-20R(A)*-4		4	82.3 (83.3)				11.2			32 (32)
VSP-HC25-20R(A)*-6		6	83.6 (84.6)				11.9			33 (33)
VSP-HC25-25R(A)*-2		1.8	88.7 (89.7)		39.6 (40.6)	37	8.4	25	1.0 to 3.0	33 (33)
VSP-HC25-25R(A)*-4		4	92.8 (93.8)				11.2			34 (34)
VSP-HC25-25R(A)*-6		6	94.1 (95.1)				11.9			35 (35)
VSP-HC25-30R(A)*-2		1.8	99.7 (100.7)		44.6 (45.6)	43	8.4	30	1.0 to 3.0	35 (35)
VSP-HC25-30R(A)*-4		4	103.8 (104.8)				11.2			36 (36)
VSP-HC25-30R(A)*-6		6	105.1 (106.1)				11.9			37 (37)
VSP-HC25-40R(A)*-2		1.8	121.7 (122.7)		54.6 (55.6)	55	8.4	40	1.0 to 3.0	39 (39)
VSP-HC25-40R(A)*-4		4	125.8 (126.8)				11.2			40 (40)
VSP-HC25-40R(A)*-6		6	127.1 (128.1)				11.9			41 (41)
VSP-HC25-50R(A)*-2		1.8	143.2 (144.2)		64.6 (65.6)	66.5	8.4	50	1.0 to 3.1	43 (43)
VSP-HC25-50R(A)*-4		4	147.3 (148.3)				11.2			44 (44)
VSP-HC25-50R(A)*-6		6	148.6 (149.6)				11.9			45 (45)

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, push-in fitting)

●VSP-HC30, 40-□R(A)*-2/4/6



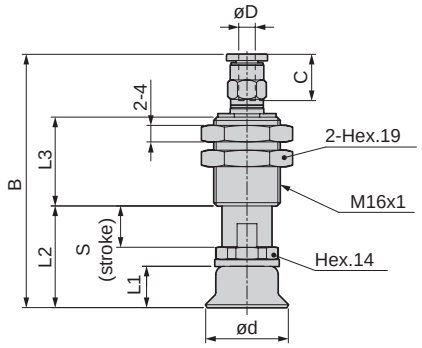
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC30-10R(A)*-2	30	1.8	58.2 (61.2)	11 (14)	25.6 (28.6)	21.5	8.4	10	1.0 to 2.4	29 (30)
VSP-HC30-10R(A)*-4		4	62.3 (65.3)				11.2			30 (31)
VSP-HC30-10R(A)*-6		6	63.6 (66.6)				11.9			31 (32)
VSP-HC30-15R(A)*-2		1.8	68.2 (71.2)		30.6 (33.6)	26.5	8.4	15	1.0 to 2.7	31 (32)
VSP-HC30-15R(A)*-4		4	72.3 (75.3)				11.2			32 (33)
VSP-HC30-15R(A)*-6		6	73.6 (76.6)				11.9			33 (34)
VSP-HC30-20R(A)*-2		1.8	78.2 (81.2)		35.6 (38.6)	31.5	8.4	20	1.0 to 3.0	33 (34)
VSP-HC30-20R(A)*-4		4	82.3 (85.3)				11.2			34 (35)
VSP-HC30-20R(A)*-6		6	83.6 (86.6)				11.9			35 (36)
VSP-HC30-25R(A)*-2		1.8	88.7 (91.7)		40.6 (43.6)	37	8.4	25	1.0 to 3.0	35 (36)
VSP-HC30-25R(A)*-4		4	92.8 (95.8)				11.2			36 (37)
VSP-HC30-25R(A)*-6		6	94.1 (97.1)				11.9			37 (38)
VSP-HC30-30R(A)*-2		1.8	99.7 (102.7)		45.6 (48.6)	43	8.4	30	1.0 to 3.0	37 (38)
VSP-HC30-30R(A)*-4		4	103.8 (106.8)				11.2			38 (39)
VSP-HC30-30R(A)*-6		6	105.1 (108.1)				11.9			39 (40)
VSP-HC30-40R(A)*-2		1.8	121.7 (124.7)		55.6 (58.6)	55	8.4	40	1.0 to 3.0	41 (42)
VSP-HC30-40R(A)*-4		4	125.8 (128.8)				11.2			42 (43)
VSP-HC30-40R(A)*-6		6	127.1 (130.1)				11.9			43 (44)
VSP-HC30-50R(A)*-2		1.8	143.2 (146.2)		65.6 (68.6)	66.5	8.4	50	1.0 to 3.1	45 (46)
VSP-HC30-50R(A)*-4		4	147.3 (150.3)				11.2			46 (47)
VSP-HC30-50R(A)*-6		6	148.6 (151.6)				11.9			47 (48)
VSP-HC40-10R(A)*-2	40	1.8	61.2 (64.7)	14 (17.5)	28.6 (32.1)	21.5	8.4	10	1.0 to 2.4	34 (35)
VSP-HC40-10R(A)*-4		4	65.3 (68.8)				11.2			35 (36)
VSP-HC40-10R(A)*-6		6	66.6 (70.1)				11.9			36 (37)
VSP-HC40-15R(A)*-2		1.8	68.2 (71.7)		33.6 (37.1)	26.5	8.4	15	1.0 to 2.7	36 (37)
VSP-HC40-15R(A)*-4		4	72.3 (75.8)				11.2			37 (38)
VSP-HC40-15R(A)*-6		6	73.6 (77.1)				11.9			38 (39)
VSP-HC40-20R(A)*-2		1.8	78.2 (81.7)		38.6 (42.1)	31.5	8.4	20	1.0 to 3.0	38 (39)
VSP-HC40-20R(A)*-4		4	82.3 (85.8)				11.2			39 (40)
VSP-HC40-20R(A)*-6		6	83.6 (87.1)				11.9			40 (41)
VSP-HC40-25R(A)*-2		1.8	88.7 (92.2)		43.6 (47.1)	37	8.4	25	1.0 to 3.0	40 (41)
VSP-HC40-25R(A)*-4		4	92.8 (96.3)				11.2			41 (42)
VSP-HC40-25R(A)*-6		6	94.1 (97.6)				11.9			42 (43)
VSP-HC40-30R(A)*-2		1.8	99.7 (103.2)		48.6 (52.1)	43	8.4	30	1.0 to 3.0	42 (43)
VSP-HC40-30R(A)*-4		4	103.8 (107.3)				11.2			43 (44)
VSP-HC40-30R(A)*-6		6	105.1 (108.6)				11.9			44 (45)
VSP-HC40-40R(A)*-2		1.8	121.7 (125.2)		58.6 (62.1)	55	8.4	40	1.0 to 3.0	46 (47)
VSP-HC40-40R(A)*-4		4	125.8 (129.3)				11.2			47 (48)
VSP-HC40-40R(A)*-6		6	127.1 (130.6)				11.9			48 (49)
VSP-HC40-50R(A)*-2		1.8	143.2 (146.7)		68.6 (72.1)	66.5	8.4	50	1.0 to 3.1	50 (51)
VSP-HC40-50R(A)*-4		4	147.3 (150.8)				11.2			51 (52)
VSP-HC40-50R(A)*-6		6	148.6 (152.1)				11.9			52 (53)

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, push-in fitting)

●VSP-HC50-□R(A)*-2/4/6



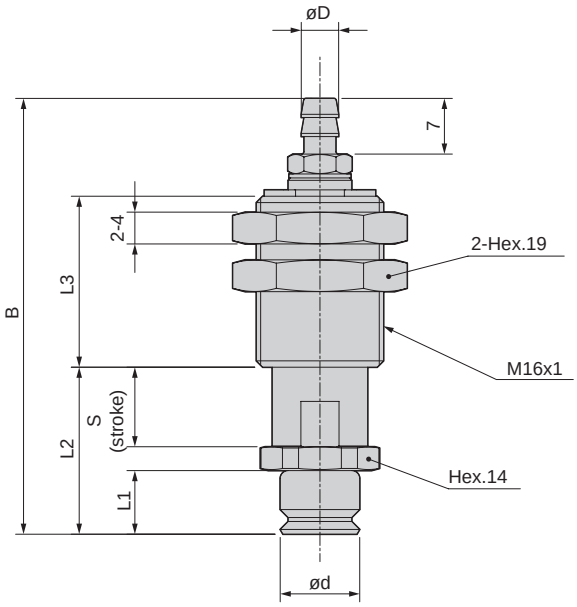
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC50-10R(A)*-2	50	1.8	62.2 (65.2)	15 (18)	29.6 (32.6)	21.5	8.4	10	1.0 to 2.4	46 (47)
VSP-HC50-10R(A)*-4		4	66.3 (69.3)				11.2			47 (48)
VSP-HC50-10R(A)*-6		6	67.6 (70.6)				11.9			48 (49)
VSP-HC50-15R(A)*-2		1.8	72.2 (75.2)		34.6 (37.6)	26.5	8.4	15	1.0 to 2.7	48 (49)
VSP-HC50-15R(A)*-4		4	76.3 (79.3)				11.2			49 (50)
VSP-HC50-15R(A)*-6		6	77.6 (80.6)				11.9			50 (51)
VSP-HC50-20R(A)*-2		1.8	82.2 (85.2)		39.6 (42.6)	31.5	8.4	20	1.0 to 3.0	50 (51)
VSP-HC50-20R(A)*-4		4	86.3 (89.3)				11.2			51 (52)
VSP-HC50-20R(A)*-6		6	87.6 (90.6)				11.9			52 (53)
VSP-HC50-25R(A)*-2		1.8	92.7 (95.7)		44.6 (47.6)	37	8.4	25	1.0 to 3.0	52 (53)
VSP-HC50-25R(A)*-4		4	96.8 (99.8)				11.2			53 (54)
VSP-HC50-25R(A)*-6		6	98.1 (101.1)				11.9			54 (55)
VSP-HC50-30R(A)*-2		1.8	103.7 (106.7)		49.6 (52.6)	43	8.4	30	1.0 to 3.0	54 (55)
VSP-HC50-30R(A)*-4		4	107.8 (110.8)				11.2			55 (56)
VSP-HC50-30R(A)*-6		6	109.1 (112.1)				11.9			56 (57)
VSP-HC50-40R(A)*-2		1.8	125.7 (128.7)		59.6 (62.6)	55	8.4	40	1.0 to 3.0	58 (59)
VSP-HC50-40R(A)*-4		4	129.8 (132.8)				11.2			59 (60)
VSP-HC50-40R(A)*-6		6	131.1 (134.1)				11.9			60 (61)
VSP-HC50-50R(A)*-2		1.8	147.2 (150.2)		69.6 (72.6)	66.5	8.4	50	1.0 to 3.1	62 (63)
VSP-HC50-50R(A)*-4		4	151.3 (154.3)				11.2			63 (64)
VSP-HC50-50R(A)*-6		6	152.6 (155.6)				11.9			64 (65)

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, barbed fitting)

●VSP-HC10-□R*-4T/6T
●VSP-HC15-□R(A)*-4T/6T



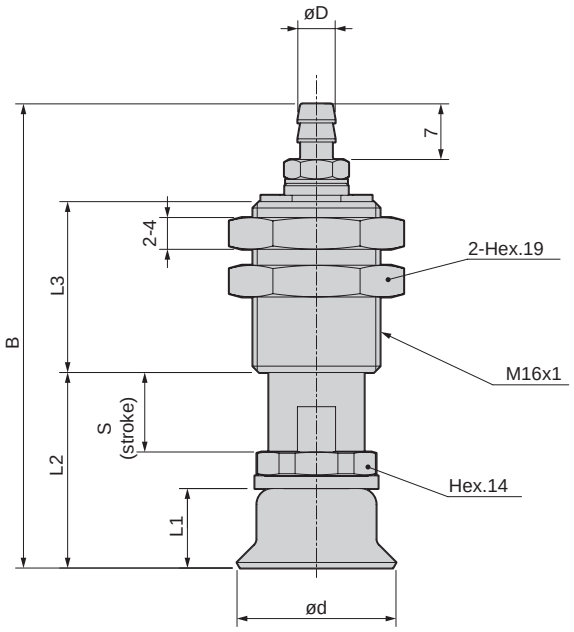
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC10-10R*-4T	10	2.5	54.8	8	21	21.5	10	1.0 to 2.4	21
VSP-HC10-10R*-6T		4							
VSP-HC10-15R*-4T		2.5	64.8		26	26.5	15	1.0 to 2.7	23
VSP-HC10-15R*-6T		4							
VSP-HC10-20R*-4T		2.5	74.8		31	31.5	20	1.0 to 3.0	25
VSP-HC10-20R*-6T		4							
VSP-HC10-25R*-4T		2.5	85.3		36	37	25	1.0 to 3.0	28
VSP-HC10-25R*-6T		4							
VSP-HC10-30R*-4T		2.5	96.3		41	43	30	1.0 to 3.0	30
VSP-HC10-30R*-6T		4							
VSP-HC10-40R*-4T		2.5	118.3		51	55	40	1.0 to 3.0	34
VSP-HC10-40R*-6T		4							
VSP-HC10-50R*-4T		2.5	139.8		61	66.5	50	1.0 to 3.1	38
VSP-HC10-50R*-6T		4							
VSP-HC15-10R(A)*-4T	15	2.5	55.8 (56.8)	9 (10)	22 (23)	21.5	10	1.0 to 2.4	21 (22)
VSP-HC15-10R(A)*-6T		4							
VSP-HC15-15R(A)*-4T		2.5	65.8 (66.8)		27 (28)	26.5	15	1.0 to 2.7	23 (24)
VSP-HC15-15R(A)*-6T		4							
VSP-HC15-20R(A)*-4T		2.5	75.8 (76.8)		32 (33)	31.5	20	1.0 to 3.0	25 (26)
VSP-HC15-20R(A)*-6T		4							
VSP-HC15-25R(A)*-4T		2.5	86.3 (87.3)		37 (38)	37	25	1.0 to 3.0	28 (29)
VSP-HC15-25R(A)*-6T		4							
VSP-HC15-30R(A)*-4T		2.5	97.3 (98.3)		42 (43)	43	30	1.0 to 3.0	30 (31)
VSP-HC15-30R(A)*-6T		4							
VSP-HC15-40R(A)*-4T		2.5	119.3 (120.3)		52 (53)	55	40	1.0 to 3.0	34 (35)
VSP-HC15-40R(A)*-6T		4							
VSP-HC15-50R(A)*-4T		2.5	140.8 (141.8)		62 (63)	66.5	50	1.0 to 3.1	38 (39)
VSP-HC15-50R(A)*-6T		4							

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, barbed fitting)

●VSP-HC20, 25-□R(A)*-4T/6T



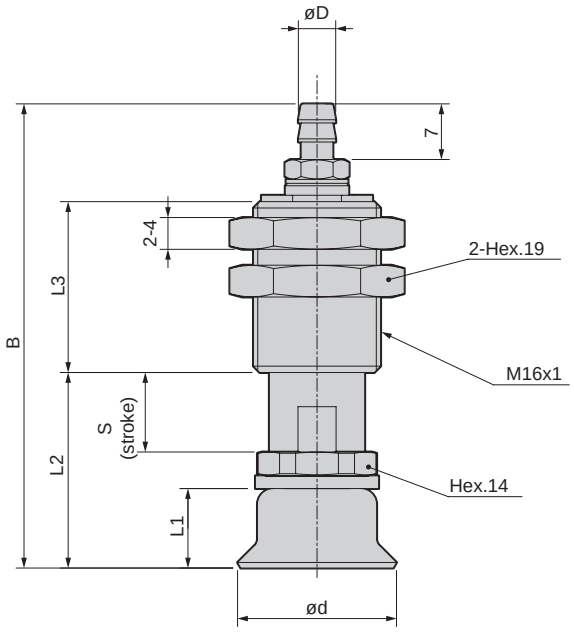
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC20-10R ()*-4T	20	2.5	58.4 (59.4)	10 (11)	24.6 (25.6)	21.5	10	1.0 to 2.4	25 (26)
VSP-HC20-10R(A)*-6T		4							
VSP-HC20-15R(A)*-4T		2.5	68.4 (69.4)		29.6 (30.6)	26.5	15	1.0 to 2.7	27 (28)
VSP-HC20-15R(A)*-6T		4							
VSP-HC20-20R(A)*-4T		2.5	78.4 (79.4)		34.6 (35.6)	31.5	20	1.0 to 3.0	29 (30)
VSP-HC20-20R(A)*-6T		4							
VSP-HC20-25R(A)*-4T		2.5	88.9 (89.9)		39.6 (40.6)	37	25	1.0 to 3.0	31 (32)
VSP-HC20-25R(A)*-6T		4							
VSP-HC20-30R(A)*-4T		2.5	99.9 (100.9)		44.6 (45.6)	43	30	1.0 to 3.0	34 (35)
VSP-HC20-30R(A)*-6T		4							
VSP-HC20-40R(A)*-4T		2.5	121.9 (122.9)		54.6 (55.6)	55	40	1.0 to 3.0	38 (39)
VSP-HC20-40R(A)*-6T		4							
VSP-HC20-50R(A)*-4T		2.5	143.4 (144.4)		64.6 (65.6)	66.5	50	1.0 to 3.1	42 (41)
VSP-HC20-50R(A)*-6T		4							
VSP-HC25-10R(A)*-4T	25	2.5	59.4 (60.4)	11 (12)	25.6 (26.6)	21.5	10	1.0 to 2.4	26 (27)
VSP-HC25-10R(A)*-6T		4							
VSP-HC25-15R(A)*-4T		2.5	69.4 (70.4)		30.6 (31.6)	26.5	15	1.0 to 2.7	28 (29)
VSP-HC25-15R(A)*-6T		4							
VSP-HC25-20R ()*-4T		2.5	79.4 (80.4)		35.6 (36.6)	31.5	20	1.0 to 3.0	30 (31)
VSP-HC25-20R(A)*-6T		4							
VSP-HC25-25R(A)*-4T		2.5	89.9 (90.9)		40.6 (41.6)	37	25	1.0 to 3.0	32 (33)
VSP-HC25-25R(A)*-6T		4							
VSP-HC25-30R(A)*-4T		2.5	100.9 (101.9)		45.6 (46.6)	43	30	1.0 to 3.0	35 (36)
VSP-HC25-30R(A)*-6T		4							
VSP-HC25-40R(A)*-4T		2.5	122.9 (123.9)		55.6 (56.6)	55	40	1.0 to 3.0	39 (40)
VSP-HC25-40R(A)*-6T		4							
VSP-HC25-50R(A)*-4T		2.5	144.4 (145.4)		65.6 (66.6)	66.5	50	1.0 to 3.1	43 (44)
VSP-HC25-50R(A)*-6T		4							

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, barbed fitting)

●VSP-HC30, 40-□R(A)*-4T/6T



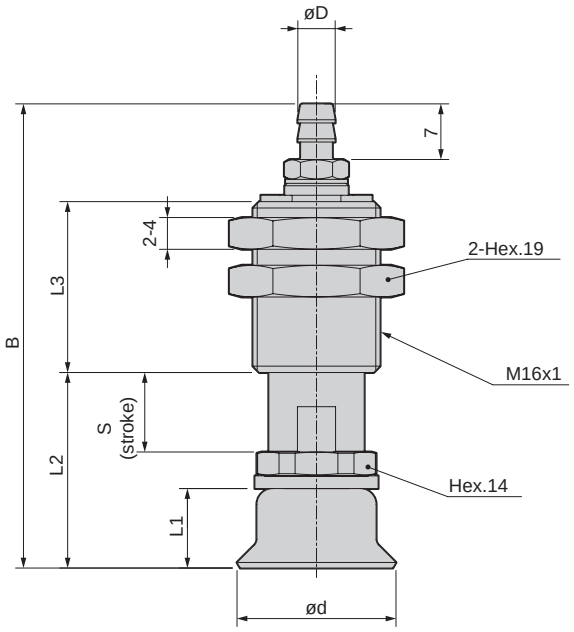
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC30-10R(A)*-4T	30	2.5	59.4 (62.4)	11 (14)	25.6 (28.6)	21.5	10	1.0 to 2.4	28 (29)
VSP-HC30-10R(A)*-6T		4							
VSP-HC30-15R(A)*-4T		2.5	69.4 (72.4)		30.6 (33.6)	26.5	15	1.0 to 2.7	30 (31)
VSP-HC30-15R(A)*-6T		4							
VSP-HC30-20R(A)*-4T		2.5	79.4 (82.4)		35.6 (38.6)	31.5	20	1.0 to 3.0	32 (33)
VSP-HC30-20R(A)*-6T		4							
VSP-HC30-25R(A)*-4T		2.5	89.9 (92.9)		40.6 (43.6)	37	25	1.0 to 3.0	34 (35)
VSP-HC30-25R(A)*-6T		4							
VSP-HC30-30R(A)*-4T		2.5	100.9 (103.9)		45.6 (48.6)	43	30	1.0 to 3.0	37 (38)
VSP-HC30-30R(A)*-6T		4							
VSP-HC30-40R(A)*-4T		2.5	122.9 (125.9)		55.6 (58.6)	55	40	1.0 to 3.0	41 (42)
VSP-HC30-40R(A)*-6T		4							
VSP-HC30-50R(A)*-4T		2.5	144.4 (147.4)		65.6 (68.6)	66.5	50	1.0 to 3.1	46 (47)
VSP-HC30-50R(A)*-6T		4							
VSP-HC40-10R(A)*-4T	40	2.5	62.4 (65.9)	14 (17.5)	28.6 (32.1)	21.5	10	1.0 to 2.4	29 (30)
VSP-HC40-10R(A)*-6T		4							
VSP-HC40-15R(A)*-4T		2.5	72.4 (75.9)		33.6 (37.1)	26.5	15	1.0 to 2.7	31 (32)
VSP-HC40-15R(A)*-6T		4							
VSP-HC40-20R(A)*-4T		2.5	82.4 (85.9)		38.6 (42.1)	31.5	20	1.0 to 3.0	33 (34)
VSP-HC40-20R(A)*-6T		4							
VSP-HC40-25R(A)*-4T		2.5	92.9 (96.4)		43.6 (47.1)	37	25	1.0 to 3.0	35 (36)
VSP-HC40-25R(A)*-6T		4							
VSP-HC40-30R(A)*-4T		2.5	103.9 (107.4)		48.6 (52.1)	43	30	1.0 to 3.0	38 (39)
VSP-HC40-30R(A)*-6T		4							
VSP-HC40-40R(A)*-4T		2.5	125.9 (129.4)		58.6 (62.1)	55	40	1.0 to 3.0	42 (41)
VSP-HC40-40R(A)*-6T		4							
VSP-HC40-50R(A)*-4T		2.5	147.4 (150.9)		68.6 (72.1)	66.5	50	1.0 to 3.1	47 (46)
VSP-HC40-50R(A)*-6T		4							

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, barbed fitting)

●VSP-HC50-□R(A)*-4T/6T



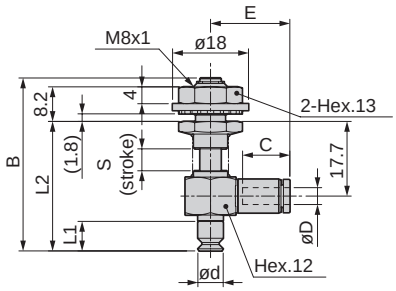
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC50-10R(A)*-4T	50	2.5	60.6 (63.6)	15 (18)	29.6 (32.6)	21.5	10	1.0 to 2.4	54 (55)
VSP-HC50-10R(A)*-6T		4							
VSP-HC50-15R(A)*-4T		2.5	70.6 (73.6)		34.6 (37.6)	26.5	15	1.0 to 2.7	56 (57)
VSP-HC50-15R(A)*-6T		4							
VSP-HC50-20R(A)*-4T		2.5	80.6 (83.6)		39.6 (42.6)	31.5	20	1.0 to 3.0	58 (59)
VSP-HC50-20R(A)*-6T		4							
VSP-HC50-25R(A)*-4T		2.5	91.1 (94.1)		44.6 (47.6)	37	25	1.0 to 3.0	60 (61)
VSP-HC50-25R(A)*-6T		4							
VSP-HC50-30R(A)*-4T		2.5	102.1 (105.1)		49.6 (52.6)	43	30	1.0 to 3.0	63 (64)
VSP-HC50-30R(A)*-6T		4							
VSP-HC50-40R(A)*-4T		2.5	124.1 (127.1)		59.6 (62.6)	55	40	1.0 to 3.0	67 (68)
VSP-HC50-40R(A)*-6T		4							
VSP-HC50-50R(A)*-4T		2.5	145.6 (148.6)		69.6 (72.6)	66.5	50	1.0 to 3.1	71 (72)
VSP-HC50-50R(A)*-6T		4							

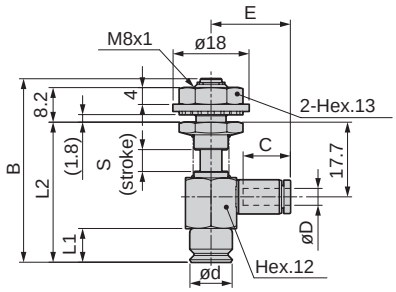
*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (lightweight, buffer, vacuum outlet, side, VSP-HD, push-in fitting)

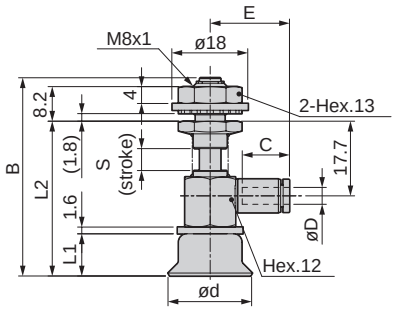
●VSP-HD6, 8R*-2/4/6



●VSP-HD10R*-2/4/6
●VSP-HD15R(A)*-2/4/6



●VSP-HD20 to 50R(A)*-2/4/6



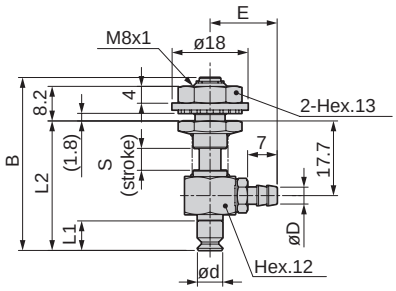
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD6R*-2	6	1.8	41	7	30.7	8.4	14.7	5.2	1.6 to 2.9	28
VSP-HD6R*-4		4				11.2	18.8			29
VSP-HD6R*-6		6				11.9	20.6			30
VSP-HD8R*-2	8	1.8	39.5	5.5	29.2	8.4	14.7	5.2	1.6 to 2.9	28
VSP-HD8R*-4		4				11.2	18.8			29
VSP-HD8R*-6		6				11.9	20.6			30
VSP-HD10R*-2	10	1.8	43.5	8	33.2	8.4	14.7	5.2	1.6 to 2.9	32
VSP-HD10R*-4		4				11.2	18.8			33
VSP-HD10R*-6		6				11.9	20.6			34
VSP-HD15R(A)*-2	15	1.8	44.5 (45.5)	9 (10)	34.2 (35.2)	8.4	14.7	5.2	1.6 to 2.9	33 (34)
VSP-HD15R(A)*-4		4				11.2	18.8			34 (35)
VSP-HD15R(A)*-6		6				11.9	20.6			35 (36)
VSP-HD20R(A)*-2	20	1.8	47 (48)	10 (11)	36.7 (37.7)	8.4	14.7	5.2	1.6 to 2.9	36 (37)
VSP-HD20R(A)*-4		4				11.2	18.8			37 (38)
VSP-HD20R(A)*-6		6				11.9	20.6			38 (39)
VSP-HD25R(A)*-2	25	1.8	48 (49)	11 (12)	37.7 (38.7)	8.4	14.7	5.2	1.6 to 2.9	37 (38)
VSP-HD25R(A)*-4		4				11.2	18.8			38 (39)
VSP-HD25R(A)*-6		6				11.9	20.6			39 (40)
VSP-HD30R(A)*-2	30	1.8	48 (51)	11 (14)	37.7 (40.7)	8.4	14.7	5.2	1.6 to 2.9	39 (40)
VSP-HD30R(A)*-4		4				11.2	18.8			40 (41)
VSP-HD30R(A)*-6		6				11.9	20.6			41 (42)
VSP-HD40R(A)*-2	40	1.8	51 (54.5)	14 (17.5)	40.7 (44.2)	8.4	14.7	5.2	1.6 to 2.9	44 (43)
VSP-HD40R(A)*-4		4				11.2	18.8			45 (44)
VSP-HD40R(A)*-6		6				11.9	20.6			46 (45)
VSP-HD50R(A)*-2	50	1.8	52 (55)	15 (18)	41.7 (44.7)	8.4	14.7	5.2	1.6 to 2.9	54 (55)
VSP-HD50R(A)*-4		4				11.2	18.8			55 (56)
VSP-HD50R(A)*-6		6				11.9	20.6			56 (57)

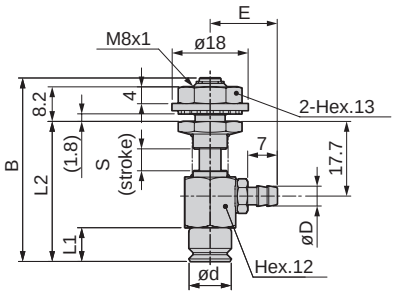
*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (lightweight, buffer, vacuum outlet, side, VSP-HD, barbed fitting)

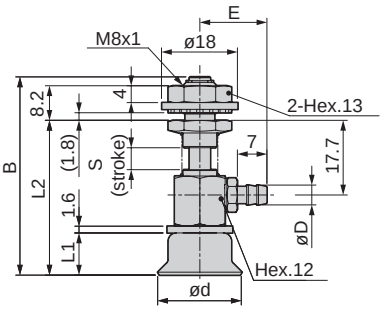
●VSP-HD6, 8R*-4T/6T



●VSP-HD10R*-4T/6T
●VSP-HD15R(A)*-4T/6T



●VSP-HD20 to 50R(A)*-4T/6T



Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD6R*-4T	6	2.5	41	7	30.7	15.9	5.2	1.6 to 2.9	28
VSP-HD6R*-6T		4							
VSP-HD8R*-4T	8	2.5	39.5	5.5	29.2	15.9	5.2	1.6 to 2.9	28
VSP-HD8R*-6T		4							
VSP-HD10R*-4T	10	2.5	43.5	8	33.2	15.9	5.2	1.6 to 2.9	31
VSP-HD10R*-6T		4							
VSP-HD15R(A)*-4T	15	2.5	44.5 (45.5)	9 (10)	34.2 (35.2)	15.9	5.2	1.6 to 2.9	32
VSP-HD15R(A)*-6T		4							
VSP-HD20R(A)*-4T	20	2.5	47 (48)	10 (11)	36.7 (37.7)	15.9	5.2	1.6 to 2.9	36
VSP-HD20R(A)*-6T		4							
VSP-HD25R(A)*-4T	25	2.5	48 (49)	11 (12)	37.7 (38.7)	15.9	5.2	1.6 to 2.9	37
VSP-HD25R(A)*-6T		4							
VSP-HD30R(A)*-4T	30	2.5	48 (51)	11 (14)	37.7 (40.7)	15.9	5.2	1.6 to 2.9	38
VSP-HD30R(A)*-6T		4							
VSP-HD40R(A)*-4T	40	2.5	51 (54.5)	14 (17.5)	40.7 (44.2)	15.9	5.2	1.6 to 2.9	45
VSP-HD40R(A)*-6T		4							
VSP-HD50R(A)*-4T	50	2.5	52 (55)	15 (18)	41.7 (44.7)	15.9	5.2	1.6 to 2.9	51
VSP-HD50R(A)*-6T		4							

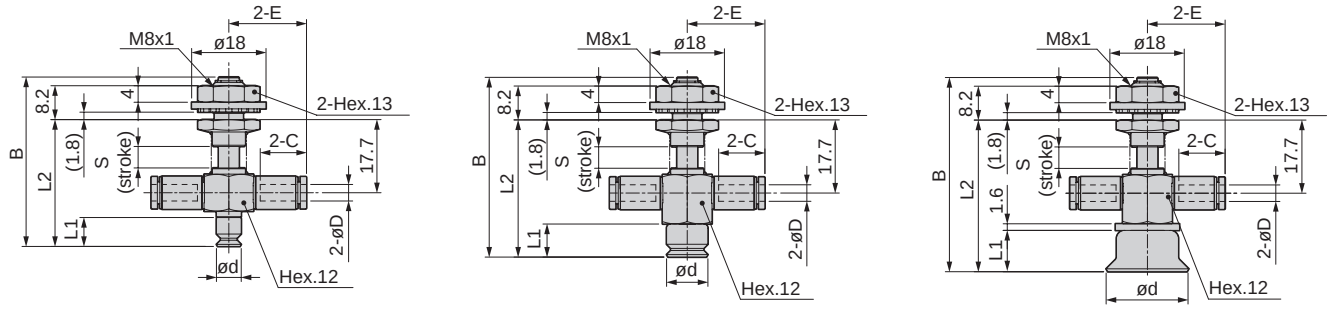
*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (lightweight buffer, vacuum outlet on both sides VSP-HDW, push-in fitting)

●VSP-HDW6, 8R*-2/4/6

●VSP-HDW10R*-2/4/6
●VSP-HDW15R(A)*-2/4/6

●VSP-HDW20 to 50R(A)*-2/4/6



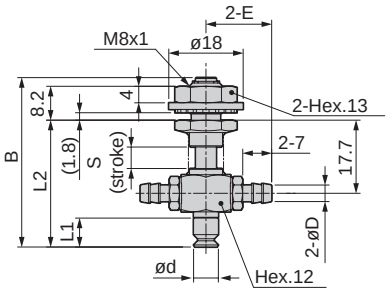
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW6R*-2	6	1.8	41	7	30.7	8.4	14.7	5.2	1.6 to 2.9	30
VSP-HDW6R*-4		4				11.2	18.8			32
VSP-HDW6R*-6		6				11.9	20.6			34
VSP-HDW8R*-2	8	1.8	39.5	5.5	29.2	8.4	14.7	5.2	1.6 to 2.9	30
VSP-HDW8R*-4		4				11.2	18.8			32
VSP-HDW8R*-6		6				11.9	20.6			34
VSP-HDW10R*-2	10	1.8	43.5	8	33.2	8.4	14.7	5.2	1.6 to 2.9	33
VSP-HDW10R*-4		4				11.2	18.8			35
VSP-HDW10R*-6		6				11.9	20.6			37
VSP-HDW15R(A)*-2	15	1.8	44.5 (45.5)	9 (10)	34.2 (35.2)	8.4	14.7	5.2	1.6 to 2.9	34
VSP-HDW15R(A)*-4		4				11.2	18.8			36
VSP-HDW15R(A)*-6		6				11.9	20.6			38
VSP-HDW20R(A)*-2	20	1.8	47 (48)	10 (11)	36.7 (37.7)	8.4	14.7	5.2	1.6 to 2.9	38
VSP-HDW20R(A)*-4		4				11.2	18.8			40
VSP-HDW20R(A)*-6		6				11.9	20.6			42
VSP-HDW25R(A)*-2	25	1.8	48 (49)	11 (12)	37.7 (38.7)	8.4	14.7	5.2	1.6 to 2.9	39
VSP-HDW25R(A)*-4		4				11.2	18.8			41
VSP-HDW25R(A)*-6		6				11.9	20.6			43
VSP-HDW30R(A)*-2	30	1.8	48 (51)	11 (14)	37.7 (40.7)	8.4	14.7	5.2	1.6 to 2.9	40
VSP-HDW30R(A)*-4		4				11.2	18.8			42
VSP-HDW30R(A)*-6		6				11.9	20.6			44
VSP-HDW40R(A)*-2	40	1.8	51 (54.5)	14 (17.5)	40.7 (44.2)	8.4	14.7	5.2	1.6 to 2.9	49
VSP-HDW40R(A)*-4		4				11.2	18.8			51
VSP-HDW40R(A)*-6		6				11.9	20.6			53
VSP-HDW50R(A)*-2	50	1.8	52 (55)	15 (18)	41.7 (44.7)	8.4	14.7	5.2	1.6 to 2.9	55
VSP-HDW50R(A)*-4		4				11.2	18.8			57
VSP-HDW50R(A)*-6		6				11.9	20.6			59

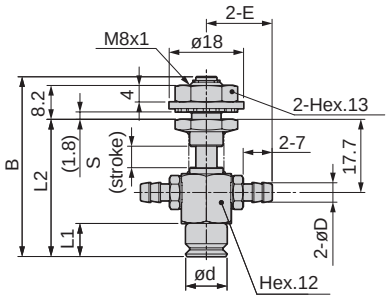
*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (lightweight, buffer, vacuum outlet, both sides, VSP-HDW, barbed fitting)

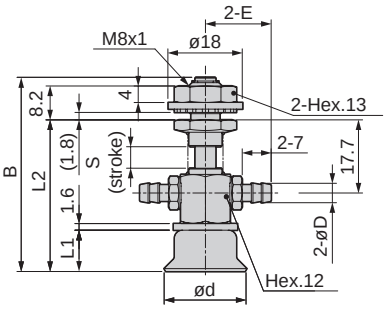
●VSP-HDW6, 8R*-4T/6T



●VSP-HDW10R*-4T/6T
●VSP-HDW15R(A)*-4T/6T



●VSP-HDW20 to 50R(A)*-4T/6T



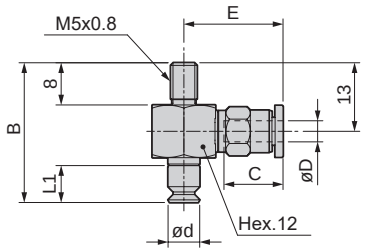
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW6R*-4T	6	2.5	41	7	30.7	15.9	5.2	1.6 to 2.9	28
VSP-HDW6R*-6T		4							
VSP-HDW8R*-4T	8	2.5	39.5	5.5	29.2	15.9	5.2	1.6 to 2.9	28
VSP-HDW8R*-6T		4							
VSP-HDW10R*-4T	10	2.5	43.5	8	33.2	15.9	5.2	1.6 to 2.9	32
VSP-HDW10R*-6T		4							
VSP-HDW15R(A)*-4T	15	2.5	44.5 (45.5)	9 (10)	34.2 (35.2)	15.9	5.2	1.6 to 2.9	33
VSP-HDW15R(A)*-6T		4							
VSP-HDW20R(A)*-4T	20	2.5	47 (48)	10 (11)	36.7 (37.7)	15.9	5.2	1.6 to 2.9	37
VSP-HDW20R(A)*-6T		4							
VSP-HDW25R(A)*-4T	25	2.5	48 (49)	11 (12)	37.7 (38.7)	15.9	5.2	1.6 to 2.9	38
VSP-HDW25R(A)*-6T		4							
VSP-HDW30R(A)*-4T	30	2.5	48 (51)	11 (14)	37.7 (40.7)	15.9	5.2	1.6 to 2.9	41
VSP-HDW30R(A)*-6T		4							
VSP-HDW40R(A)*-4T	40	2.5	51 (54.5)	14 (17.5)	40.7 (44.2)	15.9	5.2	1.6 to 2.9	48
VSP-HDW40R(A)*-6T		4							
VSP-HDW50R(A)*-4T	50	2.5	52 (55)	15 (18)	41.7 (44.7)	15.9	5.2	1.6 to 2.9	54
VSP-HDW50R(A)*-6T		4							

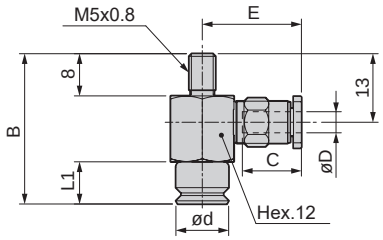
*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (low back fixed, vacuum outlet side VSP-HE, push-in fitting)

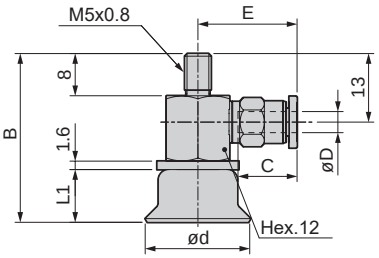
●VSP-HE6, 8R*-2/4/6



●VSP-HE10R*-2/4/6
●VSP-HE15R(A)*-2/4/6



●VSP-HE20 to 50R(A)*-2/4/6



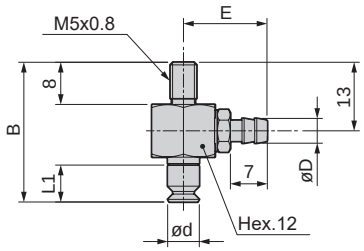
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HE6R*-2	6	1.8	26.5	7	8.4	14.7	14
VSP-HE6R*-4		4			11.2	18.8	15
VSP-HE6R*-6		6			11.9	20.6	16
VSP-HE8R*-2	8	1.8	25	5.5	8.4	14.7	14
VSP-HE8R*-4		4			11.2	18.8	15
VSP-HE8R*-6		6			11.9	20.6	16
VSP-HE10R*-2	10	1.8	28.5	8	8.4	14.7	17
VSP-HE10R*-4		4			11.2	18.8	18
VSP-HE10R*-6		6			11.9	20.6	19
VSP-HE15R(A)*-2	15	1.8	29.5 (30.5)	9 (10)	8.4	14.7	17 (18)
VSP-HE15R(A)*-4		4			11.2	18.8	18 (19)
VSP-HE15R(A)*-6		6			11.9	20.6	19 (20)
VSP-HE20R(A)*-2	20	1.8	32 (33)	10 (11)	8.4	14.7	22 (23)
VSP-HE20R(A)*-4		4			11.2	18.8	23 (24)
VSP-HE20R(A)*-6		6			11.9	20.6	24 (25)
VSP-HE25R(A)*-2	25	1.8	33 (34)	11 (12)	8.4	14.7	22 (23)
VSP-HE25R(A)*-4		4			11.2	18.8	23 (24)
VSP-HE25R(A)*-6		6			11.9	20.6	24 (25)
VSP-HE30R(A)*-2	30	1.8	33 (36)	11 (14)	8.4	14.7	24 (25)
VSP-HE30R(A)*-4		4			11.2	18.8	25 (26)
VSP-HE30R(A)*-6		6			11.9	20.6	26 (27)
VSP-HE40R(A)*-2	40	1.8	36 (39.5)	14 (17.5)	8.4	14.7	31 (32)
VSP-HE40R(A)*-4		4			11.2	18.8	32 (33)
VSP-HE40R(A)*-6		6			11.9	20.6	33 (34)
VSP-HE50R(A)*-2	50	1.8	37 (40)	15 (18)	8.4	14.7	41 (42)
VSP-HE50R(A)*-4		4			11.2	18.8	42 (43)
VSP-HE50R(A)*-6		6			11.9	20.6	43 (44)

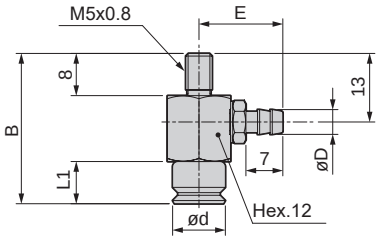
*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (low back fixed, vacuum outlet side VSP-HE, barbed fitting)

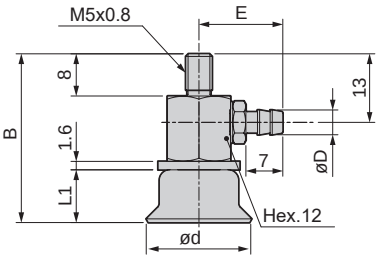
●VSP-HE6, 8R*-4T/6T



●VSP-HE10R*-4T/6T
●VSP-HE15R(A)*-4T/6T



●VSP-HE20 to 50R(A)*-4T/6T



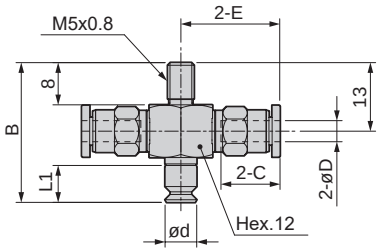
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	E	Weight (g)
VSP-HE6R*-4T	6	2.5	26.5	7	15.9	13
VSP-HE6R*-6T		4				
VSP-HE8R*-4T	8	2.5	25	5.5	15.9	13
VSP-HE8R*-6T		4				
VSP-HE10R*-4T	10	2.5	28.5	8	15.9	16
VSP-HE10R*-6T		4				
VSP-HE15R(A)*-4T	15	2.5	29.5 (30.5)	9 (10)	15.9	16 (17)
VSP-HE15R(A)*-6T		4				
VSP-HE20R(A)*-4T	20	2.5	32 (33)	10 (11)	15.9	20 (21)
VSP-HE20R(A)*-6T		4				
VSP-HE25R(A)*-4T	25	2.5	33 (34)	11 (12)	15.9	21 (22)
VSP-HE25R(A)*-6T		4				
VSP-HE30R(A)*-4T	30	2.5	33 (36)	11 (14)	15.9	23 (24)
VSP-HE30R(A)*-6T		4				
VSP-HE40R(A)*-4T	40	2.5	36 (39.5)	14 (17.5)	15.9	29 (30)
VSP-HE40R(A)*-6T		4				
VSP-HE50R(A)*-4T	50	2.5	37 (40)	15 (18)	15.9	39 (40)
VSP-HE50R(A)*-6T		4				

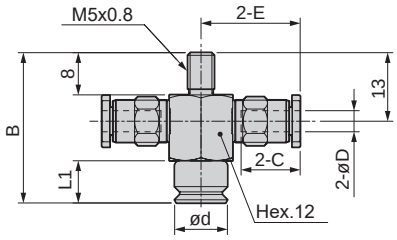
*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (low back fixed, vacuum outlet on both sides VSP-HE, push-in fitting)

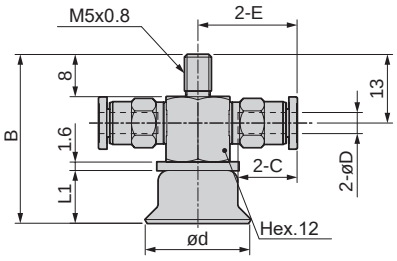
●VSP-HEW6, 8R*-2/4/6



●VSP-HEW10R*-2/4/6
●VSP-HEW15R(A)*-2/4/6



●VSP-HEW20 to 50R(A)*-2/4/6



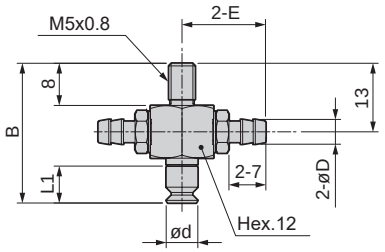
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HEW6R*-2	6	1.8	26.5	7	8.4	14.7	16
VSP-HEW6R*-4		4			11.2	18.8	18
VSP-HEW6R*-6		6			11.9	20.6	20
VSP-HEW8R*-2	8	1.8	25	5.5	8.4	14.7	16
VSP-HEW8R*-4		4			11.2	18.8	18
VSP-HEW8R*-6		6			11.9	20.6	20
VSP-HEW10R*-2	10	1.8	28.5	8	8.4	14.7	19
VSP-HEW10R*-4		4			11.2	18.8	21
VSP-HEW10R*-6		6			11.9	20.6	23
VSP-HEW15R(A)*-2	15	1.8	29.5 (30.5)	9 (10)	8.4	14.7	20
VSP-HEW15R(A)*-4		4			11.2	18.8	22
VSP-HEW15R(A)*-6		6			11.9	20.6	24
VSP-HEW20R(A)*-2	20	1.8	32 (33)	10 (11)	8.4	14.7	22 (23)
VSP-HEW20R(A)*-4		4			11.2	18.8	24 (25)
VSP-HEW20R(A)*-6		6			11.9	20.6	26 (27)
VSP-HEW25R(A)*-2	25	1.8	33 (34)	11 (12)	8.4	14.7	23 (24)
VSP-HEW25R(A)*-4		4			11.2	18.8	25 (26)
VSP-HEW25R(A)*-6		6			11.9	20.6	27 (28)
VSP-HEW30R(A)*-2	30	1.8	33 (36)	11 (14)	8.4	14.7	24 (25)
VSP-HEW30R(A)*-4		4			11.2	18.8	26 (27)
VSP-HEW30R(A)*-6		6			11.9	20.6	28 (29)
VSP-HEW40R(A)*-2	40	1.8	36 (39.5)	14 (17.5)	8.4	14.7	31 (32)
VSP-HEW40R(A)*-4		4			11.2	18.8	33 (34)
VSP-HEW40R(A)*-6		6			11.9	20.6	35 (36)
VSP-HEW50R(A)*-2	50	1.8	37 (40)	15 (18)	8.4	14.7	41 (42)
VSP-HEW50R(A)*-4		4			11.2	18.8	43 (44)
VSP-HEW50R(A)*-6		6			11.9	20.6	45 (46)

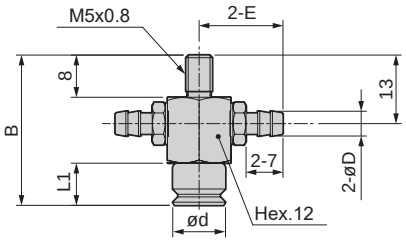
*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (lightweight buffer, vacuum outlet on both sides VSP-HEW, barbed fitting)

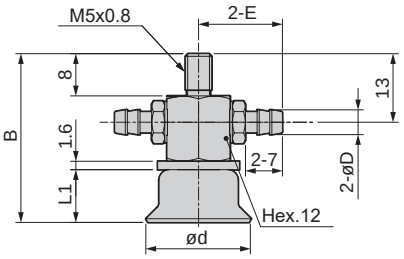
●VSP-HEW6, 8R*-4T/6T



●VSP-HEW10R*-4T/6T
●VSP-HEW15R(A)*-4T/6T



●VSP-HEW20 to 50R(A)*-4T/6T



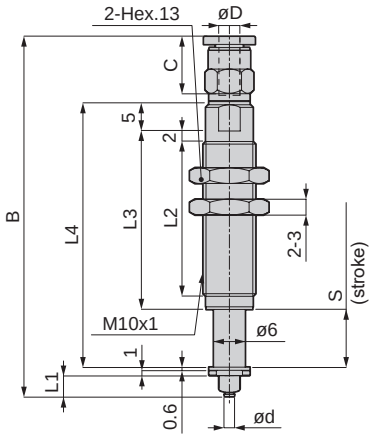
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	E	Weight (g)
VSP-HEW6R*-4T	6	2.5	26.5	7	15.9	14
VSP-HEW6R*-6T		4				
VSP-HEW8R*-4T	8	2.5	25	5.5	15.9	14
VSP-HEW8R*-6T		4				
VSP-HEW10R*-4T	10	2.5	28.5	8	15.9	17
VSP-HEW10R*-6T		4				
VSP-HEW15R(A)*-4T	15	2.5	29.5 (30.5)	9 (10)	15.9	17 (18)
VSP-HEW15R(A)*-6T		4				
VSP-HEW20R(A)*-4T	20	2.5	32 (33)	10 (11)	15.9	21 (22)
VSP-HEW20R(A)*-6T		4				
VSP-HEW25R(A)*-4T	25	2.5	33 (34)	11 (12)	15.9	22 (23)
VSP-HEW25R(A)*-6T		4				
VSP-HEW30R(A)*-4T	30	2.5	33 (36)	11 (14)	15.9	24 (25)
VSP-HEW30R(A)*-6T		4				
VSP-HEW40R(A)*-4T	40	2.5	36 (39.5)	14 (17.5)	15.9	31 (32)
VSP-HEW40R(A)*-6T		4				
VSP-HEW50R(A)*-4T	50	2.5	37 (40)	15 (18)	15.9	40 (41)
VSP-HEW50R(A)*-6T		4				

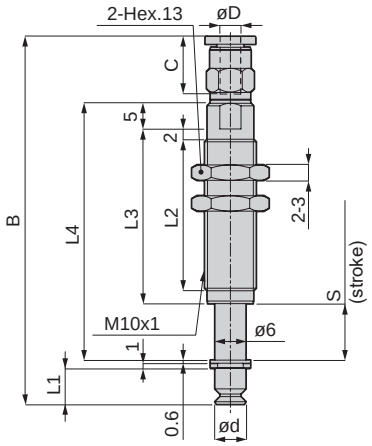
*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, push-in fitting)

●VSP-LFC0.7 to 4-□RM*-4



●VSP-LFC6, 8-□R*-4



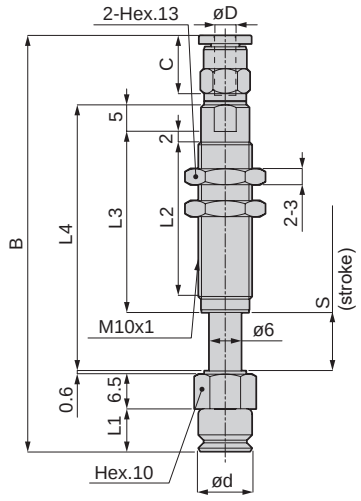
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-LFC0.7-2RM*-4	0.7	4	52.6	4	21.5	26	34	11.2	2	1.3 to 1.8	25
VSP-LFC0.7-5RM*-4			58.6		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	27
VSP-LFC0.7-10RM*-4			68.6		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	29
VSP-LFC0.7-15RM*-4			78.6		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	31
VSP-LFC0.7-20RM*-4			88.6		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	33
VSP-LFC1-2RM*-4	1	4	52.6	4	21.5	26	34	11.2	2	1.3 to 1.8	25
VSP-LFC1-5RM*-4			58.6		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	27
VSP-LFC1-10RM*-4			68.6		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	29
VSP-LFC1-15RM*-4			78.6		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	31
VSP-LFC1-20RM*-4			88.6		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	33
VSP-LFC1.5-2RM*-4	1.5	4	52.6	4	21.5	26	34	11.2	2	1.3 to 1.8	25
VSP-LFC1.5-5RM*-4			58.6		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	27
VSP-LFC1.5-10RM*-4			68.6		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	29
VSP-LFC1.5-15RM*-4			78.6		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	31
VSP-LFC1.5-20RM*-4			88.6		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	33
VSP-LFC2-2RM*-4	2	4	52.6	4	21.5	26	34	11.2	2	1.3 to 1.8	25
VSP-LFC2-5RM*-4			58.6		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	27
VSP-LFC2-10RM*-4			68.6		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	29
VSP-LFC2-15RM*-4			78.6		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	31
VSP-LFC2-20RM*-4			88.6		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	33
VSP-LFC3-2RM*-4	3	4	52.6	4	21.5	26	34	11.2	2	1.3 to 1.8	25
VSP-LFC3-5RM*-4			58.6		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	27
VSP-LFC3-10RM*-4			68.6		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	29
VSP-LFC3-15RM*-4			78.6		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	31
VSP-LFC3-20RM*-4			88.6		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	33
VSP-LFC4-2RM*-4	4	4	52.6	4	21.5	26	34	11.2	2	1.3 to 1.8	25
VSP-LFC4-5RM*-4			58.6		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	27
VSP-LFC4-10RM*-4			68.6		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	29
VSP-LFC4-15RM*-4			78.6		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	31
VSP-LFC4-20RM*-4			88.6		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	33
VSP-LFC6-2R*-4	6	4	55.6	7	21.5	26	34	11.2	2	1.3 to 1.8	25
VSP-LFC6-5R*-4			61.6		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	27
VSP-LFC6-10R*-4			71.6		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	29
VSP-LFC6-15R*-4			81.6		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	31
VSP-LFC6-20R*-4			91.6		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	33
VSP-LFC8-2R*-4	8	4	55.6	5.5	21.5	26	34	11.2	2	1.3 to 1.8	25
VSP-LFC8-5R*-4			61.6		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	27
VSP-LFC8-10R*-4			71.6		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	29
VSP-LFC8-15R*-4			81.6		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	31
VSP-LFC8-20R*-4			91.6		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	33

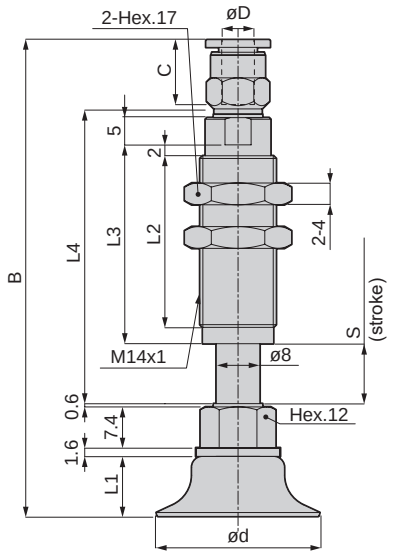
*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, push-in fitting)

●VSP-LFC10-□R*-4
●VSP-LFC15R-□(A)*-4



●VSP-LFC20 to 25-□R(A)*-4/6



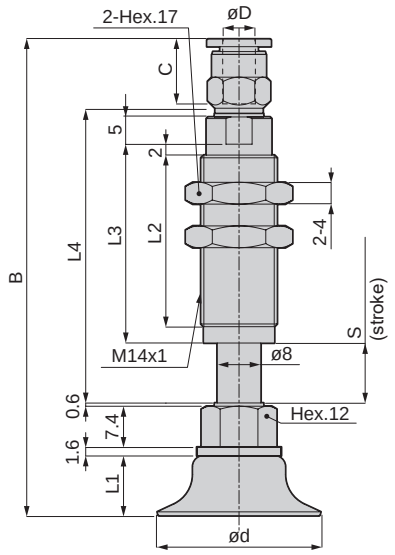
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-LFC10-2R*-4	10	4	62.1	8	21.5	26	34	11.2	2	1.3 to 1.8	28
VSP-LFC10-5R*-4			68.1		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	30
VSP-LFC10-10R*-4			78.1		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	32
VSP-LFC10-15R*-4			88.1		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	34
VSP-LFC10-20R*-4			98.1		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	35
VSP-LFC15-2R(A)*-4	15	4	63.1 (64.1)	9 (10)	21.5	26	34	11.2	2	1.3 to 1.8	28(29)
VSP-LFC15-5R(A)*-4			69.1 (70.1)		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	30(31)
VSP-LFC15-10R(A)*-4			79.1 (80.1)		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	32(33)
VSP-LFC15-15R(A)*-4			89.1 (90.1)		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	34(35)
VSP-LFC15-20R(A)*-4			99.1 (100.1)		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	35(36)
VSP-LFC20-5R(A)*-4	20	4	75.1 (76.1)	10 (11)	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	57(58)
VSP-LFC20-5R(A)*-6		6	76.4 (77.4)					11.9			58 (59)
VSP-LFC20-10R(A)*-4		4	85.1 (86.1)		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	59 (60)
VSP-LFC20-10R(A)*-6		6	86.4 (87.4)					11.9			60 (61)
VSP-LFC20-15R(A)*-4		4	95.1 (96.1)		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	62(63)
VSP-LFC20-15R(A)*-6		6	96.4 (97.4)					11.9			63 (64)
VSP-LFC20-20R(A)*-4		4	105.1 (106.1)		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	65 (66)
VSP-LFC20-20R(A)*-6		6	106.4 (107.4)					11.9			66 (67)
VSP-LFC25-5R(A)*-4	25	4	76.1 (77.1)	11 (12)	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	58 (59)
VSP-LFC25-5R(A)*-6		6	77.4 (78.4)					11.9			59 (60)
VSP-LFC25-10R(A)*-4		4	86.1 (87.1)		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	60 (61)
VSP-LFC25-10R(A)*-6		6	87.4 (88.4)					11.9			61 (62)
VSP-LFC25-15R(A)*-4		4	96.1 (97.1)		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	63 (64)
VSP-LFC25-15R(A)*-6		6	97.4 (98.4)					11.9			64 (65)
VSP-LFC25-20R(A)*-4		4	106.1 (107.1)		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	66 (67)
VSP-LFC25-20R(A)*-6		6	107.4 (108.4)					11.9			67 (68)

*1: Dimensions in ( ) are dimensions of the deep pad.
*2: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, push-in fitting)

●VSP-LFC30 to 50-□R(A)*-4/6



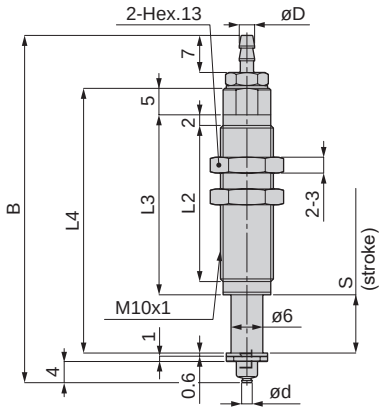
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-LFC30-5R(A)*-4	30	4	76.1 (79.1)	11 (14)	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	60 (61)
VSP-LFC30-5R(A)*-6		6	77.4 (80.4)					11.9			61 (62)
VSP-LFC30-10R(A)*-4		4	86.1 (89.1)		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	62 (63)
VSP-LFC30-10R(A)*-6		6	87.4 (90.4)					11.9			63 (64)
VSP-LFC30-15R(A)*-4		4	96.1 (99.1)		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	65 (66)
VSP-LFC30-15R(A)*-6		6	97.4 (100.4)					11.9			66 (67)
VSP-LFC30-20R(A)*-4		4	106.1 (109.1)		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	68 (69)
VSP-LFC30-20R(A)*-6		6	107.4 (110.4)					11.9			69 (70)
VSP-LFC40-5R(A)*-4	40	4	79.1 (82.6)	14 (17.5)	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	71 (72)
VSP-LFC40-5R(A)*-6		6	80.4 (83.9)					11.9			72 (73)
VSP-LFC40-10R(A)*-4		4	89.1 (92.6)		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	73 (74)
VSP-LFC40-10R(A)*-6		6	90.4 (93.9)					11.9			74 (75)
VSP-LFC40-15R(A)*-4		4	99.1 (102.6)		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	76 (77)
VSP-LFC40-15R(A)*-6		6	100.4 (103.9)					11.9			77 (78)
VSP-LFC40-20R(A)*-4		4	109.1 (112.6)		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	79 (80)
VSP-LFC40-20R(A)*-6		6	110.4 (113.9)					11.9			80 (81)
VSP-LFC50-5R(A)*-4	50	4	80.1 (83.1)	15 (18)	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	77 (78)
VSP-LFC50-5R(A)*-6		6	81.4 (84.4)					11.9			78 (79)
VSP-LFC50-10R(A)*-4		4	90.1 (93.1)		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	79 (80)
VSP-LFC50-10R(A)*-6		6	91.4 (94.4)					11.9			80 (81)
VSP-LFC50-15R(A)*-4		4	100.1 (103.1)		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	82 (83)
VSP-LFC50-15R(A)*-6		6	101.4 (104.4)					11.9			83 (84)
VSP-LFC50-20R(A)*-4		4	110.1 (113.1)		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	85 (86)
VSP-LFC50-20R(A)*-6		6	111.4 (114.4)					11.9			86 (87)

*1: Dimensions in ( ) are dimensions of the deep pad.
*2: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, barbed fitting)

●VSP-LFC0.7 to 4-□RM*-4



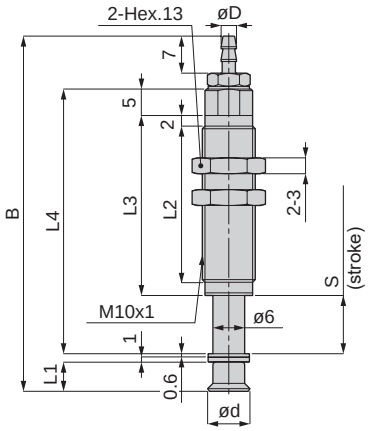
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
VSP-LFC0.7-2RM*-4T	0.7	2.5	49.7	4	21.5	26	34	2	1.3 to 1.8	23
VSP-LFC0.7-2RM*-6T		4								
VSP-LFC0.7-5RM*-4T		2.5	55.7		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	25
VSP-LFC0.7-5RM*-6T		4								
VSP-LFC0.7-10RM*-4T		2.5	65.7		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	27
VSP-LFC0.7-10RM*-6T		4								
VSP-LFC0.7-15RM*-4T		2.5	75.7		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	29
VSP-LFC0.7-15RM*-6T		4								
VSP-LFC0.7-20RM*-4T		2.5	85.7		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	31
VSP-LFC0.7-20RM*-6T		4								
VSP-LFC1-2RM*-4T	1	2.5	49.7	4	21.5	26	34	2	1.3 to 1.8	23
VSP-LFC1-2RM*-6T		4								
VSP-LFC1-5RM*-4T		2.5	55.7		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	25
VSP-LFC1-5RM*-6T		4								
VSP-LFC1-10RM*-4T		2.5	65.7		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	27
VSP-LFC1-10RM*-6T		4								
VSP-LFC1-15RM*-4T		2.5	75.7		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	29
VSP-LFC1-15RM*-6T		4								
VSP-LFC1-20RM*-4T		2.5	85.7		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	31
VSP-LFC1-20RM*-6T		4								
VSP-LFC1.5-2RM*-4T	1.5	2.5	49.7	4	21.5	26	34	2	1.3 to 1.8	23
VSP-LFC1.5-2RM*-6T		4								
VSP-LFC1.5-5RM*-4T		2.5	55.7		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	25
VSP-LFC1.5-5RM*-6T		4								
VSP-LFC1.5-10RM*-4T		2.5	65.7		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	27
VSP-LFC1.5-10RM*-6T		4								
VSP-LFC1.5-15RM*-4T		2.5	75.7		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	29
VSP-LFC1.5-15RM*-6T		4								
VSP-LFC1.5-20RM*-4T		2.5	85.7		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	31
VSP-LFC1.5-20RM*-6T		4								
VSP-LFC2-2RM*-4T	2	2.5	49.7	4	21.5	26	34	2	1.3 to 1.8	23
VSP-LFC2-2RM*-6T		4								
VSP-LFC2-5RM*-4T		2.5	55.7		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	25
VSP-LFC2-5RM*-6T		4								
VSP-LFC2-10RM*-4T		2.5	65.7		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	27
VSP-LFC2-10RM*-6T		4								
VSP-LFC2-15RM*-4T		2.5	75.7		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	29
VSP-LFC2-15RM*-6T		4								
VSP-LFC2-20RM*-4T		2.5	85.7		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	31
VSP-LFC2-20RM*-6T		4								
VSP-LFC3-2RM*-4T	3	2.5	49.7	4	21.5	26	34	2	1.3 to 1.8	23
VSP-LFC3-2RM*-6T		4								
VSP-LFC3-5RM*-4T		2.5	55.7		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	25
VSP-LFC3-5RM*-6T		4								
VSP-LFC3-10RM*-4T		2.5	65.7		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	27
VSP-LFC3-10RM*-6T		4								
VSP-LFC3-15RM*-4T		2.5	75.7		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	29
VSP-LFC3-15RM*-6T		4								
VSP-LFC3-20RM*-4T		2.5	85.7		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	31
VSP-LFC3-20RM*-6T		4								
VSP-LFC4-2RM*-4T	4	2.5	49.7	4	21.5	26	34	2	1.3 to 1.8	23
VSP-LFC4-2RM*-6T		4								
VSP-LFC4-5RM*-4T		2.5	55.7		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	25
VSP-LFC4-5RM*-6T		4								
VSP-LFC4-10RM*-4T		2.5	65.7		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	27
VSP-LFC4-10RM*-6T		4								
VSP-LFC4-15RM*-4T		2.5	75.7		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	29
VSP-LFC4-15RM*-6T		4								
VSP-LFC4-20RM*-4T		2.5	85.7		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	31
VSP-LFC4-20RM*-6T		4								

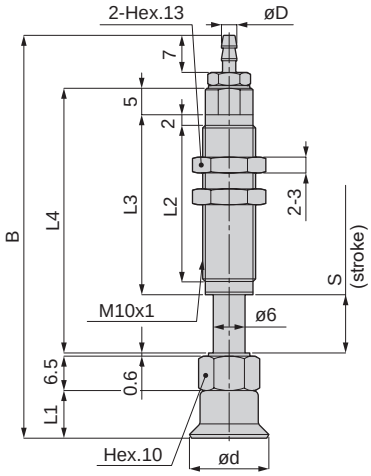
*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, barbed fitting)

●VSP-LFC6, 8-□R*-4T/6T



●VSP-LFC10-□R*-4T/6T
●VSP-LFC15R-□(A)*-4T/6T



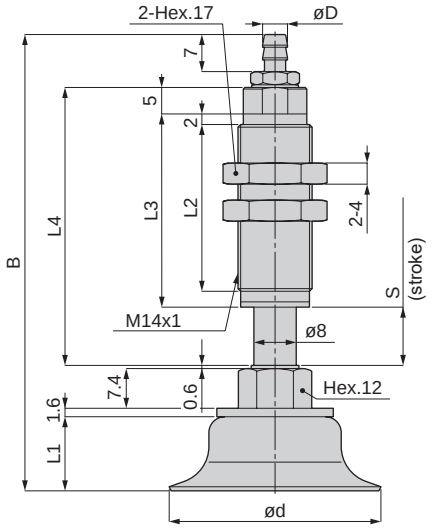
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
VSP-LFC6-2R*-4T	6	2.5	52.7	7	21.5	26	34	2	1.3 to 1.8	24
VSP-LFC6-2R*-6T		4								
VSP-LFC6-5R*-4T		2.5	58.7		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	26
VSP-LFC6-5R*-6T		4								
VSP-LFC6-10R*-4T		2.5	68.7		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	28
VSP-LFC6-10R*-6T		4								
VSP-LFC6-15R*-4T		2.5	78.7		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	30
VSP-LFC6-15R*-6T		4								
VSP-LFC6-20R*-4T		2.5	88.7		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	31
VSP-LFC6-20R*-6T		4								
VSP-LFC8-2R*-4T	8	2.5	51.2	5.5	21.5	26	34	2	1.3 to 1.8	24
VSP-LFC8-2R*-6T		4								
VSP-LFC8-5R*-4T		2.5	57.2		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	26
VSP-LFC8-5R*-6T		4								
VSP-LFC8-10R*-4T		2.5	67.2		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	28
VSP-LFC8-10R*-6T		4								
VSP-LFC8-15R*-4T		2.5	77.2		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	30
VSP-LFC8-15R*-6T		4								
VSP-LFC8-20R*-4T		2.5	87.2		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	31
VSP-LFC8-20R*-6T		4								
VSP-LFC10-2R*-4T	10	2.5	59.2	8	21.5	26	34	2	1.3 to 1.8	26
VSP-LFC10-2R*-6T		4								
VSP-LFC10-5R*-4T		2.5	65.2		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	28
VSP-LFC10-5R*-6T		4								
VSP-LFC10-10R*-4T		2.5	75.2		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	30
VSP-LFC10-10R*-6T		4								
VSP-LFC10-15R*-4T		2.5	85.2		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	32
VSP-LFC10-15R*-6T		4								
VSP-LFC10-20R*-4T		2.5	95.2		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	34
VSP-LFC10-20R*-6T		4								
VSP-LFC15-2R(A)*-4T	15	2.5	60.2 (61.2)	9 (10)	21.5	26	34	2	1.3 to 1.8	26 (27)
VSP-LFC15-2R(A)*-6T		4								
VSP-LFC15-5R(A)*-4T		2.5	66.2 (67.2)		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	28 (29)
VSP-LFC15-5R(A)*-6T		4								
VSP-LFC15-10R(A)*-4T		2.5	76.2 (77.2)		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	30 (31)
VSP-LFC15-10R(A)*-6T		4								
VSP-LFC15-15R(A)*-4T		2.5	86.2 (87.2)		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	32 (33)
VSP-LFC15-15R(A)*-6T		4								
VSP-LFC15-20R(A)*-4T		2.5	96.2 (97.2)		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	34 (35)
VSP-LFC15-20R(A)*-6T		4								

*1: Dimensions in ( ) are dimensions of the deep pad.
*2: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, barbed fitting)

●VSP-LFC20 to 50-□R(A)*-4T/6T



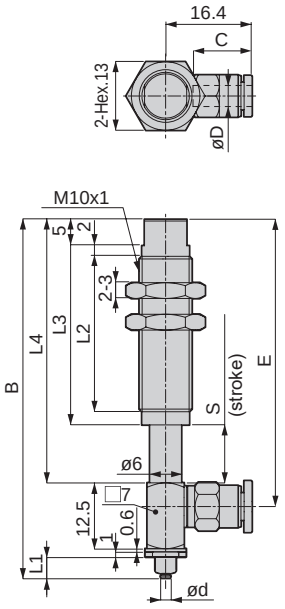
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
VSP-LFC20-5R(A)*-4T	20	2.5	72.2 (73.2)	10 (11)	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	52 (53)
VSP-LFC20-5R(A)*-6T		4								
VSP-LFC20-10R(A)*-4T		2.5	82.2 (83.2)		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	54 (55)
VSP-LFC20-10R(A)*-6T		4								
VSP-LFC20-15R(A)*-4T		2.5	92.2 (93.2)		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	57 (58)
VSP-LFC20-15R(A)*-6T		4								
VSP-LFC20-20R(A)*-4T		2.5	102.2 (103.2)		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	60 (61)
VSP-LFC20-20R(A)*-6T		4								
VSP-LFC25-5R(A)*-4T	25	2.5	73.2 (74.2)	11 (12)	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	53 (54)
VSP-LFC25-5R(A)*-6T		4								
VSP-LFC25-10R(A)*-4T		2.5	83.2 (84.2)		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	55 (56)
VSP-LFC25-10R(A)*-6T		4								
VSP-LFC25-15R(A)*-4T		2.5	93.2 (94.2)		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	58 (59)
VSP-LFC25-15R(A)*-6T		4								
VSP-LFC25-20R(A)*-4T		2.5	103.2 (104.2)		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	61 (62)
VSP-LFC25-20R(A)*-6T		4								
VSP-LFC30-5R(A)*-4T	30	2.5	73.2 (76.2)	11 (14)	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	54 (55)
VSP-LFC30-5R(A)*-6T		4								
VSP-LFC30-10R(A)*-4T		2.5	83.2 (86.2)		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	56 (57)
VSP-LFC30-10R(A)*-6T		4								
VSP-LFC30-15R(A)*-4T		2.5	93.2 (96.2)		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	59 (60)
VSP-LFC30-15R(A)*-6T		4								
VSP-LFC30-20R(A)*-4T		2.5	103.2 (106.2)		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	62 (63)
VSP-LFC30-20R(A)*-6T		4								
VSP-LFC40-5R(A)*-4T	40	2.5	76.2 (79.7)	14 (17.5)	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	65 (66)
VSP-LFC40-5R(A)*-6T		4								
VSP-LFC40-10R(A)*-4T		2.5	86.2 (89.7)		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	67 (68)
VSP-LFC40-10R(A)*-6T		4								
VSP-LFC40-15R(A)*-4T		2.5	96.2 (99.7)		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	70 (71)
VSP-LFC40-15R(A)*-6T		4								
VSP-LFC40-20R(A)*-4T		2.5	106.2 (109.7)		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	73 (74)
VSP-LFC40-20R(A)*-6T		4								
VSP-LFC50-5R(A)*-4T	50	2.5	77.2 (80.2)	15 (18)	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	71 (72)
VSP-LFC50-5R(A)*-6T		4								
VSP-LFC50-10R(A)*-4T		2.5	87.2 (90.2)		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	73 (74)
VSP-LFC50-10R(A)*-6T		4								
VSP-LFC50-15R(A)*-4T		2.5	97.2 (100.2)		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	76 (77)
VSP-LFC50-15R(A)*-6T		4								
VSP-LFC50-20R(A)*-4T		2.5	107.2 (110.2)		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	79 (80)
VSP-LFC50-20R(A)*-6T		4								

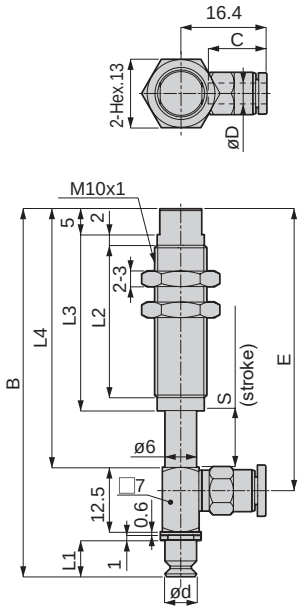
*1: Dimensions in ( ) are dimensions of the deep pad.
*2: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, push-in fitting)

●VSP-LFD0.7 to 4-□RM*-4



●VSP-LFD6, 8-□M*-4

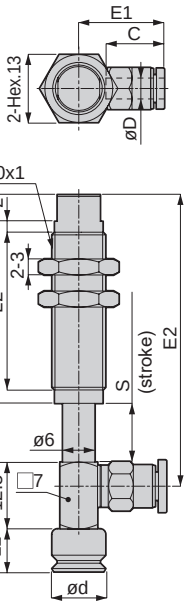


Unit: mm

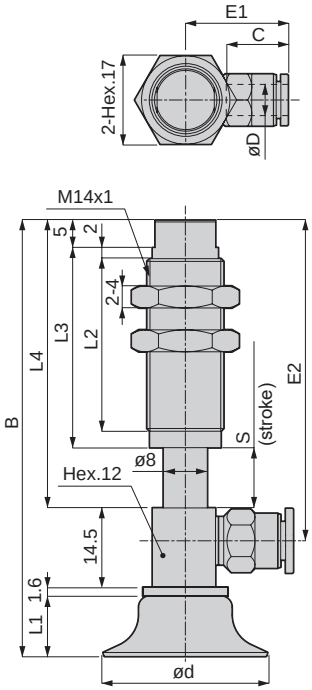
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD0.7-5RM*-4	0.7	4	58.1	4	24.5	29	40	11.2	44.5	5	1.3 to 2.4	31
VSP-LFD0.7-10RM*-4			68.1		29.5	34	50		54.5	10	1.3 to 3.3	33
VSP-LFD0.7-15RM*-4			78.1		34.5	39	60		64.5	15	1.3 to 4.2	35
VSP-LFD0.7-20RM*-4			88.1		39.5	44	70		74.5	20	1.3 to 5.1	37
VSP-LFD1-5RM*-4	1	4	58.1	4	24.5	29	40	11.2	44.5	5	1.3 to 2.4	31
VSP-LFD1-10RM*-4			68.1		29.5	34	50		54.5	10	1.3 to 3.3	33
VSP-LFD1-15RM*-4			78.1		34.5	39	60		64.5	15	1.3 to 4.2	35
VSP-LFD1-20RM*-4			88.1		39.5	44	70		74.5	20	1.3 to 5.1	37
VSP-LFD1.5-5RM*-4	1.5	4	58.1	4	24.5	29	40	11.2	44.5	5	1.3 to 2.4	31
VSP-LFD1.5-10RM*-4			68.1		29.5	34	50		54.5	10	1.3 to 3.3	33
VSP-LFD1.5-15RM*-4			78.1		34.5	39	60		64.5	15	1.3 to 4.2	35
VSP-LFD1.5-20RM*-4			88.1		39.5	44	70		74.5	20	1.3 to 5.1	37
VSP-LFD2-5RM*-4	2	4	58.1	4	24.5	29	40	11.2	44.5	5	1.3 to 2.4	31
VSP-LFD2-10RM*-4			68.1		29.5	34	50		54.5	10	1.3 to 3.3	33
VSP-LFD2-15RM*-4			78.1		34.5	39	60		64.5	15	1.3 to 4.2	35
VSP-LFD2-20RM*-4			88.1		39.5	44	70		74.5	20	1.3 to 5.1	37
VSP-LFD3-5RM*-4	3	4	58.1	4	24.5	29	40	11.2	44.5	5	1.3 to 2.4	31
VSP-LFD3-10RM*-4			68.1		29.5	34	50		54.5	10	1.3 to 3.3	33
VSP-LFD3-15RM*-4			78.1		34.5	39	60		64.5	15	1.3 to 4.2	35
VSP-LFD3-20RM*-4			88.1		39.5	44	70		74.5	20	1.3 to 5.1	37
VSP-LFD4-5RM*-4	4	4	58.1	4	24.5	29	40	11.2	44.5	5	1.3 to 2.4	31
VSP-LFD4-10RM*-4			68.1		29.5	34	50		54.5	10	1.3 to 3.3	33
VSP-LFD4-15RM*-4			78.1		34.5	39	60		64.5	15	1.3 to 4.2	35
VSP-LFD4-20RM*-4			88.1		39.5	44	70		74.5	20	1.3 to 5.1	37
VSP-LFD6-5R*-4	6	4	61.1	7	24.5	29	40	11.2	44.5	5	1.3 to 2.4	31
VSP-LFD6-10R*-4			71.1		29.5	34	50		54.5	10	1.3 to 3.3	33
VSP-LFD6-15R*-4			81.1		34.5	39	60		64.5	15	1.3 to 4.2	35
VSP-LFD6-20R*-4			91.1		39.5	44	70		74.5	20	1.3 to 5.1	37
VSP-LFD8-5R*-4	8	4	59.6	5.5	24.5	29	40	11.2	44.5	5	1.3 to 2.4	31
VSP-LFD8-10R*-4			69.6		29.5	34	50		54.5	10	1.3 to 3.3	33
VSP-LFD8-15R*-4			79.6		34.5	39	60		64.5	15	1.3 to 4.2	35
VSP-LFD8-20R*-4			89.6		39.5	44	70		74.5	20	1.3 to 5.1	37

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, push-in fitting)

●VSP-LFD10-□R*-4
●VSP-LFD15-□R(A)*-4



●VSP-LFD20 to 50-□R(A)*-4/6



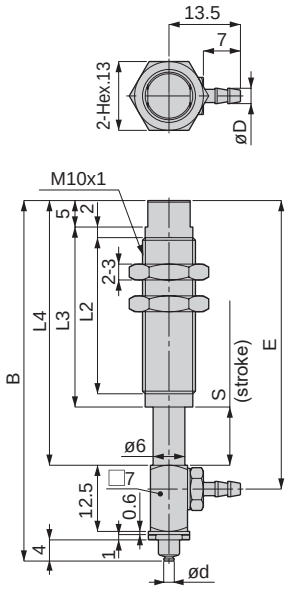
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-LFD10-5R*-4	10	4	60.5	8	24.5	29	40	11.2	16.4	44.5	5	1.3 to 2.4	26
VSP-LFD10-10R*-4			70.5		29.5	34	50			54.5	10	1.3 to 3.3	28
VSP-LFD10-15R*-4			80.5		34.5	39	60			64.5	15	1.3 to 4.2	30
VSP-LFD10-20R*-4			90.5		39.5	44	70			74.5	20	1.3 to 5.1	32
VSP-LFD15-5R(A)*-4	15	4	61.5 (62.5)	9 (10)	24.5	29	40	11.2	16.4	44.5	5	1.3 to 2.4	26 (27)
VSP-LFD15-10R(A)*-4			71.5 (72.5)		29.5	34	50			54.5	10	1.3 to 3.3	28 (29)
VSP-LFD15-15R(A)*-4			81.5 (82.5)		34.5	39	60			64.5	15	1.3 to 4.2	30 (31)
VSP-LFD15-20R(A)*-4			91.5 (92.5)		39.5	44	70			74.5	20	1.3 to 5.1	32 (33)
VSP-LFD20-5R(A)*-4	20	4	68.5	10 (11)	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	58 (59)
VSP-LFD20-5R(A)*-6		6	(69.5)					11.9	19.7				59 (60)
VSP-LFD20-10R(A)*-4		4	78.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	62 (63)
VSP-LFD20-10R(A)*-6		6	(79.5)					11.9	19.7				63 (64)
VSP-LFD20-15R(A)*-4		4	88.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	66 (67)
VSP-LFD20-15R(A)*-6		6	(89.5)					11.9	19.7				67 (68)
VSP-LFD20-20R(A)*-4		4	98.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	70 (71)
VSP-LFD20-20R(A)*-6		6	(99.5)					11.9	19.7				71 (72)
VSP-LFD25-5R(A)*-4	25	4	69.5	11 (12)	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	59 (60)
VSP-LFD25-5R(A)*-6		6	(70.5)					11.9	19.7				60 (61)
VSP-LFD25-10R(A)*-4		4	79.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	63 (64)
VSP-LFD25-10R(A)*-6		6	(80.5)					11.9	19.7				64 (65)
VSP-LFD25-15R(A)*-4		4	89.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	67 (68)
VSP-LFD25-15R(A)*-6		6	(90.5)					11.9	19.7				68 (69)
VSP-LFD25-20R(A)*-4		4	99.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	71 (72)
VSP-LFD25-20R(A)*-6		6	(100.5)					11.9	19.7				72 (73)
VSP-LFD30-5R(A)*-4	30	4	69.5	11 (14)	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	60 (61)
VSP-LFD30-5R(A)*-6		6	(72.5)					11.9	19.7				61 (62)
VSP-LFD30-10R(A)*-4		4	79.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	64 (65)
VSP-LFD30-10R(A)*-6		6	(82.5)					11.9	19.7				65 (66)
VSP-LFD30-15R(A)*-4		4	89.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	68 (69)
VSP-LFD30-15R(A)*-6		6	(92.5)					11.9	19.7				69 (70)
VSP-LFD30-20R(A)*-4		4	99.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	72 (73)
VSP-LFD30-20R(A)*-6		6	(102.5)					11.9	19.7				73 (74)
VSP-LFD40-5R(A)*-4	40	4	72.5 (76)	14 (17.5)	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	71 (72)
VSP-LFD40-5R(A)*-6		6						11.9	19.7				72 (73)
VSP-LFD40-10R(A)*-4		4	82.5 (86)		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	75 (76)
VSP-LFD40-10R(A)*-6		6						11.9	19.7				76 (77)
VSP-LFD40-15R(A)*-4		4	92.5 (96)		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	79 (80)
VSP-LFD40-15R(A)*-6		6						11.9	19.7				80 (81)
VSP-LFD40-20R(A)*-4		4	102.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	83 (84)
VSP-LFD40-20R(A)*-6		6	(106)					11.9	19.7				84 (85)
VSP-LFD50-5R(A)*-4	50	4	73.5	15 (18)	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	76 (77)
VSP-LFD50-5R(A)*-6		6	(76.5)					11.9	19.7				77 (78)
VSP-LFD50-10R(A)*-4		4	83.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	81 (82)
VSP-LFD50-10R(A)*-6		6	(86.5)					11.9	19.7				82 (83)
VSP-LFD50-15R(A)*-4		4	93.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	85 (86)
VSP-LFD50-15R(A)*-6		6	(96.5)					11.9	19.7				86 (87)
VSP-LFD50-20R(A)*-4		4	103.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	89 (90)
VSP-LFD50-20R(A)*-6		6	(106.5)					11.9	19.7				90 (91)

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, barbed fitting)

●VSP-LFD0.7 to 4-□RM*-4T/6T



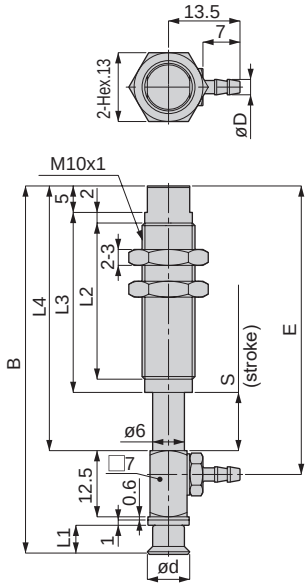
Unit: mm

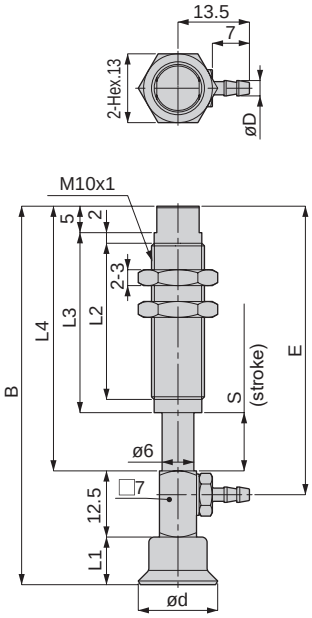
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD0.7-5RM*-4T	0.7	2.5	58.1	4	24.5	29	40	44.5	5	1.3 to 2.4	30
VSP-LFD0.7-5RM*-6T		4									
VSP-LFD0.7-10RM*-4T		2.5	68.1		29.5	34	50	54.5	10	1.3 to 3.3	32
VSP-LFD0.7-10RM*-6T		4									
VSP-LFD0.7-15RM*-4T		2.5	78.1		34.5	39	60	64.5	15	1.3 to 4.2	34
VSP-LFD0.7-15RM*-6T		4									
VSP-LFD0.7-20RM*-4T		2.5	88.1		39.5	44	70	74.5	20	1.3 to 5.1	36
VSP-LFD0.7-20RM*-6T		4									
VSP-LFD1-5RM*-4T	1	2.5	58.1	4	24.5	29	40	44.5	5	1.3 to 2.4	30
VSP-LFD1-5RM*-6T		4									
VSP-LFD1-10RM*-4T		2.5	68.1		29.5	34	50	54.5	10	1.3 to 3.3	32
VSP-LFD1-10RM*-6T		4									
VSP-LFD1-15RM*-4T		2.5	78.1		34.5	39	60	64.5	15	1.3 to 4.2	34
VSP-LFD1-15RM*-6T		4									
VSP-LFD1-20RM*-4T		2.5	88.1		39.5	44	70	74.5	20	1.3 to 5.1	36
VSP-LFD1-20RM*-6T		4									
VSP-LFD1.5-5RM*-4T	1.5	2.5	58.1	4	24.5	29	40	44.5	5	1.3 to 2.4	30
VSP-LFD1.5-5RM*-6T		4									
VSP-LFD1.5-10RM*-4T		2.5	68.1		29.5	34	50	54.5	10	1.3 to 3.3	32
VSP-LFD1.5-10RM*-6T		4									
VSP-LFD1.5-15RM*-4T		2.5	78.1		34.5	39	60	64.5	15	1.3 to 4.2	34
VSP-LFD1.5-15RM*-6T		4									
VSP-LFD1.5-20RM*-4T		2.5	88.1		39.5	44	70	74.5	20	1.3 to 5.1	36
VSP-LFD1.5-20RM*-6T		4									
VSP-LFD2-5RM*-4T	2	2.5	58.1	4	24.5	29	40	44.5	5	1.3 to 2.4	30
VSP-LFD2-5RM*-6T		4									
VSP-LFD2-10RM*-4T		2.5	68.1		29.5	34	50	54.5	10	1.3 to 3.3	32
VSP-LFD2-10RM*-6T		4									
VSP-LFD2-15RM*-4T		2.5	78.1		34.5	39	60	64.5	15	1.3 to 4.2	34
VSP-LFD2-15RM*-6T		4									
VSP-LFD2-20RM*-4T		2.5	88.1		39.5	44	70	74.5	20	1.3 to 5.1	36
VSP-LFD2-20RM*-6T		4									
VSP-LFD3-5RM*-4T	3	2.5	58.1	4	24.5	29	40	44.5	5	1.3 to 2.4	30
VSP-LFD3-5RM*-6T		4									
VSP-LFD3-10RM*-4T		2.5	68.1		29.5	34	50	54.5	10	1.3 to 3.3	32
VSP-LFD3-10RM*-6T		4									
VSP-LFD3-15RM*-4T		2.5	78.1		34.5	39	60	64.5	15	1.3 to 4.2	34
VSP-LFD3-15RM*-6T		4									
VSP-LFD3-20RM*-4T		2.5	88.1		39.5	44	70	74.5	20	1.3 to 5.1	36
VSP-LFD3-20RM*-6T		4									
VSP-LFD4-5RM*-4T	4	2.5	58.1	4	24.5	29	40	44.5	5	1.3 to 2.4	30
VSP-LFD4-5RM*-6T		4									
VSP-LFD4-10RM*-4T		2.5	68.1		29.5	34	50	54.5	10	1.3 to 3.3	32
VSP-LFD4-10RM*-6T		4									
VSP-LFD4-15RM*-4T		2.5	78.1		34.5	39	60	64.5	15	1.3 to 4.2	34
VSP-LFD4-15RM*-6T		4									
VSP-LFD4-20RM*-4T		2.5	88.1		39.5	44	70	74.5	20	1.3 to 5.1	36
VSP-LFD4-20RM*-6T		4									

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, barbed fitting)

●VSP-LFD6, 8-□R*-4T/6T

●VSP-LFD10-□R*-4T/6T
●VSP-LFD15-□R(A)*-4T/6T





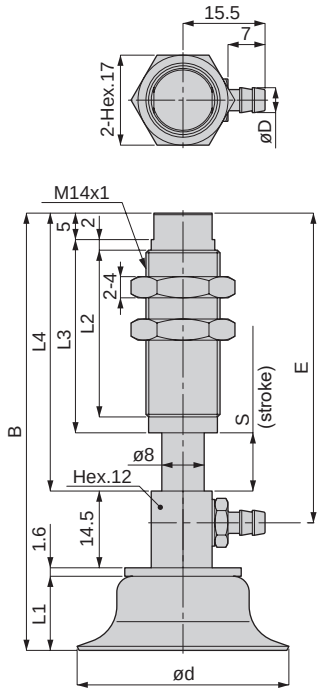
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD6-5R*-4T	6	2.5	61.1	7	24.5	29	40	44.5	5	1.3 to 2.4	30
VSP-LFD6-5R*-6T		4									
VSP-LFD6-10R*-4T		2.5	71.1		29.5	34	50	54.5	10	1.3 to 3.3	32
VSP-LFD6-10R*-6T		4									
VSP-LFD6-15R*-4T		2.5	81.1		34.5	39	60	64.5	15	1.3 to 4.2	34
VSP-LFD6-15R*-6T		4									
VSP-LFD6-20R*-4T		2.5	91.1		39.5	44	70	74.5	20	1.3 to 5.1	36
VSP-LFD6-20R*-6T		4									
VSP-LFD8-5R*-4T	8	2.5	59.6	5.5	24.5	29	40	44.5	5	1.3 to 2.4	30
VSP-LFD8-5R*-6T		4									
VSP-LFD8-10R*-4T		2.5	69.6		29.5	34	50	54.5	10	1.3 to 3.3	32
VSP-LFD8-10R*-6T		4									
VSP-LFD8-15R*-4T		2.5	79.6		34.5	39	60	64.5	15	1.3 to 4.2	34
VSP-LFD8-15R*-6T		4									
VSP-LFD8-20R*-4T		2.5	89.6		39.5	44	70	74.5	20	1.3 to 5.1	36
VSP-LFD8-20R*-6T		4									
VSP-LFD10-5R*-4T	10	2.5	60.5	8	24.5	29	40	44.5	5	1.3 to 2.4	25
VSP-LFD10-5R*-6T		4									
VSP-LFD10-10R*-4T		2.5	70.5		29.5	34	50	54.5	10	1.3 to 3.3	27
VSP-LFD10-10R*-6T		4									
VSP-LFD10-15R*-4T		2.5	80.5		34.5	39	60	64.5	15	1.3 to 4.2	29
VSP-LFD10-15R*-6T		4									
VSP-LFD10-20R*-4T		2.5	90.5		39.5	44	70	74.5	20	1.3 to 5.1	31
VSP-LFD10-20R*-6T		4									
VSP-LFD15-5R(A)*-4T	15	2.5	61.5 (62.5)	9 (10)	24.5	29	40	44.5	5	1.3 to 2.4	25 (26)
VSP-LFD15-5R(A)*-6T		4									
VSP-LFD15-10R(A)*-4T		2.5	71.5 (72.5)		29.5	34	50	54.5	10	1.3 to 3.3	27 (28)
VSP-LFD15-10R(A)*-6T		4									
VSP-LFD15-15*-(A)*-4T		2.5	81.5 (82.5)		34.5	39	60	64.5	15	1.3 to 4.2	29 (30)
VSP-LFD15-15R(A)*-6T		4									
VSP-LFD15-20R(A)*-4T		2.5	91.5 (92.5)		39.5	44	70	74.5	20	1.3 to 5.1	31 (32)
VSP-LFD15-20R(A)*-6T		4									

*1: Dimensions in ( ) are dimensions of the deep pad.

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, barbed fitting)

●VSP-LFD20 to 50-□R(A)*-4T/6T



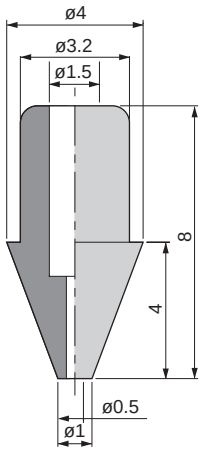
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD20-5R(A)*-4T	20	2.5	68.5 (69.5)	10 (11)	26.5	31.5	42.5	48.5	5	4.5 to 6.5	54 (55)
VSP-LFD20-5R(A)*-6T		4									
VSP-LFD20-10R(A)*-4T		2.5	78.5 (79.5)		31.5	36.5	52.5	58.5	10	4.5 to 8.2	57 (58)
VSP-LFD20-10R(A)*-6T		4									
VSP-LFD20-15R(A)*-4T		2.5	88.5 (89.5)		36.5	41.5	62.5	68.5	15	4.5 to 9.9	61 (62)
VSP-LFD20-15R(A)*-6T		4									
VSP-LFD20-20R(A)*-4T		2.5	98.5 (99.5)		41.5	46.5	72.5	78.5	20	4.5 to 14.9	65 (66)
VSP-LFD20-20R(A)*-6T		4									
VSP-LFD25-5R(A)*-4T	25	2.5	69.5 (70.5)	11 (12)	26.5	31.5	42.5	48.5	5	4.5 to 6.5	55 (56)
VSP-LFD25-5R(A)*-6T		4									
VSP-LFD25-10R(A)*-4T		2.5	79.5 (80.5)		31.5	36.5	52.5	58.5	10	4.5 to 8.2	58 (59)
VSP-LFD25-10R(A)*-6T		4									
VSP-LFD25-15R(A)*-4T		2.5	89.5 (90.5)		36.5	41.5	62.5	68.5	15	4.5 to 9.9	62 (63)
VSP-LFD25-15R(A)*-6T		4									
VSP-LFD25-20R(A)*-4T		2.5	99.5 (100.5)		41.5	46.5	72.5	78.5	20	4.5 to 14.9	66 (67)
VSP-LFD25-20R(A)*-6T		4									
VSP-LFD30-5R(A)*-4T	30	2.5	69.5 (72.5)	11 (14)	26.5	31.5	42.5	48.5	5	4.5 to 6.5	56 (57)
VSP-LFD30-5R(A)*-6T		4									
VSP-LFD30-10R(A)*-4T		2.5	79.5 (82.5)		31.5	36.5	52.5	58.5	10	4.5 to 8.2	59 (60)
VSP-LFD30-10R(A)*-6T		4									
VSP-LFD30-15R(A)*-4T		2.5	89.5 (92.5)		36.5	41.5	62.5	68.5	15	4.5 to 9.9	63 (64)
VSP-LFD30-15R(A)*-6T		4									
VSP-LFD30-20R(A)*-4T		2.5	99.5 (102.5)		41.5	46.5	72.5	78.5	20	4.5 to 14.9	67 (68)
VSP-LFD30-20R(A)*-6T		4									
VSP-LFD40-5R(A)*-4T	40	2.5	72.5 (76)	14 (17.5)	26.5	31.5	42.5	48.5	5	4.5 to 6.5	67 (68)
VSP-LFD40-5R(A)*-6T		4									
VSP-LFD40-10R(A)*-4T		2.5	82.5 (86)		31.5	36.5	52.5	58.5	10	4.5 to 8.2	70 (71)
VSP-LFD40-10R(A)*-6T		4									
VSP-LFD40-15R(A)*-4T		2.5	92.5 (96)		36.5	41.5	62.5	68.5	15	4.5 to 9.9	74 (75)
VSP-LFD40-15R(A)*-6T		4									
VSP-LFD40-20R(A)*-4T		2.5	102.5 (106)		41.5	46.5	72.5	78.5	20	4.5 to 14.9	78 (79)
VSP-LFD40-20R(A)*-6T		4									
VSP-LFD50-5R(A)*-4T	50	2.5	73.5 (76.5)	15 (18)	26.5	31.5	42.5	48.5	5	4.5 to 6.5	73 (74)
VSP-LFD50-5R(A)*-6T		4									
VSP-LFD50-10R(A)*-4T		2.5	83.5 (86.5)		31.5	36.5	52.5	58.5	10	4.5 to 8.2	76 (77)
VSP-LFD50-10R(A)*-6T		4									
VSP-LFD50-15R(A)*-4T		2.5	93.5 (96.5)		36.5	41.5	62.5	68.5	15	4.5 to 9.9	80 (81)
VSP-LFD50-15R(A)*-6T		4									
VSP-LFD50-20R(A)*-4T		2.5	103.5 (106.5)		41.5	46.5	72.5	78.5	20	4.5 to 14.9	84 (85)
VSP-LFD50-20R(A)*-6T		4									

*1: Dimensions in ( ) are dimensions of the deep pad.

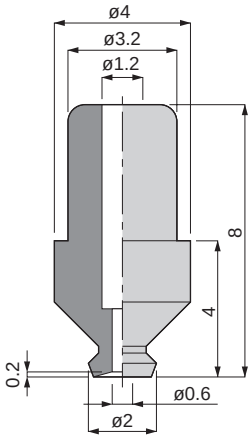
Pad only Dimensions (standard)

●VSPG-1R*



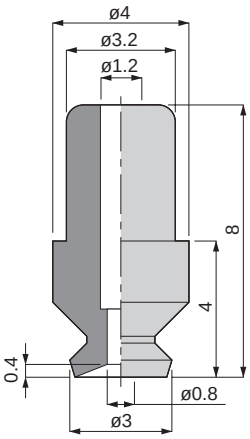
Weight: 0.1 g [0.2 g]

●VSPG-2R*



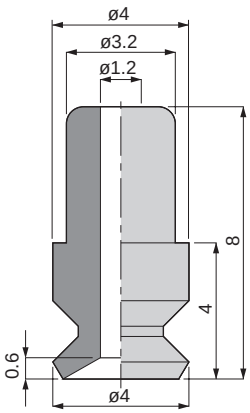
Weight: 0.1 g [0.2 g]

●VSPG-3R*



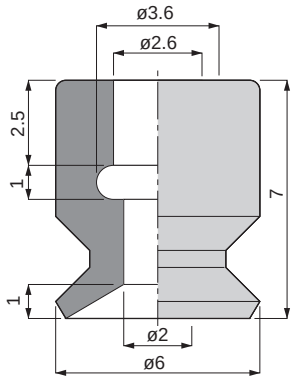
Weight: 0.1 g [0.2 g]

●VSPG-4R*



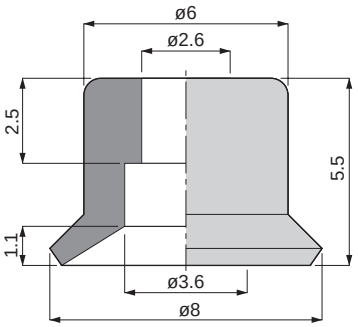
Weight: 0.1 g [0.2 g]

●VSPG-6R*



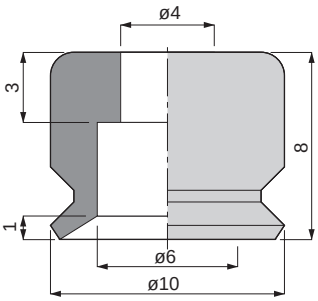
Weight: 0.2 g [0.3 g]

●VSPG-8R*



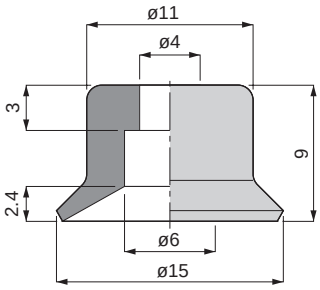
Weight: 0.2 g [0.3 g]

●VSPG-10R*



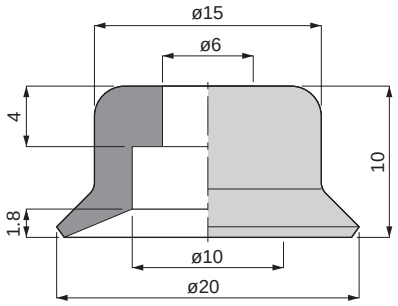
Weight: 0.5 g [0.9 g]

●VSPG-15R*



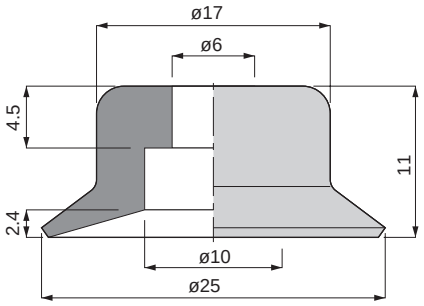
Weight: 0.9 [1.5 g]

●VSPG-20R*



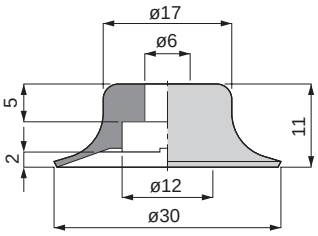
Weight: 1.6 g [2.8 g]

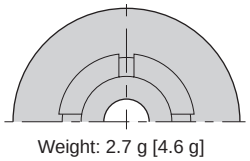
●VSPG-25R*



Weight: 2.5 g [4.3 g]

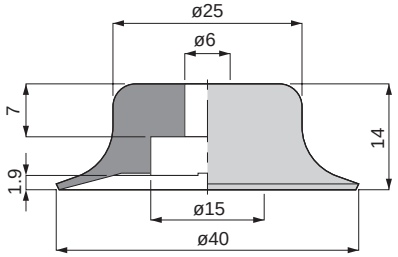
●VSPG-30R*

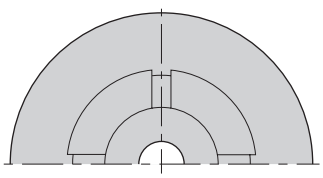




Weight: 2.7 g [4.6 g]

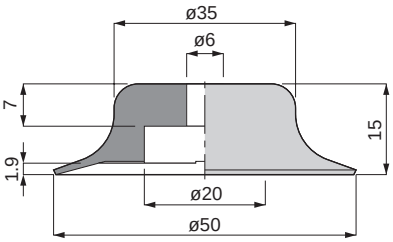
●VSPG-40R*

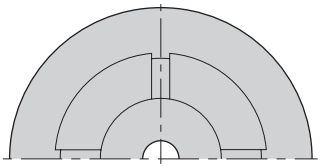




Weight: 7.6 g [13.0 g]

●VSPG-50R*



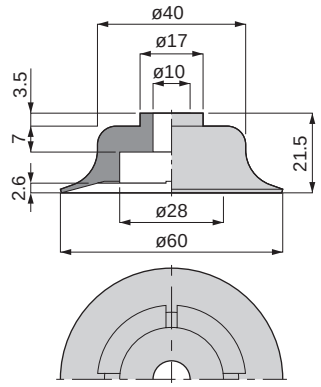


Weight: 16 g [26 g]

Note: Values in [ ] for fluoro rubber only.

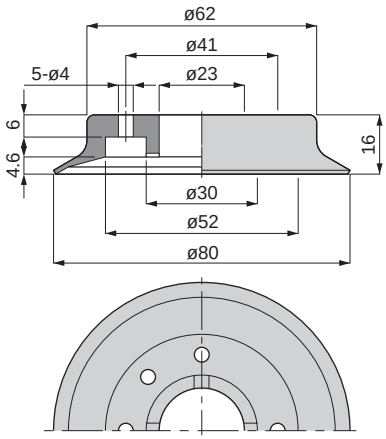
Pad only Dimensions (standard)

●VSPG-60R*



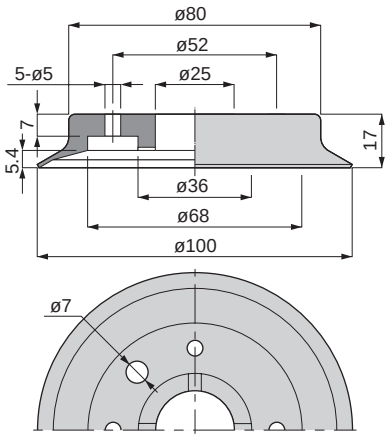
Weight: 22 g [38 g]

●VSPG-80R*



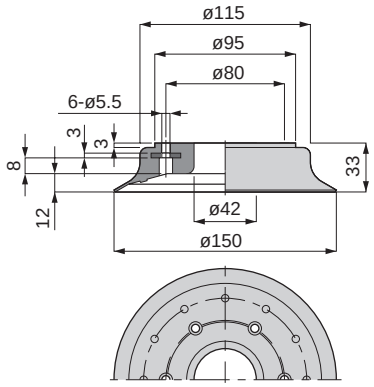
Weight: 33 g [57 g]

●VSPG-100R*



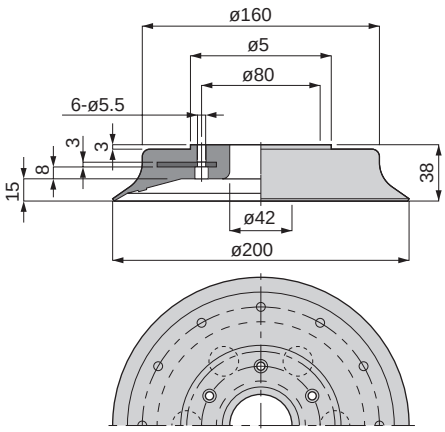
Weight: 60 g [104 g]

●VSPG-150R*



Weight: 393 g [630 g]

●VSPG-200R*

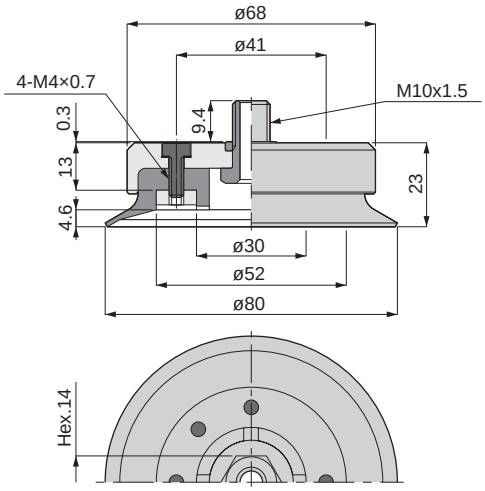


Weight: 919 g [1476 g]

Note: Values in [ ] for fluoro rubber only.

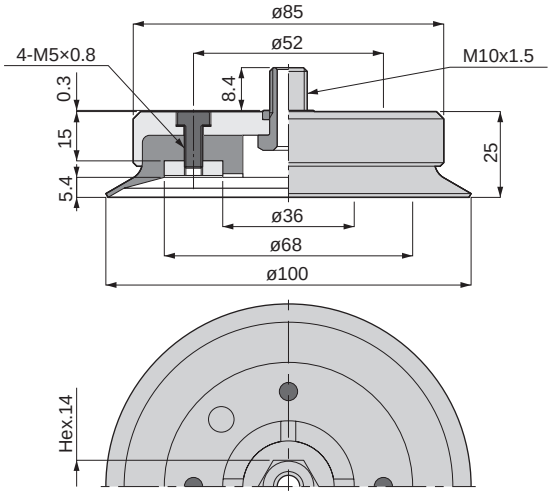
Pad/Threaded set dimensions (standard)

●VSPG-80R*A



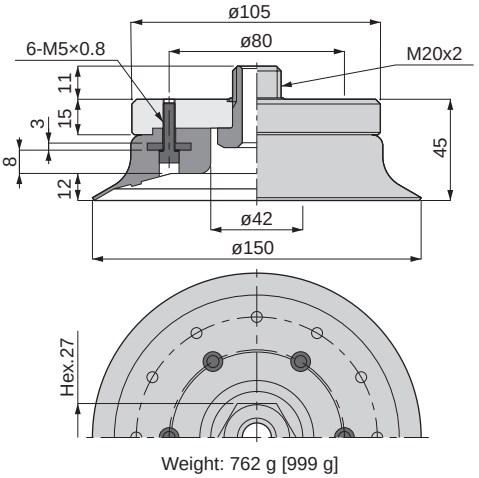
Weight: 138 g [155 g]

●VSPG-100R*A



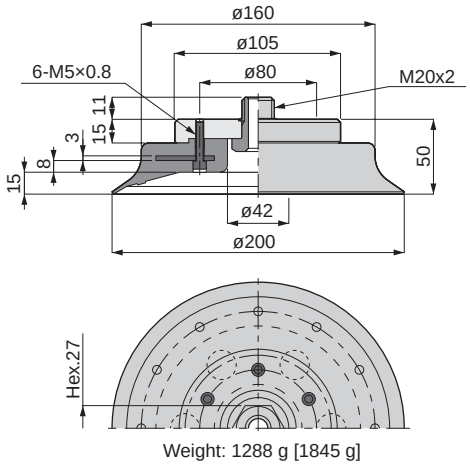
Weight: 230 g [260 g]

●VSPG-150R*A



Weight: 762 g [999 g]

●VSPG-200R*A

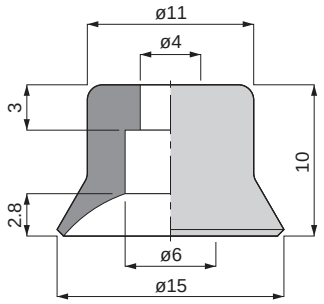


Weight: 1288 g [1845 g]

Note: Values in [ ] for fluoro rubber only.

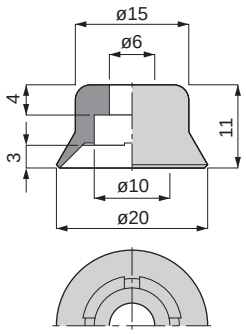
Pad only Dimensions (deep)

●VSPG-15A*



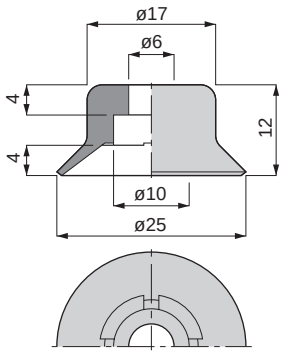
Weight: 1 g [1.6 g]

●VSPG-20A*



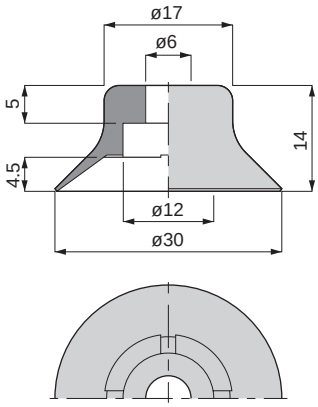
Weight: 1.7 g [2.7 g]

●VSPG-25A*



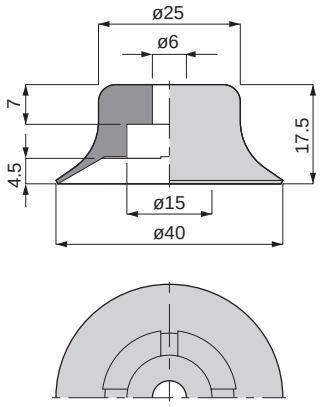
Weight: 2.5 g [3.9 g]

●VSPG-30A*



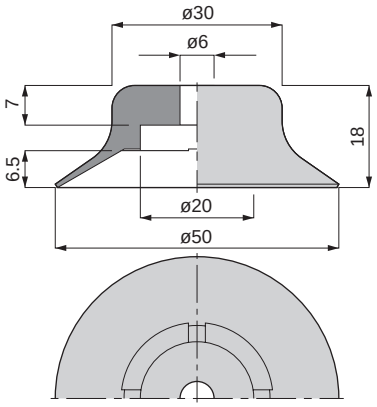
Weight: 3.1 g [5.0 g]

●VSPG-40A*



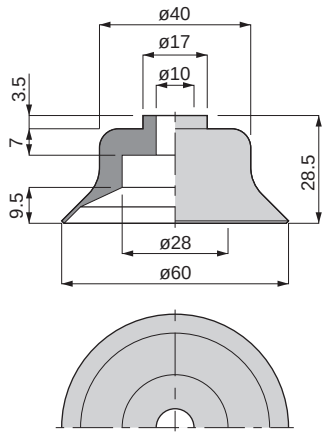
Weight: 9.1 g [14.6 g]

●VSPG-50A*



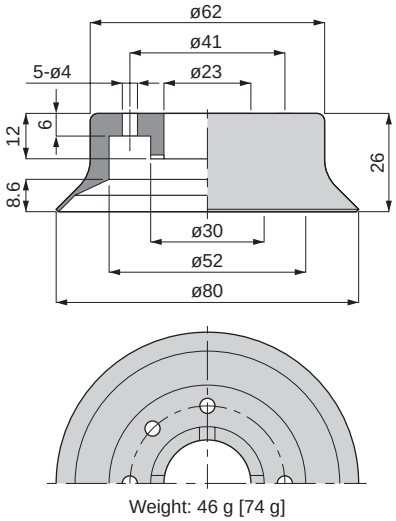
Weight: 14 g [22 g]

●VSPG-60A*



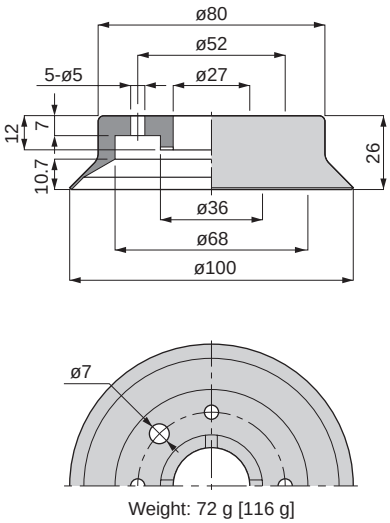
Weight: 24 g [38 g]

●VSPG-80A*



Weight: 46 g [74 g]

●VSPG-100A*

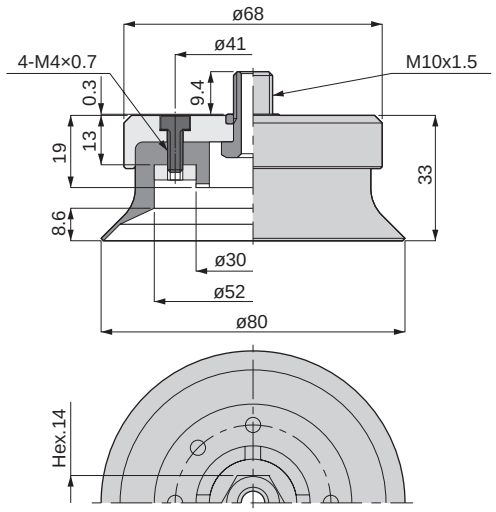


Weight: 72 g [116 g]

Note: Values in [ ] for fluoro rubber only.

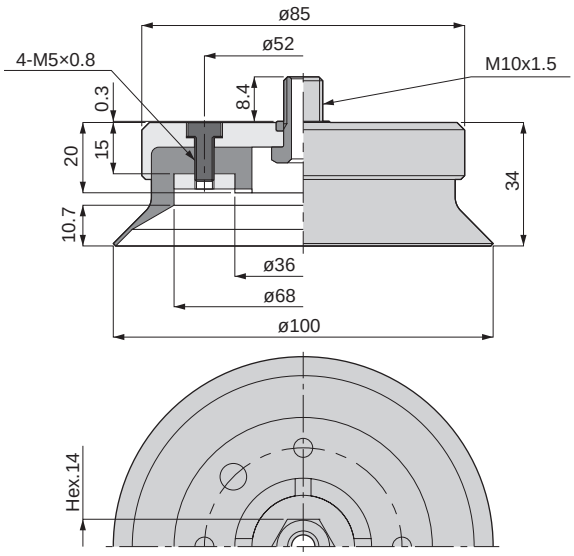
Pad/screw set Dimensions (deep)

●VSPG-80A*A



Weight: 140 g [168 g]

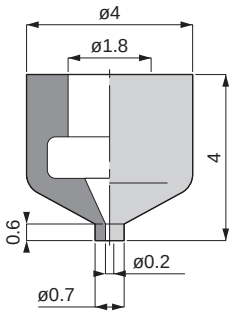
●VSPG-100A*A



Weight: 240 g [284 g]

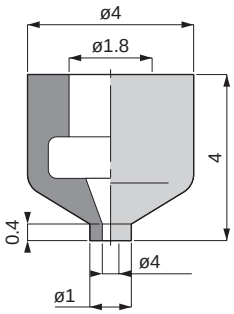
Pad only Dimensions (compact)

●VSPG-0.7RM*



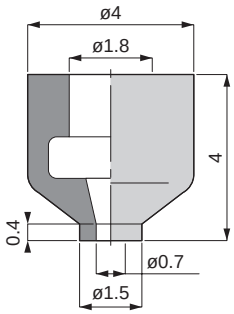
Weight: 0.1 g [0.1 g]

●VSPG-1RM*



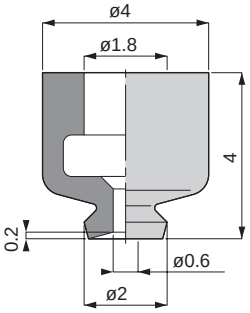
Weight: 0.1 g [0.1 g]

●VSPG-1.5RM*



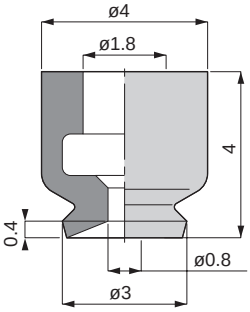
Weight: 0.1 g [0.1 g]

●VSPG-2RM*



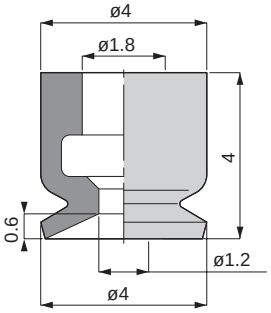
Weight: 0.1 g [0.1 g]

●VSPG-3RM*



Weight: 0.1 g [0.1 g]

●VSPG-4RM*

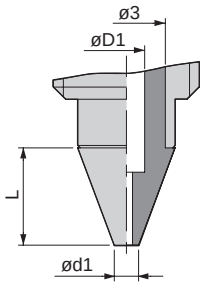


Weight: 0.1 g [0.1 g]

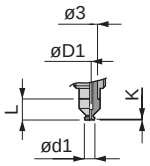
Note: Values in [ ] for fluoro rubber only.

Detailed view of pad and holder connection (standard)

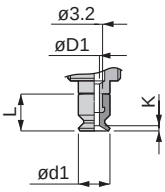
●VSPG-1R*



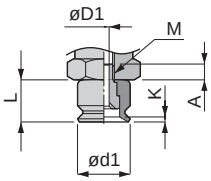
●VSPG-2 to 4R*



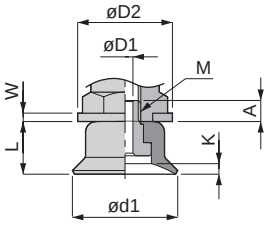
●VSPG-6R*8R*



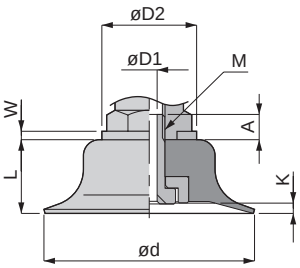
●VSPG-10, 15R*A



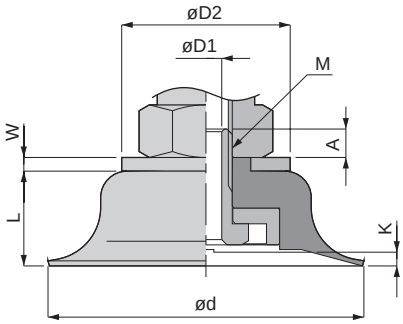
●VSPG-20 to 30R*A



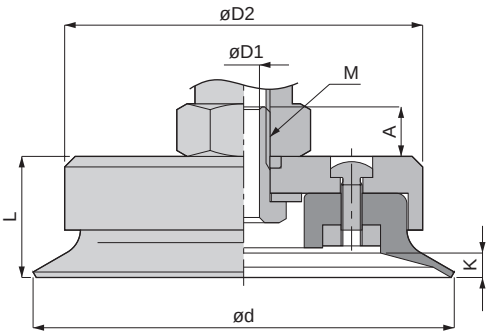
●VSPG-40, 50R*



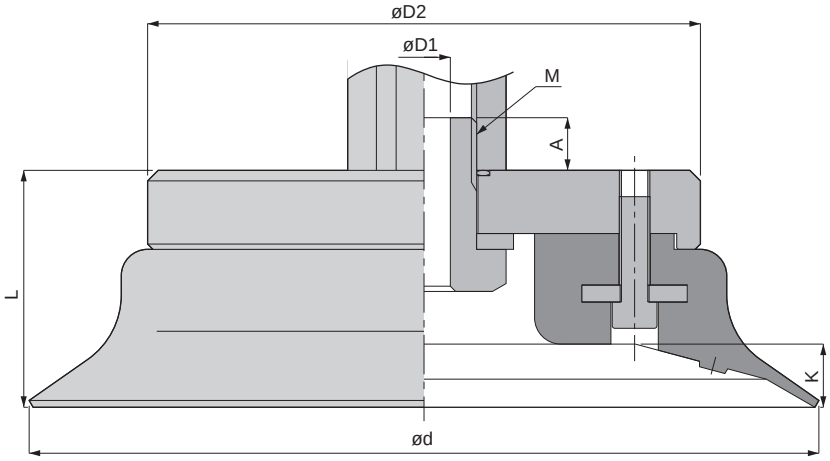
●VSPG-60R*A



●VSPG-80, 100R*A



●VSPG-150, 200R*A

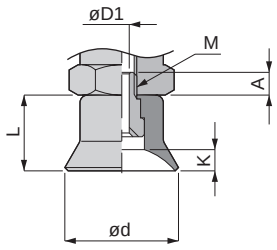


Unit: mm

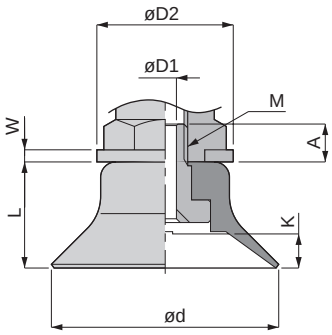
Model No.	Pad diameter ød	L	Lip internal height K	Fixing screw M	A	øD1	øD2	W
VSPG-1R*	1	4	-	-	-	0.5	-	-
VSPG-2R*	2	4	0.2	-	-	0.6	-	-
VSPG-3R*	3	4	0.2	-	-	0.8	-	-
VSPG-4R*	4	4	0.6	-	-	1.2	-	-
VSPG-6R*	6	7	1	-	-	2	-	-
VSPG-8R*	8	5.5	1.1	-	-	2	-	-
VSPG-10R*A	10	8	1	M4x0.7	3	2	-	-
VSPG-15R*A	15	9	2.4	M4x0.7	3	2	-	-
VSPG-20R*A	20	10	1.8	M6x1	4	4.5	15.5	1.6
VSPG-25R*A	25	11	2.6	M6x1	3.5	4.5	15.5	1.6
VSPG-30R*A	30	11	2	M6x1	5	4.5	15.5	1.6
VSPG-40R*A	40	14	1.9	M6x1	5	4.1	22	1.6
VSPG-50R*A	50	15	1.9	M6x1	5	4.1	22	1.6
VSPG-60R*A	60	18	2.6	M10x1.5	5.4	6	32	2.6
VSPG-80R*A	80	23	4.6	M10x1.5	9.4	6	68	-
VSPG-100R*A	100	25	5.4	M10x1.5	8.4	6	85	-
VSPG-150R*A	150	45	12	M20x2	11	10	105	-
VSPG-200R*A	200	50	15	M20x2	11	10	105	-

Detailed view of pad and holder fixing part (deep)

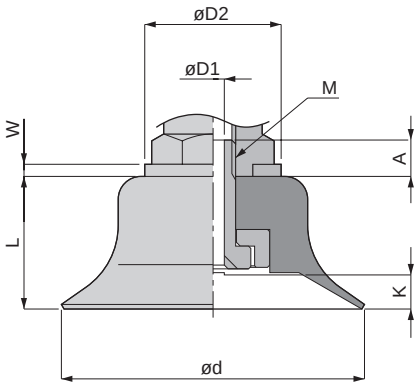
●VSPG-15A*A



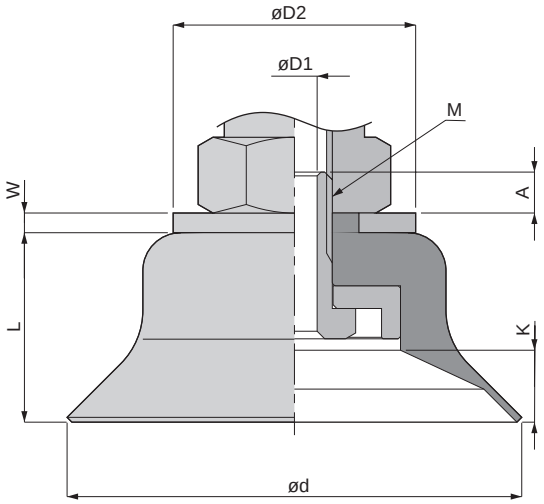
●VSPG-20 to 30A*A



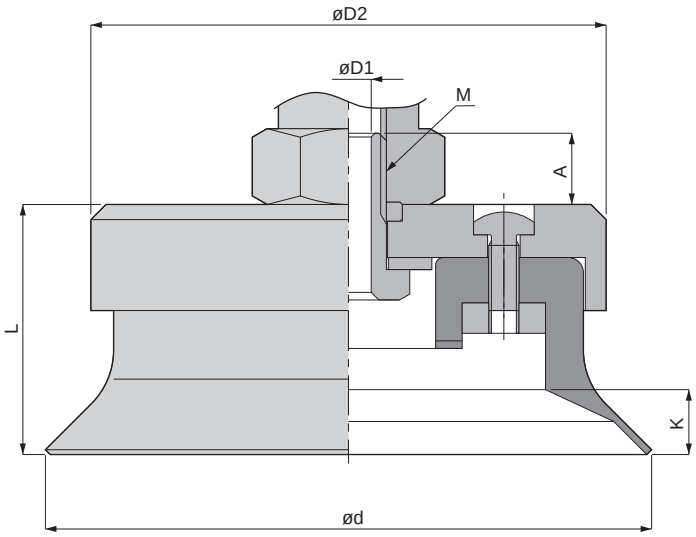
●VSPG-40, 50A*A



●VSPG-60A*A



●VSPG-80, 100A*A

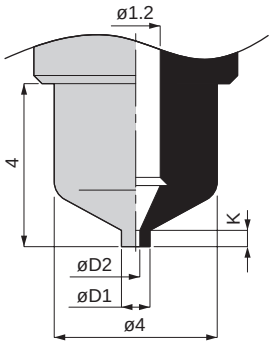


Unit: mm

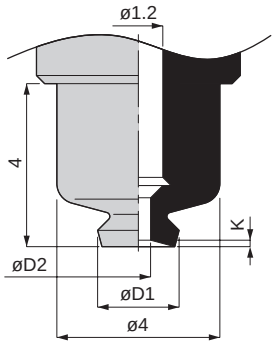
Model No.	Pad diameter ød	L	Lip internal height K	Fixing screw M	A	øD1	øD2	W
VSPG-15A*A	15	10	2.8	M4x0.7	3	2	-	-
VSPG-20A*A	20	11	3	M6x1	4	4.5	15.5	1.6
VSPG-25A*A	25	12	4	M6x1	4	4.5	15.5	1.6
VSPG-30A*A	30	14	4.5	M6x1	5	4.5	15.5	1.6
VSPG-40A*A	40	17.5	4.5	M6x1	5	4.1	22	1.6
VSPG-50A*A	50	18	6.5	M6x1	5	4.1	22	1.6
VSPG-60A*A	60	25	9.5	M10x1.5	5.4	6	32	2.6
VSPG-80A*A	80	33	8.6	M10x1.5	9.4	6	68	-
VSPG-100A*A	100	34	10.7	M10x1.5	8.4	6	85	-

Detailed view of pad and holder fixing part (compact)

●VSPG-0.7RM*, VSPG-1RM*, VSPG-1.5RM*



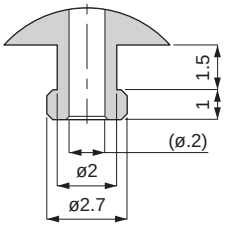
●VSPG-2RM*, VSPG-3RM*, VSPG-4RM*



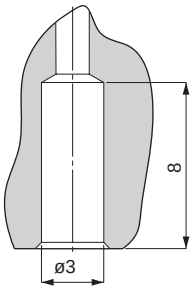
Model No.	Pad O.D øD1	Pad bore size øD2	K
VSPG-0.7RM*	0.7	0.2	0.6
VSPG-1RM*	1	0.4	0.4
VSPG-1.5RM*	1.5	0.7	0.4
VSPG-2RM*	2	0.6	0.2
VSPG-3RM*	3	0.8	0.4
VSPG-4RM*	4	1.2	0.6

Pad fitting part dimensions (standard, compact)

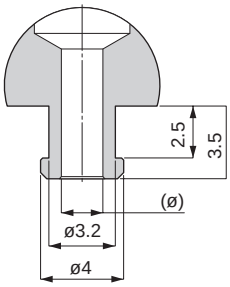
●VSPG-0.7 to 4RM*



●VSPG-1 to 4R*



●VSPG-6 to 8R*



Safety precautions

CAUTION

■Standard standard standard standard suction pads VSP-□1R□to□4□R cannot be mounted on the compact suction pad holder. These pads support use with the standard suction pad holder.

■For mounting of compact suction pads, pad diameter ø0.7, ø1 and ø1.5 mm, do not apply a load of 0.4 (N) or more to the lip during suction. If an excessive load is applied to the lip, the pad bore may collapse due to rubber elasticity, and may prevent it from suctioning workpieces and cause the suction confirmation signal to malfunction.

■Pad O.D.: Pad frames of ø80 mm or greater have no conductivity. When using suction pads of static dissipative rubber, conductive rubber (low resistance) or conductive NBR (low resistance), take measures to let electricity pass directly from the pad rubber.

MEMO



Suction pad, sponge

VSP-*S* Series

Sponge-like suction pad with numerous holes inside

RoHS

The sponge part of single foam absorbs the unevenness of the workpiece, making it ideal for transporting workpieces such as building outer wall materials, small stones and shells

A wide range of holder variations

Shape 16 types

- Standard5 types
- Compact Class 4
- Low dust generation 2 types
- Lightweight 3 types
- Low back: 2 types

Piping 7 types

- Push-in fitting (ø1.8 to ø8) Four types
- Barbed fitting (ø4, ø6) Two types
- Screw-in (G1/8) ..... 1 type

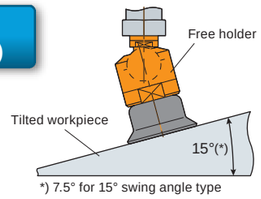
Stroke 10 types

4mm to 50mm
(Depends on pad diameter and holder)

Low dust generation holders (LFC, LFD) are available, with minimal friction powder and low noise caused by sliding

Supports assembly options of track swinging (free holder, flexible holder) on a workpiece surface with an angle

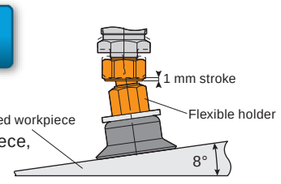
Free holder (F1:30°, F2:15°)



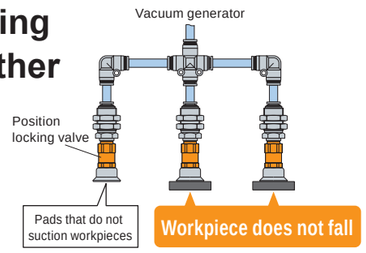
*) 7.5° for 15° swing angle type

Flexible holder (CF)

After removing the workpiece, returns to the normal position (vertical)



Supports assembly option of position locking valve (V) that reduces vacuum drop in another circuit even without a workpiece



Pad shape



Chloroprene

Soft cushioning enables flexible track for uneven workpieces.



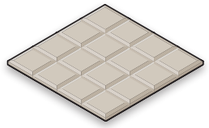
Silicone (s)

High sponge density makes it relatively strong and suppresses distortion against compression



Recommended workpiece

Building outer wall materials, small stones, shells, etc.



Pad diameter

9 types | 10 | 15 | 20 | 25 | 30 | 35 | 50 | 70 | 100

Pad material

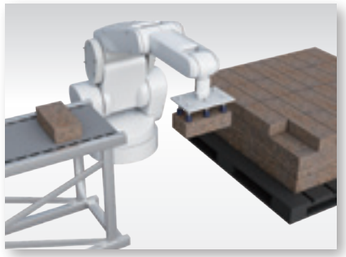
2 types | silicone | Chloroprene

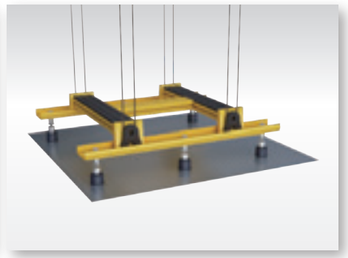
* Silicone (S) is compatible with the Food Sanitation Act. (holder is not supported/suction pad is compatible only with workpiece contact part)

Solution examples

Workpieces with uneven surface

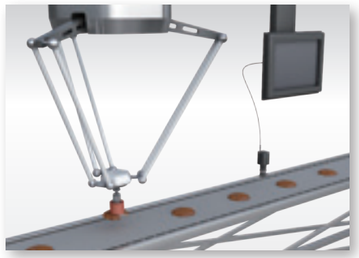
It can flexibly track and adsorb to building materials such as bricks and stone, and steel plates with uneven surfaces.





Frozen food, etc.

By selecting silicone rubber, it can also be used for food handling.



How to order

●Sponge

Suction pad

VSP - C 30 -20 S S - 6 - F1 V

VSP	C	30	-20	S	S	6		F1	V
Model No.	❶ Holder type	❷ Pad diameter	❸ Stroke option	❹ Pad shape	❺ Pad material	❻ Port size/shape	❼ Buffer load	❽ Pad Swinging	❾ Position locking valve

Pad rubber only

VSPG — 30 S S

VSPG	30	S	S
Model No.	❷ Pad diameter	❹ Pad shape	❺ Pad material

Pad rubber + set with fixing screw

VSPG — 30 S S A

VSPG	30	S	S	A
Model No.	❷ Pad diameter	❹ Pad shape	❺ Pad material	

❶ Holder type

With/Without buffer	Type	Vacuum outlet	Code	
Fixed	Standard	Upward direction	A	
	Compact		MA	
	Standard	Lateral direction	B	
	Compact		MB	
	Low height		HE	
		Both lateral directions	HEW	
Buffer type	Standard	Upward direction	C	
	Compact		MC	
	Low dust generation		LFC	
	Lightweight		HC	
	Standard	Lateral direction	D	
	Compact		MD	
	Low dust generation		LFD	
			HD	
	Light-weight	Both lateral directions	HDW	
	Stan-dard	Direct mounting	F	

❷ Pad diameter

Code	Description
10	ø10
15	ø15
20	ø20
25	ø25
30	ø30
35	ø35
50	ø50
70	ø70
100	ø100

❸ Stroke option

Description	Holder type C	D	HC	LFC	LFD	Code	
Specified stroke or without buffer	●	●				Blank	*2
Stroke 5 mm				●	●	-5	
Stroke 10 mm	●	●	●	●	●	-10	
Stroke 15 mm	●	●	●	●	●	-15	
Stroke 20 mm	●	●	●	●	●	-20	
Stroke 25 mm			●			-25	
Stroke 30 mm	●	●	●			-30	
Stroke 40 mm	●	●	●			-40	
Stroke 50 mm	●	●	●			-50	

*1: Blank for ❸ models other than ❶ C, D, HC, LFC, LFD.
*2: ❸ For a designated stroke with blank, check the stroke dimensions with a Dimensions.

❹ Pad shape

Code	Description	
S	Sponge	

❺ Pad material

Code	Description	
Blank	Chloroprene rubber	
S	Silicone rubber	

Specifications for rechargeable battery (Catalog No.CC-1226A)

●Design compatible with rechargeable battery manufacturing process

VSP - ..... - P4*

Specifications for food manufacturing processes (Catalog No.CC-1271A)

●Food-grade lubricants that can be used in food manufacturing processes, and resin/rubber materials that are compatible with the Food Sanitation Act are used

VSP - ..... - FP*

❻ Port size/shape

Description	Holder type A	B	C	D	MA	MB	MC	MD	LFC	LFD	HC	HD	HDW	HE	HEW	Code	
(❶: for F)																Blank	
ø1.8 push-in fitting						●	●	●			●	●	●	●	●	2	
ø4 push-in fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	
ø6 push-in fitting	●	●	●	●		●		●	●	●	●	●	●	●	●	6	
ø8 push-in fitting	●	●	●	●												8	
ø4 Push-in fitting, without spring cover			●	●												4C	
ø6 Push-in fitting, without spring cover			●	●												6C	
ø4 barbed fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4T	
ø6 barbed fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	6T	
ø4 barbed fitting, without spring cover			●	●												4TC	
ø6 Barbed fitting, without spring cover			●	●												6TC	
G1/8	●	●	●	●												6A	

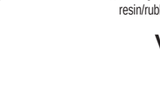
*1: If ❸-20 to-50 is available for ❶C and D, ❻4C, 6C, 4TC, 6TC can be selected. *2: The available port size and shape differ depending on the ❷pad diameter. Check with the combination table below.

❼ Buffer load

Code	Description	
Blank	Standard load or without buffer	*1
L	Low load (1/4 of standard load)	

*1: ❼ is blank for models other than ❶LFC.

❽ Swiveling pad

Code	Description	
Blank	None	
F1	Free holder Swinging With angle 30°	 Free Holder
F2	Free holder Swinging With angle 15°	
CF	Flexible Holder With angle 8°	*1  Flexible Holder

*1: ❷For 10 to 50, ❽CF can be selected.

❾ Position locking valve

Code	Description	
Blank	None	
V	With position locking valve	 Drop Prevention valve

Holder shape - pad diameter - pad shape - port size/shape combinations

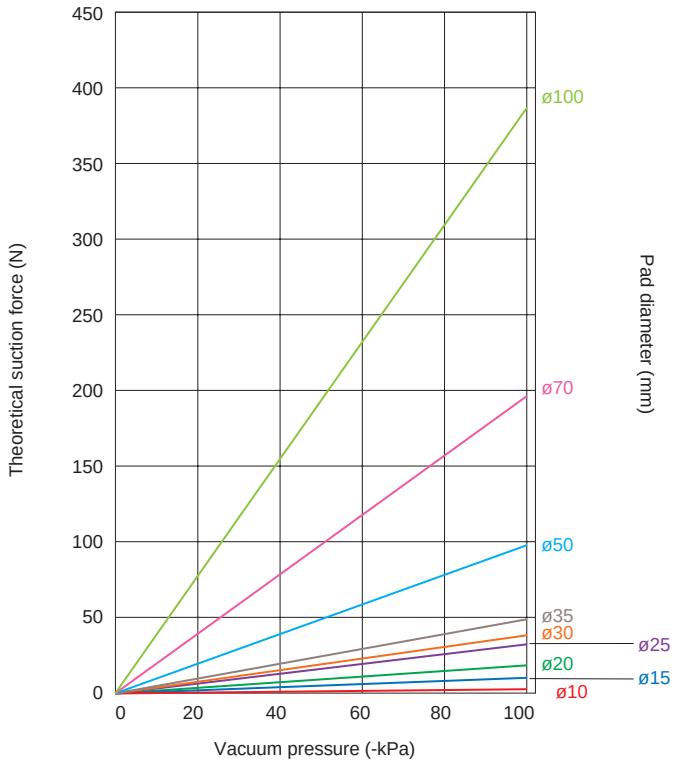
Holder Shape	Pad diameter	Push-in fitting ø4 4	ø4 4C	ø6 6	ø6 6C	ø8 8	Barbed fitting ø4 4T	ø4 4TC	ø6 6T	ø6 6TC	Thread G1/8 6A
A	ø10 to ø50	●		●			●		●		
	ø70, ø100	●		●		●					●
B	ø10 to ø50	●		●			●		●		
	ø70, ø100	●		●		●					●
C	ø10 to ø50	●	●	●	●		●	●	●	●	
	ø70, ø100	●		●		●					●
D	ø10 to ø50	●	●	●	●		●	●	●	●	
	ø70, ø100	●		●		●					●

Holder Shape	Pad diameter	Thread M14 Blank
F	ø10 to ø50	●

Holder type	Pad diameter	Push-in fitting ø1.8 2	ø4 4	ø6 6	Barbed fitting ø4 4T	ø6 6T
MA	ø10 to ø50		●		●	●
MB	ø10 to ø50	●	●	●	●	●
MC	ø10 to ø50	●	●		●	●
MD	ø10 to ø50	●	●	●	●	●
LFC	ø10 to ø50		●	●	●	●
LFD	ø10 to ø50		●	●	●	●
HC	ø10 to ø50	●	●	●	●	●
HD	ø10 to ø50	●	●	●	●	●
HDW	ø10 to ø50	●	●	●	●	●
HE	ø10 to ø50	●	●	●	●	●
HEW	ø10 to ø50	●	●	●	●	●

Theoretical suction force

●Pad diameter: ø10 mm to ø100 mm

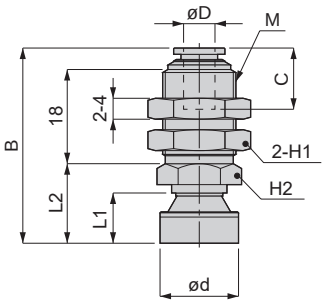


Because the theoretical suction force is the value at static conditions, adopt a safety factor of 1/4 for horizontal lifting and 1/8 for vertical lifting in actual use. For the sponge type suction force, it may not be possible to secure the calculated suction force (theoretical suction force x safety factor) due to the effect of pad characteristics such as degree of vacuum/pad material/suctioned object. Before selection, use the suction force obtained by "Selection method of suction pad" (page 288) as a guide, and make sure that there is no problem with the suction capacity on the actual machine.

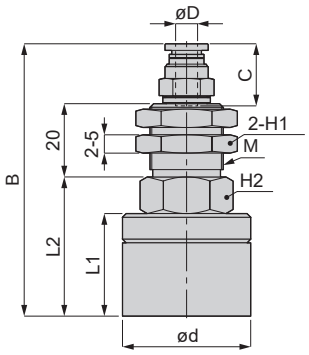
MEMO

Dimensions (fixed, vacuum outlet, top, VSP-A, push-in fitting)

●VSP-A10 to 50S*-4/6



●VSP-A70, 100S*-4/6/8

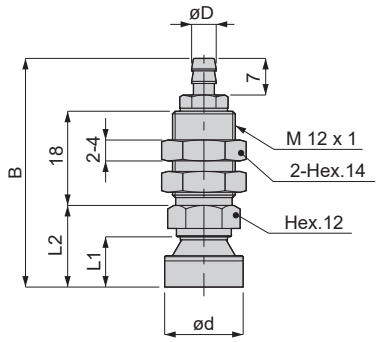


Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	Tube end C	Hexagon H1	Hexagon H2	Weight (g)
VSP-A10S*-4	10	4	M 12 x 1	46.4	9.5	15.5	11.2	14	12	26
VSP-A10S*-6		6	M 14 x 1	37.4		15.1	11.9			32
VSP-A15S*-4	15	4	M 12 x 1	46.4	9.5	15.5	11.2	14	12	26
VSP-A15S*-6		6	M 14 x 1	37.4		15.1	11.9			32
VSP-A20S*-4	20	4	M 12 x 1	52.4	15.5	21.5	11.2	17	12	28
VSP-A20S*-6		6	M 14 x 1	43.4		21.1	11.9			34
VSP-A25S*-4	25	4	M 12 x 1	52.4	15.5	21.5	11.2	17	12	29
VSP-A25S*-6		6	M 14 x 1	43.4		21.1	11.9			35
VSP-A30S*-4	30	4	M 12 x 1	52.4	15.5	21.5	11.2	17	12	29
VSP-A30S*-6		6	M 14 x 1	43.4		21.1	11.9			35
VSP-A35S*-4	35	4	M 12 x 1	64.9	28	34	11.2	17	12	65
VSP-A35S*-6		6	M 14 x 1	55.9		33.6	11.9			71
VSP-A50S*-4	50	4	M 12 x 1	64.9	28	34	11.2	17	12	108
VSP-A50S*-6		6	M 14 x 1	55.9		33.6	11.9			114
VSP-A70S*-4	70	4	M 20 x 1	70.6	30	40	11.2	24	22	252
VSP-A70S*-6		6		72.8			11.9			253
VSP-A70S*-8		8		81.2			18.2			258
VSP-A100S*-4	100	4	M20×1	70.6	30	40	11.2	24	22	383
VSP-A100S*-6		6		72.8			11.9			384
VSP-A100S*-8		8		81.2			18.2			389

Dimensions (fixed, vacuum outlet, top, VSP-A, barbed fitting)

●VSP-A10 to 50S*-4T/6T

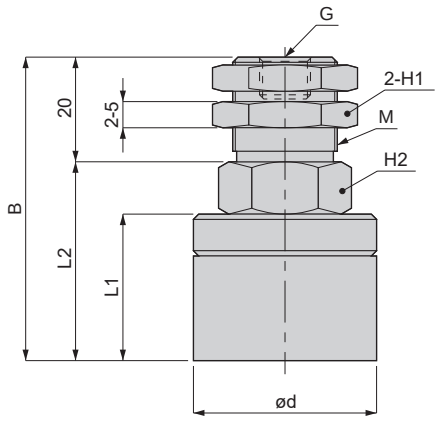


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Weight (g)
VSP-A10S*-4T	10	2.5	43.5	9.5	15.5	25
VSP-A10S*-6T		4				
VSP-A15S*-4T	15	2.5	43.5	9.5	15.5	26
VSP-A15S*-6T		4				
VSP-A20S*-4T	20	2.5	49.5	15.5	21.5	27
VSP-A20S*-6T		4				
VSP-A25S*-4T	25	2.5	49.5	15.5	21.5	29
VSP-A25S*-6T		4				
VSP-A30S*-4T	30	2.5	49.5	15.5	21.5	29
VSP-A30S*-6T		4				
VSP-A35S*-4T	35	2.5	62	28	34	65
VSP-A35S*-6T		4				
VSP-A50S*-4T	50	2.5	62	28	34	108
VSP-A50S*-6T		4				

Dimensions (fixed, vacuum outlet top VSP-A, female thread)

●VSP-A70 , 100S*-6A

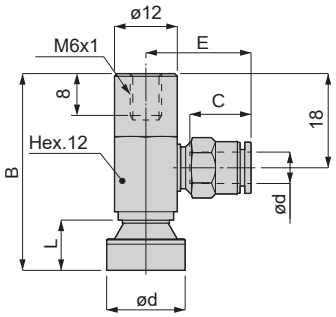


Unit: mm

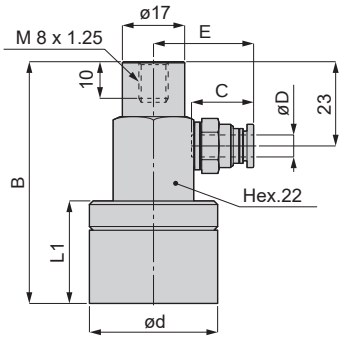
Model No.	Pad diameter ød	Vacuum outlet size G	Mounting screw M	B	L1	L2	Hexagon H1	Hexagon H2	Weight (g)
VSP-A70S*-6A	70	G1/8	M 20 x 1	60	30	40	24	22	244
VSP-A100S*-6A	100	G1/8	M 20 x 1	60	30	40	24	22	375

Dimensions (fixed, vacuum outlet, side, VSP-B, push-in fitting)

●VSP-B10 to 50S*-4/6



●VSP-B70, 100S*-4/6/8

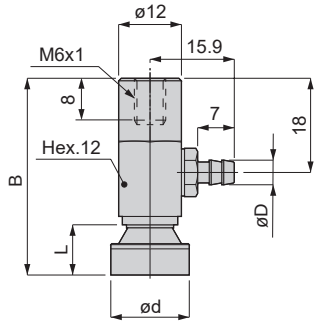


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-B10S*-4	10	4	37.5	9.5	11.2	18.8	28
VSP-B10S*-6		6			11.9	20.1	29
VSP-B15S*-4	15	4	37.5	9.5	11.2	18.8	29
VSP-B15S*-6		6			11.9	20.1	30
VSP-B20S*-4	20	4	43.5	15.5	11.2	18.8	30
VSP-B20S*-6		6			11.9	20.1	31
VSP-B25S*-4	25	4	43.5	15.5	11.2	18.8	32
VSP-B25S*-6		6			11.9	20.1	33
VSP-B30S*-4	30	4	43.5	15.5	11.2	18.8	32
VSP-B30S*-6		6			11.9	20.1	33
VSP-B35S*-4	35	4	56	28	11.2	18.8	68
VSP-B35S*-6		6			11.9	20.1	69
VSP-B50S*-4	50	4	56	28	11.2	18.8	111
VSP-B50S*-6		6			11.9	20.1	112
VSP-B70S*-4	70	4	68	30	11.2	21.5	259
VSP-B70S*-6		6			11.9	23.7	260
VSP-B70S*-8		8			18.2	32.1	265
VSP-B100S*-4	100	4	68	30	11.2	21.5	389
VSP-B100S*-6		6			11.9	23.7	390
VSP-B100S*-8		8			18.2	32.1	395

Dimensions (fixed, vacuum outlet, side, VSP-B, barbed fitting)

●VSP-B10 to 50S*-4T/6T

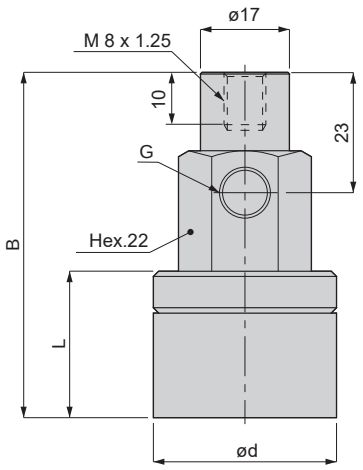


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-B10S*-4	10	2.5	37.5	9.5	25
VSP-B10S*-6		4			
VSP-B15S*-4	15	2.5	37.5	9.5	26
VSP-B15S*-6		4			
VSP-B20S*-4	20	2.5	43.5	15.5	27
VSP-B20S*-6		4			
VSP-B25S*-4	25	2.5	43.5	15.5	29
VSP-B25S*-6		4			
VSP-B30S*-4	30	2.5	43.5	15.5	29
VSP-B30S*-6		4			
VSP-B35S*-4	35	2.5	56	28	65
VSP-B35S*-6		4			
VSP-B50S*-4	50	2.5	56	28	108
VSP-B50S*-6		4			

Dimensions (fixed, vacuum outlet, side, VSP-B, female thread)

●VSP-B70, 100S*-6A

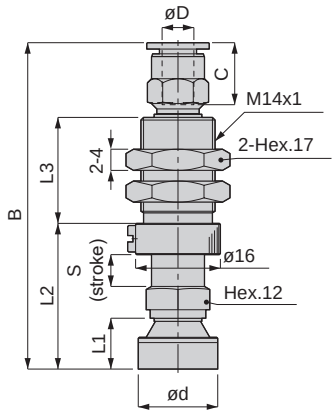


Unit: mm

Model No.	Pad diameter ød	Vacuum outlet size G	B	L	Weight (g)
VSP-B70S*-6A	70	G1/8	68	30	251
VSP-B100S*-6A	100	G1/8	68	30	381

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting)

●VSP-C10 to 30S*-4/6
●VSP-C10 to 30S-□*-4/6

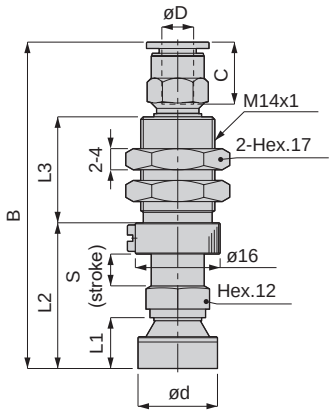


Unit: mm

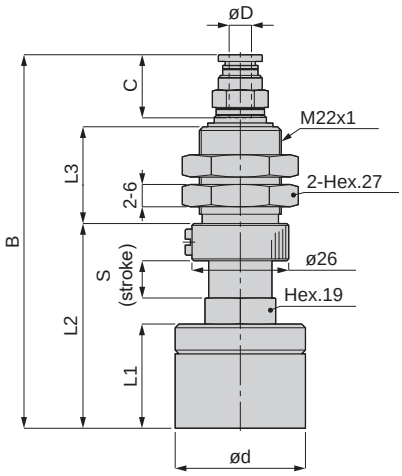
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C10S*-4	10	4	60.5	9.5	27.5	20	11.2	6	7.0 to 12.6	34
VSP-C10S*-6		6	61.8				11.9			35
VSP-C10-10S*-4		4	66.5		33.5		11.2	10	3.3 to 10.0	37
VSP-C10-10S*-6		6	67.8				11.9			38
VSP-C10-15S*-4		4	76.5		38.5	25	11.2	15	3.3 to 10.4	41
VSP-C10-15S*-6		6	77.8				11.9			42
VSP-C10-20S*-4		4	92.5		45.5	34	11.2	20	2.0 to 8.7	48
VSP-C10-20S*-6		6	93.8				11.9			49
VSP-C15S*-4	15	4	60.5	9.5	27.5	20	11.2	6	7.0 to 12.6	35
VSP-C15S*-6		6	61.8				11.9			36
VSP-C15-10S*-4		4	66.5		33.5		11.2	10	3.3 to 10.0	37
VSP-C15-10S*-6		6	67.8				11.9			38
VSP-C15-15S*-4		4	76.5		38.5	25	11.2	15	3.3 to 10.4	42
VSP-C15-15S*-6		6	77.8				11.9			43
VSP-C15-20S*-4		4	92.5		45.5	34	11.2	20	2.0 to 8.7	49
VSP-C15-20S*-6		6	93.8				11.9			50
VSP-C20S*-4	20	4	66.5	15.5	33.5	20	11.2	6	7.0 to 12.6	36
VSP-C20S*-6		6	67.8				11.9			37
VSP-C20-10S*-4		4	72.5		39.5		11.2	10	3.3 to 10.0	39
VSP-C20-10S*-6		6	73.8				11.9			40
VSP-C20-15S*-4		4	82.5		44.5	25	11.2	15	3.3 to 10.4	43
VSP-C20-15S*-6		6	83.8				11.9			44
VSP-C20-20S*-4		4	98.5		51.5	34	11.2	20	2.0 to 8.7	50
VSP-C20-20S*-6		6	99.8				11.9			51
VSP-C25S*-4	25	4	66.5	15.5	33.5	20	11.2	6	7.0 to 12.6	38
VSP-C25S*-6		6	67.8				11.9			39
VSP-C25-10S*-4		4	72.5		39.5		11.2	10	3.3 to 10.0	40
VSP-C25-10S*-6		6	73.8				11.9			41
VSP-C25-15S*-4		4	82.5		44.5	25	11.2	15	3.3 to 10.4	45
VSP-C25-15S*-6		6	83.8				11.9			46
VSP-C25-20S*-4		4	98.5		51.5	34	11.2	20	2.0 to 8.7	52
VSP-C25-20S*-6		6	99.8				11.9			53
VSP-C30S*-4	30	4	66.5	15.5	33.5	20	11.2	6	7.0 to 12.6	38
VSP-C30S*-6		6	67.8				11.9			39
VSP-C30-10S*-4		4	72.5		39.5		11.2	10	3.3 to 10.0	40
VSP-C30-10S*-6		6	73.8				11.9			41
VSP-C30-15S*-4		4	82.5		44.5	25	11.2	15	3.3 to 10.4	45
VSP-C30-15S*-6		6	83.8				11.9			46
VSP-C30-20S*-4		4	98.5		51.5	34	11.2	20	2.0 to 8.7	52
VSP-C30-20S*-6		6	99.8				11.9			53

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting)

●VSP-C35, 50S*-4/6
●VSP-C35, 50-□S*-4/6



●VSP-C70, 100S*-4/6/8

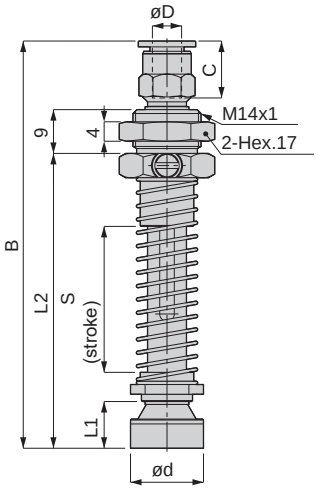


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C35S*-4	35	4	79	28	46	20	11.2	6	7.0 to 12.6	73
VSP-C35S*-6		6	80.3				11.9			74
VSP-C35-10S*-4		4	85		52		11.2	10	3.3 to 10.0	76
VSP-C35-10S*-6		6	86.3				11.9			77
VSP-C35-15S*-4		4	95		57	25	11.2	15	3.3 to 10.4	81
VSP-C35-15S*-6		6	96.3				11.9			82
VSP-C35-20S*-4		4	111		64	34	11.2	20	2.0 to 8.7	87
VSP-C35-20S*-6		6	112.3				11.9			88
VSP-C50S*-4	50	4	79	28	46	20	11.2	6	7.0 to 12.6	73
VSP-C50S*-6		6	80.3				11.9			74
VSP-C50-10S*-4		4	85		52		11.2	10	3.3 to 10.0	76
VSP-C50-10S*-6		6	86.3				11.9			77
VSP-C50-15S*-4		4	95		57	25	11.2	15	3.3 to 10.4	81
VSP-C50-15S*-6		6	96.3				11.9			82
VSP-C50-20S*-4		4	111		64	34	11.2	20	2.0 to 8.7	87
VSP-C50-20S*-6		6	112.3				11.9			88
VSP-C70S*-4	70	4	96.6	30	57	26	11.2	10	10.1 to 15.8	280
VSP-C70S*-6		6	98.8				11.9			281
VSP-C70S*-8		8	107.2				18.2			286
VSP-C100S*-4	100	4	96.6	30	57	26	11.2	10	10.1 to 15.8	411
VSP-C100S*-6		6	98.8				11.9			412
VSP-C100S*-8		8	107.2				18.2			417

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting, without spring cover)

●VSP-C10 to 30-□S*-4C/6C

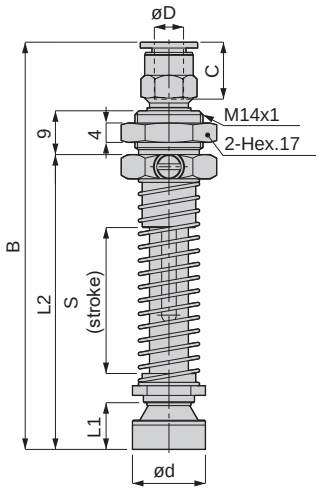


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C10-20S*-4C	10	4	69.5	9.5	47.5	11.2	20	1.5 to 4.9	44
VSP-C10-20S*-6C		6	70.8			11.9			45
VSP-C10-30S*-4C		4	82.5		60.5	11.2	30	1.1 to 4.8	49
VSP-C10-30S*-6C		6	83.8			11.9			50
VSP-C10-40S*-4C		4	95.5		73.5	11.2	40	1.0 to 4.5	54
VSP-C10-40S*-6C		6	96.8			11.9			55
VSP-C10-50S*-4C		4	108.5		86.5	11.2	50	0.9 to 4.5	60
VSP-C10-50S*-6C		6	109.8			11.9			61
VSP-C15-20S*-4C	15	4	69.5	9.5	47.5	11.2	20	1.5 to 4.9	44
VSP-C15-20S*-6C		6	70.8			11.9			45
VSP-C15-30S*-4C		4	82.5		60.5	11.2	30	1.1 to 4.8	50
VSP-C15-30S*-6C		6	83.8			11.9			51
VSP-C15-40S*-4C		4	95.5		73.5	11.2	40	1.0 to 4.5	55
VSP-C15-40S*-6C		6	96.8			11.9			56
VSP-C15-50S*-4C		4	108.5		86.5	11.2	50	0.9 to 4.5	60
VSP-C15-50S*-6C		6	109.8			11.9			61
VSP-C20-20S*-4C	20	4	75.5	15.5	53.5	11.2	20	1.5 to 4.9	46
VSP-C20-20S*-6C		6	76.8			11.9			47
VSP-C20-30S*-4C		4	88.5		66.5	11.2	30	1.1 to 4.8	51
VSP-C20-30S*-6C		6	89.8			11.9			52
VSP-C20-40S*-4C		4	101.5		79.5	11.2	40	1.0 to 4.5	56
VSP-C20-40S*-6C		6	102.8			11.9			57
VSP-C20-50S*-4C		4	114.5		92.5	11.2	50	0.9 to 4.5	62
VSP-C20-50S*-6C		6	115.8			11.9			63
VSP-C25-20S*-4C	25	4	75.5	15.5	53.5	11.2	20	1.5 to 4.9	47
VSP-C25-20S*-6C		6	76.8			11.9			48
VSP-C25-30S*-4C		4	88.5		66.5	11.2	30	1.1 to 4.8	53
VSP-C25-30S*-6C		6	89.8			11.9			54
VSP-C25-40S*-4C		4	101.5		79.5	11.2	40	1.0 to 4.5	58
VSP-C25-40S*-6C		6	102.8			11.9			59
VSP-C25-50S*-4C		4	114.5		92.5	11.2	50	0.9 to 4.5	63
VSP-C25-50S*-6C		6	115.8			11.9			64
VSP-C30-20S*-4C	30	4	75.5	15.5	53.5	11.2	20	1.5 to 4.9	47
VSP-C30-20S*-6C		6	76.8			11.9			48
VSP-C30-30S*-4C		4	88.5		66.5	11.2	30	1.1 to 4.8	53
VSP-C30-30S*-6C		6	89.8			11.9			54
VSP-C30-40S*-4C		4	101.5		79.5	11.2	40	1.0 to 4.5	58
VSP-C30-40S*-6C		6	102.8			11.9			59
VSP-C30-50S*-4C		4	114.5		92.5	11.2	50	0.9 to 4.5	63
VSP-C30-50S*-6C		6	115.8			11.9			64

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting, without spring cover)

●VSP-C35, 50-□S*-4C/6C

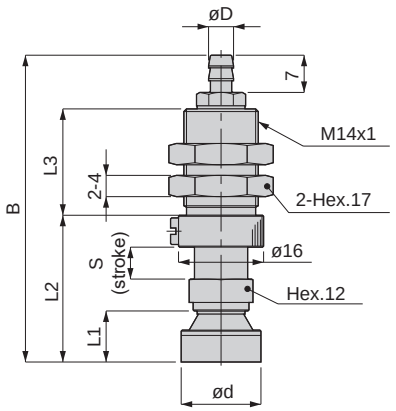


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C35-20S*-4C	35	4	89	28	66	11.2	20	1.5 to 4.9	83
VSP-C35-20S*-6C		6	89.3			11.9			84
VSP-C35-30S*-4C		4	101		79	11.2	30	1.1 to 4.8	88
VSP-C35-30S*-6C		6	102.3			11.9			89
VSP-C35-40S*-4C		4	114		92	11.2	40	1.0 to 4.5	94
VSP-C35-40S*-6C		6	115.3			11.9			95
VSP-C35-50S*4C		4	127		105	11.2	50	0.9 to 4.5	99
VSP-C35-50S*-6C		6	128.3			11.9			100
VSP-C50-20S*-4C	50	4	88	28	66	11.2	20	1.5 to 4.9	126
VSP-C50-20S*-6C		6	89.3			11.9			127
VSP-C50-30S*-4C		4	101		79	11.2	30	1.1 to 4.8	131
VSP-C50-30S*-6C		6	102.3			11.9			132
VSP-C50-40S*-4C		4	114		92	11.2	40	1.0 to 4.5	137
VSP-C50-40S*-6C		6	115.3			11.9			138
VSP-C50-50S*-4C		4	127		105	11.2	50	0.9 to 4.5	142
VSP-C50-50S*-6C		6	128.3			11.9			143

Dimensions (buffer, vacuum outlet, top, VSP-C, barbed fitting)

●VSP-C10 to 30S*-4T/6T
●VSP-C10 to 30S-□*-4T/6T

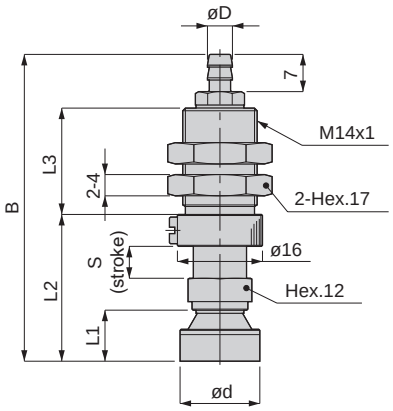


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-C10S*-4T	10	2.5	57.6	9.5	27.5	20	6	7.0 to 12.6	35
VSP-C10S*-6T		4							
VSP-C10-10S*-4T		2.5	63.6		33.5		10	3.3 to 10.0	38
VSP-C10-10S*-6T		4							
VSP-C10-15S*-4T		2.5	73.6		38.5	25	15	3.3 to 10.4	42
VSP-C10-15S*-6T		4							
VSP-C10-20S*-4T		2.5	89.6		45.5	34	20	2.0 to 8.7	49
VSP-C10-20S*-6T		4							
VSP-C15S*-4T	15	4	57.6	9.5	27.5	20	6	7.0 to 12.6	36
VSP-C15S*-6T		6							
VSP-C15-10S*-4T		4	63.6		33.5		10	3.3 to 10.0	38
VSP-C15-10S*-6T		6							
VSP-C15-15S*-4T		4	73.6		38.5	25	15	3.3 to 10.4	43
VSP-C15-15S*-6T		6							
VSP-C15-20S*-4T		4	89.6		45.5	34	20	2.0 to 8.7	50
VSP-C15-20S*-6T		6							
VSP-C20S*-4T	20	4	63.6	15.5	33.5	20	6	7.0 to 12.6	37
VSP-C20S*-6T		6							
VSP-C20-10S*-4T		4	69.6		39.5		10	3.3 to 10.0	40
VSP-C20-10S*-6T		6							
VSP-C20-15S*-4T		4	79.6		44.5	25	15	3.3 to 10.4	44
VSP-C20-15S*-6T		6							
VSP-C20-20S*-4T		4	95.6		51.5	34	20	2.0 to 8.7	51
VSP-C20-20S*-6T		6							
VSP-C25S*-4T	25	4	63.6	15.5	33.5	20	6	7.0 to 12.6	39
VSP-C25S*-6T		6							
VSP-C25-10S*-4T		4	69.6		39.5		10	3.3 to 10.0	41
VSP-C25-10S*-6T		6							
VSP-C25-15S*-4T		4	79.6		44.5	25	15	3.3 to 10.4	46
VSP-C25-15S*-6T		6							
VSP-C25-20S*-4T		4	95.6		51.5	34	20	2.0 to 8.7	53
VSP-C25-20S*-6T		6							
VSP-C30S*-4T	30	4	63.6	15.5	33.5	20	6	7.0 to 12.6	39
VSP-C30S*-6T		6							
VSP-C30-10S*-4T		4	69.6		39.5		10	3.3 to 10.0	41
VSP-C30-10S*-6T		6							
VSP-C30-15S*-4T		4	79.6		44.5	25	15	3.3 to 10.4	46
VSP-C30-15S*-6T		6							
VSP-C30-20S*-4T		4	95.6		51.5	34	20	2.0 to 8.7	53
VSP-C30-20S*-6T		6							

Dimensions (buffer, vacuum outlet, top, VSP-C, barbed fitting)

●VSP-C35, 50S*-4T/6T
●VSP-C35, 50-□S*-4T/6T

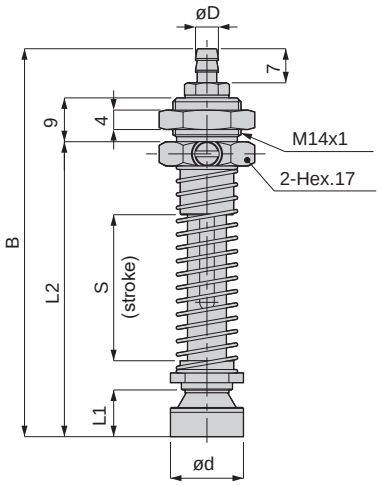


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-C35S*-4T	35	2.5	76.1	28	46	20	6	7.0 to 12.6	74
VSP-C35S*-6T		4							
VSP-C35-10S*-4T		2.5	82.1		52		10	3.3 to 10.0	77
VSP-C35-10S*-6T		4							
VSP-C35-15S*-4T		2.5	92.1		57	25	15	3.3 to 10.4	82
VSP-C35-15S*-6T		4							
VSP-C35-20S*-4T		2.5	108.1		64	34	20	2.0 to 8.7	88
VSP-C35-20S*-6T		4							
VSP-C50S*-4T	50	2.5	76.1	28	46	20	6	7.0 to 12.6	74
VSP-C50S*-6T		4							
VSP-C50-10S*-4T		2.5	82.1		52		10	3.3 to 10.0	77
VSP-C50-10S*-6T		4							
VSP-C50-15S*-4T		2.5	92.1		57	25	15	3.3 to 10.4	82
VSP-C50-15S*-6T		4							
VSP-C50-20S*-4T		2.5	108.1		64	34	20	2.0 to 8.7	88
VSP-C50-20S*-6T		4							

Dimensions (buffer, vacuum outlet, top, VSP-C, barbed fitting, without spring cover)

●VSP-C10 to 30-□S*-4TC/6TC

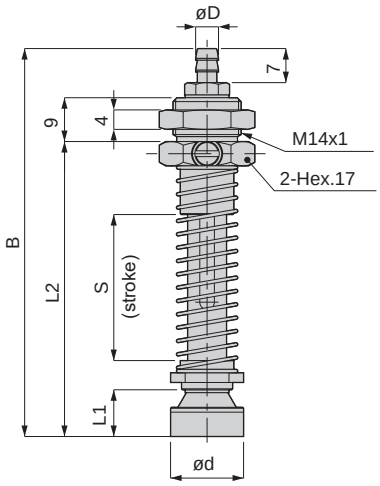


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-C10-20S*-4TC	10	2.5	66.6	9.5	47.5	20	1.5 to 4.9	43
VSP-C10-20S*-6TC		4						
VSP-C10-30S*-4TC		2.5	79.6		60.5	30	1.1 to 4.8	48
VSP-C10-30S*-6TC		4						
VSP-C10-40S*-4TC		2.5	92.6		73.5	40	1.0 to 4.5	53
VSP-C10-40S*-6TC		4						
VSP-C10-50S*-4TC		2.5	105.6		86.5	50	0.9 to 4.5	59
VSP-C10-50S*-6TC		4						
VSP-C15-20S*-4TC	15	2.5	66.6	9.5	47.5	20	1.5 to 4.9	43
VSP-C15-20S*-6TC		4						
VSP-C15-30S*-4TC		2.5	79.6		60.5	30	1.1 to 4.8	49
VSP-C15-30S*-6TC		4						
VSP-C15-40S*-4TC		2.5	92.6		73.5	40	1.0 to 4.5	54
VSP-C15-40S*-6TC		4						
VSP-C15-50S*-4TC		2.5	105.6		86.5	50	0.9 to 4.5	59
VSP-C15-50S*-6TC		4						
VSP-C20-20S*-4TC	20	2.5	72.6	15.5	53.5	20	1.5 to 4.9	45
VSP-C20-20S*-6TC		4						
VSP-C20-30S*-4TC		2.5	85.6		66.5	30	1.1 to 4.8	50
VSP-C20-30S*-6TC		4						
VSP-C20-40S*-4TC		2.5	98.6		79.5	40	1.0 to 4.5	55
VSP-C20-40S*-6TC		4						
VSP-C20-50S*-4TC		2.5	111.6		92.5	50	0.9 to 4.5	61
VSP-C20-50S*-6TC		4						
VSP-C25-20S*-4TC	25	2.5	72.6	15.5	53.5	20	1.5 to 4.9	46
VSP-C25-20S*-6TC		4						
VSP-C25-30S*-4TC		2.5	85.6		66.5	30	1.1 to 4.8	52
VSP-C25-30S*-6TC		4						
VSP-C25-40S*-4TC		2.5	98.6		79.5	40	1.0 to 4.5	57
VSP-C25-40S*-6TC		4						
VSP-C25-50S*-4TC		2.5	111.6		92.5	50	0.9 to 4.5	62
VSP-C25-50S*-6TC		4						
VSP-C30-20S*-4TC	30	2.5	72.6	15.5	53.5	20	1.5 to 4.9	46
VSP-C30-20S*-6TC		4						
VSP-C30-30S*-4TC		2.5	85.6		66.5	30	1.1 to 4.8	52
VSP-C30-30S*-6TC		4						
VSP-C30-40S*-4TC		2.5	98.6		79.5	40	1.0 to 4.5	57
VSP-C30-40S*-6TC		4						
VSP-C30-50S*-4TC		2.5	111.6		92.5	50	0.9 to 4.5	62
VSP-C30-50S*-6TC		4						

Dimensions (buffer, vacuum outlet, top, VSP-C, barbed fitting, without spring cover)

●VSP-C35, 50-□S*-4TC/6TC

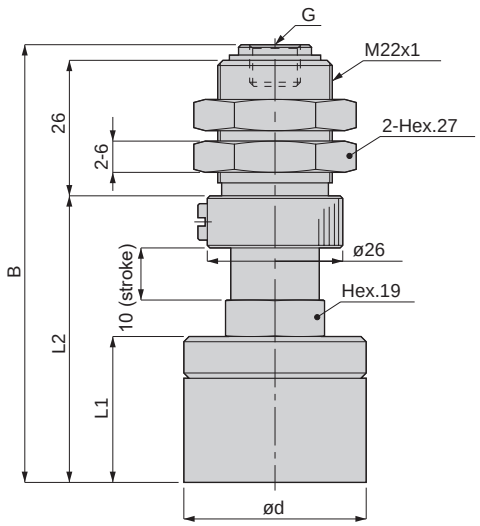


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-C35-20S*-4TC	35	2.5	85.1	28	66	20	1.5 to 4.9	82
VSP-C35-20S*-6TC		4						
VSP-C35-30S*-4TC		2.5	98.1		79	30	1.1 to 4.8	87
VSP-C35-30S*-6TC		4						
VSP-C35-40S*-4TC		2.5	111.1		92	40	1.0 to 4.5	92
VSP-C35-40S*-6TC		4						
VSP-C35-50S*-4TC		2.5	124.1		105	50	0.9 to 4.5	90
VSP-C35-50S*-6TC		4						
VSP-C50-20S*-4TC	50	2.5	85.1	28	66	20	1.5 to 4.9	125
VSP-C50-20S*-6TC		4						
VSP-C50-30S*-4TC		2.5	98.1		79	30	1.1 to 4.8	130
VSP-C50-30S*-6TC		4						
VSP-C50-40S*-4TC		2.5	111.1		92	40	1.0 to 4.5	135
VSP-C50-40S*-6TC		4						
VSP-C50-50S*-4TC		2.5	124.1		105	50	0.9 to 4.5	133
VSP-C50-50S*-6TC		4						

Dimensions (buffer, vacuum outlet top VSP-C, female thread)

●VSP-C70, 100S*-6A

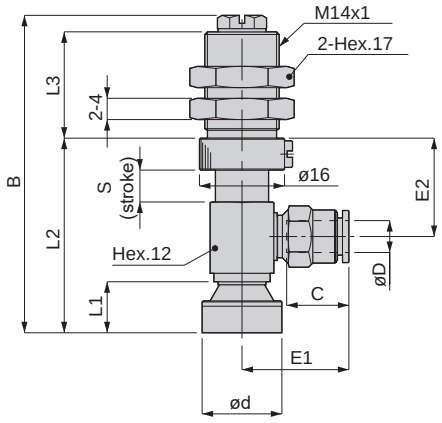


Unit: mm

Model No.	Pad diameter ød	Vacuum outlet size G	B	L1	L2	Spring force (N)	Weight (g)
VSP-C70S*-6A	70	G1/8	86	30	57	10.1 to 15.8	272
VSP-C100S*-6A	100	G1/8	86	30	57	10.1 to 15.8	403

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting)

●VSP-D10 to 30S*-4/6

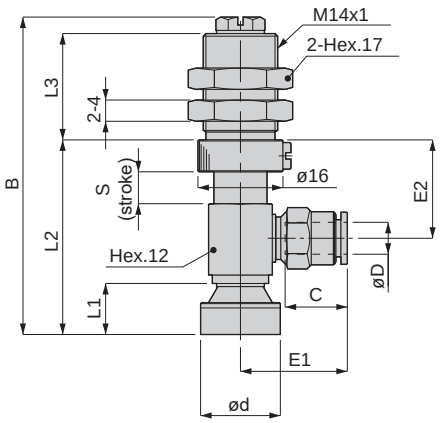


Unit: mm

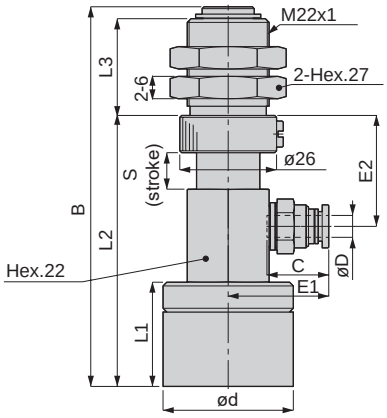
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D10S*-4	10	4	59.6	9.5	36.5	20	11.2	18.8	18.5	6	7.0 to 12.6	46
VSP-D10S*-6		6					11.9	20.1				47
VSP-D10-10S*-4		4	65.6		42.5		11.2	18.8	24.5	10	3.3 to 10.0	50
VSP-D10-10S*-6		6					11.9	20.1				51
VSP-D10-15S*-4		4	75.6		47.5	25	11.2	18.8	29.5	15	3.3 to 10.4	56
VSP-D10-15S*-6		6					11.9	20.1				57
VSP-D10-20S*-4		4	91.6		54.5	34	11.2	18.8	36.5	20	2.0 to 8.7	66
VSP-D10-20S*-6		6					11.9	20.1				67
VSP-D15S*-4	15	4	59.6	9.5	36.5	20	11.2	18.8	18.5	6	7.0 to 12.6	46
VSP-D15S*-6		6					11.9	20.1				47
VSP-D15-10S*-4		4	65.6		42.5		11.2	18.8	24.5	10	3.3 to 10.0	50
VSP-D15-10S*-6		6					11.9	20.1				51
VSP-D15-15S*-4		4	75.6		47.5	25	11.2	18.8	29.5	15	3.3 to 10.4	56
VSP-D15-15S*-6		6					11.9	20.1				57
VSP-D15-20S*-4		4	91.6		54.5	34	11.2	18.8	36.5	20	2.0 to 8.7	66
VSP-D15-20S*-6		6					11.9	20.1				67
VSP-D20S*-4	20	4	65.6	15.5	42.5	20	11.2	18.8	18.5	6	7.0 to 12.6	48
VSP-D20S*-6		6					11.9	20.1				49
VSP-D20-10S*-4		4	71.6		48.5		11.2	18.8	24.5	10	3.3 to 10.0	52
VSP-D20-10S*-6		6					11.9	20.1				53
VSP-D20-15S*-4		4	81.6		53.5	25	11.2	18.8	29.5	15	3.3 to 10.4	58
VSP-D20-15S*-6		6					11.9	20.1				59
VSP-D20-20S*-4		4	97.6		60.5	34	11.2	18.8	36.5	20	2.0 to 8.7	68
VSP-D20-20S*-6		6					11.9	20.1				69
VSP-D25S*-4	25	4	65.6	15.5	42.5	20	11.2	18.8	18.5	6	7.0 to 12.6	49
VSP-D25S*-6		6					11.9	20.1				50
VSP-D25-10S*-4		4	71.6		48.5		11.2	18.8	24.5	10	3.3 to 10.0	53
VSP-D25-10S*-6		6					11.9	20.1				54
VSP-D25-15S*-4		4	81.6		53.5	25	11.2	18.8	29.5	15	3.3 to 10.4	59
VSP-D25-15S*-6		6					11.9	20.1				60
VSP-D25-20S*-4		4	97.6		60.5	34	11.2	18.8	36.5	20	2.0 to 8.7	69
VSP-D25-20S*-6		6					11.9	20.1				70
VSP-D30S*-4	30	4	65.6	15.5	42.5	20	11.2	18.8	18.5	6	7.0 to 12.6	49
VSP-D30S*-6		6					11.9	20.1				50
VSP-D30-10S*-4		4	71.6		48.5		11.2	18.8	24.5	10	3.3 to 10.0	53
VSP-D30-10S*-6		6					11.9	20.1				54
VSP-D30-15S*-4		4	81.6		53.5	25	11.2	18.8	29.5	15	3.3 to 10.4	59
VSP-D30-15S*-6		6					11.9	20.1				60
VSP-D30-20S*-4		4	97.6		60.5	34	11.2	18.8	36.5	20	2.0 to 8.7	69
VSP-D30-20S*-6		6					11.9	20.1				70

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting)

●VSP-D35, 50S*-4/6



●VSP-D70, 100S*-4/6/8

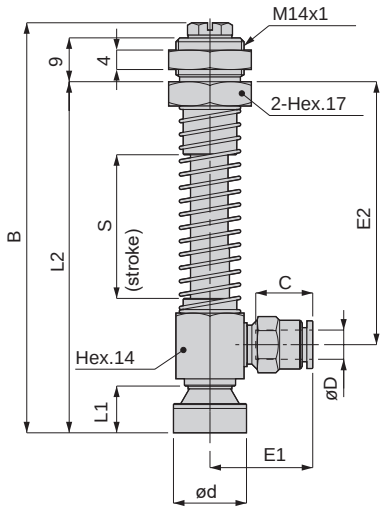


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D35S*-4	35	4	78.1	28	55	20	11.2	18.8	18.5	6	7.0 to 12.6	73
VSP-D35S*-6		6					11.9	20.1				74
VSP-D35-10S*-4		4	84.1		61		11.2	18.8	24.5	10	3.3 to 10.0	89
VSP-D35-10S*-6		6					11.9	20.1				90
VSP-D35-15S*-4		4	94.1		66	25	11.2	18.8	29.5	15	3.3 to 10.4	95
VSP-D35-15S*-6		6					11.9	20.1				96
VSP-D35-20S*-4		4	110.1		73	34	11.2	18.8	36.5	20	2.0 to 8.7	105
VSP-D35-20S*-6		6					11.9	20.1				106
VSP-D50S*-4	50	4	78.1	28	55	20	11.2	18.8	18.5	6	7.0 to 12.6	116
VSP-D50S*-6		6					11.9	20.1				117
VSP-D50-10S*-4		4	84.1		61		11.2	18.8	24.5	10	3.3 to 10.0	132
VSP-D50-10S*-6		6					11.9	20.1				133
VSP-D50-15S*-4		4	94.1		66	25	11.2	18.8	29.5	15	3.3 to 10.4	138
VSP-D50-15S*-6		6					11.9	20.1				139
VSP-D50-20S*-4		4	110.1		73	34	11.2	18.8	36.5	20	2.0 to 8.7	148
VSP-D50-20S*-6		6					11.9	20.1				149
VSP-D70S*-4	70	4	104	30	75	26	11.2	21.5	30	10	10.1 to 15.8	363
VSP-D70S*-6		6					11.9	23.7				364
VSP-D70S*-8		8					18.2	32.1				369
VSP-D100S*-4	100	4	104	30	75	26	11.2	21.5	30	10	10.1 to 15.8	493
VSP-D100S*-6		6					11.9	23.7				494
VSP-D100S*-8		8					18.2	32.1				499

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting, without spring cover)

●VSP-D10 to 30-□S*-4C/6C

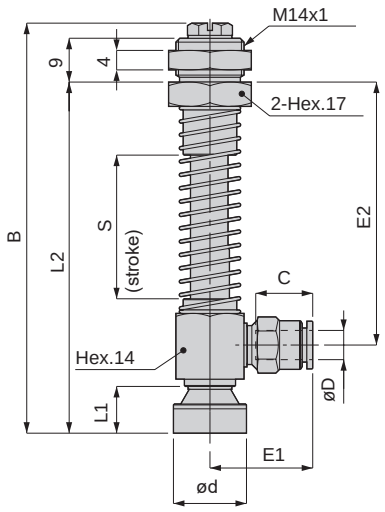


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D10-20S*-4C	10	4	71.1	9.5	59	11.2	19.8	41	20	1.5 to 4.9	64
VSP-D10-20S*-6C		6				11.9	21.1				65
VSP-D10-30S*-4C		4	84.1		72	11.2	19.8	54	30	1.1 to 4.8	71
VSP-D10-30S*-6C		6				11.9	21.1				72
VSP-D10-40S*-4C		4	97.1		85	11.2	19.8	67	40	1.0 to 4.5	78
VSP-D10-40S*-6C		6				11.9	21.1				79
VSP-D10-50S*-4C		4	110.1		98	11.2	19.8	80	50	0.9 to 4.5	84
VSP-D10-50S*-6C		6				11.9	21.1				85
VSP-D15-20S*-4C	15	4	71.1	9.5	59	11.2	19.8	41	20	1.5 to 4.9	65
VSP-D15-20S*-6C		6				11.9	21.1				66
VSP-D15-30S*-4C		4	84.1		72	11.2	19.8	54	30	1.1 to 4.8	71
VSP-D15-30S*-6C		6				11.9	21.1				72
VSP-D15-40S*-4C		4	97.1		85	11.2	19.8	67	40	1.0 to 4.5	78
VSP-D15-40S*-6C		6				11.9	21.1				79
VSP-D15-50S*-4C		4	110.1		98	11.2	19.8	80	50	0.9 to 4.5	85
VSP-D15-50S*-6C		6				11.9	21.1				86
VSP-D20-20S*-4C	20	4	77.1	15.5	65	11.2	19.8	41	20	1.5 to 4.9	66
VSP-D20-20S*-6C		6				11.9	21.1				67
VSP-D20-30S*4C		4	90.1		78	11.2	19.8	54	30	1.1 to 4.8	73
VSP-D20-30S*-6C		6				11.9	21.1				74
VSP-D20-40S*-4C		4	103.1		91	11.2	19.8	67	40	1.0 to 4.5	80
VSP-D20-40S*-6C		6				11.9	21.1				81
VSP-D20-50S*-4C		4	116.1		104	11.2	19.8	80	50	0.9 to 4.5	86
VSP-D20-50S*-6C		6				11.9	21.1				87
VSP-D25-20S*4C	25	4	77.1	15.5	65	11.2	19.8	41	20	1.5 to 4.9	68
VSP-D25-20S*-6C		6				11.9	21.1				69
VSP-D25-30S*-4C		4	90.1		78	11.2	19.8	54	30	1.1 to 4.8	74
VSP-D25-30S*-6C		6				11.9	21.1				75
VSP-D25-40S*-4C		4	103.1		91	11.2	19.8	67	40	1.0 to 4.5	81
VSP-D25-40S*-6C		6				11.9	21.1				82
VSP-D25-50S*-4C		4	116.1		104	11.2	19.8	80	50	0.9 to 4.5	88
VSP-D25-50S*-6C		6				11.9	21.1				89
VSP-D30-20S*-4C	30	4	77.1	15.5	65	11.2	19.8	41	20	1.5 to 4.9	68
VSP-D30-20S*-6C		6				11.9	21.1				69
VSP-D30-30S*-4C		4	90.1		78	11.2	19.8	54	30	1.1 to 4.8	74
VSP-D30-30S*-6C		6				11.9	21.1				75
VSP-D30-40S*-4C		4	103.1		91	11.2	19.8	67	40	1.0 to 4.5	81
VSP-D30-40S*-6C		6				11.9	21.1				82
VSP-D30-50S*-4C		4	116.1		104	11.2	19.8	80	50	0.9 to 4.5	88
VSP-D30-50S*-6C		6				11.9	21.1				89

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting, without spring cover)

●VSP-D35, 50-□S*-4C/6C

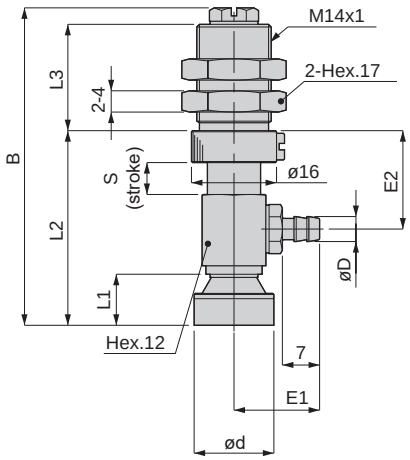


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D35-20S*-4C	35	4	89.6	28	77.5	11.2	19.8	41	20	1.5 to 4.9	103
VSP-D35-20S*-6C		6				11.9	21.1				104
VSP-D35-30S*-4C		4	102.6		90.5	11.2	19.8	54	30	1.1 to 4.8	110
VSP-D35-30S*-6C		6				11.9	21.1				111
VSP-D35-40S*-4C		4	115.6		103.5	11.2	19.8	67	40	1.0 to 4.5	117
VSP-D35-40S*-6C		6				11.9	21.1				118
VSP-D35-50S*-4C		4	128.6		116.5	11.2	19.8	80	50	0.9 to 4.5	124
VSP-D35-50S*-6C		6				11.9	21.1				125
VSP-D50-20S*-4C	50	4	89.6	28	77.5	11.2	19.8	41	20	1.5 to 4.9	146
VSP-D50-20S*-6C		6				11.9	21.1				147
VSP-D50-30S*-4C		4	102.6		90.5	11.2	19.8	54	30	1.1 to 4.8	153
VSP-D50-30S*-6C		6				11.9	21.1				154
VSP-D50-40S*-4C		4	115.6		103.5	11.2	19.8	67	40	1.0 to 4.5	160
VSP-D50-40S*-6C		6				11.9	21.1				161
VSP-D50-50S*-4C		4	128.6		116.5	11.2	19.8	80	50	0.9 to 4.5	167
VSP-D50-50S*-6C		6				11.9	21.1				168

Dimensions (buffer, vacuum outlet, side, VSP-D, barbed fitting)

●VSP-D10 to 30S*-4T/6T

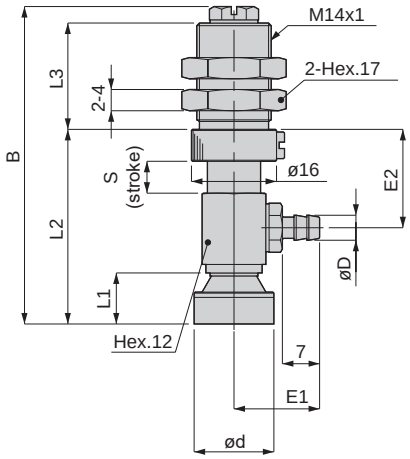


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D10S*-4T	10	4	59.6	9.5	36.5	20	15.9	18.5	6	7.0 to 12.6	45
VSP-D10S*-6T		6									
VSP-D10-10S*-4T		4	65.6		42.5			24.5	10	3.3 to 10.0	51
VSP-D10-10S*-6T		6									
VSP-D10-15S*-4T		4	75.6		47.5	25		29.5	15	3.3 to 10.4	57
VSP-D10-15S*-6T		6									
VSP-D10-20S*-4T		4	91.6		54.5	34		36.5	20	2.0 to 8.7	67
VSP-D10-20S*-6T		6									
VSP-D15S*-4T	15	4	59.6	9.5	36.5	20	15.9	18.5	6	7.0 to 12.6	45
VSP-D15S*-6T		6									
VSP-D15-10S*-4T		4	65.6		42.5			24.5	10	3.3 to 10.0	51
VSP-D15-10S*-6T		6									
VSP-D15-15S*-4T		4	75.6		47.5	25		29.5	15	3.3 to 10.4	57
VSP-D15-15S*-6T		6									
VSP-D15-20S*-4T		4	91.6		54.5	34		36.5	20	2.0 to 8.7	67
VSP-D15-20S*-6T		6									
VSP-D20S*-4T	20	4	65.6	15.5	42.5	20	15.9	18.5	6	7.0 to 12.6	47
VSP-D20S*-6T		6									
VSP-D20-10S*-4T		4	71.6		48.5			24.5	10	3.3 to 10.0	53
VSP-D20-10S*-6T		6									
VSP-D20-15S*-4T		4	81.6		53.5	25		29.5	15	3.3 to 10.4	59
VSP-D20-15S*-6T		6									
VSP-D20-20S*-4T		4	97.6		60.5	34		36.5	20	2.0 to 8.7	69
VSP-D20-20S*-6T		6									
VSP-D25S*-4T	25	4	65.6	15.5	42.5	20	15.9	18.5	6	7.0 to 12.6	48
VSP-D25S*-6T		6									
VSP-D25-10S*-4T		4	71.6		48.5			24.5	10	3.3 to 10.0	54
VSP-D25-10S*-6T		6									
VSP-D25-15S*-4T		4	81.6		53.5	25		29.5	15	3.3 to 10.4	60
VSP-D25-15S*-6T		6									
VSP-D25-20S*-4T		4	97.6		60.5	34		36.5	20	2.0 to 8.7	70
VSP-D25-20S*-6T		6									
VSP-D30S*-4T	30	4	65.6	15.5	42.5	20	15.9	18.5	6	7.0 to 12.6	48
VSP-D30S*-6T		6									
VSP-D30-10S*-4T		4	71.6		48.5			24.5	10	3.3 to 10.0	54
VSP-D30-10S*-6T		6									
VSP-D30-15S*-4T		4	81.6		53.5	25		29.5	15	3.3 to 10.4	60
VSP-D30-15S*-6T		6									
VSP-D30-20S*-4T		4	97.6		60.5	34		36.5	20	2.0 to 8.7	70
VSP-D30-20S*-6T		6									

Dimensions (buffer, vacuum outlet, side, VSP-D, barbed fitting)

●VSP-D35, 50S*-4T/6T

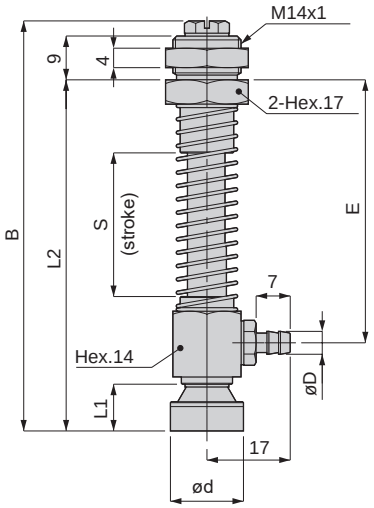


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D35S*-4T	35	4	78.1	28	55	20	15.9	18.5	6	7.0 to 12.6	84
VSP-D35S*-6T		6									
VSP-D35-10S*-4T		4	84.1		61			24.5	10	3.3 to 10.0	88
VSP-D35-10S*-6T		6									
VSP-D35-15S*-4T		4	94.1		66	25		29.5	15	3.3 to 10.4	94
VSP-D35-15S*-6T		6									
VSP-D35-20S*-4T		4	110.1		73	34		36.5	20	2.0 to 8.7	95
VSP-D35-20S*-6T		6									
VSP-D50S*-4T	50	4	78.1	28	55	20	15.9	18.5	6	7.0 to 12.6	127
VSP-D50S*-6T		6									
VSP-D50-10S*-4T		4	84.1		61			24.5	10	3.3 to 10.0	131
VSP-D50-10S*-6T		6									
VSP-D50-15S*-4T		4	94.1		66	25		29.5	15	3.3 to 10.4	137
VSP-D50-15S*-6T		6									
VSP-D50-20S*-4T		4	110.1		73	34		36.5	20	2.0 to 8.7	139
VSP-D50-20S*-6T		6									

Dimensions (buffer, vacuum outlet, side, VSP-D, barbed fitting, without spring cover)

●VSP-D10 to 30-□S*-4TC/6TC

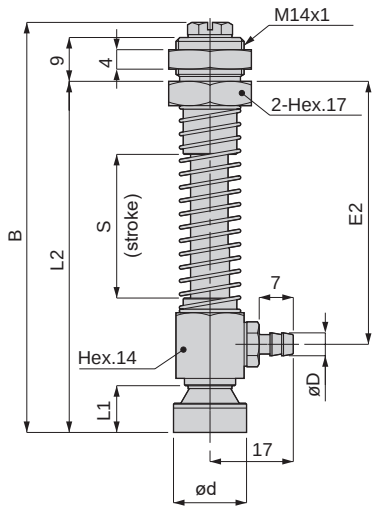


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-D10-20S*-4TC	10	4	71.1	9.5	59	41	20	1.5 to 4.9	63
VSP-D10-20S*-6TC		6							
VSP-D10-30S*-4TC		4	84.1		72	54	30	1.1 to 4.8	70
VSP-D10-30S*-6TC		6							
VSP-D10-40S*-4TC		4	97.1		85	67	40	1.0 to 4.5	77
VSP-D10-40S*-6TC		6							
VSP-D10-50S*-4TC		4	110.1		98	80	50	0.9 to 4.5	83
VSP-D10-50S*-6TC		6							
VSP-D15-20S*-4TC	15	4	71.1	9.5	59	41	20	1.5 to 4.9	64
VSP-D15-20S*-6TC		6							
VSP-D15-30S*-4TC		4	84.1		72	54	30	1.1 to 4.8	70
VSP-D15-30S*-6TC		6							
VSP-D15-40S*-4TC		4	97.1		85	67	40	1.0 to 4.5	77
VSP-D15-40S*-6TC		6							
VSP-D15-50S*-4TC		4	110.1		98	80	50	0.9 to 4.5	84
VSP-D15-50S*-6TC		6							
VSP-D20-20S*-4TC	20	4	77.1	15.5	65	41	20	1.5 to 4.9	65
VSP-D20-20S*-6TC		6							
VSP-D20-30S*-4TC		4	90.1		78	54	30	1.1 to 4.8	72
VSP-D20-30S*-6TC		6							
VSP-D20-40S*-4TC		4	103.1		91	67	40	1.0 to 4.5	79
VSP-D20-40S*-6TC		6							
VSP-D20-50S*-4TC		4	116.1		104	80	50	0.9 to 4.5	85
VSP-D20-50S*-6TC		6							
VSP-D25-20S*-4TC	25	4	77.1	15.5	65	41	20	1.5 to 4.9	67
VSP-D25-20S*-6TC		6							
VSP-D25-30S*-4TC		4	90.1		78	54	30	1.1 to 4.8	73
VSP-D25-30S*-6TC		6							
VSP-D25-40S*-4TC		4	103.1		91	67	40	1.0 to 4.5	80
VSP-D25-40S*-6TC		6							
VSP-D25-50S*-4TC		4	116.1		104	80	50	0.9 to 4.5	87
VSP-D25-50S*-6TC		6							
VSP-D30-20S*-4TC	30	4	77.1	15.5	65	41	20	1.5 to 4.9	67
VSP-D30-20S*-6TC		6							
VSP-D30-30S*-4TC		4	90.1		78	54	30	1.1 to 4.8	73
VSP-D30-30S*-6TC		6							
VSP-D30-40S*-4TC		4	103.1		91	67	40	1.0 to 4.5	80
VSP-D30-40S*-6TC		6							
VSP-D30-50S*-4TC		4	116.1		104	80	50	0.9 to 4.5	87
VSP-D30-50S*-6TC		6							

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting, without spring cover)

●VSP-D35, 50-□S*-4TC/6TC

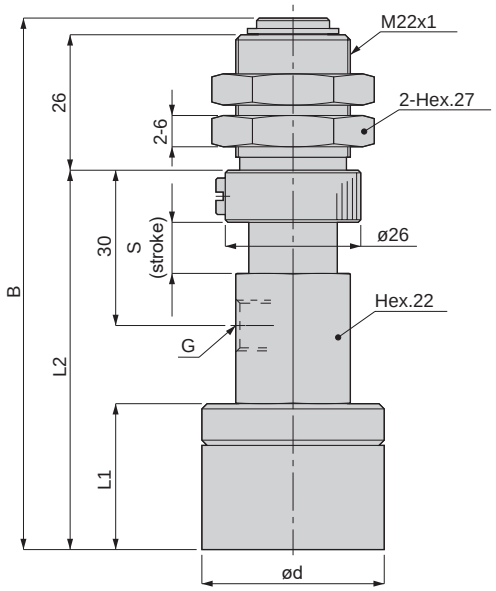


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D35-20S*-4TC	35	4	89.6	28	77.5	41	20	1.5 to 4.9	102
VSP-D35-20S*-6TC		6							
VSP-D35-30S*-4TC		4	102.6		90.5	54	30	1.1 to 4.8	109
VSP-D35-30S*-6TC		6							
VSP-D35-40S*-4TC		4	115.6		103.5	67	40	1.0 to 4.5	116
VSP-D35-40S*-6TC		6							
VSP-D35-50S*-4TC		4	128.6		116.5	80	50	0.9 to 4.5	123
VSP-D35-50S*-6TC		6							
VSP-D50-20S*-4TC	50	4	89.6	28	77.5	41	20	1.5 to 4.9	145
VSP-D50-20S*-6TC		6							
VSP-D50-30S*-4TC		4	102.6		90.5	54	30	1.1 to 4.8	152
VSP-D50-30S*-6TC		6							
VSP-D50-40S*-4TC		4	115.6		103.5	67	40	1.0 to 4.5	159
VSP-D50-40S*-6TC		6							
VSP-D50-50S*-4TC		4	128.6		116.5	80	50	0.9 to 4.5	167
VSP-D50-50S*-6TC		6							

Dimensions (buffer, vacuum outlet, side, VSP-D, female thread)

●VSP-D70, 100S*-6A

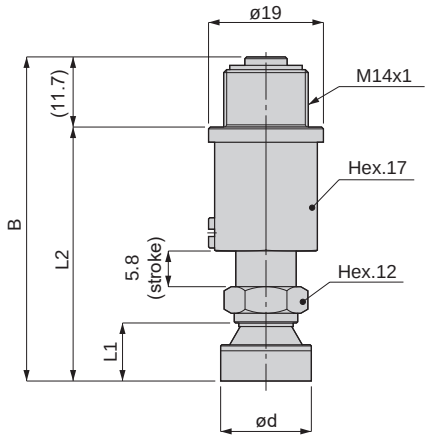


Unit: mm

Model No.	Pad diameter ød	Vacuum outlet size G	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-D70S*-6A	70	G1/8	104	30	75	10	10.1 to 15.8	355
VSP-D100S*-6A	100	G1/8	104	30	75	10	10.1 to 15.8	485

Dimensions (buffer, direct mounting, VSP-F, male thread)

●VSP-F10 to 50S*

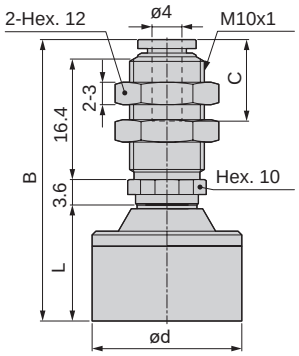


Unit: mm

Model No.	Pad diameter ød	B	L1	L2	Spring force (N)	Weight (g)
VSP-F10S*	10	53.5	9.5	41.8	7.9 to 15	54
VSP-F15S*	15	53.5	9.5	41.8	7.9 to 15	55
VSP-F20S*	20	59.5	15.5	47.8	7.9 to 15	56
VSP-F25S*	25	59.5	15.5	47.8	7.9 to 15	58
VSP-F30S*	30	59.5	15.5	47.8	7.9 to 15	58
VSP-F35S*	35	72	28	60.3	7.9 to 15	93
VSP-F50S*	50	72	28	60.3	7.9 to 15	136

Dimensions (compact, fixed, vacuum outlet, top, VSP-MA, push-in fitting)

● VSP-MA10 to 50S*-4

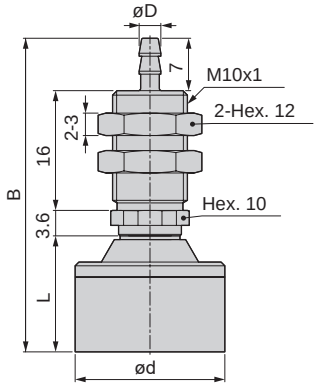


Unit: mm

Model No.	Pad diameter ød	B	L	Tube end C	Weight (g)
VSP-MA10S*-4	10	32.1	9.5	11.2	7.6
VSP-MA15S*-4	15	32.1	9.5	11.2	7.9
VSP-MA20S*-4	20	38.1	15.5	11.2	9.5
VSP-MA25S*-4	25	38.1	15.5	11.2	11
VSP-MA30S*-4	30	38.1	15.5	11.2	11
VSP-MA35S*-4	35	50.6	28	11.2	45
VSP-MA50S*-4	50	50.6	28	11.2	90

Dimensions (compact, fixed, vacuum outlet, top, VSP-MA, barbed fitting)

● VSP-MA10 to 50S*-4T/6T

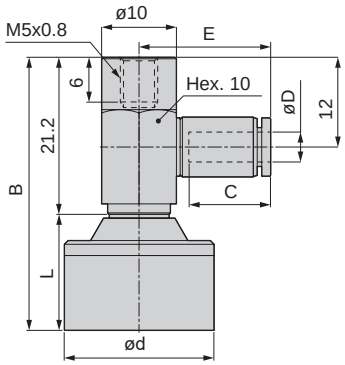


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-MA10S*-4T	10	2.5	36.1	9.5	7.6
VSP-MA10S*-6T		4			
VSP-MA15S*-4T	15	2.5	36.1	9.5	7.9
VSP-MA15S*-6T		4			
VSP-MA20S*-4T	20	2.5	42.1	15.5	9.5
VSP-MA20S*-6T		4			
VSP-MA25S*-4T	25	2.5	42.1	15.5	11
VSP-MA25S*-6T		4			
VSP-MA30S*-4T	30	2.5	42.1	15.5	11
VSP-MA30S*-6T		4			
VSP-MA35S*-4T	35	2.5	54.6	28	45
VSP-MA35S*-6T		4			
VSP-MA50S*-4T	50	2.5	54.6	28	90
VSP-MA50S*-6T		4			

Dimensions (compact, fixed, vacuum outlet, lateral, VSP-MB, push-in fitting)

● VSP-MB10 to 50S*-2/4/6

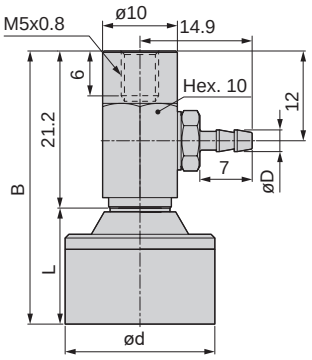


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-MB10S*-2	10	1.8	30.7	9.5	8.4	13.7	7.8
VSP-MB10S*-4		4			11.2	17.8	8.5
VSP-MB10S*-6		6			11.9	19.6	9.9
VSP-MB15S*-2	15	1.8	30.7	9.5	8.4	13.7	8.1
VSP-MB15S*-4		4			11.2	17.8	8.8
VSP-MB15S*-6		6			11.9	19.6	10.2
VSP-MB20S*-2	20	1.8	36.7	15.5	8.4	13.7	10
VSP-MB20S*-4		4			11.2	17.8	11
VSP-MB20S*-6		6			11.9	19.6	12
VSP-MB25S*-2	25	1.8	36.7	15.5	8.4	13.7	11
VSP-MB25S*-4		4			11.2	17.8	12
VSP-MB25S*-6		6			11.9	19.6	13
VSP-MB30S*-2	30	1.8	36.7	15.5	8.4	13.7	11
VSP-MB30S*-4		4			11.2	17.8	12
VSP-MB30S*-6		6			11.9	19.6	13
VSP-MB35S*-2	35	1.8	49.2	28	8.4	13.7	44
VSP-MB35S*-4		4			11.2	17.8	45
VSP-MB35S*-6		6			11.9	19.6	46
VSP-MB50S*-2	50	1.8	49.2	28	8.4	13.7	90
VSP-MB50S*-4		4			11.2	17.8	91
VSP-MB50S*-6		6			11.9	19.6	92

Dimensions (compact, fixed, vacuum outlet, side, VSP-MB, barbed fitting)

●VSP-MB10 to 50S*-4T/6T

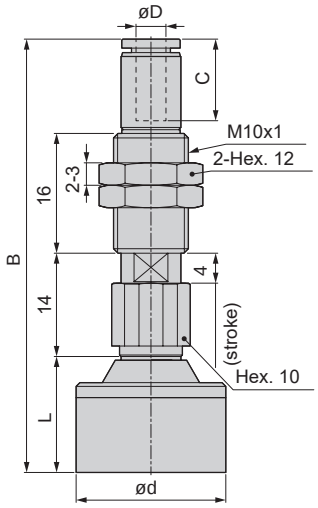


Unit: mm

Model No.	Pad diameter ød	Bore size D	B	L	Weight (g)
VSP-MB10S*-4T	10	2.5	30.7	9.5	7.3
VSP-MB10S*-6T		4			
VSP-MB15S*-4T	15	2.5	30.7	9.5	7.6
VSP-MB15S*-6T		4			
VSP-MB20S*-4T	20	2.5	36.7	15.5	9.3
VSP-MB20S*-6T		4			
VSP-MB25S*-4T	25	2.5	36.7	15.5	11
VSP-MB25S*-6T		4			
VSP-MB30S*-4T	30	2.5	36.7	15.5	11
VSP-MB30S*-6T		4			
VSP-MB35S*-4T	35	2.5	49.2	28	45
VSP-MB35S*-6T		4			
VSP-MB50S*-4T	50	2.5	49.2	28	90
VSP-MB50S*-6T		4			

Dimensions (compact buffer, vacuum outlet top VSP-MC, push-in fitting)

●VSP-MC10 to 50S*-2/4

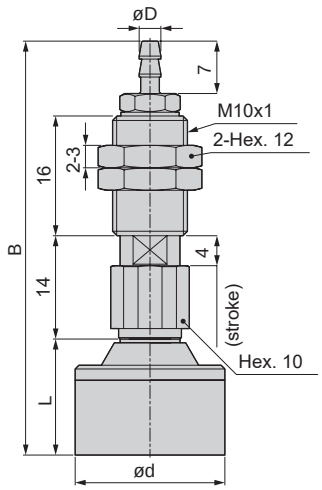


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	Spring force (N)	Weight (g)
VSP-MC10S*-2	10	1.8	48.4	9.5	8.4	1 to 1.3	19
VSP-MC10S*-4		4	52.5		11.2		20
VSP-MC15S*-2	15	1.8	48.4	9.5	8.4	1 to 1.3	19
VSP-MC15S*-4		4	52.5		11.2		20
VSP-MC20S*-2	20	1.8	54.4	15.5	8.4	1 to 1.3	21
VSP-MC20S*-4		4	58.5		11.2		22
VSP-MC25S*-2	25	1.8	54.4	15.5	8.4	1 to 1.3	22
VSP-MC25S*-4		4	58.5		11.2		23
VSP-MC30S*-2	30	1.8	54.4	15.5	8.4	1 to 1.3	22
VSP-MC30S*-4		4	58.5		11.2		23
VSP-MC35S*-2	35	1.8	66.9	28	8.4	1 to 1.3	56
VSP-MC35S*-4		4	71		11.2		57
VSP-MC50S*-2	50	1.8	66.9	28	8.4	1 to 1.3	101
VSP-MC50S*-4		4	71		11.2		102

Dimensions (compact buffer, vacuum outlet top VSP-MC, barbed fitting)

●VSP-MC10 to 50S*-4T/6T

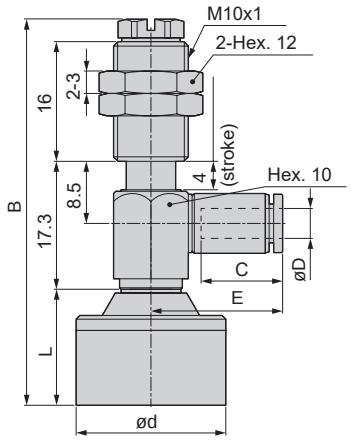


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Spring force (N)	Weight (g)
VSP-MC10S*-4T	10	2.5	49.6	9.5	1 to 1.3	19
VSP-MC10S*-6T		4				
VSP-MC15S*-4T	15	2.5	49.6	9.5	1 to 1.3	19
VSP-MC15S*-6T		4				
VSP-MC20S*-4T	20	2.5	55.6	15.5	1 to 1.3	21
VSP-MC20S*-6T		4				
VSP-MC25S*-4T	25	2.5	55.6	15.5	1 to 1.3	22
VSP-MC25S*-6T		4				
VSP-MC30S*-4T	30	2.5	55.6	15.5	1 to 1.3	23
VSP-MC30S*-6T		4				
VSP-MC35S*-4T	35	2.5	68.1	28	1 to 1.3	57
VSP-MC35S*-6T		4				
VSP-MC50S*-4T	50	2.5	68.1	28	1 to 1.3	102
VSP-MC50S*-6T		4				

Dimensions (compact buffer, vacuum outlet side VSP-MD, push-in fitting)

●VSP-MD10 to 50S*-2/4/6

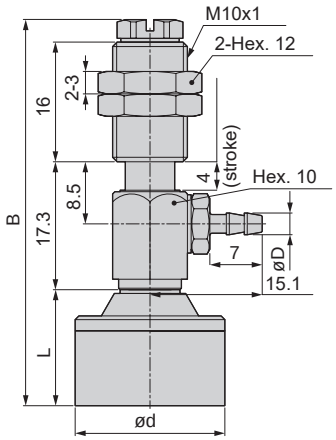


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Spring force (N)	Weight (g)
VSP-MD10S*-2	10	1.8	45.8	9.5	8.4	13.6	1 to 1.3	22
VSP-MD10S*-4		4			11.2	17.7		23
VSP-MD10S*-6		6			11.9	19.5		24
VSP-MD15S*-2	15	1.8	45.8	9.5	8.4	13.6	1 to 1.3	23
VSP-MD15S*-4		4			11.2	17.7		24
VSP-MD15S*-6		6			11.9	19.5		25
VSP-MD20S*-2	20	1.8	51.8	15.5	8.4	13.6	1 to 1.3	24
VSP-MD20S*-4		4			11.2	17.7		25
VSP-MD20S*-6		6			11.9	19.5		26
VSP-MD25S*-2	25	1.8	51.8	15.5	8.4	13.6	1 to 1.3	26
VSP-MD25S*-4		4			11.2	17.7		27
VSP-MD25S*-6		6			11.9	19.5		28
VSP-MD30S*-2	30	1.8	51.8	15.5	8.4	13.6	1 to 1.3	26
VSP-MD30S*-4		4			11.2	17.7		27
VSP-MD30S*-6		6			11.9	19.5		28
VSP-MD35S*-2	35	1.8	64.3	28	8.4	13.6	1 to 1.3	60
VSP-MD35S*-4		4			11.2	17.7		61
VSP-MD35S*-6		6			11.9	19.5		62
VSP-MD50S*-2	50	1.8	64.3	28	8.4	13.6	1 to 1.3	105
VSP-MD50S*-4		4			11.2	17.7		106
VSP-MD50S*-6		6			11.9	19.5		107

Dimensions (compact buffer, vacuum outlet side VSP-MD, barbed fitting)

●VSP-MD10 to 50S*-4T/6T

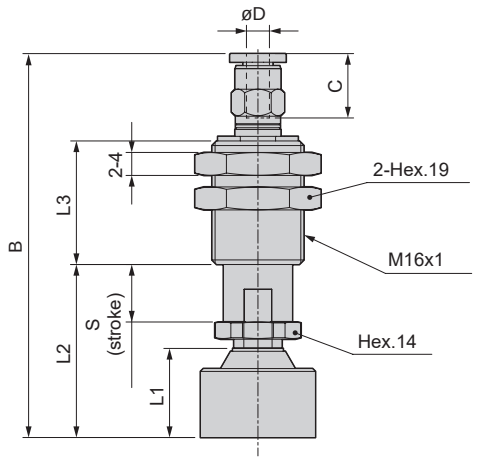


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Spring force (N)	Weight (g)
VSP-MD10S*-2	10	2.5	45.8	9.5	1 to 1.3	22
VSP-MD10S*-4		4				
VSP-MD15S*-2	15	2.5	45.8	9.5	1 to 1.3	23
VSP-MD15S*-4		4				
VSP-MD20S*-2	20	2.5	51.8	15.5	1 to 1.3	24
VSP-MD20S*-4		4				
VSP-MD25S*-2	25	2.5	51.8	15.5	1 to 1.3	26
VSP-MD25S*-4		4				
VSP-MD30S*-2	30	2.5	51.8	15.5	1 to 1.3	26
VSP-MD30S*-4		4				
VSP-MD35S*-2	35	2.5	64.3	28	1 to 1.3	60
VSP-MD35S*-4		4				
VSP-MD50S*-2	50	2.5	64.3	28	1 to 1.3	105
VSP-MD50S*-4		4				

Dimensions (low back buffer, vacuum outlet top VSP-HC, push-in fitting)

●VSP-HC10, 15-□S*-2/4/6

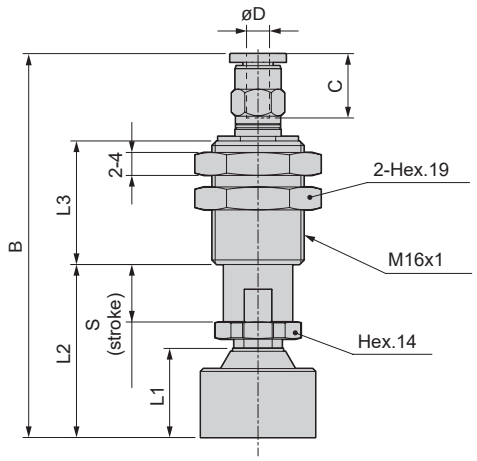


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC10-10S*-2	10	1.8	56.7	9.5	24.1	21.5	8.4	10	1.0 to 2.4	26
VSP-HC10-10S*-4		4	60.8				11.2			27
VSP-HC10-10S*-6		6	62.1				11.9			28
VSP-HC10-15S*-2		1.8	66.7		29.1	26.5	8.4	15	1.0 to 2.7	28
VSP-HC10-15S*-4		4	70.8				11.2			29
VSP-HC10-15S*-6		6	72.1				11.9			30
VSP-HC10-20S*-2		1.8	76.7		34.1	31.5	8.4	20	1.0 to 3.0	30
VSP-HC10-20S*-4		4	80.8				11.2			31
VSP-HC10-20S*-6		6	82.1				11.9			32
VSP-HC10-25S*-2		1.8	87.2		39.1	37	8.4	25	1.0 to 3.0	32
VSP-HC10-25S*-4		4	91.3				11.2			33
VSP-HC10-25S*-6		6	92.6				11.9			34
VSP-HC10-30S*-2		1.8	98.2		44.1	43	8.4	30	1.0 to 3.0	34
VSP-HC10-30S*-4		4	102.3				11.2			35
VSP-HC10-30S*-6		6	103.6				11.9			36
VSP-HC10-40S*-2		1.8	120.2		54.1	55	8.4	40	1.0 to 3.0	38
VSP-HC10-40S*-4		4	124.3				11.2			39
VSP-HC10-40S*-6		6	125.6				11.9			40
VSP-HC10-50S*-2		1.8	141.7		64.1	66.5	8.4	50	1.0 to 3.1	42
VSP-HC10-50S*-4		4	145.8				11.2			43
VSP-HC10-50S*-6		6	147.1				11.9			44
VSP-HC15-10S*-2	15	1.8	56.7	9.5	24.1	21.5	8.4	10	1.0 to 2.4	26
VSP-HC15-10S*-4		4	60.8				11.2			27
VSP-HC15-10S*-6		6	62.1				11.9			28
VSP-HC15-15S*-2		1.8	66.7		29.1	26.5	8.4	15	1.0 to 2.7	28
VSP-HC15-15S*-4		4	70.8				11.2			29
VSP-HC15-15S*-6		6	72.1				11.9			30
VSP-HC15-20S*-2		1.8	76.7		34.1	31.5	8.4	20	1.0 to 3.0	30
VSP-HC15-20S*-4		4	80.8				11.2			31
VSP-HC15-20S*-6		6	82.1				11.9			32
VSP-HC15-25S*-2		1.8	87.2		39.1	37	8.4	25	1.0 to 3.0	32
VSP-HC15-25S*-4		4	91.3				11.2			33
VSP-HC15-25S*-6		6	92.6				11.9			34
VSP-HC15-30S*-2		1.8	98.2		44.1	43	8.4	30	1.0 to 3.0	34
VSP-HC15-30S*-4		4	102.3				11.2			35
VSP-HC15-30S*-6		6	103.6				11.9			36
VSP-HC15-40S*-2		1.8	120.2		54.1	55	8.4	40	1.0 to 3.0	38
VSP-HC15-40S*-4		4	124.3				11.2			39
VSP-HC15-40S*-6		6	125.6				11.9			40
VSP-HC15-50S*-2		1.8	141.7		64.1	66.5	8.4	50	1.0 to 3.1	42
VSP-HC15-50S*-4		4	145.8				11.2			43
VSP-HC15-50S*-6		6	147.1				11.9			44

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, push-in fitting)

●VSP-HC20, 25-□S*-2/4/6

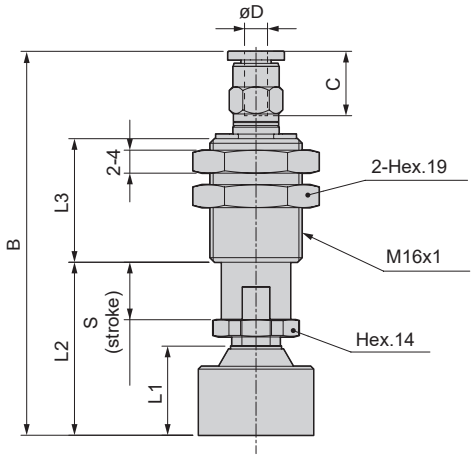


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC20-10S*-2	20	1.8	62.7	15.5	30.1	21.5	8.4	10	1.0 to 2.4	28
VSP-HC20-10S*-4		4	66.8				11.2			29
VSP-HC20-10S*-6		6	68.1				11.9			30
VSP-HC20-15S*-2		1.8	72.7		35.1	26.5	8.4	15	1.0 to 2.7	30
VSP-HC20-15S*-4		4	76.8				11.2			31
VSP-HC20-15S*-6		6	78.1				11.9			32
VSP-HC20-20S*-2		1.8	82.7		40.1	31.5	8.4	20	1.0 to 3.0	32
VSP-HC20-20S*-4		4	86.8				11.2			33
VSP-HC20-20S*-6		6	88.1				11.9			34
VSP-HC20-25S*-2		1.8	93.2		45.1	37	8.4	25	1.0 to 3.0	34
VSP-HC20-25S*-4		4	97.3				11.2			35
VSP-HC20-25S*-6		6	98.6				11.9			36
VSP-HC20-30S*-2		1.8	104.2		50.1	43	8.4	30	1.0 to 3.0	36
VSP-HC20-30S*-4		4	108.3				11.2			37
VSP-HC20-30S*-6		6	109.6				11.9			38
VSP-HC20-40S*-2		1.8	126.2		60.1	55	8.4	40	1.0 to 3.0	40
VSP-HC20-40S*-4		4	130.3				11.2			41
VSP-HC20-40S*-6		6	131.6				11.9			42
VSP-HC20-50S*-2		1.8	147.7		70.1	66.5	8.4	50	1.0 to 3.1	44
VSP-HC20-50S*-4		4	151.8				11.2			45
VSP-HC20-50S*-6		6	153.1				11.9			46
VSP-HC25-10S*-2	25	1.8	62.7	15.5	30.1	21.5	8.4	10	1.0 to 2.4	29
VSP-HC25-10S*-4		4	66.8				11.2			30
VSP-HC25-10S*-6		6	68.1				11.9			31
VSP-HC25-15S* 2		1.8	72.7		35.1	26.5	8.4	15	1.0 to 2.7	31
VSP-HC25-15S*-4		4	76.8				11.2			32
VSP-HC25-15S*-6		6	78.1				11.9			33
VSP-HC25-20S*-2		1.8	82.7		40.1	31.5	8.4	20	1.0 to 3.0	33
VSP-HC25-20S*-4		4	86.8				11.2			34
VSP-HC25-20S*-6		6	88.1				11.9			35
VSP-HC25-25S*-2		1.8	93.2		45.1	37	8.4	25	1.0 to 3.0	35
VSP-HC25-25S*-4		4	97.3				11.2			36
VSP-HC25-25S*-6		6	98.6				11.9			37
VSP-HC25-30S*-2		1.8	104.2		50.1	43	8.4	30	1.0 to 3.0	37
VSP-HC25-30S*-4		4	108.3				11.2			38
VSP-HC25-30S*-6		6	109.6				11.9			39
VSP-HC25-40S*-2		1.8	126.2		60.1	55	8.4	40	1.0 to 3.0	41
VSP-HC25-40S*-4		4	130.3				11.2			42
VSP-HC25-40S*-6		6	131.6				11.9			43
VSP-HC25-50S*-2		1.8	147.7		70.1	66.5	8.4	50	1.0 to 3.1	45
VSP-HC25-50S*-4		4	151.8				11.2			46
VSP-HC25-50S*-6		6	153.1				11.9			47

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, push-in fitting)

●VSP-HC30-□S*-2/4/6

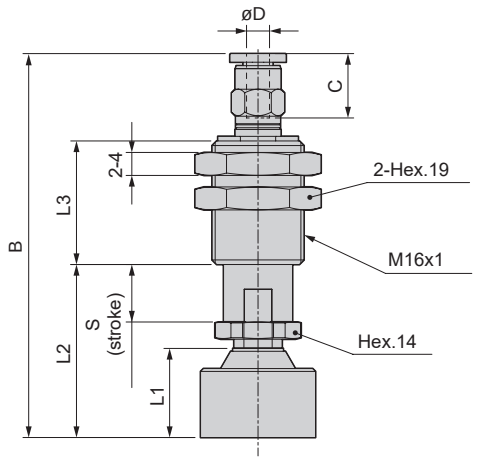


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC30-10S*-2	30	1.8	62.7	15.5	30.1	21.5	8.4	10	1.0 to 2.4	30
VSP-HC30-10S*-4		4	66.8				11.2			31
VSP-HC30-10S*-6		6	68.1				11.9			32
VSP-HC30-15S*-2		1.8	72.7		35.1	26.5	8.4	15	1.0 to 2.7	32
VSP-HC30-15S*-4		4	76.8				11.2			33
VSP-HC30-15S*-6		6	78.1				11.9			34
VSP-HC30-20S*-2		1.8	82.7		40.1	31.5	8.4	20	1.0 to 3.0	34
VSP-HC30-20S*-4		4	86.8				11.2			35
VSP-HC30-20S*-6		6	88.1				11.9			36
VSP-HC30-25S*-2		1.8	93.2		45.1	37	8.4	25	1.0 to 3.0	36
VSP-HC30-25S*-4		4	97.3				11.2			37
VSP-HC30-25S*-6		6	98.6				11.9			38
VSP-HC30-30S*-2		1.8	104.2		50.1	43	8.4	30	1.0 to 3.0	38
VSP-HC30-30S*-4		4	108.3				11.2			39
VSP-HC30-30S*-6		6	109.6				11.9			40
VSP-HC30-40S*-2		1.8	126.2		60.1	55	8.4	40	1.0 to 3.0	42
VSP-HC30-40S*-4		4	130.3				11.2			43
VSP-HC30-40S*-6		6	131.6				11.9			44
VSP-HC30-50S*-2		1.8	147.7		70.1	66.5	8.4	50	1.0 to 3.1	46
VSP-HC30-50S*-4		4	151.8				11.2			47
VSP-HC30-50S*-6		6	153.1				11.9			48

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, push-in fitting)

●VSP-HC35, 50-□S*-2/4/6

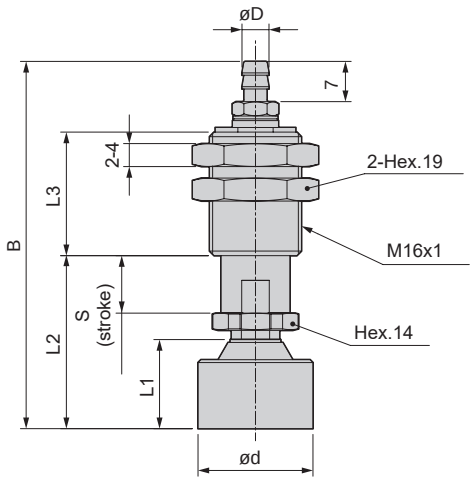


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC35-10S*-2	35	1.8	75.2	28	42.6	21.5	8.4	10	1.0 to 2.4	59
VSP-HC35-10S*-4		4	79.3				11.2			60
VSP-HC35-10S*-6		6	80.6				11.9			61
VSP-HC35-15S*-2		1.8	85.2		47.6	26.5	8.4	15	1.0 to 2.7	61
VSP-HC35-15S*-4		4	89.3				11.2			62
VSP-HC35-15S*-6		6	90.6				11.9			63
VSP-HC35-20S*-2		1.8	95.2		52.6	31.5	8.4	20	1.0 to 3.0	63
VSP-HC35-20S*-4		4	99.3				11.2			64
VSP-HC35-20S*-6		6	100.6				11.9			65
VSP-HC35-25S*-2		1.8	105.7		57.6	37	8.4	25	1.0 to 3.0	65
VSP-HC35-25S*-4		4	109.8				11.2			66
VSP-HC35-25S*-6		6	111.1				11.9			67
VSP-HC35-30S*-2		1.8	116.7		62.6	43	8.4	30	1.0 to 3.0	67
VSP-HC35-30S*-4		4	120.8				11.2			68
VSP-HC35-30S*-6		6	122.1				11.9			69
VSP-HC35-40S*-2		1.8	138.7		72.6	55	8.4	40	1.0 to 3.0	71
VSP-HC35-40S*-4		4	142.8				11.2			72
VSP-HC35-40S*-6		6	144.1				11.9			73
VSP-HC35-50S*-2		1.8	160.2		82.6	66.5	8.4	50	1.0 to 3.1	75
VSP-HC35-50S*-4		4	164.3				11.2			76
VSP-HC35-50S*-6		6	165.6				11.9			77
VSP-HC50-10S*-2	50	1.8	75.2	28	42.6	21.5	8.4	10	1.0 to 2.4	100
VSP-HC50-10S*-4		4	79.3				11.2			101
VSP-HC50-10S*-6		6	80.6				11.9			102
VSP-HC50-15S*-2		1.8	85.2		47.6	26.5	8.4	15	1.0 to 2.7	102
VSP-HC50-15S*-4		4	89.3				11.2			103
VSP-HC50-15S*-6		6	90.6				11.9			104
VSP-HC50-20S*-2		1.8	95.2		52.6	31.5	8.4	20	1.0 to 3.0	104
VSP-HC50-20S*-4		4	99.3				11.2			105
VSP-HC50-20S*-6		6	100.6				11.9			106
VSP-HC50-25S*-2		1.8	105.7		57.6	37	8.4	25	1.0 to 3.0	106
VSP-HC50-25S*-4		4	109.8				11.2			107
VSP-HC50-25S*-6		6	111.1				11.9			108
VSP-HC50-30S*-2		1.8	116.7		62.6	43	8.4	30	1.0 to 3.0	108
VSP-HC50-30S*-4		4	120.8				11.2			109
VSP-HC50-30S*-6		6	122.1				11.9			110
VSP-HC50-40S*-2		1.8	138.7		72.6	55	8.4	40	1.0 to 3.0	112
VSP-HC50-40S*-4		4	142.8				11.2			113
VSP-HC50-40S*-6		6	144.1				11.9			114
VSP-HC50-50S*-2		1.8	160.2		82.6	66.5	8.4	50	1.0 to 3.1	116
VSP-HC50-50S*-4		4	164.3				11.2			117
VSP-HC50-50S*-6		6	165.6				11.9			118

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, barbed fitting)

●VSP-HC10, 15-□S*-4T/6T

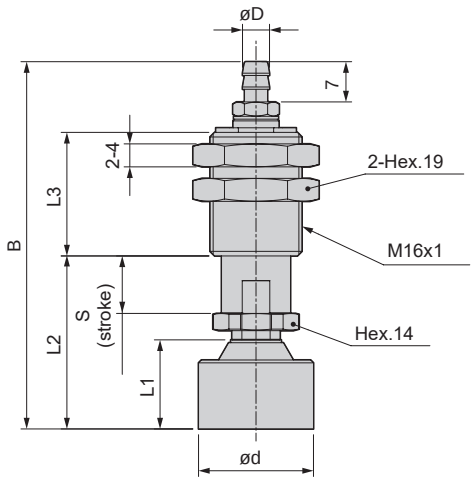


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC10-10S*-4T	10	2.5	56.3	9.5	22.5	21.5	10	1.0 to 2.4	22
VSP-HC10-10S*-6T		4							
VSP-HC10-15S*-4T		2.5	66.3		27.5	26.5	15	1.0 to 2.7	24
VSP-HC10-15S*-6T		4							
VSP-HC10-20S*-4T		2.5	76.3		32.5	31.5	20	1.0 to 3.0	26
VSP-HC10-20S*-6T		4							
VSP-HC10-25S*-4T		2.5	86.8		37.5	37	25	1.0 to 3.0	29
VSP-HC10-25S*-6T		4							
VSP-HC10-30S*-4T		2.5	97.8		42.5	43	30	1.0 to 3.0	31
VSP-HC10-30S*-6T		4							
VSP-HC10-40S*-4T		2.5	119.8		52.5	55	40	1.0 to 3.0	35
VSP-HC10-40S*-6T		4							
VSP-HC10-50S*-4T		2.5	141.3		62.5	66.5	50	1.0 to 3.1	39
VSP-HC10-50S*-6T		4							
VSP-HC15-10S*-4T	15	2.5	56.3	9.5	22.5	21.5	10	1.0 to 2.4	22
VSP-HC15-10S*-6T		4							
VSP-HC15-15S*-4T		2.5	66.3		27.5	26.5	15	1.0 to 2.7	24
VSP-HC15-15S*-6T		4							
VSP-HC15-20S*-4T		2.5	76.3		32.5	31.5	20	1.0 to 3.0	26
VSP-HC15-20S*-6T		4							
VSP-HC15-25S*-4T		2.5	86.8		37.5	37	25	1.0 to 3.0	29
VSP-HC15-25S*-6T		4							
VSP-HC15-30S*-4T		2.5	97.8		42.5	43	30	1.0 to 3.0	31
VSP-HC15-30S*-6T		4							
VSP-HC15-40S*-4T		2.5	119.8		52.5	55	40	1.0 to 3.0	35
VSP-HC15-40S*-6T		4							
VSP-HC15-50S*-4T		2.5	141.3		62.5	66.5	50	1.0 to 3.1	39
VSP-HC15-50S*-6T		4							

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, barbed fitting)

●VSP-HC20 to 30-□S*-4T/6T

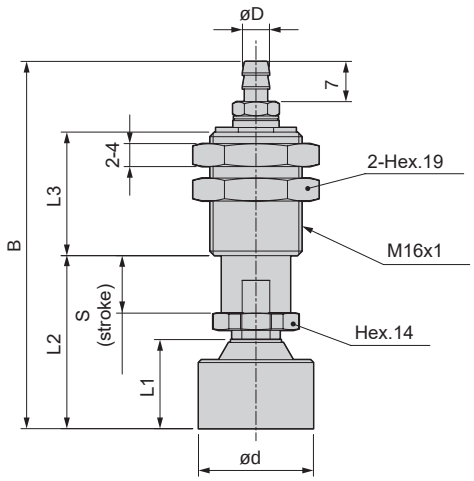


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC20-10S*-4T	20	2.5	63.9	15.5	30.1	21.5	10	1.0 to 2.4	26
VSP-HC20-10S*-6T		4							
VSP-HC20-15S*-4T		2.5	73.9		35.1	26.5	15	1.0 to 2.7	28
VSP-HC20-15S*-6T		4							
VSP-HC20-20S*-4T		2.5	83.9		40.1	31.5	20	1.0 to 3.0	30
VSP-HC20-20S*-6T		4							
VSP-HC20-25S*-4T		2.5	94.4		45.1	37	25	1.0 to 3.0	32
VSP-HC20-25S*-6T		4							
VSP-HC20-30S*-4T		2.5	105.4		50.1	43	30	1.0 to 3.0	35
VSP-HC20-30S*-6T		4							
VSP-HC20-40S*-4T		2.5	127.4		60.1	55	40	1.0 to 3.0	39
VSP-HC20-40S*-6T		4							
VSP-HC20-50S*-4T		2.5	148.9		70.1	66.5	50	1.0 to 3.1	43
VSP-HC20-50S*-6T		4							
VSP-HC25-10S*-4T	25	2.5	63.9	15.5	30.1	21.5	10	1.0 to 2.4	27
VSP-HC25-10S*-6T		4							
VSP-HC25-15S*-4T		2.5	73.9		35.1	26.5	15	1.0 to 2.7	29
VSP-HC25-15S*-6T		4							
VSP-HC25-20S*-4T		2.5	83.9		40.1	31.5	20	1.0 to 3.0	31
VSP-HC25-20S*-6T		4							
VSP-HC25-25S*-4T		2.5	94.4		45.1	37	25	1.0 to 3.0	33
VSP-HC25-25S*-6T		4							
VSP-HC25-30S*-4T		2.5	105.4		50.1	43	30	1.0 to 3.0	36
VSP-HC25-30S*-6T		4							
VSP-HC25-40S*-4T		2.5	127.4		60.1	55	40	1.0 to 3.0	40
VSP-HC25-40S*-6T		4							
VSP-HC25-50S*-4T		2.5	148.9		70.1	66.5	50	1.0 to 3.1	44
VSP-HC25-50S*-6T		4							
VSP-HC30-10S*-4T	30	2.5	63.9	15.5	30.1	21.5	10	1.0 to 2.4	28
VSP-HC30-10S*-6T		4							
VSP-HC30-15S*-4T		2.5	73.9		35.1	26.5	15	1.0 to 2.7	30
VSP-HC30-15S*-6T		4							
VSP-HC30-20S*-4T		2.5	83.9		40.1	31.5	20	1.0 to 3.0	32
VSP-HC30-20S*-6T		4							
VSP-HC30-25S*-4T		2.5	94.4		45.1	37	25	1.0 to 3.0	34
VSP-HC30-25S*-6T		4							
VSP-HC30-30S*-4T		2.5	105.4		50.1	43	30	1.0 to 3.0	37
VSP-HC30-30S*-6T		4							
VSP-HC30-40S*-4T		2.5	127.4		60.1	55	40	1.0 to 3.0	41
VSP-HC30-40S*-6T		4							
VSP-HC30-50S*-4T		2.5	148.9		70.1	66.5	50	1.0 to 3.1	45
VSP-HC30-50S*-6T		4							

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, barbed fitting)

●VSP-HC35, 50-□S*-4T/6T

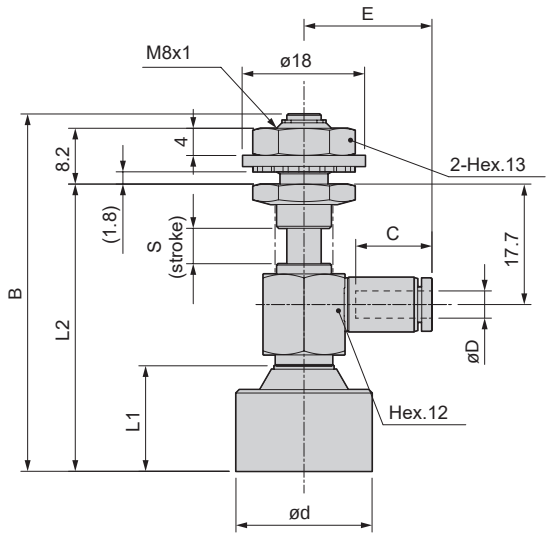


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC35-10S*-4T	35	2.5	76.4	28	42.6	21.5	10	1.0 to 2.4	47
VSP-HC35-10S*-6T		4							
VSP-HC35-15S*-4T		2.5	86.4		47.6	26.5	15	1.0 to 2.7	49
VSP-HC35-15S*-6T		4							
VSP-HC35-20S*-4T		2.5	96.4		52.6	31.5	20	1.0 to 3.0	52
VSP-HC35-20S*-6T		4							
VSP-HC35-25S*-4T		2.5	106.9		57.6	37	25	1.0 to 3.0	54
VSP-HC35-25S*-6T		4							
VSP-HC35-30S*-4T		2.5	117.9		62.6	43	30	1.0 to 3.0	57
VSP-HC35-30S*-6T		4							
VSP-HC35-40S*-4T		2.5	139.9		72.6	55	40	1.0 to 3.0	61
VSP-HC35-40S*-6T		4							
VSP-HC35-50S*-4T		2.5	161.4		82.6	66.5	50	1.0 to 3.1	66
VSP-HC35-50S*-6T		4							
VSP-HC50-10S*-4T	50	2.5	76.4	28	42.6	21.5	10	1.0 to 2.4	88
VSP-HC50-10S*-6T		4							
VSP-HC50-15S*-4T		2.5	86.4		47.6	26.5	15	1.0 to 2.7	90
VSP-HC50-15S*-6T		4							
VSP-HC50-20S*-4T		2.5	96.4		52.6	31.5	20	1.0 to 3.0	92
VSP-HC50-20S*-6T		4							
VSP-HC50-25S*-4T		2.5	106.9		57.6	37	25	1.0 to 3.0	94
VSP-HC50-25S*-6T		4							
VSP-HC50-30S*-4T		2.5	117.9		62.6	43	30	1.0 to 3.0	97
VSP-HC50-30S*-6T		4							
VSP-HC50-40S*-4T		2.5	139.9		72.6	55	40	1.0 to 3.0	101
VSP-HC50-40S*-6T		4							
VSP-HC50-50S*-4T		2.5	161.4		82.6	66.5	50	1.0 to 3.1	106
VSP-HC50-50S*-6T		4							

Dimensions (lightweight, buffer, vacuum outlet, side, VSP-HD, push-in fitting)

●VSP-HD10 to 50S*-2/4/6

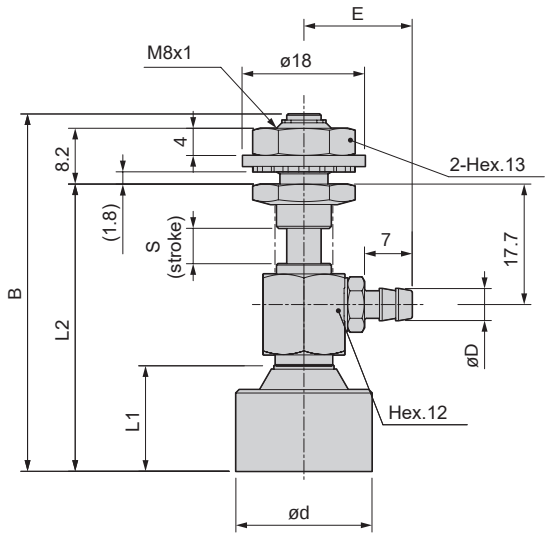


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD10S*-2	10	1.8	46.5	9.5	36.2	8.4	14.7	5.2	1.6 to 2.9	35
VSP-HD10S*-4		4				11.2	18.8			36
VSP-HD10S*-6		6				11.9	20.6			37
VSP-HD15S*-2	15	1.8	46.5	9.5	36.2	8.4	14.7	5.2	1.6 to 2.9	35
VSP-HD15S*-4		4				11.2	18.8			36
VSP-HD15S*-6		6				11.9	20.6			37
VSP-HD20S*-2	20	1.8	52.5	15.5	42.2	8.4	14.7	5.2	1.6 to 2.9	37
VSP-HD20S*-4		4				11.2	18.8			38
VSP-HD20S*-6		6				11.9	20.6			39
VSP-HD25S*-2	25	1.8	52.5	15.5	42.2	8.4	14.7	5.2	1.6 to 2.9	38
VSP-HD25S*-4		4				11.2	18.8			39
VSP-HD25S*-6		6				11.9	20.6			40
VSP-HD30S*-2	30	1.8	52.5	15.5	42.2	8.4	14.7	5.2	1.6 to 2.9	39
VSP-HD30S*-4		4				11.2	18.8			40
VSP-HD30S*-6		6				11.9	20.6			41
VSP-HD35S*-2	35	1.8	65	28	54.7	8.4	14.7	5.2	1.6 to 2.9	68
VSP-HD35S*-4		4				11.2	18.8			69
VSP-HD35S*-6		6				11.9	20.6			70
VSP-HD50S*-2	50	1.8	65	28	54.7	8.4	14.7	5.2	1.6 to 2.9	109
VSP-HD50S*-4		4				11.2	18.8			110
VSP-HD50S*-6		6				11.9	20.6			112

Dimensions (lightweight, buffer, vacuum outlet, side, VSP-HD, barbed fitting)

●VSP-HD10 to 50S*-4T/6T

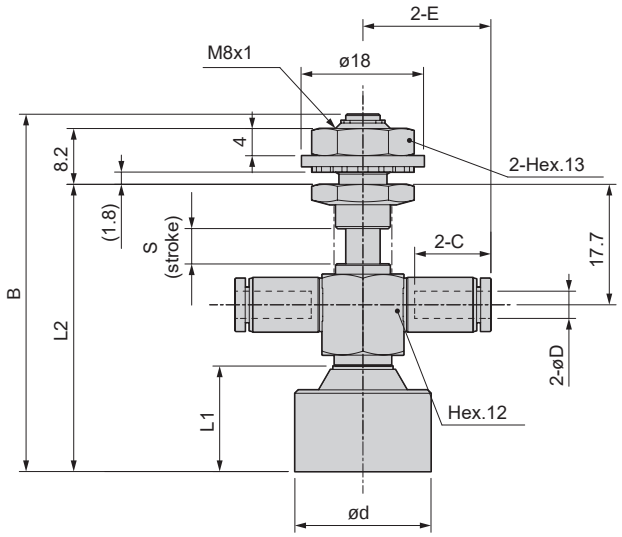


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-HD10S*-4T	10	1.8	46.5	9.5	36.2	5.2	1.6 to 2.9	35
VSP-HD10S*-6T		4						
VSP-HD15S*-4T	15	1.8	46.5	9.5	36.2	5.2	1.6 to 2.9	35
VSP-HD15S*-6T		4						
VSP-HD20S*-4T	20	1.8	52.5	15.5	42.2	5.2	1.6 to 2.9	37
VSP-HD20S*-6T		4						
VSP-HD25S*-4T	25	1.8	52.5	15.5	42.2	5.2	1.6 to 2.9	38
VSP-HD25S*-6T		4						
VSP-HD30S*-4T	30	1.8	52.5	15.5	42.2	5.2	1.6 to 2.9	39
VSP-HD30S*-6T		4						
VSP-HD35S*-4T	35	1.8	65	28	54.7	5.2	1.6 to 2.9	68
VSP-HD35S*-6T		4						
VSP-HD50S*-4T	50	1.8	65	28	54.7	5.2	1.6 to 2.9	119
VSP-HD50S*-6T		4						

Dimensions (lightweight, buffer, vacuum outlet, both sides, VSP-HDW, push-in fitting)

●VSP-HDW10 to 50S*-2/4/6

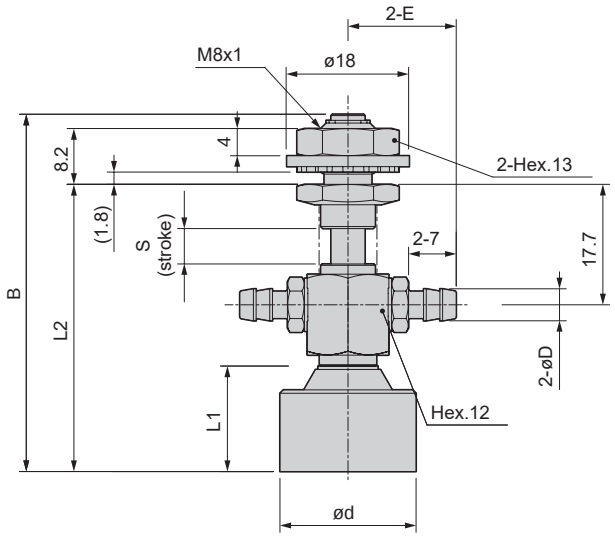


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW10S*-2	10	1.8	46.5	9.5	36.2	8.4	14.7	5.2	1.6 to 2.9	37
VSP-HDW10S*-4		4				11.2	18.8			39
VSP-HDW10S*-6		6				11.9	20.6			41
VSP-HDW15S*-2	15	1.8	46.5	9.5	36.2	8.4	14.7	5.2	1.6 to 2.9	37
VSP-HDW15S*-4		4				11.2	18.8			39
VSP-HDW15S*-6		6				11.9	20.6			41
VSP-HDW20S*-2	20	1.8	52.5	15.5	42.2	8.4	14.7	5.2	1.6 to 2.9	39
VSP-HDW20S*-4		4				11.2	18.8			41
VSP-HDW20S*-6		6				11.9	20.6			43
VSP-HDW25S*-2	25	1.8	52.5	15.5	42.2	8.4	14.7	5.2	1.6 to 2.9	40
VSP-HDW25S*-4		4				11.2	18.8			42
VSP-HDW25S*-6		6				11.9	20.6			44
VSP-HDW30S*-2	30	1.8	52.5	15.5	42.2	8.4	14.7	5.2	1.6 to 2.9	41
VSP-HDW30S*-4		4				11.2	18.8			43
VSP-HDW30S*-6		6				11.9	20.6			45
VSP-HDW35S*-2	35	1.8	65	28	54.7	8.4	14.7	5.2	1.6 to 2.9	70
VSP-HDW35S*-4		4				11.2	18.8			72
VSP-HDW35S*-6		6				11.9	20.6			74
VSP-HDW50S*-2	50	1.8	65	28	54.7	8.4	14.7	5.2	1.6 to 2.9	111
VSP-HDW50S*-4		4				11.2	18.8			113
VSP-HDW50S*-6		6				11.9	20.6			115

Dimensions (lightweight, buffer, vacuum outlet, both sides, VSP-HDW, barbed fitting)

●VSP-HDW10 to 50S*-4T/6T

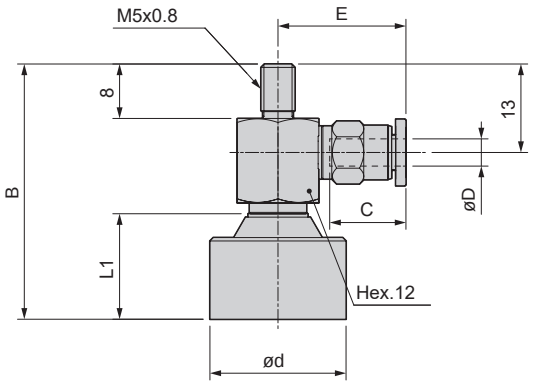


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-HDW10S*-4T	10	1.8	46.5	9.5	36.2	5.2	1.6 to 2.9	36
VSP-HDW10S*-6T		4						
VSP-HDW15S*-4T	15	1.8	46.5	9.5	36.2	5.2	1.6 to 2.9	36
VSP-HDW15S*-6T		4						
VSP-HDW20S*-4T	20	1.8	52.5	15.5	42.2	5.2	1.6 to 2.9	38
VSP-HDW20S*-6T		4						
VSP-HDW25S*-4T	25	1.8	52.5	15.5	42.2	5.2	1.6 to 2.9	38
VSP-HDW25S*-6T		4						
VSP-HDW30S*-4T	30	1.8	52.5	15.5	42.2	5.2	1.6 to 2.9	39
VSP-HDW30S*-6T		4						
VSP-HDW35S*-4T	35	1.8	65	28	54.7	5.2	1.6 to 2.9	71
VSP-HDW35S*-6T		4						
VSP-HDW50S*-4T	50	1.8	65	28	54.7	5.2	1.6 to 2.9	112
VSP-HDW50S*-6T		4						

Dimensions (low back, fixed, vacuum outlet, side, VSP-HE, push-in fitting)

●VSP-HE10 to 50S*-2/4/6

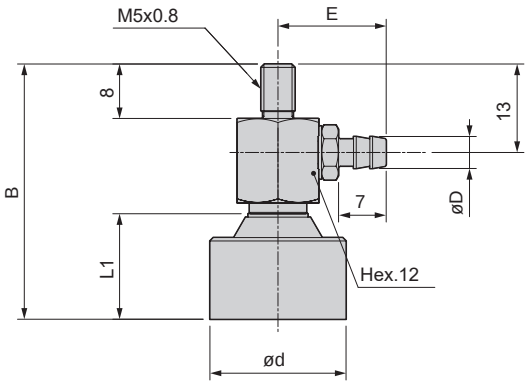


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HE10S*-2	10	1.8	31.5	9.5	8.4	14.7	21
VSP-HE10S*-4		4			11.2	18.8	22
VSP-HE10S*-6		6			11.9	20.6	23
VSP-HE15S*-2	15	1.8	31.5	9.5	8.4	14.7	21
VSP-HE15S*-4		4			11.2	18.8	22
VSP-HE15S*-6		6			11.9	20.6	23
VSP-HE20S*-2	20	1.8	37.5	15.5	8.4	14.7	23
VSP-HE20S*-4		4			11.2	18.8	24
VSP-HE20S*-6		6			11.9	20.6	25
VSP-HE25S*-2	25	1.8	37.5	15.5	8.4	14.7	24
VSP-HE25S*-4		4			11.2	18.8	25
VSP-HE25S*-6		6			11.9	20.6	26
VSP-HE30S*-2	30	1.8	37.5	15.5	8.4	14.7	25
VSP-HE30S*-4		4			11.2	18.8	26
VSP-HE30S*-6		6			11.9	20.6	27
VSP-HE35S*-2	35	1.8	50	28	8.4	14.7	54
VSP-HE35S*-4		4			11.2	18.8	55
VSP-HE35S*-6		6			11.9	20.6	56
VSP-HE50S*-2	50	1.8	50	28	8.4	14.7	95
VSP-HE50S*-4		4			11.2	18.8	96
VSP-HE50S*-6		6			11.9	20.6	97

Dimensions (low back, fixed, vacuum outlet, side, VSP-HE, barbed fitting)

●VSP-HE10 to 50S*-4T/6T

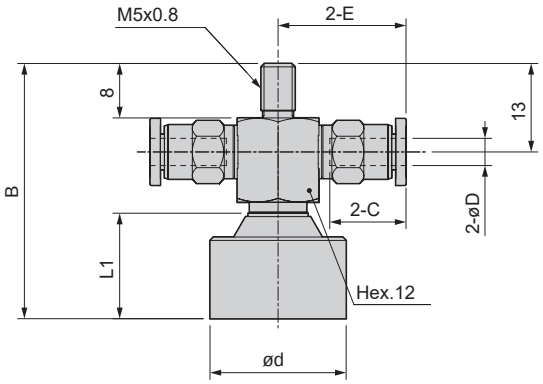


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-HE10S*-4T	10	1.8	31.5	9.5	16
VSP-HE10S*-6T		4			
VSP-HE15S*-4T	15	1.8	31.5	9.5	16
VSP-HE15S*-6T		4			
VSP-HE20S*-4T	20	1.8	37.5	15.5	22
VSP-HE20S*-6T		4			
VSP-HE25S*-4T	25	1.8	37.5	15.5	23
VSP-HE25S*-6T		4			
VSP-HE30S*-4T	30	1.8	37.5	15.5	24
VSP-HE30S*-6T		4			
VSP-HE35S*-4T	35	1.8	50	28	53
VSP-HE35S*-6T		4			
VSP-HE50S*-4T	50	1.8	50	28	94
VSP-HE50S*-6T		4			

Dimensions (low back, fixed, vacuum outlet, both sides, VSP-HEW, push-in fitting)

●VSP-HEW10 to 50S*-2/4/6

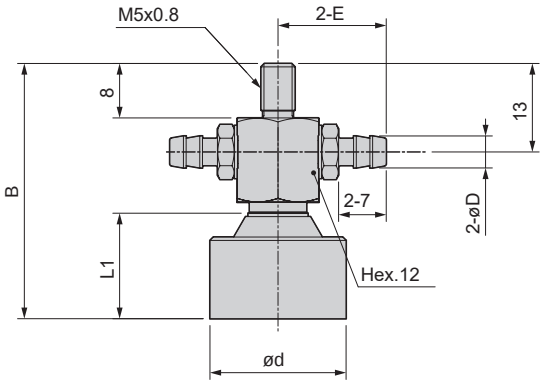


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HEW10S*-2	10	1.8	31.5	9.5	8.4	14.7	15
VSP-HEW10S*-4		4			11.2	18.8	17
VSP-HEW10S*-6		6			11.9	20.6	19
VSP-HEW15S*-2	15	1.8	31.5	9.5	8.4	14.7	15
VSP-HEW15S*-4		4			11.2	18.8	17
VSP-HEW15S*-6		6			11.9	20.6	19
VSP-HEW20S*-2	20	1.8	37.5	15.5	8.4	14.7	17
VSP-HEW20S*-4		4			11.2	18.8	19
VSP-HEW20S*-6		6			11.9	20.6	21
VSP-HEW25S*-2	25	1.8	37.5	15.5	8.4	14.7	18
VSP-HEW25S*-4		4			11.2	18.8	20
VSP-HEW25S*-6		6			11.9	20.6	22
VSP-HEW30S*-2	30	1.8	37.5	15.5	8.4	14.7	19
VSP-HEW30S*-4		4			11.2	18.8	21
VSP-HEW30S*-6		6			11.9	20.6	23
VSP-HEW35S*-2	35	1.8	50	28	8.4	14.7	48
VSP-HEW35S*-4		4			11.2	18.8	50
VSP-HEW35S*-6		6			11.9	20.6	52
VSP-HEW50S*-2	50	1.8	50	28	8.4	14.7	89
VSP-HEW50S*-4		4			11.2	18.8	91
VSP-HEW50S*-6		6			11.9	20.6	93

Dimensions (low back, fixed, vacuum outlet, both sides, VSP-HEW, barbed fitting)

●VSP-HEW10 to 50S*-4T/6T

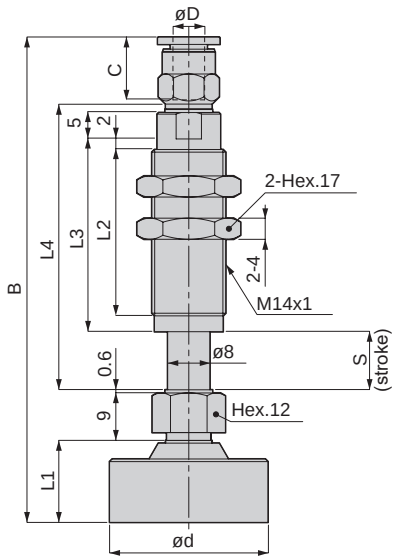


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-HEW10S*-4T	10	1.8	31.5	9.5	16
VSP-HEW10S*-6T		4			
VSP-HEW15S*-4T	15	1.8	31.5	9.5	16
VSP-HEW15S*-6T		4			
VSP-HEW20S*-4T	20	1.8	37.5	15.5	22
VSP-HEW20S*-6T		4			
VSP-HEW25S*-4T	25	1.8	37.5	15.5	23
VSP-HEW25S*-6T		4			
VSP-HEW30S*-4T	30	1.8	37.5	15.5	24
VSP-HEW30S*-6T		4			
VSP-HEW35S*-4T	35	1.8	50	28	53
VSP-HEW35S*-6T		4			
VSP-HEW50S*-4T	50	1.8	50	28	94
VSP-HEW50S*-6T		4			

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, push-in fitting)

●VSP-LFC10 to 30-□S*-4/6



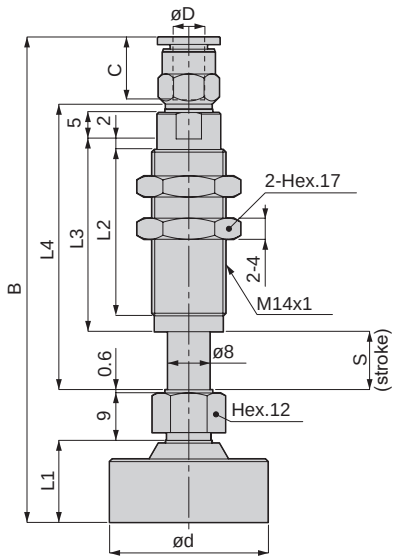
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-LFC10-5S*-4	10	4	74.6	9.5	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	53
VSP-LFC10-5S*-6		6	75.9					11.9			54
VSP-LFC10-10S*-4		4	84.6		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	55
VSP-LFC10-10S*-6		6	85.9					11.9			56
VSP-LFC10-15S*-4		4	94.6		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	58
VSP-LFC10-15S*-6		6	95.9					11.9			59
VSP-LFC10-20S*-4		4	104.6		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	61
VSP-LFC10-20S*-6		6	105.9					11.9			62
VSP-LFC15-5S*-4	15	4	74.6	9.5	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	54
VSP-LFC15-5S*-6		6	75.9					11.9			55
VSP-LFC15-10S*-4		4	84.6		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	56
VSP-LFC15-10S*-6		6	85.9					11.9			57
VSP-LFC15-15S*-4		4	94.6		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	59
VSP-LFC15-15S*-6		6	95.9					11.9			60
VSP-LFC15-20S*-4		4	104.6		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	62
VSP-LFC15-20S*-6		6	105.9					11.9			63
VSP-LFC20-5S*-4	20	4	80.6	15.5	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	55
VSP-LFC20-5S*-6		6	81.9					11.9			56
VSP-LFC20-10S*-4		4	90.6		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	57
VSP-LFC20-10S*-6		6	91.9					11.9			58
VSP-LFC20-15S*-4		4	100.6		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	60
VSP-LFC20-15S*-6		6	101.9					11.9			61
VSP-LFC20-20S*-4		4	110.6		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	63
VSP-LFC20-20S*-6		6	111.9					11.9			64
VSP-LFC25-5S*-4	25	4	80.6	15.5	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	56
VSP-LFC25-5S*-6		6	81.9					11.9			57
VSP-LFC25-10S*-4		4	90.6		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	58
VSP-LFC25-10S*-6		6	91.9					11.9			59
VSP-LFC25-15S*-4		4	100.6		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	61
VSP-LFC25-15S*-6		6	101.9					11.9			62
VSP-LFC25-20S*-4		4	110.6		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	64
VSP-LFC25-20S*-6		6	111.9					11.9			65
VSP-LFC30-5S*-4	30	4	80.6	15.5	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	57
VSP-LFC30-5S*-6		6	81.9					11.9			58
VSP-LFC30-10S*-4		4	90.6		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	59
VSP-LFC30-10S*-6		6	91.9					11.9			60
VSP-LFC30-15S*-4		4	100.6		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	62
VSP-LFC30-15S*-6		6	101.9					11.9			63
VSP-LFC30-20S*-4		4	110.6		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	65
VSP-LFC30-20S*-6		6	111.9					11.9			66

*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, push-in fitting)

●VSP-LFC35, 50-□S*-4/6



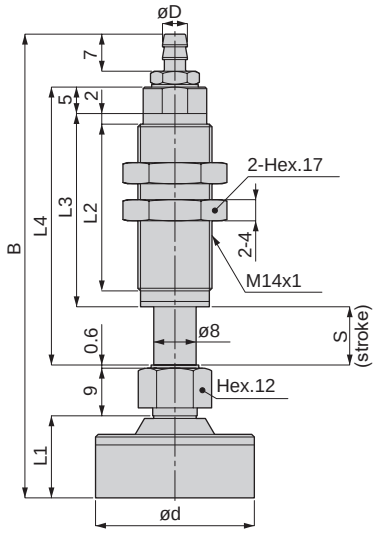
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-LFC35-5S*-4	35	4	93.1	28	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	86
VSP-LFC35-5S*-6		6	94.4					11.9			87
VSP-LFC35-10S*-4		4	103.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	88
VSP-LFC35-10S*-6		6	104.4					11.9			89
VSP-LFC35-15S*-4		4	113.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	91
VSP-LFC35-15S*-6		6	114.4					11.9			92
VSP-LFC35-20S*-4		4	123.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	94
VSP-LFC35-20S*-6		6	124.4					11.9			95
VSP-LFC50-5S*-4	50	4	93.1	28	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	127
VSP-LFC50-5S*-6		6	94.4					11.9			128
VSP-LFC50-10S*-4		4	103.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	129
VSP-LFC50-10S*-6		6	104.4					11.9			130
VSP-LFC50-15S*-4		4	113.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	132
VSP-LFC50-15S*-6		6	114.4					11.9			133
VSP-LFC50-20S*-4		4	123.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	135
VSP-LFC50-20S*-6		6	124.4					11.9			136

*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, barbed fitting)

●VSP-LFC10 to 30-□S*-4T/6T



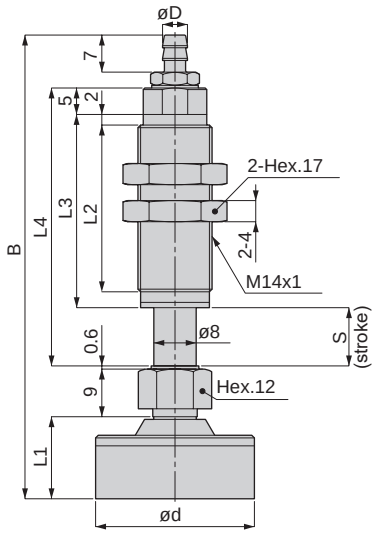
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
VSP-LFC10-5S*-4T	10	2.5	71.7	9.5	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	48
VSP-LFC10-5S*-6T		4								
VSP-LFC10-10S*-4T		2.5	81.7		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	50
VSP-LFC10-10S*-6T		4								
VSP-LFC10-15S*-4T		2.5	91.7		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	53
VSP-LFC10-15S*-6T		4								
VSP-LFC10-20S*-4T		2.5	101.7		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	56
VSP-LFC10-20S*-6T		4								
VSP-LFC15-5S*-4T	15	2.5	71.7	9.5	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	49
VSP-LFC15-5S*-6T		4								
VSP-LFC15-10S*-4T		2.5	81.7		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	51
VSP-LFC15-10S*-6T		4								
VSP-LFC15-15S*-4T		2.5	91.7		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	54
VSP-LFC15-15S*-6T		4								
VSP-LFC15-20S*-4T		2.5	101.7		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	57
VSP-LFC15-20S*-6T		4								
VSP-LFC20-5S*-4T	20	2.5	77.7	15.5	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	50
VSP-LFC20-5S*-6T		4								
VSP-LFC20-10S*-4T		2.5	87.7		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	52
VSP-LFC20-10S*-6T		4								
VSP-LFC20-15S*-4T		2.5	97.7		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	55
VSP-LFC20-15S*-6T		4								
VSP-LFC20-20S*-4T		2.5	107.7		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	58
VSP-LFC20-20S*-6T		4								
VSP-LFC25-5S*-4T	25	2.5	77.7	15.5	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	51
VSP-LFC25-5S*-6T		4								
VSP-LFC25-10S*-4T		2.5	87.7		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	53
VSP-LFC25-10S*-6T		4								
VSP-LFC25-15S*-4T		2.5	97.7		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	56
VSP-LFC25-15S*-6T		4								
VSP-LFC25-20S*-4T		2.5	107.7		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	59
VSP-LFC25-20S*-6T		4								
VSP-LFC30-5S*-4T	30	2.5	77.7	15.5	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	52
VSP-LFC30-5S*-6T		4								
VSP-LFC30-10S*-4T		2.5	87.7		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	54
VSP-LFC30-10S*-6T		4								
VSP-LFC30-15S*-4T		2.5	97.7		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	57
VSP-LFC30-15S*-6T		4								
VSP-LFC30-20S*-4T		2.5	107.7		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	60
VSP-LFC30-20S*-6T		4								

*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, barbed fitting)

●VSP-LFC35, 50-□S*-4T/6T



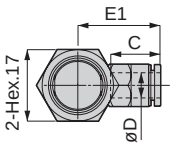
Unit: mm

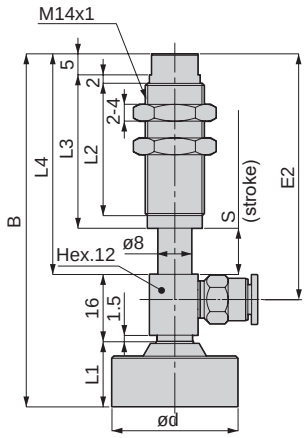
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
VSP-LFC35-5S*-4T	35	2.5	90.2	28	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	81
VSP-LFC35-5S*-6T		4								
VSP-LFC35-10S*-4T		2.5	100.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	83
VSP-LFC35-10S*-6T		4								
VSP-LFC35-15S*-4T		2.5	110.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	86
VSP-LFC35-15S*-6T		4								
VSP-LFC35-20S*-4T		2.5	120.1		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	89
VSP-LFC35-20S*-6T		4								
VSP-LFC50-5S*-4T	50	2.5	90.2	28	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	122
VSP-LFC50-5S*-6T		4								
VSP-LFC50-10S*-4T		2.5	100.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	124
VSP-LFC50-10S*-6T		4								
VSP-LFC50-15S*-4T		2.5	110.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	127
VSP-LFC50-15S*-6T		4								
VSP-LFC50-20S*-4T		2.5	120.1		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	130
VSP-LFC50-20S*-6T		4								

*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, push-in fitting)

●VSP-LFD10 to 30-□S*-4/6



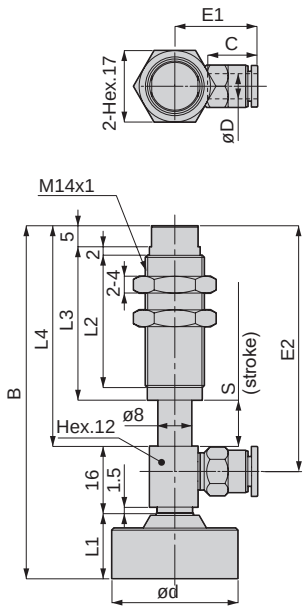


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-LFD10-5S*-4	10	4	68	9.5	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	54
VSP-LFD10-5S*-6		6						11.9	19.7				55
VSP-LFD10-10S*-4		4	78		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	58
VSP-LFD10-10S*-6		6						11.9	19.7				59
VSP-LFD10-15S*-4		4	88		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	62
VSP-LFD10-15S*-6		6						11.9	19.7				63
VSP-LFD10-20S*-4		4	98		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	66
VSP-LFD10-20S*-6		6						11.9	19.7				67
VSP-LFD15-5S*-4	15	4	68	9.5	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	55
VSP-LFD15-5S*-6		6						11.9	19.7				56
VSP-LFD15-10S*-4		4	78		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	59
VSP-LFD15-10S*-6		6						11.9	19.7				60
VSP-LFD15-15S*-4		4	88		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	63
VSP-LFD15-15S*-6		6						11.9	19.7				64
VSP-LFD15-20S*-4		4	98		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	67
VSP-LFD15-20S*-6		6						11.9	19.7				68
VSP-LFD20-5S*-4	20	4	74	15.5	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	56
VSP-LFD20-5S*-6		6						11.9	19.7				57
VSP-LFD20-10S*-4		4	84		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	60
VSP-LFD20-10S*-6		6						11.9	19.7				61
VSP-LFD20-15S*-4		4	94		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	64
VSP-LFD20-15S*-6		6						11.9	19.7				65
VSP-LFD20-20S*-4		4	104		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	68
VSP-LFD20-20S*-6		6						11.9	19.7				69
VSP-LFD25-5S*-4	25	4	74	15.5	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	57
VSP-LFD25-5S*-6		6						11.9	19.7				58
VSP-LFD25-10S*-4		4	84		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	61
VSP-LFD25-10S*-6		6						11.9	19.7				62
VSP-LFD25-15S*-4		4	94		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	65
VSP-LFD25-15S*-6		6						11.9	19.7				66
VSP-LFD25-20S*-4		4	104		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	69
VSP-LFD25-20S*-6		6						11.9	19.7				70
VSP-LFD30-5S*-4	30	4	74	15.5	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	58
VSP-LFD30-5S*-6		6						11.9	19.7				59
VSP-LFD30-10S*-4		4	84		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	62
VSP-LFD30-10S*-6		6						11.9	19.7				63
VSP-LFD30-15S*-4		4	94		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	66
VSP-LFD30-15S*-6		6						11.9	19.7				67
VSP-LFD30-20S*-4		4	104		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	70
VSP-LFD30-20S*-6		6						11.9	19.7				71

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, push-in fitting)

●VSP-LFD35, 50-□S*-4/6

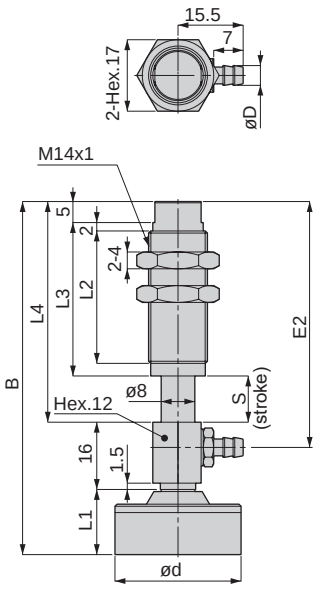


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-LFD35-5S*-4	35	4	86.5	28	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	87
VSP-LFD35-5S*-6		6						11.9	19.7				88
VSP-LFD35-10S*-4		4	96.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	91
VSP-LFD35-10S*-6		6						11.9	19.7				92
VSP-LFD35-15S*-4		4	106.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	95
VSP-LFD35-15S*-6		6						11.9	19.7				96
VSP-LFD35-20S*-4		4	116.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	99
VSP-LFD35-20S*-6		6						11.9	19.7				100
VSP-LFD50-5S*-4	50	4	86.5	28	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	128
VSP-LFD50-5S*-6		6						11.9	19.7				129
VSP-LFD50-10S*-4		4	96.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	132
VSP-LFD50-10S*-6		6						11.9	19.7				133
VSP-LFD50-15S*-4		4	106.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	136
VSP-LFD50-15S*-6		6						11.9	19.7				137
VSP-LFD50-20S*-4		4	116.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	140
VSP-LFD50-20S*-6		6						11.9	19.7				141

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, barbed fitting)

●VSP-LFD10 to 30-□S*-4T/6T

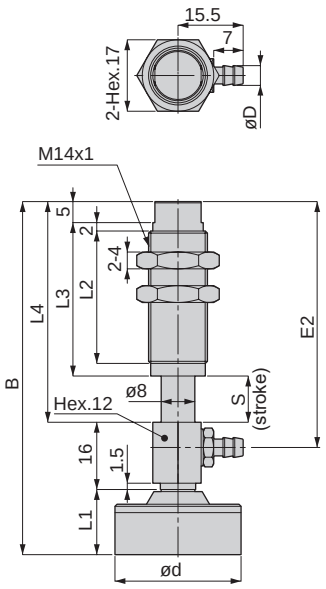


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	E2	Stroke S	Spring force (N)	Weight (g)
VSP-LFD10-5S*-4T	10	2.5	68	9.5	26.5	31.5	42.5	48.5	5	4.5 to 6.5	50
VSP-LFD10-5S*-6T		4									
VSP-LFD10-10S*-4T		2.5	78		31.5	36.5	52.5	58.5	10	4.5 to 8.2	53
VSP-LFD10-10S*-6T		4									
VSP-LFD10-15S*-4T		2.5	88		36.5	41.5	62.5	68.5	15	4.5 to 9.9	57
VSP-LFD10-15S*-6T		4									
VSP-LFD10-20S*-4T		2.5	98		41.5	46.5	72.5	78.5	20	4.5 to 14.9	61
VSP-LFD10-20S*-6T		4									
VSP-LFD15-5S*-4T	15	2.5	68	9.5	26.5	31.5	42.5	48.5	5	4.5 to 6.5	51
VSP-LFD15-5S*-6T		4									
VSP-LFD15-10S*-4T		2.5	78		31.5	36.5	52.5	58.5	10	4.5 to 8.2	54
VSP-LFD15-10S*-6T		4									
VSP-LFD15-15S*-4T		2.5	88		36.5	41.5	62.5	68.5	15	4.5 to 9.9	58
VSP-LFD15-15S*-6T		4									
VSP-LFD15-20S*-4T		2.5	98		41.5	46.5	72.5	78.5	20	4.5 to 14.9	62
VSP-LFD15-20S*-6T		4									
VSP-LFD20-5S*-4T	20	2.5	74	15.5	26.5	31.5	42.5	48.5	5	4.5 to 6.5	52
VSP-LFD20-5S*-6T		4									
VSP-LFD20-10S*-4T		2.5	84		31.5	36.5	52.5	58.5	10	4.5 to 8.2	55
VSP-LFD20-10S*-6T		4									
VSP-LFD20-15S*-4T		2.5	94		36.5	41.5	62.5	68.5	15	4.5 to 9.9	59
VSP-LFD20-15S*-6T		4									
VSP-LFD20-20S*-4T		2.5	104		41.5	46.5	72.5	78.5	20	4.5 to 14.9	63
VSP-LFD20-20S*-6T		4									
VSP-LFD25-5S*-4T	25	2.5	74	15.5	26.5	31.5	42.5	48.5	5	4.5 to 6.5	53
VSP-LFD25-5S*-6T		4									
VSP-LFD25-10S*-4T		2.5	84		31.5	36.5	52.5	58.5	10	4.5 to 8.2	57
VSP-LFD25-10S*-6T		4									
VSP-LFD25-15S*-4T		2.5	94		36.5	41.5	62.5	68.5	15	4.5 to 9.9	60
VSP-LFD25-15S*-6T		4									
VSP-LFD25-20S*-4T		2.5	104		41.5	46.5	72.5	78.5	20	4.5 to 14.9	64
VSP-LFD25-20S*-6T		4									
VSP-LFD30-5S*-4T	30	2.5	74	15.5	26.5	31.5	42.5	48.5	5	4.5 to 6.5	57
VSP-LFD30-5S*-6T		4									
VSP-LFD30-10S*-4T		2.5	84		31.5	36.5	52.5	58.5	10	4.5 to 8.2	58
VSP-LFD30-10S*-6T		4									
VSP-LFD30-15S*-4T		2.5	94		36.5	41.5	62.5	68.5	15	4.5 to 9.9	61
VSP-LFD30-15S*-6T		4									
VSP-LFD30-20S*-4T		2.5	104		41.5	46.5	72.5	78.5	20	4.5 to 14.9	65
VSP-LFD30-20S*-6T		4									

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, barbed fitting)

●VSP-LFD35, 50-□S*-4T/6T

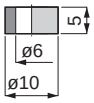


Unit: mm

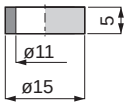
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	E2	Stroke S	Spring force (N)	Weight (g)
VSP-LFD35-5S*-4T	35	2.5	86.5	28	26.5	31.5	42.5	48.5	5	4.5 to 6.5	83
VSP-LFD35-5S*-6T		4									
VSP-LFD35-10S*-4T		2.5	96.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	87
VSP-LFD35-10S*-6T		4									
VSP-LFD35-15S*-4T		2.5	106.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	90
VSP-LFD35-15S*-6T		4									
VSP-LFD35-20S*-4T		2.5	116.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	94
VSP-LFD35-20S*-6T		4									
VSP-LFD50-5S*-4T	50	2.5	86.5	28	26.5	31.5	42.5	48.5	5	4.5 to 6.5	124
VSP-LFD50-5S*-6T		4									
VSP-LFD50-10S*-4T		2.5	96.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	128
VSP-LFD50-10S*-6T		4									
VSP-LFD50-15S*-4T		2.5	106.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	131
VSP-LFD50-15S*-6T		4									
VSP-LFD50-20S*-4T		2.5	116.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	135
VSP-LFD50-20S*-6T		4									

Dimensions: pad only

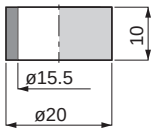
●VSPG-10S* Weight: 0.1g[0.2g]



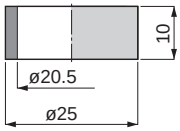
●VSPG-15S* Weight: 0.2g[0.3g]



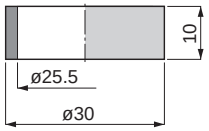
●VSPG-20S* Weight: 0.3g[0.8g]



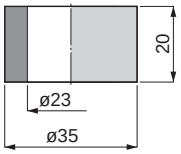
●VSPG-25S* Weight: 0.4g[1.0g]



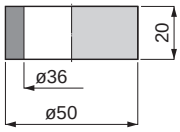
●VSPG-30S* Weight: 0.5g[1.4g]



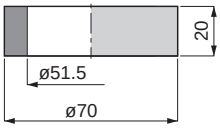
●VSPG-35S* Weight: 2.1g[6.3g]



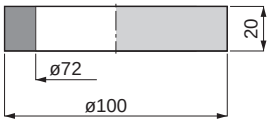
●VSPG-50S* Weight: 3.6g[11.0g]



●VSPG-70S* Weight: 6.3g[21.0g]



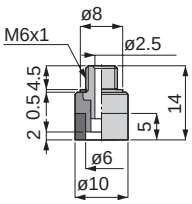
●VSPG-100S* Weight: 14.0g[42.0g]



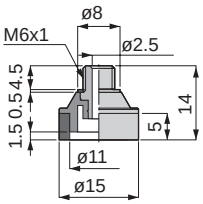
Note: Values in [ ] are for silicone rubber only.

Pad/Threaded set dimensions

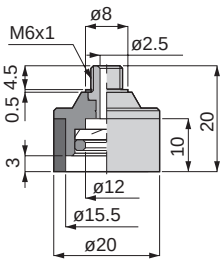
●VSPG-10S*A Weight: 1.9g[1.9g]



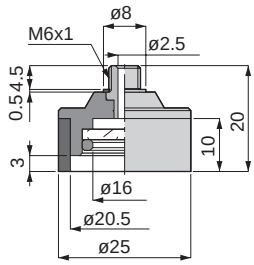
●VSPG-15S*A Weight: 2.1g[2.3g]



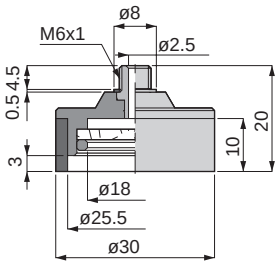
●VSPG-20S*A Weight: 3.9g[4.4g]



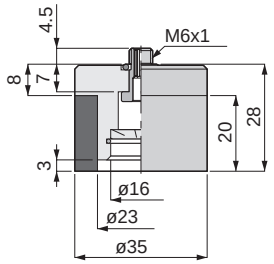
●VSPG-25S*A Weight: 5.2g [5.9g]



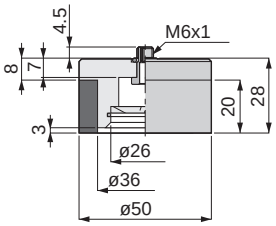
●VSPG-30S*A Weight: 6.2g [7.1g]



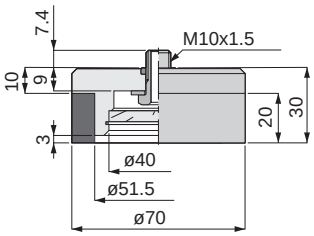
●VSPG-35S*A Weight: 35g [40g]



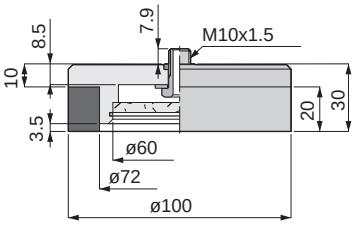
●VSPG-50S*A Weight: 76g [83g]



●VSPG-70S*A Weight: 142g [156g]



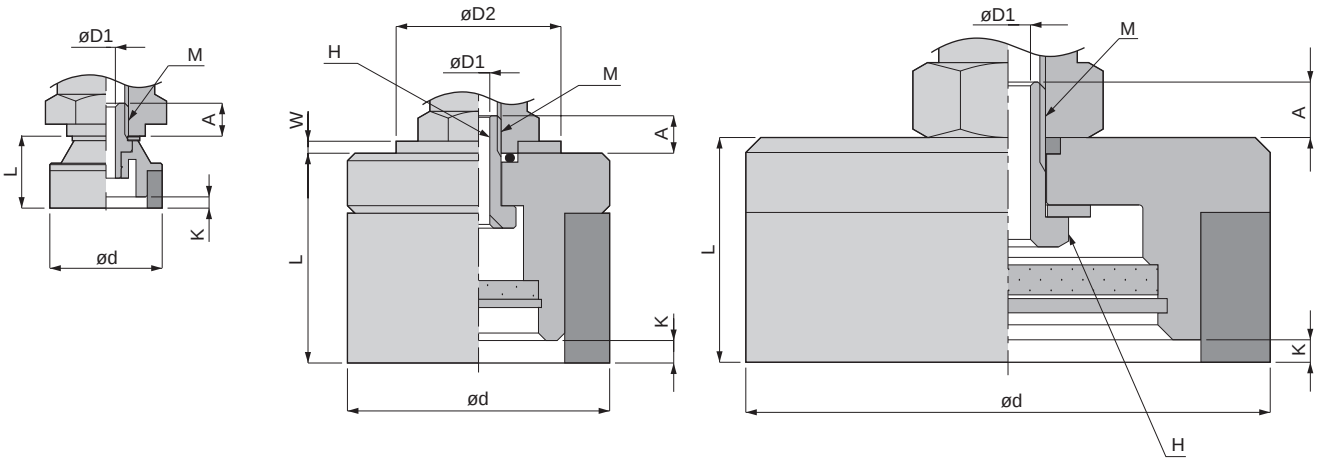
●VSPG-100S*A Weight: 272g [300g]



* Values in [ ] are for silicone rubber only.

Detailed view of pad and holder connection

● VSPG-10 to 30S*A ● VSPG-35, 50S*A ● VSPG-70, 100S*A



Unit: mm

Model No.	Pad diameter ød	L	Lip internal height K	Fixing screw M	A	Hexagon H	øD1	øD2	W
VSPG-10S*-A	10	9.5	1.5	M6x1	4.5	-	3	-	-
VSPG-15S*-A	15	9.5	1.5	M6x1	4.5	-	3	-	-
VSPG-20S*-A	20	15.5	3	M6x1	4.5	-	3	-	-
VSPG-25S*-A	25	15.5	3	M6x1	4.5	-	3	-	-
VSPG-30S*-A	30	15.5	3	M6x1	4.5	-	3	-	-
VSPG-35S*-A	35	28	3	M6x1	4.5	3	-	22	1.6
VSPG-50S*-A	50	28	3	M6x1	4.5	3	-	22	1.6
VSPG-70S*-A	70	30	3	M10x1.5	6	14	6	-	-
VSPG-100S*-A	100	30	3.5	M10x1.5	6	14	6	-	-

Safety precautions

CAUTION

■When replacing the suction pad, use a manual tightening torque for pad diameter: ø10 to ø30 mm and securely tighten by hand until it hits the end. For tightening torque of pad diameter: ø35 to ø100 mm, tighten using an appropriate tool according to the tightening torque in Common Precautions for suction pad (Intro Page 20) and confirm that there is no looseness.

■When mounting the pad frame (Applicable pad diameter: ø10 to ø30 mm), Tightening torque: Tighten using an appropriate tool in accordance with 0.45 to 0.55N·m and confirm that there is no looseness.



Suction pad bellows

VSP-*B* Series

Suction pad that molds softly to the workpiece with a bellows structure

RoHS

Since the bellows (bellows) track to curved workpieces, it is ideal for transporting retort-packs or bags containing food, etc.

A wide range of holder variations

Shape 18types

- Standard6 types
- CompactClass 5
- Low dust
- generation...2 types
- Lightweight3 types
- Low back: 2 types

Pipingconnection 9types

- Push-in fitting (ø1.8 to ø8)Four types
- Barbed fitting (ø4, ø6) Two types
- Screw-in (M3, M5, G1/8) . 3 types

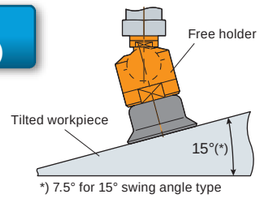
Stroke 12types

2mm to 50mm
(Depends on pad diameter and holder)

Low dust generation holders (LFC, LFD) are available, with minimal friction powder and low noise caused by sliding

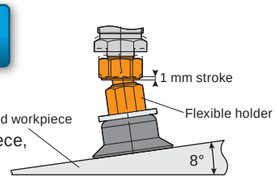
Supports assembly options of track swinging (free holder, flexible holder) on a workpiece surface with an angle

Free holder (F1:30°, F2:15°)



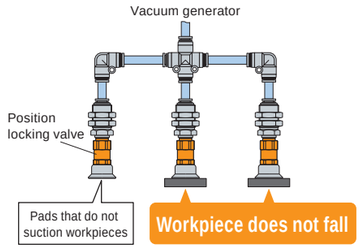
*) 7.5° for 15° swing angle type

Flexible holder (CF)



After removing the workpiece, returns to the normal position (vertical)

Supports assembly option of position locking valve (V) that reduces vacuum drop in another circuit even without a workpiece



Supports workpieces susceptible to suction marks simply by attaching the dedicated resin attachment to the bellows pad

Size 5types ø10 to ø30

Material 3types

- PEEK
- POM
- Conductive PEEK



Pad surface treatment (option) is available for special treatment to reduce suction marks

	-NF	-SF	-DL	-ER	-FG
Surface-Treated	Fiber raising: Nylon	Fiber raising: Silk	Anti-sticking	Suction mark relief	Fluorine coating
					
Compatible materials	Silicone Fluorine	Silicone Fluorine	Silicone Fluorine Conductive silicone	Nitriles Conductive NBR (low resistance)	Silicone Conductive silicone Super-soft silicone
Features	The fibers (nylon or silk) on the pad surface prevent rubber material transfer by avoiding direct contact with the workpiece.		Special coating with good slip. Effective for preventing adhesion of lightweight and thin workpieces.	Reduces suction marks by modifying the surface with an environmentally friendly chemical liquid.	Surface modification for special treatment to prevent adhesion to workpieces. Improved pad durability and wear resistance.

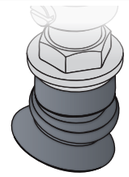
Pad shape





1-stage bellows

Track to a change in the height of the workpiece in contact with it or to an inclination of the surface.



Recommended workpiece

Retort-packs and bags containing food etc.



Pad diameter

14 types

2 | 4 | 6 | 8 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 80 | 100

Pad material

10 types

Nitriles | Silicone | Urethane | Fluorine | Conductive silicone | Conductive NBR (low resistance) | HNBR | EPDM | Ultra-soft silicone hardness 20° | Ultra-soft silicone hardness 40°


Hardness 20°


Hardness 40°

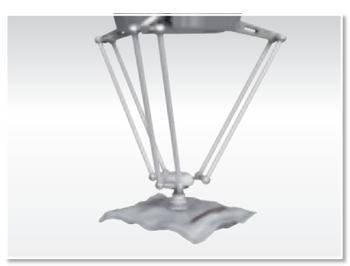
Super-soft silicone

*Ultra-soft silicone (YS2, YS4) is compliant with the Food Sanitation Act and the FDA. Silicone (S) is compatible with the Food Sanitation Act.
(holder is not supported/suction pad is compatible only with workpiece contact part)

Solution examples

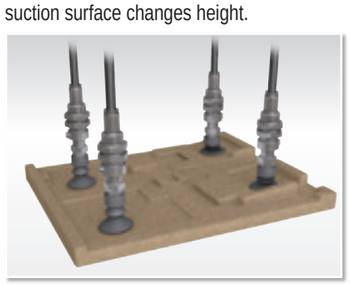
When the suction surface is not flat

It flexibly track to uneven workpieces such as retort-packs.



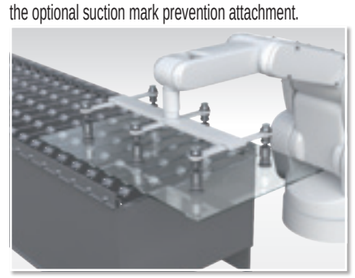
Workpieces with irregular suction surface height

Suctions are possible by track to workpieces such as cardboard or paper boxes whose suction surface changes height.



Workpieces that must not have suction marks

Supports workpieces such as glass substrates by using the optional suction mark prevention attachment.



How to order

●Bellows

Suction pad

VSP – C 30 -20 B N -ER – 6 – – F1 V

VSP	C	30	-20	B	N	-ER	6	–	F1	V
Model No.	❶ Holder type	❷ Pad diameter	❸ Stroke option	❹ Pad shape	❺ Pad material	❻ Surface-treated	❼ Port size/shape	❽ Buffer load	❾ Pad Swinging	❿ Position locking valve

Pad rubber only

VSPG — 30 B N -ER

VSPG	30	B	N	-ER
Model No.	❷	❹	❺	❻

Pad rubber + set with fixing screw

VSPG — 30 B N -ER A

VSPG	30	B	N	-ER	A
Model No.	❷ Pad diameter	❹ Pad shape	❺ Pad material	❻ Surface-treated	

*1: For ❷10 to 100, pad rubber + set with fixing screw can be selected.

❶ Holder type

With/Without buffer	Type	Vacuum outlet	Code
Fixed	Standard	Upward direction	A
	Compact		MA
	Standard	Lateral direction	B
	Compact		MB
	Low height		HE
		Both lateral directions	HEW
	Standard	Direct mounting	E
	Compact		ME

With/Without buffer	Type	Vacuum outlet	Code
Buffer type	Standard	Upward direction	C
	Compact		MC
	Low dust generation		LFC
	Lightweight		HC
	Standard	Lateral direction	D
	Compact		MD
	Low dust generation		LFD
	Lightweight	Both lateral directions	HDW
	Standard	Direct mounting	F

❷ Pad diameter

Pad shape	B										
Pad material	N	S	YS2	YS4	U	F	SE	NE	HN	EP	
Pad diameter											Code
ø2	●	●									2
ø4	●	●					●				4
ø6	●	●			●	●	●	●	●	●	6
ø8	●	●			●	●	●	●	●	●	8
ø10	●	●	*1	*1	●	●	●	●	●	●	10
ø15	●	●	*1	●	●	●	●	●	●	●	15
ø20	●	●	●	●	●	●	●	●	●	●	20
ø25	●	●	●	●	●	●	●	●	●	●	25
ø30	●	●	●	●	●	●	●	●	●	●	30
ø40	●	●	●	●	●	●	●	●	●	●	40
ø50	●	●	●	●	●	●	●	●	●	●	50
ø60	●	●			●	●	●	●	●	●	60
ø80	●	●			●	●	●	●	●	●	80
ø100	●	●			●	●	●	●	●	●	100

*1:❷ YS2 ❺ of 10, YS4, and ❷ YS2 of ❺15 can be selected only when ❻ -FG is selected.

❸ Stroke option

Description	Holder type C	D	HC	LFC	LFD	Code
Specified stroke or without buffer	●	●				Blank *1,*2
Stroke 2 mm				●		–2
Stroke 5 mm				●	●	–5
Stroke 10 mm	●	●	●	●	●	–10
Stroke 15 mm	●	●	●	●	●	–15
Stroke 20 mm	●	●	●	●	●	–20
Stroke 25 mm			●			–25
Stroke 30 mm	●	●	●			–30
Stroke 40 mm	●	●	●			–40
Stroke 50 mm	●	●	●			–50

*1: ❶ Blank for models other than ❸ C, D, HC, LFC, LFD.
*2: For a designated stroke with blank, check the stroke dimensions on the dimensions fig.
*3: For ❷ 6 to 15, ❸ -2 can be selected.

❹ Pad shape

Code	Description
B	Bellows

❺ Pad material

Code	Description
N	Nitrile rubber
S	Silicone rubber
YS2	Super soft silicone rubber (hardness 20°)
YS4	Super soft silicone rubber (hardness 40°)
U	Urethane rubber
F	Fluoro rubber
SE	Conductive silicone rubber
NE	Conductive NBR (low resistance)
HN	HNBR
EP	EPDM

❻ Surface-treated

Description	Compatible pad material N	S	YS2	YS4	F	SE	NE	Supported pad diameter Bellows (B)	Code
No surface treatment	All pads material, all pad diameters								Blank
Fiber nap (nylon)		●			●			ø15 to ø80	–NF
Fiber raising (silk)		●			●			ø15 to ø80	–SF
Anti-stick special coating		●			●	●		ø6 to ø50	–DL
Suction mark reduction surface modification	●						●	ø6 to ø60	–ER
Fluorine coating		●	●	●		●		ø6 to ø100	–FG

Specifications for rechargeable battery (Catalog No.CC-1226A)

●Design compatible with rechargeable battery manufacturing processes

VSP – ..... – P4*

Specifications for food manufacturing processes (Catalog No.CC-1271A)

●Food-grade lubricants that can be used in food manufacturing processes, and resin/rubber materials that are compatible with the Food Sanitation Act are used

VSP – ..... – FP*

❼ Port size/shape

Description	Holder type A	B	C	D	MA	MB	MC	MD	ME	LFC	LFD	HC	HD	HDW	HE	HEW	Code
(❶: For E and F)																	Blank
ø1.8 push-in fitting		●	●	●	●	●	●	●				●	●	●	●	●	2
ø4 push-in fitting	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	4
ø6 push-in fitting	●	●	●	●		●		●		●	●	●	●	●	●	●	6
ø8 push-in fitting	●	●	●	●													8
ø4 Push-in fitting, without spring cover			●	●													4C
ø6 Push-in fitting, without spring cover			●	●													6C
ø4 barbed fitting	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	4T
ø6 barbed fitting	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	6T
ø4 barbed fitting, without spring cover			●	●													4TC
ø6 Barbed fitting, without spring cover			●	●													6TC
M5x0.8									●								M5
G1/8	●	●	●	●													6A

*1: If❸-20 to-50 is available for❶C and D,❼4C, 6C, 4TC, 6TC can be selected. *2: The available port size and shape differ depending on the ❷ pad diameter. Check with the combination table below.

❽ Buffer load

Code	Description
Blank	Standard load or without buffer
L	Low load (1/4 of standard load)

*1: ❽Blank for models other than ❶ LFC.
*2: ❸ When -2 is selected,❽blank.

❾ Swiveling pad

Code	Description
Blank	None
*1 F1	Free holder swinging With angle 30°
*1 F2	Free holder swinging With angle 15°
*2 CF	Flexible holder With angle 8°

*1: ❷When 10 to 100,❾F1 and F2 can be selected.
*2: For ❶E❷6, 8,❶ME and❷10 to 50,❾CF can be selected.

❿ Position locking valve

Code	Description
Blank	None *2
V	With position locking valve *1

*1: For ❶E, ME and ❷10 to 100, ❿V can be selected.
*2: For ❻-NF and -SF,❿ blank.

⓫ Resin attachment material

Code	Description
K	PEEK
M	POM
KE	Conductive PEEK

Holder shape - pad diameter - pad shape - port size/shape combinations

Holder type	Pad diameter	Push-in fitting ø1.8	ø4	ø6	ø8	Barbed fitting ø4	ø6	Thread G1/8
		2	4	4C 6	6C 8	4T	4TC 6T	6TC 6A
A	ø2 to ø4		●			●		
	ø6 to ø8		●	●		●	●	
	ø10 to ø15			●			●	
	ø20 to ø50		●	●		●	●	
	ø60 to ø100		●	●	●			●
B	ø2 to ø4	●	●			●	●	
	ø6 to ø8	●	●	●		●	●	
	ø10 to ø50		●	●		●	●	
	ø60 to ø100		●	●	●			●
C	ø2 to ø4	●	●	●		●	●	
	ø6 to ø8	●	●	●	●	●	●	
	ø10 to ø50		●	●	●	●	●	
	ø60 to ø100		●	●	●			●
D	ø2 to ø4	●	●	●		●	●	
	ø6 to ø8	●	●	●	●	●	●	
	ø10 to ø50		●	●	●	●	●	
	ø60 to ø100		●	●	●			●

Holder Shape	Pad diameter	Thread M3	M5
		Blank	
E	ø2 to ø4	●	
	ø6 to ø8		●

Holder Shape	Pad diameter	Thread M10	M14
		Blank	
F	ø2 to ø8	●	
	ø10 to ø50		●

Holder Shape	Pad diameter	Thread M5
		Blank
ME	ø6 to ø8	●

Holder type	Pad diameter	Push-in fitting ø1.8	ø4	ø6	Barbed fitting ø4	ø6
		2	4	6	4T	6T
MA	ø6 to ø8	●			●	
	ø10 to ø15		●		●	
	ø20 to ø50		●		●	●
MB	ø6 to ø8	●	●		●	●
	ø10 to ø50	●	●	●	●	●
MC	ø6 to ø8	●			●	●
	ø10 to ø50	●	●		●	●
MD	ø6 to ø8	●	●		●	●
	ø10 to ø50	●	●	●	●	●

Holder Shape	Pad diameter	Push-in fitting ø1.8	ø4	ø6	Barbed fitting ø4	ø6
		2	4	6	4T	6T
LFC	ø6 to ø15		●		●	●
	ø20 to ø50		●	●	●	●
LFD	ø6 to ø15		●		●	●
	ø20 to ø50		●	●	●	●
HC	ø10 to ø50	●	●	●	●	●
HD	ø6 to ø50	●	●	●	●	●
HDW	ø6 to ø50	●	●	●	●	●
HE	ø6 to ø50	●	●	●	●	●
HEW	ø6 to ø50	●	●	●	●	●

●Suction mark prevention resin attachment for bellows pad only

VSPG – 30 BQ K

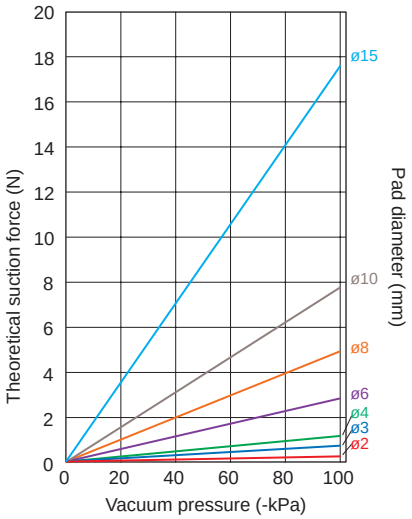
VSPG	30	BQ	K
Model No.	❷ Pad diameter		⓫ Resin attachment material

*1: For ❷10 to 30, only resin attachments can be selected.

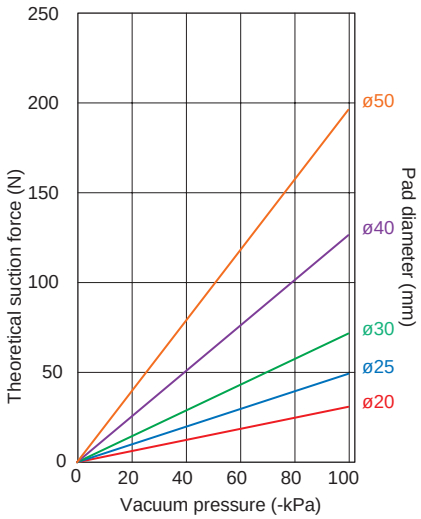
Bellows pad
Resin attachment

Theoretical suction force

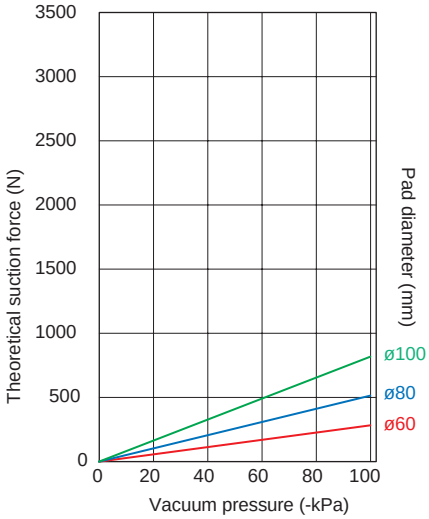
●Pad diameter ø2 mm to ø15 mm



●Pad diameter: ø20 mm to ø50 mm



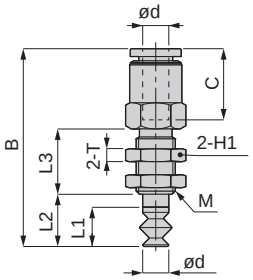
●Pad diameter: ø60 mm to ø100 mm



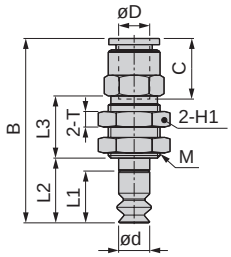
Because the theoretical suction force is the value at static conditions, adopt a safety factor of 1/4 for horizontal lifting and 1/8 for vertical lifting in actual use. For the bellows type suction force, it may not be possible to secure the calculated suction force (theoretical suction force x safety factor) due to the effect of pad characteristics such as degree of vacuum/pad material/suctioned object. Before selection, use the suction force obtained by ”Selection method of suction pad” (page 288) as a guide, and make sure that there are no problems with the suction capacity on the actual machine.

Dimensions (fixed, vacuum outlet top VSP-A, push-in fitting)

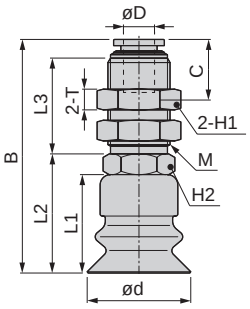
●VSP-A2, 4B*-4



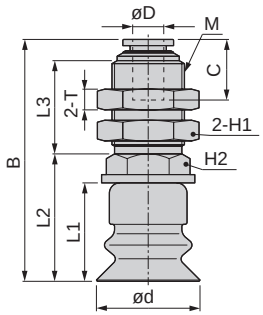
●VSP-A6, 8B*-4/6



●VSP-A10, 15B*-6



●VSP-A20 to 50B*-4/6

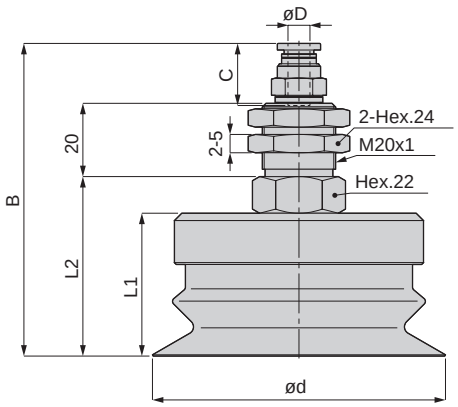


Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	Tube end C	Hexagon H1	Hexagon H2	T	Weight (g)
VSP-A2B*-4	2	4	M6x0.75	30.6	6	8	10	11.2	8	—	2	5.7
VSP-A4B*-4	4	4	M6x0.75	30.6	6	8	10	11.2	8	—	2	5.7
VSP-A6B*-4	6	4	M8x0.75	35.1	10	12.5	12	11.2	10	—	2	8.5
VSP-A6B*-6		6	M10x1	35.8				11.9	12		3	13
VSP-A8B*-4	8	4	M8x0.75	35.1	10	12.5	12	11.2	10	—	2	8.5
VSP-A8B*-6		6	M10x1	35.8				11.9	12		3	13
VSP-A10B*-6	10	6	M12x1	42.3	16	20	18.5	11.9	14	12	4	22
VSP-A15B*-6	15	6	M12x1	42.3	16	20	18.5	11.9	14	12	4	22
VSP-A20B*-4	20	4	M12x1	55.9	19	25	18	11.2	14	12	4	31
VSP-A20B*-6		6	M14x1	46.9		24.6		11.9	17	14		37
VSP-A25B*-4	25	4	M12x1	55.9	19	25	18	11.2	14	12	4	32
VSP-A25B*-6		6	M14x1	46.9		24.6		11.9	17	14		38
VSP-A30B*-4	30	4	M12x1	59.9	23	29	18	11.2	14	12	4	34
VSP-A30B*-6		6	M14x1	50.9		28.6		11.9	17	14		40
VSP-A40B*-4	40	4	M12x1	66.9	30	36	18	11.2	14	12	4	43
VSP-A40B*-6		6	M14x1	57.9		35.6		11.9	17	14		49
VSP-A50B*-4	50	4	M12x1	68.9	32	38	18	11.2	14	12	4	49
VSP-A50B*-6		6	M14x1	59.9		37.6		11.9	17	14		55

Dimensions (fixed, vacuum outlet top VSP-A, push-in fitting)

●VSP-A60 to 100B*-4/6/8

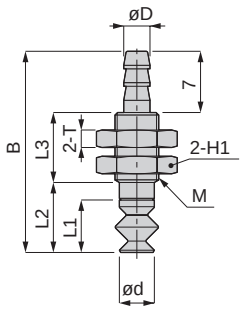


Unit: mm

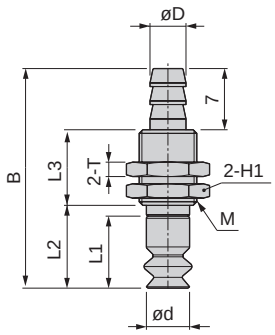
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	Weight (g)
VSP-A60B*-4	60	4	80.2	37	49.6	11.2	149
VSP-A60B*-6		6	82.4			11.9	150
VSP-A60B*-8		8	90.8			18.2	155
VSP-A80B*-4	80	4	79.6	39	49	11.2	231
VSP-A80B*-6		6	81.8			11.9	232
VSP-A80B*-8		8	90.2			18.2	237
VSP-A100B*-4	100	4	85.6	45	55	11.2	330
VSP-A100B*-6		6	87.8			11.9	331
VSP-A100B*-8		8	96.2			18.2	336

Dimensions (fixed, vacuum outlet top VSP-A, barbed fitting)

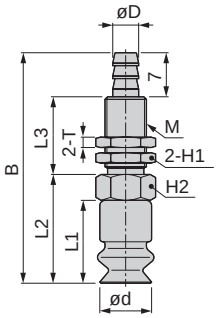
●VSP-A2 to 4B*-4T



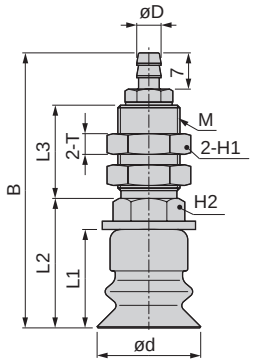
●VSP-A6, 8B*-4T/6T



●VSP-A10, 15B*-6T



●VSP-A20 to 50B*-4T/6T

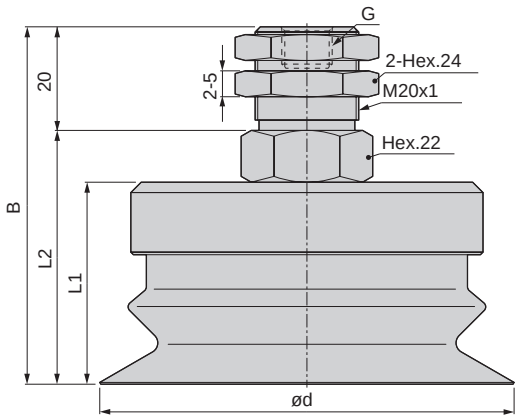


Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	Hexagon H1	Hexagon H2	T	Weight (g)
VSP-A2B*-4T	2	2.5	M5x0.5	23	6	8	8	8	—	2	4
VSP-A4B*-4T	4	2.5	M5x0.5	23	6	8	8	8	—	2	4
VSP-A6B*-4T	6	2.5	M5x0.5	27.5	10	12.5	8	8	—	2	6
VSP-A6B*-6T		4	M8x0.75	29		11.5	10.5	10			8
VSP-A8B*-4T	8	2.5	M5x0.5	27.5	10	12.5	8	8	—	2	6
VSP-A8B*-6T		4	M8x0.75	29		11.5	10.5	10			8
VSP-A10B*-6T	10	4	M8x0.75	43	16	21	15	10	10	2	12
VSP-A15B*-6T	15	4	M8x0.75	43	16	21	15	10	10	2	13
VSP-A20B*-4T	20	2.5	M12x1	53	19	25	18	14	12	4	30
VSP-A20B*-6T		4									
VSP-A25B*-4T	25	2.5	M12x1	53	19	25	18	14	12	4	31
VSP-A25B*-6T		4									
VSP-A30B*-4T	30	2.5	M12x1	57	23	29	18	14	12	4	34
VSP-A30B*-6T		4									
VSP-A40B*-4T	40	2.5	M12x1	64	30	36	18	14	12	4	42
VSP-A40B*-6T		4									
VSP-A50B*-4T	50	2.5	M12x1	66	32	38	18	14	12	4	48
VSP-A50B*-6T		4									

Dimensions (fixed, vacuum outlet, top, VSP-A, female thread)

●VSP-A60 to 100B*-6A

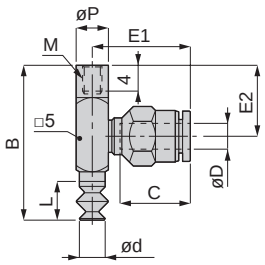


Unit: mm

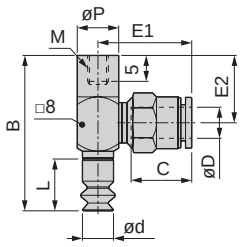
Model No.	Pad diameter ød	Vacuum outlet size G	B	L1	L2	Weight (g)
VSP-A60B*-6A	60	G1/8	69.6	37	49.6	141
VSP-A80B*-6A	80	G1/8	69	39	49	223
VSP-A100B*-6A	100	G1/8	75	45	55	322

Dimensions (fixed, vacuum outlet, side, VSP-B, push-in fitting)

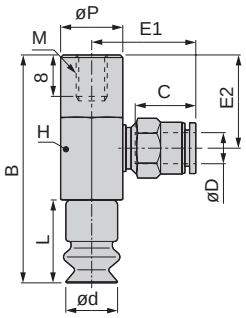
●VSP-B2, 4B*-2/4



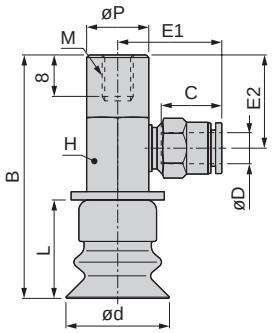
●VSP-B6, 8B*-/4/6



●VSP-B10, 15B*-4/6



●VSP-B20 to 50B*-4/6

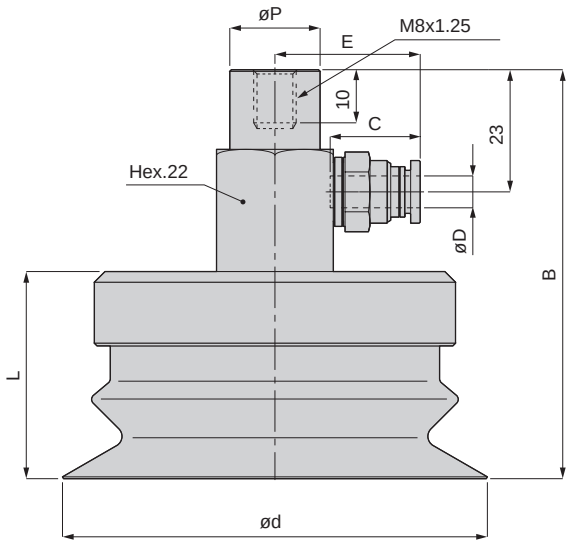


Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L	Tube end C	øP	E1	E2	Hexagon H	Weight (g)
VSP-B2B*-2	2	1.8	M3x0.5	24	6	8.4	5	12	11	—	5
VSP-B2B*-4		4				11.2		15.3			6
VSP-B4B*-2	4	1.8	M3x0.5	24	6	8.4	5	12	11	—	5
VSP-B4B*-4		4				11.2		15.3			6
VSP-B6B*-2	6	1.8	M4x0.7	30	10	8.4	8	12.7	13	—	12
VSP-B6B*-4		4				11.2		16.8			13
VSP-B6B*-6		6				11.9		18.6			14
VSP-B8B*-2	8	1.8	M4x0.7	30	10	8.4	8	12.7	13	—	12
VSP-B8B*-4		4				11.2		16.8			13
VSP-B8B*-6		6				11.9		18.6			14
VSP-B10B*-4	10	4	M6x1	44	16	11.2	12	18.8	18	12	30
VSP-B10B*-6		6				11.9		20.1			31
VSP-B15B*-4	15	4	M6x1	44	16	11.2	12	18.8	18	12	30
VSP-B15B*-6		6				11.9		20.1			31
VSP-B20B*-4	20	4	M6x1	47	19	11.2	12	18.8	18	12	33
VSP-B20B*-6		6				11.9		20.1			34
VSP-B25B*-4	25	4	M6x1	47	19	11.2	12	18.8	18	12	34
VSP-B25B*-6		6				11.9		20.1			35
VSP-B30B*-4	30	4	M6x1	51	23	11.2	12	18.8	18	12	37
VSP-B30B*-6		6				11.9		20.1			38
VSP-B40B*-4	40	4	M6x1	58	30	11.2	12	18.8	18	12	45
VSP-B40B*-6		6				11.9		20.1			46
VSP-B50B*-4	50	4	M6x1	60	32	11.2	12	18.8	18	12	51
VSP-B50B*-6		6				11.9		20.1			52

Dimensions (fixed, vacuum outlet, side, VSP-B, push-in fitting)

●VSP-B60 to 100B*-4/6/8

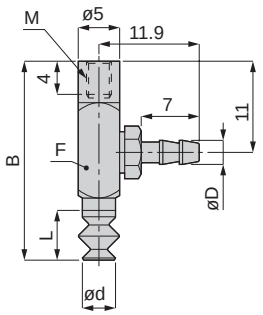


Unit: mm

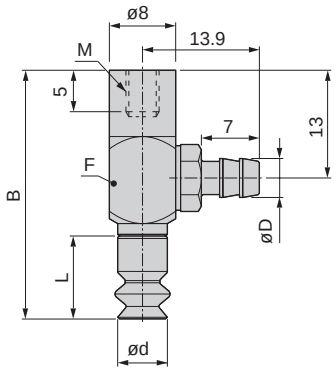
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	øP	E	Weight (g)
VSP-B60B*-4	60	4	77.6	37	11.2	17	21.5	155
VSP-B60B*-6		6			11.9		23.7	156
VSP-B60B*-8		8			18.2		32.1	161
VSP-B80B*-4	80	4	77	39	11.2	17	21.5	238
VSP-B80B*-6		6			11.9		23.7	239
VSP-B80B*-8		8			18.2		32.1	244
VSP-B100B*-4	100	4	83	45	11.2	17	21.5	337
VSP-B100B*-6		6			11.9		23.7	338
VSP-B100B*-8		8			18.2		32.1	343

Dimensions (fixed, vacuum outlet, side, VSP-B, barbed fitting)

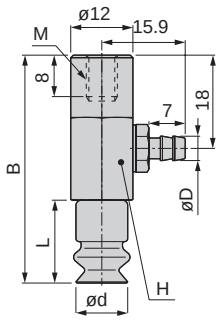
●VSP-B2, 4B*-4T/6T



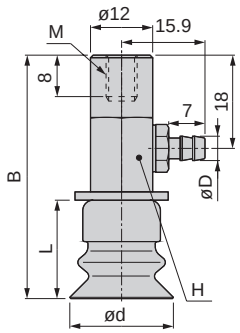
●VSP-B6, 8B*-4T/6T



●VSP-B10, 15B*-4T/6T



●VSP-B20 to 50B*-4T/6T

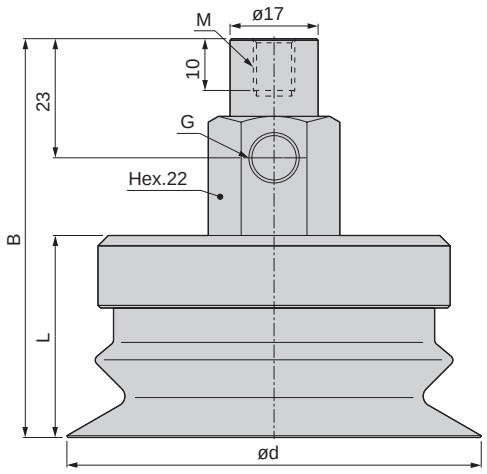


Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L	Hexagon H	□F	Weight (g)
VSP-B2B*-4T	2	2.5	M3x0.5	24	6	—	5	5
VSP-B2B*-6T		4						
VSP-B4B*-4T	4	2.5	M3x0.5	24	6	—	5	5
VSP-B4B*-6T		4						
VSP-B6B*-4T	6	2.5	M4x0.7	30	10	—	8	12
VSP-B6B*-6T		4						
VSP-B8B*-4T	8	2.5	M4x0.7	30	10	—	8	12
VSP-B8B*-6T		4						
VSP-B10B*-4T	10	2.5	M6x1	44	16	12	—	29
VSP-B10B*-6T		4						
VSP-B15B*-4T	15	2.5	M6x1	44	16	12	—	30
VSP-B15B*-6T		4						
VSP-B20B*-4T	20	2.5	M6x1	47	19	12	—	32
VSP-B20B*-6T		4						
VSP-B25B*-4T	25	2.5	M6x1	47	19	12	—	33
VSP-B25B*-6T		4						
VSP-B30B*-4T	30	2.5	M6x1	51	23	12	—	36
VSP-B30B*-6T		4						
VSP-B40B*-4T	40	2.5	M6x1	58	30	12	—	44
VSP-B40B*-6T		4						
VSP-B50B*-4T	50	2.5	M6x1	60	32	12	—	50
VSP-B50B*-6T		4						

Dimensions (fixed, vacuum outlet, side, VSP-B, female thread)

●VSP-B60 to 100B*-6A

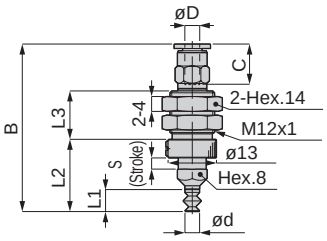


Unit: mm

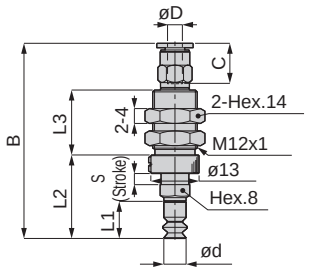
Model No.	Pad diameter ød	Vacuum outlet size G	Mounting screw M	B	L	Weight (g)
VSP-B60B*-6A	60	G1/8	M8x1.25	77.6	37	147
VSP-B80B*-6A	80	G1/8	M8x1.25	77	39	230
VSP-B100B*-6A	100	G1/8	M8x1.25	83	45	329

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting)

●VSP-C2 to 4B*-2/4/6
●VSP-C2 to 4-□B*-2/4/6



●VSP-C6, 8B*-2/4/6
●VSP-C6, 8-□B*-2/4/6

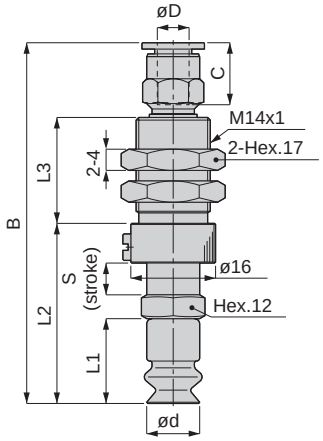


Unit: mm

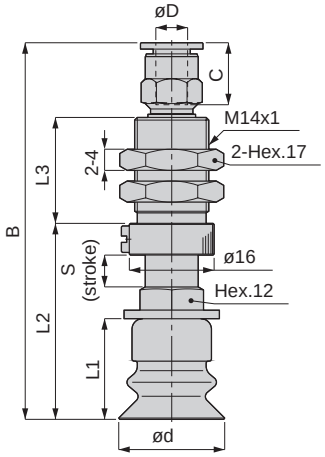
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C2B*-2	2	1.8	41.4	6	19.5	13	8.4	3	0.9 to 1.9	16
VSP-C2B*-4		4	45.5				11.2			17
VSP-C2B*-6		6	47.3				11.9			18
VSP-C2-10B*-2		1.8	55.4		29	17.5	8.4	10	0.6 to 1.7	20
VSP-C2-10B*-4		4	59.5				11.2			21
VSP-C2-10B*-6		6	61.3				11.9			22
VSP-C2-15B*-2		1.8	66.4		34	23.5	8.4	15	0.4 to 1.7	23
VSP-C2-15B*-4		4	70.5				11.2			24
VSP-C2-15B*-6		6	72.3				11.9			25
VSP-C2-20B*-2		1.8	76.4		39	28.5	8.4	20	0.3 to 1.8	26
VSP-C2-20B*-4		4	80.5				11.2			27
VSP-C2-20B*-6		6	82.3				11.9			28
VSP-C4B*-2	4	1.8	41.4	6	19.5	13	8.4	3	0.9 to 1.9	16
VSP-C4B*-4		4	45.5				11.2			17
VSP-C4B*-6		6	47.3				11.9			18
VSP-C4-10B*-2		1.8	55.4		29	17.5	8.4	10	0.6 to 1.7	20
VSP-C4-10B*-4		4	59.5				11.2			21
VSP-C4-10B*-6		6	61.3				11.9			22
VSP-C4-15B*-2		1.8	66.4		34	23.5	8.4	15	0.4 to 1.7	23
VSP-C4-15B*-4		4	70.5				11.2			24
VSP-C4-15B*-6		6	72.3				11.9			25
VSP-C4-20B*-2		1.8	76.4		39	28.5	8.4	20	0.3 to 1.8	26
VSP-C4-20B*-4		4	80.5				11.2			27
VSP-C4-20B*-6		6	82.3				11.9			28
VSP-C6B*-2	6	1.8	44.4	10	22.5	13	8.4	3	0.9 to 1.9	17
VSP-C6B*-4		4	48.5				11.2			18
VSP-C6B*-6		6	50.3				11.9			19
VSP-C6-10B*-2		1.8	58.4		29.5	17.5	8.4	10	0.8 to 2.7	18
VSP-C6-10B*-4		4	62.5				11.2			19
VSP-C6-10B*-6		6	64.3				11.9			20
VSP-C6-15B*-2		1.8	69.4		34.5	23.5	8.4	15	0.7 to 3.0	22
VSP-C6-15B*-4		4	73.5				11.2			23
VSP-C6-15B*-6		6	75.3				11.9			24
VSP-C6-20B*-2		1.8	79.4		39.5	28.5	8.4	20	0.9 to 3.4	24
VSP-C6-20B*-4		4	83.5				11.2			25
VSP-C6-20B*-6		6	85.3				11.9			26
VSP-C8B*-2	8	1.8	44.4	10	22.5	13	8.4	3	0.9 to 1.9	17
VSP-C8B*-4		4	48.5				11.2			18
VSP-C8B*-6		6	50.3				11.9			19
VSP-C8-10B*-2		1.8	58.4		29.5	17.5	8.4	10	0.8 to 2.7	18
VSP-C8-10B*-4		4	62.5				11.2			19
VSP-C8-10B*-6		6	64.3				11.9			20
VSP-C8-15B*-2		1.8	69.4		34.5	23.5	8.4	15	0.7 to 3.0	22
VSP-C8-15B*-4		4	73.5				11.2			23
VSP-C8-15B*-6		6	75.3				11.9			24
VSP-C8-20B*-2		1.8	79.4		39.5	28.5	8.4	20	0.9 to 3.4	24
VSP-C8-20B*-4		4	83.5				11.2			25
VSP-C8-20B*-6		6	85.3				11.9			26

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting)

●VSP-C10, 15B*-4/6
●VSP-C10, 15-□B*-4/6



●VSP-C20 to 50B*-4/6
●VSP-C20 to 50-□B*-4/6

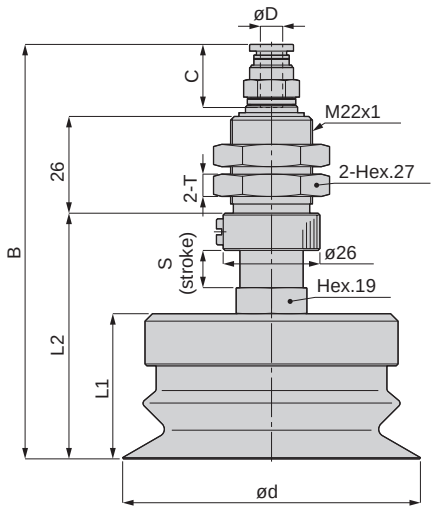


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C10B*-4	10	4	67	16	34	20	11.2	6	4.0 to 7.1	35
VSP-C10B*-6		6	68.3				11.9			36
VSP-C10-10B*-4		4	71.5		38.5		11.2	10	2.0 to 5.2	36
VSP-C10-10B*-6		6	72.8				11.9			37
VSP-C10-15B*-4		4	81.5		43.5	25	11.2	15	2.0 to 5.9	41
VSP-C10-15B*-6		6	82.8				11.9			42
VSP-C10-20B*-4		4	97.5		50.5	34	11.2	20	1.1 to 4.8	49
VSP-C10-20B*-6		6	98.8				11.9			50
VSP-C15B*-4	15	4	67	16	34	20	11.2	6	4.0 to 7.1	36
VSP-C15B*-6		6	68.3				11.9			37
VSP-C15-10B*-4		4	71.5		38.5		11.2	10	2.0 to 5.2	37
VSP-C15-10B*-6		6	72.8				11.9			38
VSP-C15-15B*-4		4	81.5		43.5	25	11.2	15	2.0 to 5.9	42
VSP-C15-15B*-6		6	82.8				11.9			43
VSP-C15-20B*-4		4	97.5		50.5	34	11.2	20	1.1 to 4.8	49
VSP-C15-20B*-6		6	98.8				11.9			50
VSP-C20B*-4	20	4	70	19	37	20	11.2	6	7.0 to 12.6	39
VSP-C20B*-6		6	71.3				11.9			40
VSP-C20-10B*-4		4	76		43		11.2	10	3.3 to 10.0	41
VSP-C20-10B*-6		6	77.3				11.9			42
VSP-C20-15B*-4		4	86		48	25	11.2	15	3.3 to 10.4	46
VSP-C20-15B*-6		6	87.3				11.9			47
VSP-C20-20B*-4		4	102		55	34	11.2	20	2.0 to 8.7	53
VSP-C20-20B*-6		6	103.3				11.9			54
VSP-C25B*-4	25	4	70	19	37	20	11.2	6	7.0 to 12.6	40
VSP-C25B*-6		6	71.3				11.9			41
VSP-C25-10B*-4		4	76		43		11.2	10	3.3 to 10.0	42
VSP-C25-10B*-6		6	77.3				11.9			43
VSP-C25-15B*-4		4	86		48	25	11.2	15	3.3 to 10.4	47
VSP-C25-15B*-6		6	87.3				11.9			48
VSP-C25-20B*-4		4	102		55	34	11.2	20	2.0 to 8.7	54
VSP-C25-20B*-6		6	103.3				11.9			55
VSP-C30B*-4	30	4	74	23	41	20	11.2	6	7.0 to 12.6	43
VSP-C30B*-6		6	75.3				11.9			44
VSP-C30-10B*-4		4	80		47		11.2	10	3.3 to 10.0	47
VSP-C30-10B*-6		6	81.3				11.9			48
VSP-C30-15B*-4		4	90		52	25	11.2	15	3.3 to 10.4	50
VSP-C30-15B*-6		6	91.3				11.9			51
VSP-C30-20B*-4		4	106		59	34	11.2	20	2.0 to 8.7	57
VSP-C30-20B*-6		6	107.3				11.9			58
VSP-C40B*-4	40	4	81	30	48	20	11.2	6	7.0 to 12.6	51
VSP-C40B*-6		6	82.3				11.9			52
VSP-C40-10B*-4		4	87		54		11.2	10	3.3 to 10.0	54
VSP-C40-10B*-6		6	88.3				11.9			55
VSP-C40-15B*-4		4	97		59	25	11.2	15	3.3 to 10.4	58
VSP-C40-15B*-6		6	98.3				11.9			59
VSP-C40-20B*-4		4	113		66	34	11.2	20	2.0 to 8.7	65
VSP-C40-20B*-6		6	114.3				11.9			66
VSP-C50B*-4	50	4	83	32	50	20	11.2	6	7.0 to 12.6	57
VSP-C50B*-6		6	84.3				11.9			58
VSP-C50-10B*-4		4	89		56		11.2	10	3.3 to 10.0	59
VSP-C50-10B*-6		6	90.3				11.9			60
VSP-C50-15B*-4		4	99		61	25	11.2	15	3.3 to 10.4	65
VSP-C50-15B*-6		6	100.3				11.9			66
VSP-C50-20B*-4		4	115		68	34	11.2	20	2.0 to 8.7	71
VSP-C50-20B*-6		6	116.3				11.9			72

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting)

●VSP-C60 to 100B*-4/6/8

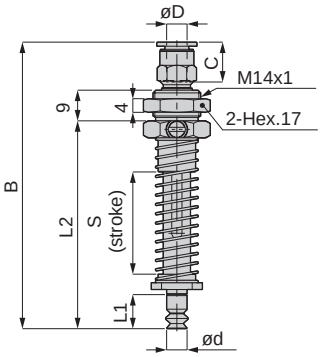


Unit: mm

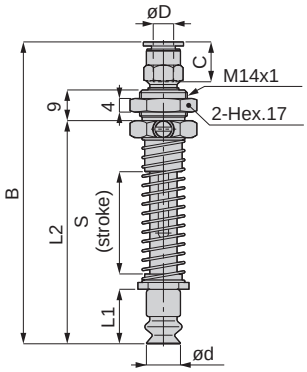
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	T	Stroke S	Spring force (N)	Weight (g)
VSP-C60B*-4	60	4	106.2	37	66.6	11.2	6	10	10.1 to 15.8	177
VSP-C60B*-6		6	108.4			11.9				178
VSP-C60B*-8		8	116.8			18.2				183
VSP-C80B*-4	80	4	105.6	39	66	11.2	6	10	10.1 to 15.8	259
VSP-C80B*-6		6	107.8			11.9				260
VSP-C80B*-8		8	116.2			18.2				265
VSP-C100B*-4	100	4	111.6	45	72	11.2	6	10	10.1 to 15.8	358
VSP-C100B*-6		6	113.8			11.9				359
VSP-C100B*-8		8	122.2			18.2				364

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting, without spring cover)

●VSP-C6, 8-□B*-4C/6C



●VSP-C10, 15-□B*-4C/6C

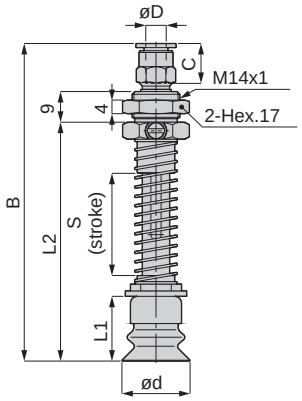


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C6-20B*-4C	6	4	70	10	48	11.2	20	1.5 to 4.9	43
VSP-C6-20B*-6C		6	71.3			11.9			44
VSP-C6-30B*-4C		4	83		61	11.2	30	1.1 to 4.8	48
VSP-C6-30B*-6C		6	84.3			11.9			49
VSP-C6-40B*-4C		4	96		74	11.2	40	1.0 to 4.5	54
VSP-C6-40B*-6C		6	97.9			11.9			55
VSP-C6-50B*-4C		4	109		87	11.2	50	0.9 to 4.5	59
VSP-C6-50B*-6C		6	110.9			11.9			60
VSP-C8-20B*-4C	8	4	70	10	48	11.2	20	1.5 to 4.9	43
VSP-C8-20B*-6C		6	71.3			11.9			44
VSP-C8-30B*-4C		4	83		61	11.2	30	1.1 to 4.8	48
VSP-C8-30B*-6C		6	84.3			11.9			49
VSP-C8-40B*-4C		4	96		74	11.2	40	1.0 to 4.5	54
VSP-C8-40B*-6C		6	97.9			11.9			55
VSP-C8-50B*-4C		4	109		87	11.2	50	0.9 to 4.5	59
VSP-C8-50B*-6C		6	110.9			11.9			60
VSP-C10-20B*-4C	10	4	74.5	16	52.5	11.2	20	1.5 to 4.9	43
VSP-C10-20B*-6C		6	75.8			11.9			44
VSP-C10-30B*-4C		4	87.5		65.5	11.2	30	1.1 to 4.8	48
VSP-C10-30B*-6C		6	88.8			11.9			49
VSP-C10-40B*-4C		4	100.5		78.5	11.2	40	1.0 to 4.5	54
VSP-C10-40B*-6C		6	101.8			11.9			55
VSP-C10-50B*-4C		4	113.5		91.5	11.2	50	0.9 to 4.5	59
VSP-C10-50B*-6C		6	114.8			11.9			60
VSP-C15-20B*-4C	15	4	74.5	16	52.5	11.2	20	1.5 to 4.9	43
VSP-C15-20B*-6C		6	75.8			11.9			44
VSP-C15-30B*-4C		4	87.5		65.5	11.2	30	1.1 to 4.8	48
VSP-C15-30B*-6C		6	88.8			11.9			49
VSP-C15-40B*-4C		4	100.5		78.5	11.2	40	1.0 to 4.5	54
VSP-C15-40B*-6C		6	101.8			11.9			55
VSP-C15-50B*-4C		4	113.5		91.5	11.2	50	0.9 to 4.5	59
VSP-C15-50B*-6C		6	114.8			11.9			60

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting, without spring cover)

●VSP-C20 to 50-□B*-4C/6C

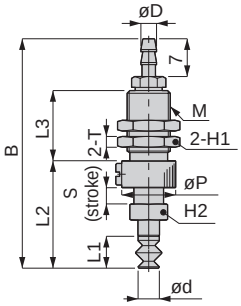


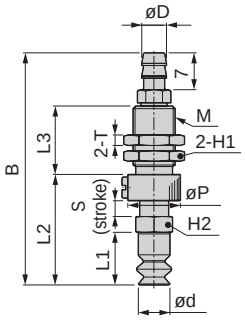
Unit: mm

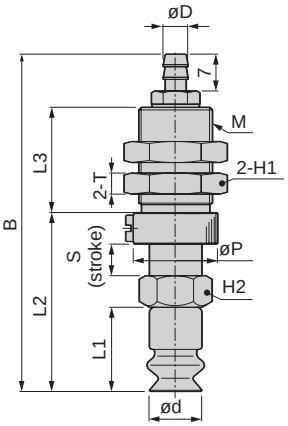
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C20-20B*-4C	20	4	79	19	57	11.2	20	1.5 to 4.9	49
VSP-C20-20B*-6C		6	80.3			11.9			50
VSP-C20-30B*-4C		4	92		70	11.2	30	1.1 to 4.8	54
VSP-C20-30B*-6C		6	93.3			11.9			55
VSP-C20-40B*-4C		4	105		83	11.2	40	1.0 to 4.5	59
VSP-C20-40B*-6C		6	106.3			11.9			60
VSP-C20-50B*-4C		4	118		96	11.2	50	0.9 to 4.5	64
VSP-C20-50B*-6C		6	119.3			11.9			65
VSP-C25-20B*-4C	25	4	79	19	57	11.2	20	1.5 to 4.9	50
VSP-C25-20B*-6C		6	80.3			11.9			51
VSP-C25-30B*-4C		4	92		70	11.2	30	1.1 to 4.8	55
VSP-C25-30B*-6C		6	93.3			11.9			56
VSP-C25-40B*-4C		4	105		83	11.2	40	1.0 to 4.5	60
VSP-C25-40B*-6C		6	106.3			11.9			61
VSP-C25-50B*-4C		4	118		96	11.2	50	0.9 to 4.5	65
VSP-C25-50B*-6C		6	119.3			11.9			66
VSP-C30-20B*-4C	30	4	83	23	61	11.2	20	1.5 to 4.9	52
VSP-C30-20B*-6C		6	84.3			11.9			53
VSP-C30-30B*-4C		4	96		74	11.2	30	1.1 to 4.8	57
VSP-C30-30B*-6C		6	97.3			11.9			58
VSP-C30-40B*-4C		4	109		87	11.2	40	1.0 to 4.5	63
VSP-C30-40B*-6C		6	110.3			11.9			64
VSP-C30-50B*-4C		4	122		100	11.2	50	0.9 to 4.5	68
VSP-C30-50B*-6C		6	123.3			11.9			69
VSP-C40-20B*-4C	40	4	90	30	68	11.2	20	1.5 to 4.9	61
VSP-C40-20B*-6C		6	91.3			11.9			62
VSP-C40-30B*-4C		4	103		81	11.2	30	1.1 to 4.8	66
VSP-C40-30B*-6C		6	104.3			11.9			67
VSP-C40-40B*-4C		4	116		94	11.2	40	1.0 to 4.5	71
VSP-C40-40B*-6C		6	117.3			11.9			72
VSP-C40-50B*-4C		4	129		107	11.2	50	0.9 to 4.5	77
VSP-C40-50B*-6C		6	130.3			11.9			78
VSP-C50-20B*-4C	50	4	92	32	70	11.2	20	1.5 to 4.9	67
VSP-C50-20B*-6C		6	93.3			11.9			68
VSP-C50-30B*-4C		4	105		83	11.2	30	1.1 to 4.8	72
VSP-C50-30B*-6C		6	106.3			11.9			73
VSP-C50-40B*-4C		4	118		96	11.2	40	1.0 to 4.5	77
VSP-C50-40B*-6C		6	119.3			11.9			78
VSP-C50-50B*-4C		4	131		109	11.2	50	0.9 to 4.5	82
VSP-C50-50B*-6C		6	132.3			11.9			83

Dimensions (buffer, vacuum outlet, top, VSP-C, barbed fitting)

- ●VSP-C2, 4B*-4T/6T
- ●VSP-C2, 4-□B*-4T/6T
- ●VSP-C6, 8B*-4T/6T
- ●VSP-C6, 8-□B*-4T/6T
- ●VSP-C10, 15B*-4T/6T
- ●VSP-C10, 15-□B*-4T/6T





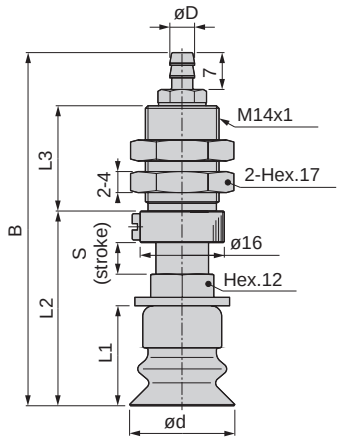


Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	øP	Hexagon H1	Hexagon H2	T	Stroke S	Spring force (N)	Weight (g)
VSP-C2B*-4T	2	2.5	M8x0.75	42.6	6	20	13	10	10	7	2	3	0.9 to 1.9	8
VSP-C2B*-6T		4												
VSP-C2-10B*-4T		2.5	M12x1	56.6		29	17.5	13	14	8	4	10	0.6 to 1.7	19
VSP-C2-10B*-6T		4												
VSP-C2-15B*-4T		2.5		67.6		34	23.5					15	0.4 to 1.7	22
VSP-C2-15B*-6T		4												
VSP-C2-20B*-4T		2.5		77.6		39	28.5					20	0.3 to 1.8	25
VSP-C2-20B*-6T		4												
VSP-C4B*-4T	4	2.5	M8x0.75	42.6	6	20	13	10	10	7	2	3	0.9 to 1.9	8
VSP-C4B*-6T		4												
VSP-C4-10B*-4T		2.5	M12x1	56.6		29	17.5	13	14	8	4	10	0.6 to 1.7	19
VSP-C4-10B*-6T		4												
VSP-C4-15B*-4T		2.5		67.6		34	23.5					15	0.4 to 1.7	22
VSP-C4-15B*-6T		4												
VSP-C4-20B*-4T		2.5		77.6		39	28.5					20	0.3 to 1.8	25
VSP-C4-20B*-6T		4												
VSP-C6B*-4T	6	2.5	M8x0.75	43.6	10	21	13	10	10	7	2	3	0.9 to 1.9	9
VSP-C6B*-6T		4												
VSP-C6-10B*-4T		2.5	M12x1	57.1		29.5	17.5	13	14	8	4	10	0.8 to 2.7	19
VSP-C6-10B*-6T		4												
VSP-C6-15B*-4T		2.5		68.1		34.5	23.5					15	0.7 to 3.0	22
VSP-C6-15B*-6T		4												
VSP-C6-20B*-4T		2.5		78.1		39.5	28.5					20	0.9 to 3.4	24
VSP-C6-20B*-6T		4												
VSP-C8B*-4T	8	2.5	M8x0.75	43.6	10	21	13	10	10	7	2	3	0.9 to 1.9	9
VSP-C8B*-6T		4												
VSP-C8-10B*-4T		2.5	M12x1	57.1		29.5	17.5	13	14	8	4	10	0.8 to 2.7	19
VSP-C8-10B*-6T		4												
VSP-C8-15B*-4T		2.5		68.1		34.5	23.5					15	0.7 to 3.0	22
VSP-C8-15B*-6T		4												
VSP-C8-20B*-4T		2.5		78.1		39.5	28.5					20	0.9 to 3.4	24
VSP-C8-20B*-6T		4												
VSP-C10B*-4T	10	2.5	M14x1	64.1	16	34	20	16	17	12	4	6	4.0 to 7.1	34
VSP-C10B*-6T		4												
VSP-C10-10B*-4T		2.5		68.6		38.5						10	2.0 to 5.2	35
VSP-C10-10B*-6T		4												
VSP-C10-15B*-4T		2.5		78.6		43.5	25					15	2.0 to 5.9	40
VSP-C10-15B*-6T		4												
VSP-C10-20B*-4T		2.5		94.6		50.5	34					20	1.1 to 4.8	48
VSP-C10-20B*-6T		4												
VSP-C15B*-4T	15	2.5	M14x1	64.1	16	34	20	16	17	12	4	6	4.0 to 7.1	35
VSP-C15B*-6T		4												
VSP-C15-10B*-4T		2.5		68.6		38.5						10	2.0 to 5.2	36
VSP-C15-10B*-6T		4												
VSP-C15-15B*-4T		2.5		78.6		43.5	25					15	2.0 to 5.9	41
VSP-C15-15B*-6T		4												
VSP-C15-20B*-4T		2.5		94.6		50.5	34					20	1.1 to 4.8	48
VSP-C15-20B*-6T		4												

Dimensions (buffer, vacuum outlet, top, VSP-C, barbed fitting)

●VSP-C20 to 50B*-4T/6T
●VSP-C20 to 50-□B*-4T/6T

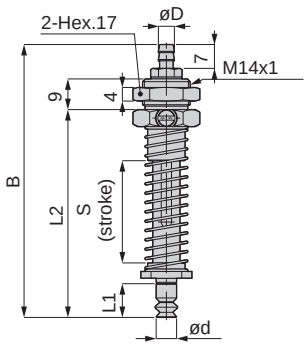


Unit: mm

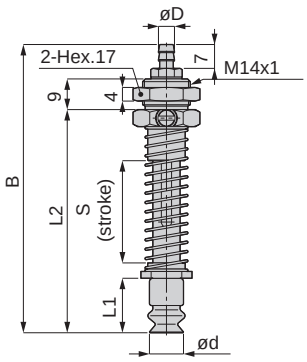
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-C20B*-4T	20	2.5	67.1	19	37	20	6	7.0 to 12.6	38
VSP-C20B*-6T		4							
VSP-C20-10B*-4T		2.5	73.1		43		10	3.3 to 10.0	40
VSP-C20-10B*-6T		4							
VSP-C20-15B*-4T		2.5	83.1		48	25	15	3.3 to 10.4	45
VSP-C20-15B*-6T		4							
VSP-C20-20B*-4T		2.5	99.1		55	34	20	2.0 to 8.7	52
VSP-C20-20B*-6T		4							
VSP-C25B*-4T	25	2.5	67.1	19	37	20	6	7.0 to 12.6	39
VSP-C25B*-6T		4							
VSP-C25-10B*-4T		2.5	73.1		43		10	3.3 to 10.0	41
VSP-C25-10B*-6T		4							
VSP-C25-15B*-4T		2.5	83.1		48	25	15	3.3 to 10.4	46
VSP-C25-15B*-6T		4							
VSP-C25-20B*-4T		2.5	99.1		55	34	20	2.0 to 8.7	53
VSP-C25-20B*-6T		4							
VSP-C30B*-4T	30	2.5	71.1	23	41	20	6	7.0 to 12.6	41
VSP-C30B*-6T		4							
VSP-C30-10B*-4T		2.5	77.1		47		10	3.3 to 10.0	44
VSP-C30-10B*-6T		4							
VSP-C30-15B*-4T		2.5	87.1		52	25	15	3.3 to 10.4	49
VSP-C30-15B*-6T		4							
VSP-C30-20B*-4T		2.5	103.1		59	34	20	2.0 to 8.7	55
VSP-C30-20B*-6T		4							
VSP-C40B*-4T	40	2.5	78.1	32	48	20	6	7.0 to 12.6	50
VSP-C40B*-6T		4							
VSP-C40-10B*-4T		2.5	84.1		54		10	3.3 to 10.0	52
VSP-C40-10B*-6T		4							
VSP-C40-15B*-4T		2.5	94.1		59	25	15	3.3 to 10.4	57
VSP-C40-15B*-6T		4							
VSP-C40-20B*-4T		2.5	110.1		66	34	20	2.0 to 8.7	64
VSP-C40-20B*-6T		4							
VSP-C50B*-4T	50	2.5	80.1	40	50	20	6	7.0 to 12.6	56
VSP-C50B*-6T		4							
VSP-C50-10B*-4T		2.5	86.1		56		10	3.3 to 10.0	58
VSP-C50-10B*-6T		4							
VSP-C50-15B*-4T		2.5	96.1		61	25	15	3.3 to 10.4	63
VSP-C50-15B*-6T		4							
VSP-C50-20B*-4T		2.5	112.1		68	34	20	2.0 to 8.7	70
VSP-C50-20B*-6T		4							

Dimensions (buffer, vacuum outlet, top, VSP-C, barbed fitting, without spring cover)

●VSP-C6, 8-□B*-4TC/6TC



●VSP-C10, 15-□B*-4TC/6TC

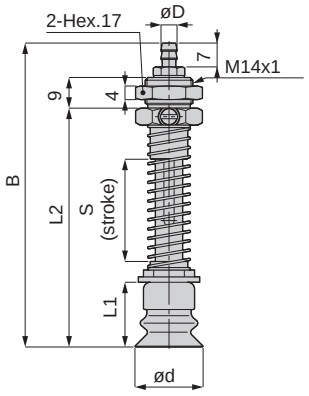


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-C6-20B*-4TC	6	2.5	67.1	10	48	20	1.5 to 4.9	42
VSP-C6-20B*-6TC		4						
VSP-C6-30B*-4TC		2.5	80.1		61	30	1.1 to 4.8	47
VSP-C6-30B*-6TC		4						
VSP-C6-40B*-4TC		2.5	93.1		74	40	1.0 to 4.5	52
VSP-C6-40B*-6TC		4						
VSP-C6-50B*-4TC		2.5	106.1		87	50	0.9 to 4.5	58
VSP-C6-50B*-6TC		4						
VSP-C8-20B*-4TC	8	2.5	67.1	10	48	20	1.5 to 4.9	42
VSP-C8-20B*-6TC		4						
VSP-C8-30B*-4TC		2.5	80.1		61	30	1.1 to 4.8	47
VSP-C8-30B*-6TC		4						
VSP-C8-40B*-4TC		2.5	93.1		74	40	1.0 to 4.5	52
VSP-C8-40B*-6TC		4						
VSP-C8-50B*-4TC		2.5	106.1		87	50	0.9 to 4.5	58
VSP-C8-50B*-6TC		4						
VSP-C10-20B*-4TC	10	2.5	71.6	16	52.5	20	1.5 to 4.9	43
VSP-C10-20B*-6TC		4						
VSP-C10-30B*-4TC		2.5	84.6		65.5	30	1.1 to 4.8	48
VSP-C10-30B*-6TC		4						
VSP-C10-40B*-4TC		2.5	97.6		78.5	40	1.0 to 4.5	53
VSP-C10-40B*-6TC		4						
VSP-C10-50B*-4TC		2.5	110.6		91.5	50	0.9 to 4.5	59
VSP-C10-50B*-6TC		4						
VSP-C15-20B*-4TC	15	2.5	71.6	16	52.5	20	1.5 to 4.9	43
VSP-C15-20B*-6TC		4						
VSP-C15-30B*-4TC		2.5	84.6		65.5	30	1.1 to 4.8	48
VSP-C15-30B*-6TC		4						
VSP-C15-40B*-4TC		2.5	97.6		78.5	40	1.0 to 4.5	53
VSP-C15-40B*-6TC		4						
VSP-C15-50B*-4TC		2.5	110.6		91.5	50	0.9 to 4.5	59
VSP-C15-50B*-6TC		4						

Dimensions (buffer, vacuum outlet, top, VSP-C, barbed fitting, without spring cover)

●VSP-C20 to 50-□B*-4TC/6TC

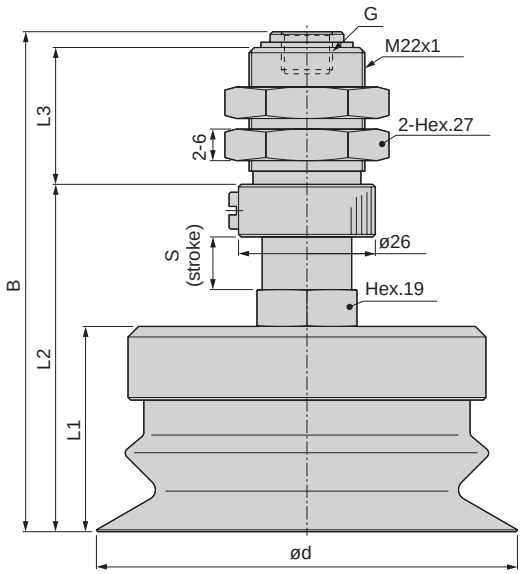


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-C20-20B*-4TC	20	2.5	76.1	19	57	20	1.5 to 4.9	48
VSP-C20-20B*-6TC		4						
VSP-C20-30B*-4TC		2.5	89.1		70	30	1.1 to 4.8	53
VSP-C20-30B*-6TC		4						
VSP-C20-40B*-4TC		2.5	102.1		83	40	1.0 to 4.5	58
VSP-C20-40B*-6TC		4						
VSP-C20-50B*-4TC		2.5	115.1		96	50	0.9 to 4.5	63
VSP-C20-50B*-6TC		4						
VSP-C25-20B*-4TC	25	2.5	76.1	19	57	20	1.5 to 4.9	49
VSP-C25-20B*-6TC		4						
VSP-C25-30B*-4TC		2.5	89.1		70	30	1.1 to 4.8	54
VSP-C25-30B*-6TC		4						
VSP-C25-40B*-4TC		2.5	102.1		83	40	1.0 to 4.5	59
VSP-C25-40B*-6TC		4						
VSP-C25-50B*-4TC		2.5	115.1		96	50	0.9 to 4.5	64
VSP-C25-50B*-6TC		4						
VSP-C30-20B*-4TC	30	2.5	80.1	23	61	20	1.5 to 4.9	50
VSP-C30-20B*-6TC		4						
VSP-C30-30B*-4TC		2.5	93.1		74	30	1.1 to 4.8	55
VSP-C30-30B*-6TC		4						
VSP-C30-40B*-4TC		2.5	106.1		87	40	1.0 to 4.5	60
VSP-C30-40B*-6TC		4						
VSP-C30-50B*-4TC		2.5	119.1		100	50	0.9 to 4.5	65
VSP-C30-50B*-6TC		4						
VSP-C40-20B*-4TC	40	2.5	87.1	30	68	20	1.5 to 4.9	60
VSP-C40-20B*-6TC		4						
VSP-C40-30B*-4TC		2.5	100.1		81	30	1.1 to 4.8	65
VSP-C40-30B*-6TC		4						
VSP-C40-40B*-4TC		2.5	113.1		94	40	1.0 to 4.5	70
VSP-C40-40B*-6TC		4						
VSP-C40-50B*-4TC		2.5	126.1		107	50	0.9 to 4.5	75
VSP-C40-50B*-6TC		4						
VSP-C50-20B*-4TC	50	2.5	89.1	32	70	20	1.5 to 4.9	66
VSP-C50-20B*-6TC		4						
VSP-C50-30B*-4TC		2.5	102.1		83	30	1.1 to 4.8	71
VSP-C50-30B*-6TC		4						
VSP-C50-40B*-4TC		2.5	115.1		96	40	1.0 to 4.5	76
VSP-C50-40B*-6TC		4						
VSP-C50-50B*-4TC		2.5	128.1		109	50	0.9 to 4.5	81
VSP-C50-50B*-6TC		4						

Dimensions (buffer, vacuum outlet, top, VSP-C, female thread)

●VSP-C60 to 100B*-6A

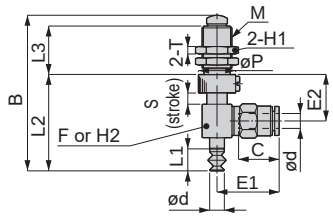


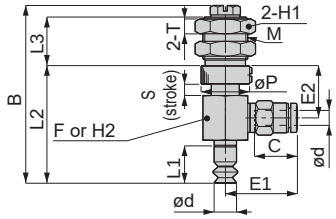
Unit: mm

Model No.	Pad diameter ød	Vacuum outlet size G	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-C60B*-6A	60	G1/8	95.6	37	66.6	26	10	10.1 to 15.8	169
VSP-C80B*-6A	80	G1/8	95	39	66	26	10	10.1 to 15.8	251
VSP-C100B*-6A	100	G1/8	101	45	72	26	10	10.1 to 15.8	350

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting)

●VSP-D2, 4B*-2/4/6
●VSP-D2, 4-□B*-2/-4/-6
●VSP-D6, 8B*-2/4/6
●VSP-D6, 8-□B*-/4/6



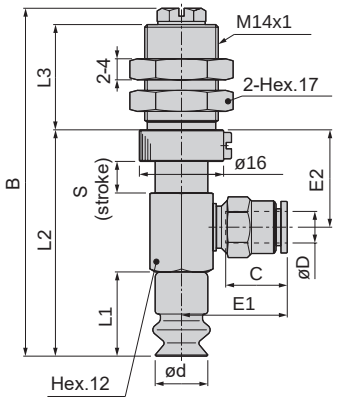


Unit: mm

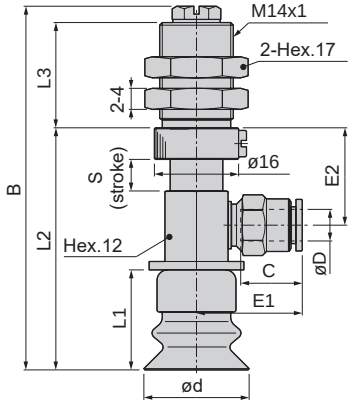
Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	øP	Tube end C	E1	E2	Hexagon H1	Hexagon H2	□F	T	Stroke S	Spring force (N)	Weight (g)
VSP-D2B*-2	2	1.8	M 8 x 0.75	42	6	26	13	10	8.4	12.7	12.5	10	-	8	2	3	0.9 to 1.9	14
VSP-D2B*-4		4							11.2	16.8								15
VSP-D2B*-6		6							11.9	18.6								16
VSP-D2-10B*-2		1.8	M 12 x 1	57.6		37	17.5	13	8.4	13.7	21	14	10	-	4	10	0.6 to 1.7	30
VSP-D2-10B*-4		4							11.2	17.8								31
VSP-D2-10B*-6		6							11.9	19.1								32
VSP-D2-15B*-2		1.8		68.6		40	23.5		8.4	13.7	26					15	0.4 to 1.7	34
VSP-D2-15B*-4		4							11.2	17.8								35
VSP-D2-15B*-6		6							11.9	19.1								36
VSP-D2-20B*-2		1.8		78.6		47	28.5		8.4	13.7	31					20	0.3 to 1.8	37
VSP-D2-20B*-4		4							11.2	17.8								38
VSP-D2-20B*-6		6							11.9	19.1								39
VSP-D4B*-2	4	1.8	M8x0.75	42	6	26	13	10	8.4	12.7	12.5	10	-	8	2	3	0.9 to 1.9	14
VSP-D4B*-4		4							11.2	16.8								15
VSP-D4B*-6		6							11.9	18.6								16
VSP-D4-10B*-2		1.8	M12x1	57.6		37	17.5	13	8.4	13.7	21	14	10	-	4	10	0.6 to 1.7	30
VSP-D4-10B*-4		4							11.2	17.8								31
VSP-D4-10B*-6		6							11.9	19.1								32
VSP-D4-15B*-2		1.8		68.6		40	23.5		8.4	13.7	26					15	0.4 to 1.7	34
VSP-D4-15B*-4		4							11.2	17.8								35
VSP-D4-15B*-6		6							11.9	19.1								36
VSP-D4-20B*-2		1.8		78.6		47	28.5		8.4	13.7	31					20	0.3 to 1.8	37
VSP-D4-20B*-4		4							11.2	17.8								38
VSP-D4-20B*-6		6							11.9	19.1								39
VSP-D6B*-2	6	1.8	M8x0.75	44	10	28	13	10	8.4	12.7	13	10	-	8	2	3	0.9 to 1.9	15
VSP-D6B*-4		4							11.2	16.8								16
VSP-D6B*-6		6							11.9	18.6								17
VSP-D6-10B*-2		1.8	M12x1	59.1		38.5	17.5	13	8.4	14.7	21	14	12	-	4	10	0.6 to 1.7	33
VSP-D6-10B*-4		4							11.2	18.8								34
VSP-D6-10B*-6		6							11.9	20.1								35
VSP-D6-15B*-2		1.8		70.1		43.5	23.5		8.4	14.7	26					15	0.4 to 1.7	37
VSP-D6-15B*-4		4							11.2	18.8								38
VSP-D6-15B*-6		6							11.9	20.1								39
VSP-D6-20B*-2		1.8		80.1		48.5	28.5		8.4	14.7	31					20	0.3 to 1.8	40
VSP-D6-20B*-4		4							11.2	18.8								41
VSP-D6-20B*-6		6							11.9	20.1								42
VSP-D8B*-2	8	1.8	M8x0.75	44	10	28	13	10	8.4	12.7	13	10	-	8	2	3	0.9 to 1.9	15
VSP-D8B*-4		4							11.2	16.8								16
VSP-D8B*-6		6							11.9	18.6								17
VSP-D8-10B*-2		1.8	M12x1	59.1		38.5	17.5	13	8.4	14.7	21	14	12	-	4	10	0.6 to 1.7	33
VSP-D8-10B*-4		4							11.2	18.8								34
VSP-D8-10B*-6		6							11.9	20.1								35
VSP-D8-15B*-2		1.8		70.1		43.5	23.5		8.4	14.7	26					15	0.4 to 1.7	37
VSP-D8-15B*-4		4							11.2	18.8								38
VSP-D8-15B*-6		6							11.9	20.1								39
VSP-D8-20B*-2		1.8		80.1		48.5	28.5		8.4	14.7	31					20	0.3 to 1.8	40
VSP-D8-20B*-4		4							11.2	18.8								41
VSP-D8-20B*-6		6							11.9	20.1								42

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting)

●VSP-D10, 15B*-4/6
●VSP-D10, 15-□B*-4/-6



●VSP-D20 to 50B*-4/6
●VSP-D20 to 50-□B*-4/-6

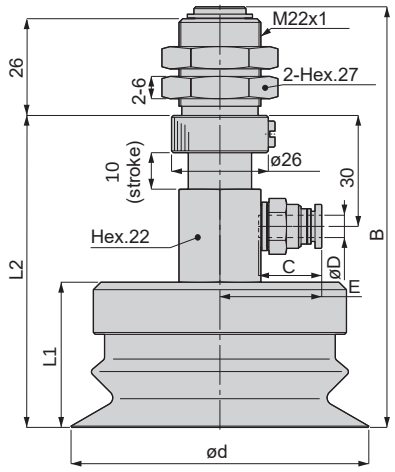


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D10B*-4	10	4	66.1	16	43	20	11.2	18.8	18.5	6	4.0 to 7.1	47
VSP-D10B*-6		6					11.9	20.1				48
VSP-D10-10B*-4		4	71.1		48		11.2	18.8	25	10	2.0 to 5.2	50
VSP-D10-10B*-6		6					11.9	20.1				51
VSP-D10-15B*-4		4	81.1		53	25	11.2	18.8	30	15	2.0 to 5.9	56
VSP-D10-15B*-6		6					11.9	20.1				57
VSP-D10-20B*-4		4	97.1		60	34	11.2	18.8	37	20	1.1 to 4.8	66
VSP-D10-20B*-6		6					11.9	20.1				67
VSP-D15B*-4	15	4	66.1	16	43	20	11.2	18.8	18.5	6	4.0 to 7.1	48
VSP-D15B*-6		6					11.9	20.1				49
VSP-D15-10B*-4		4	71.1		48		11.2	18.8	25	10	2.0 to 5.2	51
VSP-D15-10B*-6		6					11.9	20.1				52
VSP-D15-15B*-4		4	81.1		53	25	11.2	18.8	30	15	2.0 to 5.9	56
VSP-D15-15B*-6		6					11.9	20.1				57
VSP-D15-20B*-4		4	97.1		60	34	11.2	18.8	37	20	1.1 to 4.8	67
VSP-D15-20B*-6		6					11.9	20.1				68
VSP-D20B*-4	20	4	69.1	19	46	20	11.2	18.8	18.5	6	7.0 to 12.6	51
VSP-D20B*-6		6					11.9	20.1				52
VSP-D20-10B*-4		4	75.1		52		11.2	18.8	24.5	10	3.3 to 10.0	54
VSP-D20-10B*-6		6					11.9	20.1				55
VSP-D20-15B*-4		4	85.1		57	25	11.2	18.8	29.5	15	3.3 to 10.4	61
VSP-D20-15B*-6		6					11.9	20.1				62
VSP-D20-20B*-4		4	101.1		64	34	11.2	18.8	36.5	20	2.0 to 8.7	71
VSP-D20-20B*-6		6					11.9	20.1				72
VSP-D25B*-4	25	4	69.1	19	46	20	11.2	18.8	18.5	6	7.0 to 12.6	52
VSP-D25B*-6		6					11.9	20.1				53
VSP-D25-10B*-4		4	75.1		52		11.2	18.8	24.5	10	3.3 to 10.0	55
VSP-D25-10B*-6		6					11.9	20.1				56
VSP-D25-15B*-4		4	85.1		57	25	11.2	18.8	29.5	15	3.3 to 10.4	61
VSP-D25-15B*-6		6					11.9	20.1				62
VSP-D25-20B*-4		4	101.1		64	34	11.2	18.8	36.5	20	2.0 to 8.7	72
VSP-D25-20B*-6		6					11.9	20.1				73
VSP-D30B*-4	30	4	73.1	23	50	20	11.2	18.8	18.5	6	7.0 to 12.6	54
VSP-D30B*-6		6					11.9	20.1				55
VSP-D30-10B*-4		4	79.1		56		11.2	18.8	24.5	10	3.3 to 10.0	58
VSP-D30-10B*-6		6					11.9	20.1				59
VSP-D30-15B*-4		4	89.1		61	25	11.2	18.8	29.5	15	3.3 to 10.4	64
VSP-D30-15B*-6		6					11.9	20.1				65
VSP-D30-20B*-4		4	105.1		68	34	11.2	18.8	36.5	20	2.0 to 8.7	74
VSP-D30-20B*-6		6					11.9	20.1				75
VSP-D40B*-4	40	4	80.1	30	57	20	11.2	18.8	18.5	6	7.0 to 12.6	63
VSP-D40B*-6		6					11.9	20.1				64
VSP-D40-10B*-4		4	86.1		63		11.2	18.8	24.5	10	3.3 to 10.0	58
VSP-D40-10B*-6		6					11.9	20.1				59
VSP-D40-15B*-4		4	96.1		68	25	11.2	18.8	29.5	15	3.3 to 10.4	64
VSP-D40-15B*-6		6					11.9	20.1				65
VSP-D40-20B*-4		4	112.1		75	34	11.2	18.8	36.5	20	2.0 to 8.7	74
VSP-D40-20B*-6		6					11.9	20.1				75
VSP-D50B*-4	50	4	82.1	32	59	20	11.2	18.8	18.5	6	7.0 to 12.6	69
VSP-D50B*-6		6					11.9	20.1				70
VSP-D50-10B*-4		4	88.1		65		11.2	18.8	24.5	10	3.3 to 10.0	72
VSP-D50-10B*-6		6					11.9	20.1				73
VSP-D50-15B*-4		4	98.1		70	25	11.2	18.8	29.5	15	3.3 to 10.4	79
VSP-D50-15B*-6		6					11.9	20.1				80
VSP-D50-20B*-4		4	1141		77	34	11.2	18.8	36.5	20	2.0 to 8.7	89
VSP-D50-20B*-6		6					11.9	20.1				90

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting)

●VSP-D60 to 100B*-4/6/8

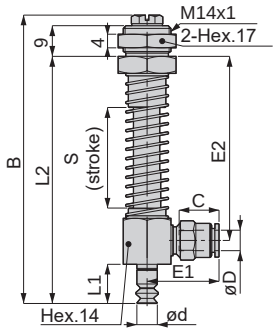


Unit: mm

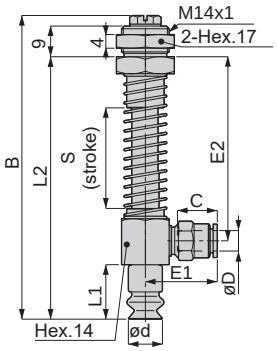
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-D60B*-4	60	4	113.6	37	84.6	11.2	21.5	10	10.1 to 15.8	259
VSP-D60B*-6		6				11.9	23.7			260
VSP-D60B*-8		8				18.2	32.1			265
VSP-D80B*-4	80	4	113	39	84	11.2	21.5	10	10.1 to 15.8	342
VSP-D80B*-6		6				11.9	23.7			343
VSP-D80B*-8		8				18.2	32.1			348
VSP-D100B*-4	100	4	119	45	90	11.2	21.5	10	10.1 to 15.8	441
VSP-D100B*-6		6				11.9	23.7			442
VSP-D100B*-8		8				18.2	32.1			447

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting, without spring cover)

●VSP-D6, 8-□B*-4C/6C



●VSP-D10, 15-□B*-4C/6C

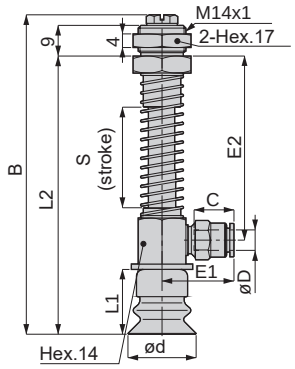


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D6-20B*-4C	6	4	70.1	10	58	11.2	19.8	40.5	20	1.5 to 4.9	62
VSP-D6-20B*-6C		6				83.1	21.1				63
VSP-D6-30B*-4C		4	83.1		71	11.2	19.8	53.5	30	1.1 to 4.8	68
VSP-D6-30B*-6C		6				109.1	21.1				69
VSP-D6-40B*-4C		4	96.1		84	11.2	19.8	66.5	40	1.0 to 4.5	75
VSP-D6-40B*-6C		6				83.1	21.1				76
VSP-D6-50B*-4C		4	109.1		97	11.2	19.8	79.5	50	0.9 to 4.5	82
VSP-D6-50B*-6C		6				109.1	21.1				83
VSP-D8-20B*-4C	8	4	70.1	10	58	11.2	19.8	40.5	20	1.5 to 4.9	62
VSP-D8-20B*-6C		6				89.1	21.1				63
VSP-D8-30B*-4C		4	83.1		71	11.2	19.8	53.5	30	1.1 to 4.8	68
VSP-D8-30B*-6C		6				115.1	21.1				69
VSP-D8-40B*-4C		4	96.1		84	11.2	19.8	66.5	40	1.0 to 4.5	75
VSP-D8-40B*-6C		6				89.1	21.1				76
VSP-D8-50B*-4C		4	109.1		97	11.2	19.8	79.5	50	0.9 to 4.5	82
VSP-D8-50B*-6C		6				115.1	21.1				83
VSP-D10-20B*-4C	10	4	76.1	16	64	11.2	19.8	40.5	20	1.5 to 4.9	69
VSP-D10-20B*-6C		6				11.9	21.1				70
VSP-D10-30B*-4C		4	89.1		77	11.2	19.8	53.5	30	1.1 to 4.8	75
VSP-D10-30B*-6C		6				11.9	21.1				76
VSP-D10-40B*-4C		4	102.1		90	11.2	19.8	66.5	40	1.0 to 4.5	82
VSP-D10-40B*-6C		6				11.9	21.1				83
VSP-D10-50B*-4C		4	115.1		103	11.2	19.8	79.5	50	0.9 to 4.5	89
VSP-D10-50B*-6C		6				11.9	21.1				90
VSP-D15-20B*-4C	15	4	76.1	16	64	11.2	19.8	40.5	20	1.5 to 4.9	69
VSP-D15-20B*-6C		6				11.9	21.1				70
VSP-D15-30B*-4C		4	89.1		77	11.2	19.8	53.5	30	1.1 to 4.8	75
VSP-D15-30B*-6C		6				11.9	21.1				76
VSP-D15-40B*-4C		4	102.1		90	11.2	19.8	66.5	40	1.0 to 4.5	82
VSP-D15-40B*-6C		6				11.9	21.1				83
VSP-D15-50B*-4C		4	115.1		103	11.2	19.8	79.5	50	0.9 to 4.5	89
VSP-D15-50B*-6C		6				11.9	21.1				90

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting, without spring cover)

●VSP-D20 to 50-□B*-4C/6C

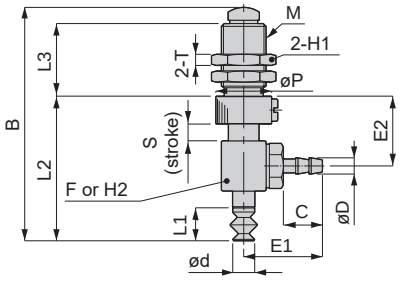


Unit: mm

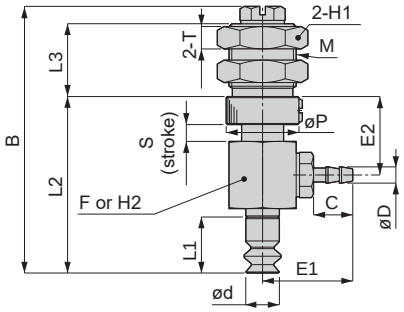
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D20-20B*-4C	20	4	80.6	19	68.5	11.2	19.8	41	20	1.5 to 4.9	70
VSP-D20-20B*-6C		6				11.9	21.1				71
VSP-D20-30B*-4C		4	93.6		81.5	11.2	19.8	54	30	1.1 to 4.8	77
VSP-D20-30B*-6C		6				11.9	21.1				78
VSP-D20-40B*-4C		4	106.6		94.5	11.2	19.8	67	40	1.0 to 4.5	82
VSP-D20-40B*-6C		6				11.9	21.1				83
VSP-D20-50B*-4C		4	119.6		107.5	11.2	19.8	80	50	0.9 to 4.5	90
VSP-D20-50B*-6C		6				11.9	21.1				91
VSP-D25-20B*-4C	25	4	80.6	19	68.5	11.2	19.8	41	20	1.5 to 4.9	71
VSP-D25-20B*-6C		6				11.9	21.1				72
VSP-D25-30B*-4C		4	93.6		81.5	11.2	19.8	54	30	1.1 to 4.8	78
VSP-D25-30B*-6C		6				11.9	21.1				79
VSP-D25-40B*-4C		4	106.6		94.5	11.2	19.8	67	40	1.0 to 4.5	83
VSP-D25-40B*-6C		6				11.9	21.1				84
VSP-D25-50B*-4C		4	119.6		107.5	11.2	19.8	80	50	0.9 to 4.5	91
VSP-D25-50B*-6C		6				11.9	21.1				92
VSP-D30-20B*-4C	30	4	84.6	23	72.5	11.2	19.8	41	20	1.5 to 4.9	75
VSP-D30-20B*-6C		6				11.9	21.1				76
VSP-D30-30B*-4C		4	97.6		85.5	11.2	19.8	54	30	1.1 to 4.8	82
VSP-D30-30B*-6C		6				11.9	21.1				83
VSP-D30-40B*-4C		4	110.6		98.5	11.2	19.8	67	40	1.0 to 4.5	87
VSP-D30-40B*-6C		6				11.9	21.1				88
VSP-D30-50B*-4C		4	123.6		111.5	11.2	19.8	80	50	0.9 to 4.5	95
VSP-D30-50B*-6C		6				11.9	21.1				96
VSP-D40-20B*-4C	40	4	91.6	30	79.5	11.2	19.8	41	20	1.5 to 4.9	86
VSP-D40-20B*-6C		6				11.9	21.1				87
VSP-D40-30B*-4C		4	104.6		92.5	11.2	19.8	54	30	1.1 to 4.8	93
VSP-D40-30B*-6C		6				11.9	21.1				94
VSP-D40-40B*-4C		4	117.6		105.5	11.2	19.8	67	40	1.0 to 4.5	100
VSP-D40-40B*-6C		6				11.9	21.1				101
VSP-D40-50B*-4C		4	130.6		118.5	11.2	19.8	80	50	0.9 to 4.5	107
VSP-D40-50B*-6C		6				11.9	21.1				108
VSP-D50-20B*-4C	50	4	93.6	32	81.5	11.2	19.8	41	20	1.5 to 4.9	92
VSP-D50-20B*-6C		6				11.9	21.1				93
VSP-D50-30B*-4C		4	106.6		94.5	11.2	19.8	54	30	1.1 to 4.8	100
VSP-D50-30B*-6C		6				11.9	21.1				101
VSP-D50-40B*-4C		4	119.6		107.5	11.2	19.8	67	40	1.0 to 4.5	107
VSP-D50-40B*-6C		6				11.9	21.1				108
VSP-D50-50B*-4C		4	132.6		120.5	11.2	19.8	80	50	0.9 to 4.5	114
VSP-D50-50B*-6C		6				11.9	21.1				115

Dimensions (buffer, vacuum outlet, side, VSP-D, barbed fitting)

●VSP-D2, 4B*-4T/6T
●VSP-D2, 4-□B-4T/6T



●VSP-D6, 8B*-4T/6T
●VSP-D6, 8-□B-4T/6T

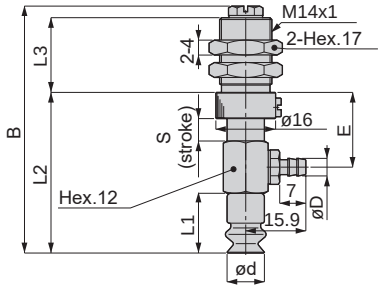


Unit: mm

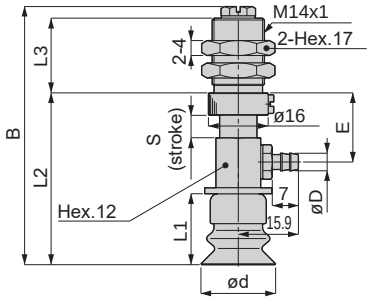
Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	øP	E1	E2	H1 HEX	H2 HEX	□F	T	Stroke S	Spring force (N)	Weight (g)
VSP-D2B*-4T	2	2.5	M8x0.75	42	6	26	13	10	13.9	12.5	10	-	8	2	3	0.9 to 1.9	12
VSP-D2B*-6T		4															
VSP-D2-10B*-4T		2.5	M12x1	57.6		37	17.5	13	14.9	21	14	10	-	4	10	0.6 to 1.7	27
VSP-D2-10B*-6T		4															
VSP-D2-15B*-4T		2.5		68.6		42	23.5			26					15	0.4 to 1.7	32
VSP-D2-15B*-6T		4															
VSP-D2-20B*-4T		2.5		78.6		47	28.5			31					20	0.3 to 1.8	35
VSP-D2-20B*-6T		4															
VSP-D4B*-4T	4	2.5	M8x0.75	42	6	26	13	10	13.9	12.5	10	-	8	2	3	0.9 to 1.9	12
VSP-D4B*-6T		4															
VSP-D4-10B*-4T		2.5	M12x1	57.6		37	17.5	13	14.9	21	14	10	-	4	10	0.6 to 1.7	27
VSP-D4-10B*-6T		4															
VSP-D4-15B*-4T		2.5		68.6		42	23.5			26					15	0.4 to 1.7	32
VSP-D4-15B*-6T		4															
VSP-D4-20B*-4T		2.5		78.6		47	28.5			31					20	0.3 to 1.8	35
VSP-D4-20B*-6T		4															
VSP-D6B*-4T	6	2.5	M8x0.75	44	10	28	13	10	13.9	13	10	-	8	2	3	0.9 to 1.9	13
VSP-D6B*-6T		4															
VSP-D6-10B*-4T		2.5	M12x1	59.1		38.5	17.5	13	15.9	21	14	12	-	4	10	0.6 to 1.7	32
VSP-D6-10B*-6T		4															
VSP-D6-15B*-4T		2.5		70.1		43.5	23.5			26					15	0.4 to 1.7	36
VSP-D6-15B*-6T		4															
VSP-D6-20B*-4T		2.5		80.1		48.5	28.5			31					20	0.3 to 1.8	39
VSP-D6-20B*-6T		4															
VSP-D8B*-4T	8	2.5	M8x0.75	44	10	28	13	10	13.9	13	10	-	8	2	3	0.9 to 1.9	13
VSP-D8B*-6T		4															
VSP-D8-10B*-4T		2.5	M12x1	59.1		38.5	17.5	13	15.9	21	14	12	-	4	10	0.6 to 1.7	32
VSP-D8-10B*-6T		4															
VSP-D8-15B*-4T		2.5		70.1		43.5	23.5			26					15	0.4 to 1.7	36
VSP-D8-15B*-6T		4															
VSP-D8-20B*-4T		2.5		80.1		48.5	28.5			31					20	0.3 to 1.8	39
VSP-D8-20B*-6T		4															

Dimensions (buffer, vacuum outlet, side, VSP-D, barbed fitting)

●VSP-D10, 5B*-4T/6T
●VSP-D10, 15-□B*-4T/6T



●VSP-D20 to 50B*-4T/6T
●VSP-D20 to 50-□B*-4T/6T

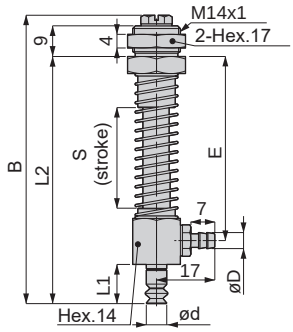


Unit: mm

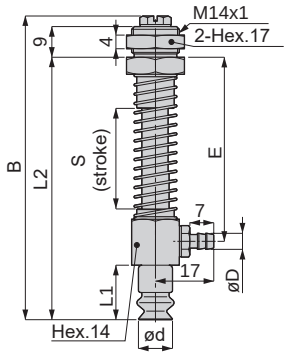
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	E	Stroke S	Spring force (N)	Weight (g)
VSP-D10B*-4T	10	2.5	66.1	16	43	20	18.5	6	4.0 to 7.1	47
VSP-D10B*-6T		4								
VSP-D10-10B*-4T		2.5	71.1		48		25	10	2.0 to 5.2	50
VSP-D10-10B*-6T		4								
VSP-D10-15B*-4T		2.5	81.1		53	25	30	15	2.0 to 5.9	55
VSP-D10-15B*-6T		4								
VSP-D10-20B*-4T		2.5	97.1		60	34	37	20	1.1 to 4.8	66
VSP-D10-20B*-6T		4								
VSP-D15B*-4T	15	2.5	66.1	16	43	20	18.5	6	4.0 to 7.1	47
VSP-D15B*-6T		4								
VSP-D15-10B*-4T		2.5	71.1		48		25	10	2.0 to 5.2	50
VSP-D15-10B*-6T		4								
VSP-D15-15B*-4T		2.5	81.1		53	25	30	15	2.0 to 5.9	55
VSP-D15-15B*-6T		4								
VSP-D15-20B*-4T		2.5	97.1		60	34	37	20	1.1 to 4.8	66
VSP-D15-20B*-6T		4								
VSP-D20B*-4T	20	2.5	69.1	19	46	20	18.5	6	7.0 to 12.6	50
VSP-D20B*-6T		4								
VSP-D20-10B*-4T		2.5	75.1		52		24.5	10	3.3 to 10.0	54
VSP-D20-10B*-6T		4								
VSP-D20-15B*-4T		2.5	85.1		57	25	29.5	15	3.3 to 10.4	61
VSP-D20-15B*-6T		4								
VSP-D20-20B*-4T		2.5	101.1		64	34	36.5	20	2.0 to 8.7	71
VSP-D20-20B*-6T		4								
VSP-D25B*-4T	25	2.5	69.1	19	46	20	18.5	6	7.0 to 12.6	51
VSP-D25B*-6T		4								
VSP-D25-10B*-4T		2.5	75.1		52		24.5	10	3.3 to 10.0	55
VSP-D25-10B*-6T		4								
VSP-D25-15B*-4T		2.5	85.1		57	25	29.5	15	3.3 to 10.4	61
VSP-D25-15B*-6T		4								
VSP-D25-20B*-4T		2.5	101.1		64	34	36.5	20	2.0 to 8.7	71
VSP-D25-20B*-6T		4								
VSP-D30B*-4T	30	2.5	73.1	23	50	20	18.5	6	7.0 to 12.6	53
VSP-D30B*-6T		4								
VSP-D30-10B*-4T		2.5	79.1		56		24.5	10	3.3 to 10.0	55
VSP-D30-10B*-6T		4								
VSP-D30-15B*-4T		2.5	89.1		61	25	29.5	15	3.3 to 10.4	62
VSP-D30-15B*-6T		4								
VSP-D30-20B*-4T		2.5	105.1		68	34	36.5	20	2.0 to 8.7	72
VSP-D30-20B*-6T		4								
VSP-D40B*-4T	40	2.5	80.1	30	57	20	18.5	6	7.0 to 12.6	59
VSP-D40B*-6T		4								
VSP-D40-10B*-4T		2.5	86.1		63		24.5	10	3.3 to 10.0	66
VSP-D40-10B*-6T		4								
VSP-D40-15B*-4T		2.5	96.1		68	25	29.5	15	3.3 to 10.4	72
VSP-D40-15B*-6T		4								
VSP-D40-20B*-4T		2.5	112.1		75	34	36.5	20	2.0 to 8.7	82
VSP-D40-20B*-6T		4								
VSP-D50B*-4T	50	2.5	82.1	32	59	20	18.5	6	7.0 to 12.6	68
VSP-D50B*-6T		4								
VSP-D50-10B*-4T		2.5	88.1		65		24.5	10	3.3 to 10.0	72
VSP-D50-10B*-6T		4								
VSP-D50-15B*-4T		2.5	98.1		70	25	29.5	15	3.3 to 10.4	78
VSP-D50-15B*-6T		4								
VSP-D50-20B*-4T		2.5	114.1		77	34	36.5	20	2.0 to 8.7	88
VSP-D50-20B*-6T		4								

Dimensions (buffer, vacuum outlet, side, VSP-D, barbed fitting, without spring cover)

●VSP-D6, 8-□B*-4TC/6TC



●VSP-D10, 5-□B*-4TC/6TC

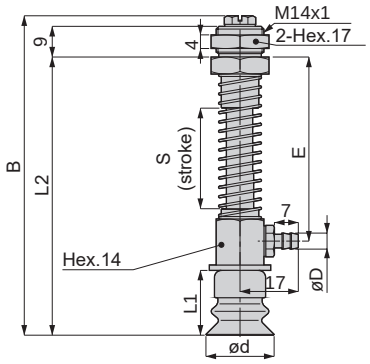


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-D6-20B*-4TC	6	2.5	70.1	10	58	40.5	20	1.5 to 4.9	60
VSP-D6-20B*-6TC		4							
VSP-D6-30B*-4TC		2.5	83.1		71	53.5	30	1.1 to 4.8	67
VSP-D6-30B*-6TC		4							
VSP-D6-40B*-4TC		2.5	96.1		84	66.5	40	1.0 to 4.5	74
VSP-D6-40B*-6TC		4							
VSP-D6-50B*-4TC		2.5	109.1		97	79.5	50	0.9 to 4.5	80
VSP-D6-50B*-6TC		4							
VSP-D8-20B*-4TC	8	2.5	70.1	10	58	40.5	20	1.5 to 4.9	60
VSP-D8-20B*-6TC		4							
VSP-D8-30B*-4TC		2.5	83.1		71	53.5	30	1.1 to 4.8	67
VSP-D8-30B*-6TC		4							
VSP-D8-40B*-4TC		2.5	96.1		84	66.5	40	1.0 to 4.5	74
VSP-D8-40B*-6TC		4							
VSP-D8-50B*-4TC		2.5	109.1		97	79.5	50	0.9 to 4.5	80
VSP-D8-50B*-6TC		4							
VSP-D10-20B*-4TC	10	2.5	76.1	16	64	40.5	20	1.5 to 4.9	60
VSP-D10-20B*-6TC		4							
VSP-D10-30B*-4TC		2.5	89.1		77	53.5	30	1.1 to 4.8	67
VSP-D10-30B*-6TC		4							
VSP-D10-40B*-4TC		2.5	102.1		90	66.5	40	1.0 to 4.5	74
VSP-D10-40B*-6TC		4							
VSP-D10-50B*-4TC		2.5	115.1		103	79.5	50	0.9 to 4.5	80
VSP-D10-50B*-6TC		4							
VSP-D15-20B*-4TC	15	2.5	76.1	16	64	40.5	20	1.5 to 4.9	61
VSP-D15-20B*-6TC		4							
VSP-D15-30B*-4TC		2.5	89.1		77	53.5	30	1.1 to 4.8	68
VSP-D15-30B*-6TC		4							
VSP-D15-40B*-4TC		2.5	102.1		90	66.5	40	1.0 to 4.5	75
VSP-D15-40B*-6TC		4							
VSP-D15-50B*-4TC		2.5	115.1		103	79.5	50	0.9 to 4.5	81
VSP-D15-50B*-6TC		4							

Dimensions (buffer, vacuum outlet, side, VSP-D, barbed fitting, without spring cover)

●VSP-D20 to 50-□B*-4TC/6TC

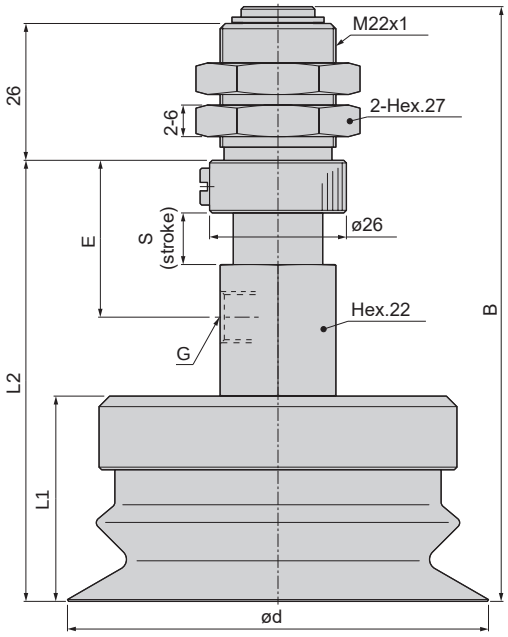


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-D20-20B*-4TC	20	4	80.6	19	68.5	41	20	1.5 to 4.9	68
VSP-D20-20B*-6TC		6							
VSP-D20-30B*-4TC		4	93.6		81.5	54	30	1.1 to 4.8	75
VSP-D20-30B*-6TC		6							
VSP-D20-40B*-4TC		4	106.6		94.5	67	40	1.0 to 4.5	81
VSP-D20-40B*-6TC		6							
VSP-D20-50B*-4TC		4	119.6		107.5	80	50	0.9 to 4.5	88
VSP-D20-50B*-6TC		6							
VSP-D25-20B*-4TC	25	4	80.6	19	68.5	41	20	1.5 to 4.9	68
VSP-D25-20B*-6TC		6							
VSP-D25-30B*-4TC		4	93.6		81.5	54	30	1.1 to 4.8	75
VSP-D25-30B*-6TC		6							
VSP-D25-40B*-4TC		4	106.6		94.5	67	40	1.0 to 4.5	82
VSP-D25-40B*-6TC		6							
VSP-D25-50B*-4TC		4	119.6		107.5	80	50	0.9 to 4.5	89
VSP-D25-50B*-6TC		6							
VSP-D30-20B*-4TC	30	4	84.6	23	72.5	41	20	1.5 to 4.9	70
VSP-D30-20B*-6TC		6							
VSP-D30-30B*-4TC		4	97.6		85.5	54	30	1.1 to 4.8	77
VSP-D30-30B*-6TC		6							
VSP-D30-40B*-4TC		4	110.6		98.5	67	40	1.0 to 4.5	83
VSP-D30-40B*-6TC		6							
VSP-D30-50B*-4TC		4	123.6		111.5	80	50	0.9 to 4.5	90
VSP-D30-50B*-6TC		6							
VSP-D40-20B*-4TC	40	4	91.6	30	79.5	41	20	1.5 to 4.9	80
VSP-D40-20B*-6TC		6							
VSP-D40-30B*-4TC		4	104.6		92.5	54	30	1.1 to 4.8	87
VSP-D40-30B*-6TC		6							
VSP-D40-40B*-4TC		4	117.6		105.5	67	40	1.0 to 4.5	94
VSP-D40-40B*-6TC		6							
VSP-D40-50B*-4TC		4	130.6		118.5	80	50	0.9 to 4.5	100
VSP-D40-50B*-6TC		6							
VSP-D50-20B*-4TC	50	4	93.6	32	81.5	41	20	1.5 to 4.9	86
VSP-D50-20B*-6TC		6							
VSP-D50-30B*-4TC		4	106.6		94.5	54	30	1.1 to 4.8	93
VSP-D50-30B*-6TC		6							
VSP-D50-40B*-4TC		4	119.6		107.5	67	40	1.0 to 4.5	99
VSP-D50-40B*-6TC		6							
VSP-D50-50B*-4TC		4	132.6		120.5	80	50	0.9 to 4.5	106
VSP-D50-50B*-6TC		6							

Dimensions (buffer, vacuum outlet, side, VSP-D, female thread)

●VSP-D60 to 100B*-6A

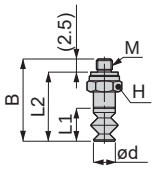


Unit: mm

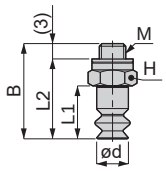
Model No.	Pad diameter ød	Vacuum outlet size G	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-D60B*-6A	60	G1/8	113.6	37	84.6	10	10.1 to 15.8	251
VSP-D80B*-6A	80	G1/8	113	39	84	10	10.1 to 15.8	334
VSP-D100B*-6A	100	G1/8	119	45	90	10	10.1 to 15.8	433

Dimensions (fixed, direct mounting, VSP-E, male thread)

●VSP-E2, 4B*



●VSP-E6, 8B*

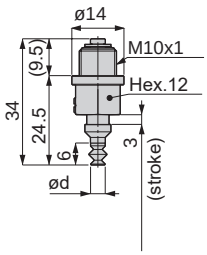


Unit: mm

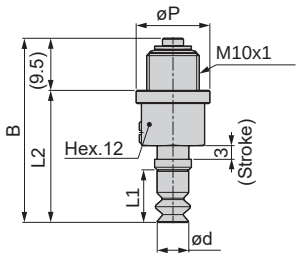
Model No.	Pad diameter ød	M	B	L1	L2	Hexagon H	Weight (g)
VSP-E2B*	2	M3x0.5	15	6	12.5	5.5	1.8
VSP-E4B*	4	M3x0.5	15	6	12.5	5.5	1.8
VSP-E6B*	6	M5x0.8	18	10	15	8	3.2
VSP-E8B*	8	M5x0.8	18	10	15	8	3.2

Dimensions (buffer, direct mounting, VSP-F, male thread)

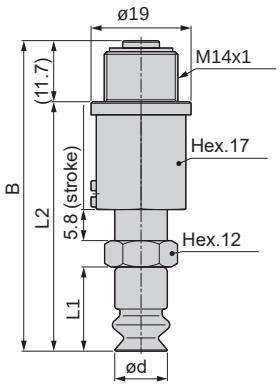
●VSP-F2, 4B*



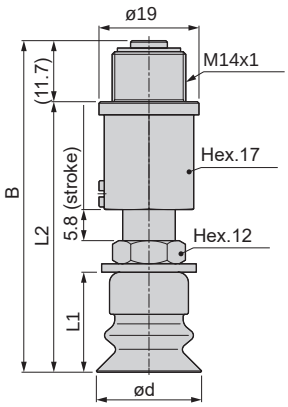
●VSP-F6, 8B*



●VSP-F10, 15B*



●VSP-F20 to 50B*

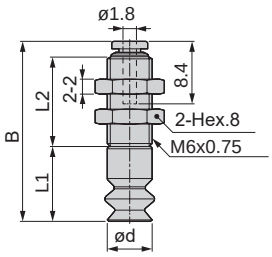


Unit: mm

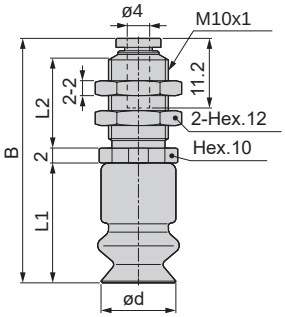
Model No.	Pad diameter ød	B	L1	L2	Spring force (N)	Weight (g)
VSP-F2B*	2	34	6	24.5	2.3 to 3.9	16
VSP-F4B*	4	34	6	24.5	2.3 to 3.9	16
VSP-F6B*	6	35	10	25.5	2.3 to 3.9	16
VSP-F8B*	8	35	10	25.5	2.3 to 3.9	16
VSP-F10B*	10	59	16	47.3	7.9 to 15	58
VSP-F15B*	15	59	16	47.3	7.9 to 15	58
VSP-F20B*	20	63	19	51.3	7.9 to 15	62
VSP-F25B*	25	63	19	51.3	7.9 to 15	62
VSP-F30B*	30	67	23	55.3	7.9 to 15	63
VSP-F40B*	40	74	30	62.3	7.9 to 15	70
VSP-F50B*	50	76	32	64.3	7.9 to 15	76

Dimensions (compact, fixed, vacuum outlet, top, VSP-MA, push-in fitting)

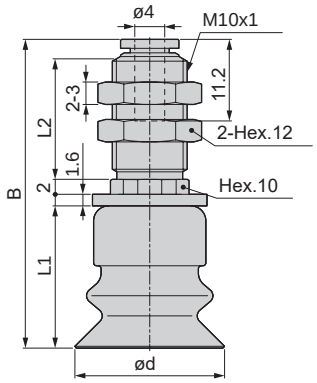
●VSP-MA6, 8B*-2



●VSP-MA10, 15B*-4



●VSP-MA20 to 50B*-4

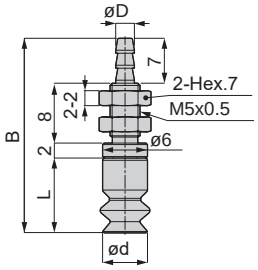


Unit: mm

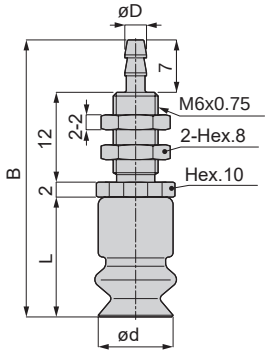
Model No.	Pad diameter ød	B	L1	L2	Weight (g)
VSP-MA6B*-2	6	24.1	10	12	2.5
VSP-MA8B*-2	8	24.1	10	12	2.5
VSP-MA10B*-4	10	37	16	16.4	6.6
VSP-MA15B*-4	15	37	16	16.4	7.1
VSP-MA20B*-4	20	41.6	19	16.4	12
VSP-MA25B*-4	25	41.6	19	16.4	13
VSP-MA30B*-4	30	45.6	23	16.4	16
VSP-MA40B*-4	40	52.6	30	16.4	24
VSP-MA50B*-4	50	54.6	32	16.4	30

Dimensions (compact, fixed, vacuum outlet, top, VSP-MA, barbed fitting)

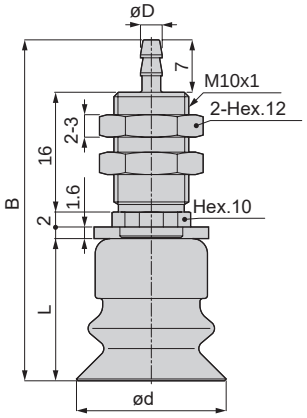
●VSP-MA6, 8B*-4T



●VSP-MA10, 15B*-4T



●VSP-MA20 to 50B*-4T/6T

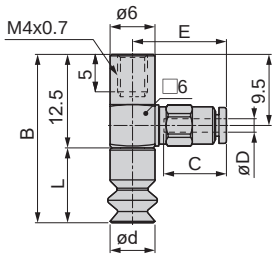


Unit: mm

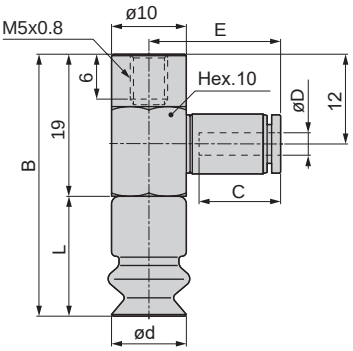
Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-MA6B*-4T	6	2.5	27	10	2.1
VSP-MA8B*-4T	8	2.5	27	10	2.1
VSP-MA10B*-4T	10	2.5	37	16	3.8
VSP-MA15B*-4T	15	2.5	37	16	4.3
VSP-MA20B*-4T	20	2.5	45.6	19	12
VSP-MA20B*-6T		4			
VSP-MA25B*-4T	25	2.5	45.6	19	13
VSP-MA25B*-6T		4			
VSP-MA30B*-4T	30	2.5	49.6	23	16
VSP-MA30B*-6T		4			
VSP-MA40B*-4T	40	2.5	56.6	30	23
VSP-MA40B*-6T		4			
VSP-MA50B*-4T	50	2.5	58.6	32	30
VSP-MA50B*-6T		4			

Dimensions (compact, fixed, vacuum outlet, lateral, VSP-MB, push-in fitting)

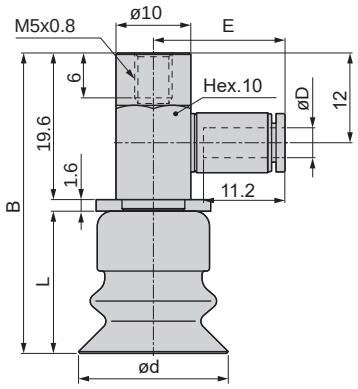
●VSP-MB6, 8B*-2/4



●VSP-MB10, 15B*-2/4/6



●VSP-MB20 to 50B*-2/4/6

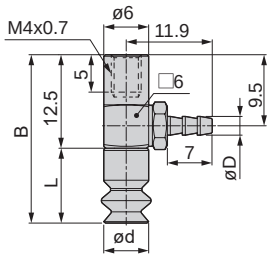


Unit: mm

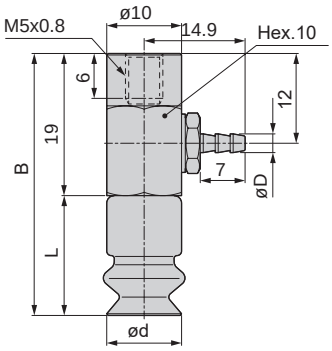
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-MB6B*-2	6	1.8	22.5	10	8.4	12.5	2.5
VSP-MB6B*-4		4			11.2	15.8	4
VSP-MB8B*-2	8	1.8	22.5	10	8.4	12.5	2.5
VSP-MB8B*-4		4			11.2	15.8	4
VSP-MB10B*-2	10	1.8	35	16	8.4	13.7	7.7
VSP-MB10B*-4		4			11.2	17.8	8.4
VSP-MB10B*-6		6			11.9	19.6	9.8
VSP-MB15B*-2	15	1.8	35	16	8.4	13.7	8.2
VSP-MB15B*-4		4			11.2	17.8	8.9
VSP-MB15B*-6		6			11.9	19.6	10.3
VSP-MB20B*-2	20	1.8	40.2	19	8.4	13.7	12
VSP-MB20B*-4		4			11.2	17.8	13
VSP-MB20B*-6		6			11.9	19.6	14
VSP-MB25B*-2	25	1.8	40.2	19	8.4	13.7	13
VSP-MB25B*-4		4			11.2	17.8	14
VSP-MB25B*-6		6			11.9	19.6	15
VSP-MB30B*-2	30	1.8	44.2	23	8.4	13.7	16
VSP-MB30B*-4		4			11.2	17.8	17
VSP-MB30B*-6		6			11.9	19.6	18
VSP-MB40B*-2	40	1.8	51.2	30	8.4	13.7	23
VSP-MB40B*-4		4			11.2	17.8	24
VSP-MB40B*-6		6			11.9	19.6	25
VSP-MB50B*-2	50	1.8	53.2	32	8.4	13.7	29
VSP-MB50B*-4		4			11.2	17.8	30
VSP-MB50B*-6		6			11.9	19.6	31

Dimensions (compact, fixed, vacuum outlet, side, VSP-MB, barbed fitting)

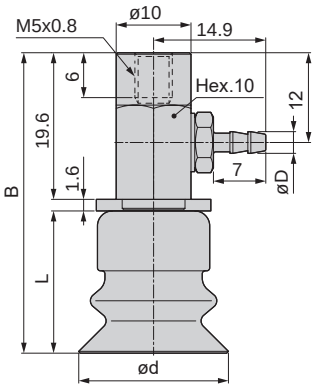
●VSP-MB6, 8B*-4T/6T



●VSP-MB10, 15B*-4T/6T



●VSP-MB20 to 50B*-4T/6T

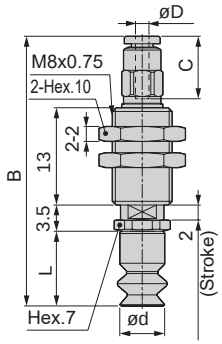


Unit: mm

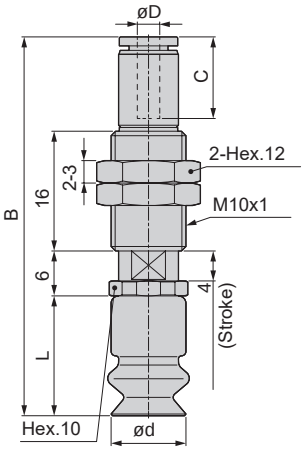
Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-MB6B*-4T	6	2.5	22.5	10	2.6
VSP-MB6B*-6T		4			
VSP-MB8B*-4T	8	2.5	22.5	10	2.6
VSP-MB8B*-6T		4			
VSP-MB10B*-4T	10	2.5	35	16	7.2
VSP-MB10B*-6T		4			
VSP-MB15B*-4T	15	2.5	35	16	7.7
VSP-MB15B*-6T		4			
VSP-MB20B*-4T	20	2.5	40.2	19	12
VSP-MB20B*-6T		4			
VSP-MB25B*-4T	25	2.5	40.2	19	13
VSP-MB25B*-6T		4			
VSP-MB30B*-4T	30	2.5	44.2	23	15
VSP-MB30B*-6T		4			
VSP-MB40B*-4T	40	2.5	51.2	30	23
VSP-MB40B*-6T		4			
VSP-MB50B*-4T	50	2.5	53.2	32	30
VSP-MB50B*-6T		4			

Dimensions (compact, buffer, vacuum outlet, top, VSP-MC, push-in fitting)

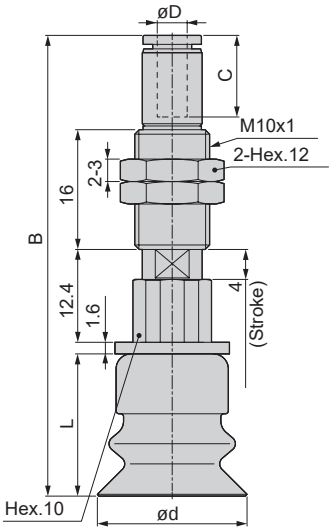
●VSP-MC6, 8B*-2



●VSP-MC10, 15B*-2/4



●VSP-MC20 to 50B*-2/4

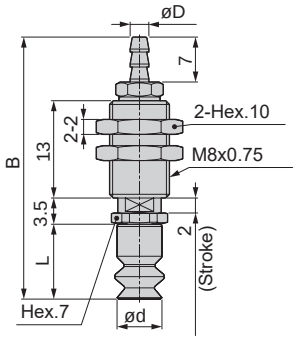


Unit: mm

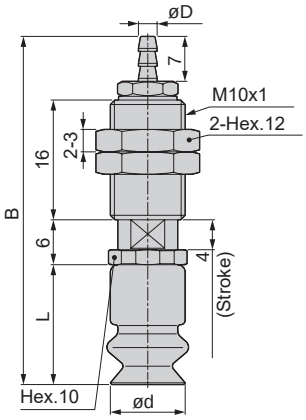
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	Spring force (N)	Weight (g)
VSP-MC6B*-2	6	1.8	36.2	10	8.4	0.2 to 0.3	7.3
VSP-MC8B*-2	8	1.8	36.2	10	8.4	0.2 to 0.3	7.3
VSP-MC10B*-2	10	1.8	46.9	16	8.4	0.5 to 0.6	15
VSP-MC10B*-4		4	51		11.2		16
VSP-MC15B*-2	15	1.8	46.9	16	8.4	0.5 to 0.6	16
VSP-MC15B*-4		4	51		11.2		17
VSP-MC20B*-2	20	1.8	57.9	19	8.4	1 to 1.3	23
VSP-MC20B*-4		4	62		11.2		24
VSP-MC25B*-2	25	1.8	57.9	19	8.4	1 to 1.3	24
VSP-MC25B*-4		4	62		11.2		25
VSP-MC30B*-2	30	1.8	61.9	23	8.4	1 to 1.3	27
VSP-MC30B*-4		4	66		11.2		28
VSP-MC40B*-2	40	1.8	68.9	30	8.4	1 to 1.3	34
VSP-MC40B*-4		4	73		11.2		35
VSP-MC50B*-2	50	1.8	70.9	32	8.4	1 to 1.3	40
VSP-MC50B*-4		4	75		11.2		41

Dimensions (compact, buffer, vacuum outlet, top, VSP-MC, barbed fitting)

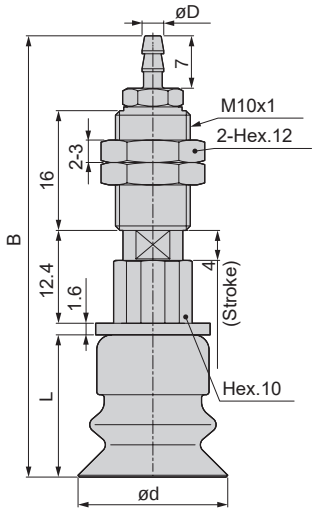
●VSP-MC6, 8B*-4T/6T



●VSP-MC10, 15B*-4T/6T



●VSP-MC20 to 50B*-4T/6T

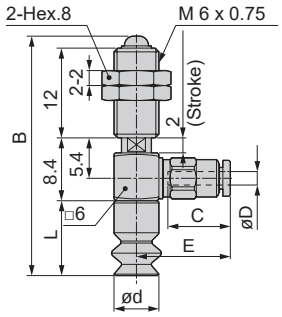


Unit: mm

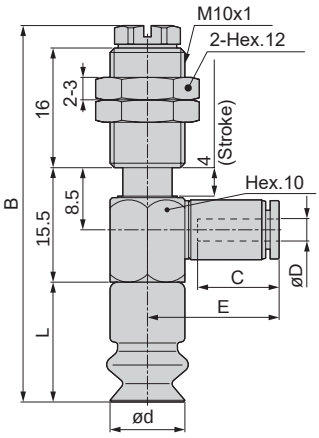
Model No.	Pad diameter ød	Bore size øD	B	L	Spring force (N)	Weight (g)
VSP-MC6B*-4T	6	2.5	36.1	10	0.2 to 0.3	7.4
VSP-MC6B*-6T		4				
VSP-MC8B*-4T	8	2.5	36.1	10	0.2 to 0.3	7.4
VSP-MC8B*-6T		4				
VSP-MC10B*-4T	10	2.5	48.1	16	0.5 to 0.6	15
VSP-MC10B*-6T		4				
VSP-MC15B*-4T	15	2.5	48.1	16	0.5 to 0.6	16
VSP-MC15B*-6T		4				
VSP-MC20B*-4T	20	2.5	59.1	19	1 to 1.3	23
VSP-MC20B*-6T		4				
VSP-MC25B*-4T	25	2.5	59.1	19	1 to 1.3	24
VSP-MC25B*-6T		4				
VSP-MC30B*-4T	30	2.5	63.1	23	1 to 1.3	26
VSP-MC30B*-6T		4				
VSP-MC40B*-4T	40	2.5	70.1	30	1 to 1.3	34
VSP-MC40B*-6T		4				
VSP-MC50B*-4T	50	2.5	72.1	32	1 to 1.3	41
VSP-MC50B*-6T		4				

Dimensions (compact, buffer, vacuum outlet, lateral, VSP-MD, push-in fitting)

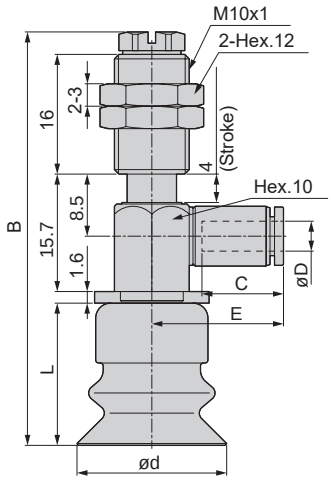
●VSP-MD6, 8B*-2/4



●VSP-MD10, 15B*-2/4/6



●VSP-MD20 to 50B*-2/4/6

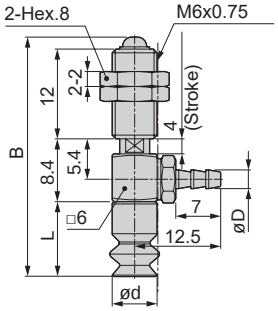


Unit: mm

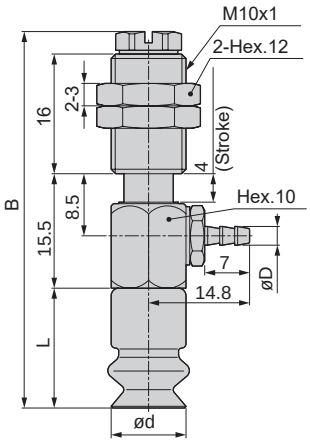
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Spring force (N)	Weight (g)
VSP-MD6B*-2	6	1.8	32	10	8.4	12.6	0.5 to 0.6	6.6
VSP-MD6B*-4		4			11.2	15.9		8
VSP-MD8B*-2	8	1.8	32	10	8.4	12.6	0.5 to 0.6	6.6
VSP-MD8B*-4		4			11.2	15.9		8
VSP-MD10B*-2	10	1.8	50.5	16	8.4	13.6	1 to 1.3	23
VSP-MD10B*-4		4			11.2	17.7		24
VSP-MD10B*-6		6			11.9	19.5		25
VSP-MD15B*-2	15	1.8	50.5	16	8.4	13.6	1 to 1.3	24
VSP-MD15B*-4		4			11.2	17.7		25
VSP-MD15B*-6		6			11.9	19.5		26
VSP-MD20B*-2	20	1.8	55.3	19	8.4	13.6	1 to 1.3	27
VSP-MD20B*-4		4			11.2	17.7		28
VSP-MD20B*-6		6			11.9	19.5		29
VSP-MD25B*-2	25	1.8	55.3	19	8.4	13.6	1 to 1.3	28
VSP-MD25B*-4		4			11.2	17.7		29
VSP-MD25B*-6		6			11.9	19.5		30
VSP-MD30B*-2	30	1.8	59.3	23	8.4	13.6	1 to 1.3	30
VSP-MD30B*-4		4			11.2	17.7		31
VSP-MD30B*-6		6			11.9	19.5		32
VSP-MD40B*-2	40	1.8	66.3	30	8.4	13.6	1 to 1.3	37
VSP-MD40B*-4		4			11.2	17.7		38
VSP-MD40B*-6		6			11.9	19.5		39
VSP-MD50B*-2	50	1.8	68.3	32	8.4	13.6	1 to 1.3	43
VSP-MD50B*-4		4			11.2	17.7		44
VSP-MD50B*-6		6			11.9	19.5		45

Dimensions (compact, buffer, vacuum outlet, side, VSP-MD, barbed fitting)

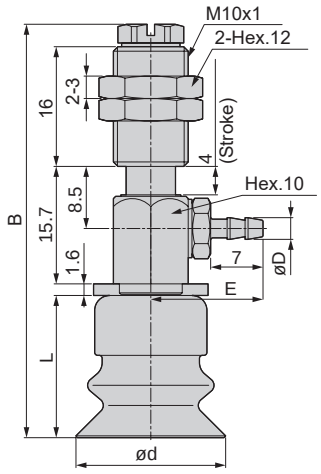
●VSP-MD6, 8B*-4T/6T



●VSP-MD10, 15B*-4T/6T



●VSP-MD20 to 50B*-4T/6T

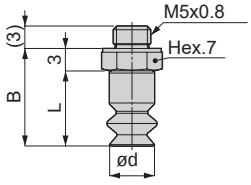


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Spring force (N)	Weight (g)
VSP-MD6B*-4T	6	2.5	32	10	0.5 to 0.6	6.7
VSP-MD6B*-6T		4				
VSP-MD8B*-4T	8	2.5	32	10	0.5 to 0.6	6.7
VSP-MD8B*-6T		4				
VSP-MD10B*-4T	10	2.5	50.5	16	1 to 1.3	22
VSP-MD10B*-6T		4				
VSP-MD15B*-4T	15	2.5	50.5	16	1 to 1.3	23
VSP-MD15B*-6T		4				
VSP-MD20B*-4T	20	2.5	55.3	19	1 to 1.3	27
VSP-MD20B*-6T		4				
VSP-MD25B*-4T	25	2.5	55.3	19	1 to 1.3	28
VSP-MD25B*-6T		4				
VSP-MD30B*-4T	30	2.5	59.3	23	1 to 1.3	30
VSP-MD30B*-6T		4				
VSP-MD40B*-4T	40	2.5	66.3	30	1 to 1.3	38
VSP-MD40B*-6T		4				
VSP-MD50B*-4T	50	2.5	68.3	32	1 to 1.3	45
VSP-MD50B*-6T		4				

Dimensions (compact direct mounting, vacuum outlet side VSP-ME, male thread)

●VSP-ME6, 8B*-M5

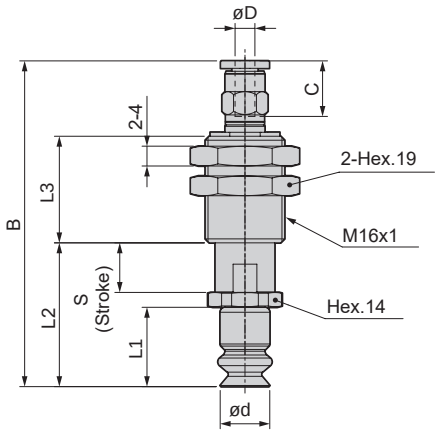


Unit: mm

Model No.	Pad diameter ød	B	L	Weight (g)
VSP-ME6B*-M5	6	10	7	2
VSP-ME8B*-M5	8	8.5	5.5	2

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, push-in fitting)

●VSP-HC10, 15-□B*-2/4/6

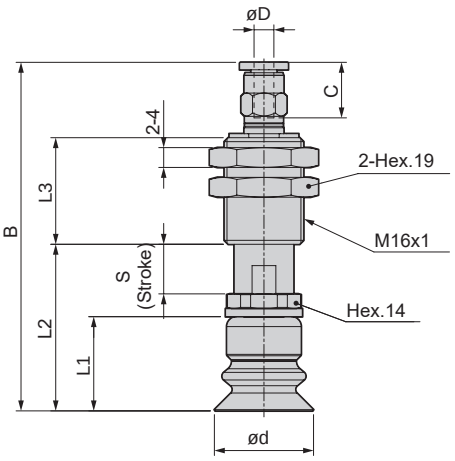


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC10-10B*-2	10	1.8	61.6	16	29	21.5	8.4	10	1.0 to 2.4	22
VSP-HC10-10B*-4		4	65.7				11.2			23
VSP-HC10-10B*-6		6	67				11.9			24
VSP-HC10-15B*-2		1.8	71.6		34	26.5	8.4	15	1.0 to 2.7	24
VSP-HC10-15B*-4		4	75.7				11.2			25
VSP-HC10-15B*-6		6	77				11.9			26
VSP-HC10-20B*-2		1.8	81.6		39	31.5	8.4	20	1.0 to 3.0	26
VSP-HC10-20B*-4		4	85.7				11.2			27
VSP-HC10-20B*-6		6	87				11.9			28
VSP-HC10-25B*-2		1.8	92.1		44	37	8.4	25	1.0 to 3.0	28
VSP-HC10-25B*-4		4	96.2				11.2			29
VSP-HC10-25B*-6		6	97.5				11.9			30
VSP-HC10-30B*-2		1.8	103.1		49	43	8.4	30	1.0 to 3.0	30
VSP-HC10-30B*-4		4	107.2				11.2			31
VSP-HC10-30B*-6		6	108.5				11.9			32
VSP-HC10-40B*-2		1.8	125.1		59	55	8.4	40	1.0 to 3.0	34
VSP-HC10-40B*-4		4	129.2				11.2			35
VSP-HC10-40B*-6		6	130.5				11.9			36
VSP-HC10-50B*-2		1.8	146.6		69	66.5	8.4	50	1.0 to 3.1	39
VSP-HC10-50B*-4		4	150.7				11.2			40
VSP-HC10-50B*-6		6	152				11.9			41
VSP-HC15-10B*-2	15	1.8	61.6	16	29	21.5	8.4	10	1.0 to 2.4	22
VSP-HC15-10B*-4		4	65.7				11.2			23
VSP-HC15-10B*-6		6	67				11.9			24
VSP-HC15-15B*-2		1.8	71.6		34	26.5	8.4	15	1.0 to 2.7	24
VSP-HC15-15B*-4		4	75.7				11.2			25
VSP-HC15-15B*-6		6	77				11.9			26
VSP-HC15-20B*-2		1.8	81.6		39	31.5	8.4	20	1.0 to 3.0	26
VSP-HC15-20B*-4		4	85.7				11.2			27
VSP-HC15-20B*-6		6	87				11.9			28
VSP-HC15-25B*-2		1.8	92.1		44	37	8.4	25	1.0 to 3.0	28
VSP-HC15-25B*-4		4	96.2				11.2			29
VSP-HC15-25B*-6		6	97.5				11.9			30
VSP-HC15-30B*-2		1.8	103.1		49	43	8.4	30	1.0 to 3.0	30
VSP-HC15-30B*-4		4	107.2				11.2			31
VSP-HC15-30B*-6		6	108.5				11.9			32
VSP-HC15-40B*-2		1.8	125.1		59	55	8.4	40	1.0 to 3.0	34
VSP-HC15-40B*-4		4	129.2				11.2			35
VSP-HC15-40B*-6		6	130.5				11.9			36
VSP-HC15-50B*-2		1.8	146.6		69	66.5	8.4	50	1.0 to 3.1	39
VSP-HC15-50B*-4		4	150.7				11.2			40
VSP-HC15-50B*-6		6	152				11.9			41

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, push-in fitting)

●VSP-HC20, 25-□B*-2/4/6

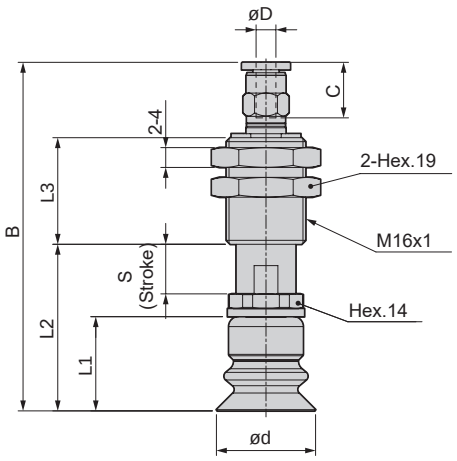


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC20-10B*-2	20	1.8	66.2	19	33.6	21.5	8.4	10	1.0 to 2.4	27
VSP-HC20-10B*-4		4	70.3				11.2			28
VSP-HC20-10B*-6		6	71.6				11.9			29
VSP-HC20-15B*-2		1.8	76.2		38.6	26.5	8.4	15	1.0 to 2.7	29
VSP-HC20-15B*-4		4	80.3				11.2			30
VSP-HC20-15B*-6		6	81.6				11.9			31
VSP-HC20-20B*-2		1.8	86.2		43.6	31.5	8.4	20	1.0 to 3.0	31
VSP-HC20-20B*-4		4	90.3				11.2			32
VSP-HC20-20B*-6		6	91.6				11.9			33
VSP-HC20-25B*-2		1.8	96.7		48.6	37	8.4	25	1.0 to 3.0	33
VSP-HC20-25B*-4		4	100.8				11.2			34
VSP-HC20-25B*-6		6	102.1				11.9			35
VSP-HC20-30B*-2		1.8	107.7		53.6	43	8.4	30	1.0 to 3.0	35
VSP-HC20-30B*-4		4	111.8				11.2			36
VSP-HC20-30B*-6		6	113.1				11.9			37
VSP-HC20-40B*-2		1.8	129.7		63.6	55	8.4	40	1.0 to 3.0	39
VSP-HC20-40B*-4		4	133.8				11.2			40
VSP-HC20-40B*-6		6	135.1				11.9			41
VSP-HC20-50B*-2		1.8	151.2		73.6	66.5	8.4	50	1.0 to 3.1	43
VSP-HC20-50B*-4		4	155.3				11.2			44
VSP-HC20-50B*-6		6	156.6				11.9			45
VSP-HC25-10B*-2	25	1.8	66.2	19	33.6	21.5	8.4	10	1.0 to 2.4	27
VSP-HC25-10B*-4		4	70.3				11.2			28
VSP-HC25-10B*-6		6	71.6				11.9			29
VSP-HC25-15B*-2		1.8	76.2		38.6	26.5	8.4	15	1.0 to 2.7	29
VSP-HC25-15B*-4		4	80.3				11.2			30
VSP-HC25-15B*-6		6	81.6				11.9			31
VSP-HC25-20B*-2		1.8	86.2		43.6	31.5	8.4	20	1.0 to 3.0	31
VSP-HC25-20B*-4		4	90.3				11.2			32
VSP-HC25-20B*-6		6	91.6				11.9			33
VSP-HC25-25B*-2		1.8	96.7		48.6	37	8.4	25	1.0 to 3.0	33
VSP-HC25-25B*-4		4	100.8				11.2			34
VSP-HC25-25B*-6		6	102.1				11.9			35
VSP-HC25-30B*-2		1.8	107.7		53.6	43	8.4	30	1.0 to 3.0	35
VSP-HC25-30B*-4		4	111.8				11.2			36
VSP-HC25-30B*-6		6	113.1				11.9			37
VSP-HC25-40B*-2		1.8	129.7		63.6	55	8.4	40	1.0 to 3.0	39
VSP-HC25-40B*-4		4	133.8				11.2			40
VSP-HC25-40B*-6		6	135.1				11.9			41
VSP-HC25-50B*-2		1.8	151.2		73.6	66.5	8.4	50	1.0 to 3.1	43
VSP-HC25-50B*-4		4	155.3				11.2			44
VSP-HC25-50B*-6		6	156.6				11.9			45

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, push-in fitting)

●VSP-HC30, 40-□B*-2/4/6

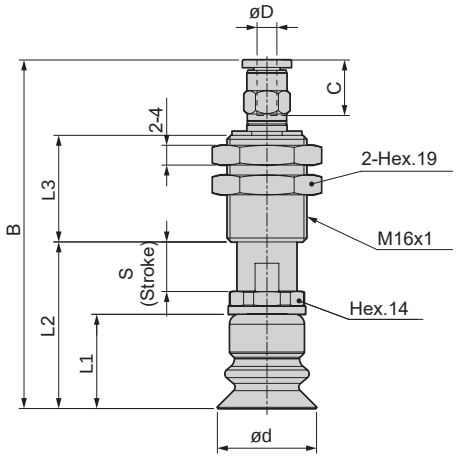


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC30-10B*-2	30	1.8	70.2	23	37.6	21.5	8.4	10	1.0 to 2.4	30
VSP-HC30-10B*-4		4	74.3				11.2			31
VSP-HC30-10B*-6		6	75.6				11.9			32
VSP-HC30-15B*-2		1.8	80.2		42.6	26.5	8.4	15	1.0 to 2.7	32
VSP-HC30-15B*-4		4	84.3				11.2			33
VSP-HC30-15B*-6		6	85.6				11.9			34
VSP-HC30-20B*-2		1.8	90.2		47.6	31.5	8.4	20	1.0 to 3.0	34
VSP-HC30-20B*-4		4	94.3				11.2			35
VSP-HC30-20B*-6		6	95.6				11.9			36
VSP-HC30-25B*-2		1.8	100.7		52.6	37	8.4	25	1.0 to 3.0	36
VSP-HC30-25B*-4		4	104.8				11.2			37
VSP-HC30-25B*-6		6	106.1				11.9			38
VSP-HC30-30B*-2		1.8	111.7		57.6	43	8.4	30	1.0 to 3.0	38
VSP-HC30-30B*-4		4	115.8				11.2			39
VSP-HC30-30B*-6		6	117.1				11.9			40
VSP-HC30-40B*-2		1.8	133.7		67.6	55	8.4	40	1.0 to 3.0	42
VSP-HC30-40B*-4		4	137.8				11.2			43
VSP-HC30-40B*-6		6	139.1				11.9			44
VSP-HC30-50B*-2		1.8	155.2		77.6	66.5	8.4	50	1.0 to 3.1	46
VSP-HC30-50B*-4		4	159.3				11.2			47
VSP-HC30-50B*-6		6	160.6				11.9			48
VSP-HC40-10B*-2	40	1.8	77.2	30	44.6	21.5	8.4	10	1.0 to 2.4	37
VSP-HC40-10B*-4		4	81.3				11.2			38
VSP-HC40-10B*-6		6	82.6				11.9			39
VSP-HC40-15B*-2		1.8	87.2		49.6	26.5	8.4	15	1.0 to 2.7	39
VSP-HC40-15B*-4		4	91.3				11.2			40
VSP-HC40-15B*-6		6	92.6				11.9			41
VSP-HC40-20B*-2		1.8	97.2		54.6	31.5	8.4	20	1.0 to 3.0	41
VSP-HC40-20B*-4		4	101.3				11.2			42
VSP-HC40-20B*-6		6	102.6				11.9			43
VSP-HC40-25B*-2		1.8	107.7		59.6	37	8.4	25	1.0 to 3.0	43
VSP-HC40-25B*-4		4	111.8				11.2			44
VSP-HC40-25B*-6		6	113.1				11.9			45
VSP-HC40-30B*-2		1.8	118.7		64.6	43	8.4	30	1.0 to 3.0	45
VSP-HC40-30B*-4		4	122.8				11.2			46
VSP-HC40-30B*-6		6	124.1				11.9			47
VSP-HC40-40B*-2		1.8	140.7		74.6	55	8.4	40	1.0 to 3.0	49
VSP-HC40-40B*-4		4	144.8				11.2			50
VSP-HC40-40B*-6		6	146.1				11.9			51
VSP-HC40-50B*-2		1.8	162.2		84.6	66.5	8.4	50	1.0 to 3.1	53
VSP-HC40-50B*-4		4	166.3				11.2			54
VSP-HC40-50B*-6		6	167.6				11.9			55

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, push-in fitting)

●VSP-HC50-□B*-2/4/6

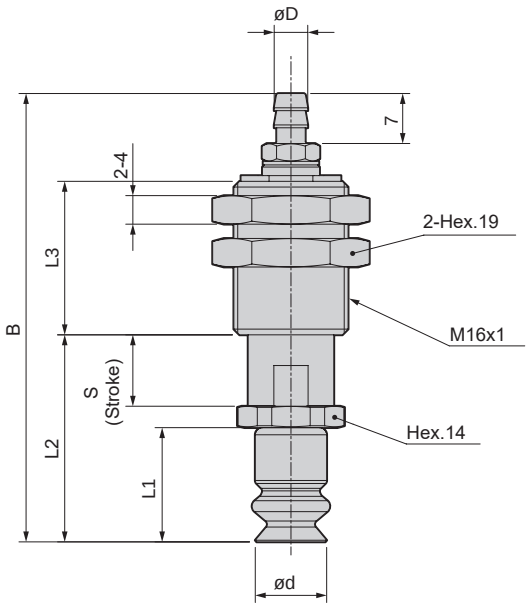


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC50-10B*-2	50	1.8	79.2	32	46.6	21.5	8.4	10	1.0 to 2.4	45
VSP-HC50-10B*-4		4	83.3				11.2			46
VSP-HC50-10B*-6		6	84.6				11.9			47
VSP-HC50-15B*-2		1.8	89.2		52.6	26.5	8.4	15	1.0 to 2.7	47
VSP-HC50-15B*-4		4	93.3				11.2			48
VSP-HC50-15B*-6		6	94.6				11.9			49
VSP-HC50-20B*-2		1.8	99.2		58.6	31.5	8.4	20	1.0 to 3.0	50
VSP-HC50-20B*-4		4	103.3				11.2			51
VSP-HC50-20B*-6		6	104.6				11.9			52
VSP-HC50-25B*-2		1.8	109.7		64.6	37	8.4	25	1.0 to 3.0	52
VSP-HC50-25B*-4		4	113.8				11.2			53
VSP-HC50-25B*-6		6	115.1				11.9			54
VSP-HC50-30B*-2		1.8	120.7		70.6	43	8.4	30	1.0 to 3.0	54
VSP-HC50-30B*-4		4	124.8				11.2			55
VSP-HC50-30B*-6		6	126.1				11.9			56
VSP-HC50-40B*-2		1.8	142.7		81.6	55	8.4	40	1.0 to 3.0	58
VSP-HC50-40B*-4		4	146.8				11.2			59
VSP-HC50-40B*-6		6	148.1				11.9			60
VSP-HC50-50B*-2		1.8	164.2		92.6	66.5	8.4	50	1.0 to 3.1	62
VSP-HC50-50B*-4		4	168.3				11.2			63
VSP-HC50-50B*-6		6	169.6				11.9			64

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, barbed fitting)

●VSP-HC10, 15-□B*-4T/6T

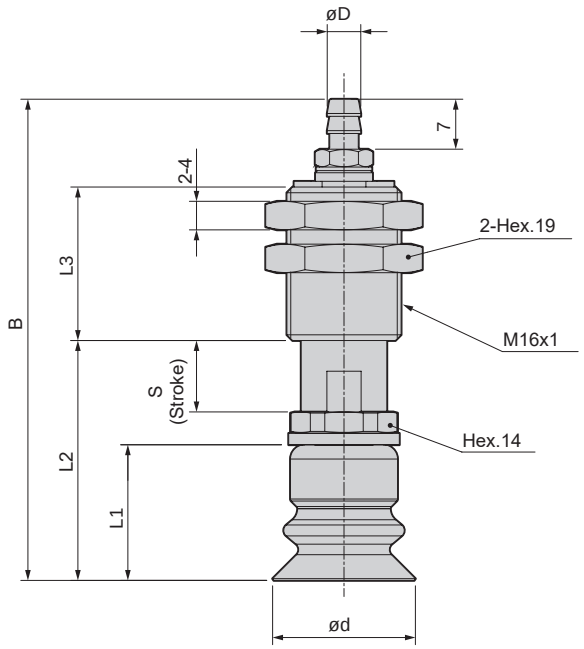


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC10-10B*-4T	10	2.5	62.8	16	29	21.5	10	1.0 to 2.4	21
VSP-HC10-10B*-6T		4							
VSP-HC10-15B*-4T		2.5	72.8		34	26.5	15	1.0 to 2.7	23
VSP-HC10-15B*-6T		4							
VSP-HC10-20B*-4T		2.5	82.8		39	31.5	20	1.0 to 3.0	25
VSP-HC10-20B*-6T		4							
VSP-HC10-25B*-4T		2.5	93.3		44	37	25	1.0 to 3.0	28
VSP-HC10-25B*-6T		4							
VSP-HC10-30B*-4T		2.5	104.3		49	43	30	1.0 to 3.0	30
VSP-HC10-30B*-6T		4							
VSP-HC10-40B*-4T		2.5	126.3		59	55	40	1.0 to 3.0	34
VSP-HC10-40B*-6T		4							
VSP-HC10-50B*-4T		2.5	147.8		69	66.5	50	1.0 to 3.1	38
VSP-HC10-50B*-6T		4							
VSP-HC15-10B*-4T	15	2.5	62.8	16	29	21.5	10	1.0 to 2.4	21
VSP-HC15-10B*-6T		4							
VSP-HC15-15B*-4T		2.5	72.8		34	26.5	15	1.0 to 2.7	23
VSP-HC15-15B*-6T		4							
VSP-HC15-20B*-4T		2.5	82.8		39	31.5	20	1.0 to 3.0	25
VSP-HC15-20B*-6T		4							
VSP-HC15-25B*-4T		2.5	93.3		44	37	25	1.0 to 3.0	28
VSP-HC15-25B*-6T		4							
VSP-HC15-30B*-4T		2.5	104.3		49	43	30	1.0 to 3.0	30
VSP-HC15-30B*-6T		4							
VSP-HC15-40B*-4T		2.5	126.3		59	55	40	1.0 to 3.0	34
VSP-HC15-40B*-6T		4							
VSP-HC15-50B*-4T		2.5	147.8		69	66.5	50	1.0 to 3.1	38
VSP-HC15-50B*-6T		4							

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, barbed fitting)

●VSP-HC20, 25-□B*-4T/6T

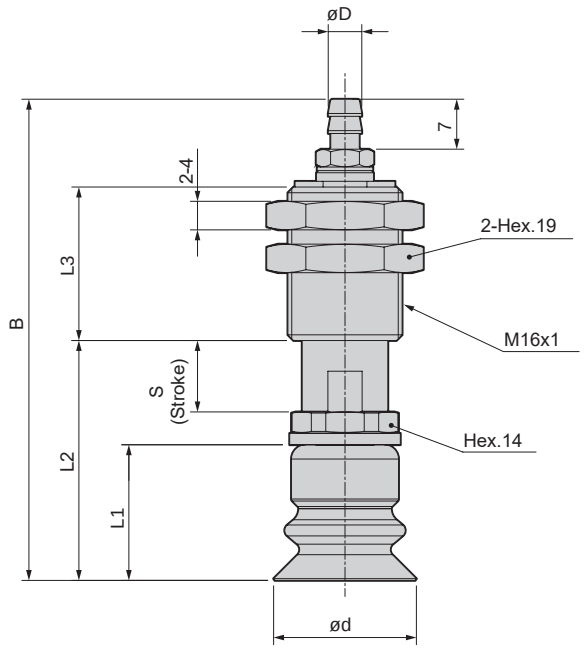


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC20-10B*-4T	20	2.5	67.4	19	33.6	21.5	10	1.0 to 2.4	25
VSP-HC20-10B*-6T		4							
VSP-HC20-15B*-4T		2.5	77.4		38.6	26.5	15	1.0 to 2.7	27
VSP-HC20-15B*-6T		4							
VSP-HC20-20B*-4T		2.5	87.4		43.6	31.5	20	1.0 to 3.0	29
VSP-HC20-20B*-6T		4							
VSP-HC20-25B*-4T		2.5	97.9		48.6	37	25	1.0 to 3.0	31
VSP-HC20-25B*-6T		4							
VSP-HC20-30B*-4T		2.5	108.9		53.6	43	30	1.0 to 3.0	34
VSP-HC20-30B*-6T		4							
VSP-HC20-40B*-4T		2.5	130.9		63.6	55	40	1.0 to 3.0	38
VSP-HC20-40B*-6T		4							
VSP-HC20-50B*-4T		2.5	152.4		73.6	66.5	50	1.0 to 3.1	42
VSP-HC20-50B*-6T		4							
VSP-HC25-10B*-4T	25	2.5	67.4	19	33.6	21.5	10	1.0 to 2.4	26
VSP-HC25-10B*-6T		4							
VSP-HC25-15B*-4T		2.5	77.4		38.6	26.5	15	1.0 to 2.7	28
VSP-HC25-15B*-6T		4							
VSP-HC25-20B*-4T		2.5	87.4		43.6	31.5	20	1.0 to 3.0	30
VSP-HC25-20B*-6T		4							
VSP-HC25-25B*-4T		2.5	97.9		48.6	37	25	1.0 to 3.0	32
VSP-HC25-25B*-6T		4							
VSP-HC25-30B*-4T		2.5	108.9		53.6	43	30	1.0 to 3.0	35
VSP-HC25-30B*-6T		4							
VSP-HC25-40B*-4T		2.5	130.9		63.6	55	40	1.0 to 3.0	39
VSP-HC25-40B*-6T		4							
VSP-HC25-50B*-4T		2.5	152.4		73.6	66.5	50	1.0 to 3.1	43
VSP-HC25-50B*-6T		4							

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, barbed fitting)

●VSP-HC30, 40-□B*-4T/6T

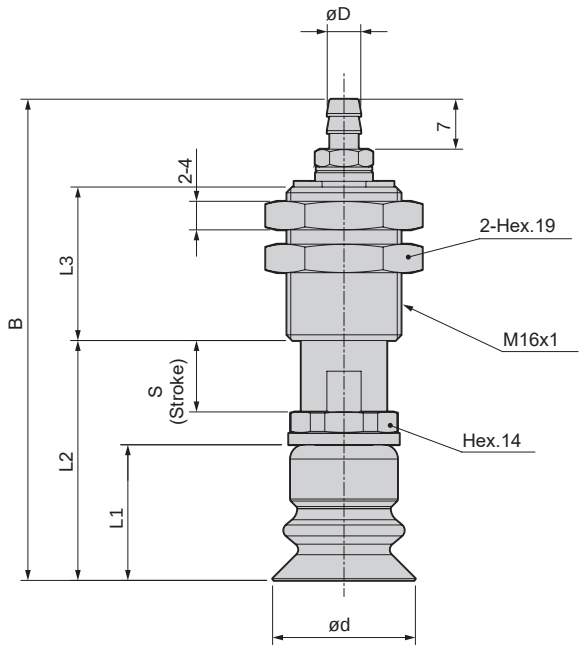


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC30-10B*-4T	30	2.5	71.4	23	37.6	21.5	10	1.0 to 2.4	29
VSP-HC30-10B*-6T		4							
VSP-HC30-15B*-4T		2.5	81.4		42.6	26.5	15	1.0 to 2.7	31
VSP-HC30-15B*-6T		4							
VSP-HC30-20B*-4T		2.5	91.4		47.6	31.5	20	1.0 to 3.0	33
VSP-HC30-20B*-6T		4							
VSP-HC30-25B*-4T		2.5	101.9		52.6	37	25	1.0 to 3.0	35
VSP-HC30-25B*-6T		4							
VSP-HC30-30B*-4T		2.5	112.9		57.6	43	30	1.0 to 3.0	38
VSP-HC30-30B*-6T		4							
VSP-HC30-40B*-4T		2.5	134.9		67.6	55	40	1.0 to 3.0	42
VSP-HC30-40B*-6T		4							
VSP-HC30-50B*-4T		2.5	156.4		77.6	66.5	50	1.0 to 3.1	47
VSP-HC30-50B*-6T		4							
VSP-HC40-10B*-4T	40	2.5	78.4	30	44.6	21.5	10	1.0 to 2.4	31
VSP-HC40-10B*-6T		4							
VSP-HC40-15B*-4T		2.5	88.4		49.6	26.5	15	1.0 to 2.7	33
VSP-HC40-15B*-6T		4							
VSP-HC40-20B*-4T		2.5	98.4		54.6	31.5	20	1.0 to 3.0	35
VSP-HC40-20B*-6T		4							
VSP-HC40-25B*-4T		2.5	108.9		59.6	37	25	1.0 to 3.0	37
VSP-HC40-25B*-6T		4							
VSP-HC40-30B*-4T		2.5	119.9		64.6	43	30	1.0 to 3.0	40
VSP-HC40-30B*-6T		4							
VSP-HC40-40B*-4T		2.5	141.9		74.6	55	40	1.0 to 3.0	44
VSP-HC40-40B*-6T		4							
VSP-HC40-50B*-4T		2.5	163.4		84.6	66.5	50	1.0 to 3.1	49
VSP-HC40-50B*-6T		4							

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, barbed fitting)

●VSP-HC50-□B*-4T/6T

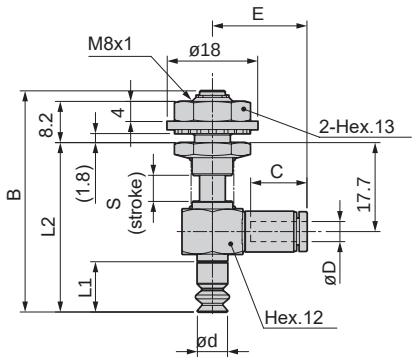


Unit: mm

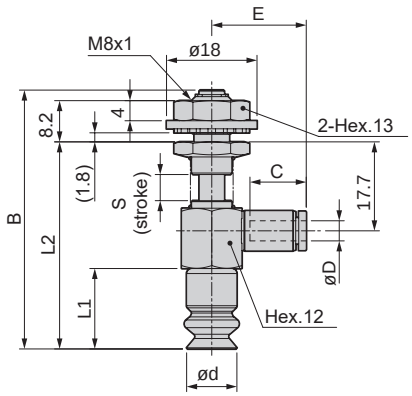
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC50-10B*-4T	50	2.5	80.4	32	46.6	21.5	10	1.0 to 2.4	52
VSP-HC50-10B*-6T		4							
VSP-HC50-15B*-4T		2.5	90.4		51.6	26.5	15	1.0 to 2.7	54
VSP-HC50-15B*-6T		4							
VSP-HC50-20B*-4T		2.5	100.4		56.6	31.5	20	1.0 to 3.0	56
VSP-HC50-20B*-6T		4							
VSP-HC50-25B*-4T		2.5	110.9		61.6	37	25	1.0 to 3.0	58
VSP-HC50-25B*-6T		4							
VSP-HC50-30B*-4T		2.5	121.9		66.6	43	30	1.0 to 3.0	61
VSP-HC50-30B*-6T		4							
VSP-HC50-40B*-4T		2.5	143.9		76.6	55	40	1.0 to 3.0	65
VSP-HC50-40B*-6T		4							
VSP-HC50-50B*-4T		2.5	165.4		86.6	66.5	50	1.0 to 3.1	69
VSP-HC50-50B*-6T		4							

Dimensions (lightweight, buffer, vacuum outlet, side, VSP-HD, push-in fitting)

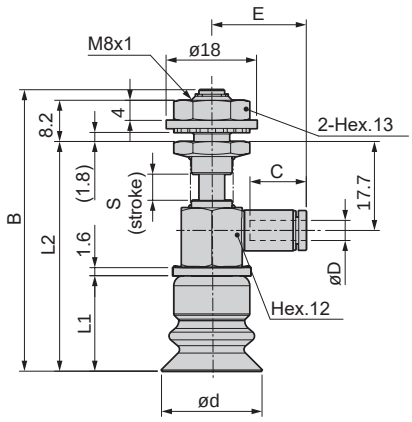
●VSP-HD6, 8B*-2/4/6



●VSP-HD10, 15B*-2/4/6



●VSP-HD20 to 50B*-2/4/6

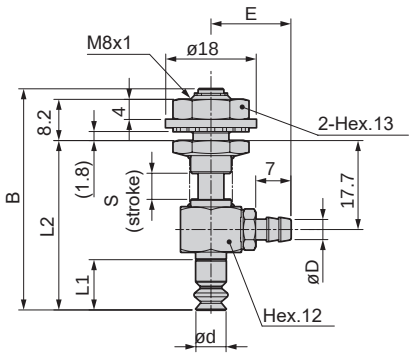


Unit: mm

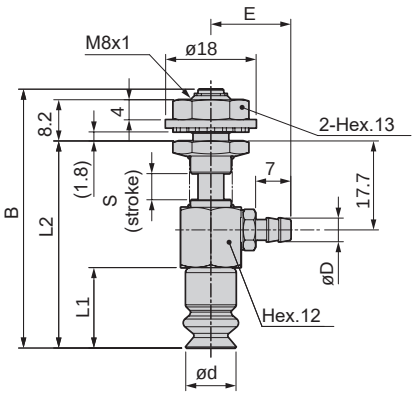
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD6B*-2	6	1.8	44	10	33.7	8.4	14.7	5.2	1.6 to 2.9	28
VSP-HD6B*-4		4				11.2	18.8			29
VSP-HD6B*-6		6				11.9	20.6			30
VSP-HD8B*-2	8	1.8	44	10	33.7	8.4	14.7	5.2	1.6 to 2.9	28
VSP-HD8B*-4		4				11.2	18.8			29
VSP-HD8B*-6		6				11.9	20.6			30
VSP-HD10B*-2	10	1.8	51.5	16	41.2	8.4	14.7	5.2	1.6 to 2.9	32
VSP-HD10B*-4		4				11.2	18.8			33
VSP-HD10B*-6		6				11.9	20.6			34
VSP-HD15B*-2	15	1.8	51.5	16	41.2	8.4	14.7	5.2	1.6 to 2.9	33
VSP-HD15B*-4		4				11.2	18.8			34
VSP-HD15B*-6		6				11.9	20.6			35
VSP-HD20B*-2	20	1.8	56	19	45.7	8.4	14.7	5.2	1.6 to 2.9	36
VSP-HD20B*-4		4				11.2	18.8			37
VSP-HD20B*-6		6				11.9	20.6			38
VSP-HD25B*-2	25	1.8	56	19	45.7	8.4	14.7	5.2	1.6 to 2.9	37
VSP-HD25B*-4		4				11.2	18.8			38
VSP-HD25B*-6		6				11.9	20.6			39
VSP-HD30B*-2	30	1.8	60	23	49.7	8.4	14.7	5.2	1.6 to 2.9	39
VSP-HD30B*-4		4				11.2	18.8			40
VSP-HD30B*-6		6				11.9	20.6			41
VSP-HD40B*-2	40	1.8	67	30	56.7	8.4	14.7	5.2	1.6 to 2.9	46
VSP-HD40B*-4		4				11.2	18.8			47
VSP-HD40B*-6		6				11.9	20.6			48
VSP-HD50B*-2	50	1.8	69	32	58.7	8.4	14.7	5.2	1.6 to 2.9	53
VSP-HD50B*-4		4				11.2	18.8			54
VSP-HD50B*-6		6				11.9	20.6			55

Dimensions (lightweight, buffer, vacuum outlet, side, VSP-HD, barbed fitting)

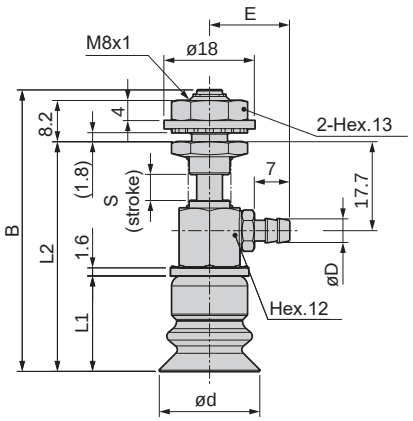
●VSP-HD6, 8B*-4T/6T



●VSP-HD10, 15B*-4T/6T



●VSP-HD20 to 50B*-4T/6T

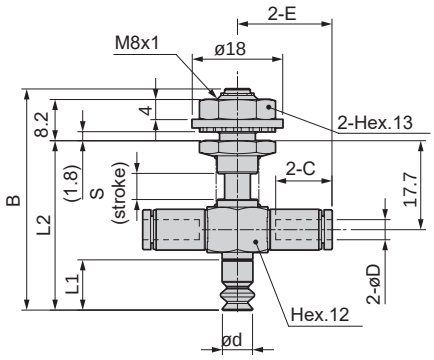


Unit: mm

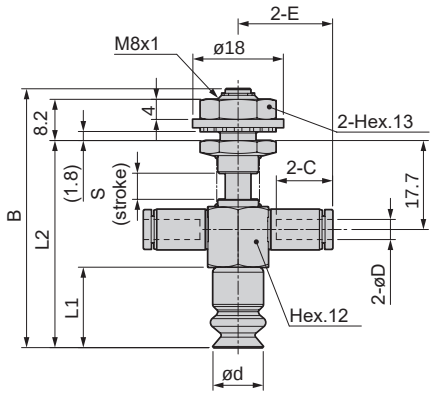
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD6B*-4T	6	2.5	44	10	33.7	15.9	5.2	1.6 to 2.9	28
VSP-HD6B*-6T		4							
VSP-HD8B*-4T	8	2.5	44	10	33.7	15.9	5.2	1.6 to 2.9	28
VSP-HD8B*-6T		4							
VSP-HD10B*-4T	10	2.5	51.5	16	41.2	15.9	5.2	1.6 to 2.9	31
VSP-HD10B*-6T		4							
VSP-HD15B*-4T	15	2.5	51.5	16	41.2	15.9	5.2	1.6 to 2.9	32
VSP-HD15B*-6T		4							
VSP-HD20B*-4T	20	2.5	56	19	45.7	15.9	5.2	1.6 to 2.9	36
VSP-HD20B*-6T		4							
VSP-HD25B*-4T	25	2.5	56	19	45.7	15.9	5.2	1.6 to 2.9	37
VSP-HD25B*-6T		4							
VSP-HD30B*-4T	30	2.5	60	23	49.7	15.9	5.2	1.6 to 2.9	39
VSP-HD30B*-6T		4							
VSP-HD40B*-4T	40	2.5	67	30	56.7	15.9	5.2	1.6 to 2.9	47
VSP-HD40B*-6T		4							
VSP-HD50B*-4T	50	2.5	69	32	58.7	15.9	5.2	1.6 to 2.9	53
VSP-HD50B*-6T		4							

Dimensions (lightweight, buffer, vacuum outlet, both sides, VSP-HDW, push-in fitting)

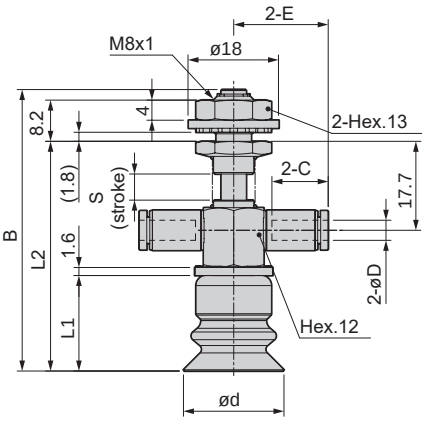
●VSP-HDW6, 8B*-2/4/6



●VSP-HDW10, 15B*-2/4/6



●VSP-HDW20 to 50B*-2/4/6

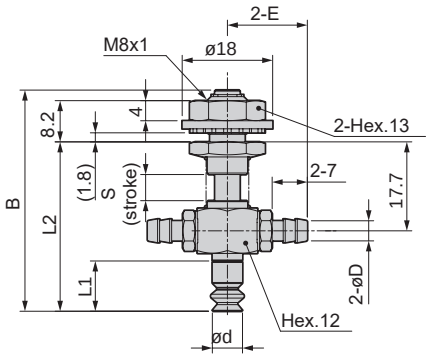


Unit: mm

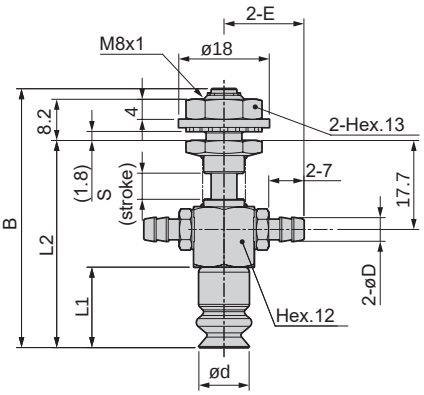
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW6B*-2	6	1.8	44	10	33.7	8.4	14.7	5.2	1.6 to 2.9	30
VSP-HDW6B*-4		4				11.2	18.8			32
VSP-HDW6B*-6		6				11.9	20.6			34
VSP-HDW8B*-2	8	1.8	44	10	33.7	8.4	14.7	5.2	1.6 to 2.9	30
VSP-HDW8B*-4		4				11.2	18.8			32
VSP-HDW8B*-6		6				11.9	20.6			34
VSP-HDW10B*-2	10	1.8	51.5	16	41.2	8.4	14.7	5.2	1.6 to 2.9	33
VSP-HDW10B*-4		4				11.2	18.8			35
VSP-HDW10B*-6		6				11.9	20.6			37
VSP-HDW15B*-2	15	1.8	51.5	16	41.2	8.4	14.7	5.2	1.6 to 2.9	33
VSP-HDW15B*-4		4				11.2	18.8			35
VSP-HDW15B*-6		6				11.9	20.6			37
VSP-HDW20B*-2	20	1.8	56	19	45.7	8.4	14.7	5.2	1.6 to 2.9	37
VSP-HDW20B*-4		4				11.2	18.8			39
VSP-HDW20B*-6		6				11.9	20.6			41
VSP-HDW25B*-2	25	1.8	56	19	45.7	8.4	14.7	5.2	1.6 to 2.9	38
VSP-HDW25B*-4		4				11.2	18.8			40
VSP-HDW25B*-6		6				11.9	20.6			42
VSP-HDW30B*-2	30	1.8	60	23	49.7	8.4	14.7	5.2	1.6 to 2.9	41
VSP-HDW30B*-4		4				11.2	18.8			43
VSP-HDW30B*-6		6				11.9	20.6			45
VSP-HDW40B*-2	40	1.8	67	30	56.7	8.4	14.7	5.2	1.6 to 2.9	49
VSP-HDW40B*-4		4				11.2	18.8			51
VSP-HDW40B*-6		6				11.9	20.6			53
VSP-HDW50B*-2	50	1.8	69	32	58.7	8.4	14.7	5.2	1.6 to 2.9	55
VSP-HDW50B*-4		4				11.2	18.8			57
VSP-HDW50B*-6		6				11.9	20.6			59

Dimensions (lightweight, buffer, vacuum outlet, both sides, VSP-HDW, barbed fitting)

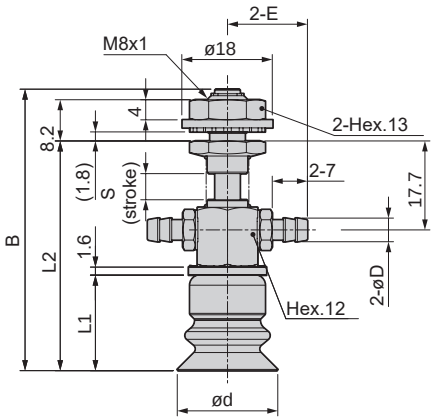
●VSP-HDW6, 8B*-4T/6T



●VSP-HDW10, 15B*-4T/6T



●VSP-HDW20 to 50B*-4T/6T

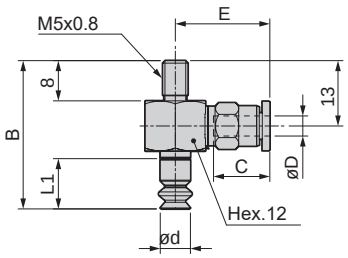


Unit: mm

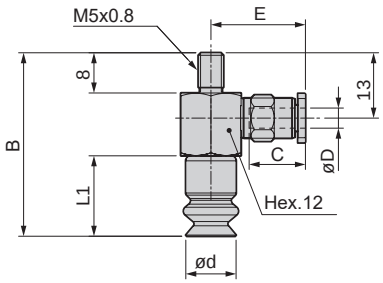
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW6B*-4T	6	2.5	44	10	33.7	15.9	5.2	1.6 to 2.9	28
VSP-HDW6B*-6T		4							
VSP-HDW8B*-4T	8	2.5	44	10	33.7	15.9	5.2	1.6 to 2.9	28
VSP-HDW8B*-6T		4							
VSP-HDW10B*-4T	10	2.5	51.5	16	41.2	15.9	5.2	1.6 to 2.9	32
VSP-HDW10B*-6T		4							
VSP-HDW15B*-4T	15	2.5	51.5	16	41.2	15.9	5.2	1.6 to 2.9	32
VSP-HDW15B*-6T		4							
VSP-HDW20B*-4T	20	2.5	56	19	45.7	15.9	5.2	1.6 to 2.9	37
VSP-HDW20B*-6T		4							
VSP-HDW25B*-4T	25	2.5	56	19	45.7	15.9	5.2	1.6 to 2.9	37
VSP-HDW25B*-6T		4							
VSP-HDW30B*-4T	30	2.5	60	23	49.7	15.9	5.2	1.6 to 2.9	39
VSP-HDW30B*-6T		4							
VSP-HDW40B*-4T	40	2.5	67	30	56.7	15.9	5.2	1.6 to 2.9	48
VSP-HDW40B*-6T		4							
VSP-HDW50B*-4T	50	2.5	69	32	58.7	15.9	5.2	1.6 to 2.9	55
VSP-HDW50B*-6T		4							

Dimensions (low back, fixed, vacuum outlet, side, VSP-HE, push-in fitting)

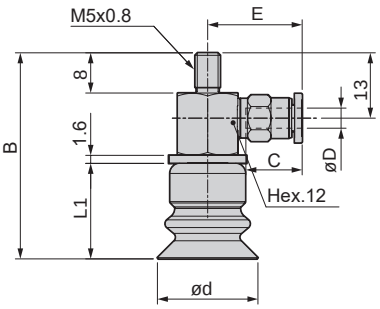
●VSP-HE6, 8B*-2/4/6



●VSP-HE10, 15B*-2/4/6



●VSP-HE20 to 50B*-2/4/6

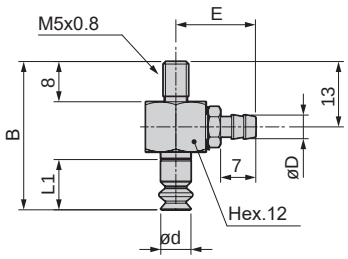


Unit: mm

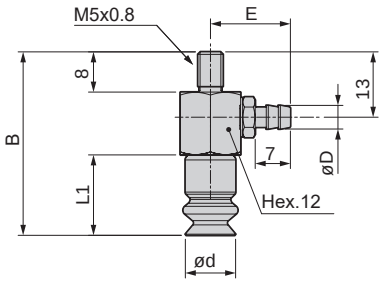
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HE6B*-2	6	1.8	29.5	10	8.4	14.7	14
VSP-HE6B*-4		4			11.2	18.8	15
VSP-HE6B*-6		6			11.9	20.6	16
VSP-HE8B*-2	8	1.8	29.5	10	8.4	14.7	14
VSP-HE8B*-4		4			11.2	18.8	15
VSP-HE8B*-6		6			11.9	20.6	16
VSP-HE10B*-2	10	1.8	36.5	16	8.4	14.7	17
VSP-HE10B*-4		4			11.2	18.8	18
VSP-HE10B*-6		6			11.9	20.6	19
VSP-HE15B*-2	15	1.8	36.5	16	8.4	14.7	17
VSP-HE15B*-4		4			11.2	18.8	18
VSP-HE15B*-6		6			11.9	20.6	19
VSP-HE20B*-2	20	1.8	41	19	8.4	14.7	22
VSP-HE20B*-4		4			11.2	18.8	23
VSP-HE20B*-6		6			11.9	20.6	24
VSP-HE25B*-2	25	1.8	41	19	8.4	14.7	22
VSP-HE25B*-4		4			11.2	18.8	23
VSP-HE25B*-6		6			11.9	20.6	24
VSP-HE30B*-2	30	1.8	47	23	8.4	14.7	25
VSP-HE30B*-4		4			11.2	18.8	26
VSP-HE30B*-6		6			11.9	20.6	27
VSP-HE40B*-2	40	1.8	52	30	8.4	14.7	33
VSP-HE40B*-4		4			11.2	18.8	34
VSP-HE40B*-6		6			11.9	20.6	35
VSP-HE50B*-2	50	1.8	54	32	8.4	14.7	41
VSP-HE50B*-4		4			11.2	18.8	42
VSP-HE50B*-6		6			11.9	20.6	43

Dimensions (low back, fixed, vacuum outlet, side, VSP-HE, barbed fitting)

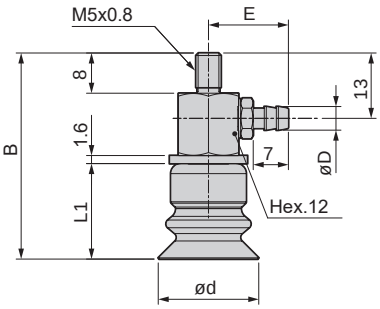
●VSP-HE6, 8B*-4T/6T



●VSP-HE10, 15B*-4T/6T



●VSP-HE20 to 50B*-4T/6T

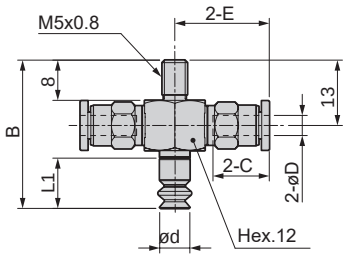


Unit: mm

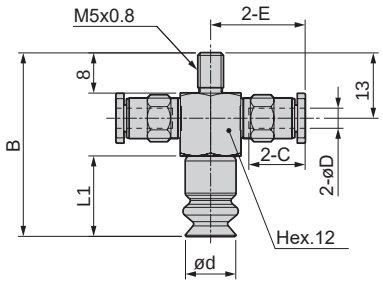
Model No.	Pad diameter ød	Bore size øD	B	L	E	Weight (g)
VSP-HE6B*-4T	6	2.5	29.5	10	15.9	13
VSP-HE6B*-6T		4				
VSP-HE8B*-4T	8	2.5	29.5	10	15.9	13
VSP-HE8B*-6T		4				
VSP-HE10B*-4T	10	2.5	36.5	16	15.9	16
VSP-HE10B*-6T		4				
VSP-HE15B*-4T	15	2.5	36.5	16	15.9	16
VSP-HE15B*-6T		4				
VSP-HE20B*-4T	20	2.5	41	19	15.9	21
VSP-HE20B*-6T		4				
VSP-HE25B*-4T	25	2.5	41	19	15.9	21
VSP-HE25B*-6T		4				
VSP-HE30B*-4T	30	2.5	47	23	15.9	24
VSP-HE30B*-6T		4				
VSP-HE40B*-4T	40	2.5	52	30	15.9	32
VSP-HE40B*-6T		4				
VSP-HE50B*-4T	50	2.5	54	32	15.9	40
VSP-HE50B*-6T		4				

Dimensions (low back, fixed, vacuum outlet, both sides, VSP-HE, push-in fitting)

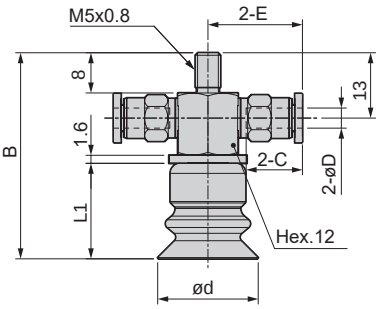
●VSP-HEW6, 8B*-2/4/6



●VSP-HEW10, 15B*-2/4/6



●VSP-HEW20 to 50B*-2/4/6

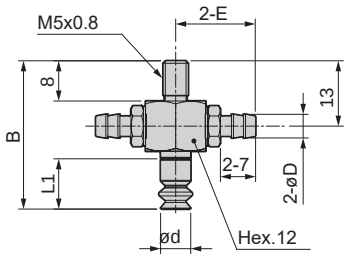


Unit: mm

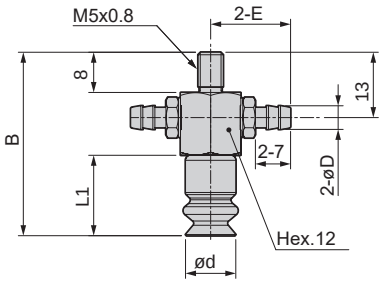
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HEW6B*-2	6	1.8	29.5	10	8.4	14.7	16
VSP-HEW6B*-4		4			11.2	18.8	18
VSP-HEW6B*-6		6			11.9	20.6	20
VSP-HEW8B*-2	8	1.8	29.5	10	8.4	14.7	16
VSP-HEW8B*-4		4			11.2	18.8	18
VSP-HEW8B*-6		6			11.9	20.6	20
VSP-HEW10B*-2	10	1.8	36.5	16	8.4	14.7	19
VSP-HEW10B*-4		4			11.2	18.8	21
VSP-HEW10B*-6		6			11.9	20.6	23
VSP-HEW15B*-2	15	1.8	36.5	16	8.4	14.7	20
VSP-HEW15B*-4		4			11.2	18.8	22
VSP-HEW15B*-6		6			11.9	20.6	24
VSP-HEW20B*-2	20	1.8	41	19	8.4	14.7	23
VSP-HEW20B*-4		4			11.2	18.8	25
VSP-HEW20B*-6		6			11.9	20.6	27
VSP-HEW25B*-2	25	1.8	41	19	8.4	14.7	24
VSP-HEW25B*-4		4			11.2	18.8	26
VSP-HEW25B*-6		6			11.9	20.6	28
VSP-HEW30B*-2	30	1.8	47	23	8.4	14.7	28
VSP-HEW30B*-4		4			11.2	18.8	30
VSP-HEW30B*-6		6			11.9	20.6	32
VSP-HEW40B*-2	40	1.8	52	30	8.4	14.7	34
VSP-HEW40B*-4		4			11.2	18.8	36
VSP-HEW40B*-6		6			11.9	20.6	38
VSP-HEW50B*-2	50	1.8	54	32	8.4	14.7	41
VSP-HEW50B*-4		4			11.2	18.8	43
VSP-HEW50B*-6		6			11.9	20.6	45

Dimensions (lightweight, buffer, vacuum outlet, both sides, VSP-HEW, barbed fitting)

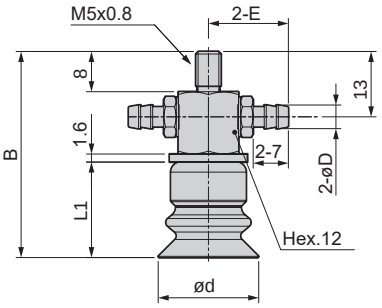
●VSP-HEW6, 8B*-4T/6T



●VSP-HEW10, 15B*-4T/6T



●VSP-HEW20 to 50B*-4T/6T

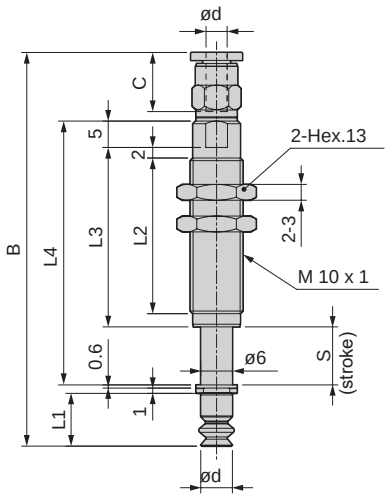


Unit: mm

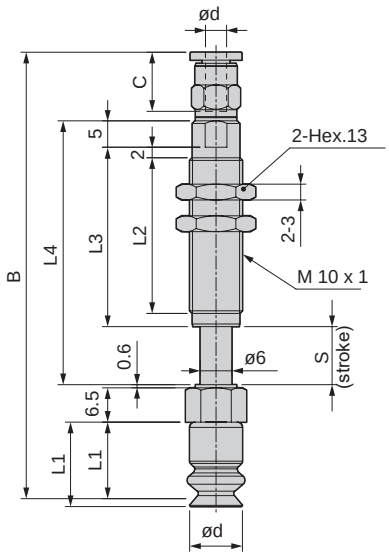
Model No.	Pad diameter ød	Bore size øD	B	L	E	Weight (g)
VSP-HEW6B*-4T	6	2.5	29.5	10	15.9	14
VSP-HEW6B*-6T		4				
VSP-HEW8B*-4T	8	2.5	29.5	10	15.9	14
VSP-HEW8B*-6T		4				
VSP-HEW10B*-4T	10	2.5	36.5	16	15.9	17
VSP-HEW10B*-6T		4				
VSP-HEW15B*-4T	15	2.5	36.5	16	15.9	17
VSP-HEW15B*-6T		4				
VSP-HEW20B*-4T	20	2.5	41	19	15.9	21
VSP-HEW20B*-6T		4				
VSP-HEW25B*-4T	25	2.5	41	19	15.9	22
VSP-HEW25B*-6T		4				
VSP-HEW30B*-4T	30	2.5	47	23	15.9	25
VSP-HEW30B*-6T		4				
VSP-HEW40B*-4T	40	2.5	52	30	15.9	33
VSP-HEW40B*-6T		4				
VSP-HEW50B*-4T	50	2.5	54	32	15.9	40
VSP-HEW50B*-6T		4				

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, push-in fitting)

●VSP-LFC6, 8-□B*-4



●VSP-LFC10, 15-□B*-4



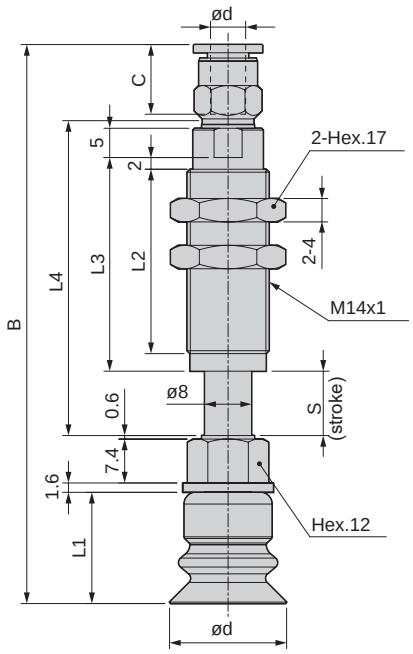
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-LFC6-2B*-4	6	4	58.6	10	21.5	26	34	11.2	2	1.3 to 1.8	25
VSP-LFC6-5B*-4			64.6		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	27
VSP-LFC6-10B*-4			74.6		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	29
VSP-LFC6-15B*-4			84.6		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	31
VSP-LFC6-20B*-4			94.6		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	33
VSP-LFC8-2B*-4	8	4	58.6	10	21.5	26	34	11.2	2	1.3 to 1.8	25
VSP-LFC8-5B*-4			64.6		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	27
VSP-LFC8-10B*-4			74.6		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	29
VSP-LFC8-15B*-4			84.6		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	31
VSP-LFC8-20B*-4			94.6		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	33
VSP-LFC10-2B*-4	10	4	70.1	16	21.5	26	34	11.2	2	1.3 to 1.8	28
VSP-LFC10-5B*-4			76.1		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	30
VSP-LFC10-10B*-4			86.1		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	32
VSP-LFC10-15B*-4			96.1		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	34
VSP-LFC10-20B*-4			106.1		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	36
VSP-LFC15-2B*-4	15	4	70.1	16	21.5	26	34	11.2	2	1.3 to 1.8	28
VSP-LFC15-5B*-4			76.1		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	30
VSP-LFC15-10B*-4			86.1		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	32
VSP-LFC15-15B*-4			96.1		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	34
VSP-LFC15-20B*-4			106.1		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	36

*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, push-in fitting)

●VSP-LFC20 to 50-□B*-4/6



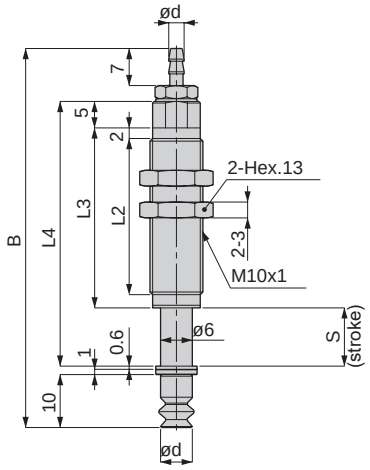
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-LFC20-5B*-4	20	4	84.1	19	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	57
VSP-LFC20-5B*-6		6	85.4					11.9			58
VSP-LFC20-10B*-4		4	94.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	59
VSP-LFC20-10B*-6		6	95.4					11.9			60
VSP-LFC20-15B*-4		4	104.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	62
VSP-LFC20-15B*-6		6	105.4					11.9			63
VSP-LFC20-20B*-4		4	114.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	65
VSP-LFC20-20B*-6		6	115.4					11.9			66
VSP-LFC25-5B*-4	25	4	84.1	19	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	58
VSP-LFC25-5B*-6		6	85.4					11.9			59
VSP-LFC25-10B*-4		4	94.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	60
VSP-LFC25-10B*-6		6	95.4					11.9			61
VSP-LFC25-15B*-4		4	104.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	63
VSP-LFC25-15B*-6		6	105.4					11.9			64
VSP-LFC25-20B*-4		4	114.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	66
VSP-LFC25-20B*-6		6	115.4					11.9			67
VSP-LFC30-5B*-4	30	4	88.1	23	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	59
VSP-LFC30-5B*-6		6	89.4					11.9			60
VSP-LFC30-10B*-4		4	98.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	61
VSP-LFC30-10B*-6		6	99.4					11.9			62
VSP-LFC30-15B*-4		4	108.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	64
VSP-LFC30-15B*-6		6	109.4					11.9			65
VSP-LFC30-20B*-4		4	118.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	67
VSP-LFC30-20B*-6		6	119.4					11.9			68
VSP-LFC40-5B*-4	40	4	95.1	30	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	70
VSP-LFC40-5B*-6		6	96.4					11.9			71
VSP-LFC40-10B*-4		4	105.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	72
VSP-LFC40-10B*-6		6	106.4					11.9			73
VSP-LFC40-15B*-4		4	115.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	75
VSP-LFC40-15B*-6		6	116.4					11.9			76
VSP-LFC40-20B*-4		4	125.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	78
VSP-LFC40-20B*-6		6	126.4					11.9			79
VSP-LFC50-5B*-4	50	4	97.1	32	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	76
VSP-LFC50-5B*-6		6	98.4					11.9			77
VSP-LFC50-10B*-4		4	107.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	78
VSP-LFC50-10B*-6		6	108.4					11.9			79
VSP-LFC50-15B*-4		4	117.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	81
VSP-LFC50-15B*-6		6	118.4					11.9			82
VSP-LFC50-20B*-4		4	127.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	84
VSP-LFC50-20B*-6		6	128.4					11.9			85

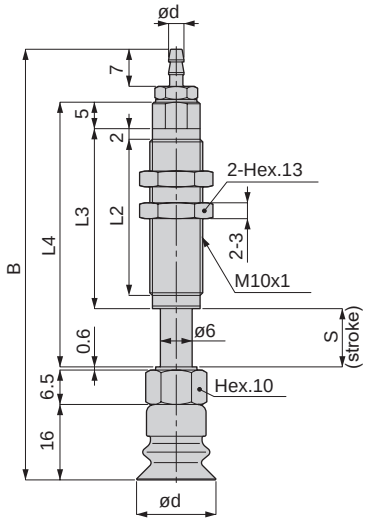
*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, barbed fitting)

●VSP-LFC6, 8-□B*-4T/6T



●VSP-LFC10, 15-□B*-4T/6T



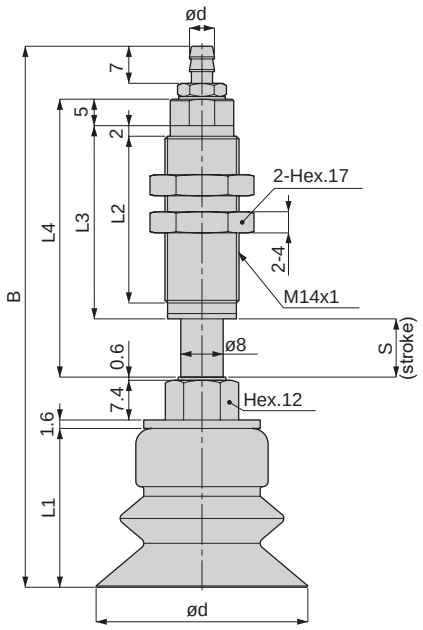
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
VSP-LFC6-2B*-4T	6	2.5	55.7	10	21.5	26	34	2	1.3 to 1.8	24
VSP-LFC6-2B*-6T		4								
VSP-LFC6-5B*-4T		2.5	61.7		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	26
VSP-LFC6-5B*-6T		4								
VSP-LFC6-10B*-4T		2.5	71.7		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	28
VSP-LFC6-10B*-6T		4								
VSP-LFC6-15B*-4T		2.5	81.7		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	30
VSP-LFC6-15B*-6T		4								
VSP-LFC6-20B*-4T		2.5	91.7		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	32
VSP-LFC6-20B*-6T		4								
VSP-LFC8-2B*-4T	8	2.5	55.7	10	21.5	26	34	2	1.3 to 1.8	24
VSP-LFC8-2B*-6T		4								
VSP-LFC8-5B*-4T		2.5	61.7		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	26
VSP-LFC8-5B*-6T		4								
VSP-LFC8-10B*-4T		2.5	71.7		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	28
VSP-LFC8-10B*-6T		4								
VSP-LFC8-15B*-4T		2.5	81.7		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	30
VSP-LFC8-15B*-6T		4								
VSP-LFC8-20B*-4T		2.5	91.7		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	32
VSP-LFC8-20B*-6T		4								
VSP-LFC10-2B*-4T	10	2.5	67.2	16	21.5	26	34	2	1.3 to 1.8	27
VSP-LFC10-2B*-6T		4								
VSP-LFC10-5B*-4T		2.5	73.2		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	29
VSP-LFC10-5B*-6T		4								
VSP-LFC10-10B*-4T		2.5	83.2		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	31
VSP-LFC10-10B*-6T		4								
VSP-LFC10-15B*-4T		2.5	93.2		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	33
VSP-LFC10-15B*-6T		4								
VSP-LFC10-20B*-4T		2.5	103.2		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	35
VSP-LFC10-20B*-6T		4								
VSP-LFC15-2B*-4T	15	2.5	67.2	16	21.5	26	34	2	1.3 to 1.8	27
VSP-LFC15-2B*-6T		4								
VSP-LFC15-5B*-4T		2.5	73.2		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	29
VSP-LFC15-5B*-6T		4								
VSP-LFC15-10B*-4T		2.5	83.2		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	31
VSP-LFC15-10B*-6T		4								
VSP-LFC15-15B*-4T		2.5	93.2		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	33
VSP-LFC15-15B*-6T		4								
VSP-LFC15-20B*-4T		2.5	103.2		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	35
VSP-LFC15-20B*-6T		4								

*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, barbed fitting)

●VSP-LFC20 to 50-□B*-4T/6T



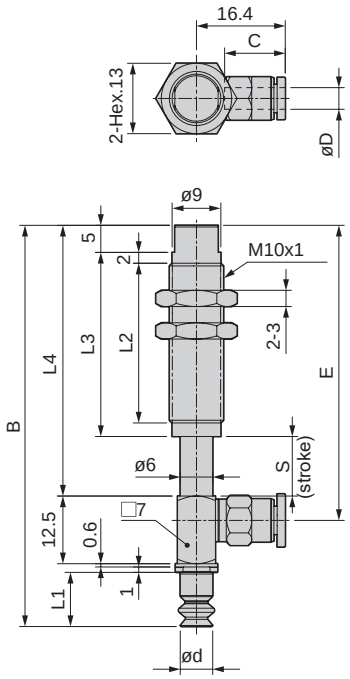
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
VSP-LFC20-5B*-4T	20	2.5	81.2	19	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	53
VSP-LFC20-5B*-6T		4								
VSP-LFC20-10B*-4T		2.5	91.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	55
VSP-LFC20-10B*-6T		4								
VSP-LFC20-15B*-4T		2.5	101.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	58
VSP-LFC20-15B*-6T		4								
VSP-LFC20-20B*-4T		2.5	111.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	61
VSP-LFC20-20B*-6T		4								
VSP-LFC25-5B*-4T	25	2.5	81.2	19	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	54
VSP-LFC25-5B*-6T		4								
VSP-LFC25-10B*-4T		2.5	91.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	56
VSP-LFC25-10B*-6T		4								
VSP-LFC25-15B*-4T		2.5	101.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	59
VSP-LFC25-15B*-6T		4								
VSP-LFC25-20B*-4T		2.5	111.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	62
VSP-LFC25-20B*-6T		4								
VSP-LFC30-5B*-4T	30	2.5	85.2	23	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	55
VSP-LFC30-5B*-6T		4								
VSP-LFC30-10B*-4T		2.5	95.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	57
VSP-LFC30-10B*-6T		4								
VSP-LFC30-15B*-4T		2.5	105.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	60
VSP-LFC30-15B*-6T		4								
VSP-LFC30-20B*-4T		2.5	115.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	63
VSP-LFC30-20B*-6T		4								
VSP-LFC40-5B*-4T	40	2.5	92.2	30	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	66
VSP-LFC40-5B*-6T		4								
VSP-LFC40-10B*-4T		2.5	102.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	68
VSP-LFC40-10B*-6T		4								
VSP-LFC40-15B*-4T		2.5	112.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	71
VSP-LFC40-15B*-6T		4								
VSP-LFC40-20B*-4T		2.5	122.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	74
VSP-LFC40-20B*-6T		4								
VSP-LFC50-5B*-4T	50	2.5	94.2	32	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	72
VSP-LFC50-5B*-6T		4								
VSP-LFC50-10B*-4T		2.5	104.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	74
VSP-LFC50-10B*-6T		4								
VSP-LFC50-15B*-4T		2.5	114.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	77
VSP-LFC50-15B*-6T		4								
VSP-LFC50-20B*-4T		2.5	124.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	80
VSP-LFC50-20B*-6T		4								

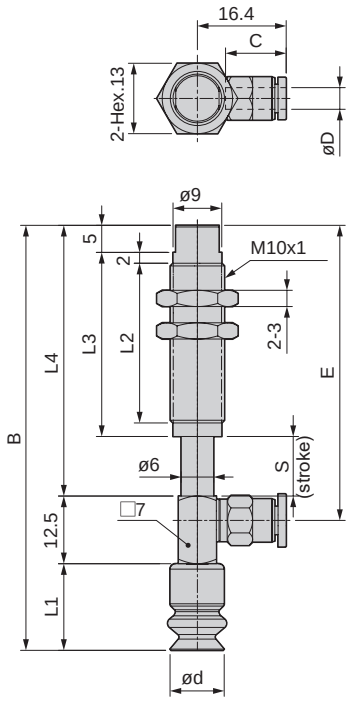
*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, push-in fitting)

●VSP-LFD6, 8-□B*-4



●VSP-LFD10, 15-□B*-4

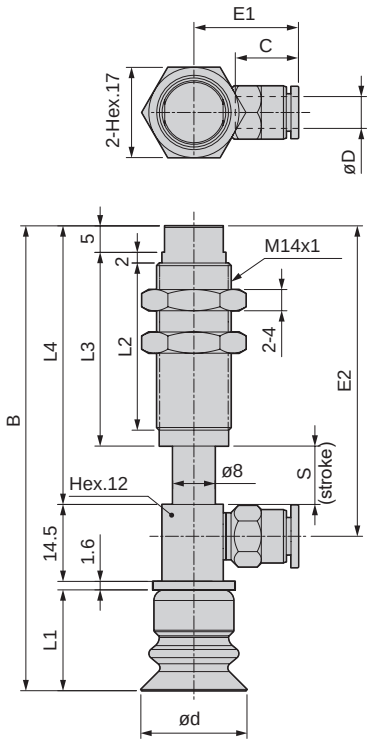


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD6-5B*-4	6	4	64.1	10	24.5	29	40	11.2	44.5	5	1.3 to 2.4	31
VSP-LFD6-10B*-4			74.1		29.5	34	50		54.5	10	1.3 to 3.3	34
VSP-LFD6-15B*-4			84.1		34.5	39	60		64.5	15	1.3 to 4.2	36
VSP-LFD6-20B*-4			94.1		39.5	44	70		74.5	20	1.3 to 5.1	38
VSP-LFD8-5B*-4	8	4	64.1	10	24.5	29	40	11.2	44.5	5	1.3 to 2.4	31
VSP-LFD8-10B*-4			74.1		29.5	34	50		54.5	10	1.3 to 3.3	34
VSP-LFD8-15B*-4			84.1		34.5	39	60		64.5	15	1.3 to 4.2	36
VSP-LFD8-20B*-4			94.1		39.5	44	70		74.5	20	1.3 to 5.1	38
VSP-LFD10-5B*-4	10	4	68.5	16	24.5	29	40	11.2	44.5	5	1.3 to 2.4	26
VSP-LFD10-10B*-4			78.5		29.5	34	50		54.5	10	1.3 to 3.3	28
VSP-LFD10-15B*-4			88.5		34.5	39	60		64.5	15	1.3 to 4.2	30
VSP-LFD10-20B*-4			98.5		39.5	44	70		74.5	20	1.3 to 5.1	32
VSP-LFD15-5B*-4	15	4	68.5	16	24.5	29	40	11.2	44.5	5	1.3 to 2.4	26
VSP-LFD15-10B*-4			78.5		29.5	34	50		54.5	10	1.3 to 3.3	28
VSP-LFD15-15B*-4			88.5		34.5	39	60		64.5	15	1.3 to 4.2	30
VSP-LFD15-20B*-4			98.5		39.5	44	70		74.5	20	1.3 to 5.1	32

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, push-in fitting)

●VSP-LFD20 to 50-□B*-4/6

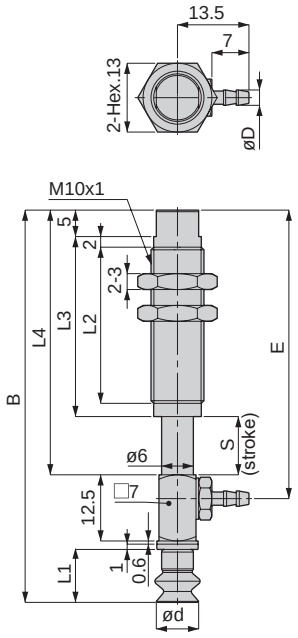


Unit: mm

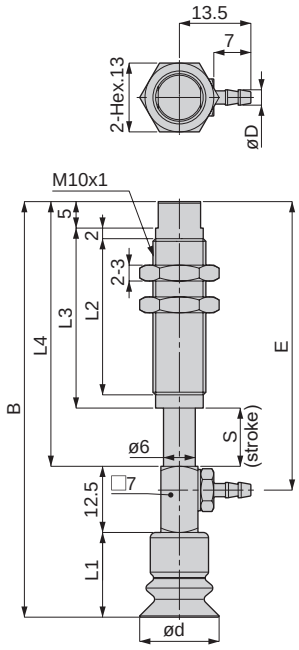
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-LFD20-5B*-4	20	4	77.5	19	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	58
VSP-LFD20-5B*-6		6						11.9	19.7				59
VSP-LFD20-10B*-4		4	87.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	62
VSP-LFD20-10B*-6		6						11.9	19.7				63
VSP-LFD20-15B*-4		4	97.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	66
VSP-LFD20-15B*-6		6						11.9	19.7				67
VSP-LFD20-20B*-4		4	107.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	70
VSP-LFD20-20B*-6		6						11.9	19.7				71
VSP-LFD25-5B*-4	25	4	77.5	19	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	59
VSP-LFD25-5B*-6		6						11.9	19.7				60
VSP-LFD25-10B*-4		4	87.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	63
VSP-LFD25-10B*-6		6						11.9	19.7				64
VSP-LFD25-15B*-4		4	97.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	67
VSP-LFD25-15B*-6		6						11.9	19.7				68
VSP-LFD25-20B*-4		4	107.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	71
VSP-LFD25-20B*-6		6						11.9	19.7				72
VSP-LFD30-5B*-4	30	4	81.5	23	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	60
VSP-LFD30-5B*-6		6						11.9	19.7				61
VSP-LFD30-10B*-4		4	91.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	64
VSP-LFD30-10B*-6		6						11.9	19.7				65
VSP-LFD30-15B*-4		4	101.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	68
VSP-LFD30-15B*-6		6						11.9	19.7				69
VSP-LFD30-20B*-4		4	111.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	72
VSP-LFD30-20B*-6		6						11.9	19.7				73
VSP-LFD40-5B*-4	40	4	88.5	30	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	71
VSP-LFD40-5B*-6		6						11.9	19.7				72
VSP-LFD40-10B*-4		4	98.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	75
VSP-LFD40-10B*6		6						11.9	19.7				76
VSP-LFD40-15B*-4		4	108.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	79
VSP-LFD40-15B*-6		6						11.9	19.7				80
VSP-LFD40-20B*-4		4	118.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	84
VSP-LFD40-20B*-6		6						11.9	19.7				85
VSP-LFD50-5B*-4	50	4	90.5	32	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	77
VSP-LFD50-5B*-6		6						11.9	19.7				78
VSP-LFD50-10B*-4		4	100.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	81
VSP-LFD50-10B*-6		6						11.9	19.7				82
VSP-LFD50-15B*-4		4	118.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	85
VSP-LFD50-15B*-6		6						11.9	19.7				86
VSP-LFD50-20B*-4		4	128.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	90
VSP-LFD50-20B*-6		6						11.9	19.7				91

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, barbed fitting)

●VSP-LFD6, 8-□B*-4T/6T



●VSP-LFD10 to 15-□B*-4T/6T

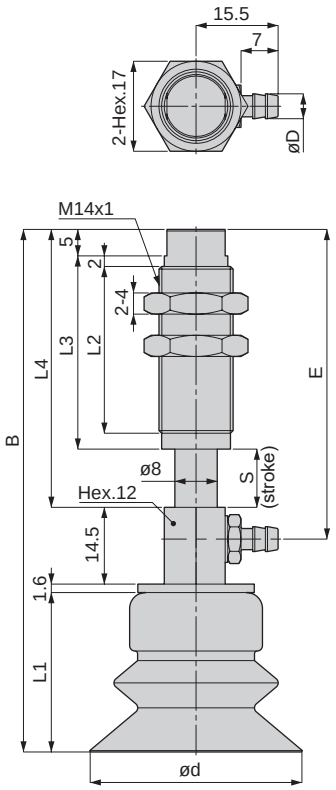


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD6-5B*-4T	6	2.5	64.1	10	24.5	29	40	44.5	5	1.3 to 2.4	30
VSP-LFD6-5B*-6T		4									
VSP-LFD6-10B*-4T		2.5	74.1		29.5	34	50	54.5	10	1.3 to 3.3	32
VSP-LFD6-10B*-6T		4									
VSP-LFD6-15B*-4T		2.5	84.1		34.5	39	60	64.5	15	1.3 to 4.2	34
VSP-LFD6-15B*-6T		4									
VSP-LFD6-20B*-4T		2.5	94.1		39.5	44	70	74.5	20	1.3 to 5.1	36
VSP-LFD6-20B*-6T		4									
VSP-LFD8-5B*-4T	8	2.5	64.1	10	24.5	29	40	44.5	5	1.3 to 2.4	30
VSP-LFD8-5B*-6T		4									
VSP-LFD8-10B*-4T		2.5	74.1		29.5	34	50	54.5	10	1.3 to 3.3	32
VSP-LFD8-10B*-6T		4									
VSP-LFD8-15B*-4T		2.5	84.1		34.5	39	60	64.5	15	1.3 to 4.2	34
VSP-LFD8-15B*-4T		4									
VSP-LFD8-20B*-4T		2.5	94.1		39.5	44	70	74.5	20	1.3 to 5.1	36
VSP-LFD8-20B*-6T		4									
VSP-LFD10-5B*-4T	10	2.5	68.5	16	24.5	29	40	44.5	5	1.3 to 2.4	26
VSP-LFD10-5B*-6T		4									
VSP-LFD10-10B*-4T		2.5	78.5		29.5	34	50	54.5	10	1.3 to 3.3	27
VSP-LFD10-10B*-6T		4									
VSP-LFD10-15B*-4T		2.5	88.5		34.5	39	60	64.5	15	1.3 to 4.2	29
VSP-LFD10-15B*-6T		4									
VSP-LFD10-20B*-4T		2.5	98.5		39.5	44	70	74.5	20	1.3 to 5.1	31
VSP-LFD10-20B*-6T		4									
VSP-LFD15-5B*-4T	15	2.5	68.5	16	24.5	29	40	44.5	5	1.3 to 2.4	26
VSP-LFD15-5B*-6T		4									
VSP-LFD15-10B*-4T		2.5	78.5		29.5	34	50	54.5	10	1.3 to 3.3	27
VSP-LFD15-10B*-6T		4									
VSP-LFD15-15B*-4T		2.5	88.5		34.5	39	60	64.5	15	1.3 to 4.2	29
VSP-LFD15-15B*-6T		4									
VSP-LFD15-20B*-4T		2.5	98.5		39.5	44	70	74.5	20	1.3 to 5.1	31
VSP-LFD15-20B*-6T		4									

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, barbed fitting)

●VSP-LFD20 to 50-□B*-4T/6T

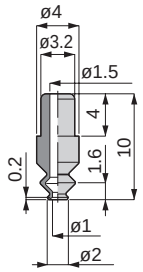


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD20-5B*-4T	20	2.5	77.5	19	26.5	31.5	42.5	48.5	5	4.5 to 6.5	54
VSP-LFD20-5B*-6T		4									
VSP-LFD20-10B*-4T		2.5	87.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	57
VSP-LFD20-10B*-6T		4									
VSP-LFD20-15B*-4T		2.5	97.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	61
VSP-LFD20-15B*-6T		4									
VSP-LFD20-20B*-4T		2.5	107.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	65
VSP-LFD20-20B*-6T		4									
VSP-LFD25-5B*-4T	25	2.5	77.5	19	26.5	31.5	42.5	48.5	5	4.5 to 6.5	55
VSP-LFD25-5B*-6T		4									
VSP-LFD25-10B*-4T		2.5	87.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	58
VSP-LFD25-10B*-6T		4									
VSP-LFD25-15B*-4T		2.5	97.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	62
VSP-LFD25-15B*-6T		4									
VSP-LFD25-20B*-4T		2.5	107.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	66
VSP-LFD25-20B*-6T		4									
VSP-LFD30-5B*-4T	30	2.5	81.5	23	26.5	31.5	42.5	48.5	5	4.5 to 6.5	56
VSP-LFD30-5B*-6T		4									
VSP-LFD30-10B*-4T		2.5	91.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	59
VSP-LFD30-10B*-6T		4									
VSP-LFD30-15B*-4T		2.5	101.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	63
VSP-LFD30-15B*-6T		4									
VSP-LFD30-20B*-4T		2.5	111.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	67
VSP-LFD30-20B*-6T		4									
VSP-LFD40-5B*-4T	40	2.5	88.5	30	26.5	31.5	42.5	48.5	5	4.5 to 6.5	67
VSP-LFD40-5B*-6T		4									
VSP-LFD40-10B*-4T		2.5	98.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	70
VSP-LFD40-10B*-6T		4									
VSP-LFD40-15B*-4T		2.5	108.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	74
VSP-LFD40-15B*-6T		4									
VSP-LFD40-20B*-4T		2.5	118.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	78
VSP-LFD40-20B*-6T		4									
VSP-LFD50-5B*-4T	50	2.5	90.5	32	26.5	31.5	42.5	48.5	5	4.5 to 6.5	73
VSP-LFD50-5B*-6T		4									
VSP-LFD50-10B*-4T		2.5	100.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	76
VSP-LFD50-10B*-6T		4									
VSP-LFD50-15B*-4T		2.5	118.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	80
VSP-LFD50-15B*-6T		4									
VSP-LFD50-20B*-4T		2.5	128.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	84
VSP-LFD50-20B*-6T		4									

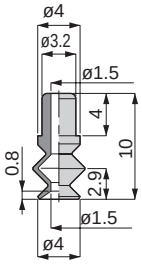
Dimensions: pad only

●VSPG-2B*



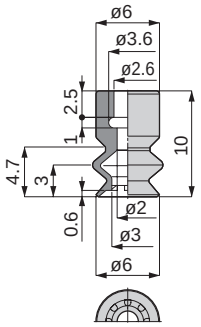
Weight: 0.2g [.3g]

●VSPG-4B*



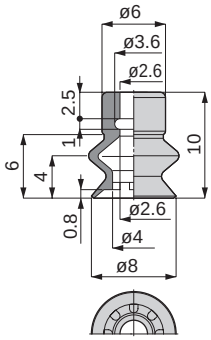
Weight: 0.2g [.3g]

●VSPG-6B*



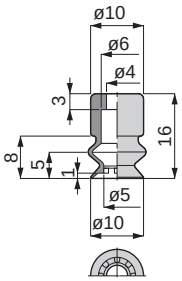
Weight: 0.3g [.4g]

●VSPG-8B*



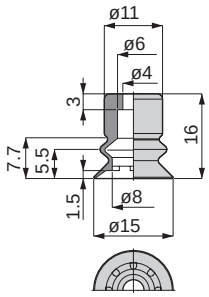
Weight: 0.3g [.4g]

●VSPG-10B*



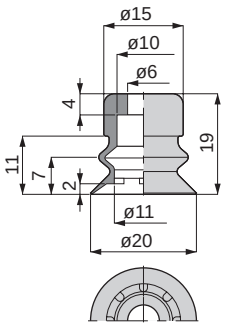
Weight: 0.8g [.2g]

●VSPG-15B*



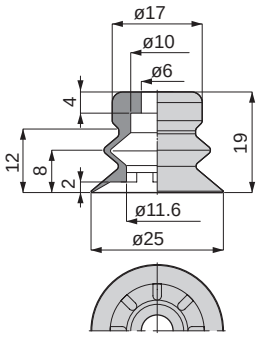
Weight: 1.1g [.7g]

●VSPG-20B*



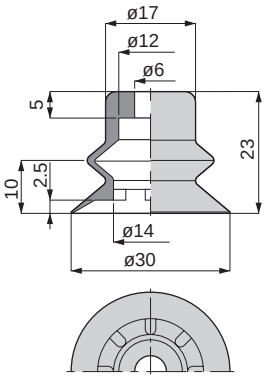
Weight: 1.9g [.0g]

●VSPG-25B*



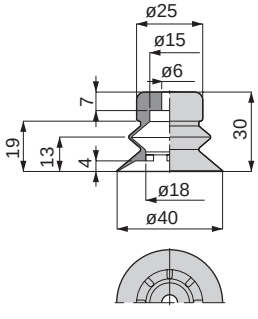
Weight: 2.7g [.2g]

●VSPG-30B*



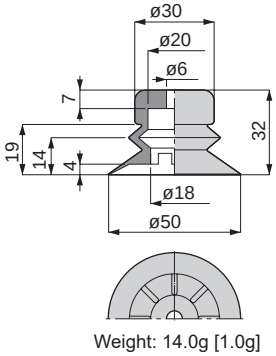
Weight: 3.5g [.5g]

●VSPG-40B*



Weight: 9.9g [5.6g]

●VSPG-50B*

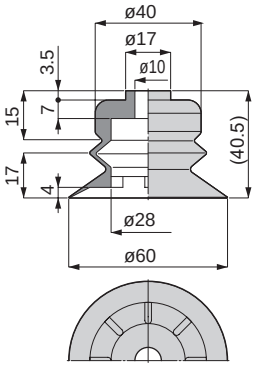


Weight: 14.0g [1.0g]

* Values in [ ] for fluoro rubber only.

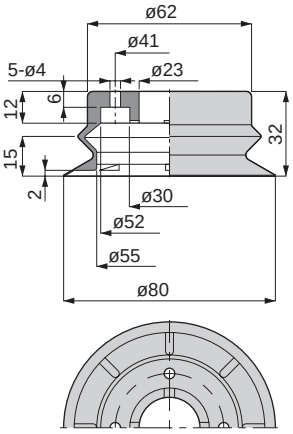
Dimensions: pad only

●VSPG-60B*



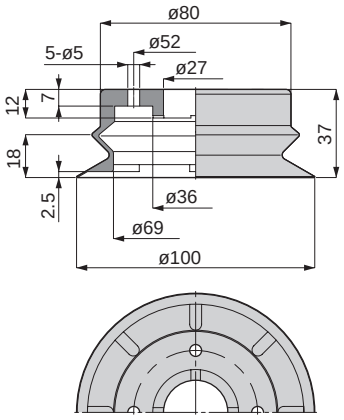
Weight: 25g [9g]

●VSPG-80B*



Weight: 39g [1g]

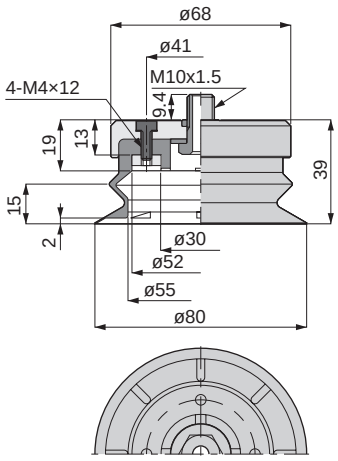
●VSPG-100B*



Weight: 70g [10g]

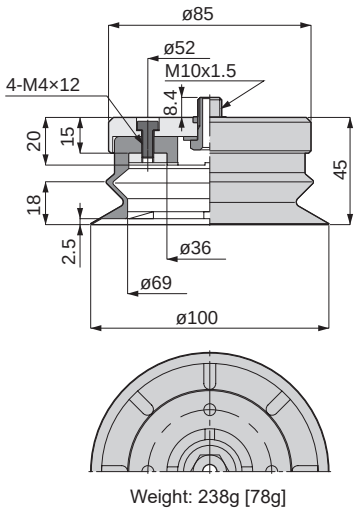
Pad/Threaded set dimensions

●VSPG-80B*A



Weight: 131g [55g]

●VSPG-100B*A

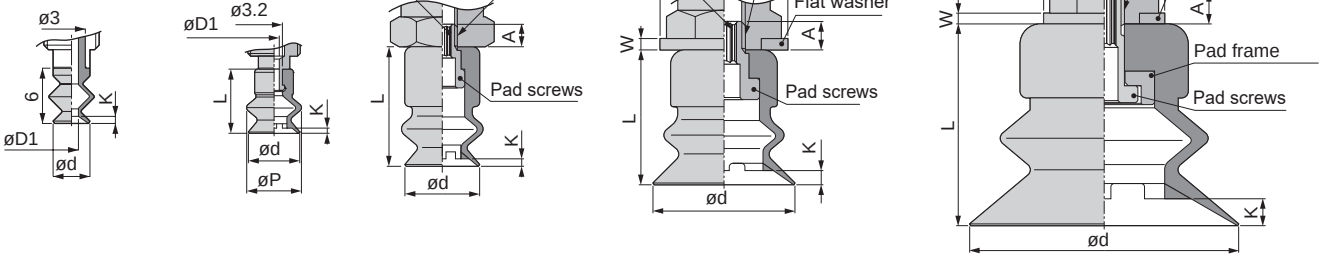


Weight: 238g [78g]

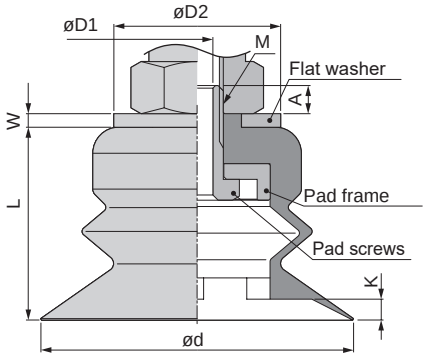
* Values in [ ] for fluoro rubber only.

Detailed view of pad and holder connection

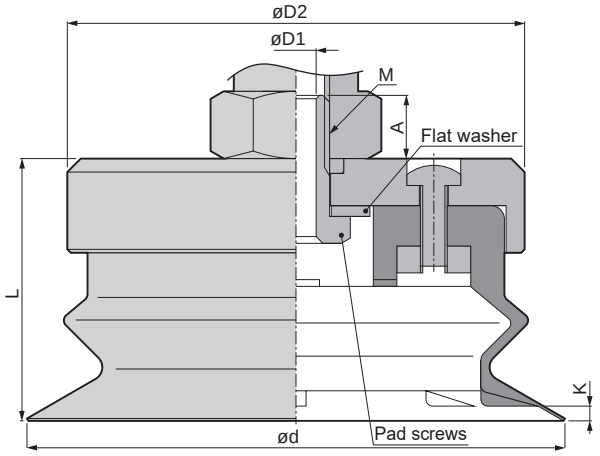
●VSPG-2, 4B* ●VSPG-6, 8B* ●VSPG-10, 15B*A ●VSPG-20, 25, 30B*A ●VSPG-40, 50B*A



●VSPG-60B*A



●VSPG-80, 100B*A

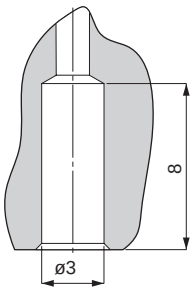


Unit: mm

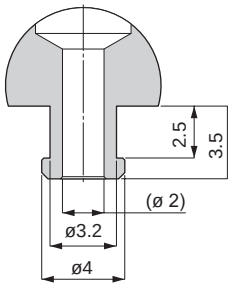
Model No.	Pad diameter ød	L	Lip internal height K	Fixing screw M	A	Hexagon H	øD1	øD2	øP	W
VSPG-2B*	2	6	0.2	-	-	-	1	-	-	-
VSPG-4B*	4	6	0.8	-	-	-	1.5	-	-	-
VSPG-6B*	6	10	0.6	-	-	-	2	-	6.7	-
VSPG-8B*	8	10	0.8	-	-	-	2	-	8.6	-
VSPG-10B*A	10	16	1	M4x0.7	3	2	-	-	-	-
VSPG-15B*A	15	16	1.5	M4x0.7	3	2	-	-	-	-
VSPG-20B*A	20	19	2	M6x1	4	3	-	15.5	-	1.6
VSPG-25B*A	25	19	2	M6x1	4	3	-	15.5	-	1.6
VSPG-30B*A	30	23	2.5	M6x1	5	3	-	15.5	-	1.6
VSPG-40B*A	40	30	4	M6x1	5	3	-	22	-	1.6
VSPG-50B*A	50	32	4	M6x1	5	3	-	22	-	1.6
VSPG-60B*A	60	40.5	4	M10x1.5	5.4	14	6	32	-	2.6
VSPG-80B*A	80	39	2	M10x1.5	9.4	14	6	68	-	-
VSPG-100B*A	100	45	2.5	M10x1.5	8.4	14	6	85	-	-

Pad fitting part dimensions

●VSPG-2, 4B*

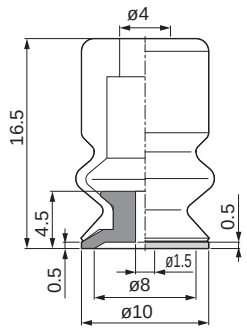


●VSPG-6, 8B*



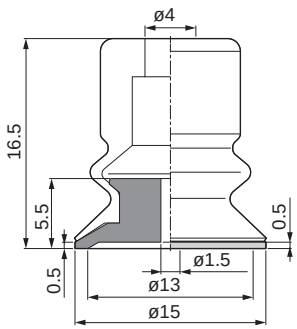
Dimensions (detailed view when resin attachment is installed)

●VSPG-10BQ*



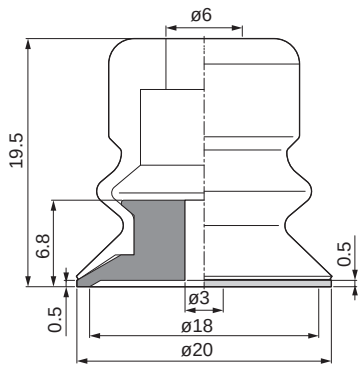
Weight: 0.3g

●VSPG-15BQ*



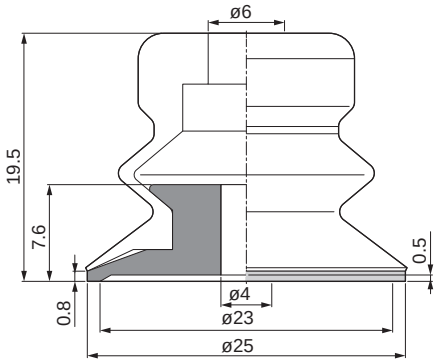
Weight: 0.6g

●VSPG-20BQ*



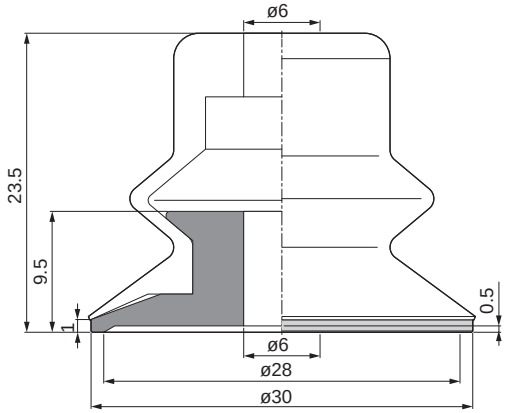
Weight: 1.3g

●VSPG-25BQ*



Weight: 2g

●VSPG-30BQ*



Weight: 3.4g

W*eight is the value for resin attachments only.

Safety precautions

WARNING

1.Use CKD's “suction pad bellows type” for the pad rubber for mounting the suction mark prevention resin attachment. If improperly shaped suction mark prevention resin attachments or pad rubber are used, dislocation of the resin attachment and large amounts of leakage will occur.

2.Because of the characteristics of the bellows pad material, the pads may stick to each other, so please check with the actual device.
In addition, since stickiness may increase due to the operating environment and pad wear, review as necessary the pad shape, material, quantity, etc.

3.Use the bellows type in a manner that it does not over-compress. If it is compressed too much, the bellows part may wear quickly, or cracks in the lip part may occur, or deformation due to strain may cause suction failure.

CAUTION

1. Compared to conventional rubber suction pads, the suction mark prevention resin attachment for the lip portion reduces suction marks; however, confirm with an actual device the effects to the suction marks on the workpieces are acceptable.

2.The suction mark prevention resin attachment has a greater impact on leakage from the suction surface than conventional rubber suction pads. Note that vacuum hold is not possible. Also, minimize pressure drop due to leakage by keeping the vacuum flow rate as large as possible.

3.Clean the suction surface of the suction pad before use. Deposits may remain as suction marks. Be careful not to scratch the suction surface while cleaning, and do not use organic solvents.

4.Select a material that suits the working conditions for the pad rubber for mounting the suction mark prevention resin attachment.

5.Pad rubber material: Do not use the suction mark prevention resin attachment for ultra-soft silicone or suction pads with surface treatment options selected.

6.Pad O.D.: Pad frames with øof 80 mm or more have no conductivity. When using a vacuum pad of conductive material, take measures to let electricity pass directly from the pad rubber.



Suction pad multi-stage bellows

VSP-*W* Series

Suction pad that molds softly to the workpiece with multi-stage bellows structure

RoHS

The 4-stage bellows (bellows) track to the curved workpiece and suctions securely by extending and contracting the bellows, making it ideal for transporting retort-packs or bags containing food, etc.

A wide range of holder variations

Shape 18types

- Standard6 types
- Compact5 types
- Low dust generation...2 types
- Lightweight, 3 types
- Low height: 2 types

Pipingconnection 6types

- Push-in fitting (ø1.8 to ø6) Three types
- Barbed fitting (ø4, ø6) Two types
- Screw-in (M5) ..... 1 type

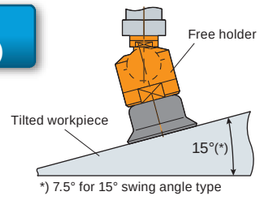
Stroke 12types

2mm to 50mm
(Depends on pad diameter and holder)

Low dust generation holders (LFC, LFD) are available, with minimal friction powder and low noise caused by sliding

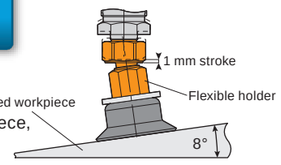
Supports assembly options of track swinging (free holder, flexible holder) on a workpiece surface with an angle

Free holder (F1:30°, F2:15°)



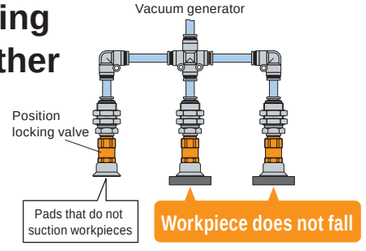
*) 7.5° for 15° swing angle type

Flexible holder (CF)



After removing the workpiece, returns to the normal position (vertical)

Supports assembly option of position locking valve (V) that reduces vacuum drop in another circuit even without a workpiece



Pad surface treatment (option) is available for special treatment to reduce suction marks

	-DL	-ER	-FG
	Anti-sticking	Suction mark relief	Fluorine coating
Surface-treated			
Compatible materials	Silicone Fluorine Conductive silicone	Nitriles Conductive NBR (low resistance)	Silicone Conductive silicone super-soft silicone
Features	Special coating with good slip. Effective for preventing adhesion of lightweight and thin workpieces.	Reduces suction marks by modifying the surface with an environmentally friendly chemical liquid.	Surface modification for special treatment to prevent adhesion to workpieces. Improved pad durability and wear resistance.

Pad shape

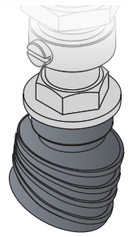






4-stage bellows

It can greatly track to changes in the height of the workpiece in contact with it and to surface tilting.



Recommended workpiece

Retort-packs and bags containing food etc.



Pad diameter

7 types | 6 | 8 | 10 | 20 | 30 | 40 | 50

Pad material

10 types

Nitriles | Silicone | Urethane | Fluorine | Conductive NBR (low resistance) | NBR compatible with the Food Sanitation Act | HNBR | EPDM | Ultra-soft silicone hardness 20° | Ultra-soft silicone hardness 40°



Hardness 20°



Hardness 40°

Super-soft silicone

*Ultra-soft silicone (YS2, YS4) is compliant with the Food Sanitation Act and the FDA. Compatible with the Food Sanitation Act NBR (G) and silicone (S) are compatible with the Food Sanitation Act. (holder is not supported/suction pad is compatible only with workpiece contact part)

Solution examples

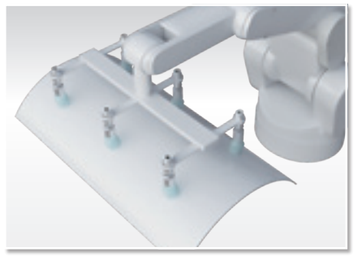
When the suction surface is not flat

It flexibly track and suctions uneven workpieces such as retort-packs or workpieces with variable suction surface height.



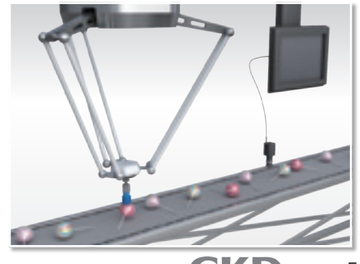
Workpiece with curved suction surface

The bellows track with the slope of the workpiece surface and can be suctioned.



Workpieces with irregular suction surface

The surface shape like packaging candy provides high track performance for irregular workpieces.



How to order

●Multi-stage bellows

Suction pad

VSP – C – 30 – -20 – W – N – -ER – 6 – [ ] – F1 – V

VSP	C	30	-20	W	N	-ER	6	[ ]	F1	V
Model No.	❶ Holder type	❷ Pad diameter	❸ Stroke option	❹ Pad shape	❺ Pad material	❻ Surface-treated	❼ Port size/shape	❽ Buffer load	❾ Pad Swinging	❿ Position locking valve

Pad rubber only

VSPG — 30 — W — N — -ER

VSPG	30	W	N	-ER
Model No.	❷	❹	❺	❻

Pad rubber + set with fixing screw

VSPG — 30 — W — N — -ER — A

VSPG	30	W	N	-ER	A
Model No.	❷ Pad diameter	❹ Pad shape	❺ Pad material	❻ Surface-treated	

*1: ❷For 10 to 50, pad rubber + fixed screw set can be selected.

❶ Holder type

With/without buffer	Type	Vacuum outlet	Code	
Fixed	Standard	Upward direction	A	
	Compact		MA	
	Standard	Lateral direction	B	
	Compact		MB	
	Low height		HE	
		Both lateral directions	HEW	
	Standard	Direct mounting	E	
	Compact		ME	

With/without buffer	Type	Vacuum outlet	Code	
Buffer type	Standard	Upward direction	C	
	Compact		MC	
	Low dust generation		LFC	
	Lightweight		HC	
	Standard	Lateral direction	D	
	Compact		MD	
	Low dust generation		LFD	
			HD	
	Lightweight	Both lateral directions	HDW	
	Standard	Direct mounting	F	

❷ Pad diameter

Pad diameter	Pad material										Code
	N	S	YS2	YS4	U	F	NE	G	HN	EP	
ø6	●	●				●	●	●	●	●	6
ø8	●	●				●	●	●	●	●	8
ø10	●	●	*1	*1	●	●	●	●	●	●	10
ø20	●	●	●	●	●	●	●	●	●	●	20
ø30	●	●	●	●	●	●	●	●	●	●	30
ø40	●	●	●	●	●	●	●	●	●	●	40
ø50	●	●	●	●	●	●	●	●	●	●	50

*1: ❷ 10 ❺YS2 and YS4 are available only when ❻-FG is selected.

❸ Stroke option

Description	Holder type					Code	
	C	D	HC	LFC	LFD		
Specified stroke or without buffer	●	●				Blank	*1,*2
Stroke 2 mm				●		–2	*3
Stroke 5 mm				●	●	–5	
Stroke 10 mm	●	●	●	●	●	–10	
Stroke 15 mm	●	●	●	●	●	–15	
Stroke 20 mm	●	●	●	●	●	–20	
Stroke 25 mm			●			–25	
Stroke 30 mm	●	●	●			–30	
Stroke 40 mm	●	●	●			–40	
Stroke 50 mm	●	●	●			–50	

*1: Blank for models other than C, D, HC, LFC, LFD.
*2: For a designated stroke with blank, check the stroke dimensions with a dimensions.
*3: For 6 to 10, -2 can be selected.

❹ Pad shape

Code	Description	
W	Multi-stage bellows Type	

❺ Pad material

Code	Description
N	Nitrile rubber
S	Silicone rubber
YS2	Super soft silicone rubber (hardness 20°)
YS4	Super soft silicone rubber (hardness 40°)
U	Urethane rubber
F	Fluoro rubber
NE	Conductive NBR (low resistance)
G	NBR compatible with the Food Sanitation Act
HN	HNBR
EP	EPDM

❻ Surface-treated

Description	Compatible pad material						Supported pad diameter	Code
	N	S	YS2	YS4	F	NE	Multi-stage bellows (W)	
No surface treatment	All pads material, all pad diameters							Blank
Anti-stick special coating		●			●		ø10, ø20	–DL
Suction mark reduction surface modification	●					●	ø6 to ø50	–ER
Fluorine coating		●	●	●			ø6 to ø50	–FG

Specifications for rechargeable battery (Catalog No.CC-1226A)

●Design compatible with rechargeable battery manufacturing process

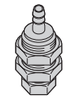
VSP -..... - P4*

Specifications for food manufacturing processes (Catalog No.CC-1271A)

●Food-grade lubricants that can be used in food manufacturing processes, and resin/rubber materials that are compatible with the Food Sanitation Act are used

VSP -..... - FP*

❼ Port size/shape

Description	Holder type																Code	
	A	B	C	D	MA	MB	MC	MD	ME	LFC	LFD	HC	HD	HDW	HE	HEW		
(❶: For E and F)																	Blank	
ø1.8 push-in fitting		●	●	●	●	●	●	●				●	●	●	●	●	2	
ø4 push-in fitting	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	4	
ø6 push-in fitting	●	●	●	●		●		●		●	●	●	●	●	●	●	6	
ø4 Push-in fitting, without spring cover			●	●													4C	
ø6 Push-in fitting, without spring cover			●	●													6C	
ø4 barbed fitting	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	4T	
ø6 barbed fitting	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	6T	
ø4 barbed fitting, without spring cover			●	●													4TC	
ø6 Barbed fitting, without spring cover			●	●													6TC	
M5x0.8									●								M5	

*1: ❶If -20 to -50 is available for C and D, 4C, 6C, 4TC, 6TC can be selected. *2: ❷The available port size and shape differ depending on the pad diameter. Check with the combination table below.

❽ Buffer load

Code	Description
Blank	Standard load or without buffer
L	Low load (1/4 of standard load)

*1
*2

❶*1: Blank for models other than ❽LFC.
*2: In the case of -2, it will be blank.

❾ Swiveling pad

Code	Description	
Blank	None	
F1	Free holder Swinging With angle 30°	 Free Holder
F2	Free holder Swinging With angle 15°	
CF	Flexible Holder With angle 8°	 Flexible Holder

*1
*1
*2

*1: When 10 to 50, F1 and F2 can be selected.
*2: For E, ME and 10 to 50, CF can be selected.

❿ Position locking valve

Code	Description	
Blank	None	
V	With position locking valve *1	 Drop Prevention valve

*1: For E, ME and 10 to 50, V can be selected.

Holder shape - pad diameter - pad shape - port size/shape combinations

Holder type	Pad diameter	Push-in fitting					Barbed fitting			
		ø1.8	ø4		ø6		ø4		ø6	
		2	4	4C	6	6C	4T	4TC	6T	6TC
A	ø6 to ø8		●		●		●		●	
	ø10				●				●	
	ø20 to ø50		●		●		●		●	
B	ø6 to ø8	●	●		●		●		●	
	ø10 to ø50		●		●		●		●	
C	ø6 to ø8	●	●	●	●	●	●	●	●	●
	ø10 to ø50		●	●	●	●	●	●	●	●
D	ø6 to ø8	●	●	●	●	●	●	●	●	●
	ø10 to ø50		●	●	●	●	●	●	●	●

Holder type	Pad diameter	Push-in fitting			Barbed fitting	
		ø1.8	ø4	ø6	ø4	ø6
		2	4	6	4T	6T
MA	ø6 to ø8	●			●	
	ø10		●		●	
	ø0 to ø50		●		●	●
MB	ø6 to ø8	●	●		●	●
	ø10 to ø50	●	●	●	●	●
MC	ø6 to ø8	●			●	●
	ø10 to ø50	●	●		●	●
MD	ø6 to ø8	●	●		●	●
	ø10 to ø50	●	●	●	●	●

Holder type	Pad diameter	Push-in fitting			Barbed fitting	
		ø1.8	ø4	ø6	ø4	ø6
		2	4	6	4T	6T
LFC	ø6 to ø10		●		●	●
	ø20 to ø50		●	●	●	●
LFD	ø6 to ø10		●		●	●
	ø20 to ø50		●	●	●	●
HC	ø10 to ø50	●	●	●	●	●
HD	All sizes	●	●	●	●	●
HDW	All sizes	●	●	●	●	●
HE	All sizes	●	●	●	●	●
HEW	All sizes	●	●	●	●	●

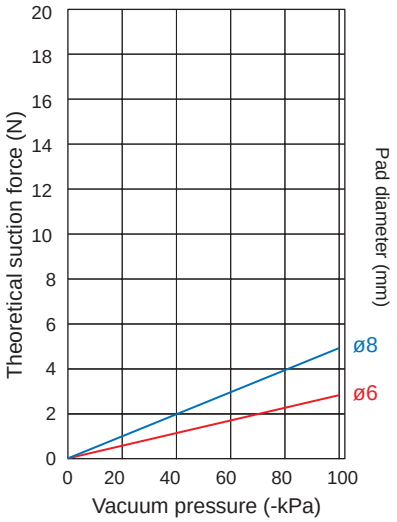
Holder type	Pad diameter	Thread	
		M5	
		Blank	
E	ø6 to ø8	●	

Holder type	Pad diameter	Thread	
		M10	M14
		Blank	
F	ø6 to ø8	●	
	ø10 to ø50		●

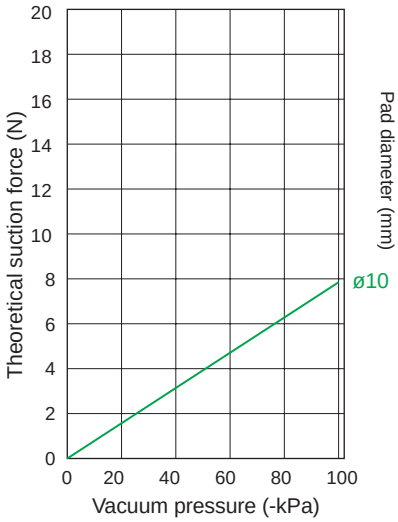
Holder type	Pad diameter	Thread	
		M5	
		Blank	
ME	ø6 to ø8	●	

Theoretical suction force

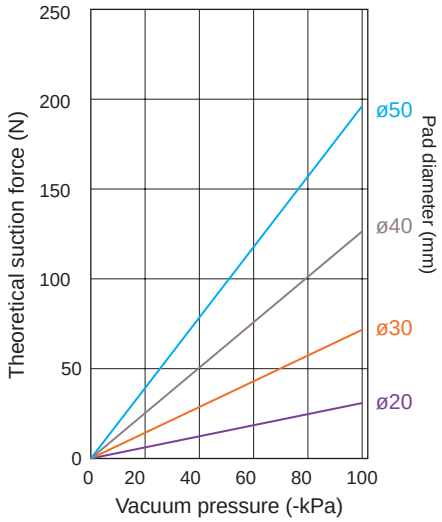
●Pad diameter: ø6 mm, ø8 mm



●Pad diameter: ø10 mm



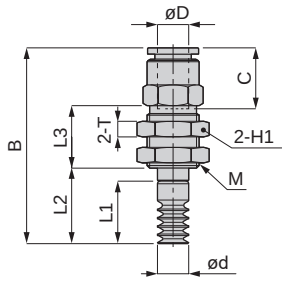
●Pad diameter: ø20 mm to 50 mm



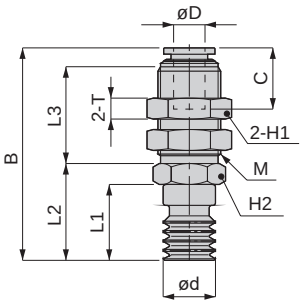
For multi-stage bellows type suction force, it may not be possible to secure the calculated suction force (theoretical suction force × safety factor) due to the effect of pad characteristics such as degree of vacuum/pad material/suctioned object. Before selection, use the suction force obtained by “Selection method of suction pad” (page 288) as a guide, and make sure that there are no problems with the suction capacity on the actual machine. In addition, the multi-stage bellows type is not suitable for vertical lifting. In order to use, check sufficiently with the actual device.

Dimensions (fixed, vacuum outlet, top, VSP-A, push-in fitting)

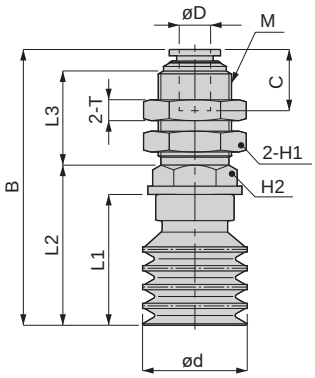
●VSP-A6, 8W*-4/6



●VSP-A10W*-6



●VSP-A20 to 50W*-4/6

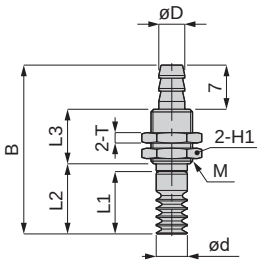


Unit: mm

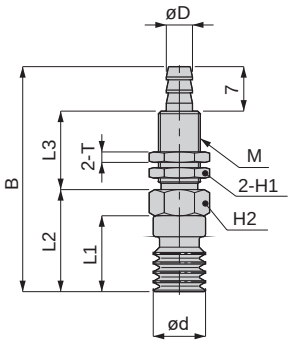
Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	Tube end C	Hexagon H1	Hexagon H2	T	Weight (g)
VSP-A6W*-4	6	4	M8x0.75	37.1	12	14.5	12	11.2	10	—	2	8.5
VSP-A6W*-6		6	M10x1	37.8				11.9	12		3	13
VSP-A8W*-4	8	4	M8x0.75	37.6	12.5	15	12	11.2	10	—	2	8.5
VSP-A8W*-6		6	M10x1	38.3				11.9	12		3	13
VSP-A10W*-6	10	6	M12x1	40.8	14.5	18.5	18.5	11.9	14	12	4	22
VSP-A20W*-4	20	4	M12x1	61.9	25	31	18	11.2	14	12	4	31
VSP-A20W*-6		6	M14x1	52.9		30.6		11.9	17	14		37
VSP-A30W*-4	30	4	M12x1	75.4	38.5	44.5	18	11.2	14	12	4	37
VSP-A30W*-6		6	M14x1	66.4		44.1		11.9	17	14		43
VSP-A40W*-4	40	4	M12x1	81.9	45	51	18	11.2	14	12	4	47
VSP-A40W*-6		6	M14x1	72.9		50.6		11.9	17	14		53
VSP-A50W*-4	50	4	M12x1	92.9	56	62	18	11.2	14	12	4	58
VSP-A50W*-6		6	M14x1	83.9		61.6		11.9	17	14		64

Dimensions (fixed, vacuum outlet, top, VSP-A, barbed fitting)

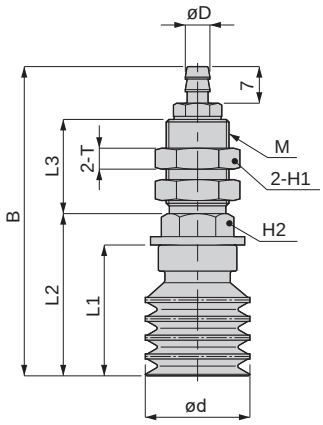
●VSP-A6, 8W*-4T/6T



●VSP-A10W*-6T



●VSP-A20 to 50W*-4T/6T

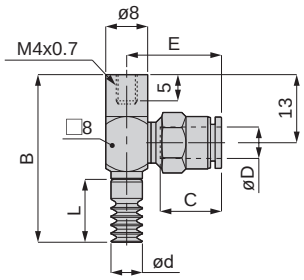


Unit: mm

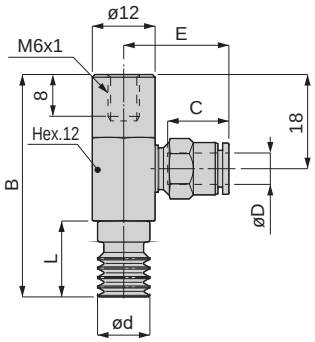
Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	Hexagon H1	Hexagon H2	T	Weight (g)
VSP-A6W*-4T	6	2.5	M5x0.5	29.5	12	14.5	8	8	—	2	6
VSP-A6W*-6T		4	M8x0.75	31		13.5	10.5	10			8
VSP-A8W*-4T	8	2.5	M5x0.5	30	12.5	15	8	8	—	2	6
VSP-A8W*-6T		4	M8x0.75	31.5		14	10.5	10			8
VSP-A10W*-6T	10	4	M8x0.75	41.5	14.5	19.5	15	10	10	2	12
VSP-A20W*-4T	20	2.5	M12x1	59	25	31	18	14	12	4	31
VSP-A20W*-6T		4									
VSP-A30W*-4T	30	2.5	M12x1	72.5	38.5	44.5	18	14	12	4	37
VSP-A30W*-6T		4									
VSP-A40W*-4T	40	2.5	M12x1	79	45	51	18	14	12	4	46
VSP-A40W*-6T		4									
VSP-A50W*-4T	50	2.5	M12x1	90	56	62	18	14	12	4	58
VSP-A50W*-6T		4									

Dimensions (fixed, vacuum outlet, side, VSP-B, push-in fitting)

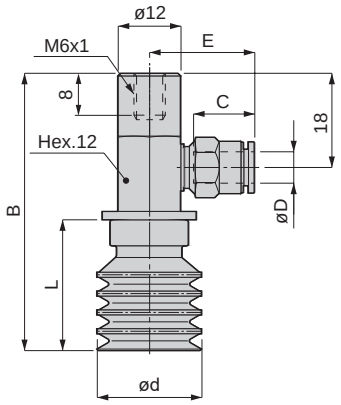
●VSP-B6, 8W*-2/4/6



●VSP-B10W*-4/6



●VSP-B20 to 50W*-4/6

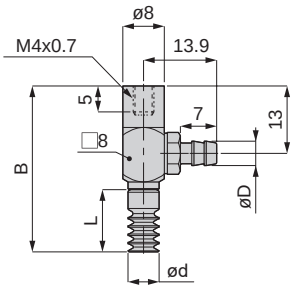


Unit: mm

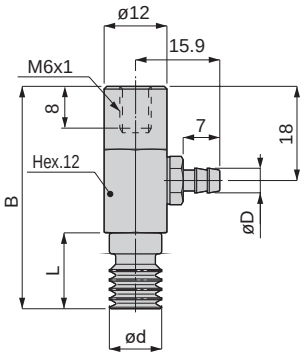
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-B6W*-2	6	1.8	32	12	8.4	12.7	12
VSP-B6W*-4		4			11.2	16.8	13
VSP-B6W*-6		6			11.9	18.6	14
VSP-B8W*-2	8	1.8	32.5	12.5	8.4	12.7	12
VSP-B8W*-4		4			11.2	16.8	13
VSP-B8W*-6		6			11.9	18.6	14
VSP-B10W*-4	10	4	42.5	14.5	11.2	18.8	30
VSP-B10W*-6		6			11.9	20.1	31
VSP-B20W*-4	20	4	53	25	11.2	18.8	34
VSP-B20W*-6		6			11.9	20.1	35
VSP-B30W*-4	30	4	66.5	38.5	11.2	18.8	40
VSP-B30W*-6		6			11.9	20.1	41
VSP-B40W*-4	40	4	73	45	11.2	18.8	49
VSP-B40W*-6		6			11.9	20.1	50
VSP-B50W*-4	50	4	84	56	11.2	18.8	61
VSP-B50W*-6		6			11.9	20.1	62

Dimensions (fixed, vacuum outlet, side, VSP-B, barbed fitting)

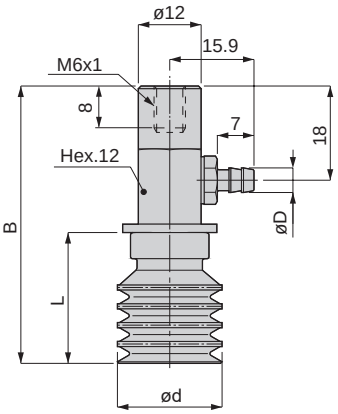
●VSP-B6, 8W*-4T/6T



●VSP-B10W*-4T/6T



●VSP-B20 to 50W*-4T/6T

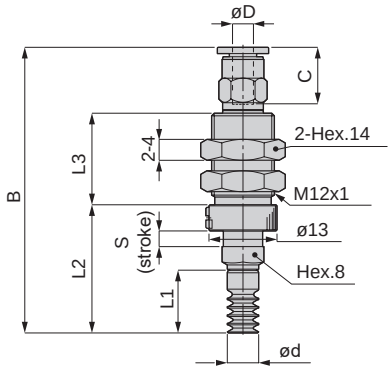


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-B6W*-4T	6	2.5	32	12	13
VSP-B6W*-6T		4			
VSP-B8W*-4T	8	2.5	32.5	12.5	13
VSP-B8W*-6T		4			
VSP-B10W*-4T	10	2.5	42.5	14.5	29
VSP-B10W*-6T		4			
VSP-B20W*-4T	20	2.5	53	25	33
VSP-B20W*-6T		4			
VSP-B30W*-4T	30	2.5	66.5	38.5	39
VSP-B30W*-6T		4			
VSP-B40W*-4T	40	2.5	73	45	48
VSP-B40W*-6T		4			
VSP-B50W*-4T	50	2.5	84	56	60
VSP-B50W*-6T		4			

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting)

●VSP-C6, 8W*-2/4/6
●VSP-C6, 8-□W*-2/4/6

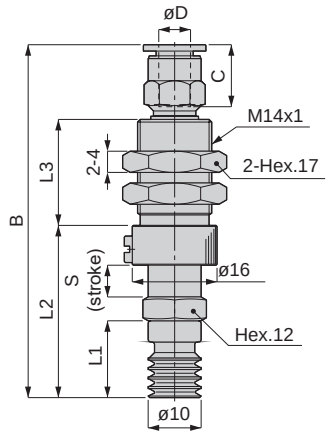


Unit: mm

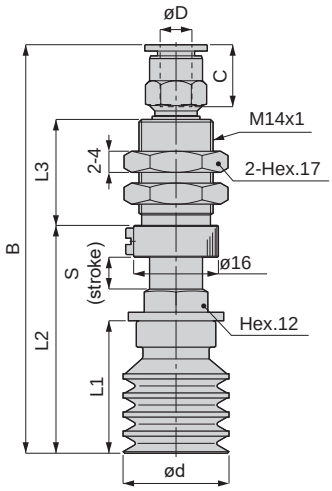
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C6W*-2	6	1.8	46.4	12	24.5	13	8.4	3	0.9 to 1.9	18
VSP-C6W*-4		4	50.5				11.2			19
VSP-C6W*-6		6	52.3				11.9			20
VSP-C6-10W*-2		1.8	57.9		31.5	17.5	8.4	10	0.8 to 2.7	19
VSP-C6-10W*-4		4	62				11.2			20
VSP-C6-10W*-6		6	63.8				11.9			21
VSP-C6-15W*-2		1.8	68.9		36.5	23.5	8.4	15	0.7 to 3.0	23
VSP-C6-15W*-4		4	73				11.2			24
VSP-C6-15W*-6		6	74.8				11.9			25
VSP-C6-20W*-2		1.8	78.9		41.5	28.5	8.4	20	0.9 to 3.4	24
VSP-C6-20W*-4		4	83				11.2			25
VSP-C6-20W*-6		6	84.8				11.9			26
VSP-C8W*-2	6	1.8	46.9	12.5	25	13	8.4	3	0.9 to 1.9	18
VSP-C8W*-4		4	51				11.2			19
VSP-C8W*-6		6	52.8				11.9			20
VSP-C8-10W*-2		1.8	58.4		32	17.5	8.4	10	0.8 to 2.7	19
VSP-C8-10W*-4		4	62.5				11.2			20
VSP-C8-10W*-6		6	64.3				11.9			21
VSP-C8-15W*-2		1.8	69.4		37	23.5	8.4	15	0.7 to 3.0	23
VSP-C8-15W*-4		4	73.5				11.2			24
VSP-C8-15W*-6		6	75.3				11.9			25
VSP-C8-20W*-2		1.8	79.4		42	28.5	8.4	20	0.9 to 3.4	25
VSP-C8-20W*-4		4	83.5				11.2			26
VSP-C8-20W*-6		6	85.3				11.9			27

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting)

●VSP-C10W*-4/6
●VSP-C10-□W*-4/6



●VSP-C20 to 50W*-4/6
●VSP-C20 to 50-□W*-4/6

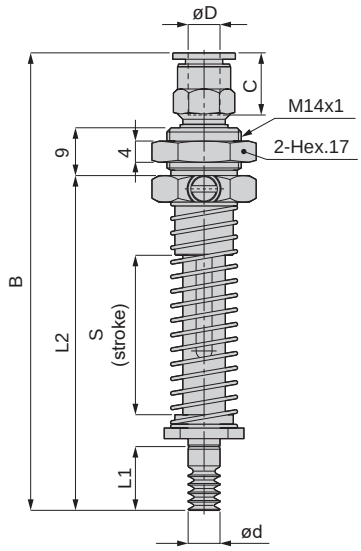


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C10W*-4	10	4	65.5	14.5	32.5	20	11.2	6	4.0 to 7.1	35
VSP-C10W*-6		6	66.8				11.9			36
VSP-C10-10W*-4		4	70		37		11.2	10	2.0 to 5.2	36
VSP-C10-10W*-6		6	71.3				11.9			37
VSP-C10-15W*-4		4	80		42	25	11.2	15	2.0 to 5.9	41
VSP-C10-15W*-6		6	81.3				11.9			42
VSP-C10-20W*-4		4	96		49	34	11.2	20	1.1 to 4.8	49
VSP-C10-20W*-6		6	97.3				11.9			50
VSP-C20W*-4	20	4	76	25	43	20	11.2	6	7.0 to 12.6	39
VSP-C20W*-6		6	77.3				11.9			40
VSP-C20-10W*-4		4	82		49		11.2	10	3.3 to 10.0	41
VSP-C20-10W*-6		6	83.3				11.9			42
VSP-C20-15W*-4		4	92		54	25	11.2	15	3.3 to 10.4	46
VSP-C20-15W*-6		6	93.3				11.9			47
VSP-C20-20W*-4		4	110		61	34	11.2	20	2.0 to 8.7	53
VSP-C20-20W*-6		6	109.3				11.9			54
VSP-C30W*-4	30	4	89.5	38.5	56.5	20	11.2	6	7.0 to 12.6	46
VSP-C30W*-6		6	90.8				11.9			47
VSP-C30-10W*-4		4	95.5		62.5		11.2	10	3.3 to 10.0	49
VSP-C30-10W*-6		6	96.8				11.9			50
VSP-C30-15W*-4		4	105.5		67.5	25	11.2	15	3.3 to 10.4	52
VSP-C30-15W*-6		6	106.8				11.9			53
VSP-C30-20W*-4		4	121.5		74.5	34	11.2	20	2.0 to 8.7	59
VSP-C30-20W*-6		6	122.8				11.9			60
VSP-C40W*-4	40	4	96	45	63	20	11.2	6	7.0 to 12.6	55
VSP-C40W*-6		6	97.3				11.9			56
VSP-C40-10W*-4		4	102		69		11.2	10	3.3 to 10.0	59
VSP-C40-10W*-6		6	103.3				11.9			60
VSP-C40-15W*-4		4	112		74	25	11.2	15	3.3 to 10.4	63
VSP-C40-15W*-6		6	113.3				11.9			64
VSP-C40-20W*-4		4	128		81	34	11.2	20	2.0 to 8.7	69
VSP-C40-20W*-6		6	129.3				11.9			70
VSP-C50W*-4	50	4	107	56	74	20	11.2	6	7.0 to 12.6	66
VSP-C50W*-6		6	108.3				11.9			67
VSP-C50-10W*-4		4	113		80		11.2	10	3.3 to 10.0	70
VSP-C50-10W*-6		6	114.3				11.9			71
VSP-C50-15W*-4		4	123		85	25	11.2	15	3.3 to 10.4	74
VSP-C50-15W*-6		6	124.3				11.9			75
VSP-C50-20W*-4		4	139		92	34	11.2	20	2.0 to 8.7	80
VSP-C50-20W*-6		6	140.3				11.9			81

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting, without spring cover)

●VSP-C6, 8-□W*-4C/6C

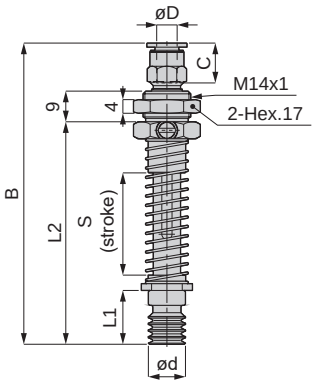


Unit: mm

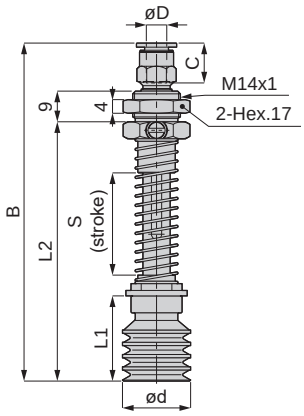
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C6-20W*-4C	6	4	72	12	50	11.2	20	1.5 to 4.9	43
VSP-C6-20W*-6C		6	73.3			11.9			44
VSP-C6-30W*-4C		4	85		63	11.2	30	1.1 to 4.8	48
VSP-C6-30W*-6C		6	86.3			11.9			49
VSP-C6-40W*-4C		4	98		76	11.2	40	1.0 to 4.5	54
VSP-C6-40W*-6C		6	99.3			11.9			55
VSP-C6-50W*-4C		4	111		89	11.2	50	0.9 to 4.5	59
VSP-C6-50W*-6C		6	112.3			11.9			60
VSP-C8-20W*-4C	8	4	72.5	12.5	50.5	11.2	20	1.5 to 4.9	43
VSP-C8-20W*-6C		6	73.8			11.9			44
VSP-C8-30W*-4C		4	85.5		63.5	11.2	30	1.1 to 4.8	48
VSP-C8-30W*-6C		6	86.8			11.9			49
VSP-C8-40W*-4C		4	98.5		76.5	11.2	40	1.0 to 4.5	54
VSP-C8-40W*-6C		6	99.8			11.9			55
VSP-C8-50W*-4C		4	111.5		89.5	11.2	50	0.9 to 4.5	59
VSP-C8-50W*-6C		6	112.8			11.9			60

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting, without spring cover)

●VSP-C10-□W*-4C/6C



●VSP-C20 to 50-□W*-4C/6C

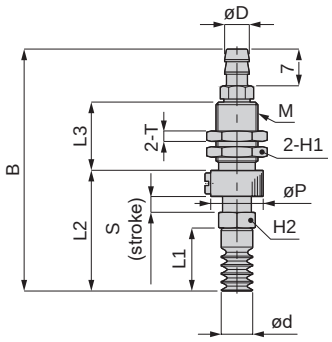


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C10-20W*-4C	10	4	73	14.5	51	11.2	20	1.5 to 4.9	43
VSP-C10-20W*-6C		6	74.3			11.9			44
VSP-C10-30W*-4C		4	86		64	11.2	30	1.1 to 4.8	49
VSP-C10-30W*-6C		6	87.3			11.9			50
VSP-C10-40W*-4C		4	99		77	11.2	40	1.0 to 4.5	54
VSP-C10-40W*-6C		6	100.3			11.9			55
VSP-C10-50W*-4C		4	112		90	11.2	50	0.9 to 4.5	59
VSP-C10-50W*-6C		6	113.3			11.9			60
VSP-C20-20W*-4C	20	4	85	25	63	11.2	20	1.5 to 4.9	49
VSP-C20-20W*-6C		6	86.3			11.9			50
VSP-C20-30W*-4C		4	98		76	11.2	30	1.1 to 4.8	54
VSP-C20-30W*-6C		6	99.3			11.9			55
VSP-C20-40W*-4C		4	111		89	11.2	40	1.0 to 4.5	59
VSP-C20-40W*-6C		6	112.3			11.9			60
VSP-C20-50W*-4C		4	124		102	11.2	50	0.9 to 4.5	64
VSP-C20-50W*-6C		6	125.3			11.9			65
VSP-C30-20W*-4C	30	4	98.5	38.5	76.5	11.2	20	1.5 to 4.9	52
VSP-C30-20W*-6C		6	99.8			11.9			53
VSP-C30-30W*-4C		4	111.5		89.5	11.2	30	1.1 to 4.8	57
VSP-C30-30W*-6C		6	112.8			11.9			58
VSP-C30-40W*-4C		4	124.5		102.5	11.2	40	1.0 to 4.5	63
VSP-C30-40W*-6C		6	125.8			11.9			64
VSP-C30-50W*-4C		4	137.5		115.5	11.2	50	0.9 to 4.5	68
VSP-C30-50W*-6C		6	138.8			11.9			69
VSP-C40-20W*-4C	40	4	105	45	73	11.2	20	1.5 to 4.9	61
VSP-C40-20W*-6C		6	106.3			11.9			62
VSP-C40-30W*-4C		4	118		86	11.2	30	1.1 to 4.8	66
VSP-C40-30W*-6C		6	119.3			11.9			67
VSP-C40-40W*-4C		4	131		99	11.2	40	1.0 to 4.5	71
VSP-C40-40W*-6C		6	132.3			11.9			72
VSP-C40-50W*-4C		4	144		112	11.2	50	0.9 to 4.5	77
VSP-C40-50W*-6C		6	145.3			11.9			78
VSP-C50-20W*-4C	50	4	116	56	84	11.2	20	1.5 to 4.9	67
VSP-C50-20W*-6C		6	117.3			11.9			68
VSP-C50-30W*-4C		4	129		97	11.2	30	1.1 to 4.8	72
VSP-C50-30W*-6C		6	130.3			11.9			73
VSP-C50-40W*-4C		4	142		110	11.2	40	1.0 to 4.5	77
VSP-C50-40W*-6C		6	143.3			11.9			78
VSP-C50-50W*-4C		4	155		123	11.2	50	0.9 to 4.5	82
VSP-C50-50W*-6C		6	156.3			11.9			83

Dimensions (buffer, vacuum outlet, top, VSP-C, barbed fitting)

●VSP-C6, 8W*-4T/6T
●VSP-C6, 8-□W*-4T/6T



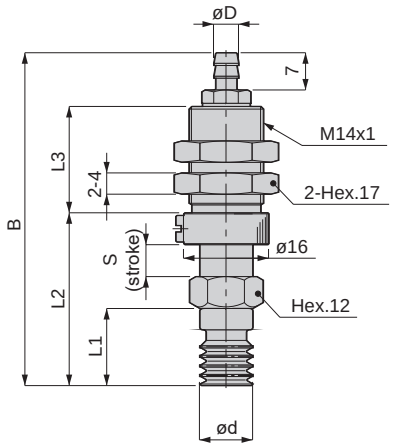
Unit: mm

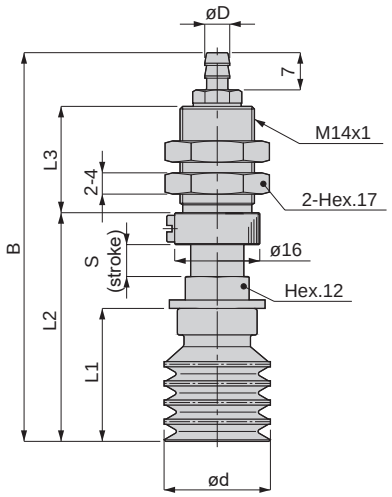
Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	øP	Hexagon H1	Hexagon H2	T	Stroke S	Spring force (N)	Weight (g)
VSP-C6W*-4T	6	2.5	M8x0.75	45.6	12	23	13	10	10	7	2	3	0.9 to 1.9	10
VSP-C6W*-6T		4												
VSP-C6-10W*-4T		2.5	M12x1	59.1		31.5	17.5	13	14	8	4	10	0.8 to 2.7	19
VSP-C6-10W*-6T		4												
VSP-C6-15W*-4T		2.5		70.1		36.5	23.5					15	0.7 to 3.0	23
VSP-C6-15W*-6T		4												
VSP-C6-20W*-4T		2.5		80.1		41.5	28.5					20	0.9 to 3.4	25
VSP-C6-20W*-6T		4												
VSP-C8W*-4T	8	2.5	M8x0.75	46.1	12.5	23	13	10	10	7	2	3	0.9 to 1.9	10
VSP-C8W*-6T		4												
VSP-C8-10W*-4T		2.5	M12x1	59.6		31.5	17.5	13	14	8	4	10	0.8 to 2.7	19
VSP-C8-10W*-6T		4												
VSP-C8-15W*-4T		2.5		70.6		36.5	23.5					15	0.7 to 3.0	23
VSP-C8-15W*-6T		4												
VSP-C8-20W*-4T		2.5		80.6		41.5	28.5					20	0.9 to 3.4	25
VSP-C8-20W*-6T		4												

Dimensions (buffer, vacuum outlet, top, VSP-C, barbed fitting)

●VSP-C10W*-4T/6T
●VSP-C10-□W*-4T/6T

●VSP-C20 to 50W*-4T/6T
●VSP-C20 to 50-□W*-4T/6T



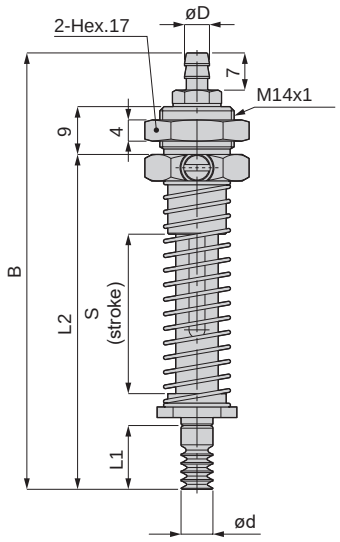


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-C10W*-4T	10	2.5	62.6	14.5	32.5	20	6	4.0 to 7.1	34
VSP-C10W*-6T		4							
VSP-C10-10W*-4T		2.5	67.1		37		10	2.0 to 5.2	35
VSP-C10-10W*-6T		4							
VSP-C10-15W*-4T		2.5	77.1		42	25	15	2.0 to 5.9	40
VSP-C10-15W*-6T		4							
VSP-C10-20W*-4T		2.5	93.1		49	34	20	1.1 to 4.8	48
VSP-C10-20W*-6T		4							
VSP-C20W*-4T	20	2.5	73.1	25	43	20	6	7.0 to 12.6	38
VSP-C20W*-6T		4							
VSP-C20-10W*-4T		2.5	79.1		49		10	3.3 to 10.0	40
VSP-C20-10W*-6T		4							
VSP-C20-15W*-4T		2.5	89.1		54	25	15	3.3 to 10.4	45
VSP-C20-15W*-6T		4							
VSP-C20-20W*-4T		2.5	105.1		61	34	20	2.0 to 8.7	52
VSP-C20-20W*-6T		4							
VSP-C30W*-4T	30	2.5	86.6	38.5	56.5	20	6	7.0 to 12.6	41
VSP-C30W*-6T		4							
VSP-C30-10W*-4T		2.5	92.6		62.5		10	3.3 to 10.0	44
VSP-C30-10W*-6T		4							
VSP-C30-15W*-4T		2.5	102.6		67.5	25	15	3.3 to 10.4	49
VSP-C30-15W*-6T		4							
VSP-C30-20W*-4T		2.5	118.6		74.5	34	20	2.0 to 8.7	55
VSP-C30-20W*-6T		4							
VSP-C40W*-4T	40	2.5	93.1	45	63	20	6	7.0 to 12.6	50
VSP-C40W*-6T		4							
VSP-C40-10W*-4T		2.5	99.1		69		10	3.3 to 10.0	52
VSP-C40-10W*-6T		4							
VSP-C40-15W*-4T		2.5	109.1		74	25	15	3.3 to 10.4	57
VSP-C40-15W*-6T		4							
VSP-C40-20W*-4T		2.5	125.1		81	34	20	2.0 to 8.7	64
VSP-C40-20W*-6T		4							
VSP-C50W*-4T	50	2.5	104.1	56	74	20	6	7.0 to 12.6	56
VSP-C50W*-6T		4							
VSP-C50-10W*-4T		2.5	110.1		80		10	3.3 to 10.0	58
VSP-C50-10W*-6T		4							
VSP-C50-15W*-4T		2.5	120.1		85	25	15	3.3 to 10.4	63
VSP-C50-15W*-6T		4							
VSP-C50-20W*-4T		2.5	136.1		92	34	20	2.0 to 8.7	70
VSP-C50-20W*-6T		4							

Dimensions (buffer, vacuum outlet, top, VSP-C, barbed fitting, without spring cover)

●VSP-C6, 8-□W*-4TC/6TC

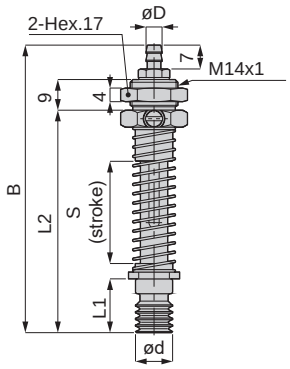


Unit: mm

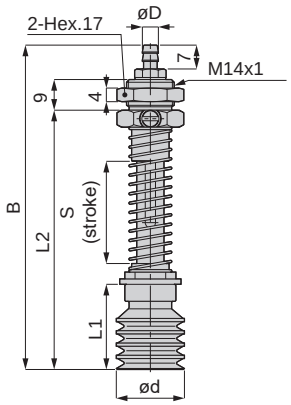
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-C6-20W*-4TC	6	2.5	69.1	12	50	20	1.5 to 4.9	42
VSP-C6-20W*-6TC		4						
VSP-C6-30W*-4TC		2.5	82.1		63	30	1.1 to 4.8	47
VSP-C6-30W*-6TC		4						
VSP-C6-40W*-4TC		2.5	95.1		76	40	1.0 to 4.5	52
VSP-C6-40W*-6TC		4						
VSP-C6-50W*-4TC		2.5	108.1		89	50	0.9 to 4.5	58
VSP-C6-50W*-6TC		4						
VSP-C8-20W*-4TC	8	2.5	69.6	12.5	50.5	20	1.5 to 4.9	42
VSP-C8-20W*-6TC		4						
VSP-C8-30W*-4TC		2.5	82.6		63.5	30	1.1 to 4.8	47
VSP-C8-30W*-6TC		4						
VSP-C8-40W*-4TC		2.5	95.6		76.5	40	1.0 to 4.5	52
VSP-C8-40W*-6TC		4						
VSP-C8-50W*-4TC		2.5	108.6		89.5	50	0.9 to 4.5	58
VSP-C8-50W*-6TC		4						

Dimensions (buffer, vacuum outlet, top, VSP-C, barbed fitting, without spring cover)

●VSP-C10-□W*-4TC/6TC



●VSP-C20 to 50-□W*-4TC/6TC

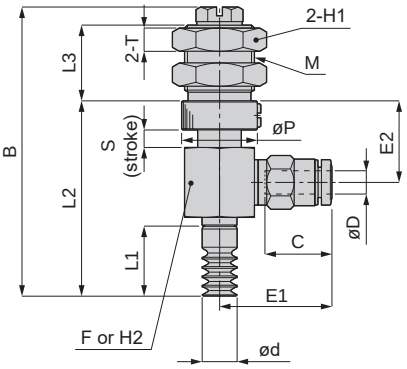


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-C10-20W*-4TC	10	2.5	70.1	14.5	51	20	1.5 to 4.9	43
VSP-C10-20W*-6TC		4						
VSP-C10-30W*-4TC		2.5	83.1		64	30	1.1 to 4.8	48
VSP-C10-30W*-6TC		4						
VSP-C10-40W*-4TC		2.5	96.1		77	40	1.0 to 4.5	53
VSP-C10-40W*-6TC		4						
VSP-C10-50W*-4TC		2.5	109.1		90	50	0.9 to 4.5	59
VSP-C10-50W*-6TC		4						
VSP-C20-20W*-4TC	20	2.5	82.1	25	63	20	1.5 to 4.9	48
VSP-C20-20W*-6TC		4						
VSP-C20-30W*-4TC		2.5	95.1		76	30	1.1 to 4.8	53
VSP-C20-30W*-6TC		4						
VSP-C20-40W*-4TC		2.5	108.1		89	40	1.0 to 4.5	58
VSP-C20-40W*-6TC		4						
VSP-C20-50W*-4TC		2.5	121.1		102	50	0.9 to 4.5	63
VSP-C20-50W*-6TC		4						
VSP-C30-20W*-4TC	30	2.5	95.6	38.5	76.5	20	1.5 to 4.9	50
VSP-C30-20W*-6TC		4						
VSP-C30-30W*-4TC		2.5	108.6		89.5	30	1.1 to 4.8	55
VSP-C30-30W*-6TC		4						
VSP-C30-40W*-4TC		2.5	121.6		102.5	40	1.0 to 4.5	60
VSP-C30-40W*-6TC		4						
VSP-C30-50W*-4TC		2.5	134.6		115.5	50	0.9 to 4.5	65
VSP-C30-50W*-6TC		4						
VSP-C40-20W*-4TC	40	2.5	102.1	45	73	20	1.5 to 4.9	60
VSP-C40-20W*-6TC		4						
VSP-C40-30W*-4TC		2.5	115.1		86	30	1.1 to 4.8	65
VSP-C40-30W*-6TC		4						
VSP-C40-40W*-4TC		2.5	128.1		99	40	1.0 to 4.5	70
VSP-C40-40W*-6TC		4						
VSP-C40-50W*-4TC		2.5	141.1		112	50	0.9 to 4.5	75
VSP-C40-50W*-6TC		4						
VSP-C50-20W*-4TC	50	2.5	113.1	56	84	20	1.5 to 4.9	68
VSP-C50-20W*-6TC		4						
VSP-C50-30W*-4TC		2.5	126.1		97	30	1.1 to 4.8	71
VSP-C50-30W*-6TC		4						
VSP-C50-40W*-4TC		2.5	139.1		110	40	1.0 to 4.5	76
VSP-C50-40W*-6TC		4						
VSP-C50-50W*-4TC		2.5	152.1		123	50	0.9 to 4.5	81
VSP-C50-50W*-6TC		4						

Dimensions (buffer, vacuum outlet side VSP-D, push-in fitting)

●VSP-D6, 8W*-2/4/6
●VSP-D6, 8-□W*-2/4/6



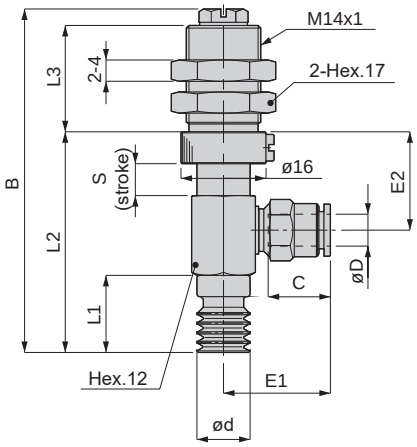
Unit: mm

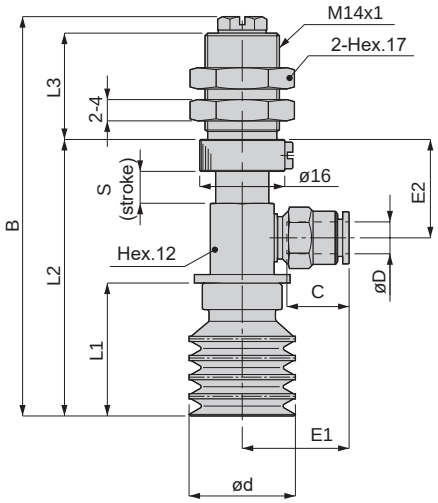
Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	øP	Tube end C	E1	E2	Hexagon H1	Hexagon H2	□F	T	Stroke S	Spring force (N)	Weight (g)
VSP-D6W*-2	6	1.8	M8x0.75	46	12	30	13	10	8.4	12.7	13	10	—	8	2	3	0.9 to 1.9	15
VSP-D6W*-4		4							11.2	16.8								16
VSP-D6W*-6		6							11.9	18.6								17
VSP-D6-10W*-2		1.8	M12x1	61.1		40.5	17.5	13	8.4	14.7	21	14	12	—	4	10	0.6 to 1.7	33
VSP-D6-10W*-4		4							11.2	18.8								34
VSP-D6-10W*-6		6							11.9	20.1								35
VSP-D6-15W*-2		1.8		72.1		45.5	23.5		8.4	14.7	26					15	0.4 to 1.7	37
VSP-D6-15W*-4		4							11.2	18.8								38
VSP-D6-15W*-6		6							11.9	20.1								39
VSP-D6-20W*-2		1.8		82.1		50.5	28.5		8.4	14.7	31					20	0.3 to 1.8	40
VSP-D6-20W*-4		4							11.2	18.8								41
VSP-D6-20W*-6		6							11.9	20.1								42
VSP-D8W*-2	8	1.8	M8x0.75	46.5	12.5	30.5	13	10	8.4	12.7	13	10	—	8	2	3	0.9 to 1.9	15
VSP-D8W*-4		4							11.2	16.8								16
VSP-D8W*-6		6							11.9	18.6								17
VSP-D8-10W*-2		1.8	M12x1	61.6		41	17.5	13	8.4	14.7	21	14	12	—	4	10	0.6 to 1.7	33
VSP-D8-10W*-4		4							11.2	18.8								34
VSP-D8-10W*-6		6							11.9	20.1								35
VSP-D8-15W*-2		1.8		72.6		46	23.5		8.4	14.7	26					15	0.4 to 1.7	37
VSP-D8-15W*-4		4							11.2	18.8								38
VSP-D8-15W*-6		6							11.9	20.1								39
VSP-D8-20W*-2		1.8		82.6		51	28.5		8.4	14.7	31					20	0.3 to 1.8	40
VSP-D8-20W*-4		4							11.2	18.8								41
VSP-D8-20W*-6		6							11.9	20.1								42

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting)

●VSP-D10W*-4/6
●VSP-D10-□W*-4/-6

●VSP-D20 to 50W*-4/6
●VSP-D20 to 50-□WB*-4/-6



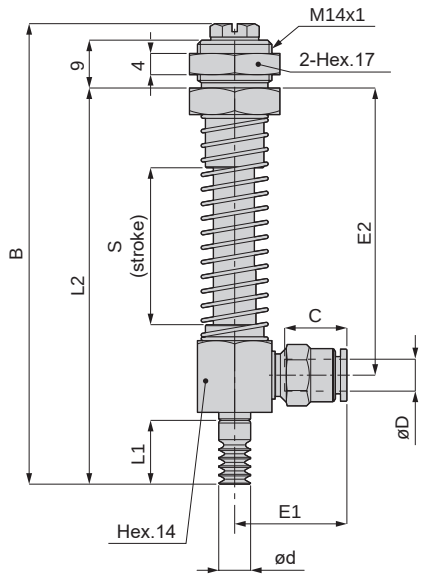


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D10W*-4	10	4	64.6	14.5	41.5	20	11.2	18.8	18.5	6	4.0 to 7.1	47
VSP-D10W*-6		6					11.9	20.1				48
VSP-D10-10W*-4		4	69.6		46.5		11.2	18.8	25	10	2.0 to 5.2	50
VSP-D10-10W*-6		6					11.9	20.1				51
VSP-D10-15W*-4		4	79.6		51.5	25	11.2	18.8	30	15	2.0 to 5.9	56
VSP-D10-15W*-6		6					11.9	20.1				57
VSP-D10-20W*-4		4	95.6		58.5	34	11.2	18.8	37	20	1.1 to 4.8	66
VSP-D10-20W*-6		6					11.9	20.1				67
VSP-D20W*-4	20	4	75.1	25	52	20	11.2	18.8	18.5	6	7.0 to 12.6	51
VSP-D20W*-6		6					11.9	20.1				52
VSP-D20-10W*-4		4	81.1		58		11.2	18.8	24.5	10	3.3 to 10.0	54
VSP-D20-10W*-6		6					11.9	20.1				55
VSP-D20-15W*-4		4	91.1		63	25	11.2	18.8	29.5	15	3.3 to 10.4	61
VSP-D20-15W*-6		6					11.9	20.1				62
VSP-D20-20W*-4		4	107.1		70	34	11.2	18.8	36.5	20	2.0 to 8.7	71
VSP-D20-20W*-6		6					11.9	20.1				72
VSP-D30W*-4	30	4	88.6	38.5	65.5	20	11.2	18.8	18.5	6	7.0 to 12.6	57
VSP-D30W*-6		6					11.9	20.1				58
VSP-D30-10W*-4		4	94.6		71.5		11.2	18.8	24.5	10	3.3 to 10.0	61
VSP-D30-10W*-6		6					11.9	20.1				62
VSP-D30-15W*-4		4	104.6		76.5	25	11.2	18.8	29.5	15	3.3 to 10.4	67
VSP-D30-15W*-6		6					11.9	20.1				68
VSP-D30-20W*-4		4	120.6		83.5	34	11.2	18.8	36.5	20	2.0 to 8.7	77
VSP-D30-20W*-6		6					11.9	20.1				78
VSP-D40W*-4	40	4	95.1	45	72	20	11.2	18.8	18.5	6	7.0 to 12.6	67
VSP-D40W*-6		6					11.9	20.1				68
VSP-D40-10W*-4		4	101.1		78		11.2	18.8	24.5	10	3.3 to 10.0	62
VSP-D40-10W*-6		6					11.9	20.1				63
VSP-D40-15W*-4		4	111.1		83	25	11.2	18.8	29.5	15	3.3 to 10.4	68
VSP-D40-15W*-6		6					11.9	20.1				69
VSP-D40-20W*-4		4	127.1		90	34	11.2	18.8	36.5	20	2.0 to 8.7	78
VSP-D40-20W*-6		6					11.9	20.1				79
VSP-D50W*-4	50	4	106.1	56	83	20	11.2	18.8	18.5	6	7.0 to 12.6	78
VSP-D50W*-6		6					11.9	20.1				79
VSP-D50-10W*-4		4	112.1		89		11.2	18.8	24.5	10	3.3 to 10.0	81
VSP-D50-10W*-6		6					11.9	20.1				82
VSP-D50-15W*-4		4	122.1		94	25	11.2	18.8	29.5	15	3.3 to 10.4	88
VSP-D50-15W*-6		6					11.9	20.1				89
VSP-D50-20W*-4		4	138.1		101	34	11.2	18.8	36.5	20	2.0 to 8.7	97
VSP-D50-20W*-6		6					11.9	20.1				98

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting, without spring cover)

●VSP-D6, 8-□W*-4C/6C

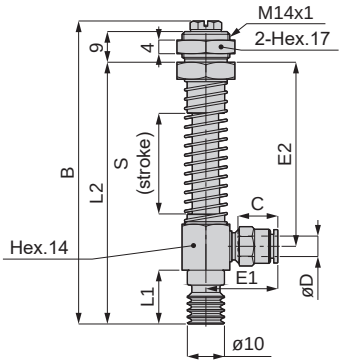


Unit: mm

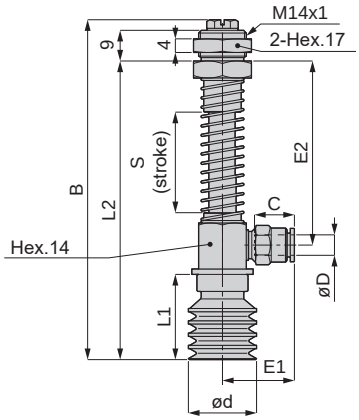
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D6-20W*-4C	6	4	72.1	12	60	11.2	19.8	40.5	20	1.5 to 4.9	62
VSP-D6-20W*-6C		6				11.9	21.1				63
VSP-D6-30W*-4C		4	85.1		73	11.2	19.8	53.5	30	1.1 to 4.8	68
VSP-D6-30W*-6C		6				11.9	21.1				69
VSP-D6-40W*-4C		4	98.1		86	11.2	19.8	66.5	40	1.0 to 4.5	75
VSP-D6-40W*-6C		6				11.9	21.1				76
VSP-D6-50W*-4C		4	111.1		99	11.2	19.8	79.5	50	0.9 to 4.5	82
VSP-D6-50W*-6C		6				11.9	21.1				83
VSP-D8-20W*-4C	8	4	72.6	12.5	60.5	11.2	19.8	40.5	20	1.5 to 4.9	62
VSP-D8-20W*-6C		6				11.9	21.1				63
VSP-D8-30W*-4C		4	85.6		73.5	11.2	19.8	53.5	30	1.1 to 4.8	68
VSP-D8-30W*-6C		6				11.9	21.1				69
VSP-D8-40W*-4C		4	98.6		86.5	11.2	19.8	66.5	40	1.0 to 4.5	75
VSP-D8-40W*-6C		6				11.9	21.1				76
VSP-D8-50W*-4C		4	111.6		99.5	11.2	19.8	79.5	50	0.9 to 4.5	82
VSP-D8-50W*-6C		6				11.9	21.1				83

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting, without spring cover)

●VSP-D10-□W*-4C/6C



●VSP-D20 to 50-□W*-4C/6C

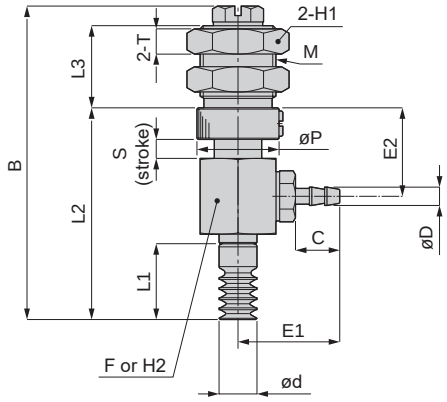


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D10-20W*-4C	10	4	74.6	14.5	62.5	11.2	19.8	40.5	20	1.5 to 4.9	69
VSP-D10-20W*-6C		6				11.9	21.1				70
VSP-D10-30W*-4C		4	87.6		75.5	11.2	19.8	53.5	30	1.1 to 4.8	75
VSP-D10-30W*-6C		6				11.9	21.1				76
VSP-D10-40W*-4C		4	100.6		88.5	11.2	19.8	66.5	40	1.0 to 4.5	82
VSP-D10-40W*-6C		6				11.9	21.1				83
VSP-D10-50W*-4C		4	113.6		101.5	11.2	19.8	79.5	50	0.9 to 4.5	89
VSP-D10-50W*-6C		6				11.9	21.1				90
VSP-D20-20W*-4C	20	4	86.6	25	74.5	11.2	19.8	41	20	1.5 to 4.9	70
VSP-D20-20W*-6C		6				11.9	21.1				71
VSP-D20-30W*-4C		4	99.6		87.5	11.2	19.8	54	30	1.1 to 4.8	77
VSP-D20-30W*-6C		6				11.9	21.1				78
VSP-D20-40W*-4C		4	112.6		100.5	11.2	19.8	67	40	1.0 to 4.5	82
VSP-D20-40W*-6C		6				11.9	21.1				83
VSP-D20-50W*-4C		4	125.6		113.5	11.2	19.8	80	50	0.9 to 4.5	90
VSP-D20-50W*-6C		6				11.9	21.1				91
VSP-D30-20W*-4C	30	4	100.1	38.5	88	11.2	19.8	41	20	1.5 to 4.9	75
VSP-D30-20W*-6C		6				11.9	21.1				76
VSP-D30-30W*-4C		4	113.1		101	11.2	19.8	54	30	1.1 to 4.8	82
VSP-D30-30W*-6C		6				11.9	21.1				83
VSP-D30-40W*-4C		4	126.1		114	11.2	19.8	67	40	1.0 to 4.5	87
VSP-D30-40W*-6C		6				11.9	21.1				88
VSP-D30-50W*-4C		4	139.1		127	11.2	19.8	80	50	0.9 to 4.5	95
VSP-D30-50W*-6C		6				11.9	21.1				96
VSP-D40-20W*-4C	40	4	106.6	45	94.5	11.2	19.8	41	20	1.5 to 4.9	86
VSP-D40-20W*-6C		6				11.9	21.1				87
VSP-D40-30W*-4C		4	119.6		107.5	11.2	19.8	54	30	1.1 to 4.8	93
VSP-D40-30W*-6C		6				11.9	21.1				94
VSP-D40-40W*-4C		4	132.6		120.5	11.2	19.8	67	40	1.0 to 4.5	100
VSP-D40-40W*-6C		6				11.9	21.1				101
VSP-D40-50W*-4C		4	145.6		133.5	11.2	19.8	80	50	0.9 to 4.5	107
VSP-D40-50W*-6C		6				11.9	21.1				108
VSP-D50-20W*-4C	50	4	117.6	56	105.5	11.2	19.8	41	20	1.5 to 4.9	92
VSP-D50-20W*-6C		6				11.9	21.1				93
VSP-D50-30W*-4C		4	130.6		118.5	11.2	19.8	54	30	1.1 to 4.8	100
VSP-D50-30W*-6C		6				11.9	21.1				101
VSP-D50-40W*-4C		4	143.6		131.5	11.2	19.8	67	40	1.0 to 4.5	107
VSP-D50-40W*-6C		6				11.9	21.1				108
VSP-D50-50W*-4C		4	156.6		144.5	11.2	19.8	80	50	0.9 to 4.5	114
VSP-D50-50W*-6C		6				11.9	21.1				115

Dimensions (buffer, vacuum outlet, side, VSP-D, barbed fitting)

●VSP-D6, 8W*-4T/6T
●VSP-D6, 8-□W-4T/6T



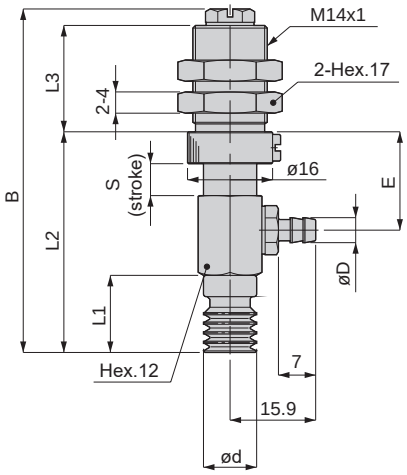
Unit: mm

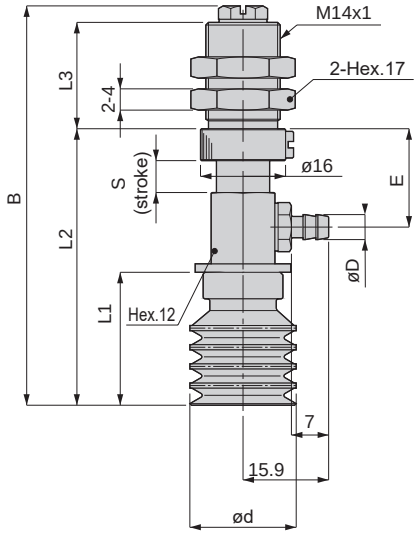
Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	øP	E1	E2	Hexagon H1	Hexagon H2	□F	T	Stroke S	Spring force (N)	Weight (g)
VSP-D6W*-4T	6	2.5	M8x0.75	46	12	30	13	10	13.9	13	10	—	8	2	3	0.9 to 1.9	13
VSP-D6W*-6T		4															
VSP-D6-10W*-4T		2.5	M12x1	61.1		40.5	17.5	13	15.9	21	14	12	—	4	10	0.6 to 1.7	32
VSP-D6-10W*-6T		4															
VSP-D6-15W*-4T		2.5		72.1		45.5	23.5			26					15	0.4 to 1.7	36
VSP-D6-15W*-6T		4															
VSP-D6-20W*-4T		2.5		82.1		50.5	28.5			31					20	0.3 to 1.8	39
VSP-D6-20W*-6T		4															
VSP-D8W*-4T	8	2.5	M8x0.75	46.5	12.5	30.5	13	10	13.9	13	10	—	8	2	3	0.9 to 1.9	13
VSP-D8W*-6T		4															
VSP-D8-10W*-4T		2.5	M12x1	61.6		41	17.5	13	15.9	21	14	12	—	4	10	0.6 to 1.7	32
VSP-D8-10W*-6T		4															
VSP-D8-15W*-4T		2.5		72.6		46	23.5			26					15	0.4 to 1.7	36
VSP-D8-15W*-6T		4															
VSP-D8-20W*-4T		2.5		82.6		51	28.5			31					20	0.3 to 1.8	39
VSP-D8-20W*-6T		4															

Dimensions (buffer, vacuum outlet, side, VSP-D, barbed fitting)

●VSP-D10W*-4T/6T
●VSP-D10-□W*-4T/6T

●VSP-D20 to 50W*-4T/6T
●VSP-D20 to 50-□W*-4T/6T



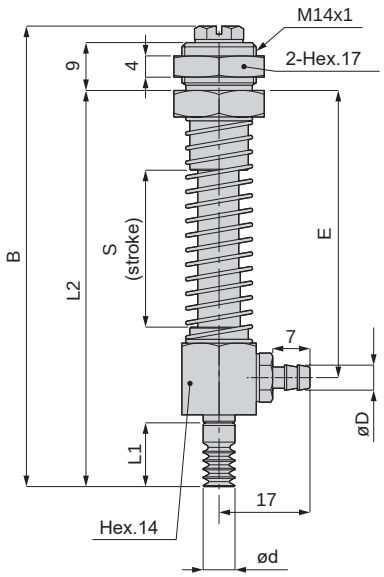


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	E	Stroke S	Spring force (N)	Weight (g)
VSP-D10W*-4T	10	2.5	64.6	14.5	41.5	20	18.5	6	4.0 to 7.1	48
VSP-D10W*-6T		4								
VSP-D10-10W*-4T		2.5	69.6		46.5		25	10	2.0 to 5.2	49
VSP-D10-10W*-6T		4								
VSP-D10-15W*-4T		2.5	79.6		51.5	25	30	15	2.0 to 5.9	55
VSP-D10-15W*-6T		4								
VSP-D10-20W*-4T		2.5	95.6		58.5	34	37	20	1.1 to 4.8	65
VSP-D10-20W*-6T		4								
VSP-D20W*-4T	20	2.5	75.1	25	52	20	18.5	6	7.0 to 12.6	52
VSP-D20W*-6T		4								
VSP-D20-10W*-4T		2.5	81.1		58		24.5	10	3.3 to 10.0	53
VSP-D20-10W*-6T		4								
VSP-D20-15W*-4T		2.5	91.1		63	25	29.5	15	3.3 to 10.4	60
VSP-D20-15W*-6T		4								
VSP-D20-20W*-4T		2.5	107.1		70	34	36.5	20	2.0 to 8.7	70
VSP-D20-20W*-6T		4								
VSP-D30W*-4T	30	2.5	88.6	38.5	65.5	20	18.5	6	7.0 to 12.6	58
VSP-D30W*-6T		4								
VSP-D30-10W*-4T		2.5	94.6		71.5		24.5	10	3.3 to 10.0	59
VSP-D30-10W*-6T		4								
VSP-D30-15W*-4T		2.5	104.6		76.5	25	29.5	15	3.3 to 10.4	63
VSP-D30-15W*-6T		4								
VSP-D30-20W*-4T		2.5	120.6		83.5	34	36.5	20	2.0 to 8.7	74
VSP-D30-20W*-6T		4								
VSP-D40W*-4T	40	2.5	95.1	45	72	20	18.5	6	7.0 to 12.6	68
VSP-D40W*-6T		4								
VSP-D40-10W*-4T		2.5	101.1		78		24.5	10	3.3 to 10.0	69
VSP-D40-10W*-6T		4								
VSP-D40-15W*-4T		2.5	111.1		83	25	29.5	15	3.3 to 10.4	74
VSP-D40-15W*-6T		4								
VSP-D40-20W*-4T		2.5	127.1		90	34	36.5	20	2.0 to 8.7	84
VSP-D40-20W*-6T		4								
VSP-D50W*-4T	50	2.5	106.1	56	83	20	18.5	6	7.0 to 12.6	79
VSP-D50W*-6T		4								
VSP-D50-10W*-4T		2.5	112.1		89		24.5	10	3.3 to 10.0	80
VSP-D50-10W*-6T		4								
VSP-D50-15W*-4T		2.5	122.1		94	25	29.5	15	3.3 to 10.4	84
VSP-D50-15W*-6T		4								
VSP-D50-20W*-4T		2.5	138.1		101	34	36.5	20	2.0 to 8.7	94
VSP-D50-20W*-6T		4								

Dimensions (buffer, vacuum outlet, side, VSP-D, barbed fitting, without spring cover)

●VSP-D6, 8-□W*-4TC/6TC

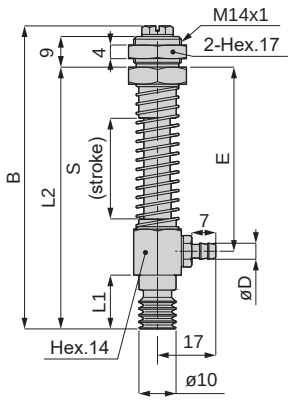


Unit: mm

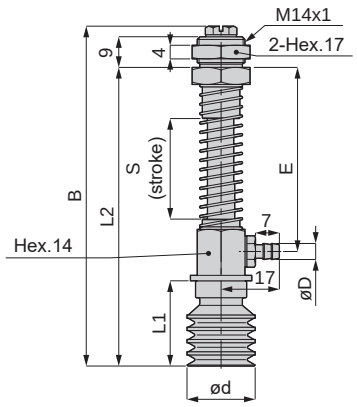
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-D6-20W*-4TC	6	2.5	72.1	12	60	40.5	20	1.5 to 4.9	60
VSP-D6-20W*-6TC		4							
VSP-D6-30W*-4TC		2.5	85.1		73	53.5	30	1.1 to 4.8	67
VSP-D6-30W*-6TC		4							
VSP-D6-40W*-4TC		2.5	98.1		86	66.5	40	1.0 to 4.5	74
VSP-D6-40W*-6TC		4							
VSP-D6-50W*-4TC		2.5	111.1		99	79.5	50	0.9 to 4.5	80
VSP-D6-50W*-6TC		4							
VSP-D8-20W*-4TC	8	2.5	72.6	12.5	60.5	40.5	20	1.5 to 4.9	60
VSP-D8-20W*-6TC		4							
VSP-D8-30W*-4TC		2.5	85.6		73.5	53.5	30	1.1 to 4.8	67
VSP-D8-30W*-6TC		4							
VSP-D8-40W*-4TC		2.5	98.6		86.5	66.5	40	1.0 to 4.5	74
VSP-D8-40W*-6TC		4							
VSP-D8-50W*-4TC		2.5	111.6		99.5	79.5	50	0.9 to 4.5	80
VSP-D8-50W*-6TC		4							

Dimensions (buffer, vacuum outlet, side, VSP-D, barbed fitting, without spring cover)

●VSP-D10-□W*-4TC/6TC



●VSP-D20 to 50-□W*-4TC/6TC

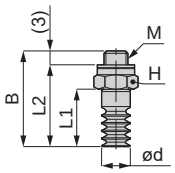


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-D10-20W*-4TC	10	2.5	74.6	14.5	62.5	40.5	20	1.5 to 4.9	67
VSP-D10-20W*-6TC		4							
VSP-D10-30W*-4TC		2.5	87.6		75.5	53.5	30	1.1 to 4.8	74
VSP-D10-30W*-6TC		4							
VSP-D10-40W*-4TC		2.5	100.6		88.5	66.5	40	1.0 to 4.5	81
VSP-D10-40W*-6TC		4							
VSP-D10-50W*-4TC		2.5	113.6		101.5	79.5	50	0.9 to 4.5	87
VSP-D10-50W*-6TC		4							
VSP-D20-20W*-4TC	20	4	86.6	25	74.5	41	20	1.5 to 4.9	68
VSP-D20-20W*-6TC		6							
VSP-D20-30W*-4TC		4	99.6		87.5	54	30	1.1 to 4.8	75
VSP-D20-30W*-6TC		6							
VSP-D20-40W*-4TC		4	112.6		100.5	67	40	1.0 to 4.5	81
VSP-D20-40W*-6TC		6							
VSP-D20-50W*-4TC		4	125.6		113.5	80	50	0.9 to 4.5	88
VSP-D20-50W*-6TC		6							
VSP-D30-20W*-4TC	30	4	100.1	38.5	88	41	20	1.5 to 4.9	70
VSP-D30-20W*-6TC		6							
VSP-D30-30W*-4TC		4	113.1		101	54	30	1.1 to 4.8	77
VSP-D30-30W*-6TC		6							
VSP-D30-40W*-4TC		4	126.1		114	67	40	1.0 to 4.5	83
VSP-D30-40W*-6TC		6							
VSP-D30-50W*-4TC		4	139.1		127	80	50	0.9 to 4.5	90
VSP-D30-50W*-6TC		6							
VSP-D40-20W*-4TC	40	4	106.6	45	94.5	41	20	1.5 to 4.9	80
VSP-D40-20W*-6TC		6							
VSP-D40-30W*-4TC		4	119.6		107.5	54	30	1.1 to 4.8	87
VSP-D40-30W*-6TC		6							
VSP-D40-40W*-4TC		4	132.6		120.5	67	40	1.0 to 4.5	94
VSP-D40-40W*-6TC		6							
VSP-D40-50W*-4TC		4	145.6		133.5	80	50	0.9 to 4.5	100
VSP-D40-50W*-6TC		6							
VSP-D50-20W*-4TC	50	4	117.6	56	105.5	41	20	1.5 to 4.9	86
VSP-D50-20W*-6TC		6							
VSP-D50-30W*-4TC		4	130.6		118.5	54	30	1.1 to 4.8	93
VSP-D50-30W*-6TC		6							
VSP-D50-40W*-4TC		4	143.6		131.5	67	40	1.0 to 4.5	99
VSP-D50-40W*-6TC		6							
VSP-D50-50W*-4TC		4	156.6		144.5	80	50	0.9 to 4.5	106
VSP-D50-50W*-6TC		6							

Dimensions (fixed, direct mounting, VSP-E, male thread)

●VSP-E6, 8W*

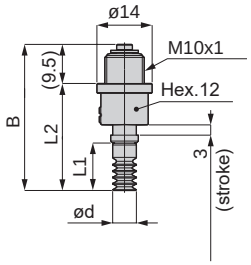


Unit: mm

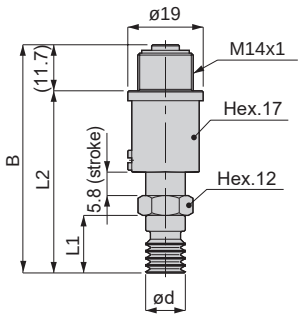
Model No.	Pad diameter ød	M	B	L1	L2	Hexagon H	Weight (g)
VSP-E6W*	6	M5x0.8	20	12	17	8	3
VSP-E8W*	8	M5x0.8	20.5	12.5	17.5	8	3

Dimensions (buffer, direct mounting, VSP-F, male thread)

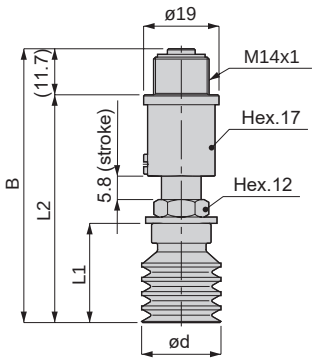
●VSP-F6, 8W*



●VSP-F10W*



●VSP-F20 to 50W*

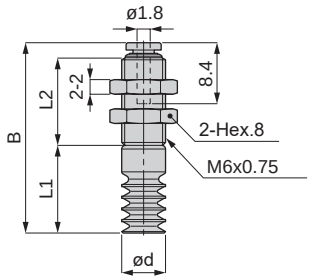


Unit: mm

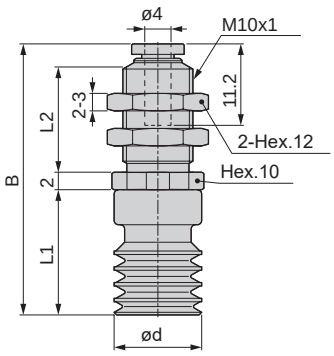
Model No.	Pad diameter ød	B	L1	L2	Spring force (N)	Weight (g)
VSP-F6W*	6	37	12	27.5	2.3 to 3.9	16
VSP-F8W*	8	37.5	12.5	28	2.3 to 3.9	16
VSP-F10W*	10	57.5	14.5	45.8	7.9 to 15	57
VSP-F20W*	20	69	25	57.3	7.9 to 15	60
VSP-F30W*	30	82.5	38.5	70.8	7.9 to 15	66
VSP-F40W*	40	89	45	77.3	7.9 to 15	76
VSP-F50W*	50	100	56	88.3	7.9 to 15	87

Dimensions (compact, fixed, vacuum outlet, top, VSP-MA, push-in fitting)

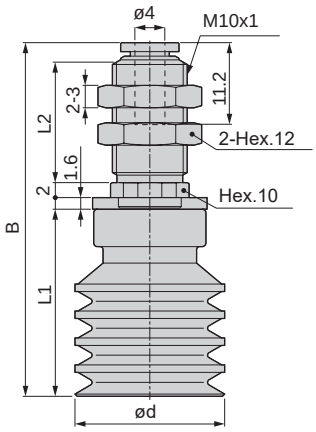
●VSP-MA6, 8W*-2



●VSP-MA10W*-4



●VSP-MA20 to 50W*-4

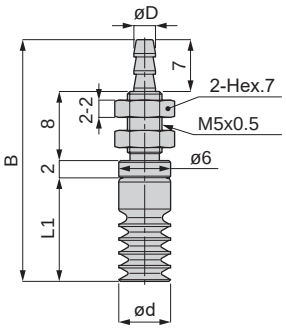


Unit: mm

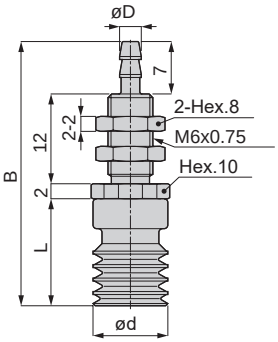
Model No.	Pad diameter ød	B	L1	L2	Weight (g)
VSP-MA6W*-2	6	26.1	12	12	2.5
VSP-MA8W*-2	8	26.6	12.5	12	2.5
VSP-MA10W*-4	10	35.5	14.5	16.4	6.6
VSP-MA20W*-4	20	47.6	25	16.4	13
VSP-MA30W*-4	30	61.1	38.5	16.4	19
VSP-MA40W*-4	40	52.6	45	16.4	26
VSP-MA50W*-4	50	54.6	56	16.4	32

Dimensions (compact, fixed, vacuum outlet, top, VSP-MA, barbed fitting)

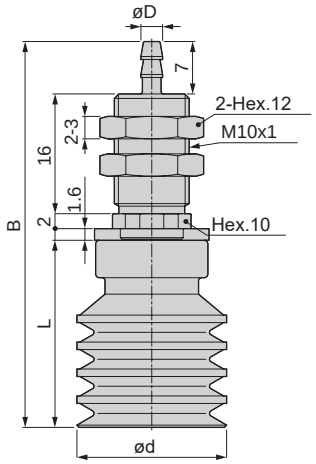
●VSP-MA6, 8W*-4T



●VSP-MA10W*-4T



●VSP-MA20 to 50W*-4T/6T

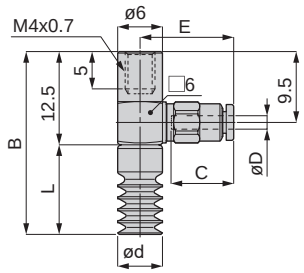


Unit: mm

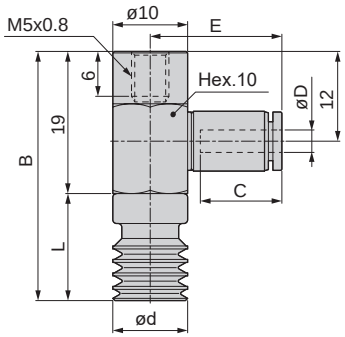
Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-MA6W*-4T	6	2.5	29	12	2.1
VSP-MA8W*-4T	8	2.5	29.5	12.5	2.1
VSP-MA10W*-4T	10	2.5	35.5	14.5	3.8
VSP-MA20W*-4T	20	2.5	51.6	25	13
VSP-MA20W*-6T		4			
VSP-MA30W*-4T	30	2.5	65.1	38.5	19
VSP-MA30W*-6T		4			
VSP-MA40W*-4T	40	2.5	71.6	45	25
VSP-MA40W*-6T		4			
VSP-MA50W*-4T	50	2.5	82.6	56	32
VSP-MA50W*-6T		4			

Dimensions (compact, fixed, vacuum outlet, lateral, VSP-MB, push-in fitting)

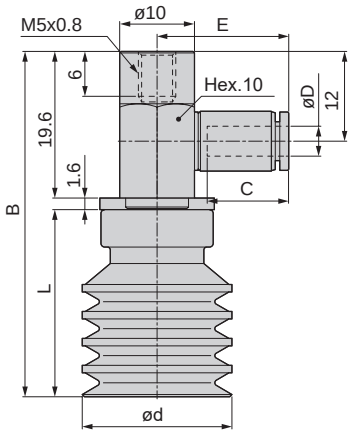
●VSP-MB6, 8W*-2/4



●VSP-MB10W*-2/4/6



●VSP-MB20 to 50W*-2/4/6

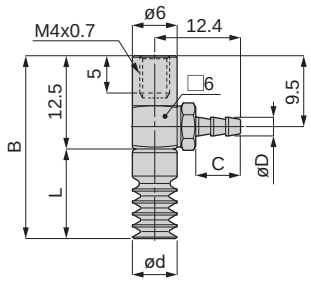


Unit: mm

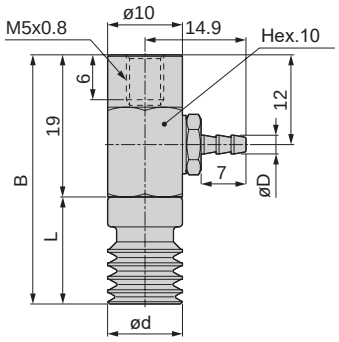
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-MB6W*-2	6	1.8	24.5	12	8.4	12.5	2.5
VSP-MB6W*-4		4			11.2	15.8	4
VSP-MB8W*-2	8	1.8	25	12.5	8.4	12.5	2.5
VSP-MB8W*-4		4			11.2	15.8	4
VSP-MB10W*-2	10	1.8	33.5	14.5	8.4	13.7	7.7
VSP-MB10W*-4		4			11.2	17.8	8.4
VSP-MB10W*-6		6			11.9	19.6	9.8
VSP-MB20W*-2	20	1.8	46.2	25	8.4	13.7	12
VSP-MB20W*-4		4			11.2	17.8	13
VSP-MB20W*-6		6			11.9	19.6	14
VSP-MB30W*-2	30	1.8	59.7	38.5	8.4	13.7	18
VSP-MB30W*-4		4			11.2	17.8	19
VSP-MB30W*-6		6			11.9	19.6	20
VSP-MB40W*-2	40	1.8	66.2	45	8.4	13.7	25
VSP-MB40W*-4		4			11.2	17.8	26
VSP-MB40W*-6		6			11.9	19.6	27
VSP-MB50W*-2	50	1.8	77.2	56	8.4	13.7	32
VSP-MB50W*-4		4			11.2	17.8	33
VSP-MB50W*-6		6			11.9	19.6	34

Dimensions (compact, fixed, vacuum outlet, side, VSP-MB, barbed fitting)

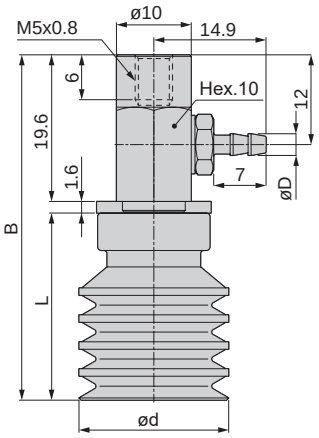
●VSP-MB6, 8W*-4T/6T



●VSP-MB10W*-4T/6T



●VSP-MB20 to 50W*-4T/6T

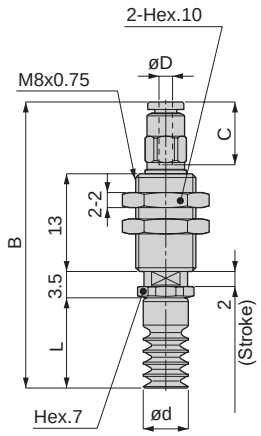


Unit: mm

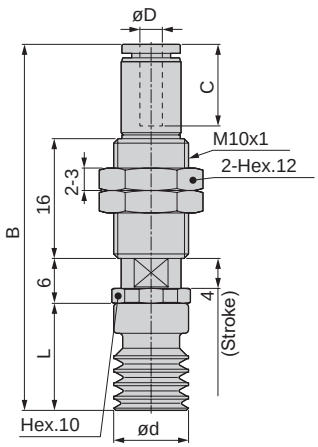
Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-MB6W*-4T	6	2.5	24.5	12	2.7
VSP-MB6W*-6T		4			
VSP-MB8W*-4T	8	2.5	25	12.5	2.7
VSP-MB8W*-6T		4			
VSP-MB10W*-4T	10	2.5	33.5	14.5	7.3
VSP-MB10W*-6T		4			
VSP-MB20W*-4T	20	2.5	46.2	25	13
VSP-MB20W*-6T		4			
VSP-MB30W*-4T	30	2.5	59.7	38.5	18
VSP-MB30W*-6T		4			
VSP-MB40W*-4T	40	2.5	66.2	45	27
VSP-MB40W*-6T		4			
VSP-MB50W*-4T	50	2.5	77.2	56	35
VSP-MB50W*-6T		4			

Dimensions (compact, buffer, vacuum outlet, top, VSP-MC, push-in fitting)

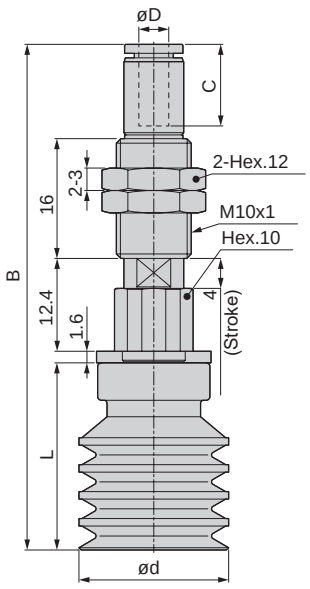
●VSP-MC6, 8W*-2



●VSP-MC10W*-2/4



●VSP-MC20 to 50W*-2/4

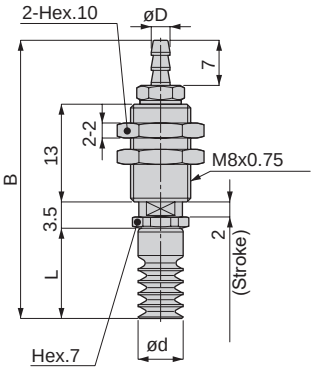


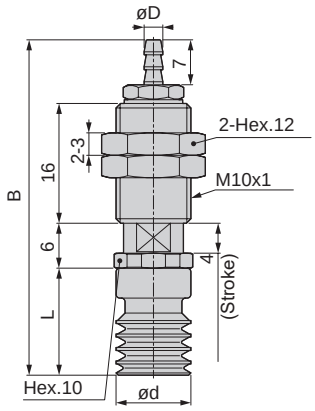
Unit: mm

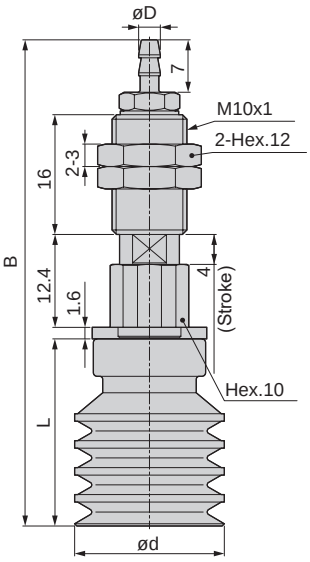
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	Spring force (N)	Weight (g)
VSP-MC6W*-2	6	1.8	38.2	12	8.4	0.2 to 0.3	7.3
VSP-MC8W*-2	8	1.8	38.7	12.5	8.4	0.2 to 0.3	7.3
VSP-MC10W*-2	10	1.8	45.4	14.5	8.4	0.5 to 0.6	15
VSP-MC10W*-4		4	49.5		11.2		16
VSP-MC20W*-2	20	1.8	63.9	25	8.4	1 to 1.3	24
VSP-MC20W*-4		4	68		11.2		25
VSP-MC30W*-2	30	1.8	77.4	38.5	8.4	1 to 1.3	30
VSP-MC30W*-4		4	81.5		11.2		31
VSP-MC40W*-2	40	1.8	83.9	45	8.4	1 to 1.3	38
VSP-MC40W*-4		4	88		11.2		39
VSP-MC50W*-2	50	1.8	94.9	56	8.4	1 to 1.3	45
VSP-MC50W*-4		4	99		11.2		46

Dimensions (compact, buffer, vacuum outlet, top, VSP-MC, barbed fitting)

●VSP-MC6, 8W*-4T/6T ●VSP-MC10W*-4T/6T ●VSP-MC20 to 50W*-4T/6T





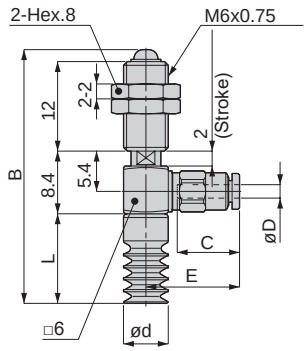


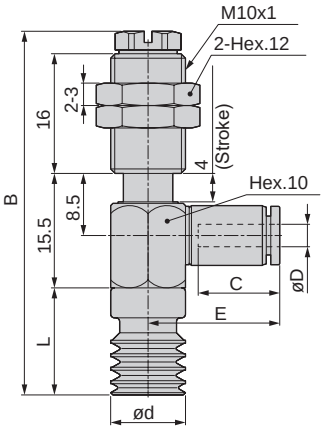
Unit: mm

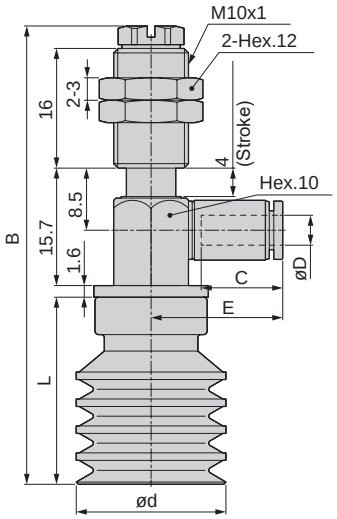
Model No.	Pad diameter ød	Bore size øD	B	L	Spring force (N)	Weight (g)
VSP-MC6W*-4T	6	2.5	38.1	12	0.2 to 0.3	7.5
VSP-MC6W*-6T		4				
VSP-MC8W*-4T	8	2.5	38.6	12.5	0.2 to 0.3	7.5
VSP-MC8W*-6T		4				
VSP-MC10W*-4T	10	2.5	46.6	14.5	0.5 to 0.6	15
VSP-MC10W*-6T		4				
VSP-MC20W*-4T	20	2.5	65.1	25	1 to 1.3	24
VSP-MC20W*-6T		4				
VSP-MC30W*-4T	30	2.5	78.6	38.5	1 to 1.3	29
VSP-MC30W*-6T		4				
VSP-MC40W*-4T	40	2.5	85.1	45	1 to 1.3	38
VSP-MC40W*-6T		4				
VSP-MC50W*-4T	50	2.5	96.1	56	1 to 1.3	46
VSP-MC50W*-6T		4				

Dimensions (compact, buffer, vacuum outlet, lateral, VSP-MD, push-in fitting)

●VSP-MD6, 8W*-2/4 ●VSP-MD10W*-2/4/6 ●VSP-MD20 to 50 W*-2/4/6





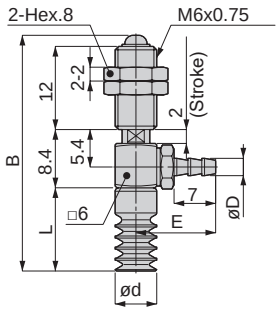


Unit: mm

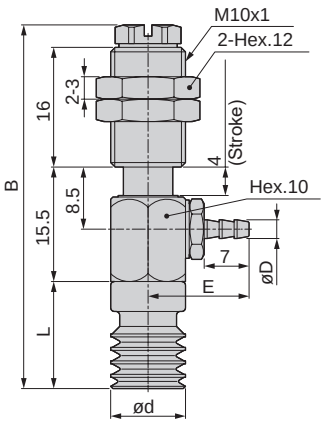
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Spring force (N)	Weight (g)
VSP-MD6W*-2	6	1.8	34	12	8.4	12.6	0.5 to 0.6	6.6
VSP-MD6W*-4		4			11.2	15.9		8
VSP-MD8W*-2	8	1.8	34.5	12.5	8.4	12.6	0.5 to 0.6	6.6
VSP-MD8W*-4		4			11.2	15.9		8
VSP-MD10W*-2	10	1.8	49	14.5	8.4	13.6	1 to 1.3	23
VSP-MD10W*-4		4			11.2	17.7		24
VSP-MD10W*-6		6			11.9	19.5		25
VSP-MD20W*-2	20	1.8	61.3	25	8.4	13.6	1 to 1.3	27
VSP-MD20W*-4		4			11.2	17.7		28
VSP-MD20W*-6		6			11.9	19.5		29
VSP-MD30W*-2	30	1.8	74.8	38.5	8.4	13.6	1 to 1.3	33
VSP-MD30W*-4		4			11.2	17.7		34
VSP-MD30W*-6		6			11.9	19.5		35
VSP-MD40W*-2	40	1.8	81.3	45	8.4	13.6	1 to 1.3	42
VSP-MD40W*-4		4			11.2	17.7		43
VSP-MD40W*-6		6			11.9	19.5		44
VSP-MD50W*-2	50	1.8	92.3	56	8.4	13.6	1 to 1.3	51
VSP-MD50W*-4		4			11.2	17.7		50
VSP-MD50W*-6		6			11.9	19.5		52

Dimensions (compact, buffer, vacuum outlet, side, VSP-MD, barbed fitting)

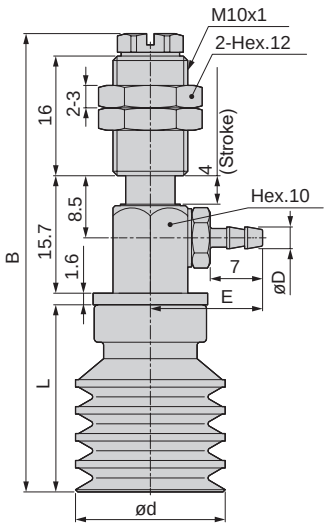
●VSP-MD6, 8W*-4T/6T



●VSP-MD10W*-4T/6T



●VSP-MD20 to 50W*-4T/6T

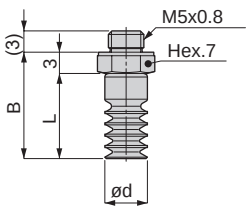


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	E	Spring force (N)	Weight (g)
VSP-MD6W*-4T	6	2.5	34	12	12.5	0.5 to 0.6	6.4
VSP-MD6W*-6T		4					
VSP-MD8W*-4T	8	2.5	34.5	12.5	12.5	0.5 to 0.6	6.4
VSP-MD8W*-6T		4					
VSP-MD10W*-4T	10	2.5	49	14.5	14.8	1 to 1.3	22
VSP-MD10W*-6T		4					
VSP-MD20W*-4T	20	2.5	61.3	25	14.8	1 to 1.3	27
VSP-MD20W*-6T		4					
VSP-MD30W*-4T	30	2.5	74.8	38	14.8	1 to 1.3	33
VSP-MD30W*-6T		4					
VSP-MD40W*-4T	40	2.5	81.3	45	14.8	1 to 1.3	40
VSP-MD40W*-6T		4					
VSP-MD50W*-4T	50	2.5	92.3	56	14.8	1 to 1.3	48
VSP-MD50W*-6T		4					

Dimensions (compact direct mounting, vacuum outlet side VSP-ME, barbed fitting)

●VSP-ME6, 8W*-M5

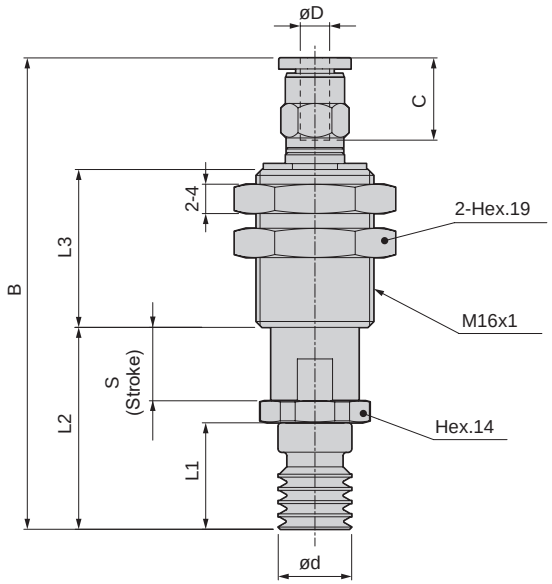


Unit: mm

Model No.	Pad diameter ød	B	L	Weight (g)
VSP-ME6W*-M5	6	20	12	3
VSP-ME8W*-M5	8	20.5	12.5	3

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, push-in fitting)

●VSP-HC10-□W*-/4/6

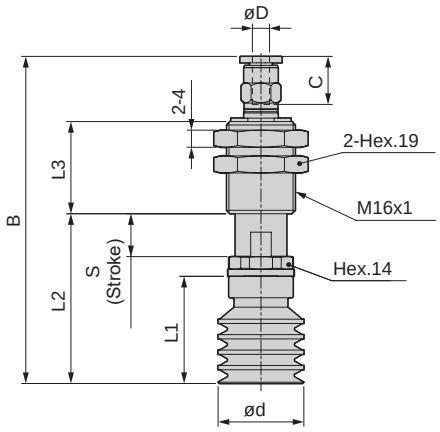


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC10-10W*-2	10	1.8	60.1	14.5	27.5	21.5	8.4	10	1.0 to 2.4	22
VSP-HC10-10W*-4		4	64.2				11.2			23
VSP-HC10-10W*-6		6	65.5				11.9			24
VSP-HC10-15W*-2		1.8	70.1		32.5	26.5	8.4	15	1.0 to 2.7	24
VSP-HC10-15W*-4		4	74.2				11.2			25
VSP-HC10-15W*-6		6	75.5				11.9			26
VSP-HC10-20W*-2		1.8	80.1		37.5	31.5	8.4	20	1.0 to 3.0	26
VSP-HC10-20W*-4		4	84.2				11.2			27
VSP-HC10-20W*-6		6	85.5				11.9			28
VSP-HC10-25W*-2		1.8	90.6		42.5	37	8.4	25	1.0 to 3.0	28
VSP-HC10-25W*-4		4	94.7				11.2			29
VSP-HC10-25W*-6		6	96				11.9			30
VSP-HC10-30W*-2		1.8	101.6		47.5	43	8.4	30	1.0 to 3.0	30
VSP-HC10-30W*-4		4	105.7				11.2			31
VSP-HC10-30W*-6		6	107				11.9			32
VSP-HC10-40W*-2		1.8	123.6		57.5	55	8.4	40	1.0 to 3.0	34
VSP-HC10-40W*-4		4	127.7				11.2			35
VSP-HC10-40W*-6		6	129				11.9			36
VSP-HC10-50W*-2		1.8	145.1		67.5	66.5	8.4	50	1.0 to 3.1	39
VSP-HC10-50W*-4		4	149.2				11.2			40
VSP-HC10-50W*-6		6	150.5				11.9			41

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, push-in fitting)

●VSP-HC20, 30-□W*-2/4/6

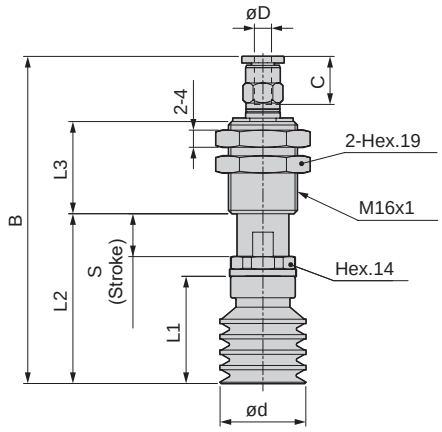


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC20-10W*-2	20	1.8	72.2	25	39.6	21.5	8.4	10	1.0 to 2.4	27
VSP-HC20-10W*-4		4	76.3				11.2			28
VSP-HC20-10W*-6		6	77.6				11.9			29
VSP-HC20-15W*-2		1.8	82.2		44.6	26.5	8.4	15	1.0 to 2.7	29
VSP-HC20-15W*-4		4	86.3				11.2			30
VSP-HC20-15W*-6		6	87.6				11.9			31
VSP-HC20-20W*-2		1.8	92.2		49.6	31.5	8.4	20	1.0 to 3.0	31
VSP-HC20-20W*-4		4	96.3				11.2			32
VSP-HC20-20W*-6		6	97.6				11.9			33
VSP-HC20-25W*-2		1.8	102.7		54.6	37	8.4	25	1.0 to 3.0	33
VSP-HC20-25W*-4		4	106.8				11.2			34
VSP-HC20-25W*-6		6	108.1				11.9			35
VSP-HC20-30W*-2		1.8	113.7		59.6	43	8.4	30	1.0 to 3.0	35
VSP-HC20-30W*-4		4	117.8				11.2			36
VSP-HC20-30W*-6		6	119.1				11.9			37
VSP-HC20-40W*-2		1.8	135.7		69.6	55	8.4	40	1.0 to 3.0	39
VSP-HC20-40W*-4		4	139.8				11.2			40
VSP-HC20-40W*-6		6	141.1				11.9			41
VSP-HC20-50W*-2		1.8	157.2		79.6	66.5	8.4	50	1.0 to 3.1	43
VSP-HC20-50W*-4		4	161.3				11.2			44
VSP-HC20-50W*-6		6	162.6				11.9			45
VSP-HC30-10W*-2	30	1.8	85.7	38.5	53.1	21.5	8.4	10	1.0 to 2.4	33
VSP-HC30-10W*-4		4	89.8				11.2			34
VSP-HC30-10W*-6		6	91.1				11.9			35
VSP-HC30-15W*-2		1.8	95.7		58.1	26.5	8.4	15	1.0 to 2.7	35
VSP-HC30-15W*-4		4	99.8				11.2			36
VSP-HC30-15W*-6		6	101.1				11.9			37
VSP-HC30-20W*-2		1.8	105.7		63.1	31.5	8.4	20	1.0 to 3.0	37
VSP-HC30-20W*-4		4	109.8				11.2			38
VSP-HC30-20W*-6		6	111.1				11.9			39
VSP-HC30-25W*-2		1.8	116.2		68.1	37	8.4	25	1.0 to 3.0	39
VSP-HC30-25W*-4		4	120.3				11.2			40
VSP-HC30-25W*-6		6	121.6				11.9			41
VSP-HC30-30W*-2		1.8	127.2		73.1	43	8.4	30	1.0 to 3.0	41
VSP-HC30-30W*-4		4	131.3				11.2			42
VSP-HC30-30W*-6		6	132.6				11.9			43
VSP-HC30-40W*-2		1.8	149.2		83.1	55	8.4	40	1.0 to 3.0	45
VSP-HC30-40W*-4		4	153.3				11.2			46
VSP-HC30-40W*-6		6	154.6				11.9			47
VSP-HC30-50W*-2		1.8	170.7		93.1	66.5	8.4	50	1.0 to 3.1	49
VSP-HC30-50W*-4		4	174.8				11.2			50
VSP-HC30-50W*-6		6	176.1				11.9			51

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, push-in fitting)

●VSP-HC40, 50-□W*-2/4/6

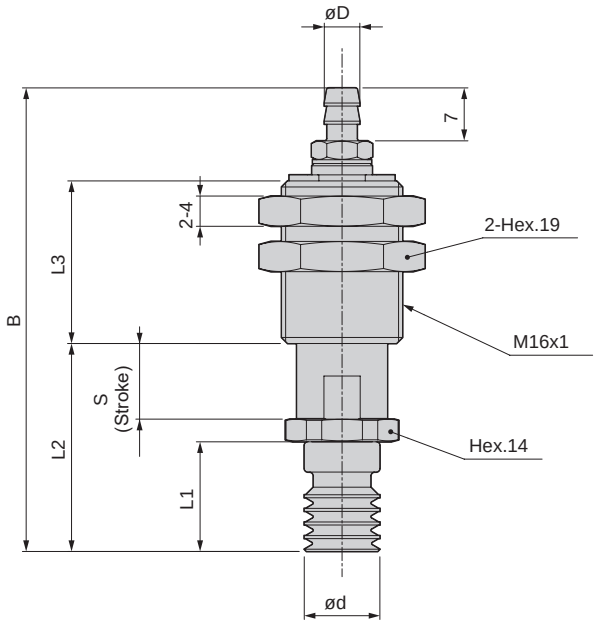


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC40-10W*-2	40	1.8	92.2	45	59.6	21.5	8.4	10	1.0 to 2.4	43
VSP-HC40-10W*-4		4	96.3				11.2			44
VSP-HC40-10W*-6		6	97.6				11.9			45
VSP-HC40-15W*-2		1.8	102.2		64.6	26.5	8.4	15	1.0 to 2.7	45
VSP-HC40-15W*-4		4	106.3				11.2			46
VSP-HC40-15W*-6		6	107.6				11.9			47
VSP-HC40-20W*-2		1.8	112.2		69.6	31.5	8.4	20	1.0 to 3.0	47
VSP-HC40-20W*-4		4	116.3				11.2			48
VSP-HC40-20W*-6		6	117.6				11.9			49
VSP-HC40-25W*-2		1.8	122.7		74.6	37	8.4	25	1.0 to 3.0	49
VSP-HC40-25W*-4		4	126.8				11.2			50
VSP-HC40-25W*-6		6	128.1				11.9			51
VSP-HC40-30W*-2		1.8	133.7		79.6	43	8.4	30	1.0 to 3.0	51
VSP-HC40-30W*-4		4	137.8				11.2			52
VSP-HC40-30W*-6		6	139.1				11.9			53
VSP-HC40-40W*-2		1.8	155.7		89.6	55	8.4	40	1.0 to 3.0	55
VSP-HC40-40W*-4		4	159.8				11.2			56
VSP-HC40-40W*-6		6	161.1				11.9			57
VSP-HC40-50W*-2		1.8	177.2		99.6	66.5	8.4	50	1.0 to 3.1	59
VSP-HC40-50W*-4		4	181.3				11.2			60
VSP-HC40-50W*-6		6	182.6				11.9			61
VSP-HC50-10W*-2	50	1.8	103.2	56	70.6	21.5	8.4	10	1.0 to 2.4	55
VSP-HC50-10W*-4		4	107.3				11.2			56
VSP-HC50-10W*-6		6	108.6				11.9			57
VSP-HC50-15W*-2		1.8	113.2		75.6	26.5	8.4	15	1.0 to 2.7	57
VSP-HC50-15W*-4		4	117.3				11.2			58
VSP-HC50-15W*-6		6	118.6				11.9			59
VSP-HC50-20W*-2		1.8	123.2		80.6	31.5	8.4	20	1.0 to 3.0	59
VSP-HC50-20W*-4		4	127.3				11.2			60
VSP-HC50-20W*-6		6	128.6				11.9			61
VSP-HC50-25W*-2		1.8	133.7		85.6	37	8.4	25	1.0 to 3.0	61
VSP-HC50-25W*-4		4	137.8				11.2			62
VSP-HC50-25W*-6		6	139.1				11.9			63
VSP-HC50-30W*-2		1.8	144.7		90.6	43	8.4	30	1.0 to 3.0	63
VSP-HC50-30W*-4		4	148.8				11.2			64
VSP-HC50-30W*-6		6	150.1				11.9			65
VSP-HC50-40W*-2		1.8	166.7		100.6	55	8.4	40	1.0 to 3.0	67
VSP-HC50-40W*-4		4	170.8				11.2			68
VSP-HC50-40W*-6		6	172.1				11.9			69
VSP-HC50-50W*-2		1.8	188.2		110.6	66.5	8.4	50	1.0 to 3.1	71
VSP-HC50-50W*-4		4	192.3				11.2			72
VSP-HC50-50W*-6		6	193.6				11.9			73

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, barbed fitting)

●VSP-HC10-□W*-4T/6T

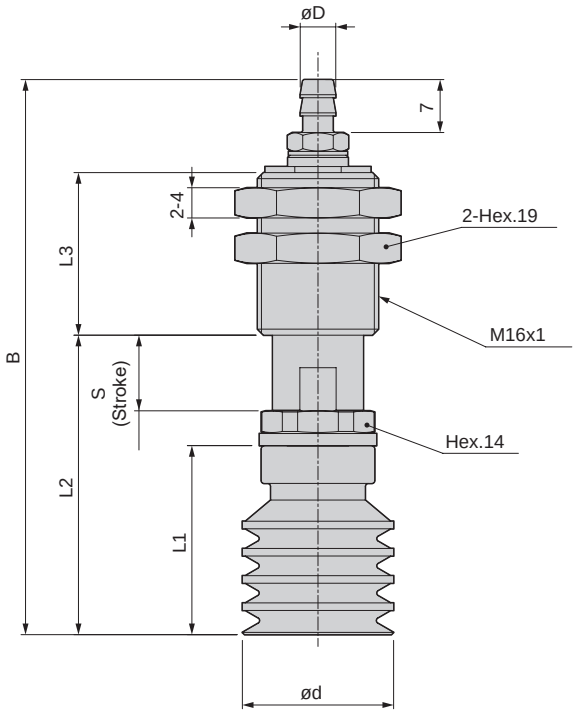


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC10-10W*-4T	10	2.5	61.3	14.5	27.5	21.5	10	1.0 to 2.4	21
VSP-HC10-10W*-6T		4							
VSP-HC10-15W*-4T		2.5	71.3		32.5	26.5	15	1.0 to 2.7	23
VSP-HC10-15W*-6T		4							
VSP-HC10-20W*-4T		2.5	81.3		37.5	31.5	20	1.0 to 3.0	25
VSP-HC10-20W*-6T		4							
VSP-HC10-25W*-4T		2.5	91.8		42.5	37	25	1.0 to 3.0	28
VSP-HC10-25W*-6T		4							
VSP-HC10-30W*-4T		2.5	102.8		47.5	43	30	1.0 to 3.0	30
VSP-HC10-30W*-6T		4							
VSP-HC10-40W*-4T		2.5	124.8		57.5	55	40	1.0 to 3.0	34
VSP-HC10-40W*-6T		4							
VSP-HC10-50W*-4T		2.5	146.3		67.5	66.5	50	1.0 to 3.1	38
VSP-HC10-50W*-6T		4							

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, barbed fitting)

●VSP-HC20, 30-□W*-4T/6T

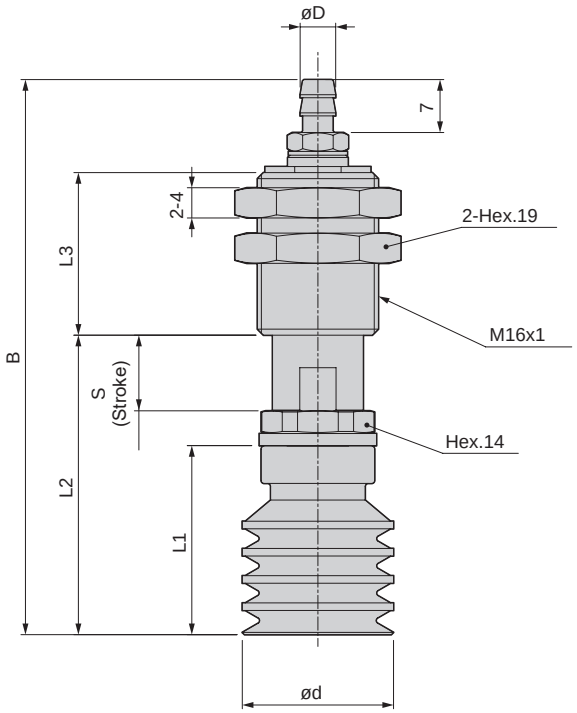


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC20-10W*-4T	20	2.5	73.4	25	39.6	21.5	10	1.0 to 2.4	26
VSP-HC20-10W*-6T		4							
VSP-HC20-15W*-4T		2.5	83.4		44.6	26.5	15	1.0 to 2.7	28
VSP-HC20-15W*-6T		4							
VSP-HC20-20W*-4T		2.5	93.4		49.6	31.5	20	1.0 to 3.0	30
VSP-HC20-20W*-6T		4							
VSP-HC20-25W*-4T		2.5	103.9		54.6	37	25	1.0 to 3.0	32
VSP-HC20-25W*-6T		4							
VSP-HC20-30W*-4T		2.5	114.9		59.6	43	30	1.0 to 3.0	35
VSP-HC20-30W*-6T		4							
VSP-HC20-40W*-4T		2.5	136.9		69.6	55	40	1.0 to 3.0	39
VSP-HC20-40W*-6T		4							
VSP-HC20-50W*-4T		2.5	158.4		79.6	66.5	50	1.0 to 3.1	43
VSP-HC20-50W*-6T		4							
VSP-HC30-10W*-4T	30	2.5	86.9	38.5	53.1	21.5	10	1.0 to 2.4	32
VSP-HC30-10W*-6T		4							
VSP-HC30-15W*-4T		2.5	96.9		58.1	26.5	15	1.0 to 2.7	34
VSP-HC30-15W*-6T		4							
VSP-HC30-20W*-4T		2.5	106.9		63.1	31.5	20	1.0 to 3.0	36
VSP-HC30-20W*-6T		4							
VSP-HC30-25W*-4T		2.5	117.4		68.1	37	25	1.0 to 3.0	38
VSP-HC30-25W*-6T		4							
VSP-HC30-30W*-4T		2.5	128.4		73.1	43	30	1.0 to 3.0	41
VSP-HC30-30W*-6T		4							
VSP-HC30-40W*-4T		2.5	150.4		83.1	55	40	1.0 to 3.0	45
VSP-HC30-40W*-6T		4							
VSP-HC30-50W*-4T		2.5	171.9		93.1	66.5	50	1.0 to 3.1	49
VSP-HC30-50W*-6T		4							

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, barbed fitting)

●VSP-HC40, 50-□W*-4T/6T

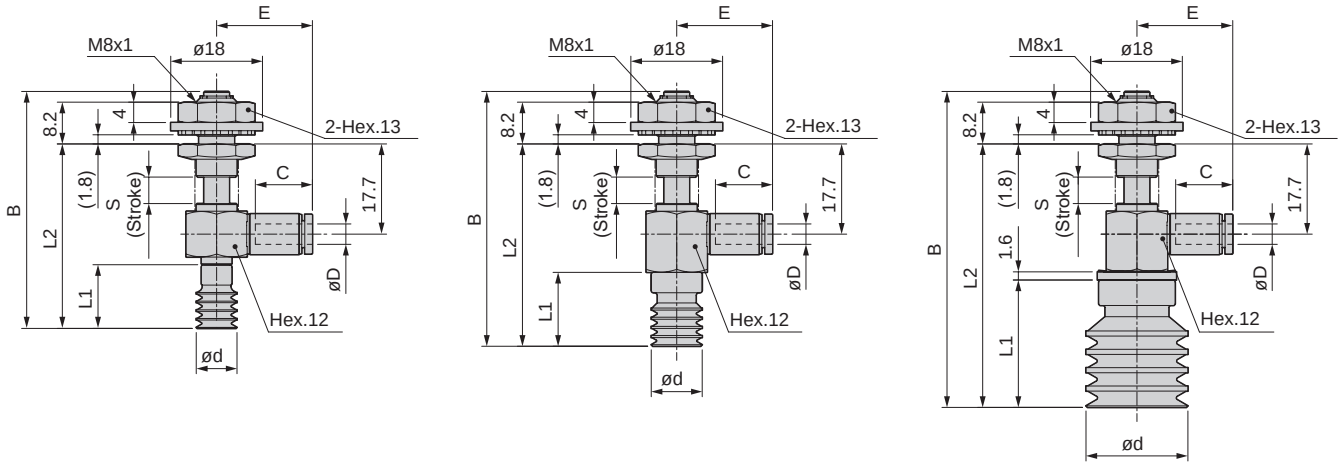


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC40-10W*-4T	40	2.5	93.4	45	59.6	21.5	10	1.0 to 2.4	42
VSP-HC40-10W*-6T		4							
VSP-HC40-15W*-4T		2.5	103.4		64.6	26.5	15	1.0 to 2.7	44
VSP-HC40-15W*-6T		4							
VSP-HC40-20W*-4T		2.5	113.4		69.6	31.5	20	1.0 to 3.0	46
VSP-HC40-20W*-6T		4							
VSP-HC40-25W*-4T		2.5	123.9		74.6	37	25	1.0 to 3.0	48
VSP-HC40-25W*-6T		4							
VSP-HC40-30W*-4T		2.5	134.9		79.6	43	30	1.0 to 3.0	51
VSP-HC40-30W*-6T		4							
VSP-HC40-40W*-4T		2.5	156.9		89.6	55	40	1.0 to 3.0	55
VSP-HC40-40W*-6T		4							
VSP-HC40-50W*-4T		2.5	178.4		99.6	66.5	50	1.0 to 3.1	59
VSP-HC40-50W*-6T		4							
VSP-HC50-10W*-4T	50	2.5	104.4	56	70.6	21.5	10	1.0 to 2.4	54
VSP-HC50-10W*-6T		4							
VSP-HC50-15W*-4T		2.5	114.4		75.6	26.5	15	1.0 to 2.7	56
VSP-HC50-15W*-6T		4							
VSP-HC50-20W*-4T		2.5	124.4		80.6	31.5	20	1.0 to 3.0	58
VSP-HC50-20W*-6T		4							
VSP-HC50-25W*-4T		2.5	134.9		85.6	37	25	1.0 to 3.0	60
VSP-HC50-25W*-6T		4							
VSP-HC50-30W*-4T		2.5	145.9		90.6	43	30	1.0 to 3.0	63
VSP-HC50-30W*-6T		4							
VSP-HC50-40W*-4T		2.5	167.9		100.6	55	40	1.0 to 3.0	67
VSP-HC50-40W*-6T		4							
VSP-HC50-50W*-4T		2.5	189.4		110.6	66.5	50	1.0 to 3.1	71
VSP-HC50-50W*-6T		4							

Dimensions (lightweight, buffer, vacuum outlet, side, VSP-HD, push-in fitting)

●VSP-HD6, 8W*-2/4/6 ●VSP-HD10W*-2/4/6 ●VSP-HD20 to 50 W*-4/6

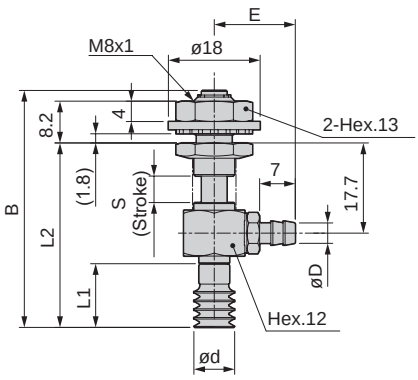


Unit: mm

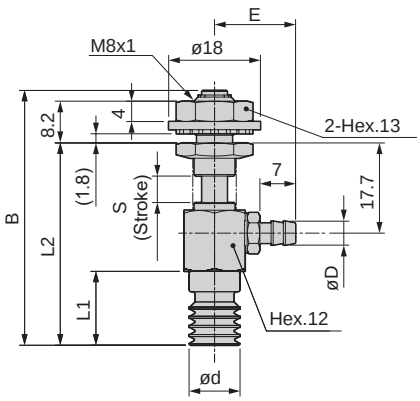
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD6W*-2	6	1.8	46	12	35.7	8.4	14.7	5.2	1.6 to 2.9	28
VSP-HD6W*-4		4				11.2	18.8			29
VSP-HD6W*-6		6				11.9	20.6			30
VSP-HD8W*-2	8	1.8	46.5	12.5	36.2	8.4	14.7	5.2	1.6 to 2.9	28
VSP-HD8W*-4		4				11.2	18.8			29
VSP-HD8W*-6		6				11.9	20.6			30
VSP-HD10W*-2	10	1.8	50	14.5	39.7	8.4	14.7	5.2	1.6 to 2.9	32
VSP-HD10W*-4		4				11.2	18.8			33
VSP-HD10W*-6		6				11.9	20.6			34
VSP-HD20W*-2	20	1.8	62	25	51.7	8.4	14.7	5.2	1.6 to 2.9	36
VSP-HD20W*-4		4				11.2	18.8			37
VSP-HD20W*-6		6				11.9	20.6			38
VSP-HD30W*-2	30	1.8	75.5	38.5	65.2	8.4	14.7	5.2	1.6 to 2.9	42
VSP-HD30W*-4		4				11.2	18.8			43
VSP-HD30W*-6		6				11.9	20.6			44
VSP-HD40W*-2	40	1.8	82	45	71.7	8.4	14.7	5.2	1.6 to 2.9	52
VSP-HD40W*-4		4				11.2	18.8			53
VSP-HD40W*-6		6				11.9	20.6			54
VSP-HD50W*-2	50	1.8	93	56	82.7	8.4	14.7	5.2	1.6 to 2.9	64
VSP-HD50W*-4		4				11.2	18.8			65
VSP-HD50W*-6		6				11.9	20.6			66

Dimensions (lightweight, buffer, vacuum outlet, side, VSP-HD, barbed fitting)

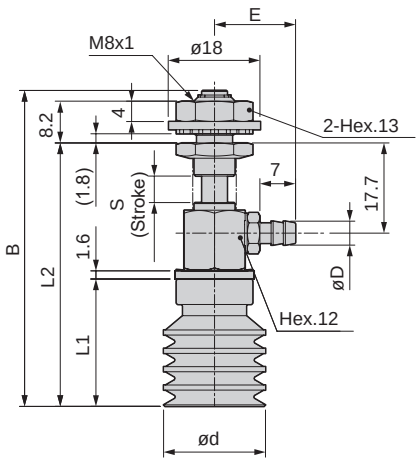
●VSP-HD6, 8W*-4T/6T



●VSP-HD10W*-4T/6T



●VSP-HD20 to 50W*-4T/6T

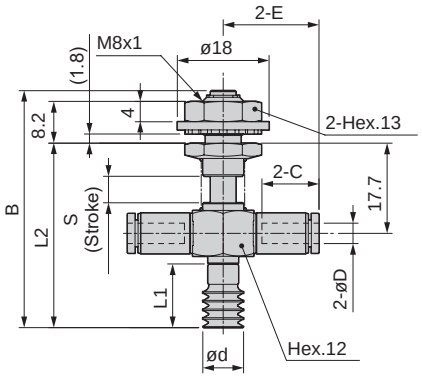


Unit: mm

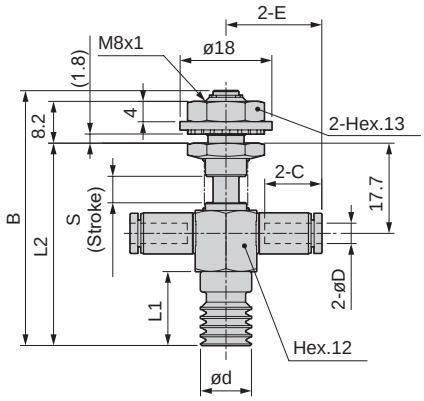
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD6W*-4T	6	2.5	46	12	35.7	15.9	5.2	1.6 to 2.9	28
VSP-HD6W*-6T		4							
VSP-HD8W*-4T	8	2.5	46.5	12.5	36.2	15.9	5.2	1.6 to 2.9	28
VSP-HD8W*-6T		4							
VSP-HD10W*-4T	10	2.5	50	14.5	39.7	15.9	5.2	1.6 to 2.9	31
VSP-HD10W*-6T		4							
VSP-HD20W*-4T	20	2.5	62	25	51.7	15.9	5.2	1.6 to 2.9	36
VSP-HD20W*-6T		4							
VSP-HD30W*-4T	30	2.5	75.5	38.5	65.2	15.9	5.2	1.6 to 2.9	42
VSP-HD30W*-6T		4							
VSP-HD40W*-4T	40	2.5	82	45	71.7	15.9	5.2	1.6 to 2.9	52
VSP-HD40W*-6T		4							
VSP-HD50W*-4T	50	2.5	93	56	82.7	15.9	5.2	1.6 to 2.9	64
VSP-HD50W*-6T		4							

Dimensions (lightweight, buffer, vacuum outlet, both sides, VSP-HDW, push-in fitting)

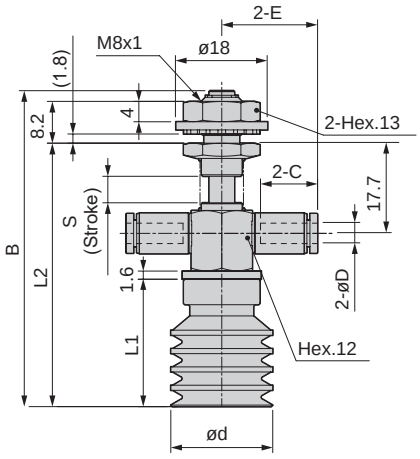
●VSP-HDW6, 8W*-2/4/6



●VSP-HDW10W*-2/4/6



●VSP-HDW20 to 50 W*-2/4/6

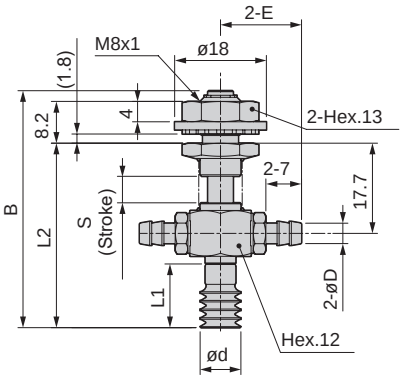


Unit: mm

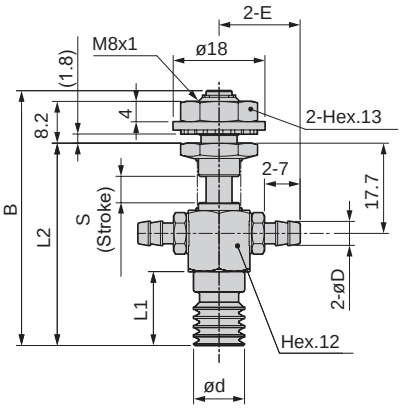
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW6W*-2	6	1.8	46	12	35.7	8.4	14.7	5.2	1.6 to 2.9	30
VSP-HDW6W*-4		4				11.2	18.8			32
VSP-HDW6W*-6		6				11.9	20.6			34
VSP-HDW8W*-2	8	1.8	46.5	12.5	36.2	8.4	14.7	5.2	1.6 to 2.9	30
VSP-HDW8W*-4		4				11.2	18.8			32
VSP-HDW8W*-6		6				11.9	20.6			34
VSP-HDW10W*-2	10	1.8	50	14.5	39.7	8.4	14.7	5.2	1.6 to 2.9	33
VSP-HDW10W*-4		4				11.2	18.8			35
VSP-HDW10W*-6		6				11.9	20.6			37
VSP-HDW20W*-2	20	1.8	62	25	51.7	8.4	14.7	5.2	1.6 to 2.9	38
VSP-HDW20W*-4		4				11.2	18.8			40
VSP-HDW20W*-6		6				11.9	20.6			42
VSP-HDW30W*-2	30	1.8	75.5	38.5	65.2	8.4	14.7	5.2	1.6 to 2.9	44
VSP-HDW30W*-4		4				11.2	18.8			46
VSP-HDW30W*-6		6				11.9	20.6			48
VSP-HDW40W*-2	40	1.8	82	45	71.7	8.4	14.7	5.2	1.6 to 2.9	54
VSP-HDW40W*-4		4				11.2	18.8			56
VSP-HDW40W*-6		6				11.9	20.6			58
VSP-HDW50W*-2	50	1.8	93	56	82.7	8.4	14.7	5.2	1.6 to 2.9	66
VSP-HDW50W*-4		4				11.2	18.8			68
VSP-HDW50W*-6		6				11.9	20.6			70

Dimensions (lightweight, buffer, vacuum outlet, both sides, VSP-HDW, barbed fitting)

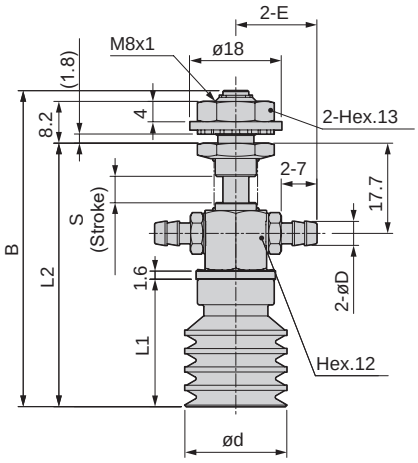
●VSP-HDW6, 8W*-4T/6T



●VSP-HDW10W*-4T/6T



●VSP-HDW20 to 50W*-4T/6T

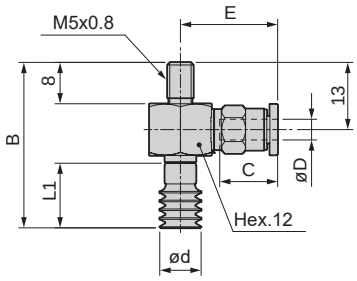


Unit: mm

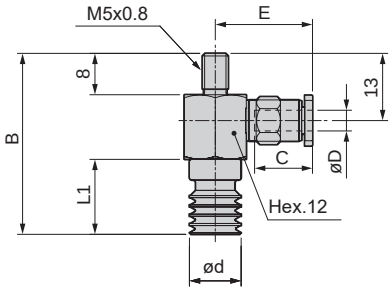
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW6W*-4T	6	2.5	46	12	35.7	15.9	5.2	1.6 to 2.9	28
VSP-HDW6W*-6T		4							
VSP-HDW8W*-4T	8	2.5	46.5	12.5	36.2	15.9	5.2	1.6 to 2.9	28
VSP-HDW8W*-6T		4							
VSP-HDW10W*-4T	10	2.5	50	14.5	39.7	15.9	5.2	1.6 to 2.9	32
VSP-HDW10W*-6T		4							
VSP-HDW20W*-4T	20	2.5	62	25	51.7	15.9	5.2	1.6 to 2.9	37
VSP-HDW20W*-6T		4							
VSP-HDW30W*-4T	30	2.5	75.5	38.5	65.2	15.9	5.2	1.6 to 2.9	43
VSP-HDW30W*-6T		4							
VSP-HDW40W*-4T	40	2.5	82	45	71.7	15.9	5.2	1.6 to 2.9	53
VSP-HDW40W*-6T		4							
VSP-HDW50W*-4T	50	2.5	93	56	82.7	15.9	5.2	1.6 to 2.9	65
VSP-HDW50W*-6T		4							

Dimensions (low back, fixed, vacuum outlet, side, VSP-HE, push-in fitting)

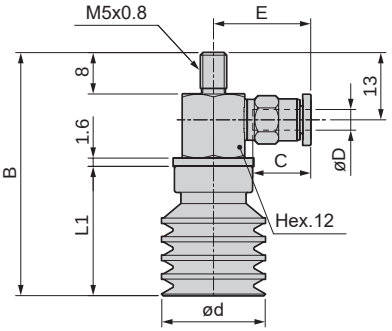
●VSP-HE6, 8W*-2/4/6



●VSP-HE10W*-2/4/6



●VSP-HE20 to 50W*-2/4/6

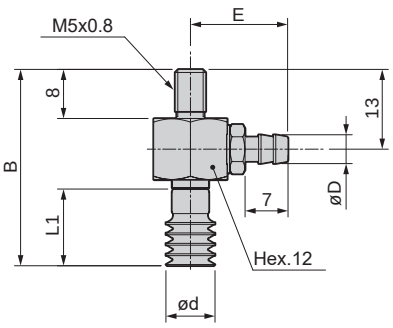


Unit: mm

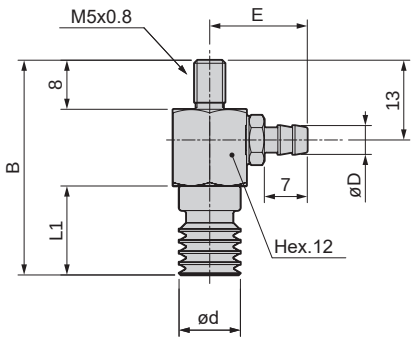
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HE6W*-2	6	1.8	31.5	12	8.4	14.7	14
VSP-HE6W*-4		4			11.2	18.8	15
VSP-HE6W*-6		6			11.9	20.6	16
VSP-HE8W*-2	8	1.8	32	12.5	8.4	14.7	14
VSP-HE8W*-4		4			11.2	18.8	15
VSP-HE8W*-6		6			11.9	20.6	16
VSP-HE10W*-2	10	1.8	35	14.5	8.4	14.7	17
VSP-HE10W*-4		4			11.2	18.8	18
VSP-HE10W*-6		6			11.9	20.6	19
VSP-HE20W*-2	20	1.8	47	25	8.4	14.7	22
VSP-HE20W*-4		4			11.2	18.8	23
VSP-HE20W*-6		6			11.9	20.6	24
VSP-HE30W*-2	30	1.8	60.5	38.5	8.4	14.7	28
VSP-HE30W*-4		4			11.2	18.8	29
VSP-HE30W*-6		6			11.9	20.6	30
VSP-HE40W*-2	40	1.8	67	45	8.4	14.7	38
VSP-HE40W*-4		4			11.2	18.8	39
VSP-HE40W*-6		6			11.9	20.6	40
VSP-HE50W*-2	50	1.8	78	56	8.4	14.7	50
VSP-HE50W*-4		4			11.2	18.8	51
VSP-HE50W*-6		6			11.9	20.6	52

Dimensions (low back, fixed, vacuum outlet, side, VSP-HE, barbed fitting)

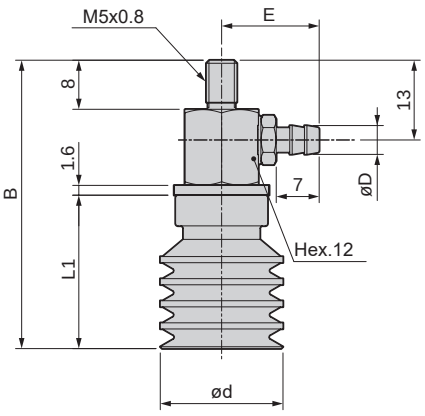
●VSP-HE6, 8W*-4T/6T



●VSP-HE10W*-4T/6T



●VSP-HE20 to 50W*-4T/6T

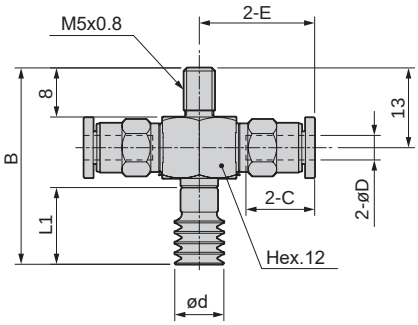


Unit: mm

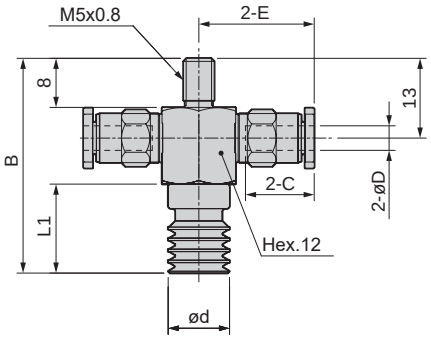
Model No.	Pad diameter ød	Bore size øD	B	L	E	Weight (g)
VSP-HE6W*-4T	6	2.5	31.5	12	15.9	13
VSP-HE6W*-6T		4				
VSP-HE8W*-4T	8	2.5	29.5	12.5	15.9	13
VSP-HE8W*-6T		4				
VSP-HE10W*-4T	10	2.5	35	14.5	15.9	16
VSP-HE10W*-6T		4				
VSP-HE20W*-4T	20	2.5	47	25	15.9	21
VSP-HE20W*-6T		4				
VSP-HE30W*-4T	30	2.5	60.5	38.5	15.9	27
VSP-HE30W*-6T		4				
VSP-HE40W*-4T	40	2.5	67	45	15.9	37
VSP-HE40W*-6T		4				
VSP-HE50W*-4T	50	2.5	78	56	15.9	49
VSP-HE50W*-6T		4				

Dimensions (low back, fixed, vacuum outlet, both sides, VSP-HEW, push-in fitting)

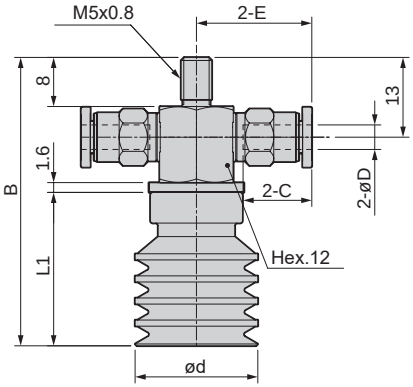
●VSP-HEW6, 8W*-2/4/6



●VSP-HEW10W*-2/4/6



●VSP-HEW20 to 50W*-2/4/6

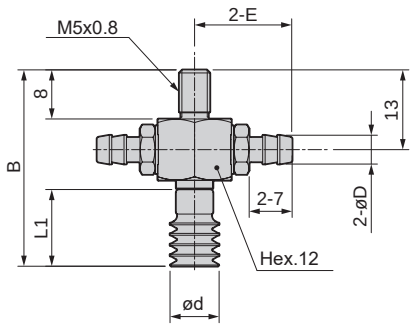


Unit: mm

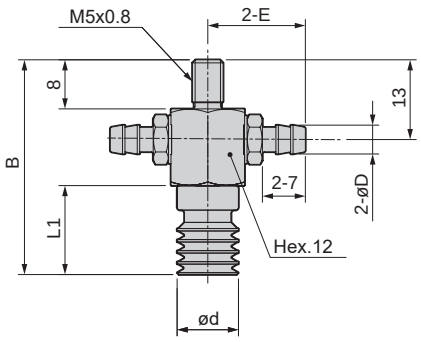
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HEW6W*-2	6	1.8	31.5	12	8.4	14.7	16
VSP-HEW6W*-4		4			11.2	18.8	18
VSP-HEW6W*-6		6			11.9	20.6	20
VSP-HEW8W*-2	8	1.8	32	12.5	8.4	14.7	16
VSP-HEW8W*-4		4			11.2	18.8	18
VSP-HEW8W*-6		6			11.9	20.6	20
VSP-HEW10W*-2	10	1.8	35	14.5	8.4	14.7	19
VSP-HEW10W*-4		4			11.2	18.8	21
VSP-HEW10W*-6		6			11.9	20.6	23
VSP-HEW20W*-2	20	1.8	47	25	8.4	14.7	23
VSP-HEW20W*-4		4			11.2	18.8	25
VSP-HEW20W*-6		6			11.9	20.6	27
VSP-HEW30W*-2	30	1.8	60.5	38.5	8.4	14.7	29
VSP-HEW30W*-4		4			11.2	18.8	31
VSP-HEW30W*-6		6			11.9	20.6	33
VSP-HEW40W*-2	40	1.8	67	45	8.4	14.7	39
VSP-HEW40W*-4		4			11.2	18.8	41
VSP-HEW40W*-6		6			11.9	20.6	43
VSP-HEW50W*-2	50	1.8	78	56	8.4	14.7	51
VSP-HEW50W*-4		4			11.2	18.8	53
VSP-HEW50W*-6		6			11.9	20.6	55

Dimensions (lightweight, buffer, vacuum outlet, both sides, VSP-HEW, barbed fitting)

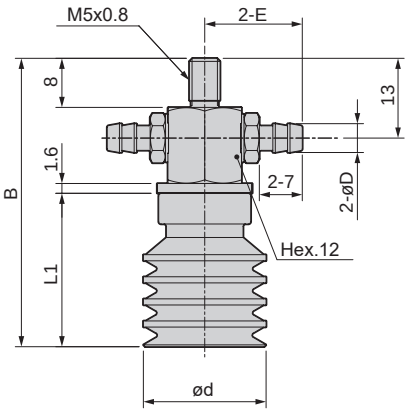
●VSP-HEW6, 8W*-4T/6T



●VSP-HEW10W*-4T/6T



●VSP-HEW20 to 50W*-4T/6T

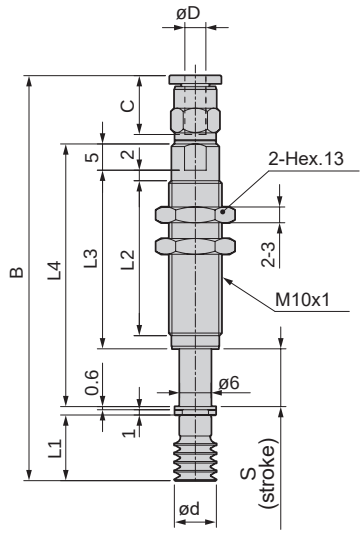


Unit: mm

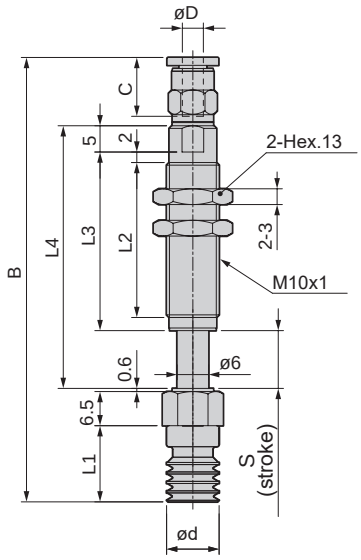
Model No.	Pad diameter ød	Bore size øD	B	L	E	Weight (g)
VSP-HEW6W*-4T	6	2.5	31.5	12	15.9	14
VSP-HEW6W*-6T		4				
VSP-HEW8W*-4T	8	2.5	29.5	12.5	15.9	14
VSP-HEW8W*-6T		4				
VSP-HEW10W*-4T	10	2.5	35	14.5	15.9	17
VSP-HEW10W*-6T		4				
VSP-HEW20W*-4T	20	2.5	47	25	15.9	22
VSP-HEW20W*-6T		4				
VSP-HEW30W*-4T	30	2.5	60.5	38.5	15.9	28
VSP-HEW30W*-6T		4				
VSP-HEW40W*-4T	40	2.5	67	45	15.9	38
VSP-HEW40W*-6T		4				
VSP-HEW50W*-4T	50	2.5	78	56	15.9	50
VSP-HEW50W*-6T		4				

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, push-in fitting)

●VSP-LFC6, 8-□W*-4



●VSP-LFC10-□W*-4



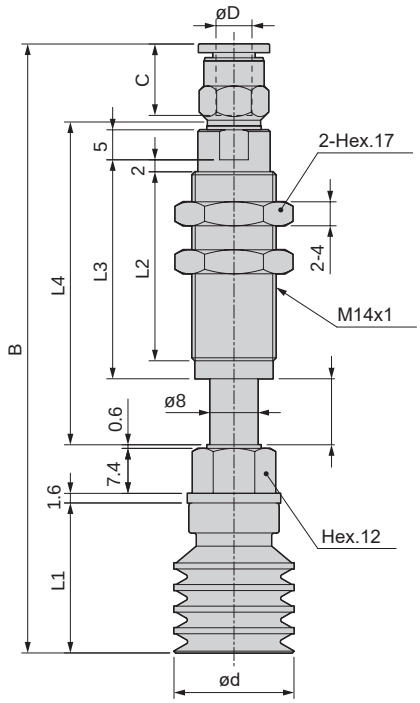
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-LFC6-2W*-4	6	4	60.6	12	21.5	26	34	11.2	2	1.3 to 1.8	25
VSP-LFC6-5W*-4			66.6		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	27
VSP-LFC6-10W*-4			76.6		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	29
VSP-LFC6-15W*-4			86.6		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	31
VSP-LFC6-20W*-4			96.6		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	33
VSP-LFC8-2W*-4	8	4	61.1	12.5	21.5	26	34	11.2	2	1.3 to 1.8	25
VSP-LFC8-5W*-4			67.1		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	27
VSP-LFC8-10W*-4			77.1		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	29
VSP-LFC8-15W*-4			87.1		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	31
VSP-LFC8-20W*-4			97.1		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	33
VSP-LFC10-2W*-4	10	4	68.6	14.5	21.5	26	34	11.2	2	1.3 to 1.8	28
VSP-LFC10-5W*-4			74.6		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	30
VSP-LFC10-10W*-4			84.6		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	32
VSP-LFC10-15W*-4			94.6		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	34
VSP-LFC10-20W*-4			104.6		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	35

*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, push-in fitting)

●VSP-LFC20 to 50-□W*-4/6



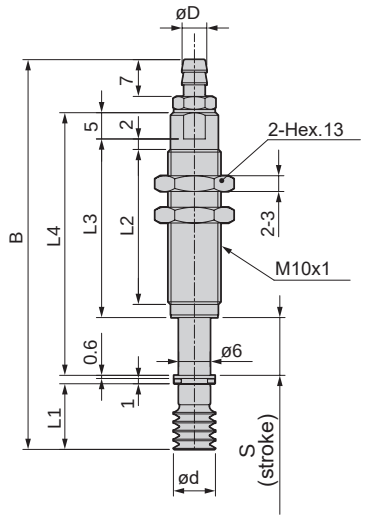
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-LFC20-5W*-4	20	4	90.1	25	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	58
VSP-LFC20-5W*-6		6	91.4					11.9			59
VSP-LFC20-10W*-4		4	100.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	60
VSP-LFC20-10W*-6		6	101.4					11.9			61
VSP-LFC20-15W*-4		4	110.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	63
VSP-LFC20-15W*-6		6	111.4					11.9			64
VSP-LFC20-20W*-4		4	120.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	66
VSP-LFC20-20W*-6		6	121.4					11.9			67
VSP-LFC30-5W*-4	30	4	103.6	38.5	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	64
VSP-LFC30-5W*-6		6	104.9					11.9			65
VSP-LFC30-10W*-4		4	113.6		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	66
VSP-LFC30-10W*-6		6	114.9					11.9			67
VSP-LFC30-15W*-4		4	123.6		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	69
VSP-LFC30-15W*-6		6	124.9					11.9			70
VSP-LFC30-20W*-4		4	133.6		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	72
VSP-LFC30-20W*-6		6	134.9					11.9			73
VSP-LFC40-5W*-4	40	4	110.1	45	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	74
VSP-LFC40-5W*-6		6	111.4					11.9			75
VSP-LFC40-10W*-4		4	120.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	76
VSP-LFC40-10W*-6		6	121.4					11.9			77
VSP-LFC40-15W*-4		4	130.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	79
VSP-LFC40-15W*-6		6	131.4					11.9			80
VSP-LFC40-20W*-4		4	140.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	82
VSP-LFC40-20W*-6		6	141.4					11.9			83
VSP-LFC50-5W*-4	50	4	121.1	56	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	86
VSP-LFC50-5W*-6		6	122.4					11.9			87
VSP-LFC50-10W*-4		4	131.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	88
VSP-LFC50-10W*-6		6	132.4					11.9			89
VSP-LFC50-15W*-4		4	141.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	91
VSP-LFC50-15W*-6		6	142.4					11.9			92
VSP-LFC50-20W*-4		4	151.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	94
VSP-LFC50-20W*-6		6	152.4					11.9			95

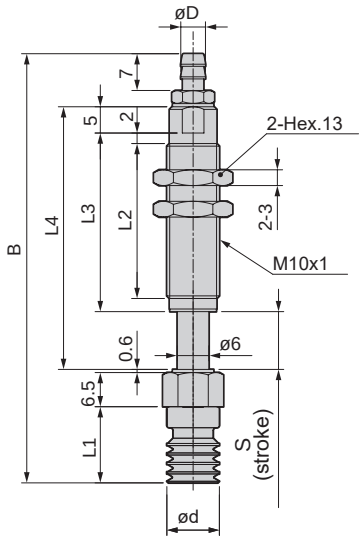
*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, barbed fitting)

●VSP-LFC6, 8-□W*-4T/6T



●VSP-LFC10-□W*-4T/6T



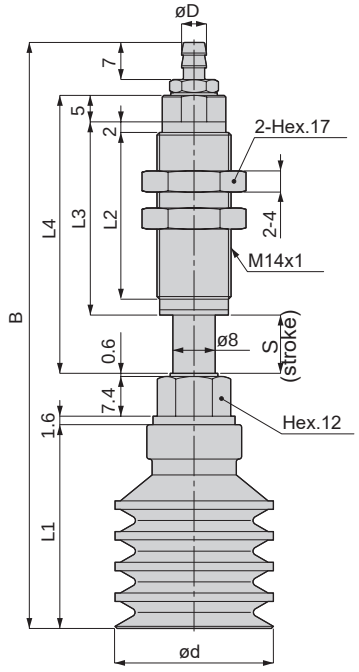
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
VSP-LFC6-2W*-4T	6	2.5	57.7	12	21.5	26	34	2	1.3 to 1.8	24
VSP-LFC6-2W*-6T		4								
VSP-LFC6-5W*-4T		2.5	63.7		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	26
VSP-LFC6-5W*-6T		4								
VSP-LFC6-10W*-4T		2.5	73.7		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	28
VSP-LFC6-10W*-6T		4								
VSP-LFC6-15W*-4T		2.5	83.7		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	30
VSP-LFC6-15W*-6T		4								
VSP-LFC6-20W*-4T		2.5	93.7		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	31
VSP-LFC6-20W*-6T		4								
VSP-LFC8-2W*-4T	8	2.5	58.2	12.5	21.5	26	34	2	1.3 to 1.8	24
VSP-LFC8-2W*-6T		4								
VSP-LFC8-5W*-4T		2.5	64.2		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	26
VSP-LFC8-5W*-6T		4								
VSP-LFC8-10W*-4T		2.5	74.2		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	28
VSP-LFC8-10W*-6T		4								
VSP-LFC8-15W*-4T		2.5	84.2		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	30
VSP-LFC8-15W*-6T		4								
VSP-LFC8-20W*-4T		2.5	94.2		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	31
VSP-LFC8-20W*-6T		4								
VSP-LFC10-2W*-4T	10	2.5	65.7	14.5	21.5	26	34	2	1.3 to 1.8	26
VSP-LFC10-2W*-6T		4								
VSP-LFC10-5W*-4T		2.5	71.7		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	28
VSP-LFC10-5W*-6T		4								
VSP-LFC10-10W*-4T		2.5	81.7		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	30
VSP-LFC10-10W*-6T		4								
VSP-LFC10-15W*-4T		2.5	91.7		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	32
VSP-LFC10-15W*-6T		4								
VSP-LFC10-20W*-4T		2.5	101.7		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	34
VSP-LFC10-20W*-6T		4								

*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, barbed fitting)

●VSP-LFC20 to 50-□W*-4T/6T



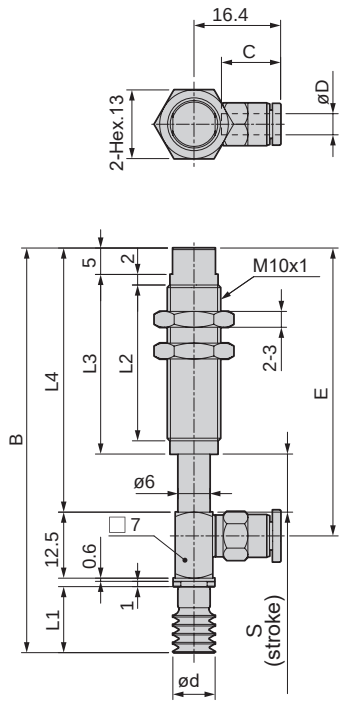
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
VSP-LFC20-5W*-4T	20	2.5	87.2	25	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	53
VSP-LFC20-5W*-6T		4								
VSP-LFC20-10W*-4T		2.5	97.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	55
VSP-LFC20-10W*-6T		4								
VSP-LFC20-15W*-4T		2.5	107.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	58
VSP-LFC20-15W*-6T		4								
VSP-LFC20-20W*-4T		2.5	117.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	61
VSP-LFC20-20W*-6T		4								
VSP-LFC30-5W*-4T	30	2.5	100.7	38.5	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	59
VSP-LFC30-5W*-6T		4								
VSP-LFC30-10W*-4T		2.5	110.7		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	61
VSP-LFC30-10W*-6T		4								
VSP-LFC30-15W*-4T		2.5	120.7		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	64
VSP-LFC30-15W*-6T		4								
VSP-LFC30-20W*-4T		2.5	130.7		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	67
VSP-LFC30-20W*-6T		4								
VSP-LFC40-5W*-4T	40	2.5	107.2	45	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	69
VSP-LFC40-5W*-6T		4								
VSP-LFC40-10W*-4T		2.5	117.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	71
VSP-LFC40-10W*-6T		4								
VSP-LFC40-15W*-4T		2.5	127.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	74
VSP-LFC40-15W*-6T		4								
VSP-LFC40-20W*-4T		2.5	137.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	77
VSP-LFC40-20W*-6T		4								
VSP-LFC50-5W*-4T	50	2.5	118.2	56	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	81
VSP-LFC50-5W*-6T		4								
VSP-LFC50-10W*-4T		2.5	128.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	83
VSP-LFC50-10W*-6T		4								
VSP-LFC50-15W*-4T		2.5	138.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	86
VSP-LFC50-15W*-6T		4								
VSP-LFC50-20W*-4T		2.5	148.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	89
VSP-LFC50-20W*-6T		4								

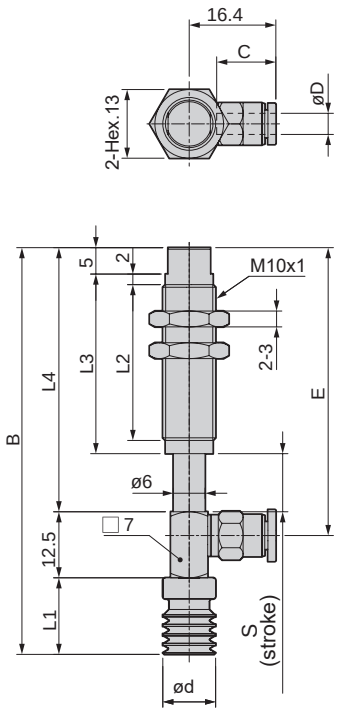
*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, push-in fitting)

●VSP-LFD6, 8-□W*-4



●VSP-LFD10-□W*-4

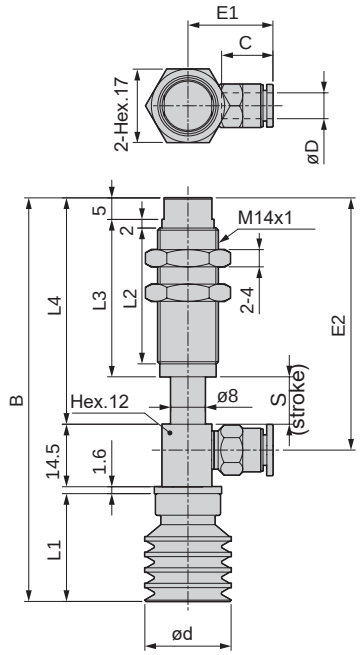


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD6-5W*-4	6	4	66.1	12	24.5	29	40	11.2	44.5	5	1.3 to 2.4	31
VSP-LFD6-10W*-4			76.1		29.5	34	50		54.5	10	1.3 to 3.3	34
VSP-LFD6-15W*-4			86.1		34.5	39	60		64.5	15	1.3 to 4.2	36
VSP-LFD6-20W*-4			96.1		39.5	44	70		74.5	20	1.3 to 5.1	38
VSP-LFD8-5W*-4	8	4	66.6	12.5	24.5	29	40	11.2	44.5	5	1.3 to 2.4	31
VSP-LFD8-10W*-4			76.6		29.5	34	50		54.5	10	1.3 to 3.3	34
VSP-LFD8-15W*-4			86.6		34.5	39	60		64.5	15	1.3 to 4.2	36
VSP-LFD8-20W*-4			96.6		39.5	44	70		74.5	20	1.3 to 5.1	38
VSP-LFD10-5W*-4	10	4	67	14.5	24.5	29	40	11.2	44.5	5	1.3 to 2.4	26
VSP-LFD10-10W*-4			77		29.5	34	50		54.5	10	1.3 to 3.3	28
VSP-LFD10-15W*-4			87		34.5	39	60		64.5	15	1.3 to 4.2	30
VSP-LFD10-20W*-4			97		39.5	44	70		74.5	20	1.3 to 5.1	32

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, push-in fitting)

●VSP-LFD20 to 50-□W*-4/6

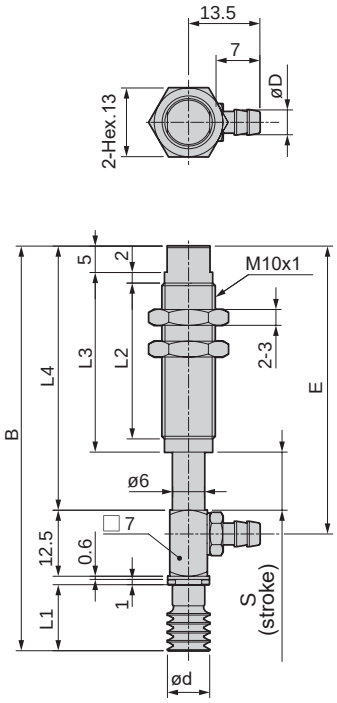


Unit: mm

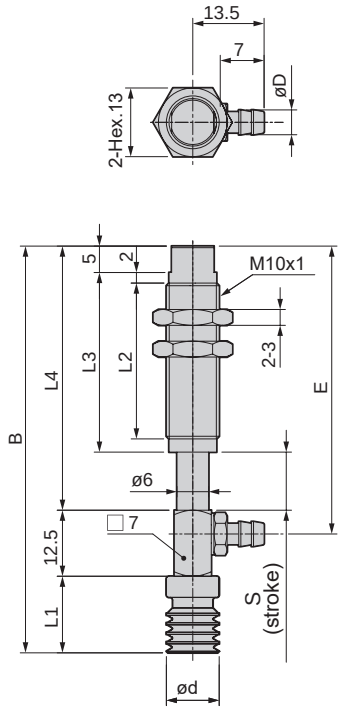
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-LFD20-5W*-4	20	4	83.5	25	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	59
VSP-LFD20-5W*-6		6						11.9	19.7				60
VSP-LFD20-10W*-4		4	93.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	63
VSP-LFD20-10W*-6		6						11.9	19.7				64
VSP-LFD20-15W*-4		4	103.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	67
VSP-LFD20-15W*-6		6						11.9	19.7				68
VSP-LFD20-20W*-4		4	113.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	71
VSP-LFD20-20W*-6		6						11.9	19.7				72
VSP-LFD30-5W*-4	30	4	97	38.5	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	65
VSP-LFD30-5W*-6		6						11.9	19.7				66
VSP-LFD30-10W*-4		4	107		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	69
VSP-LFD30-10W*-6		6						11.9	19.7				70
VSP-LFD30-15W*-4		4	117		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	73
VSP-LFD30-15W*-6		6						11.9	19.7				74
VSP-LFD30-20W*-4		4	127		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	77
VSP-LFD30-20W*-6		6						11.9	19.7				78
VSP-LFD40-5W*-4	40	4	103.5	45	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	75
VSP-LFD40-5W*-6		6						11.9	19.7				76
VSP-LFD40-10W*-4		4	113.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	79
VSP-LFD40-10W*-6		6						11.9	19.7				80
VSP-LFD40-15W*-4		4	123.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	83
VSP-LFD40-15W*-6		6						11.9	19.7				84
VSP-LFD40-20W*-4		4	133.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	87
VSP-LFD40-20W*-6		6						11.9	19.7				88
VSP-LFD50-5W*-4	50	4	114.5	56	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	87
VSP-LFD50-5W*-6		6						11.9	19.7				88
VSP-LFD50-10W*-4		4	124.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	91
VSP-LFD50-10W*-6		6						11.9	19.7				92
VSP-LFD50-15W*-4		4	134.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	94
VSP-LFD50-15W*-6		6						11.9	19.7				95
VSP-LFD50-20W*-4		4	144.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	99
VSP-LFD50-20W*-6		6						11.9	19.7				100

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, barbed fitting)

●VSP-LFD6, 8-□W*4T/6T



●VSP-LFD10-□W*-4T/6T

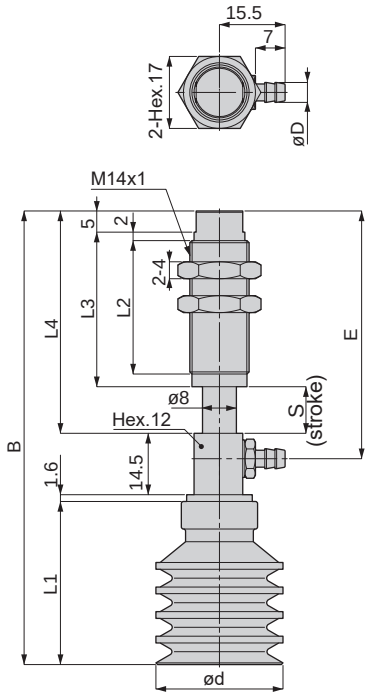


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD6-5W*-4T	6	2.5	66.1	12	24.5	29	40	44.5	5	1.3 to 2.4	30
VSP-LFD6-5W*-6T		4									
VSP-LFD6-10W*-4T		2.5	76.1		29.5	34	50	54.5	10	1.3 to 3.3	32
VSP-LFD6-10W*-6T		4									
VSP-LFD6-15W*-4T		2.5	86.1		34.5	39	60	64.5	15	1.3 to 4.2	34
VSP-LFD6-15W*-6T		4									
VSP-LFD6-20W*-4T		2.5	96.1		39.5	44	70	74.5	20	1.3 to 5.1	36
VSP-LFD6-20W*-6T		4									
VSP-LFD8-5W*-4T	8	2.5	66.6	12.5	24.5	29	40	44.5	5	1.3 to 2.4	30
VSP-LFD8-5W*-6T		4									
VSP-LFD8-10W*-4T		2.5	76.6		29.5	34	50	54.5	10	1.3 to 3.3	32
VSP-LFD8-10W*-6T		4									
VSP-LFD8-15W*-4T		2.5	86.6		34.5	39	60	64.5	15	1.3 to 4.2	34
VSP-LFD8-15W*-6T		4									
VSP-LFD8-20W*-4T		2.5	96.6		39.5	44	70	74.5	20	1.3 to 5.1	36
VSP-LFD8-20W*-6T		4									
VSP-LFD10-5W*-4T	10	2.5	67	14.5	24.5	29	40	44.5	5	1.3 to 2.4	25
VSP-LFD10-5W*-6T		4									
VSP-LFD10-10W*-4T		2.5	77		29.5	34	50	54.5	10	1.3 to 3.3	27
VSP-LFD10-10W*-6T		4									
VSP-LFD10-15W*-4T		2.5	87		34.5	39	60	64.5	15	1.3 to 4.2	29
VSP-LFD10-15W*-6T		4									
VSP-LFD10-20W*-4T		2.5	97		39.5	44	70	74.5	20	1.3 to 5.1	31
VSP-LFD10-20W*-6T		4									

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, barbed fitting)

●VSP-LFD20 to 50-□W*-4T/6T

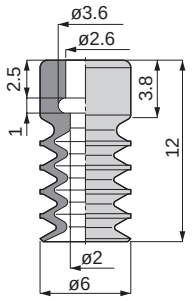


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD20-5W*-4T	20	2.5	83.5	25	26.5	31.5	42.5	48.5	5	4.5 to 6.5	55
VSP-LFD20-5W*-6T		4									
VSP-LFD20-10W*-4T		2.5	93.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	58
VSP-LFD20-10W*-6T		4									
VSP-LFD20-15W*-4T		2.5	103.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	62
VSP-LFD20-15W*-6T		4									
VSP-LFD20-20W*-4T		2.5	113.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	66
VSP-LFD20-20W*-6T		4									
VSP-LFD30-5W*-4T	30	2.5	97	38.5	26.5	31.5	42.5	48.5	5	4.5 to 6.5	61
VSP-LFD30-5W*-6T		4									
VSP-LFD30-10W*-4T		2.5	107		31.5	36.5	52.5	58.5	10	4.5 to 8.2	64
VSP-LFD30-10W*-6T		4									
VSP-LFD30-15W*-4T		2.5	117		36.5	41.5	62.5	68.5	15	4.5 to 9.9	68
VSP-LFD30-15W*-6T		4									
VSP-LFD30-20W*-4T		2.5	127		41.5	46.5	72.5	78.5	20	4.5 to 14.9	72
VSP-LFD30-20W*-6T		4									
VSP-LFD40-5W*-4T	40	2.5	103.5	45	26.5	31.5	42.5	48.5	5	4.5 to 6.5	71
VSP-LFD40-5W*-6T		4									
VSP-LFD40-10W*-4T		2.5	113.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	74
VSP-LFD40-10W*-6T		4									
VSP-LFD40-15W*-4T		2.5	123.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	78
VSP-LFD40-15W*-6T		4									
VSP-LFD40-20W*-4T		2.5	133.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	82
VSP-LFD40-20W*-6T		4									
VSP-LFD50-5W*-4T	50	2.5	114.5	56	26.5	31.5	42.5	48.5	5	4.5 to 6.5	83
VSP-LFD50-5W*-6T		4									
VSP-LFD50-10W*-4T		2.5	124.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	86
VSP-LFD50-10W*-6T		4									
VSP-LFD50-15W*-4T		2.5	134.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	90
VSP-LFD50-15W*-6T		4									
VSP-LFD50-20W*-4T		2.5	144.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	94
VSP-LFD50-20W*-6T		4									

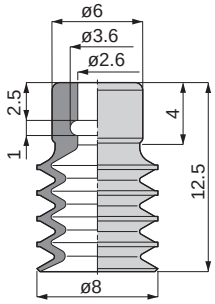
Dimensions: pad only

●VSPG-6W*



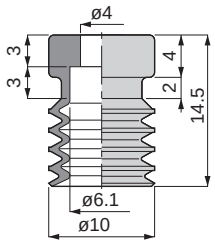
Weight: 0.4g [6g]

●VSPG-8W*



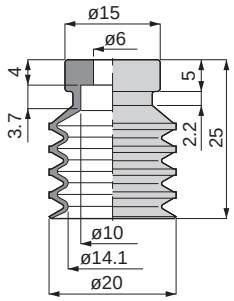
Weight: 0.5g [g]

●VSPG-10W*



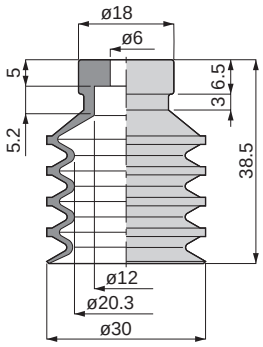
Weight: 0.6g [0g]

●VSPG-20W*



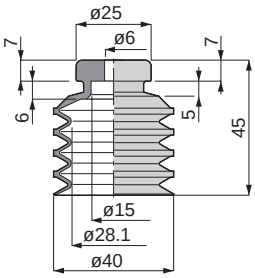
Weight: 2.4g [.6g]

●VSPG-30W*



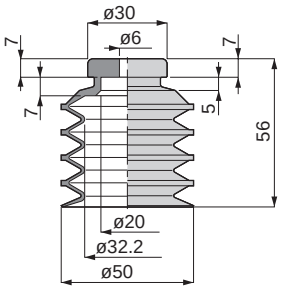
Weight: 6.7g [0.1g]

●VSPG-40W*



Weight: 15g [3g]

●VSPG-50W*

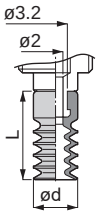


Weight: 25g [7.5g]

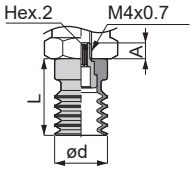
* Values in [ ] for fluoro rubber only.

Detailed view of pad and holder connection

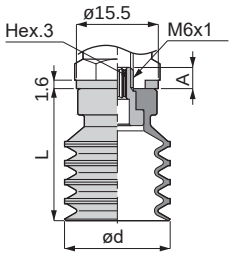
●VSPG-6, 8W*



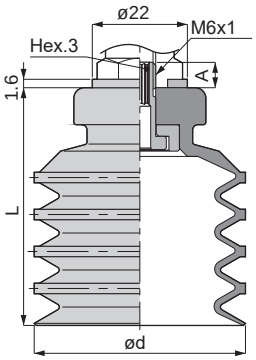
●VSPG-10W*A



●VSPG-20W*30W*A



●VSPG-40, 50W*A

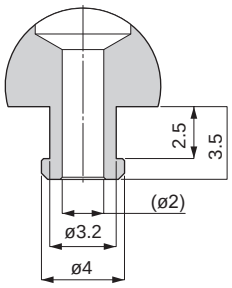


Unit: mm

Model No.	Pad O.D ød	L	Fixing screw	A
VSPG-6W*	6	6	-	-
VSPG-8W*	8	8	-	-
VSPG-10W*A	10	10	10	3
VSPG-20W*A	20	20	20	4
VSPG-30W*A	30	30	30	5
VSPG-40W*A	40	40	40	5
VSPG-50W*A	50	50	50	5

Pad fitting part dimensions

●VSPG-6, 8W*



Safety precautions

WARNING

- Since the multi-stage bellows type pads may adhere together due to working conditions and material characteristics, confirm performance with an actual device. In addition, since stickiness may increase due to the operating environment and pad wear, review as necessary the pad shape, material, quantity, etc.
- Do not use the multi-stage bellows type in a way that excessively collapses. If it is compressed too much, the bellows part may wear quickly, or cracks in the lip part may occur, or deformation due to strain may cause suction failure.

MEMO



Suction pad oval

VSP-* E* Series

Oval suction pad convenient for cases when a circular suction surface cannot be secured

RoHS

Ideal for transporting long workpieces such as substrates and semiconductors

A wide range of holder variations

Shape 16types

- Standard5 types
- CompactClass 4
- Low dust generation 2 types
- Lightweight3 types
- Low back: 2 types

Pipingconnection 5types

- Push-in fitting (ø1.8 to ø6)Three types
- Barbed fitting (ø4, ø6) Two types

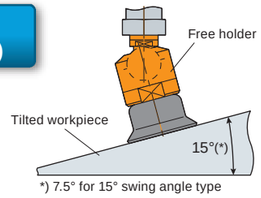
Stroke 10types

4mm to 50mm
(Depends on the pad size and holder)

Low dust generation holders (LFC, LFD) are available, with minimal friction powder and low noise caused by sliding

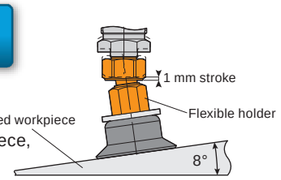
Supports assembly options of track swinging (free holder, flexible holder) on a workpiece surface with an angle

Free holder (F1:30°, F2:15°)



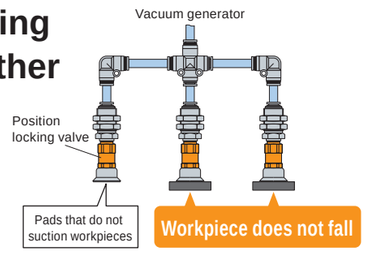
*) 7.5° for 15° swing angle type

Flexible holder (CF)



After removing the workpiece, returns to the normal position (vertical)

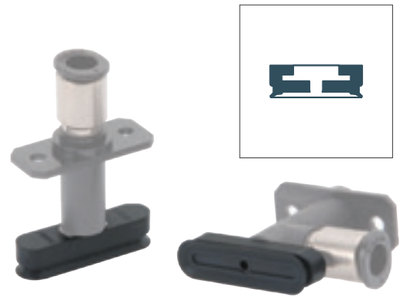
Supports assembly option of position locking valve (V) that reduces vacuum drop in another circuit even without a workpiece



Pad surface treatment (option) is available for special treatment to reduce suction marks

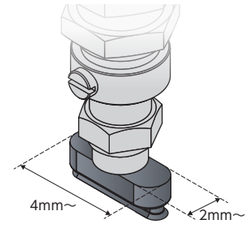
Code	-DL	-ER	-FG
	Anti-sticking	Suction mark relief	Fluorine coating
Surface-treated			
Com-patible materials	Silicone Fluorine Conductive silicone	Nitriles Conductive NBR (low resistance)	Silicone Conductive silicone
Features	Special coating with good slip. Effective for preventing adhesion of lightweight and thin workpieces.	Reduces suction marks by modifying the surface with an environmentally friendly chemical liquid.	Surface modification for special treatment to prevent adhesion to workpieces. Improved pad durability and wear resistance.

Pad shape



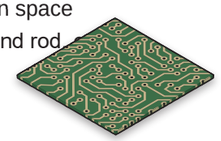
Large suction area with oval shape

Available from 2 mm×4 mm for use with a small suction space. Suction area can be secured even in narrow spaces.



Recommended workpiece

Workpieces with limited suction space (substrate, semiconductor, round rod...)



Pad size

13 types

2x4 | 3.5x7 | 4x10 | 5x10 | 6x10 | 4x20 | 5x20
6x20 | 8x20 | 4x30 | 5x30 | 6x30 | 8x30

Pad material

9 types

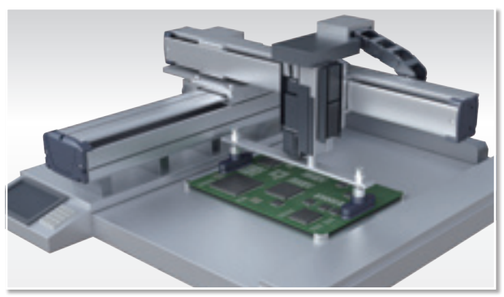
Nitriles | silicone | Urethane | Fluorine | Conductive silicone
Conductive butadiene (low resistance) | Conductive NBR (low resistance) | HNBR | EPDM

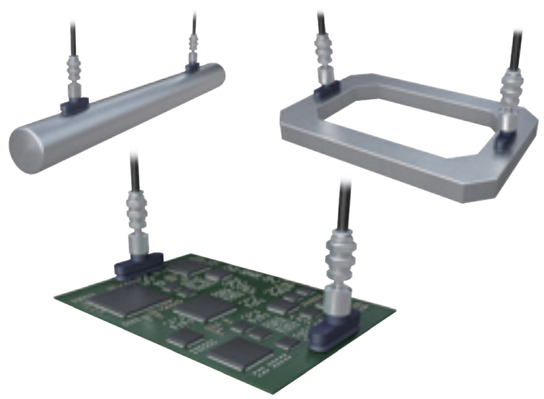
* Silicone (S) is compatible with the Food Sanitation Act. (Holder is not supported/suction pad is compatible only with workpiece contact part.)

Solution examples

Elongated workpiece

Supports workpieces such as electronic base, pipe, and frame, for which it is difficult to secure a suction area with circular pads.





How to order

● Oval

Suction pad

VSP – C – 2x4 – -20 – E – N – -ER – 6 – [ ] – F1 – V

VSP	C	2x4	-20	E	N	-ER	6	[ ]	F1	V
Model No.	❶ Holder type	❷ Pad size	❸ Stroke option	❹ Pad shape	❺ Pad material	❻ Surface-treated	❼ Port size/ shape	❽ Buffer load	❾ Swiveling pad	❿ Position locking valve

Pad rubber only

VSPG – 2x4 – E – N – -ER

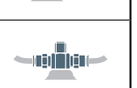
VSPG	2x4	E	N	-ER
Model No.	❷ Pad size	❹ Pad shape	❺ Pad material	❻ Surface-treated

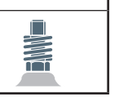
Pad rubber + set with fixing screw

VSPG – 2x4 – E – N – -ER – A

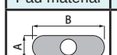
VSPG	2x4	E	N	-ER	A
Model No.	❷ Pad size	❹ Pad shape	❺ Pad material	❻ Surface-treated	

❶ Holder type

With/Without buffer	Type	Vacuum outlet	Code	
Fixed	Standard	Upward direction	A	
	Compact		MA	
	Screw fixing		AE	
	Standard	Lateral direction	B	
	Compact		MB	
	Low height		HE	
		Both lateral directions	HEW	
	Screw fixing	Lateral direction	BE	

With/Without buffer	Type	Vacuum outlet	Code	
Buffer type	Standard	Upward direction	C	
	Compact		MC	
	Low dust generation		LFC	
	Lightweight		HC	
	Standard	Lateral direction	D	
	Compact		MD	
	Low dust generation		LFD	
	Lightweight		HD	
		Both lateral directions	HDW	
	Standard	Direct mounting	F	

❷ Pad size

Pad shape	E								
Pad material	N	S	U	F	SE	E	NE	HN	EP
 Description: Size (A×B)									Code
2 mm×4 mm	●	●	●	●	●		●	●	●	2x4
3.5 mm×7 mm	●	●	●	●	●		●	●	●	3.5x7
4 mm×10 mm	●	●	●	●	●	●	●	●	●	4x10
4 mm×20 mm	●	●	●	●	●	●	●	●	●	4x20
4 mm×30 mm	●	●			●	●	●	●	●	4x30
5 mm×10 mm	●	●	●	●	●	●	●	●	●	5x10
5 mm×20 mm	●	●	●	●	●	●	●	●	●	5x20
5 mm×30 mm	●	●	●	●	●	●	●	●	●	5x30
6 mm×10 mm	●	●	●	●	●	●	●	●	●	6x10
6 mm×20 mm	●	●	●	●	●	●	●	●	●	6x20
6 mm×30 mm	●	●	●	●	●	●	●	●	●	6x30
8 mm×20 mm	●	●	●	●	●	●	●	●	●	8x20
8 mm×30 mm	●	●	●	●	●	●	●	●	●	8x30

❸ Stroke option

Description	Holder type C	D	HC	LFC	LFD	Code	
Specified stroke or without buffer	●	●				Blank	*1,*2
Stroke 5 mm				●	●	–5	
Stroke 10 mm	●	●	●	●	●	–10	
Stroke 15 mm	●	●	●	●	●	–15	
Stroke 20 mm	●	●	●	●	●	–20	
Stroke 25 mm			●			–25	
Stroke 30 mm	●	●	●			–30	
Stroke 40 mm	●	●	●			–40	
Stroke 50 mm	●	●	●			–50	

❶*1: Blank for ❸ models other than C, D, HC, LFC, LFD.
*2: ❸For the designated stroke with blank, check the stroke dimensions.

❹ Pad shape

Code	Description	
E	Oval	

❺ Pad material

Code	Description
N	Nitrile rubber
S	Silicone rubber
U	Urethane rubber
F	Fluoro rubber
SE	Conductive silicone rubber
E	Conductive butadiene rubber (low resistance)
NE	Conductive NBR (low resistance)
HN	HNBR
EP	EPDM

Specifications for rechargeable battery (Catalog No.CC-1226A)

●Design compatible with rechargeable battery manufacturing process

VSP – ..... – P4*

Specifications for food manufacturing processes (Catalog No.CC-1271A)

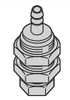
●Food-grade lubricants that can be used in food manufacturing processes, and resin/ rubber materials that are compatible with the Food Sanitation Act are used

VSP – ..... – FP*

❻ Surface-treated

Description	Compatible pad material N	S	F	SE	NE	Supported pad diameter Oval (E)	Code
No surface treatment	All pads material, all pads size						Blank
Anti-stick special coating		●	●	●		All sizes	–DL
Suction mark reduction surface modification	●				●	All sizes	–ER
Fluorine coating		●		●		All sizes	–FG

❼ Port size/shape

Description	Holder type A	B	C	D	MA	MB	MC	MD	LFC	LFD	HC	HD	HDW	HE	HEW	AE	BE	Code	
(❶: for F)																		Blank	
ø1.8 push-in fitting						●	●	●			●	●	●	●	●	●	●	2	
ø4 push-in fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	
ø6 push-in fitting	●	●	●	●		●		●	●	●	●	●	●	●	●	●	●	6	
ø4 Push-in fitting, without spring cover			●	●														4C	
ø6 Push-in fitting, without spring cover			●	●														6C	
ø4 barbed fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4T	
ø6 barbed fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	6T	
ø4 barbed fitting, without spring cover			●	●														4TC	
ø6 Barbed fitting, without spring cover			●	●														6TC	

*1: If -20 to -50 is available for C and D, 4C, 6C, 4TC, 6TC can be selected.

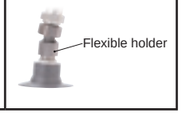
❽ Buffer load

*1

Code	Description
Blank	Standard load or without buffer
L	Low load (1/4 of standard load)

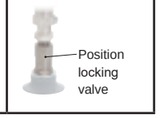
*1: ❶Blank for models other than LFC.

❾ Swiveling pad

Code	Description	
Blank	None	*1
F1	With free holder swing angle 30°	 Free holder
F2	With free holder swing angle 15°	
CF	With flexible holder angle of 8°	 Flexible holder

*1: ❶For AE and BE, ❾is blank.

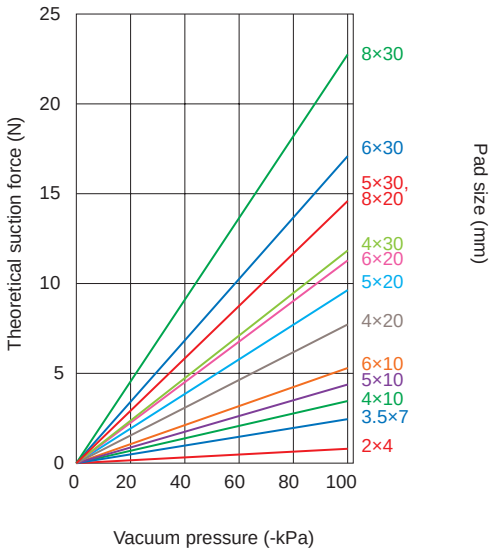
❿ Position locking valve

Code	Description	
Blank	None	*1
V	With position locking valve	 Position locking valve

*1: ❶For AE and BE, ❿is blank.

Theoretical suction force

●Pad size: 2×4 mm, 3.5×7 mm,
□×10 mm, □×20 mm, □×30 mm

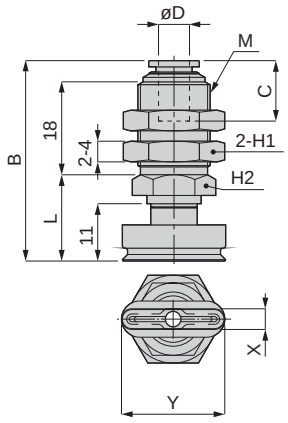


*Because the theoretical suction force is the value at static conditions, adopt a safety factor of 1/4 for horizontal lifting and 1/8 for vertical lifting in actual use.

Before selection, use the suction force obtained by ”Selection method of suction pad” (page 288) as a guide, and make sure that there is no problem with the suction capacity on the actual machine.

Dimensions (fixed, vacuum outlet, top, VSP-A, push-in fitting)

●VSP-A*E*-4/6

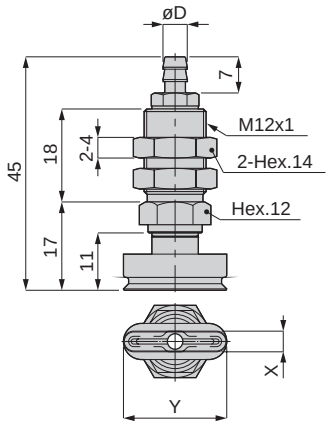


Unit: mm

Model No.	Pad size		Bore size	Mounting screw	B	L	Tube end	Hexagon	Hexagon	Weight
	X	Y	øD	M			C	H1	H2	(g)
VSP-A2×4E*-4	2	4	4	M12x1	47.9	17	11.2	14	12	26
VSP-A2×4E*-6			6	M14x1	38.9	16.6	11.9	17	14	32
VSP-A3.5×7E*-4	3.5	7	4	M12x1	47.9	17	11.2	14	12	26
VSP-A3.5×7E*-6			6	M14x1	38.9	16.6	11.9	17	14	32
VSP-A4×10E*-4	4	10	4	M12x1	47.9	17	11.2	14	12	26
VSP-A4×10E*-6			6	M14x1	38.9	16.6	11.9	17	14	32
VSP-A4×20E*-4		20	4	M12x1	47.9	17	11.2	14	12	26
VSP-A4×20E*-6			6	M14x1	38.9	16.6	11.9	17	14	32
VSP-A4×30E*-4		30	4	M12x1	47.9	17	11.2	14	12	27
VSP-A4×30E*-6			6	M14x1	38.9	16.6	11.9	17	14	33
VSP-A5×10E*-4	5	10	4	M12x1	47.9	17	11.2	14	12	26
VSP-A5×10E*-6			6	M14x1	38.9	16.6	11.9	17	14	32
VSP-A5×20E*-4		20	4	M12x1	47.9	17	11.2	14	12	26
VSP-A5×20E*-6			6	M14x1	38.9	16.6	11.9	17	14	32
VSP-A5×30E*-4		30	4	M12x1	47.9	17	11.2	14	12	26
VSP-A5×30E*-6			6	M14x1	38.9	16.6	11.9	17	14	32
VSP-A6×10E*-4	6	10	4	M12x1	47.9	17	11.2	14	12	26
VSP-A6×10E*-6			6	M14x1	38.9	16.6	11.9	17	14	32
VSP-A6×20E*-4		20	4	M12x1	47.9	17	11.2	14	12	26
VSP-A6×20E*-6			6	M14x1	38.9	16.6	11.9	17	14	32
VSP-A6×30E*-4		30	4	M12x1	47.9	17	11.2	14	12	27
VSP-A6×30E*-6			6	M14x1	38.9	16.6	11.9	17	14	33
VSP-A8×20E*-4	8	20	4	M12x1	47.9	17	11.2	14	12	26
VSP-A8×20E*-6			6	M14x1	38.9	16.6	11.9	17	14	32
VSP-A8×30E*-4		30	4	M12x1	47.9	17	11.2	14	12	27
VSP-A8×30E*-6			6	M14x1	38.9	16.6	11.9	17	14	33

Dimensions (fixed, vacuum outlet, top, VSP-A, barbed fitting)

●VSP-A*E*-4T/6T

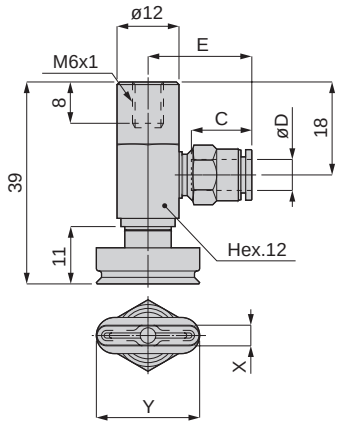


Unit: mm

Model No.	Pad size		Bore size	Weight
	X	Y	øD	(g)
VSP-A2×4E*-4T	2	4	2.5	25
VSP-A2×4E*-6T			4	
VSP-A3.5×7E*-4T	3.5	7	2.5	25
VSP-A3.5×7E*-6T			4	
VSP-A4×10E*-4T	4	10	2.5	25
VSP-A4×10E*-6T			4	
VSP-A4×20E*-4T		20	2.5	26
VSP-A4×20E*-6T			4	
VSP-A4×30E*-4T		30	2.5	26
VSP-A4×30E*-6T			4	
VSP-A5×10E*-4T	5	10	2.5	25
VSP-A5×10E*-6T			4	
VSP-A5×20E*-4T		20	2.5	26
VSP-A5×20E*-6T			4	
VSP-A5×30E*-4T		30	2.5	26
VSP-A5×30E*-6T			4	
VSP-A6×10E*-4T	6	10	2.5	25
VSP-A6×10E*-6T			4	
VSP-A6×20E*-4T		20	2.5	26
VSP-A6×20E*-6T			4	
VSP-A6×30E*-4T		30	2.5	26
VSP-A6×30E*-6T			4	
VSP-A8×20E*-4T	8	20	2.5	26
VSP-A8×20E*-6T			4	
VSP-A8×30E*-4T		30	2.5	26
VSP-A8×30E*-6T			4	

Dimensions (fixed, vacuum outlet, side, VSP-B, push-in fitting)

●VSP-B*E*-4/6

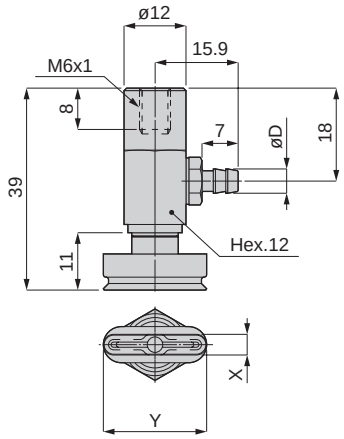


Unit: mm

Model No.	Pad size		Bore size	Tube end	E	Weight
	X	Y	øD	C		(g)
VSP-B2×4E*-4	2	4	4	11.2	18.8	28
VSP-B2×4E*-6			6	11.9	20.1	29
VSP-B3.5×7E*-4	3.5	7	4	11.2	18.8	28
VSP-B3.5×7E*-6			6	11.9	20.1	29
VSP-B4×10E*-4	4	10	4	11.2	18.8	28
VSP-B4×10E*-6			6	11.9	20.1	29
VSP-B4×20E*-4		20	4	11.2	18.8	29
VSP-B4×20E*-6			6	11.9	20.1	30
VSP-B4×30E*-4		30	4	11.2	18.8	29
VSP-B4×30E*-6			6	11.9	20.1	30
VSP-B5×10E*-4	5	10	4	11.2	18.8	28
VSP-B5×10E*-6			6	11.9	20.1	29
VSP-B5×20E*-4		20	4	11.2	18.8	29
VSP-B5×20E*-6			6	11.9	20.1	30
VSP-B5×30E*-4		30	4	11.2	18.8	29
VSP-B5×30E*-6			6	11.9	20.1	30
VSP-B6×10E*-4	6	10	4	11.2	18.8	28
VSP-B6×10E*-6			6	11.9	20.1	29
VSP-B6×20E*-4		20	4	11.2	18.8	29
VSP-B6×20E*-6			6	11.9	20.1	30
VSP-B6×30E*-4		30	4	11.2	18.8	29
VSP-B6×30E*-6			6	11.9	20.1	30
VSP-B8×20E*-4	8	20	4	11.2	18.8	29
VSP-B8×20E*-6			6	11.9	20.1	30
VSP-B8×30E*-4		30	4	11.2	18.8	29
VSP-B8×30E*-6			6	11.9	20.1	30

Dimensions (fixed, vacuum outlet, side, VSP-B, barbed fitting)

●VSP-B*E*-4T/6T

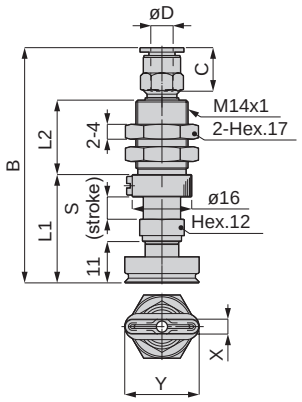


Unit: mm

Model No.	Pad size		Bore size	Weight
	X	Y	øD	(g)
VSP-B2×4E*-4T	2	4	2.5	27
VSP-B2×4E*-6T			4	
VSP-B3.5×7E*-4T	3.5	7	2.5	27
VSP-B3.5×7E*-6T			4	
VSP-B4×10E*-4T	4	10	2.5	27
VSP-B4×10E*-6T			4	
VSP-B4×20E*-4T		20	2.5	28
VSP-B4×20E*-6T			4	
VSP-B4×30E*-4T		30	2.5	28
VSP-B4×30E*-6T			4	
VSP-B5×10E*-4T	5	10	2.5	27
VSP-B5×10E*-6T			4	
VSP-B5×20E*-4T		20	2.5	28
VSP-B5×20E*-6T			4	
VSP-B5×30E*-4T		30	2.5	28
VSP-B5×30E*-6T			4	
VSP-B6×10E*-4T	6	10	2.5	27
VSP-B6×10E*-6T			4	
VSP-B6×20E*-4T		20	2.5	28
VSP-B6×20E*-6T			4	
VSP-B6×30E*-4T		30	2.5	28
VSP-B6×30E*-6T			4	
VSP-B8×20E*-4T	8	20	2.5	28
VSP-B8×20E*-6T			4	
VSP-B8×30E*-4T		30	2.5	28
VSP-B8×30E*-6T			4	

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting)

●VSP-C*E*-4/6
●VSP-C*-□E*-4/6

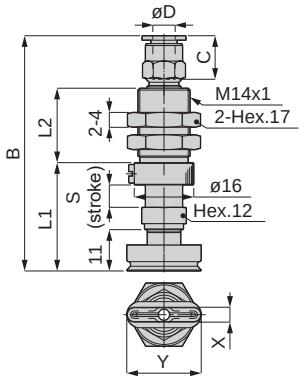


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C2×4E*-4	2	4	4	62	29	20	11.2	6	7.0 to 12.6	34
VSP-C2×4E*-6			6	63.3			11.9			35
VSP-C2×4-10E*-4			4	68	35		11.2	10	3.3 to 10.0	37
VSP-C2×4-10E*-6			6	69.3			11.9			38
VSP-C2×4-15E*-4			4	78	40	25	11.2	15	3.3 to 10.4	41
VSP-C2×4-15E*-6			6	79.3			11.9			42
VSP-C2×4-20E*-4			4	94	47	34	11.2	20	2.0 to 8.7	46
VSP-C2×4-20E*-6			6	95.3			11.9			47
VSP-C3.5×7E*-4	3.5	7	4	62	29	20	11.2	6	7.0 to 12.6	34
VSP-C3.5×7E*-6			6	63.3			11.9			35
VSP-C3.5×7-10E*-4			4	68	35		11.2	10	3.3 to 10.0	37
VSP-C3.5×7-10E*-6			6	69.3			11.9			38
VSP-C3.5×7-15E*-4			4	78	40	25	11.2	15	3.3 to 10.4	41
VSP-C3.5×7-15E*-6			6	79.3			11.9			42
VSP-C3.5×7-20E*-4			4	94	47	34	11.2	20	2.0 to 8.7	48
VSP-C3.5×7-20E*-6			6	95.3			11.9			49
VSP-C4×10E*-4	4	10	4	62	29	20	11.2	6	7.0 to 12.6	34
VSP-C4×10E*-6			6	63.3			11.9			35
VSP-C4×10-10E*-4			4	68	35		11.2	10	3.3 to 10.0	37
VSP-C4×10-10E*-6			6	69.3			11.9			38
VSP-C4×10-15E*-4			4	78	40	25	11.2	15	3.3 to 10.4	41
VSP-C4×10-15E*-6			6	79.3			11.9			42
VSP-C4×10-20E*-4			4	94	47	34	11.2	20	2.0 to 8.7	48
VSP-C4×10-20E*-6			6	95.3			11.9			49
VSP-C4×20E*-4		20	4	62	29	20	11.2	6	7.0 to 12.6	35
VSP-C4×20E*-6			6	63.3			11.9			36
VSP-C4×20-10E*-4			4	68	35		11.2	10	3.3 to 10.0	37
VSP-C4×20-10E*-6			6	69.3			11.9			38
VSP-C4×20-15E*-4			4	78	40	25	11.2	15	3.3 to 10.4	42
VSP-C4×20-15E*-6			6	79.3			11.9			43
VSP-C4×20-20E*-4			4	94	47	34	11.2	20	2.0 to 8.7	49
VSP-C4×20-20E*-6			6	95.3			11.9			50
VSP-C4×30E*-4		30	4	62	29	20	11.2	6	7.0 to 12.6	35
VSP-C4×30E*-6			6	63.3			11.9			36
VSP-C4×30-10E*-4			4	68	35		11.2	10	3.3 to 10.0	38
VSP-C4×30-10E*-6			6	69.3			11.9			39
VSP-C4×30-15E*-4			4	78	40	25	11.2	15	3.3 to 10.4	42
VSP-C4×30-15E*-6			6	79.3			11.9			43
VSP-C4×30-20E*-4			4	94	47	34	11.2	20	2.0 to 8.7	49
VSP-C4×30-20E*-6			6	95.3			11.9			50

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting)

●VSP-C*E*-4/6
●VSP-C*-□E*-4/6

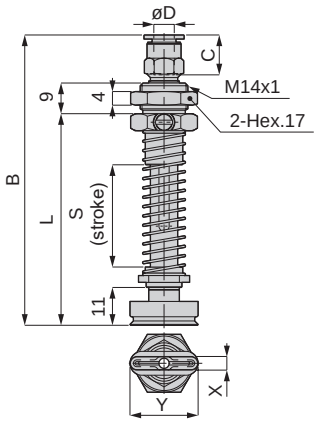


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C5×10E*-4	5	10	4	62	29	20	11.2	6	7.0 to 12.6	34
VSP-C5×10E*-6			6	63.3			11.9			35
VSP-C5×10-10E*-4			4	68	35		11.2	10	3.3 to 10.0	37
VSP-C5×10-10E*-6			6	69.3			11.9			38
VSP-C5×10-15E*-4			4	78	40	25	11.2	15	3.3 to 10.4	41
VSP-C5×10-15E*-6			6	79.3			11.9			42
VSP-C5×10-20E*-4			4	94	47	34	11.2	20	2.0 to 8.7	48
VSP-C5×10-20E*-6			6	95.3			11.9			49
VSP-C5×20E*-4		20	4	62	29	20	11.2	6	7.0 to 12.6	35
VSP-C5×20E*-6			6	63.3			11.9			36
VSP-C5×20-10E*-4			4	68	35		11.2	10	3.3 to 10.0	37
VSP-C5×20-10E*-6			6	69.3			11.9			38
VSP-C5×20-15E*-4			4	78	40	25	11.2	15	3.3 to 10.4	42
VSP-C5×20-15E*-6			6	79.3			11.9			43
VSP-C5×20-20E*-4			4	94	47	34	11.2	20	2.0 to 8.7	49
VSP-C5×20-20E*-6			6	95.3			11.9			50
VSP-C5×30E*-4		30	4	62	29	20	11.2	6	7.0 to 12.6	35
VSP-C5×30E*-6			6	63.3			11.9			36
VSP-C5×30-10E*-4			4	68	35		11.2	10	3.3 to 10.0	38
VSP-C5×30-10E*-6			6	69.3			11.9			39
VSP-C5×30-15E*-4			4	78	40	25	11.2	15	3.3 to 10.4	42
VSP-C5×30-15E*-6			6	79.3			11.9			43
VSP-C5×30-20E*-4			4	94	47	34	11.2	20	2.0 to 8.7	49
VSP-C5×30-20E*-6			6	95.3			11.9			50
VSP-C6×10E*-4	6	10	4	62	29	20	11.2	6	7.0 to 12.6	34
VSP-C6×10E*-6			6	63.3			11.9			35
VSP-C6×10-10E*-4			4	68	35		11.2	10	3.3 to 10.0	37
VSP-C6×10-10E*-6			6	69.3			11.9			38
VSP-C6×10-15E*-4			4	78	40	25	11.2	15	3.3 to 10.4	41
VSP-C6×10-15E*-6			6	79.3			11.9			42
VSP-C6×10-20E*-4			4	94	47	34	11.2	20	2.0 to 8.7	48
VSP-C6×10-20E*-6			6	95.3			11.9			49
VSP-C6×20E*-4		20	4	62	29	20	11.2	6	7.0 to 12.6	35
VSP-C6×20E*-6			6	63.3			11.9			36
VSP-C6×20-10E*-4			4	68	35		11.2	10	3.3 to 10.0	37
VSP-C6×20-10E*-6			6	69.3			11.9			38
VSP-C6×20-15E*-4			4	78	40	25	11.2	15	3.3 to 10.4	42
VSP-C6×20-15E*-6			6	79.3			11.9			43
VSP-C6×20-20E*-4			4	94	47	34	11.2	20	2.0 to 8.7	49
VSP-C6×20-20E*-6			6	95.3			11.9			50
VSP-C6×30E*-4		30	4	62	29	20	11.2	6	7.0 to 12.6	35
VSP-C6×30E*-6			6	63.3			11.9			36
VSP-C6×30-10E*-4			4	68	35		11.2	10	3.3 to 10.0	38
VSP-C6×30-10E*-6			6	69.3			11.9			39
VSP-C6×30-15E*-4			4	78	40	25	11.2	15	3.3 to 10.4	42
VSP-C6×30-15E*-6			6	79.3			11.9			43
VSP-C6×30-20E*-4			4	94	47	34	11.2	20	2.0 to 8.7	49
VSP-C6×30-20E*-6			6	95.3			11.9			50
VSP-C8×20E*-4	8	20	4	62	29	20	11.2	6	7.0 to 12.6	35
VSP-C8×20E*-6			6	63.3			11.9			36
VSP-C8×20-10E*-4			4	68	35		11.2	10	3.3 to 10.0	37
VSP-C8×20-10E*-6			6	69.3			11.9			38
VSP-C8×20-15E*-4			4	78	40	25	11.2	15	3.3 to 10.4	42
VSP-C8×20-15E*-6			6	79.3			11.9			43
VSP-C8×20-20E*-4			4	94	47	34	11.2	20	2.0 to 8.7	49
VSP-C8×20-20E*-6			6	95.3			11.9			50
VSP-C8×30E*-4		30	4	62	29	20	11.2	6	7.0 to 12.6	35
VSP-C8×30E*-6			6	63.3			11.9			36
VSP-C8×30-10E*-4			4	68	35		11.2	10	3.3 to 10.0	38
VSP-C8×30-10E*-6			6	69.3			11.9			39
VSP-C8×30-15E*-4			4	78	40	25	11.2	15	3.3 to 10.4	42
VSP-C8×30-15E*-6			6	79.3			11.9			43
VSP-C8×30-20E*-4			4	94	47	34	11.2	20	2.0 to 8.7	49
VSP-C8×30-20E*-6			6	95.3			11.9			50

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting, without spring cover)

●VSP-C*-□E*-4C/6C

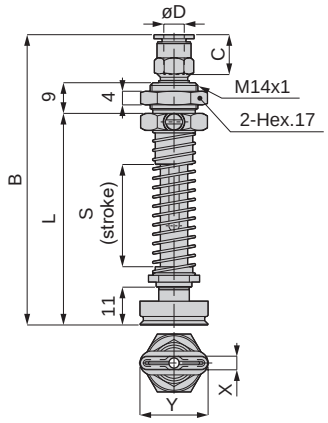


Unit: mm

Model No.	Pad size		Bore size	B	L	Tube end	Stroke	Spring force (N)	Weight
	X	Y	øD			C	S		(g)
VSP-C2×4-20E*-4C	2	4	4	71	49	11.2	20	1.5 to 4.9	44
VSP-C2×4-20E*-6C			6	72.3		11.9			45
VSP-C2×4-30E*-4C			4	84	62	11.2	30	1.1 to 4.8	49
VSP-C2×4-30E*-6C			6	85.3		11.9			50
VSP-C2×4-40E*-4C			4	97	75	11.2	40	1.0 to 4.5	54
VSP-C2×4-40E*-6C			6	98.3		11.9			55
VSP-C2×4-50E*-4C			4	110	88	11.2	50	0.9 to 4.5	60
VSP-C2×4-50E*-6C			6	111.3		11.9			61
VSP-C3.5×7-20E*-4C	3.5	7	4	71	49	11.2	20	1.5 to 4.9	44
VSP-C3.5×7-20E*-6C			6	72.3		11.9			45
VSP-C3.5×7-30E*-4C			4	84	62	11.2	30	1.1 to 4.8	49
VSP-C3.5×7-30E*-6C			6	85.3		11.9			50
VSP-C3.5×7-40E*-4C			4	97	75	11.2	40	1.0 to 4.5	54
VSP-C3.5×7-40E*-6C			6	98.3		11.9			55
VSP-C3.5×7-50E*-4C			4	110	88	11.2	50	0.9 to 4.5	60
VSP-C3.5×7-50E*-6C			6	111.3		11.9			61
VSP-C4×10-20E*-4C	4	10	4	71	49	11.2	20	1.5 to 4.9	44
VSP-C4×10-20E*-6C			6	72.3		11.9			45
VSP-C4×10-30E*-4C			4	84	62	11.2	30	1.1 to 4.8	50
VSP-C4×10-30E*-6C			6	85.3		11.9			51
VSP-C4×10-40E*-4C			4	97	75	11.2	40	1.0 to 4.5	55
VSP-C4×10-40E*-6C			6	98.3		11.9			56
VSP-C4×10-50E*-4C			4	110	88	11.2	50	0.9 to 4.5	60
VSP-C4×10-50E*-6C			6	111.3		11.9			61
VSP-C4×20-20E*-4C		20	4	71	49	11.2	20	1.5 to 4.9	45
VSP-C4×20-20E*-6C			6	72.3		11.9			46
VSP-C4×20-30E*-4C			4	84	62	11.2	30	1.1 to 4.8	50
VSP-C4×20-30E*-6C			6	85.3		11.9			51
VSP-C4×20-40E*-4C			4	97	75	11.2	40	1.0 to 4.5	55
VSP-C4×20-40E*-6C			6	98.3		11.9			56
VSP-C4×20-50E*-4C			4	110	88	11.2	50	0.9 to 4.5	61
VSP-C4×20-50E*-6C			6	111.3		11.9			62
VSP-C4×30-20E*-4C		30	4	71	49	11.2	20	1.5 to 4.9	45
VSP-C4×30-20E*-6C			6	72.3		11.9			46
VSP-C4×30-30E*-4C			4	84	62	11.2	30	1.1 to 4.8	50
VSP-C4×30-30E*-6C			6	85.3		11.9			51
VSP-C4×30-40E*-4C			4	97	75	11.2	40	1.0 to 4.5	55
VSP-C4×30-40E*-6C			6	98.3		11.9			56
VSP-C4×30-50E*-4C			4	110	88	11.2	50	0.9 to 4.5	60
VSP-C4×30-50E*-6C			6	111.3		11.9			61

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting, without spring cover)

●VSP-C*-□E*-4C/6C

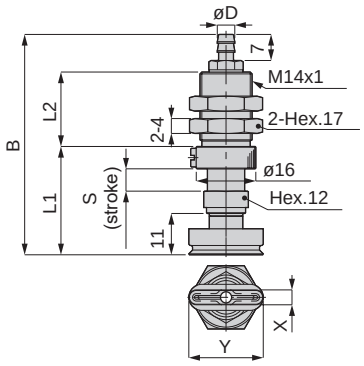


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C5×10-20E*-4C	5	10	4	71	49	11.2	20	1.5 to 4.9	44
VSP-C5×10-20E*-6C			6	72.3		11.9			45
VSP-C5×10-30E*-4C			4	84	62	11.2	30	1.1 to 4.8	49
VSP-C5×10-30E*-6C			6	85.3		11.9			50
VSP-C5×10-40E*-4C			4	97	75	11.2	40	1.0 to 4.5	54
VSP-C5×10-40E*-6C			6	98.3		11.9			55
VSP-C5×10-50E*-4C			4	110	88	11.2	50	0.9 to 4.5	60
VSP-C5×10-50E*-6C			6	111.3		11.9			61
VSP-C5×20-20E*-4C		20	4	71	49	11.2	20	1.5 to 4.9	44
VSP-C5×20-20E*-6C			6	72.3		11.9			45
VSP-C5×20-30E*-4C			4	84	62	11.2	30	1.1 to 4.8	50
VSP-C5×20-30E*-6C			6	85.3		11.9			51
VSP-C5×20-40E*-4C			4	97	75	11.2	40	1.0 to 4.5	55
VSP-C5×20-40E*-6C			6	98.3		11.9			56
VSP-C5×20-50E*-4C			4	110	88	11.2	50	0.9 to 4.5	60
VSP-C5×20-50E*-6C			6	111.3		11.9			61
VSP-C5×30-20E*-4C		30	4	71	49	11.2	20	1.5 to 4.9	45
VSP-C5×30-20E*-6C			6	72.3		11.9			46
VSP-C5×30-30E*-4C			4	84	62	11.2	30	1.1 to 4.8	50
VSP-C5×30-30E*-6C			6	85.3		11.9			51
VSP-C5×30-40E*-4C			4	97	75	11.2	40	1.0 to 4.5	55
VSP-C5×30-40E*-6C			6	98.3		11.9			56
VSP-C5×30-50E*-4C			4	110	88	11.2	50	0.9 to 4.5	61
VSP-C5×30-50E*-6C			6	111.3		11.9			62
VSP-C6×10-20E*-4C	6	10	4	71	49	11.2	20	1.5 to 4.9	44
VSP-C6×10-20E*-6C			6	72.3		11.9			45
VSP-C6×10-30E*-4C			4	84	62	11.2	30	1.1 to 4.8	49
VSP-C6×10-30E*-6C			6	85.3		11.9			50
VSP-C6×10-40E*-4C			4	97	75	11.2	40	1.0 to 4.5	54
VSP-C6×10-40E*-6C			6	98.3		11.9			55
VSP-C6×10-50E*-4C			4	110	88	11.2	50	0.9 to 4.5	60
VSP-C6×10-50E*-6C			6	111.3		11.9			61
VSP-C6×20-20E*-4C		20	4	71	49	11.2	20	1.5 to 4.9	44
VSP-C6×20-20E*-6C			6	72.3		11.9			45
VSP-C6×20-30E*-4C			4	84	62	11.2	30	1.1 to 4.8	50
VSP-C6×20-30E*-6C			6	85.3		11.9			51
VSP-C6×20-40E*-4C			4	97	75	11.2	40	1.0 to 4.5	55
VSP-C6×20-40E*-6C			6	98.3		11.9			56
VSP-C6×20-50E*-4C			4	110	88	11.2	50	0.9 to 4.5	60
VSP-C6×20-50E*-6C			6	111.3		11.9			61
VSP-C6×30-20E*-4C		30	4	71	49	11.2	20	1.5 to 4.9	45
VSP-C6×30-20E*-6C			6	72.3		11.9			46
VSP-C6×30-30E*-4C			4	84	62	11.2	30	1.1 to 4.8	50
VSP-C6×30-30E*-6C			6	85.3		11.9			51
VSP-C6×30-40E*-4C			4	97	75	11.2	40	1.0 to 4.5	55
VSP-C6×30-40E*-6C			6	98.3		11.9			56
VSP-C6×30-50E*-4C			4	110	88	11.2	50	0.9 to 4.5	61
VSP-C6×30-50E*-6C			6	111.3		11.9			62
VSP-C8×20-20E*-4C	8	20	4	71	49	11.2	20	1.5 to 4.9	44
VSP-C8×20-20E*-6C			6	72.3		11.9			45
VSP-C8×20-30E*-4C			4	84	62	11.2	30	1.1 to 4.8	50
VSP-C8×20-30E*-6C			6	85.3		11.9			51
VSP-C8×20-40E*-4C			4	97	75	11.2	40	1.0 to 4.5	55
VSP-C8×20-40E*-6C			6	98.3		11.9			56
VSP-C8×20-50E*-4C			4	110	88	11.2	50	0.9 to 4.5	60
VSP-C8×20-50E*-6C			6	111.3		11.9			61
VSP-C8×30-20E*-4C		30	4	71	49	11.2	20	1.5 to 4.9	45
VSP-C8×30-20E*-6C			6	72.3		11.9			46
VSP-C8×30-30E*-4C			4	84	62	11.2	30	1.1 to 4.8	50
VSP-C8×30-30E*-6C			6	85.3		11.9			51
VSP-C8×30-40E*-4C			4	97	75	11.2	40	1.0 to 4.5	55
VSP-C8×30-40E*-6C			6	98.3		11.9			56
VSP-C8×30-50E*-4C			4	110	88	11.2	50	0.9 to 4.5	61
VSP-C8×30-50E*-6C			6	111.3		11.9			62

Dimensions (buffer, vacuum outlet top VSP-C, barbed fitting)

●VSP-C*E*-4T/6T
●VSP-C*-□E*-4T/6T

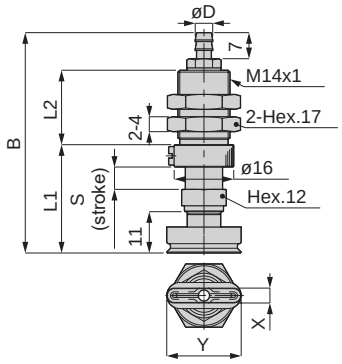


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-C2×4E*-4T	2	4	2.5	59.1	29	20	6	7.0 to 12.6	33
VSP-C2×4E*-6T			4						
VSP-C2×4-10E*-4T			2.5	65.1	35		10	3.3 to 10.0	36
VSP-C2×4-10E*-6T			4						
VSP-C2×4-15E*-4T			2.5	75.1	40	25	15	3.3 to 10.4	40
VSP-C2×4-15E*-6T			4						
VSP-C2×4-20E*-4T			2.5	91.1	47	34	20	2.0 to 8.7	47
VSP-C2×4-20E*-6T			4						
VSP-C3.5×7E*-4T	3.5	7	2.5	59.1	29	20	6	7.0 to 12.6	33
VSP-C3.5×7E*-6T			4						
VSP-C3.5×7-10E*-4T			2.5	65.1	35		10	3.3 to 10.0	36
VSP-C3.5×7-10E*-6T			4						
VSP-C3.5×7-15E*-4T			2.5	75.1	40	25	15	3.3 to 10.4	40
VSP-C3.5×7-15E*-6T			4						
VSP-C3.5×7-20E*-4T			2.5	91.1	47	34	20	2.0 to 8.7	47
VSP-C3.5×7-20E*-6T			4						
VSP-C4×10E*-4T	4	10	2.5	59.1	29	20	6	7.0 to 12.6	33
VSP-C4×10E*-6T			4						
VSP-C4×10-10E*-4T			2.5	65.1	35		10	3.3 to 10.0	36
VSP-C4×10-10E*-6T			4						
VSP-C4×10-15E*-4T			2.5	75.1	40	25	15	3.3 to 10.4	40
VSP-C4×10-15E*-6T			4						
VSP-C4×10-20E*-4T			2.5	91.1	47	34	20	2.0 to 8.7	47
VSP-C4×10-20E*-6T			4						
VSP-C4×20E*-4T		20	2.5	59.1	29	20	6	7.0 to 12.6	34
VSP-C4×20E*-6T			4						
VSP-C4×20-10E*-4T			2.5	65.1	35		10	3.3 to 10.0	36
VSP-C4×20-10E*-6T			4						
VSP-C4×20-15E*-4T			2.5	75.1	40	25	15	3.3 to 10.4	41
VSP-C4×20-15E*-6T			4						
VSP-C4×20-20E*-4T			2.5	91.1	47	34	20	2.0 to 8.7	48
VSP-C4×20-20E*-6T			4						
VSP-C4×30E*-4T		30	2.5	59.1	29	20	6	7.0 to 12.6	34
VSP-C4×30E*-6T			4						
VSP-C4×30-10E*-4T			2.5	65.1	35		10	3.3 to 10.0	37
VSP-C4×30-10E*-6T			4						
VSP-C4×30-15E*-4T			2.5	75.1	40	25	15	3.3 to 10.4	41
VSP-C4×30-15E*-6T			4						
VSP-C4×30-20E*-4T			2.5	91.1	47	34	20	2.0 to 8.7	48
VSP-C4×30-20E*-6T			4						

Dimensions (buffer, vacuum outlet, top, VSP-C, barbed fitting)

●VSP-C*-4T/6T
●VSP-C*-□E*-4T/6T

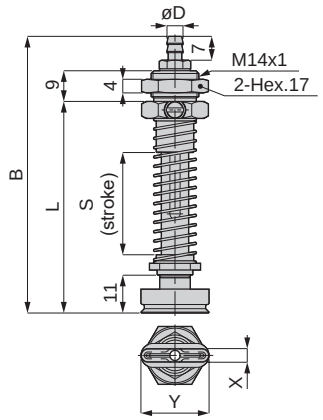


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-C5×10E*-4T	5	10	4	59.1	29	20	6	7.0 to 12.6	33
VSP-C5×10E*-6T			6						
VSP-C5×10-10E*-4T			4	65.1	35		10	3.3 to 10.0	36
VSP-C5×10-10E*-6T			6						
VSP-C5×10-15E*-4T			4	75.1	40	25	15	3.3 to 10.4	40
VSP-C5×10-15E*-6T			6						
VSP-C5×10-20E*-4T			4	91.1	47	34	20	2.0 to 8.7	47
VSP-C5×10-20E*-6T			6						
VSP-C5×20E*-4T		20	4	59.1	29	20	6	7.0 to 12.6	34
VSP-C5×20E*-6T			6						
VSP-C5×20-10E*-4T			4	65.1	35		10	3.3 to 10.0	36
VSP-C5×20-10E*-6T			6						
VSP-C5×20-15E*-4T			4	75.1	40	25	15	3.3 to 10.4	41
VSP-C5×20-15E*-6T			6						
VSP-C5×20-20E*-4T			4	91.1	47	34	20	2.0 to 8.7	48
VSP-C5×20-20E*-6T			6						
VSP-C5×30E*-4T		30	4	59.1	29	20	6	7.0 to 12.6	34
VSP-C5×30E*-6T			6						
VSP-C5×30-10E*-4T			4	65.1	35		10	3.3 to 10.0	37
VSP-C5×30-10E*-6T			6						
VSP-C5×30-15E*-4T			4	75.1	40	25	15	3.3 to 10.4	41
VSP-C5×30-15E*-6T			6						
VSP-C5×30-20E*-4T			4	91.1	47	34	20	2.0 to 8.7	48
VSP-C5×30-20E*-6T			6						
VSP-C6×10E*-4T	6	10	4	59.1	29	20	6	7.0 to 12.6	33
VSP-C6×10E*-6T			6						
VSP-C6×10-10E*-4T			4	65.1	35		10	3.3 to 10.0	36
VSP-C6×10-10E*-6T			6						
VSP-C6×10-15E*-4T			4	75.1	40	25	15	3.3 to 10.4	40
VSP-C6×10-15E*-6T			6						
VSP-C6×10-20E*-4T			4	91.1	47	34	20	2.0 to 8.7	47
VSP-C6×10-20E*-6T			6						
VSP-C6×20E*-4T		20	4	59.1	29	20	6	7.0 to 12.6	34
VSP-C6×20E*-6T			6						
VSP-C6×20-10E*-4T			4	65.1	35		10	3.3 to 10.0	36
VSP-C6×20-10E*-6T			6						
VSP-C6×20-15E*-4T			4	75.1	40	25	15	3.3 to 10.4	41
VSP-C6×20-15E*-6T			6						
VSP-C6×20-20E*-4T			4	91.1	47	34	20	2.0 to 8.7	48
VSP-C6×20-20E*-6T			6						
VSP-C6×30E*-4T		30	4	59.1	29	20	6	7.0 to 12.6	34
VSP-C6×30E*-6T			6						
VSP-C6×30-10E*-4T			4	65.1	35		10	3.3 to 10.0	37
VSP-C6×30-10E*-6T			6						
VSP-C6×30-15E*-4T			4	75.1	40	25	15	3.3 to 10.4	41
VSP-C6×30-15E*-6T			6						
VSP-C6×30-20E*-4T			4	91.1	47	34	20	2.0 to 8.7	48
VSP-C6×30-20E*-6T			6						
VSP-C8×20E*-4T	8	20	4	59.1	29	20	6	7.0 to 12.6	34
VSP-C8×20E*-6T			6						
VSP-C8×20-10E*-4T			4	65.1	35		10	3.3 to 10.0	36
VSP-C8×20-10E*-6T			6						
VSP-C8×20-15E*-4T			4	75.1	40	25	15	3.3 to 10.4	41
VSP-C8×20-15E*-6T			6						
VSP-C8×20-20E*-4T			4	91.1	47	34	20	2.0 to 8.7	48
VSP-C8×20-20E*-6T			6						
VSP-C8×30E*-4T		30	4	59.1	29	20	6	7.0 to 12.6	34
VSP-C8×30E*-6T			6						
VSP-C8×30-10E*-4T			4	65.1	35		10	3.3 to 10.0	37
VSP-C8×30-10E*-6T			6						
VSP-C8×30-15E*-4T			4	75.1	40	25	15	3.3 to 10.4	41
VSP-C8×30-15E*-6T			6						
VSP-C8×30-20E*-4T			4	91.1	47	34	20	2.0 to 8.7	48
VSP-C8×30-20E*-6T			6						

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting, without spring cover)

●VSP-C*-E*-4TC/6TC

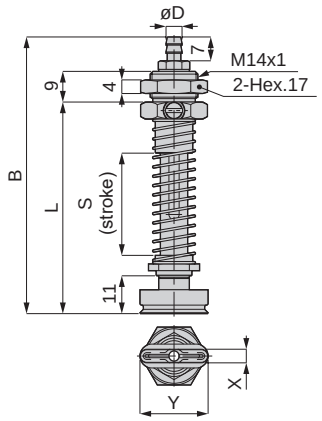


Unit: mm

Model No.	Pad size		Bore size	B	L	Stroke	Spring force	Weight
	X	Y	øD			S	(N)	(g)
VSP-C2×4-20E*-4TC	2	4	4	68.1	49	20	1.5 to 4.9	45
VSP-C2×4-20E*-6TC			6					
VSP-C2×4-30E*-4TC			4	81.1	62	30	1.1 to 4.8	50
VSP-C2×4-30E*-6TC			6					
VSP-C2×4-40E*-4TC			4	94.1	75	40	1.0 to 4.5	55
VSP-C2×4-40E*-6TC			6					
VSP-C2×4-50E*-4TC			4	107.1	88	50	0.9 to 4.5	61
VSP-C2×4-50E*-6TC			6					
VSP-C3.5×7-20E*-4TC	3.5	7	4	68.1	49	20	1.5 to 4.9	45
VSP-C3.5×7-20E*-6TC			6					
VSP-C3.5×7-30E*-4TC			4	81.1	62	30	1.1 to 4.8	50
VSP-C3.5×7-30E*-6TC			6					
VSP-C3.5×7-40E*-4TC			4	94.1	75	40	1.0 to 4.5	55
VSP-C3.5×7-40E*-6TC			6					
VSP-C3.5×7-50E*-4TC			4	107.1	88	50	0.9 to 4.5	61
VSP-C3.5×7-50E*-6TC			6					
VSP-C4×10-20E*-4TC	4	10	4	68.1	49	20	1.5 to 4.9	45
VSP-C4×10-20E*-6TC			6					
VSP-C4×10-30E*-4TC			4	81.1	62	30	1.1 to 4.8	50
VSP-C4×10-30E*-6TC			6					
VSP-C4×10-40E*-4TC			4	94.1	75	40	1.0 to 4.5	55
VSP-C4×10-40E*-6TC			6					
VSP-C4×10-50E*-4TC			4	107.1	88	50	0.9 to 4.5	61
VSP-C4×10-50E*-6TC			6					
VSP-C4×20-20E*-4TC		20	4	68.1	49	20	1.5 to 4.9	45
VSP-C4×20-20E*-6TC			6					
VSP-C4×20-30E*-4TC			4	81.1	62	30	1.1 to 4.8	51
VSP-C4×20-30E*-6TC			6					
VSP-C4×20-40E*-4TC			4	94.1	75	40	1.0 to 4.5	56
VSP-C4×20-40E*-6TC			6					
VSP-C4×20-50E*-4TC			4	107.1	88	50	0.9 to 4.5	61
VSP-C4×20-50E*-6TC			6					
VSP-C4×30-20E*-4TC		30	4	68.1	49	20	1.5 to 4.9	46
VSP-C4×30-20E*-6TC			6					
VSP-C4×30-30E*-4TC			4	81.1	62	30	1.1 to 4.8	51
VSP-C4×30-30E*-6TC			6					
VSP-C4×30-40E*-4TC			4	94.1	75	40	1.0 to 4.5	56
VSP-C4×30-40E*-6TC			6					
VSP-C4×30-50E*-4TC			4	107.1	88	50	0.9 to 4.5	62
VSP-C4×30-50E*-6TC			6					

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting, without spring cover)

●VSP-C*-□E*-4TC/6TC

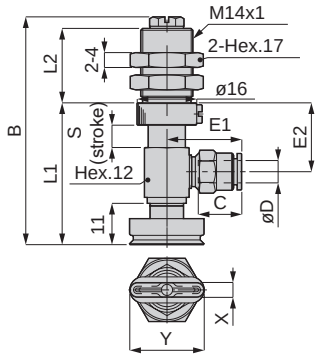


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L	Stroke S	Spring force (N)	Weight (g)
VSP-C5×10-20E*-4TC	5	10	4	68.1	49	20	1.5 to 4.9	45
VSP-C5×10-20E*-6TC			6					
VSP-C5×10-30E*-4TC			4	81.1	62	30	1.1 to 4.8	50
VSP-C5×10-30E*-6TC			6					
VSP-C5×10-40E*-4TC			4	94.1	75	40	1.0 to 4.5	55
VSP-C5×10-40E*-6TC			6					
VSP-C5×10-50E*-4TC			4	107.1	88	50	0.9 to 4.5	61
VSP-C5×10-50E*-6TC			6					
VSP-C5×20-20E*-4TC		20	4	68.1	49	20	1.5 to 4.9	45
VSP-C5×20-20E*-6TC			6					
VSP-C5×20-30E*-4TC			4	81.1	62	30	1.1 to 4.8	51
VSP-C5×20-30E*-6TC			6					
VSP-C5×20-40E*-4TC			4	94.1	75	40	1.0 to 4.5	56
VSP-C5×20-40E*-6TC			6					
VSP-C5×20-50E*-4TC			4	107.1	88	50	0.9 to 4.5	61
VSP-C5×20-50E*-6TC			6					
VSP-C5×30-20E*-4TC		30	4	68.1	49	20	1.5 to 4.9	46
VSP-C5×30-20E*-6TC			6					
VSP-C5×30-30E*-4TC			4	81.1	62	30	1.1 to 4.8	51
VSP-C5×30-30E*-6TC			6					
VSP-C5×30-40E*-4TC			4	94.1	75	40	1.0 to 4.5	56
VSP-C5×30-40E*-6TC			6					
VSP-C5×30-50E*-4TC			4	107.1	88	50	0.9 to 4.5	62
VSP-C5×30-50E*-6TC			6					
VSP-C6×10-20E*-4TC	6	10	4	68.1	49	20	1.5 to 4.9	45
VSP-C6×10-20E*-6TC			6					
VSP-C6×10-30E*-4TC			4	81.1	62	30	1.1 to 4.8	50
VSP-C6×10-30E*-6TC			6					
VSP-C6×10-40E*-4TC			4	94.1	75	40	1.0 to 4.5	55
VSP-C6×10-40E*-6TC			6					
VSP-C6×10-50E*-4TC			4	107.1	88	50	0.9 to 4.5	61
VSP-C6×10-50E*-6TC			6					
VSP-C6×20-20E*-4TC		20	4	68.1	49	20	1.5 to 4.9	45
VSP-C6×20-20E*-6TC			6					
VSP-C6×20-30E*-4TC			4	81.1	62	30	1.1 to 4.8	51
VSP-C6×20-30E*-6TC			6					
VSP-C6×20-40E*-4TC			4	94.1	75	40	1.0 to 4.5	56
VSP-C6×20-40E*-6TC			6					
VSP-C6×20-50E*-4TC			4	107.1	88	50	0.9 to 4.5	61
VSP-C6×20-50E*-6TC			6					
VSP-C6×30-20E*-4TC		30	4	68.1	49	20	1.5 to 4.9	46
VSP-C6×30-20E*-6TC			6					
VSP-C6×30-30E*-4TC			4	81.1	62	30	1.1 to 4.8	51
VSP-C6×30-30E*-6TC			6					
VSP-C6×30-40E*-4TC			4	94.1	75	40	1.0 to 4.5	56
VSP-C6×30-40E*-6TC			6					
VSP-C6×30-50E*-4TC			4	107.1	88	50	0.9 to 4.5	62
VSP-C6×30-50E*-6TC			6					
VSP-C8×20-20E*-4TC	8	20	4	68.1	49	20	1.5 to 4.9	45
VSP-C8×20-20E*-6TC			6					
VSP-C8×20-30E*-4TC			4	81.1	62	30	1.1 to 4.8	51
VSP-C8×20-30E*-6TC			6					
VSP-C8×20-40E*-4TC			4	94.1	75	40	1.0 to 4.5	56
VSP-C8×20-40E*-6TC			6					
VSP-C8×20-50E*-4TC			4	107.1	88	50	0.9 to 4.5	61
VSP-C8×20-50E*-6TC			6					
VSP-C8×30-20E*-4TC		30	4	68.1	49	20	1.5 to 4.9	46
VSP-C8×30-20E*-6TC			6					
VSP-C8×30-30E*-4TC			4	81.1	62	30	1.1 to 4.8	51
VSP-C8×30-30E*-6TC			6					
VSP-C8×30-40E*-4TC			4	94.1	75	40	1.0 to 4.5	56
VSP-C8×30-40E*-6TC			6					
VSP-C8×30-50E*-4TC			4	107.1	88	50	0.9 to 4.5	62
VSP-C8×30-50E*-6TC			6					

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting)

●VSP-D*E*-4/6
●VSP-D*-□E*-4/6

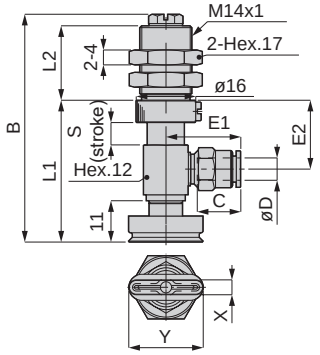


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D2×4E*-4	2	4	4	61.1	38	20	11.2	18.8	18.5	6	7.0 to 12.6	46
VSP-D2×4E*-6			6				11.9	20.1				47
VSP-D2×4-10E*-4			4	67.1	44		11.2	18.8	24.5	10	3.3 to 10.0	50
VSP-D2×4-10E*-6			6				11.9	20.1				51
VSP-D2×4-15E*-4			4	77.1	49	25	11.2	18.8	29.5	15	3.3 to 10.4	56
VSP-D2×4-15E*-6			6				11.9	20.1				57
VSP-D2×4-20E*-4			4	93.1	56	34	11.2	18.8	36.5	20	2.0 to 8.7	66
VSP-D2×4-20E*-6			6				11.9	20.1				67
VSP-D3.5×7E*-4	3.5	7	4	61.1	38	20	11.2	18.8	18.5	6	7.0 to 12.6	46
VSP-D3.5×7E*-6			6				11.9	20.1				47
VSP-D3.5×7-10E*-4			4	67.1	44		11.2	18.8	24.5	10	3.3 to 10.0	50
VSP-D3.5×7-10E*-6			6				11.9	20.1				51
VSP-D3.5×7-15E*-4			4	77.1	49	25	11.2	18.8	29.5	15	3.3 to 10.4	56
VSP-D3.5×7-15E*-6			6				11.9	20.1				57
VSP-D3.5×7-20E*-4			4	93.1	56	34	11.2	18.8	36.5	20	2.0 to 8.7	66
VSP-D3.5×7-20E*-6			6				11.9	20.1				67
VSP-D4×10E*-4	4	10	4	61.1	38	20	11.2	18.8	18.5	6	7.0 to 12.6	46
VSP-D4×10E*-6			6				11.9	20.1				47
VSP-D4×10-10E*-4			4	67.1	44		11.2	18.8	24.5	10	3.3 to 10.0	50
VSP-D4×10-10E*-6			6				11.9	20.1				51
VSP-D4×10-15E*-4			4	77.1	49	25	11.2	18.8	29.5	15	3.3 to 10.4	56
VSP-D4×10-15E*-6			6				11.9	20.1				57
VSP-D4×10-20E*-4			4	93.1	56	34	11.2	18.8	36.5	20	2.0 to 8.7	66
VSP-D4×10-20E*-6			6				11.9	20.1				67
VSP-D4×20E*-4		20	4	61.1	38	20	11.2	18.8	18.5	6	7.0 to 12.6	46
VSP-D4×20E*-6			6				11.9	20.1				47
VSP-D4×20-10E*-4			4	67.1	44		11.2	18.8	24.5	10	3.3 to 10.0	50
VSP-D4×20-10E*-6			6				11.9	20.1				51
VSP-D4×20-15E*-4			4	77.1	49	25	11.2	18.8	29.5	15	3.3 to 10.4	56
VSP-D4×20-15E*-6			6				11.9	20.1				57
VSP-D4×20-20E*-4			4	93.1	56	34	11.2	18.8	36.5	20	2.0 to 8.7	66
VSP-D4×20-20E*-6			6				11.9	20.1				67
VSP-D4×30E*-4		30	4	61.1	38	20	11.2	18.8	18.5	6	7.0 to 12.6	47
VSP-D4×30E*-6			6				11.9	20.1				48
VSP-D4×30-10E*-4			4	67.1	44		11.2	18.8	24.5	10	3.3 to 10.0	51
VSP-D4×30-10E*-6			6				11.9	20.1				52
VSP-D4×30-15E*-4			4	77.1	49	25	11.2	18.8	29.5	15	3.3 to 10.4	57
VSP-D4×30-15E*-6			6				11.9	20.1				58
VSP-D4×30-20E*-4			4	93.1	56	34	11.2	18.8	36.5	20	2.0 to 8.7	67
VSP-D4×30-20E*-6			6				11.9	20.1				68

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting)

●VSP-D*E*-4/6
●VSP-D*-□E*-4/6

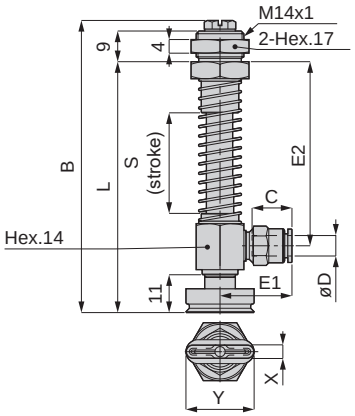


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D5×10E*-4	5	10	4	61.1	38	20	11.2	18.8	18.5	6	7.0 to 12.6	46
VSP-D5×10E*-6			6				11.9	20.1				47
VSP-D5×10-10E*-4			4	67.1	44		11.2	18.8	24.5	10	3.3 to 10.0	50
VSP-D5×10-10E*-6			6				11.9	20.1				51
VSP-D5×10-15E*-4			4	77.1	49	25	11.2	18.8	29.5	15	3.3 to 10.4	56
VSP-D5×10-15E*-6			6				11.9	20.1				57
VSP-D5×10-20E*-4			4	93.1	56	34	11.2	18.8	36.5	20	2.0 to 8.7	66
VSP-D5×10-20E*-6			6				11.9	20.1				67
VSP-D5×20E*-4		20	4	61.1	38	20	11.2	18.8	18.5	6	7.0 to 12.6	46
VSP-D5×20E*-6			6				11.9	20.1				47
VSP-D5×20-10E*-4			4	67.1	44		11.2	18.8	24.5	10	3.3 to 10.0	50
VSP-D5×20-10E*-6			6				11.9	20.1				51
VSP-D5×20-15E*-4			4	77.1	49	25	11.2	18.8	29.5	15	3.3 to 10.4	56
VSP-D5×20-15E*-6			6				11.9	20.1				57
VSP-D5×20-20E*-4			4	93.1	56	34	11.2	18.8	36.5	20	2.0 to 8.7	66
VSP-D5×20-20E*-6			6				11.9	20.1				67
VSP-D5×30E*-4		30	4	61.1	38	20	11.2	18.8	18.5	6	7.0 to 12.6	47
VSP-D5×30E*-6			6				11.9	20.1				48
VSP-D5×30-10E*-4			4	67.1	44		11.2	18.8	24.5	10	3.3 to 10.0	51
VSP-D5×30-10E*-6			6				11.9	20.1				52
VSP-D5×30-15E*-4			4	77.1	49	25	11.2	18.8	29.5	15	3.3 to 10.4	57
VSP-D5×30-15E*-6			6				11.9	20.1				58
VSP-D5×30-20E*-4			4	93.1	56	34	11.2	18.8	36.5	20	2.0 to 8.7	67
VSP-D5×30-20E*-6			6				11.9	20.1				68
VSP-D6×10E*-4	6	10	4	61.1	38	20	11.2	18.8	18.5	6	7.0 to 12.6	46
VSP-D6×10E*-6			6				11.9	20.1				47
VSP-D6×10-10E*-4			4	67.1	44		11.2	18.8	24.5	10	3.3 to 10.0	50
VSP-D6×10-10E*-6			6				11.9	20.1				51
VSP-D6×10-15E*-4			4	77.1	49	25	11.2	18.8	29.5	15	3.3 to 10.4	56
VSP-D6×10-15E*-6			6				11.9	20.1				57
VSP-D6×10-20E*-4			4	93.1	56	34	11.2	18.8	36.5	20	2.0 to 8.7	66
VSP-D6×10-20E*-6			6				11.9	20.1				67
VSP-D6×20E*-4		20	4	61.1	38	20	11.2	18.8	18.5	6	7.0 to 12.6	46
VSP-D6×20E*-6			6				11.9	20.1				47
VSP-D6×20-10E*-4			4	67.1	44		11.2	18.8	24.5	10	3.3 to 10.0	50
VSP-D6×20-10E*-6			6				11.9	20.1				51
VSP-D6×20-15E*-4			4	77.1	49	25	11.2	18.8	29.5	15	3.3 to 10.4	56
VSP-D6×20-15E*-6			6				11.9	20.1				57
VSP-D6×20-20E*-4			4	93.1	56	34	11.2	18.8	36.5	20	2.0 to 8.7	66
VSP-D6×20-20E*-6			6				11.9	20.1				67
VSP-D6×30E*-4		30	4	61.1	38	20	11.2	18.8	18.5	6	7.0 to 12.6	47
VSP-D6×30E*-6			6				11.9	20.1				48
VSP-D6×30-10E*-4			4	67.1	44		11.2	18.8	24.5	10	3.3 to 10.0	51
VSP-D6×30-10E*-6			6				11.9	20.1				52
VSP-D6×30-15E*-4			4	77.1	49	25	11.2	18.8	29.5	15	3.3 to 10.4	57
VSP-D6×30-15E*-6			6				11.9	20.1				58
VSP-D6×30-20E*-4			4	93.1	56	34	11.2	18.8	36.5	20	2.0 to 8.7	67
VSP-D6×30-20E*-6			6				11.9	20.1				68
VSP-D8×20E*-4	8	20	4	61.1	38	20	11.2	18.8	18.5	6	7.0 to 12.6	46
VSP-D8×20E*-6			6				11.9	20.1				47
VSP-D8×20-10E*-4			4	67.1	44		11.2	18.8	24.5	10	3.3 to 10.0	50
VSP-D8×20-10E*-6			6				11.9	20.1				51
VSP-D8×20-15E*-4			4	77.1	49	25	11.2	18.8	29.5	15	3.3 to 10.4	56
VSP-D8×20-15E*-6			6				11.9	20.1				57
VSP-D8×20-20E*-4			4	93.1	56	34	11.2	18.8	36.5	20	2.0 to 8.7	66
VSP-D8×20-20E*-6			6				11.9	20.1				67
VSP-D8×30E*-4		30	4	61.1	38	20	11.2	18.8	18.5	6	7.0 to 12.6	47
VSP-D8×30E*-6			6				11.9	20.1				48
VSP-D8×30-10E*-4			4	67.1	44		11.2	18.8	24.5	10	3.3 to 10.0	51
VSP-D8×30-10E*-6			6				11.9	20.1				52
VSP-D8×30-15E*-4			4	77.1	49	25	11.2	18.8	29.5	15	3.3 to 10.4	57
VSP-D8×30-15E*-6			6				11.9	20.1				58
VSP-D8×30-20E*-4			4	93.1	56	34	11.2	18.8	36.5	20	2.0 to 8.7	67
VSP-D8×30-20E*-6			6				11.9	20.1				68

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting, without spring cover)

●VSP-D*□E*-4C/6C

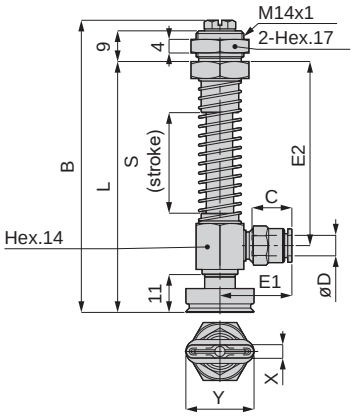


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D2×4-20E*-4C	2	4	4	72.6	60.5	11.2	19.8	41	20	1.5 to 4.9	64
VSP-D2×4-20E*-6C			6			11.9	21.1				65
VSP-D2×4-30E*-4C			4	85.6	73.5	11.2	19.8	54	30	1.1 to 4.8	71
VSP-D2×4-30E*-6C			6			11.9	21.1				72
VSP-D2×4-40E*-4C			4	98.6	86.5	11.2	19.8	67	40	1.0 to 4.5	78
VSP-D2×4-40E*-6C			6			11.9	21.1				79
VSP-D2×4-50E*-4C			4	111.6	99.5	11.2	19.8	80	50	0.9 to 4.5	84
VSP-D2×4-50E*-6C			6			11.9	21.1				85
VSP-D3.5×7-20E*-4C	3.5	7	4	72.6	60.5	11.2	19.8	41	20	1.5 to 4.9	64
VSP-D3.5×7-20E*-6C			6			11.9	21.1				65
VSP-D3.5×7-30E*-4C			4	85.6	73.5	11.2	19.8	54	30	1.1 to 4.8	71
VSP-D3.5×7-30E*-6C			6			11.9	21.1				72
VSP-D3.5×7-40E*-4C			4	98.6	86.5	11.2	19.8	67	40	1.0 to 4.5	78
VSP-D3.5×7-40E*-6C			6			11.9	21.1				79
VSP-D3.5×7-50E*-4C			4	111.6	99.5	11.2	19.8	80	50	0.9 to 4.5	84
VSP-D3.5×7-50E*-6C			6			11.9	21.1				85
VSP-D4×10-20E*-4C	4	10	4	72.6	60.5	11.2	19.8	41	20	1.5 to 4.9	64
VSP-D4×10-20E*-6C			6			11.9	21.1				65
VSP-D4×10-30E*-4C			4	85.6	73.5	11.2	19.8	54	30	1.1 to 4.8	71
VSP-D4×10-30E*-6C			6			11.9	21.1				72
VSP-D4×10-40E*-4C			4	98.6	86.5	11.2	19.8	67	40	1.0 to 4.5	78
VSP-D4×10-40E*-6C			6			11.9	21.1				79
VSP-D4×10-50E*-4C			4	111.6	99.5	11.2	19.8	80	50	0.9 to 4.5	84
VSP-D4×10-50E*-6C			6			11.9	21.1				85
VSP-D4×20-20E*-4C		20	4	72.6	60.5	11.2	19.8	41	20	1.5 to 4.9	65
VSP-D4×20-20E*-6C			6			11.9	21.1				66
VSP-D4×20-30E*-4C			4	85.6	73.5	11.2	19.8	54	30	1.1 to 4.8	71
VSP-D4×20-30E*-6C			6			11.9	21.1				72
VSP-D4×20-40E*-4C			4	98.6	86.5	11.2	19.8	67	40	1.0 to 4.5	78
VSP-D4×20-40E*-6C			6			11.9	21.1				79
VSP-D4×20-50E*-4C			4	111.6	99.5	11.2	19.8	80	50	0.9 to 4.5	84
VSP-D4×20-50E*-6C			6			11.9	21.1				85
VSP-D4×30-20E*-4C		30	4	72.6	60.5	11.2	19.8	41	20	1.5 to 4.9	64
VSP-D4×30-20E*-6C			6			11.9	21.1				66
VSP-D4×30-30E*-4C			4	85.6	73.5	11.2	19.8	54	30	1.1 to 4.8	72
VSP-D4×30-30E*-6C			6			11.9	21.1				73
VSP-D4×30-40E*-4C			4	98.6	86.5	11.2	19.8	67	40	1.0 to 4.5	79
VSP-D4×30-40E*-6C			6			11.9	21.1				80
VSP-D4×30-50E*-4C			4	111.6	99.5	11.2	19.8	80	50	0.9 to 4.5	85
VSP-D4×30-50E*-6C			6			11.9	21.1				86

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting, without spring cover)

●VSP-D*E*-4C/6C

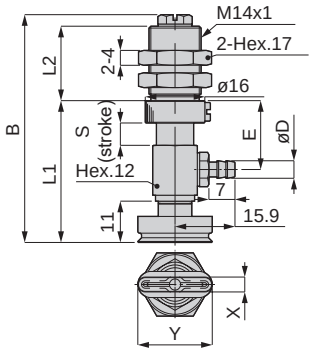


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D5×10-20E*-4C	5	10	4	72.6	60.5	11.2	19.8	41	20	1.5 to 4.9	64
VSP-D5×10-20E*-6C			6			11.9	21.1				65
VSP-D5×10-30E*-4C			4	85.6	73.5	11.2	19.8	54	30	1.1 to 4.8	71
VSP-D5×10-30E*-6C			6			11.9	21.1				72
VSP-D5×10-40E*-4C			4	98.6	86.5	11.2	19.8	67	40	1.0 to 4.5	78
VSP-D5×10-40E*-6C			6			11.9	21.1				79
VSP-D5×10-50E*-4C			4	111.6	99.5	11.2	19.8	80	50	0.9 to 4.5	84
VSP-D5×10-50E*-6C			6			11.9	21.1				85
VSP-D5×20-20E*-4C		20	4	72.6	60.5	11.2	19.8	41	20	1.5 to 4.9	65
VSP-D5×20-20E*-6C			6			11.9	21.1				66
VSP-D5×20-30E*-4C			4	85.6	73.5	11.2	19.8	54	30	1.1 to 4.8	71
VSP-D5×20-30E*-6C			6			11.9	21.1				72
VSP-D5×20-40E*-4C			4	98.6	86.5	11.2	19.8	67	40	1.0 to 4.5	78
VSP-D5×20-40E*-6C			6			11.9	21.1				79
VSP-D5×20-50E*-4C			4	111.6	99.5	11.2	19.8	80	50	0.9 to 4.5	84
VSP-D5×20-50E*-6C			6			11.9	21.1				85
VSP-D5×30-20E*-4C		30	4	72.6	60.5	11.2	19.8	41	20	1.5 to 4.9	65
VSP-D5×30-20E*-6C			6			11.9	21.1				66
VSP-D5×30-30E*-4C			4	85.6	73.5	11.2	19.8	54	30	1.1 to 4.8	72
VSP-D5×30-30E*-6C			6			11.9	21.1				73
VSP-D5×30-40E*-4C			4	98.6	86.5	11.2	19.8	67	40	1.0 to 4.5	79
VSP-D5×30-40E*-6C			6			11.9	21.1				80
VSP-D5×30-50E*-4C			4	111.6	99.5	11.2	19.8	80	50	0.9 to 4.5	85
VSP-D5×30-50E*-6C			6			11.9	21.1				86
VSP-D6×10-20E*-4C	6	10	4	72.6	60.5	11.2	19.8	41	20	1.5 to 4.9	64
VSP-D6×10-20E*-6C			6			11.9	21.1				65
VSP-D6×10-30E*-4C			4	85.6	73.5	11.2	19.8	54	30	1.1 to 4.8	71
VSP-D6×10-30E*-6C			6			11.9	21.1				72
VSP-D6×10-40E*-4C			4	98.6	86.5	11.2	19.8	67	40	1.0 to 4.5	78
VSP-D6×10-40E*-6C			6			11.9	21.1				79
VSP-D6×10-50E*-4C			4	111.6	99.5	11.2	19.8	80	50	0.9 to 4.5	84
VSP-D6×10-50E*-6C			6			11.9	21.1				85
VSP-D6×20-20E*-4C		20	4	72.6	60.5	11.2	19.8	41	20	1.5 to 4.9	65
VSP-D6×20-20E*-6C			6			11.9	21.1				66
VSP-D6×20-30E*-4C			4	85.6	73.5	11.2	19.8	54	30	1.1 to 4.8	71
VSP-D6×20-30E*-6C			6			11.9	21.1				72
VSP-D6×20-40E*-4C			4	98.6	86.5	11.2	19.8	67	40	1.0 to 4.5	78
VSP-D6×20-40E*-6C			6			11.9	21.1				79
VSP-D6×20-50E*-4C			4	111.6	99.5	11.2	19.8	80	50	0.9 to 4.5	84
VSP-D6×20-50E*-6C			6			11.9	21.1				85
VSP-D6×30-20E*-4C		30	4	72.6	60.5	11.2	19.8	41	20	1.5 to 4.9	65
VSP-D6×30-20E*-6C			6			11.9	21.1				66
VSP-D6×30-30E*-4C			4	85.6	73.5	11.2	19.8	54	30	1.1 to 4.8	72
VSP-D6×30-30E*-6C			6			11.9	21.1				73
VSP-D6×30-40E*-4C			4	98.6	86.5	11.2	19.8	67	40	1.0 to 4.5	79
VSP-D6×30-40E*-6C			6			11.9	21.1				80
VSP-D6×30-50E*-4C			4	111.6	99.5	11.2	19.8	80	50	0.9 to 4.5	85
VSP-D6×30-50E*-6C			6			11.9	21.1				86
VSP-D8×20-20E*-4C	8	20	4	72.6	60.5	11.2	19.8	41	20	1.5 to 4.9	65
VSP-D8×20-20E*-6C			6			11.9	21.1				66
VSP-D8×20-30E*-4C			4	85.6	73.5	11.2	19.8	54	30	1.1 to 4.8	71
VSP-D8×20-30E*-6C			6			11.9	21.1				72
VSP-D8×20-40E*-4C			4	98.6	86.5	11.2	19.8	67	40	1.0 to 4.5	78
VSP-D8×20-40E*-6C			6			11.9	21.1				79
VSP-D8×20-50E*-4C			4	111.6	99.5	11.2	19.8	80	50	0.9 to 4.5	84
VSP-D8×20-50E*-6C			6			11.9	21.1				85
VSP-D8×30-20E*-4C		30	4	72.6	60.5	11.2	19.8	41	20	1.5 to 4.9	65
VSP-D8×30-20E*-6C			6			11.9	21.1				66
VSP-D8×30-30E*-4C			4	85.6	73.5	11.2	19.8	54	30	1.1 to 4.8	72
VSP-D8×30-30E*-6C			6			11.9	21.1				73
VSP-D8×30-40E*-4C			4	98.6	86.5	11.2	19.8	67	40	1.0 to 4.5	79
VSP-D8×30-40E*-6C			6			11.9	21.1				80
VSP-D8×30-50E*-4C			4	111.6	99.5	11.2	19.8	80	50	0.9 to 4.5	85
VSP-D8×30-50E*-6C			6			11.9	21.1				86

Dimensions (buffer, vacuum outlet, side, VSP-D, barbed fitting)

●VSP-D*E*-4T/6T
●VSP-D*-□E*-4T/6T

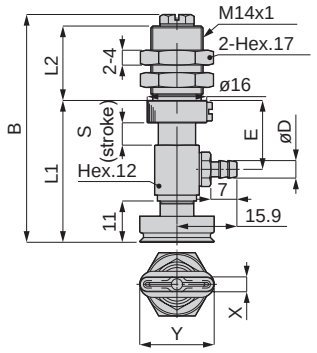


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-D2×4E*-4T	2	4	4	61.1	38	20	18.5	6	7.0 to 12.6	47
VSP-D2×4E*-6T			6							
VSP-D2×4-10E*-4T			4	67.1	44		24.5	10	3.3 to 10.0	51
VSP-D2×4-10E*-6T			6							
VSP-D2×4-15E*-4T			4	77.1	49	25	29.5	15	3.3 to 10.4	57
VSP-D2×4-15E*-6T			6							
VSP-D2×4-20E*-4T			4	93.1	56	34	36.5	20	2.0 to 8.7	67
VSP-D2×4-20E*-6T			6							
VSP-D3.5×7E*-4T	3.5	7	4	61.1	38	20	18.5	6	7.0 to 12.6	47
VSP-D3.5×7E*-6T			6							
VSP-D3.5×7-10E*-4T			4	67.1	44		24.5	10	3.3 to 10.0	51
VSP-D3.5×7-10E*-6T			6							
VSP-D3.5×7-15E*-4T			4	77.1	49	25	29.5	15	3.3 to 10.4	57
VSP-D3.5×7-15E*-6T			6							
VSP-D3.5×7-20E*-4T			4	93.1	56	34	36.5	20	2.0 to 8.7	67
VSP-D3.5×7-20E*-6T			6							
VSP-D4×10E*-4T	4	10	4	61.1	38	20	18.5	6	7.0 to 12.6	47
VSP-D4×10E*-6T			6							
VSP-D4×10-10E*-4T			4	67.1	44		24.5	10	3.3 to 10.0	51
VSP-D4×10-10E*-6T			6							
VSP-D4×10-15E*-4T			4	77.1	49	25	29.5	15	3.3 to 10.4	57
VSP-D4×10-15E*-6T			6							
VSP-D4×10-20E*-4T			4	93.1	56	34	36.5	20	2.0 to 8.7	67
VSP-D4×10-20E*-6T			6							
VSP-D4×20E*-4T		20	4	61.1	38	20	18.5	6	7.0 to 12.6	47
VSP-D4×20E*-6T			6							
VSP-D4×20-10E*-4T			4	67.1	44		24.5	10	3.3 to 10.0	51
VSP-D4×20-10E*-6T			6							
VSP-D4×20-15E*-4T			4	77.1	49	25	29.5	15	3.3 to 10.4	57
VSP-D4×20-15E*-6T			6							
VSP-D4×20-20E*-4T			4	93.1	56	34	36.5	20	2.0 to 8.7	67
VSP-D4×20-20E*-6T			6							
VSP-D4×30E*-4T		30	4	61.1	38	20	18.5	6	7.0 to 12.6	48
VSP-D4×30E*-6T			6							
VSP-D4×30-10E*-4T			4	67.1	44		24.5	10	3.3 to 10.0	52
VSP-D4×30-10E*-6T			6							
VSP-D4×30-15E*-4T			4	77.1	49	25	29.5	15	3.3 to 10.4	58
VSP-D4×30-15E*-6T			6							
VSP-D4×30-20E*-4T			4	93.1	56	34	36.5	20	2.0 to 8.7	68
VSP-D4×30-20E*-6T			6							

Dimensions (buffer, vacuum outlet, side, VSP-D, barbed fitting)

●VSP-D*E*-4T/6T
●VSP-D *-□E*-4T/6T

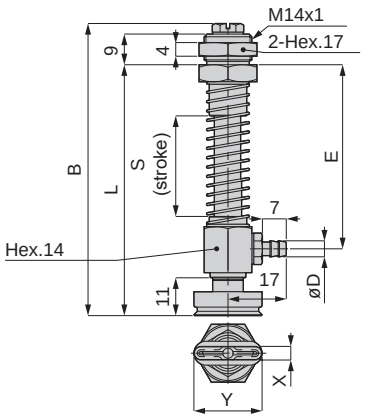


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-D5×10E*-4T	5	10	4	61.1	38	20	18.5	6	7.0 to 12.6	45
VSP-D5×10E*-6T			6							
VSP-D5×10-10E*-4T			4	67.1	44		24.5	10	3.3 to 10.0	49
VSP-D5×10-10E*-6T			6							
VSP-D5×10-15E*-4T			4	77.1	49	25	29.5	15	3.3 to 10.4	55
VSP-D5×10-15E*-6T			6							
VSP-D5×10-20E*-4T			4	93.1	56	34	36.5	20	2.0 to 8.7	65
VSP-D5×10-20E*-6T			6							
VSP-D5×20E*-4T		20	4	61.1	38	20	18.5	6	7.0 to 12.6	45
VSP-D5×20E*-6T			6							
VSP-D5×20-10E*-4T			4	67.1	44		24.5	10	3.3 to 10.0	49
VSP-D5×20-10E*-6T			6							
VSP-D5×20-15E*-4T			4	77.1	49	25	29.5	15	3.3 to 10.4	55
VSP-D5×20-15E*-6T			6							
VSP-D5×20-20E*-4T			4	93.1	56	34	36.5	20	2.0 to 8.7	65
VSP-D5×20-20E*-6T			6							
VSP-D5×30E*-4T		30	4	61.1	38	20	18.5	6	7.0 to 12.6	46
VSP-D5×30E*-6T			6							
VSP-D5×30-10E*-4T			4	67.1	44		24.5	10	3.3 to 10.0	50
VSP-D5×30-10E*-6T			6							
VSP-D5×30-15E*-4T			4	77.1	49	25	29.5	15	3.3 to 10.4	56
VSP-D5×30-15E*-6T			6							
VSP-D5×30-20E*-4T			4	93.1	56	34	36.5	20	2.0 to 8.7	66
VSP-D5×30-20E*-6T			6							
VSP-D6×10E*-4T	6	10	4	61.1	38	20	18.5	6	7.0 to 12.6	45
VSP-D6×10E*-6T			6							
VSP-D6×10-10E*-4T			4	67.1	44		24.5	10	3.3 to 10.0	49
VSP-D6×10-10E*-6T			6							
VSP-D6×10-15E*-4T			4	77.1	49	25	29.5	15	3.3 to 10.4	55
VSP-D6×10-15E*-6T			6							
VSP-D6×10-20E*-4T			4	93.1	56	34	36.5	20	2.0 to 8.7	65
VSP-D6×10-20E*-6T			6							
VSP-D6×20E*-4T		20	4	61.1	38	20	18.5	6	7.0 to 12.6	45
VSP-D6×20E*-6T			6							
VSP-D6×20-10E*-4T			4	67.1	44		24.5	10	3.3 to 10.0	49
VSP-D6×20-10E*-6T			6							
VSP-D6×20-15E*-4T			4	77.1	49	25	29.5	15	3.3 to 10.4	55
VSP-D6×20-15E*-6T			6							
VSP-D6×20-20E*-4T			4	93.1	56	34	36.5	20	2.0 to 8.7	65
VSP-D6×20-20E*-6T			6							
VSP-D6×30E*-4T		30	4	61.1	38	20	18.5	6	7.0 to 12.6	46
VSP-D6×30E*-6T			6							
VSP-D6×30-10E*-4T			4	67.1	44		24.5	10	3.3 to 10.0	50
VSP-D6×30-10E*-6T			6							
VSP-D6×30-15E*-4T			4	77.1	49	25	29.5	15	3.3 to 10.4	56
VSP-D6×30-15E*-6T			6							
VSP-D6×30-20E*-4T			4	93.1	56	34	36.5	20	2.0 to 8.7	66
VSP-D6×30-20E*-6T			6							
VSP-D8×20E*-4T	8	20	4	61.1	38	20	18.5	6	7.0 to 12.6	45
VSP-D8×20E*-6T			6							
VSP-D8×20-10E*-4T			4	67.1	44		24.5	10	3.3 to 10.0	49
VSP-D8×20-10E*-6T			6							
VSP-D8×20-15E*-4T			4	77.1	49	25	29.5	15	3.3 to 10.4	55
VSP-D8×20-15E*-6T			6							
VSP-D8×20-20E*-4T			4	93.1	56	34	36.5	20	2.0 to 8.7	65
VSP-D8×20-20E*-6T			6							
VSP-D8×30E*-4T		30	4	61.1	38	20	18.5	6	7.0 to 12.6	46
VSP-D8×30E*-6T			6							
VSP-D8×30-10E*-4T			4	67.1	44		24.5	10	3.3 to 10.0	50
VSP-D8×30-10E*-6T			6							
VSP-D8×30-15E*-4T			4	77.1	49	25	29.5	15	3.3 to 10.4	56
VSP-D8×30-15E*-6T			6							
VSP-D8×30-20E*-4T			4	93.1	56	34	36.5	20	2.0 to 8.7	66
VSP-D8×30-20E*-6T			6							

Dimensions (buffer, vacuum outlet, side, VSP-D, barbed fitting, without spring cover)

●VSP-D*-□E*-4TC/6TC

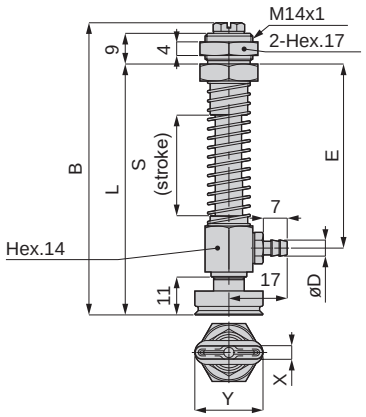


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L	E	Stroke S	Spring force (N)	Weight (g)
VSP-D2×4-20E*-4TC	2	4	4	72.6	60.5	41	20	1.5 to 4.9	63
VSP-D2×4-20E*-6TC			6						
VSP-D2×4-30E*-4TC			4	85.6	73.5	54	30	1.1 to 4.8	70
VSP-D2×4-30E*-6TC			6						
VSP-D2×4-40E*-4TC			4	98.6	86.5	67	40	1.0 to 4.5	77
VSP-D2×4-40E*-6TC			6						
VSP-D2×4-50E*-4TC			4	111.6	99.5	80	50	0.9 to 4.5	83
VSP-D2×4-50E*-6TC			6						
VSP-D3.5×7-20E*-4TC	3.5	7	4	72.6	60.5	41	20	1.5 to 4.9	63
VSP-D3.5×7-20E*-6TC			6						
VSP-D3.5×7-30E*-4TC			4	85.6	73.5	54	30	1.1 to 4.8	70
VSP-D3.5×7-30E*-6TC			6						
VSP-D3.5×7-40E*-4TC			4	98.6	86.5	67	40	1.0 to 4.5	77
VSP-D3.5×7-40E*-6TC			6						
VSP-D3.5×7-50E*-4TC			4	111.6	99.5	80	50	0.9 to 4.5	83
VSP-D3.5×7-50E*-6TC			6						
VSP-D4×10-20E*-4TC	4	10	4	72.6	60.5	41	20	1.5 to 4.9	63
VSP-D4×10-20E*-6TC			6						
VSP-D4×10-30E*-4TC			4	85.6	73.5	54	30	1.1 to 4.8	70
VSP-D4×10-30E*-6TC			6						
VSP-D4×10-40E*-4TC			4	98.6	86.5	67	40	1.0 to 4.5	77
VSP-D4×10-40E*-6TC			6						
VSP-D4×10-50E*-4TC			4	111.6	99.5	80	50	0.9 to 4.5	83
VSP-D4×10-50E*-6TC			6						
VSP-D4×20-20E*-4TC		20	4	72.6	60.5	41	20	1.5 to 4.9	64
VSP-D4×20-20E*-6TC			6						
VSP-D4×20-30E*-4TC			4	85.6	73.5	54	30	1.1 to 4.8	70
VSP-D4×20-30E*-6TC			6						
VSP-D4×20-40E*-4TC			4	98.6	86.5	67	40	1.0 to 4.5	77
VSP-D4×20-40E*-6TC			6						
VSP-D4×20-50E*-4TC			4	111.6	99.5	80	50	0.9 to 4.5	84
VSP-D4×20-50E*-6TC			6						
VSP-D4×30-20E*-4TC		30	4	72.6	60.5	41	20	1.5 to 4.9	64
VSP-D4×30-20E*-6TC			6						
VSP-D4×30-30E*-4TC			4	85.6	73.5	54	30	1.1 to 4.8	71
VSP-D4×30-30E*-6TC			6						
VSP-D4×30-40E*-4TC			4	98.6	86.5	67	40	1.0 to 4.5	78
VSP-D4×30-40E*-6TC			6						
VSP-D4×30-50E*-4TC			4	111.6	99.5	80	50	0.9 to 4.5	84
VSP-D4×30-50E*-6TC			6						

Dimensions (buffer, vacuum outlet, side, VSP-D, barbed fitting, without spring cover)

●VSP-D*-□E*-4TC/6TC

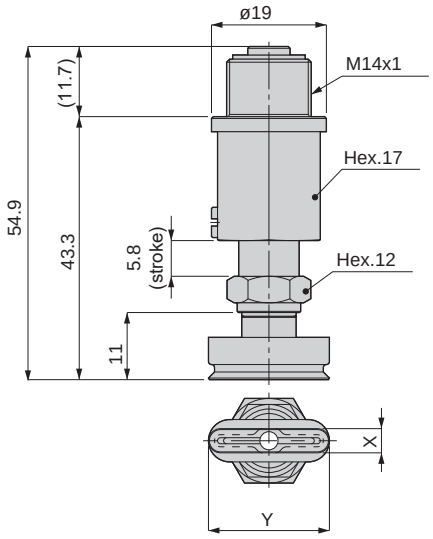


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L	E	Stroke S	Spring force (N)	Weight (g)
VSP-D5×10-20E*-4TC	5	10	4	72.6	60.5	41	20	1.5 to 4.9	63
VSP-D5×10-20E*-6TC			6						
VSP-D5×10-30E*-4TC			4	85.6	73.5	54	30	1.1 to 4.8	70
VSP-D5×10-30E*-6TC			6						
VSP-D5×10-40E*-4TC			4	98.6	86.5	67	40	1.0 to 4.5	77
VSP-D5×10-40E*-6TC			6						
VSP-D5×10-50E*-4TC			4	111.6	99.5	80	50	0.9 to 4.5	83
VSP-D5×10-50E*-6TC			6						
VSP-D5×20-20E*-4TC		20	4	72.6	60.5	41	20	1.5 to 4.9	64
VSP-D5×20-20E*-6TC			6						
VSP-D5×20-30E*-4TC			4	85.6	73.5	54	30	1.1 to 4.8	70
VSP-D5×20-30E*-6TC			6						
VSP-D5×20-40E*-4TC			4	98.6	86.5	67	40	1.0 to 4.5	77
VSP-D5×20-40E*-6TC			6						
VSP-D5×20-50E*-4TC			4	111.6	99.5	80	50	0.9 to 4.5	84
VSP-D5×20-50E*-6TC			6						
VSP-D5×30-20E*-4TC		30	4	72.6	60.5	41	20	1.5 to 4.9	64
VSP-D5×30-20E*-6TC			6						
VSP-D5×30-30E*-4TC			4	85.6	73.5	54	30	1.1 to 4.8	71
VSP-D5×30-30E*-6TC			6						
VSP-D5×30-40E*-4TC			4	98.6	86.5	67	40	1.0 to 4.5	78
VSP-D5×30-40E*-6TC			6						
VSP-D5×30-50E*-4TC			4	111.6	99.5	80	50	0.9 to 4.5	84
VSP-D5×30-50E*-6TC			6						
VSP-D6×10-20E*-4TC	6	10	4	72.6	60.5	41	20	1.5 to 4.9	63
VSP-D6×10-20E*-6TC			6						
VSP-D6×10-30E*-4TC			4	85.6	73.5	54	30	1.1 to 4.8	70
VSP-D6×10-30E*-6TC			6						
VSP-D6×10-40E*-4TC			4	98.6	86.5	67	40	1.0 to 4.5	77
VSP-D6×10-40E*-6TC			6						
VSP-D6×10-50E*-4TC			4	111.6	99.5	80	50	0.9 to 4.5	83
VSP-D6×10-50E*-6TC			6						
VSP-D6×20-20E*-4TC		20	4	72.6	60.5	41	20	1.5 to 4.9	64
VSP-D6×20-20E*-6TC			6						
VSP-D6×20-30E*-4TC			4	85.6	73.5	54	30	1.1 to 4.8	70
VSP-D6×20-30E*-6TC			6						
VSP-D6×20-40E*-4TC			4	98.6	86.5	67	40	1.0 to 4.5	77
VSP-D6×20-40E*-6TC			6						
VSP-D6×20-50E*-4TC			4	111.6	99.5	80	50	0.9 to 4.5	83
VSP-D6×20-50E*-6TC			6						
VSP-D6×30-20E*-4TC		30	4	72.6	60.5	41	20	1.5 to 4.9	64
VSP-D6×30-20E*-6TC			6						
VSP-D6×30-30E*-4TC			4	85.6	73.5	54	30	1.1 to 4.8	71
VSP-D6×30-30E*-6TC			6						
VSP-D6×30-40E*-4TC			4	98.6	86.5	67	40	1.0 to 4.5	78
VSP-D6×30-40E*-6TC			6						
VSP-D6×30-50E*-4TC			4	111.6	99.5	80	50	0.9 to 4.5	84
VSP-D6×30-50E*-6TC			6						
VSP-D8×20-20E*-4TC	8	20	4	72.6	60.5	41	20	1.5 to 4.9	64
VSP-D8×20-20E*-6TC			6						
VSP-D8×20-30E*-4TC			4	85.6	73.5	54	30	1.1 to 4.8	71
VSP-D8×20-30E*-6TC			6						
VSP-D8×20-40E*-4TC			4	98.6	86.5	67	40	1.0 to 4.5	77
VSP-D8×20-40E*-6TC			6						
VSP-D8×20-50E*-4TC			4	111.6	99.5	80	50	0.9 to 4.5	84
VSP-D8×20-50E*-6TC			6						
VSP-D8×30-20E*-4TC		30	4	72.6	60.5	41	20	1.5 to 4.9	64
VSP-D8×30-20E*-6TC			6						
VSP-D8×30-30E*-4TC			4	85.6	73.5	54	30	1.1 to 4.8	71
VSP-D8×30-30E*-6TC			6						
VSP-D8×30-40E*-4TC			4	98.6	86.5	67	40	1.0 to 4.5	78
VSP-D8×30-40E*-6TC			6						
VSP-D8×30-50E*-4TC			4	111.6	99.5	80	50	0.9 to 4.5	84
VSP-D8×30-50E*-6TC			6						

Dimensions (direct mounting, buffer, VSP-F male thread)

●VSP-F*E*

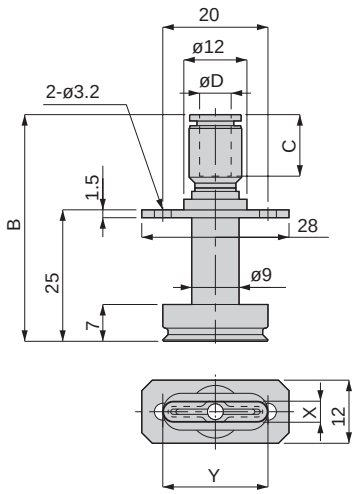


Unit: mm

Model No.	Pad size		Spring force (N)	Weight (g)
	X	Y		
VSP-F2×4E*	2	4	7.9 to 15	54
VSP-F3.5×7E*	3.5	7	7.9 to 15	54
VSP-F4×10E*	4	10	7.9 to 15	54
VSP-F4×20E*		20		55
VSP-F4×30E*		30		
VSP-F5×10E*	5	10	7.9 to 15	54
VSP-F5×20E*		20		55
VSP-F5×30E*		30		
VSP-F6×10E*	6	10	7.9 to 15	54
VSP-F6×20E*		20		55
VSP-F6×30E*		30		
VSP-F8×20E*	8	20	7.9 to 15	55
VSP-F8×30E*		30		

Dimensions (screw-in, fixed, vacuum outlet, top, VSP-AE)

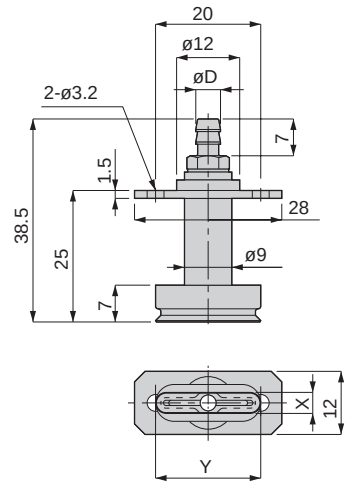
●Push-in fitting VSP-AE*E*-2/4/6



Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	Tube end C	Weight (g)
VSP-AE2×4E*-2	2	4	1.8	37.3	8.4	5
VSP-AE2×4E*-4			4	41.4	11.2	6
VSP-AE2×4E*-6			6	42.7	11.9	7
VSP-AE3.5×7E*-2	3.5	7	1.8	37.3	8.4	5
VSP-AE3.5×7E*-4			4	41.4	11.2	6
VSP-AE3.5×7E*-6			6	42.7	11.9	7
VSP-AE4×10E*-2	4	10	1.8	37.3	8.4	5
VSP-AE4×10E*-4			4	41.4	11.2	6
VSP-AE4×10E*-6			6	42.7	11.9	7
VSP-AE4×20E*-2		20	1.8	37.3	8.4	5.5
VSP-AE4×20E*-4			4	41.4	11.2	6.5
VSP-AE4×20E*-6			6	42.7	11.9	7.5
VSP-AE4×30E*-2		30	1.8	37.3	8.4	6
VSP-AE4×30E*-4			4	41.4	11.2	7
VSP-AE4×30E*-6			6	42.7	11.9	8
VSP-AE5×10E*-2	5	10	1.8	37.3	8.4	5
VSP-AE5×10E*-4			4	41.4	11.2	6
VSP-AE5×10E*-6			6	42.7	11.9	7
VSP-AE5×20E*-2		20	1.8	37.3	8.4	5.5
VSP-AE5×20E*-4			4	41.4	11.2	6.5
VSP-AE5×20E*-6			6	42.7	11.9	7.5
VSP-AE5×30E*-2		30	1.8	37.3	8.4	6
VSP-AE5×30E*-4			4	41.4	11.2	7
VSP-AE5×30E*-6			6	42.7	11.9	8
VSP-AE6×10E*-2	6	10	1.8	37.3	8.4	5
VSP-AE6×10E*-4			4	41.4	11.2	6
VSP-AE6×10E*-6			6	42.7	11.9	7
VSP-AE6×20E*-2		20	1.8	37.3	8.4	5.5
VSP-AE6×20E*-4			4	41.4	11.2	6.5
VSP-AE6×20E*-6			6	42.7	11.9	7.5
VSP-AE6×30E*-2		30	1.8	37.3	8.4	6
VSP-AE6×30E*-4			4	41.4	11.2	7
VSP-AE6×30E*-6			6	42.7	11.9	8
VSP-AE8×20E*-2	8	20	1.8	37.3	8.4	5.5
VSP-AE8×20E*-4			4	41.4	11.2	6.5
VSP-AE8×20E*-6			6	42.7	11.9	7.5
VSP-AE8×30E*-2		30	1.8	37.3	8.4	6
VSP-AE8×30E*-4			4	41.4	11.2	7
VSP-AE8×30E*-6			6	42.7	11.9	8

●Barbed fitting VSP-AE*E*-4T/6T

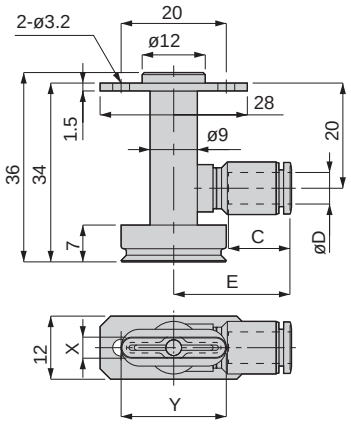


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	Weight (g)
VSP-AE2×4E*-4T	2	4	2.5	5
VSP-AE2×4E*-6T			4	
VSP-AE3.5×7E*-4T	3.5	7	2.5	5
VSP-AE3.5×7E*-6T			4	
VSP-AE4×10E*-4T	4	10	2.5	5
VSP-AE4×10E*-6T			4	
VSP-AE4×20E*-4T		20	2.5	5.5
VSP-AE4×20E*-6T			4	
VSP-AE4×30E*-4T		30	2.5	6
VSP-AE4×30E*-6T			4	
VSP-AE5×10E*-4T	5	10	2.5	5
VSP-AE5×10E*-6T			4	
VSP-AE5×20E*-4T		20	2.5	5.5
VSP-AE5×20E*-6T			4	
VSP-AE5×30E*-4T		30	2.5	6
VSP-AE5×30E*-6T			4	
VSP-AE6×10E*-4T	6	10	2.5	5
VSP-AE6×10E*-6T			4	
VSP-AE6×20E*-4T		20	2.5	5.5
VSP-AE6×20E*-6T			4	
VSP-AE6×30E*-4T		30	2.5	6
VSP-AE6×30E*-6T			4	
VSP-AE8×20E*-4T	8	20	2.5	5.5
VSP-AE8×20E*-6T			4	
VSP-AE8×30E*-4T		30	2.5	6
VSP-AE8×30E*-6T			4	

Dimensions (screw-in, fixed, vacuum outlet, side, VSP-BE)

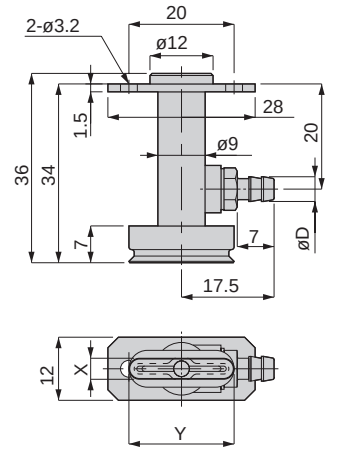
●Push-in fitting VSP-BE*E*-2/4/6



Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	Tube end C	Weight (g)
VSP-BE2×4E*-2	2	4	1.8	16.3	8.4	6
VSP-BE2×4E*-4			4	20.4	11.2	7
VSP-BE2×4E*-6			6	21.7	11.9	8
VSP-BE3.5×7E*-2	3.5	7	1.8	16.3	8.4	6
VSP-BE3.5×7E*-4			4	20.4	11.2	7
VSP-BE3.5×7E*-6			6	21.7	11.9	8
VSP-BE4×10E*-2	4	10	1.8	16.3	8.4	6
VSP-BE4×10E*-4			4	20.4	11.2	7
VSP-BE4×10E*-6			6	21.7	11.9	8
VSP-BE4×20E*-2		20	1.8	16.3	8.4	6
VSP-BE4×20E*-4			4	20.4	11.2	7
VSP-BE4×20E*-6			6	21.7	11.9	8
VSP-BE4×30E*-2		30	1.8	16.3	8.4	6.5
VSP-BE4×30E*-4			4	20.4	11.2	7.5
VSP-BE4×30E*-6			6	21.7	11.9	8.5
VSP-BE5×10E*-2	5	10	1.8	16.3	8.4	6
VSP-BE5×10E*-4			4	20.4	11.2	7
VSP-BE5×10E*-6			6	21.7	11.9	8
VSP-BE5×20E*-2		20	1.8	16.3	8.4	6
VSP-BE5×20E*-4			4	20.4	11.2	7
VSP-BE5×20E*-6			6	21.7	11.9	8
VSP-BE5×30E*-2		30	1.8	16.3	8.4	6.5
VSP-BE5×30E*-4			4	20.4	11.2	7.5
VSP-BE5×30E*-6			6	21.7	11.9	8.5
VSP-BE6×10E*-2	6	10	1.8	16.3	8.4	6
VSP-BE6×10E*-4			4	20.4	11.2	7
VSP-BE6×10E*-6			6	21.7	11.9	8
VSP-BE6×20E*-2		20	1.8	16.3	8.4	6
VSP-BE6×20E*-4			4	20.4	11.2	7
VSP-BE6×20E*-6			6	21.7	11.9	8
VSP-BE6×30E*-2		30	1.8	16.3	8.4	6.5
VSP-BE6×30E*-4			4	20.4	11.2	7.5
VSP-BE6×30E*-6			6	21.7	11.9	8.5
VSP-BE8×20E*-2	8	20	1.8	16.3	8.4	6
VSP-BE8×20E*-4			4	20.4	11.2	7
VSP-BE8×20E*-6			6	21.7	11.9	8
VSP-BE8×30E*-2		30	1.8	16.3	8.4	6.5
VSP-BE8×30E*-4			4	20.4	11.2	7.5
VSP-BE8×30E*-6			6	21.7	11.9	8.5

●Barbed fitting VSP-BE*E*-4T/6T

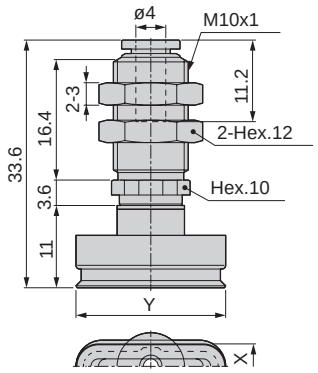


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	Weight (g)
VSP-BE2×4E*-4T	2	4	2.5	6
VSP-BE2×4E*-6T			4	
VSP-BE3.5×7E*-4T	3.5	7	2.5	6
VSP-BE3.5×7E*-6T			4	
VSP-BE4×10E*-4T	4	10	2.5	6
VSP-BE4×10E*-6T			4	
VSP-BE4×20E*-4T		20	2.5	6
VSP-BE4×20E*-6T			4	
VSP-BE4×30E*-4T		30	2.5	6.5
VSP-BE4×30E*-6T			4	
VSP-BE5×10E*-4T	5	10	2.5	6
VSP-BE5×10E*-6T			4	
VSP-BE5×20E*-4T		20	2.5	6
VSP-BE5×20E*-6T			4	
VSP-BE5×30E*-4T		30	2.5	6.5
VSP-BE5×30E*-6T			4	
VSP-BE6×10E*-4T	6	10	2.5	6
VSP-BE6×10E*-6T			4	
VSP-BE6×20E*-4T		20	2.5	6
VSP-BE6×20E*-6T			4	
VSP-BE6×30E*-4T		30	2.5	6.5
VSP-BE6×30E*-6T			4	
VSP-BE8×20E*-4T	8	20	2.5	6
VSP-BE8×20E*-6T			4	
VSP-BE8×30E*-4T		30	2.5	6.5
VSP-BE8×30E*-6T			4	

Dimensions (compact, fixed, vacuum outlet, top, VSP-MA)

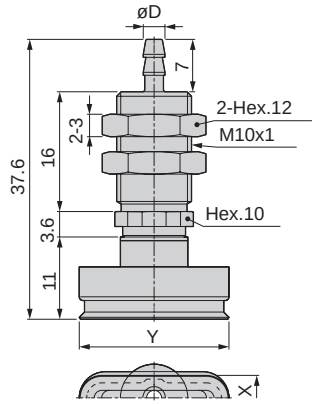
●Push-in fitting VSP-MA*E*-4



Unit: mm

Model No.	Pad size		Weight
	X	Y	(g)
VSP-MA2×4E*-4	2	4	6
VSP-MA3.5×7E*-4	3.5	7	6
VSP-MA4×10E*-4	4	10	6
VSP-MA4×20E*-4		20	6.3
VSP-MA4×30E*-4		30	6.7
VSP-MA5×10E*-4	5	10	6
VSP-MA5×20E*-4		20	6.3
VSP-MA5×30E*-4		30	6.6
VSP-MA6×10E*-4	6	10	6
VSP-MA6×20E*-4		20	6.3
VSP-MA6×30E*-4		30	6.7
VSP-MA8×20E*-4	8	20	6.3
VSP-MA8×30E*-4		30	6.8

●Barbed fitting VSP-MA*E*-4T/6T

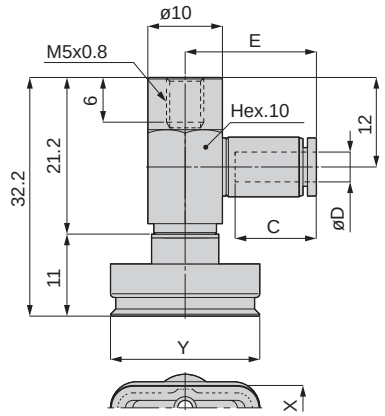


Unit: mm

Model No.	Pad size		Bore size	Weight
	X	Y	øD	(g)
VSP-MA2×4E*-4T	2	4	2.5	6
VSP-MA2×4E*-6T			4	
VSP-MA3.5×7E*-4T	3.5	7	2.5	6
VSP-MA3.5×7E*-6T			4	
VSP-MA4×10E*-4T	4	10	2.5	6
VSP-MA4×10E*-6T			4	
VSP-MA4×20E*-4T		20	2.5	6.3
VSP-MA4×20E*-6T			4	
VSP-MA4×30E*-4T		30	2.5	6.7
VSP-MA4×30E*-6T			4	
VSP-MA5×10E*-4T	5	10	2.5	6
VSP-MA5×10E*-6T			4	
VSP-MA5×20E*-4T		20	2.5	6.3
VSP-MA5×20E*-6T			4	
VSP-MA5×30E*-4T		30	2.5	6.7
VSP-MA5×30E*-6T			4	
VSP-MA6×10E*-4T	6	10	2.5	6
VSP-MA6×10E*-6T			4	
VSP-MA6×20E*-4T		20	2.5	6.3
VSP-MA6×20E*-6T			4	
VSP-MA6×30E*-4T		30	2.5	6.7
VSP-MA6×30E*-6T			4	
VSP-MA8×20E*-4T	8	20	2.5	6.4
VSP-MA8×20E*-6T			4	
VSP-MA8×30E*-4T		30	2.5	6.9
VSP-MA8×30E*-6T			4	

Dimensions (compact, fixed, vacuum outlet, side, VSP-MB)

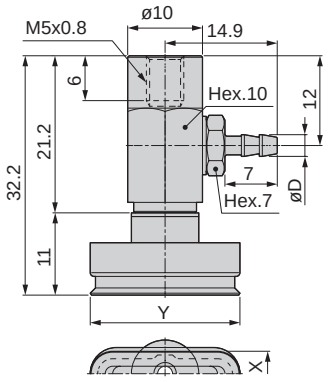
●Push-in fitting VSP-MB*E*-2/4/6



Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	Tube end C	E	Weight (g)
VSP-MB2×4E*-2	2	4	1.8	8.4	13.7	6.8
VSP-MB2×4E*-4			4	11.2	17.8	6.9
VSP-MB2×4E*-6			6	11.9	19.6	7.0
VSP-MB3.5×7E*-2	3.5	7	1.8	8.4	13.7	6.8
VSP-MB3.5×7E*-4			4	11.2	17.8	6.9
VSP-MB3.5×7E*-6			6	11.9	19.6	7.0
VSP-MB4×10E*-2	4	10	1.8	8.4	13.7	6.8
VSP-MB4×10E*-4			4	11.2	17.8	6.9
VSP-MB4×10E*-6			6	11.9	19.6	7.0
VSP-MB4×20E*-2		20	1.8	8.4	13.7	7.1
VSP-MB4×20E*-4			4	11.2	17.8	7.2
VSP-MB4×20E*-6			6	11.9	19.6	7.3
VSP-MB4×30E*-2		30	1.8	8.4	13.7	7.5
VSP-MB4×30E*-4			4	11.2	17.8	7.6
VSP-MB4×30E*-6			6	11.9	19.6	7.7
VSP-MB5×10E*-2	5	10	1.8	8.4	13.7	6.8
VSP-MB5×10E*-4			4	11.2	17.8	6.9
VSP-MB5×10E*-6			6	11.9	19.6	7.0
VSP-MB5×20E*-2		20	1.8	8.4	13.7	7.1
VSP-MB5×20E*-4			4	11.2	17.8	7.2
VSP-MB5×20E*-6			6	11.9	19.6	7.3
VSP-MB5×30E*-2		30	1.8	8.4	13.7	7.5
VSP-MB5×30E*-4			4	11.2	17.8	7.6
VSP-MB5×30E*-6			6	11.9	19.6	7.7
VSP-MB6×10E*-2	6	10	1.8	8.4	13.7	6.8
VSP-MB6×10E*-4			4	11.2	17.8	6.9
VSP-MB6×10E*-6			6	11.9	19.6	7.0
VSP-MB6×20E*-2		20	1.8	8.4	13.7	7.1
VSP-MB6×20E*-4			4	11.2	17.8	7.2
VSP-MB6×20E*-6			6	11.9	19.6	7.3
VSP-MB6×30E*-2		30	1.8	8.4	13.7	7.5
VSP-MB6×30E*-4			4	11.2	17.8	7.6
VSP-MB6×30E*-6			6	11.9	19.6	7.7
VSP-MB8×20E*-2	8	20	1.8	8.4	13.7	7.2
VSP-MB8×20E*-4			4	11.2	17.8	7.3
VSP-MB8×20E*-6			6	11.9	19.6	7.4
VSP-MB8×30E*-2		30	1.8	8.4	13.7	7.6
VSP-MB8×30E*-4			4	11.2	17.8	7.7
VSP-MB8×30E*-6			6	11.9	19.6	7.8

●Barbed fitting VSP-MB*E*-4T/6T

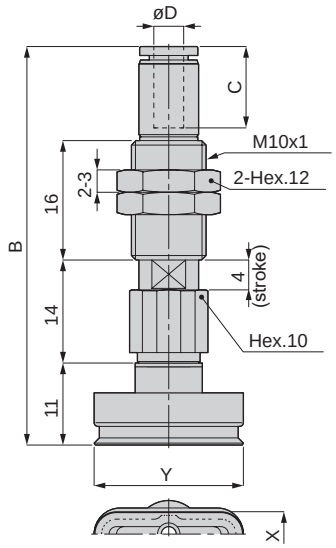


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	Weight (g)
VSP-MB2×4E*-4T	2	4	2.5	5.7
VSP-MB2×4E*-6T			4	
VSP-MB3.5×7E*-4T	3.5	7	2.5	5.7
VSP-MB3.5×7E*-6T			4	
VSP-MB4×10E*-4T	4	10	2.5	5.7
VSP-MB4×10E*-6T			4	
VSP-MB4×20E*-4T		20	2.5	6.0
VSP-MB4×20E*-6T			4	
VSP-MB4×30E*-4T		30	2.5	6.4
VSP-MB4×30E*-6T			4	
VSP-MB5×10E*-4T	5	10	2.5	5.7
VSP-MB5×10E*-6T			4	
VSP-MB5×20E*-4T		20	2.5	6.1
VSP-MB5×20E*-6T			4	
VSP-MB5×30E*-4T		30	2.5	6.4
VSP-MB5×30E*-6T			4	
VSP-MB6×10E*-4T	6	10	2.5	5.8
VSP-MB6×10E*-6T			4	
VSP-MB6×20E*-4T		20	2.5	6.1
VSP-MB6×20E*-6T			4	
VSP-MB6×30E*-4T		30	2.5	6.5
VSP-MB6×30E*-6T			4	
VSP-MB8×20E*-4T	8	20	2.5	6.1
VSP-MB8×20E*-6T			4	
VSP-MB8×30E*-4T		30	2.5	6.6
VSP-MB8×30E*-6T			4	

Dimensions (compact, buffer, vacuum outlet, top, VSP-MC)

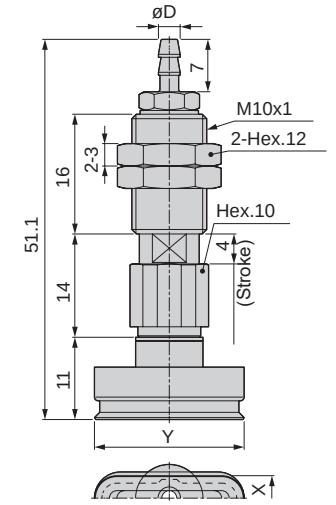
●Push-in fitting VSP-MC*E*-2/4



Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	Tube end C	Spring force (N)	Weight (g)
VSP-MC2×4E*-2	2	4	1.8	49.9	8.4	1.0 to 1.3	21
VSP-MC2×4E*-4			4	54	11.2		22
VSP-MC3.5×7E*-2	3.5	7	1.8	49.9	8.4	1.0 to 1.3	21
VSP-MC3.5×7E*-4			4	54	11.2		-2
VSP-MC4×10E*-2	4	10	1.8	49.9	8.4	1.0 to 1.3	21
VSP-MC4×10E*-4			4	54	11.2		22
VSP-MC4×20E*-2		20	1.8	49.9	8.4	1.0 to 1.3	21
VSP-MC4×20E*-4			4	54	11.2		22
VSP-MC4×30E*-2		30	1.8	49.9	8.4	1.0 to 1.3	22
VSP-MC4×30E*-4			4	54	11.2		23
VSP-MC5×10E*-2	5	10	1.8	49.9	8.4	1.0 to 1.3	21
VSP-MC5×10E*-4			4	54	11.2		22
VSP-MC5×20E*-2		20	1.8	49.9	8.4	1.0 to 1.3	21
VSP-MC5×20E*-4			4	54	11.2		22
VSP-MC5×30E*-2		30	1.8	49.9	8.4	1.0 to 1.3	22
VSP-MC5×30E*-4			4	54	11.2		23
VSP-MC6×10E*-2	6	10	1.8	49.9	8.4	1.0 to 1.3	21
VSP-MC6×10E*-4			4	54	11.2		22
VSP-MC6×20E*-2		20	1.8	49.9	8.4	1.0 to 1.3	21
VSP-MC6×20E*-4			4	54	11.2		22
VSP-MC6×30E*-2		30	1.8	49.9	8.4	1.0 to 1.3	22
VSP-MC6×30E*-4			4	54	11.2		23
VSP-MC8×20E*-2	8	20	1.8	49.9	8.4	1.0 to 1.3	21
VSP-MC8×20E*-4			4	54	11.2		22
VSP-MC8×30E*-2		30	1.8	49.9	8.4	1.0 to 1.3	22
VSP-MC8×30E*-4			4	54	11.2		23

●Barbed fitting VSP-MC*E*-4T/6T

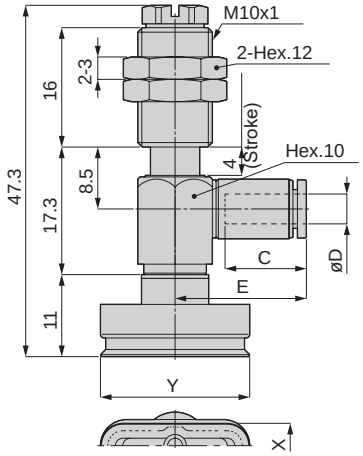


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	Spring force (N)	Weight (g)
VSP-MC2×4E*-4T	2	4	2.5	1 to 1.3	17
VSP-MC2×4E*-6T			4		
VSP-MC3.5×7E*-4T	3.5	7	2.5	1 to 1.3	17
VSP-MC3.5×7E*-6T			4		
VSP-MC4×10E*-4T	4	10	2.5	1 to 1.3	17
VSP-MC4×10E*-6T			4		
VSP-MC4×20E*-4T		20	2.5		17
VSP-MC4×20E*-6T			4		
VSP-MC4×30E*-4T		30	2.5		18
VSP-MC4×30E*-6T			4		
VSP-MC5×10E*-4T	5	10	2.5	1 to 1.3	17
VSP-MC5×10E*-6T			4		
VSP-MC5×20E*-4T		20	2.5		17
VSP-MC5×20E*-6T			4		
VSP-MC5×30E*-4T		30	2.5		18
VSP-MC5×30E*-6T			4		
VSP-MC6×10E*-4T	6	10	2.5	1 to 1.3	17
VSP-MC6×10E*-6T			4		
VSP-MC6×20E*-4T		20	2.5		17
VSP-MC6×20E*-6T			4		
VSP-MC6×30E*-4T		30	2.5		18
VSP-MC6×30E*-6T			4		
VSP-MC8×20E*-4T	8	20	2.5	1 to 1.3	18
VSP-MC8×20E*-6T			4		
VSP-MC8×30E*-4T		30	2.5		
VSP-MC8×30E*-6T			4		

Dimensions (compact, buffer, vacuum outlet, side, VSP-MD)

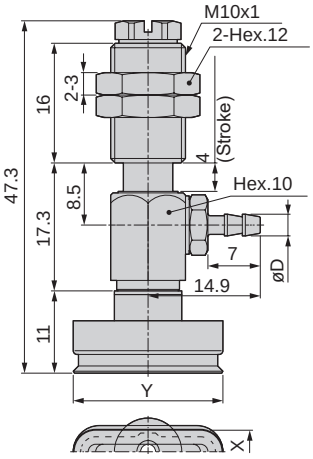
●Push-in fitting VSP-MD*E*-2/4/6



Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	Tube end C	E	Spring force (N)	Weight (g)
VSP-MD2×4E*-2	2	4	1.8	8.4	13.7	1.0 to 1.3	21
VSP-MD2×4E*-4			4	11.2	17.7		22
VSP-MD2×4E*-6			6	11.9	19.5		23
VSP-MD3.5×7E*-2	3.5	7	1.8	8.4	13.7	1.0 to 1.3	21
VSP-MD3.5×7E*-4			4	11.2	17.7		22
VSP-MD3.5×7E*-6			6	11.9	19.5		23
VSP-MD4×10E*-2	4	10	1.8	8.4	13.7	1.0 to 1.3	21
VSP-MD4×10E*-4			4	11.2	17.7		22
VSP-MD4×10E*-6			6	11.9	19.5		23
VSP-MD4×20E*-2		20	1.8	8.4	13.7		21
VSP-MD4×20E*-4			4	11.2	17.7		22
VSP-MD4×20E*-6			6	11.9	19.5		23
VSP-MD4×30E*-2		30	1.8	8.4	13.7		22
VSP-MD4×30E*-4			4	11.2	17.7		23
VSP-MD4×30E*-6			6	11.9	19.5		24
VSP-MD5×10E*-2	5	10	1.8	8.4	13.7	1.0 to 1.3	21
VSP-MD5×10E*-4			4	11.2	17.7		22
VSP-MD5×10E*-6			6	11.9	19.5		23
VSP-MD5×20E*-2		20	1.8	8.4	13.7		21
VSP-MD5×20E*-4			4	11.2	17.7		22
VSP-MD5×20E*-6			6	11.9	19.5		23
VSP-MD5×30E*-2		30	1.8	8.4	13.7		22
VSP-MD5×30E*-4			4	11.2	17.7		23
VSP-MD5×30E*-6			6	11.9	19.5		24
VSP-MD6×10E*-2	6	10	1.8	8.4	13.7	1.0 to 1.3	21
VSP-MD6×10E*-4			4	11.2	17.7		22
VSP-MD6×10E*-6			6	11.9	19.5		23
VSP-MD6×20E*-2		20	1.8	8.4	13.7		21
VSP-MD6×20E*-4			4	11.2	17.7		22
VSP-MD6×20E*-6			6	11.9	19.5		23
VSP-MD6×30E*-2		30	1.8	8.4	13.7		22
VSP-MD6×30E*-4			4	11.2	17.7		23
VSP-MD6×30E*-6			6	11.9	19.5		24
VSP-MD8×20E*-2	8	20	1.8	8.4	13.7	1.0 to 1.3	21
VSP-MD8×20E*-4			4	11.2	17.7		22
VSP-MD8×20E*-6			6	11.9	19.5		23
VSP-MD8×30E*-2		30	1.8	8.4	13.7		22
VSP-MD8×30E*-4			4	11.2	17.7		23
VSP-MD8×30E*-6			6	11.9	19.5		24

●Barbed fitting VSP-MD*E*-4T/6T

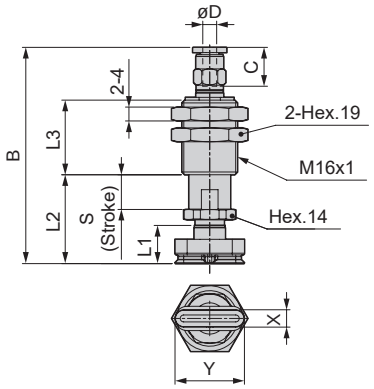


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	Spring force (N)	Weight (g)
VSP-MD2×4E*-4T	2	4	2.5	1 to 1.3	21
VSP-MD2×4E*-6T			4		
VSP-MD3.5×7E*-4T	3.5	7	2.5	1 to 1.3	21
VSP-MD3.5×7E*-6T			4		
VSP-MD4×10E*-4T	4	10	2.5	1 to 1.3	21
VSP-MD4×10E*-6T			4		
VSP-MD4×20E*-4T		20	2.5		
VSP-MD4×20E*-6T			4		
VSP-MD4×30E*-4T		30	2.5		
VSP-MD4×30E*-6T			4		
VSP-MD5×10E*-4T	5	10	2.5	1 to 1.3	21
VSP-MD5×10E*-6T			4		
VSP-MD5×20E*-4T		20	2.5		
VSP-MD5×20E*-6T			4		
VSP-MD5×30E*-4T		30	2.5		
VSP-MD5×30E*-6T			4		
VSP-MD6×10E*-4T	6	10	2.5	1 to 1.3	20
VSP-MD6×10E*-6T			4		
VSP-MD6×20E*-4T		20	2.5		21
VSP-MD6×20E*-6T			4		
VSP-MD6×30E*-4T		30	2.5		21
VSP-MD6×30E*-6T			4		
VSP-MD8×20E*-4T	8	20	2.5	1 to 1.3	21
VSP-MD8×20E*-6T			4		
VSP-MD8×30E*-4T		30	2.5		
VSP-MD8×30E*-6T			4		

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, push-in fitting)

●VSP-HC2×4-□E*-2/4/6
●VSP-HC3.5×7-□E*-2/4/6

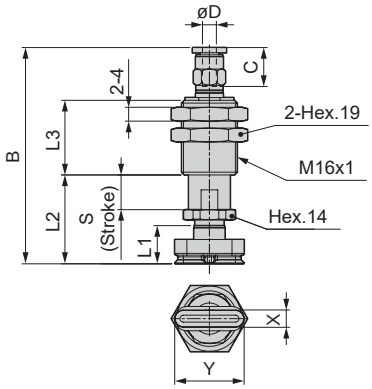


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC2×4-10E*-2	2.5	4	1.8	58.2	11	25.6	21.5	8.4	10	1.0 to 2.4	22
VSP-HC2×4-10E*-4			4	62.3				11.2			23
VSP-HC2×4-10E*-6			6	63.6				11.9			24
VSP-HC2×4-15E*-2			1.8	68.2		30.6	26.5	8.4	15	1.0 to 2.7	24
VSP-HC2×4-15E*-4			4	72.3				11.2			25
VSP-HC2×4-15E*-6			6	73.6				11.9			26
VSP-HC2×4-20E*-2			1.8	78.2		35.6	31.5	8.4	20	1.0 to 3.0	26
VSP-HC2×4-20E*-4			4	82.3				11.2			27
VSP-HC2×4-20E*-6			6	83.6				11.9			28
VSP-HC2×4-25E*-2			1.8	88.7		40.6	37	8.4	25	1.0 to 3.0	28
VSP-HC2×4-25E*-4			4	92.8				11.2			29
VSP-HC2×4-25E*-6			6	94.1				11.9			30
VSP-HC2×4-30E*-2			1.8	99.7		45.6	43	8.4	30	1.0 to 3.0	30
VSP-HC2×4-30E*-4			4	103.8				11.2			31
VSP-HC2×4-30E*-6			6	105.1				11.9			32
VSP-HC2×4-40E*-2			1.8	121.7		55.6	55	8.4	40	1.0 to 3.0	34
VSP-HC2×4-40E*-4			4	125.8				11.2			35
VSP-HC2×4-40E*-6			6	117.2				11.9			36
VSP-HC2×4-50E*-2			1.8	143.2		65.6	66.5	8.4	50	1.0 to 3.1	38
VSP-HC2×4-50E*-4			4	147.3				11.2			39
VSP-HC2×4-50E*-6			6	148.6				11.9			40
VSP-HC3.5×7-10E*-2	3.5	7	1.8	58.2	11	25.6	21.5	8.4	10	1.0 to 2.4	22
VSP-HC3.5×7-10E*-4			4	62.3				11.2			23
VSP-HC3.5×7-10E*-6			6	63.6				11.9			24
VSP-HC3.5×7-15E*-2			1.8	68.2		30.6	26.5	8.4	15	1.0 to 2.7	24
VSP-HC3.5×7-15E*-4			4	72.3				11.2			25
VSP-HC3.5×7-15E*-6			6	73.6				11.9			26
VSP-HC3.5×7-20E*-2			1.8	78.2		35.6	31.5	8.4	20	1.0 to 3.0	26
VSP-HC3.5×7-20E*-4			4	82.3				11.2			27
VSP-HC3.5×7-20E*-6			6	83.6				11.9			28
VSP-HC3.5×7-25E*-2			1.8	88.7		40.6	37	8.4	25	1.0 to 3.0	28
VSP-HC3.5×7-25E*-4			4	92.8				11.2			29
VSP-HC3.5×7-25E*-6			6	94.1				11.9			30
VSP-HC3.5×7-30E*-2			1.8	99.7		45.6	43	8.4	30	1.0 to 3.0	30
VSP-HC3.5×7-30E*-4			4	103.8				11.2			31
VSP-HC3.5×7-30E*-6			6	105.1				11.9			32
VSP-HC3.5×7-40E*-2			1.8	121.7		55.6	55	8.4	40	1.0 to 3.0	34
VSP-HC3.5×7-40E*-4			4	125.8				11.2			35
VSP-HC3.5×7-40E*-6			6	117.2				11.9			36
VSP-HC3.5×7-50E*-2			1.8	143.2		65.6	66.5	8.4	50	1.0 to 3.1	38
VSP-HC3.5×7-50E*-4			4	147.3				11.2			39
VSP-HC3.5×7-50E*-6			6	148.6				11.9			40

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, push-in fitting)

●VSP-HC4×10-□E*-2/4/6
●VSP-HC4×20-□E*-2/4/6
●VSP-HC4×30-□E*-2/4/6

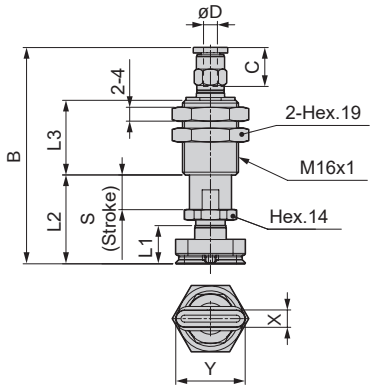


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC4×10-10E*-2			1.8	58.2				8.4			22
VSP-HC4×10-10E*-4			4	62.3		25.6	21.5	11.2	10	1.0 to 2.4	23
VSP-HC4×10-10E*-6			6	63.6				11.9			24
VSP-HC4×10-15E*-2			1.8	68.2				8.4			24
VSP-HC4×10-15E*-4			4	72.3		30.6	26.5	11.2	15	1.0 to 2.7	25
VSP-HC4×10-15E*-6			6	73.6				11.9			26
VSP-HC4×10-20E*-2			1.8	78.2				8.4			26
VSP-HC4×10-20E*-4			4	82.3		35.6	31.5	11.2	20	1.0 to 3.0	27
VSP-HC4×10-20E*-6			6	83.6				11.9			28
VSP-HC4×10-25E*-2			1.8	88.7				8.4			28
VSP-HC4×10-25E*-4		10	4	92.8	11	40.6	37	11.2	25	1.0 to 3.0	29
VSP-HC4×10-25E*-6			6	94.1				11.9			30
VSP-HC4×10-30E*-2			1.8	99.7				8.4			30
VSP-HC4×10-30E*-4			4	103.8		45.6	43	11.2	30	1.0 to 3.0	31
VSP-HC4×10-30E*-6			6	105.1				11.9			32
VSP-HC4×10-40E*-2			1.8	121.7				8.4			34
VSP-HC4×10-40E*-4			4	125.8		55.6	55	11.2	40	1.0 to 3.0	35
VSP-HC4×10-40E*-6			6	117.2				11.9			36
VSP-HC4×10-50E*-2			1.8	143.2				8.4			38
VSP-HC4×10-50E*-4			4	147.3		65.6	66.5	11.2	50	1.0 to 3.1	39
VSP-HC4×10-50E*-6			6	148.6				11.9			40
VSP-HC4×20-10E*-2			1.8	58.2				8.4			23
VSP-HC4×20-10E*-4			4	62.3		25.6	21.5	11.2	10	1.0 to 2.4	24
VSP-HC4×20-10E*-6			6	63.6				11.9			25
VSP-HC4×20-15E*-2			1.8	68.2				8.4			25
VSP-HC4×20-15E*-4			4	72.3		30.6	26.5	11.2	15	1.0 to 2.7	26
VSP-HC4×20-15E*-6			6	73.6				11.9			27
VSP-HC4×20-20E*-2			1.8	78.2				8.4			27
VSP-HC4×20-20E*-4			4	82.3		35.6	31.5	11.2	20	1.0 to 3.0	28
VSP-HC4×20-20E*-6			6	83.6				11.9			29
VSP-HC4×20-25E*-2			1.8	88.7				8.4			29
VSP-HC4×20-25E*-4	4	20	4	92.8	11	40.6	37	11.2	25	1.0 to 3.0	30
VSP-HC4×20-25E*-6			6	94.1				11.9			31
VSP-HC4×20-30E*-2			1.8	99.7				8.4			31
VSP-HC4×20-30E*-4			4	103.8		45.6	43	11.2	30	1.0 to 3.0	32
VSP-HC4×20-30E*-6			6	105.1				11.9			33
VSP-HC4×20-40E*-2			1.8	121.7				8.4			35
VSP-HC4×20-40E*-4			4	125.8		55.6	55	11.2	40	1.0 to 3.0	36
VSP-HC4×20-40E*-6			6	117.2				11.9			37
VSP-HC4×20-50E*-2			1.8	143.2				8.4			39
VSP-HC4×20-50E*-4			4	147.3		65.6	66.5	11.2	50	1.0 to 3.1	40
VSP-HC4×20-50E*-6			6	148.6				11.9			41
VSP-HC4×30-10E*-2			1.8	58.2				8.4			23
VSP-HC4×30-10E*-4			4	62.3		25.6	21.5	11.2	10	1.0 to 2.4	24
VSP-HC4×30-10E*-6			6	63.6				11.9			25
VSP-HC4×30-15E*-2			1.8	68.2				8.4			25
VSP-HC4×30-15E*-4			4	72.3		30.6	26.5	11.2	15	1.0 to 2.7	26
VSP-HC4×30-15E*-6			6	73.6				11.9			27
VSP-HC4×30-20E*-2			1.8	78.2				8.4			27
VSP-HC4×30-20E*-4			4	82.3		35.6	31.5	11.2	20	1.0 to 3.0	28
VSP-HC4×30-20E*-6			6	83.6				11.9			29
VSP-HC4×30-25E*-2			1.8	88.7				8.4			29
VSP-HC4×30-25E*-4		30	4	92.8	11	40.6	37	11.2	25	1.0 to 3.0	30
VSP-HC4×30-25E*-6			6	94.1				11.9			31
VSP-HC4×30-30E*-2			1.8	99.7				8.4			31
VSP-HC4×30-30E*-4			4	103.8		45.6	43	11.2	30	1.0 to 3.0	32
VSP-HC4×30-30E*-6			6	105.1				11.9			33
VSP-HC4×30-40E*-2			1.8	121.7				8.4			35
VSP-HC4×30-40E*-4			4	125.8		55.6	55	11.2	40	1.0 to 3.0	36
VSP-HC4×30-40E*-6			6	117.2				11.9			37
VSP-HC4×30-50E*-2			1.8	143.2				8.4			39
VSP-HC4×30-50E*-4			4	147.3		65.6	66.5	11.2	50	1.0 to 3.1	40
VSP-HC4×30-50E*-6			6	148.6				11.9			41

VSP-*E* Series

□●VSP-HC5×10-□E*-2/4/6
●VSP-HC5×20-□E*-2/4/6
●VSP-HC5×30-□E*-2/4/6

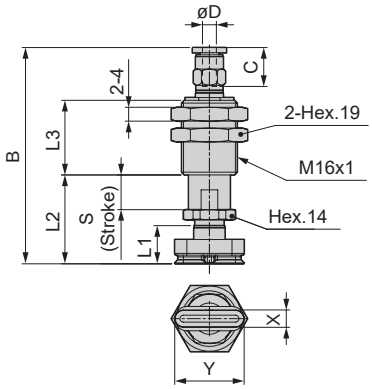


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC5×10-10E*-2			1.8	58.2				8.4			22
VSP-HC5×10-10E*-4			4	62.3		25.6	21.5	11.2	10	1.0 to 2.4	23
VSP-HC5×10-10E*-6			6	63.6				11.9			24
VSP-HC5×10-15E*-2			1.8	68.2				8.4			24
VSP-HC5×10-15E*-4			4	72.3		30.6	26.5	11.2	15	1.0 to 2.7	25
VSP-HC5×10-15E*-6			6	73.6				11.9			26
VSP-HC5×10-20E*-2			1.8	78.2				8.4			26
VSP-HC5×10-20E*-4			4	82.3		35.6	31.5	11.2	20	1.0 to 3.0	27
VSP-HC5×10-20E*-6			6	83.6				11.9			28
VSP-HC5×10-25E*-2			1.8	88.7				8.4			28
VSP-HC5×10-25E*-4		10	4	92.8	11	40.6	37	11.2	25	1.0 to 3.0	29
VSP-HC5×10-25E*-6			6	94.1				11.9			30
VSP-HC5×10-30E*-2			1.8	99.7				8.4			30
VSP-HC5×10-30E*-4			4	103.8		45.6	43	11.2	30	1.0 to 3.0	31
VSP-HC5×10-30E*-6			6	105.1				11.9			32
VSP-HC5×10-40E*-2			1.8	121.7				8.4			34
VSP-HC5×10-40E*-4			4	125.8		55.6	55	11.2	40	1.0 to 3.0	35
VSP-HC5×10-40E*-6			6	117.2				11.9			36
VSP-HC5×10-50E*-2			1.8	143.2				8.4			38
VSP-HC5×10-50E*-4			4	147.3		65.6	66.5	11.2	50	1.0 to 3.1	39
VSP-HC5×10-50E*-6			6	148.6				11.9			40
VSP-HC5×20-10E*-2			1.8	58.2				8.4			23
VSP-HC5×20-10E*-4			4	62.3		25.6	21.5	11.2	10	1.0 to 2.4	24
VSP-HC5×20-10E*-6			6	63.6				11.9			25
VSP-HC5×20-15E*-2			1.8	68.2				8.4			25
VSP-HC5×20-15E*-4			4	72.3		30.6	26.5	11.2	15	1.0 to 2.7	26
VSP-HC5×20-15E*-6			6	73.6				11.9			27
VSP-HC5×20-20E*-2			1.8	78.2				8.4			27
VSP-HC5×20-20E*-4			4	82.3		35.6	31.5	11.2	20	1.0 to 3.0	28
VSP-HC5×20-20E*-6			6	83.6				11.9			29
VSP-HC5×20-25E*-2			1.8	88.7				8.4			29
VSP-HC5×20-25E*-4	5	20	4	92.8	11	40.6	37	11.2	25	1.0 to 3.0	30
VSP-HC5×20-25E*-6			6	94.1				11.9			31
VSP-HC5×20-30E*-2			1.8	99.7				8.4			31
VSP-HC5×20-30E*-4			4	103.8		45.6	43	11.2	30	1.0 to 3.0	32
VSP-HC5×20-30E*-6			6	105.1				11.9			33
VSP-HC5×20-40E*-2			1.8	121.7				8.4			35
VSP-HC5×20-40E*-4			4	125.8		55.6	55	11.2	40	1.0 to 3.0	36
VSP-HC5×20-40E*-6			6	117.2				11.9			37
VSP-HC5×20-50E*-2			1.8	143.2				8.4			39
VSP-HC5×20-50E*-4			4	147.3		65.6	66.5	11.2	50	1.0 to 3.1	40
VSP-HC5×20-50E*-6			6	148.6				11.9			41
VSP-HC5×30-10E*-2			1.8	58.2				8.4			23
VSP-HC5×30-10E*-4			4	62.3		25.6	21.5	11.2	10	1.0 to 2.4	24
VSP-HC5×30-10E*-6			6	63.6				11.9			25
VSP-HC5×30-15E*-2			1.8	68.2				8.4			25
VSP-HC5×30-15E*-4			4	72.3		30.6	26.5	11.2	15	1.0 to 2.7	26
VSP-HC5×30-15E*-6			6	73.6				11.9			27
VSP-HC5×30-20E*-2			1.8	78.2				8.4			27
VSP-HC5×30-20E*-4			4	82.3		35.6	31.5	11.2	20	1.0 to 3.0	28
VSP-HC5×30-20E*-6			6	83.6				11.9			29
VSP-HC5×30-25E*-2			1.8	88.7				8.4			29
VSP-HC5×30-25E*-4		30	4	92.8	11	40.6	37	11.2	25	1.0 to 3.0	30
VSP-HC5×30-25E*-6			6	94.1				11.9			31
VSP-HC5×30-30E*-2			1.8	99.7				8.4			31
VSP-HC5×30-30E*-4			4	103.8		45.6	43	11.2	30	1.0 to 3.0	32
VSP-HC5×30-30E*-6			6	105.1				11.9			33
VSP-HC5×30-40E*-2			1.8	121.7				8.4			35
VSP-HC5×30-40E*-4			4	125.8		55.6	55	11.2	40	1.0 to 3.0	36
VSP-HC5×30-40E*-6			6	117.2				11.9			37
VSP-HC5×30-50E*-2			1.8	143.2				8.4			39
VSP-HC5×30-50E*-4			4	147.3		65.6	66.5	11.2	50	1.0 to 3.1	40
VSP-HC5×30-50E*-6			6	148.6				11.9			41

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, push-in fitting)

●VSP-HC6×10-□E*-2/4/6
●VSP-HC6×20-□E*-2/4/6
●VSP-HC6×30-□E*-2/4/6

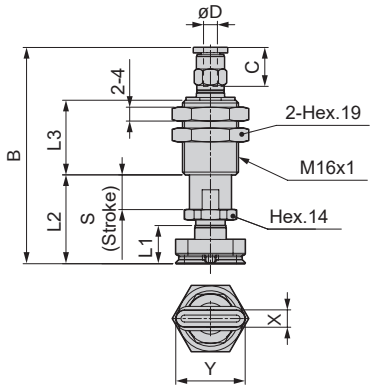


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC6×10-10E*-2			1.8	58.2				8.4			22
VSP-HC6×10-10E*-4			4	62.3		25.6	21.5	11.2	10	1.0 to 2.4	23
VSP-HC6×10-10E*-6			6	63.6				11.9			24
VSP-HC6×10-15E*-2			1.8	68.2				8.4			24
VSP-HC6×10-15E*-4			4	72.3		30.6	26.5	11.2	15	1.0 to 2.7	25
VSP-HC6×10-15E*-6			6	73.6				11.9			26
VSP-HC6×10-20E*-2			1.8	78.2				8.4			26
VSP-HC6×10-20E*-4			4	82.3		35.6	31.5	11.2	20	1.0 to 3.0	27
VSP-HC6×10-20E*-6			6	83.6				11.9			28
VSP-HC6×10-25E*-2			1.8	88.7				8.4			28
VSP-HC6×10-25E*-4		10	4	92.8	11	40.6	37	11.2	25	1.0 to 3.0	29
VSP-HC6×10-25E*-6			6	94.1				11.9			30
VSP-HC6×10-30E*-2			1.8	99.7				8.4			30
VSP-HC6×10-30E*-4			4	103.8		45.6	43	11.2	30	1.0 to 3.0	31
VSP-HC6×10-30E*-6			6	105.1				11.9			32
VSP-HC6×10-40E*-2			1.8	121.7				8.4			34
VSP-HC6×10-40E*-4			4	125.8		55.6	55	11.2	40	1.0 to 3.0	35
VSP-HC6×10-40E*-6			6	117.2				11.9			36
VSP-HC6×10-50E*-2			1.8	143.2				8.4			38
VSP-HC6×10-50E*-4			4	147.3		65.6	66.5	11.2	50	1.0 to 3.1	39
VSP-HC6×10-50E*-6			6	148.6				11.9			40
VSP-HC6×20-10E*-2			1.8	58.2				8.4			23
VSP-HC6×20-10E*-4			4	62.3		25.6	21.5	11.2	10	1.0 to 2.4	24
VSP-HC6×20-10E*-6			6	63.6				11.9			25
VSP-HC6×20-15E*-2			1.8	68.2				8.4			25
VSP-HC6×20-15E*-4			4	72.3		30.6	26.5	11.2	15	1.0 to 2.7	26
VSP-HC6×20-15E*-6			6	73.6				11.9			27
VSP-HC6×20-20E*-2			1.8	78.2				8.4			27
VSP-HC6×20-20E*-4			4	82.3		35.6	31.5	11.2	20	1.0 to 3.0	28
VSP-HC6×20-20E*-6			6	83.6				11.9			29
VSP-HC6×20-25E*-2			1.8	88.7				8.4			29
VSP-HC6×20-25E*-4	6	20	4	92.8	11	40.6	37	11.2	25	1.0 to 3.0	30
VSP-HC6×20-25E*-6			6	94.1				11.9			31
VSP-HC6×20-30E*-2			1.8	99.7				8.4			31
VSP-HC6×20-30E*-4			4	103.8		45.6	43	11.2	30	1.0 to 3.0	32
VSP-HC6×20-30E*-6			6	105.1				11.9			33
VSP-HC6×20-40E*-2			1.8	121.7				8.4			35
VSP-HC6×20-40E*-4			4	125.8		55.6	55	11.2	40	1.0 to 3.0	36
VSP-HC6×20-40E*-6			6	117.2				11.9			37
VSP-HC6×20-50E*-2			1.8	143.2				8.4			39
VSP-HC6×20-50E*-4			4	147.3		65.6	66.5	11.2	50	1.0 to 3.1	40
VSP-HC6×20-50E*-6			6	148.6				11.9			41
VSP-HC6×30-10E*-2			1.8	58.2				8.4			23
VSP-HC6×30-10E*-4			4	62.3		25.6	21.5	11.2	10	1.0 to 2.4	24
VSP-HC6×30-10E*-6			6	63.6				11.9			25
VSP-HC6×30-15E*-2			1.8	68.2				8.4			25
VSP-HC6×30-15E*-4			4	72.3		30.6	26.5	11.2	15	1.0 to 2.7	26
VSP-HC6×30-15E*-6			6	73.6				11.9			27
VSP-HC6×30-20E*-2			1.8	78.2				8.4			27
VSP-HC6×30-20E*-4			4	82.3		35.6	31.5	11.2	20	1.0 to 3.0	28
VSP-HC6×30-20E*-6			6	83.6				11.9			29
VSP-HC6×30-25E*-2			1.8	88.7				8.4			29
VSP-HC6×30-25E*-4		30	4	92.8	11	40.6	37	11.2	25	1.0 to 3.0	30
VSP-HC6×30-25E*-6			6	94.1				11.9			31
VSP-HC6×30-30E*-2			1.8	99.7				8.4			31
VSP-HC6×30-30E*-4			4	103.8		45.6	43	11.2	30	1.0 to 3.0	32
VSP-HC6×30-30E*-6			6	105.1				11.9			33
VSP-HC6×30-40E*-2			1.8	121.7				8.4			35
VSP-HC6×30-40E*-4			4	125.8		55.6	55	11.2	40	1.0 to 3.0	36
VSP-HC6×30-40E*-6			6	117.2				11.9			37
VSP-HC6×30-50E*-2			1.8	143.2				8.4			39
VSP-HC6×30-50E*-4			4	147.3		65.6	66.5	11.2	50	1.0 to 3.1	40
VSP-HC6×30-50E*-6			6	148.6				11.9			41

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, push-in fitting)

●VSP-HC8×20-□E*-2/4/6
●VSP-HC8×30-□E*-2/4/6

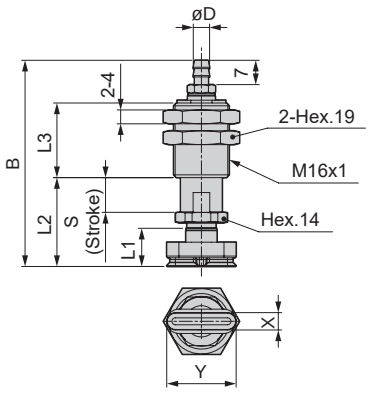


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC8×20-10E*-2	8	20	1.8	58.2	11	25.6	21.5	8.4	10	1.0 to 2.4	23
VSP-HC8×20-10E*-4			4	62.3				11.2			24
VSP-HC8×20-10E*-6			6	63.6				11.9			25
VSP-HC8×20-15E*-2			1.8	68.2		30.6	26.5	8.4	15	1.0 to 2.7	25
VSP-HC8×20-15E*-4			4	72.3				11.2			26
VSP-HC8×20-15E*-6			6	73.6				11.9			27
VSP-HC8×20-20E*-2			1.8	78.2		35.6	31.5	8.4	20	1.0 to 3.0	27
VSP-HC8×20-20E*-4			4	82.3				11.2			28
VSP-HC8×20-20E*-6			6	83.6				11.9			29
VSP-HC8×20-25E*-2			1.8	88.7		40.6	37	8.4	25	1.0 to 3.0	29
VSP-HC8×20-25E*-4			4	92.8				11.2			30
VSP-HC8×20-25E*-6			6	94.1				11.9			31
VSP-HC8×20-30E*-2			1.8	99.7		45.6	43	8.4	30	1.0 to 3.0	31
VSP-HC8×20-30E*-4			4	103.8				11.2			32
VSP-HC8×20-30E*-6			6	105.1				11.9			33
VSP-HC8×20-40E*-2			1.8	121.7		55.6	55	8.4	40	1.0 to 3.0	35
VSP-HC8×20-40E*-4			4	125.8				11.2			36
VSP-HC8×20-40E*-6			6	117.2				11.9			37
VSP-HC8×20-50E*-2			1.8	143.2		65.6	66.5	8.4	50	1.0 to 3.1	39
VSP-HC8×20-50E*-4			4	147.3				11.2			40
VSP-HC8×20-50E*-6			6	148.6				11.9			41
VSP-HC8×30-10E*-2		30	1.8	58.2		25.6	21.5	8.4	10	1.0 to 2.4	23
VSP-HC8×30-10E*-4			4	62.3				11.2			24
VSP-HC8×30-10E*-6			6	63.6				11.9			25
VSP-HC8×30-15E*-2			1.8	68.2		30.6	26.5	8.4	15	1.0 to 2.7	25
VSP-HC8×30-15E*-4			4	72.3				11.2			26
VSP-HC8×30-15E*-6			6	73.6				11.9			27
VSP-HC8×30-20E*-2			1.8	78.2		35.6	31.5	8.4	20	1.0 to 3.0	27
VSP-HC8×30-20E*-4			4	82.3				11.2			28
VSP-HC8×30-20E*-6			6	83.6				11.9			29
VSP-HC8×30-25E*-2			1.8	88.7		40.6	37	8.4	25	1.0 to 3.0	29
VSP-HC8×30-25E*-4			4	92.8				11.2			30
VSP-HC8×30-25E*-6			6	94.1				11.9			31
VSP-HC8×30-30E*-2			1.8	99.7		45.6	43	8.4	30	1.0 to 3.0	31
VSP-HC8×30-30E*-4			4	103.8				11.2			32
VSP-HC8×30-30E*-6			6	105.1				11.9			33
VSP-HC8×30-40E*-2			1.8	121.7		55.6	55	8.4	40	1.0 to 3.0	35
VSP-HC8×30-40E*-4			4	125.8				11.2			36
VSP-HC8×30-40E*-6			6	117.2				11.9			37
VSP-HC8×30-50E*-2			1.8	143.2		65.6	66.5	8.4	50	1.0 to 3.1	39
VSP-HC8×30-50E*-4			4	147.3				11.2			40
VSP-HC8×30-50E*-6			6	148.6				11.9			41

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, barbed fitting)

●VSP-HC2×4-□E*-4T/6T
●VSP-HC3.5×7-□E*-4T/6T

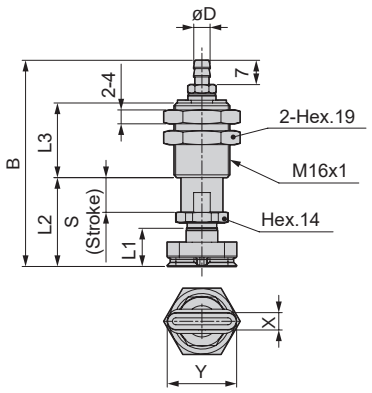


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC2×4-10EE*-4T	2.5	4	2.5	59.4	11	25.6	21.5	10	1.0 to 2.4	21
VSP-HC2×4-10E*-6T			4							
VSP-HC2×4-15E*-4T			2.5	69.4		30.6	26.5	15	1.0 to 2.7	23
VSP-HC2×4-15E*-6T			4							
VSP-HC2×4-20E*-4T			2.5	79.4		35.6	31.5	20	1.0 to 3.0	25
VSP-HC2×4-20E*-6T			4							
VSP-HC2×4-25E*-4T			2.5	89.9		40.6	37	25	1.0 to 3.0	27
VSP-HC2×4-25E*-6T			4							
VSP-HC2×4-30E*-4T			2.5	100.9		45.6	43	30	1.0 to 3.0	30
VSP-HC2×4-30E*-6T			4							
VSP-HC2×4-40E*-4T			2.5	122.9		55.6	55	40	1.0 to 3.0	34
VSP-HC2×4-40E*-6T			4							
VSP-HC2×4-50E*-4T			2.5	144.4		65.6	66.5	50	1.0 to 3.1	38
VSP-HC2×4-50E*-6T			4							
VSP-HC3.5×7-10E*-4T	3.5	7	2.5	59.4	11	25.6	21.5	10	1.0 to 2.4	21
VSP-HC3.5×7-10E*-6T			4							
VSP-HC3.5×7-15E*-4T			2.5	69.4		30.6	26.5	15	1.0 to 2.7	23
VSP-HC3.5×7-15E*-6T			4							
VSP-HC3.5×7-20E*-4T			2.5	79.4		35.6	31.5	20	1.0 to 3.0	25
VSP-HC3.5×7-20E*-6T			4							
VSP-HC3.5×7-25E*-4T			2.5	89.9		40.6	37	25	1.0 to 3.0	27
VSP-HC3.5×7-25E*-6T			4							
VSP-HC3.5×7-30E*-4T			2.5	100.9		45.6	43	30	1.0 to 3.0	30
VSP-HC3.5×7-30E*-6T			4							
VSP-HC3.5×7-40E*-4T			2.5	122.9		55.6	55	40	1.0 to 3.0	34
VSP-HC3.5×7-40E*-6T			4							
VSP-HC3.5×7-50E*-4T			2.5	144.4		65.6	66.5	50	1.0 to 3.1	38
VSP-HC3.5×7-50E*-6T			4							

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, barbed fitting)

●VSP-HC4×10-□E*-4T/6T
●VSP-HC4×20-□E*-4T/6T
●VSP-HC4×30-□E*-4T/6T

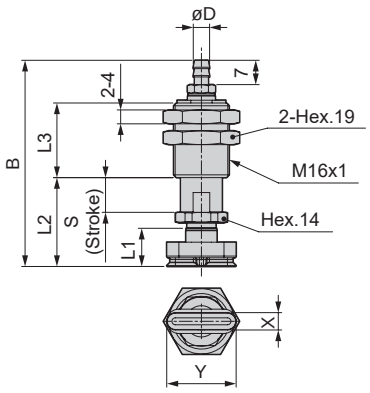


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC4×10-10E*-4T	4	10	2.5	59.4	11	25.6	21.5	10	1.0 to 2.4	21
VSP-HC4×10-10E*-6T			4							
VSP-HC4×10-15E*-4T			2.5	69.4		30.6	26.5	15	1.0 to 2.7	23
VSP-HC4×10-15E*-6T			4							
VSP-HC4×10-20E*-4T			2.5	79.4		35.6	31.5	20	1.0 to 3.0	25
VSP-HC4×10-20E*-6T			4							
VSP-HC4×10-25E*-4T			2.5	89.9		40.6	37	25	1.0 to 3.0	27
VSP-HC4×10-25E*-6T			4							
VSP-HC4×10-30E*-4T			2.5	100.9		45.6	43	30	1.0 to 3.0	30
VSP-HC4×10-30E*-6T			4							
VSP-HC4×10-40E*-4T			2.5	122.9		55.6	55	40	1.0 to 3.0	34
VSP-HC4×10-40E*-6T			4							
VSP-HC4×10-50E*-4T			2.5	144.4		65.6	66.5	50	1.0 to 3.1	38
VSP-HC4×10-50E*-6T			4							
VSP-HC4×20-10E*-4T		20	2.5	59.4		25.6	21.5	10	1.0 to 2.4	22
VSP-HC4×20-10E*-6T			4							
VSP-HC4×20-15E*-4T			2.5	69.4		30.6	26.5	15	1.0 to 2.7	24
VSP-HC4×20-15E*-6T			4							
VSP-HC4×20-20E*-4T			2.5	79.4		35.6	31.5	20	1.0 to 3.0	26
VSP-HC4×20-20E*-6T			4							
VSP-HC4×20-25E*-4T			2.5	89.9		40.6	37	25	1.0 to 3.0	28
VSP-HC4×20-25E*-6T			4							
VSP-HC4×20-30E*-4T			2.5	100.9		45.6	43	30	1.0 to 3.0	31
VSP-HC4×20-30E*-6T			4							
VSP-HC4×20-40E*-4T			2.5	122.9		55.6	55	40	1.0 to 3.0	35
VSP-HC4×20-40E*-6T			4							
VSP-HC4×20-50E*-4T			2.5	144.4		65.6	66.5	50	1.0 to 3.1	39
VSP-HC4×20-50E*-6T			4							
VSP-HC4×30-10E*-4T		30	2.5	59.4		25.6	21.5	10	1.0 to 2.4	22
VSP-HC4×30-10E*-6T			4							
VSP-HC4×30-15E*-4T			2.5	69.4		30.6	26.5	15	1.0 to 2.7	24
VSP-HC4×30-15E*-6T			4							
VSP-HC4×30-20E*-4T			2.5	79.4		35.6	31.5	20	1.0 to 3.0	26
VSP-HC4×30-20E*-6T			4							
VSP-HC4×30-25E*-4T			2.5	89.9		40.6	37	25	1.0 to 3.0	28
VSP-HC4×30-25E*-6T			4							
VSP-HC4×30-30E*-4T			2.5	100.9		45.6	43	30	1.0 to 3.0	31
VSP-HC4×30-30E*-6T			4							
VSP-HC4×30-40E*-4T			2.5	122.9		55.6	55	40	1.0 to 3.0	35
VSP-HC4×30-40E*-6T			4							
VSP-HC4×30-50E*-4T			2.5	144.4		65.6	66.5	50	1.0 to 3.1	39
VSP-HC4×30-50E*-6T			4							

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, barbed fitting)

●VSP-HC5×10-□E*-4T/6T
●VSP-HC5×20-□E*-4T/6T
●VSP-HC5×30-□E*-4T/6T

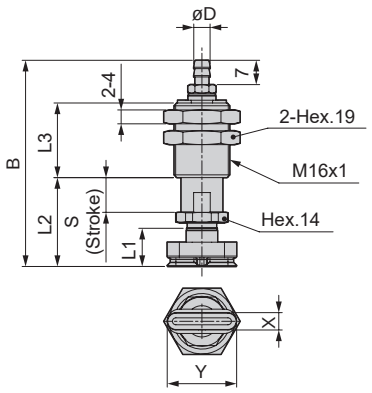


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC5×10-10E*-4T	5	10	2.5	59.4	11	25.6	21.5	10	1.0 to 2.4	21
VSP-HC5×10-10E*-6T			4							
VSP-HC5×10-15E*-4T			2.5	69.4		30.6	26.5	15	1.0 to 2.7	23
VSP-HC5×10-15E*-6T			4							
VSP-HC5×10-20E*-4T			2.5	79.4		35.6	31.5	20	1.0 to 3.0	25
VSP-HC5×10-20E*-6T			4							
VSP-HC5×10-25E*-4T			2.5	89.9		40.6	37	25	1.0 to 3.0	27
VSP-HC5×10-25E*-6T			4							
VSP-HC5×10-30E*-4T			2.5	100.9		45.6	43	30	1.0 to 3.0	30
VSP-HC5×10-30E*-6T			4							
VSP-HC5×10-40E*-4T			2.5	122.9		55.6	55	40	1.0 to 3.0	34
VSP-HC5×10-40E*-6T			4							
VSP-HC5×10-50E*-4T			2.5	144.4		65.6	66.5	50	1.0 to 3.1	38
VSP-HC5×10-50E*-6T			4							
VSP-HC5×20-10E*-4T		20	2.5	59.4		25.6	21.5	10	1.0 to 2.4	22
VSP-HC5×20-10E*-6T			4							
VSP-HC5×20-15E*-4T			2.5	69.4		30.6	26.5	15	1.0 to 2.7	24
VSP-HC5×20-15E*-6T			4							
VSP-HC5×20-20E*-4T			2.5	79.4		35.6	31.5	20	1.0 to 3.0	26
VSP-HC5×20-20E*-6T			4							
VSP-HC5×20-25E*-4T			2.5	89.9		40.6	37	25	1.0 to 3.0	28
VSP-HC5×20-25E*-6T			4							
VSP-HC5×20-30E*-4T			2.5	100.9		45.6	43	30	1.0 to 3.0	31
VSP-HC5×20-30E*-6T			4							
VSP-HC5×20-40E*-4T			2.5	122.9		55.6	55	40	1.0 to 3.0	35
VSP-HC5×20-40E*-6T			4							
VSP-HC5×20-50E*-4T			2.5	144.4		65.6	66.5	50	1.0 to 3.1	39
VSP-HC5×20-50E*-6T			4							
VSP-HC5×30-10E*-4T		30	2.5	59.4		25.6	21.5	10	1.0 to 2.4	22
VSP-HC5×30-10E*-6T			4							
VSP-HC5×30-15E*-4T			2.5	69.4		30.6	26.5	15	1.0 to 2.7	24
VSP-HC5×30-15E*-6T			4							
VSP-HC5×30-20E*-4T			2.5	79.4		35.6	31.5	20	1.0 to 3.0	26
VSP-HC5×30-20E*-6T			4							
VSP-HC5×30-25E*-4T			2.5	89.9		40.6	37	25	1.0 to 3.0	28
VSP-HC5×30-25E*-6T			4							
VSP-HC5×30-30E*-4T			2.5	100.9		45.6	43	30	1.0 to 3.0	31
VSP-HC5×30-30E*-6T			4							
VSP-HC5×30-40E*-4T			2.5	122.9		55.6	55	40	1.0 to 3.0	35
VSP-HC5×30-40E*-6T			4							
VSP-HC5×30-50E*-4T			2.5	144.4		65.6	66.5	50	1.0 to 3.1	39
VSP-HC5×30-50E*-6T			4							

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, barbed fitting)

●VSP-HC6×10-□E*-4T/6T
●VSP-HC6×20-□E*-4T/6T
●VSP-HC6×30-□E*-4T/6T

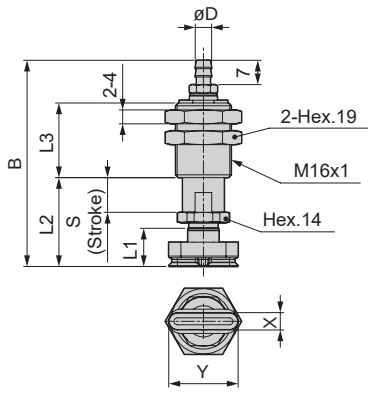


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC6×10-10E*-4T	6	10	2.5	59.4	11	25.6	21.5	10	1.0 to 2.4	21
VSP-HC6×10-10E*-6T			4							
VSP-HC6×10-15E*-4T			2.5	69.4		30.6	26.5	15	1.0 to 2.7	23
VSP-HC6×10-15E*-6T			4							
VSP-HC6×10-20E*-4T			2.5	79.4		35.6	31.5	20	1.0 to 3.0	25
VSP-HC6×10-20E*-6T			4							
VSP-HC6×10-25E*-4T			2.5	89.9		40.6	37	25	1.0 to 3.0	27
VSP-HC6×10-25E*-6T			4							
VSP-HC6×10-30E*-4T			2.5	100.9		45.6	43	30	1.0 to 3.0	30
VSP-HC6×10-30E*-6T			4							
VSP-HC6×10-40E*-4T			2.5	122.9		55.6	55	40	1.0 to 3.0	34
VSP-HC6×10-40E*-6T			4							
VSP-HC6×10-50E*-4T			2.5	144.4		65.6	66.5	50	1.0 to 3.1	38
VSP-HC6×10-50E*-6T			4							
VSP-HC6×20-10E*-4T		20	2.5	59.4		25.6	21.5	10	1.0 to 2.4	22
VSP-HC6×20-10E*-6T			4							
VSP-HC6×20-15E*-4T			2.5	69.4		30.6	26.5	15	1.0 to 2.7	24
VSP-HC6×20-15E*-6T			4							
VSP-HC6×20-20E*-4T			2.5	79.4		35.6	31.5	20	1.0 to 3.0	26
VSP-HC6×20-20E*-6T			4							
VSP-HC6×20-25E*-4T			2.5	89.9		40.6	37	25	1.0 to 3.0	28
VSP-HC6×20-25E*-6T			4							
VSP-HC6×20-30E*-4T			2.5	100.9		45.6	43	30	1.0 to 3.0	31
VSP-HC6×20-30E*-6T			4							
VSP-HC6×20-40E*-4T			2.5	122.9		55.6	55	40	1.0 to 3.0	35
VSP-HC6×20-40E*-6T			4							
VSP-HC6×20-50E*-4T			2.5	144.4		65.6	66.5	50	1.0 to 3.1	39
VSP-HC6×20-50E*-6T			4							
VSP-HC6×30-10E*-4T		30	2.5	59.4		25.6	21.5	10	1.0 to 2.4	22
VSP-HC6×30-10E*-6T			4							
VSP-HC6×30-15E*-4T			2.5	69.4		30.6	26.5	15	1.0 to 2.7	24
VSP-HC6×30-15E*-6T			4							
VSP-HC6×30-20E*-4T			2.5	79.4		35.6	31.5	20	1.0 to 3.0	26
VSP-HC6×30-20E*-6T			4							
VSP-HC6×30-25E*-4T			2.5	89.9		40.6	37	25	1.0 to 3.0	28
VSP-HC6×30-25E*-6T			4							
VSP-HC6×30-30E*-4T			2.5	100.9		45.6	43	30	1.0 to 3.0	31
VSP-HC6×30-30E*-6T			4							
VSP-HC6×30-40E*-4T			2.5	122.9		55.6	55	40	1.0 to 3.0	35
VSP-HC6×30-40E*-6T			4							
VSP-HC6×30-50E*-4T			2.5	144.4		65.6	66.5	50	1.0 to 3.1	39
VSP-HC6×30-50E*-6T			4							

Dimensions (low back, buffer, vacuum outlet, top, VSP-HC, barbed fitting)

●VSP-HC8×20-□E*-4T/6T
●VSP-HC8×30-□E*-4T/6T

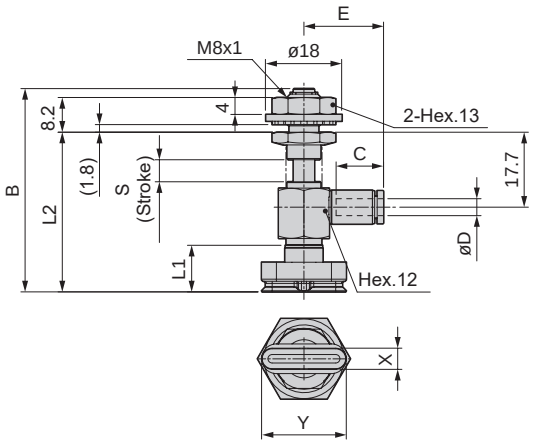


Unit: mm

Model No.	Pad size		Bore size	B	L1	L2	L3	Stroke	Spring force	Weight
	X	Y	øD					S	(N)	(g)
VSP-HC8×20-10E*-4T	8	20	2.5	59.4	11	25.6	21.5	10	1.0 to 2.4	22
VSP-HC8×20-10E*-6T			4							
VSP-HC8×20-15E*-4T			2.5	69.4		30.6	26.5	15	1.0 to 2.7	24
VSP-HC8×20-15E*-6T			4							
VSP-HC8×20-20E*-4T			2.5	79.4		35.6	31.5	20	1.0 to 3.0	26
VSP-HC8×20-20E*-6T			4							
VSP-HC8×20-25E*-4T			2.5	89.9		40.6	37	25	1.0 to 3.0	28
VSP-HC8×20-25E*-6T			4							
VSP-HC8×20-30E*-4T			2.5	100.9		45.6	43	30	1.0 to 3.0	31
VSP-HC8×20-30E*-6T			4							
VSP-HC8×20-40E*-4T			2.5	122.9		55.6	55	40	1.0 to 3.0	35
VSP-HC8×20-40E*-6T			4							
VSP-HC8×20-50E*-4T			2.5	144.4		65.6	66.5	50	1.0 to 3.1	39
VSP-HC8×20-50E*-6T			4							
VSP-HC8×30-10E*-4T		30	2.5	59.4	11	25.6	21.5	10	1.0 to 2.4	22
VSP-HC8×30-10E*-6T			4							
VSP-HC8×30-15E*-4T			2.5	69.4		30.6	26.5	15	1.0 to 2.7	24
VSP-HC8×30-15E*-6T			4							
VSP-HC8×30-20E*-4T			2.5	79.4		35.6	31.5	20	1.0 to 3.0	26
VSP-HC8×30-20E*-6T			4							
VSP-HC8×30-25E*-4T			2.5	89.9		40.6	37	25	1.0 to 3.0	28
VSP-HC8×30-25E*-6T			4							
VSP-HC8×30-30E*-4T			2.5	100.9		45.6	43	30	1.0 to 3.0	31
VSP-HC8×30-30E*-6T			4							
VSP-HC8×30-40E*-4T			2.5	122.9		55.6	55	40	1.0 to 3.0	35
VSP-HC8×30-40E*-6T			4							
VSP-HC8×30-50E*-4T			2.5	144.4		65.6	66.5	50	1.0 to 3.1	39
VSP-HC8×30-50E*-6T			4							

Dimensions (lightweight, buffer, vacuum outlet, side, VSP-HD, push-in fitting)

●VSP-HD*E*-2/4/6

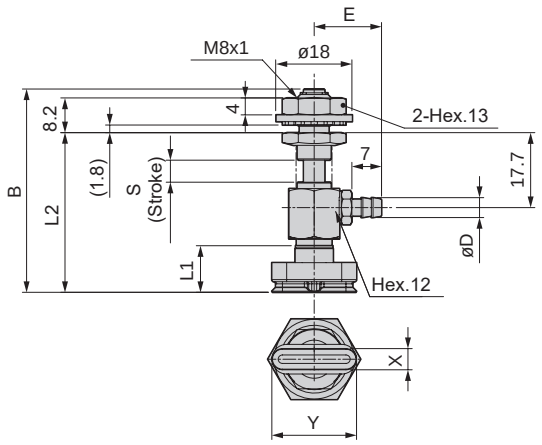


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD2×4E*-2	2	4	1.8	48	11	37.7	8.4	14.7	5.2	1.6 to 2.9	31
VSP-HD2×4E*-4			4				11.2	18.8			32
VSP-HD2×4E*-6			6				11.9	20.6			33
VSP-HD3.5×7E*-2	3.5	7	1.8	48	11	37.7	8.4	14.7	5.2	1.6 to 2.9	31
VSP-HD3.5×7E*-4			4				11.2	18.8			32
VSP-HD3.5×7E*-6			6				11.9	20.6			33
VSP-HD4×10E*-2	4	10	1.8	48	11	37.7	8.4	14.7	5.2	1.6 to 2.9	31
VSP-HD4×10E*-4			4				11.2	18.8			32
VSP-HD4×10E*-6			6				11.9	20.6			33
VSP-HD4×20E*-2		20	1.8				8.4	14.7			32
VSP-HD4×20E*-4			4				11.2	18.8			33
VSP-HD4×20E*-6			6				11.9	20.6			34
VSP-HD4×30E*-2		30	1.8				8.4	14.7			32
VSP-HD4×30E*-4			4				11.2	18.8			33
VSP-HD4×30E*-6			6				11.9	20.6			34
VSP-HD5×10E*-2	5	10	1.8	48	11	37.7	8.4	14.7	5.2	1.6 to 2.9	31
VSP-HD5×10E*-4			4				11.2	18.8			32
VSP-HD5×10E*-6			6				11.9	20.6			33
VSP-HD5×20E*-2		20	1.8				8.4	14.7			32
VSP-HD5×20E*-4			4				11.2	18.8			33
VSP-HD5×20E*-6			6				11.9	20.6			34
VSP-HD5×30E*-2		30	1.8				8.4	14.7			32
VSP-HD5×30E*-4			4				11.2	18.8			33
VSP-HD5×30E*-6			6				11.9	20.6			34
VSP-HD6×10E*-2	6	10	1.8	48	11	37.7	8.4	14.7	5.2	1.6 to 2.9	31
VSP-HD6×10E*-4			4				11.2	18.8			32
VSP-HD6×10E*-6			6				11.9	20.6			33
VSP-HD6×20E*-2		20	1.8				8.4	14.7			32
VSP-HD6×20E*-4			4				11.2	18.8			33
VSP-HD6×20E*-6			6				11.9	20.6			34
VSP-HD6×30E*-2		30	1.8				8.4	14.7			32
VSP-HD6×30E*-4			4				11.2	18.8			33
VSP-HD6×30E*-6			6				11.9	20.6			34
VSP-HD8×20E*-2	8	20	1.8	48	11	37.7	8.4	14.7	5.2	1.6 to 2.9	32
VSP-HD8×20E*-4			4				11.2	18.8			33
VSP-HD8×20E*-6			6				11.9	20.6			34
VSP-HD8×30E*-2		30	1.8				8.4	14.7			32
VSP-HD8×30E*-4			4				11.2	18.8			33
VSP-HD8×30E*-6			6				11.9	20.6			34

Dimensions (lightweight, buffer, vacuum outlet, side, VSP-HD, barbed fitting)

●VSP-HD*E*-4T/6T

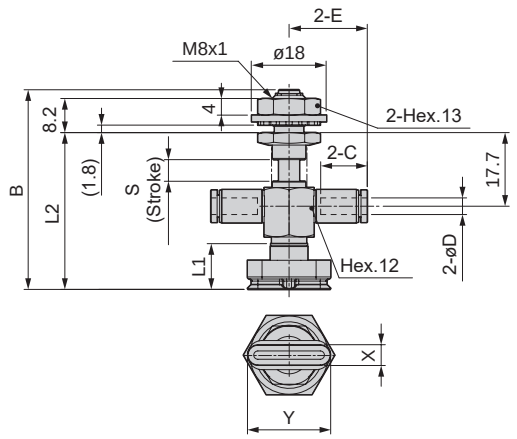


Unit: mm

Model No.	Pad size		Bore size	B	L1	L2	Stroke	Spring force	Weight
	X	Y	øD				S	(N)	(g)
VSP-HD2×4E*-4T	2	4	1.8	48	11	37.7	5.2	1.6 to 2.9	30
VSP-HD2×4E*-6T			6						31
VSP-HD3.5×7E*-4T	3.5	7	1.8	48	11	37.7	5.2	1.6 to 2.9	30
VSP-HD3.5×7E*-6T			6						31
VSP-HD4×10E*-4T	4	10	1.8	48	11	37.7	5.2	1.6 to 2.9	30
VSP-HD4×10E*-6T			6						31
VSP-HD4×20E*-4T		20	1.8						31
VSP-HD4×20E*-6T			6						32
VSP-HD4×30E*-4T		30	1.8						31
VSP-HD4×30E*-6T			6						32
VSP-HD5×10E*-4T	5	10	1.8	48	11	37.7	5.2	1.6 to 2.9	30
VSP-HD5×10E*-6T			6						31
VSP-HD5×20E*-4T		20	1.8						31
VSP-HD5×20E*-6T			6						32
VSP-HD5×30E*-4T		30	1.8						31
VSP-HD5×30E*-6T			6						32
VSP-HD6×10E*-4T	6	10	1.8	48	11	37.7	5.2	1.6 to 2.9	30
VSP-HD6×10E*-6T			6						31
VSP-HD6×20E*-4T		20	1.8						31
VSP-HD6×20E*-6T			6						32
VSP-HD6×30E*-4T		30	1.8						31
VSP-HD6×30E*-6T			6						32
VSP-HD8×20E*-4T	8	20	1.8	48	11	37.7	5.2	1.6 to 2.9	31
VSP-HD8×20E*-6T			6						32
VSP-HD8×30E*-4T		30	1.8						31
VSP-HD8×30E*-6T			6						32

Dimensions (lightweight buffer, vacuum outlet on both sides VSP-HDW, push-in fitting)

●VSP-HDW*E*-2/4/6

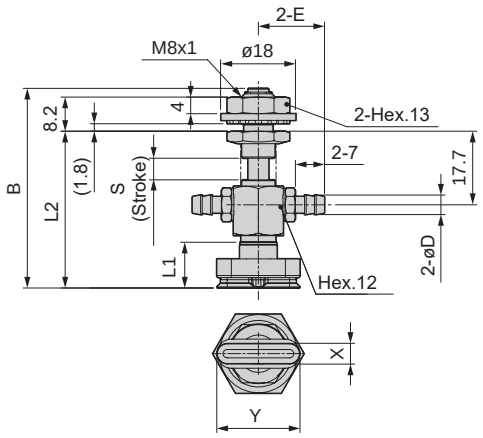


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW2×4E*-2	2	4	1.8	48	11	37.7	8.4	14.7	5.2	1.6 to 2.9	33
VSP-HDW2×4E*-4			4				11.2	18.8			35
VSP-HDW2×4E*-6			6				11.9	20.6			37
VSP-HDW3.5×7E*-2	3.5	7	1.8	48	11	37.7	8.4	14.7	5.2	1.6 to 2.9	33
VSP-HDW3.5×7E*-4			4				11.2	18.8			35
VSP-HDW3.5×7E*-6			6				11.9	20.6			37
VSP-HDW4×10E*-2	4	10	1.8	48	11	37.7	8.4	14.7	5.2	1.6 to 2.9	33
VSP-HDW4×10E*-4			4				11.2	18.8			35
VSP-HDW4×10E*-6			6				11.9	20.6			37
VSP-HDW4×20E*-2		20	1.8				8.4	14.7			34
VSP-HDW4×20E*-4			4				11.2	18.8			36
VSP-HDW4×20E*-6			6				11.9	20.6			38
VSP-HDW4×30E*-2		30	1.8				8.4	14.7			34
VSP-HDW4×30E*-4			4				11.2	18.8			36
VSP-HDW4×30E*-6			6				11.9	20.6			38
VSP-HDW5×10E*-2	5	10	1.8	48	11	37.7	8.4	14.7	5.2	1.6 to 2.9	33
VSP-HDW5×10E*-4			4				11.2	18.8			35
VSP-HDW5×10E*-6			6				11.9	20.6			37
VSP-HDW5×20E*-2		20	1.8				8.4	14.7			34
VSP-HDW5×20E*-4			4				11.2	18.8			36
VSP-HDW5×20E*-6			6				11.9	20.6			38
VSP-HDW5×30E*-2		30	1.8				8.4	14.7			34
VSP-HDW5×30E*-4			4				11.2	18.8			36
VSP-HDW5×30E*-6			6				11.9	20.6			38
VSP-HDW6×10E*-2	6	10	1.8	48	11	37.7	8.4	14.7	5.2	1.6 to 2.9	33
VSP-HDW6×10E*-4			4				11.2	18.8			35
VSP-HDW6×10E*-6			6				11.9	20.6			37
VSP-HDW6×20E*-2		20	1.8				8.4	14.7			34
VSP-HDW6×20E*-4			4				11.2	18.8			36
VSP-HDW6×20E*-6			6				11.9	20.6			38
VSP-HDW6×30E*-2		30	1.8				8.4	14.7			34
VSP-HDW6×30E*-4			4				11.2	18.8			36
VSP-HDW6×30E*-6			6				11.9	20.6			38
VSP-HDW8×20E*-2	8	20	1.8	48	11	37.7	8.4	14.7	5.2	1.6 to 2.9	34
VSP-HDW8×20E*-4			4				11.2	18.8			36
VSP-HDW8×20E*-6			6				11.9	20.6			38
VSP-HDW8×30E*-2		30	1.8				8.4	14.7			34
VSP-HDW8×30E*-4			4				11.2	18.8			36
VSP-HDW8×30E*-6			6				11.9	20.6			38

Dimensions (lightweight buffer, vacuum outlet on both sides VSP-HDW, barbed fitting)

●VSP-HDW*E*-4T/6T

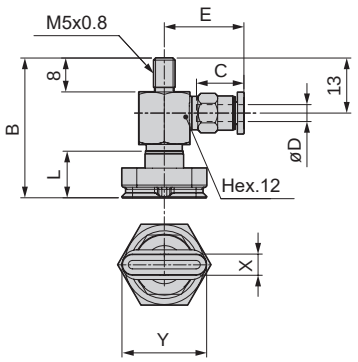


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-HDW2×4E*-4T	2	4	1.8	48	11	37.7	5.2	1.6 to 2.9	32
VSP-HDW2×4E*-6T			6						
VSP-HDW3.5×7E*-4T	3.5	7	1.8	48	11	37.7	5.2	1.6 to 2.9	32
VSP-HDW3.5×7E*-6T			6						
VSP-HDW4×10E*-4T	4	10	1.8	48	11	37.7	5.2	1.6 to 2.9	32
VSP-HDW4×10E*-6T			6						
VSP-HDW4×20E*-4T		20	1.8						33
VSP-HDW4×20E*-6T			6						
VSP-HDW4×30E*-4T		30	1.8						33
VSP-HDW4×30E*-6T			6						
VSP-HDW5×10E*-4T	5	10	1.8	48	11	37.7	5.2	1.6 to 2.9	32
VSP-HDW5×10E*-6T			6						
VSP-HDW5×20E*-4T		20	1.8						33
VSP-HDW5×20E*-6T			6						
VSP-HDW5×30E*-4T		30	1.8						33
VSP-HDW5×30E*-6T			6						
VSP-HDW6×10E*-4T	6	10	1.8	48	11	37.7	5.2	1.6 to 2.9	32
VSP-HDW6×10E*-6T			6						
VSP-HDW6×20E*-4T		20	1.8						33
VSP-HDW6×20E*-6T			6						
VSP-HDW6×30E*-4T		30	1.8						33
VSP-HDW6×30E*-6T			6						
VSP-HDW8×20E*-4T	8	20	1.8	48	11	37.7	5.2	1.6 to 2.9	33
VSP-HDW8×20E*-6T			6						
VSP-HDW8×30E*-4T		30	1.8						
VSP-HDW8×30E*-6T			6						

Dimensions (lightweight, fixed, vacuum outlet, side, VSP-HE, push-in fitting)

●VSP-HE*E*-2/4/6

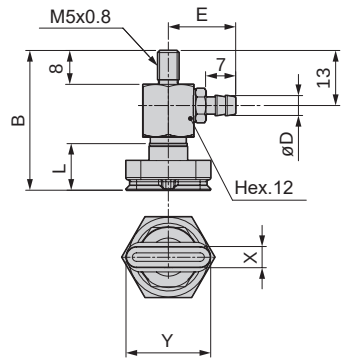


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HE2×4E*-2	2	4	1.8	48	11	8.4	14.7	16
VSP-HE2×4E*-4			4			11.2	18.8	17
VSP-HE2×4E*-6			6			11.9	20.6	18
VSP-HE3.5×7E*-2	3.5	7	1.8	48	11	8.4	14.7	16
VSP-HE3.5×7E*-4			4			11.2	18.8	17
VSP-HE3.5×7E*-6			6			11.9	20.6	18
VSP-HE4×10E*-2	4	10	1.8	48	11	8.4	14.7	16
VSP-HE4×10E*-4			4			11.2	18.8	17
VSP-HE4×10E*-6			6			11.9	20.6	18
VSP-HE4×20E*-2		20	1.8			8.4	14.7	17
VSP-HE4×20E*-4			4			11.2	18.8	18
VSP-HE4×20E*-6			6			11.9	20.6	19
VSP-HE4×30E*-2		30	1.8			8.4	14.7	17
VSP-HE4×30E*-4			4			11.2	18.8	18
VSP-HE4×30E*-6			6			11.9	20.6	19
VSP-HE5×10E*-2	5	10	1.8	48	11	8.4	14.7	16
VSP-HE5×10E*-4			4			11.2	18.8	17
VSP-HE5×10E*-6			6			11.9	20.6	18
VSP-HE5×20E*-2		20	1.8			8.4	14.7	17
VSP-HE5×20E*-4			4			11.2	18.8	18
VSP-HE5×20E*-6			6			11.9	20.6	19
VSP-HE5×30E*-2		30	1.8			8.4	14.7	17
VSP-HE5×30E*-4			4			11.2	18.8	18
VSP-HE5×30E*-6			6			11.9	20.6	19
VSP-HE6×10E*-2	6	10	1.8	48	11	8.4	14.7	16
VSP-HE6×10E*-4			4			11.2	18.8	17
VSP-HE6×10E*-6			6			11.9	20.6	18
VSP-HE6×20E*-2		20	1.8			8.4	14.7	17
VSP-HE6×20E*-4			4			11.2	18.8	18
VSP-HE6×20E*-6			6			11.9	20.6	19
VSP-HE6×30E*-2		30	1.8			8.4	14.7	17
VSP-HE6×30E*-4			4			11.2	18.8	18
VSP-HE6×30E*-6			6			11.9	20.6	19
VSP-HE8×20E*-2	8	20	1.8	48	11	8.4	14.7	17
VSP-HE8×20E*-4			4			11.2	18.8	18
VSP-HE8×20E*-6			6			11.9	20.6	19
VSP-HE8×30E*-2		30	1.8			8.4	14.7	17
VSP-HE8×30E*-4			4			11.2	18.8	18
VSP-HE8×30E*-6			6			11.9	20.6	19

Dimensions (lightweight, fixed, vacuum outlet, side, VSP-HE, barbed fitting)

●VSP-HE*E*-4T/6T

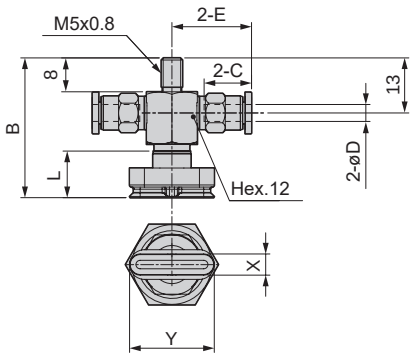


Unit: mm

Model No.	Pad size		Bore size øD	B	L	Weight (g)
	X	Y				
VSP-HE2×4E*-4T	2	4	1.8	48	11	16
VSP-HE2×4E*-6T			6			
VSP-HE3.5×7E*-4T	3.5	7	1.8	48	11	16
VSP-HE3.5×7E*-6T			6			
VSP-HE4×10E*-4T	4	10	1.8	48	11	16
VSP-HE4×10E*-6T			6			
VSP-HE4×20E*-4T		20	1.8			17
VSP-HE4×20E*-6T			6			
VSP-HE4×30E*-4T		30	1.8			17
VSP-HE4×30E*-6T			6			
VSP-HE5×10E*-4T	5	10	1.8	48	11	16
VSP-HE5×10E*-6T			6			
VSP-HE5×20E*-4T		20	1.8			17
VSP-HE5×20E*-6T			6			
VSP-HE5×30E*-4T		30	1.8			17
VSP-HE5×30E*-6T			6			
VSP-HE6×10E*-4T	6	10	1.8	48	11	16
VSP-HE6×10E*-6T			6			
VSP-HE6×20E*-4T		20	1.8			17
VSP-HE6×20E*-6T			6			
VSP-HE6×30E*-4T		30	1.8			17
VSP-HE6×30E*-6T			6			
VSP-HE8×20E*-4T	8	20	1.8	48	11	17
VSP-HE8×20E*-6T			6			
VSP-HE8×30E*-4T		30	1.8			
VSP-HE8×30E*-6T			6			

Dimensions (lightweight, fixed, vacuum outlet, both sides, VSP-HEW, push-in fitting)

●VSP-HEW*E*-2/4/6

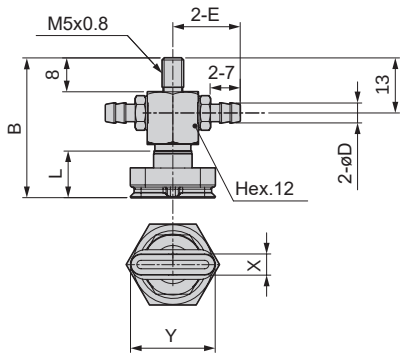


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HEW2×4E*-2	2	4	1.8	48	11	8.4	14.7	17
VSP-HEW2×4E*-4			4			11.2	18.8	19
VSP-HEW2×4E*-6			6			11.9	20.6	21
VSP-HEW3.5×7E*-2	3.5	7	1.8	48	11	8.4	14.7	17
VSP-HEW3.5×7E*-4			4			11.2	18.8	19
VSP-HEW3.5×7E*-6			6			11.9	20.6	21
VSP-HEW4×10E*-2	4	10	1.8	48	11	8.4	14.7	17
VSP-HEW4×10E*-4			4			11.2	18.8	19
VSP-HEW4×10E*-6			6			11.9	20.6	21
VSP-HEW4×20E*-2		20	1.8			8.4	14.7	18
VSP-HEW4×20E*-4			4			11.2	18.8	20
VSP-HEW4×20E*-6			6			11.9	20.6	22
VSP-HEW4×30E*-2		30	1.8			8.4	14.7	18
VSP-HEW4×30E*-4			4			11.2	18.8	20
VSP-HEW4×30E*-6			6			11.9	20.6	22
VSP-HEW5×10E*-2	5	10	1.8	48	11	8.4	14.7	17
VSP-HEW5×10E*-4			4			11.2	18.8	19
VSP-HEW5×10E*-6			6			11.9	20.6	21
VSP-HEW5×20E*-2		20	1.8			8.4	14.7	18
VSP-HEW5×20E*-4			4			11.2	18.8	20
VSP-HEW5×20E*-6			6			11.9	20.6	22
VSP-HEW5×30E*-2		30	1.8			8.4	14.7	18
VSP-HEW5×30E*-4			4			11.2	18.8	20
VSP-HEW5×30E*-6			6			11.9	20.6	22
VSP-HEW6×10E*-2	6	10	1.8	48	11	8.4	14.7	17
VSP-HEW6×10E*-4			4			11.2	18.8	19
VSP-HEW6×10E*-6			6			11.9	20.6	21
VSP-HEW6×20E*-2		20	1.8			8.4	14.7	18
VSP-HEW6×20E*-4			4			11.2	18.8	20
VSP-HEW6×20E*-6			6			11.9	20.6	22
VSP-HEW6×30E*-2		30	1.8			8.4	14.7	18
VSP-HEW6×30E*-4			4			11.2	18.8	20
VSP-HEW6×30E*-6			6			11.9	20.6	22
VSP-HEW8×20E*-2	8	20	1.8	48	11	8.4	14.7	18
VSP-HEW8×20E*-4			4			11.2	18.8	20
VSP-HEW8×20E*-6			6			11.9	20.6	22
VSP-HEW8×30E*-2		30	1.8			8.4	14.7	18
VSP-HEW8×30E*-4			4			11.2	18.8	20
VSP-HEW8×30E*-6			6			11.9	20.6	22

Dimensions (lightweight, fixed, vacuum outlet, both sides, VSP-HEW, barbed fitting)

●VSP-HEW*E*-4T/6T

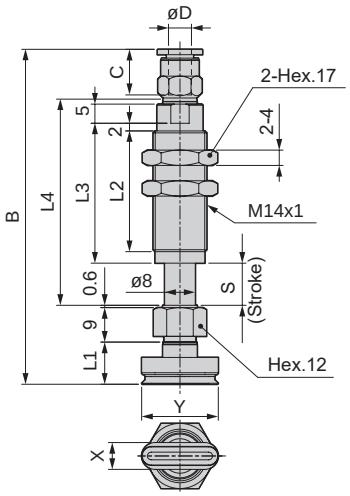


Unit: mm

Model No.	Pad size		Bore size øD	B	L	Weight (g)
	X	Y				
VSP-HEW2×4E*-4T	2	4	1.8	48	11	17
VSP-HEW2×4E*-6T			6			
VSP-HEW3.5×7E*-4T	3.5	7	1.8	48	11	17
VSP-HEW3.5×7E*-6T			6			
VSP-HEW4×10E*-4T	4	10	1.8	48	11	17
VSP-HEW4×10E*-6T			6			
VSP-HEW4×20E*-4T		20	1.8			18
VSP-HEW4×20E*-6T			6			
VSP-HEW4×30E*-4T		30	1.8			18
VSP-HEW4×30E*-6T			6			
VSP-HEW5×10E*-4T	5	10	1.8	48	11	17
VSP-HEW5×10E*-6T			6			
VSP-HEW5×20E*-4T		20	1.8			18
VSP-HEW5×20E*-6T			6			
VSP-HEW5×30E*-4T		30	1.8			18
VSP-HEW5×30E*-6T			6			
VSP-HEW6×10E*-4T	6	10	1.8	48	11	17
VSP-HEW6×10E*-6T			6			
VSP-HEW6×20E*-4T		20	1.8			18
VSP-HEW6×20E*-6T			6			
VSP-HEW6×30E*-4T		30	1.8			18
VSP-HEW6×30E*-6T			6			
VSP-HEW8×20E*-4T	8	20	1.8	48	11	18
VSP-HEW8×20E*-6T			6			
VSP-HEW8×30E*-4T		30	1.8			18
VSP-HEW8×30E*-6T			6			

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, push-in fitting)

●VSP-LFC2×4-□E*-4/6
●VSP-LFC3.5×7-□E*-4/6
●VSP-LFC4×*-□E*-4/6



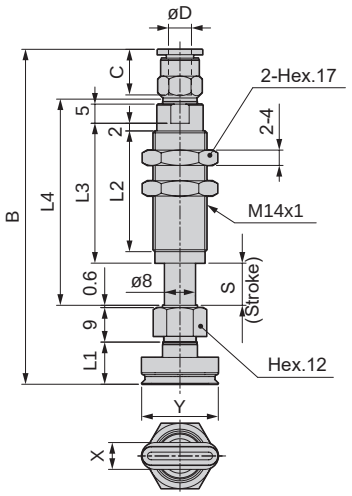
Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	L4	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-LFC2×4-5E*-4	2	4	4	76.1	11	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	53
VSP-LFC2×4-5E*-6			6	77.4					11.9			54
VSP-LFC2×4-10E*-4			4	86.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	55
VSP-LFC2×4-10E*-6			6	87.4					11.9			56
VSP-LFC2×4-15E*-4			4	96.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	58
VSP-LFC2×4-15E*-6			6	97.4					11.9			59
VSP-LFC2×4-20E*-4			4	106.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	61
VSP-LFC2×4-20E*-6			6	107.4					11.9			62
VSP-LFC3.5×7-5E*-4	3.5	7	4	76.1	11	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	53
VSP-LFC3.5×7-5E*-6			6	77.4					11.9			54
VSP-LFC3.5×710E*-4			4	86.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	55
VSP-LFC3.5×7-10E*-6			6	87.4					11.9			56
VSP-LFC3.5×7-15E*-4			4	96.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	58
VSP-LFC3.5×7-15E*-6			6	97.4					11.9			59
VSP-LFC3.5×7-20E*-4			4	106.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	61
VSP-LFC3.5×7-20E*-6			6	107.4					11.9			62
VSP-LFC4×10-5E*-4	4	10	4	76.1	11	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	53
VSP-LFC4×10-5E*-6			6	77.4					11.9			54
VSP-LFC4×10-10E*-4			4	86.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	55
VSP-LFC4×10-10E*-6			6	87.4					11.9			56
VSP-LFC4×10-15E*-4			4	96.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	58
VSP-LFC4×10-15E*-6			6	97.4					11.9			59
VSP-LFC4×10-20E*-4			4	106.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	61
VSP-LFC4×10-20E*-6			6	107.4					11.9			62
VSP-LFC4×20-5E*-4		20	4	76.1		26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	54
VSP-LFC4×20-5E*-6			6	77.4					11.9			55
VSP-LFC4×20-10E*-4			4	86.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	56
VSP-LFC4×20-10E*-6			6	87.4					11.9			57
VSP-LFC4×20-15E*-4			4	96.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	59
VSP-LFC4×20-15E*-6			6	97.4					11.9			60
VSP-LFC4×20-20E*-4			4	106.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	62
VSP-LFC4×20-20E*-6			6	107.4					11.9			63
VSP-LFC4×30-5E*-4		30	4	76.1		26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	54
VSP-LFC4×30-5E*-6			6	77.4					11.9			55
VSP-LFC4×30-10E*-4			4	86.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	56
VSP-LFC4×30-10E*-6			6	87.4					11.9			57
VSP-LFC4×30-15E*-4			4	96.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	59
VSP-LFC4×30-15E*-6			6	97.4					11.9			60
VSP-LFC4×30-20E*-4			4	106.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	62
VSP-LFC4×30-20E*-6			6	107.4					11.9			63

*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, push-in fitting)

●VSP-LFC5×*-□E*-4/6
●VSP-LFC6×*-□E*-4/6



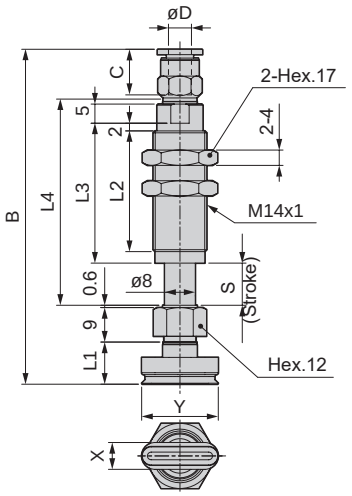
Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	L4	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-LFC5×10-5E*-4	5	10	4	76.1	11	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	53
VSP-LFC5×10-5E*-6			6	77.4					11.9			54
VSP-LFC5×10-10E*-4			4	86.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	55
VSP-LFC5×10-10E*-6			6	87.4					11.9			56
VSP-LFC5×10-15E*-4			4	96.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	58
VSP-LFC5×10-15E*-6			6	97.4					11.9			59
VSP-LFC5×10-20E*-4			4	106.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	61
VSP-LFC5×10-20E*-6			6	107.4					11.9			62
VSP-LFC5×20-5E*-4		20	4	76.1		26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	54
VSP-LFC5×20-5E*-6			6	77.4					11.9			55
VSP-LFC5×20-10E*-4			4	86.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	56
VSP-LFC5×20-10E*-6			6	87.4					11.9			57
VSP-LFC5×20-15E*-4			4	96.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	59
VSP-LFC5×20-15E*-6			6	97.4					11.9			60
VSP-LFC5×20-20E*-4			4	106.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	62
VSP-LFC5×20-20E*-6			6	107.4					11.9			63
VSP-LFC5×30-5E*-4		30	4	76.1		26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	54
VSP-LFC5×30-5E*-6			6	77.4					11.9			55
VSP-LFC5×30-10E*-4			4	86.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	56
VSP-LFC5×30-10E*-6			6	87.4					11.9			57
VSP-LFC5×30-15E*-4			4	96.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	59
VSP-LFC5×30-15E*-6			6	97.4					11.9			60
VSP-LFC5×30-20E*-4			4	106.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	62
VSP-LFC5×30-20E*-6			6	107.4					11.9			63
VSP-LFC6×10-5E*-4	6	10	4	76.1	11	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	53
VSP-LFC6×10-5E*-6			6	77.4					11.9			54
VSP-LFC6×10-10E*-4			4	86.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	55
VSP-LFC6×10-10E*-6			6	87.4					11.9			56
VSP-LFC6×10-15E*-4			4	96.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	58
VSP-LFC6×10-15E*-6			6	97.4					11.9			59
VSP-LFC6×10-20E*-4			4	106.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	61
VSP-LFC6×10-20E*-6			6	107.4					11.9			62
VSP-LFC6×20-5E*-4		20	4	76.1		26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	54
VSP-LFC6×20-5E*-6			6	77.4					11.9			55
VSP-LFC6×20-10E*-4			4	86.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	56
VSP-LFC6×20-10E*-6			6	87.4					11.9			57
VSP-LFC6×20-15E*-4			4	96.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	59
VSP-LFC6×20-15E*-6			6	97.4					11.9			60
VSP-LFC6×20-20E*-4			4	106.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	62
VSP-LFC6×20-20E*-6			6	107.4					11.9			63
VSP-LFC6×30-5E*-4		30	4	76.1		26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	54
VSP-LFC6×30-5E*-6			6	77.4					11.9			55
VSP-LFC6×30-10E*-4			4	86.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	56
VSP-LFC6×30-10E*-6			6	87.4					11.9			57
VSP-LFC6×30-15E*-4			4	96.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	59
VSP-LFC6×30-15E*-6			6	97.4					11.9			60
VSP-LFC6×30-20E*-4			4	106.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	62
VSP-LFC6×30-20E*-6			6	107.4					11.9			63

*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, push-in fitting)

●VSP-LFC8×*-□E*-4/6



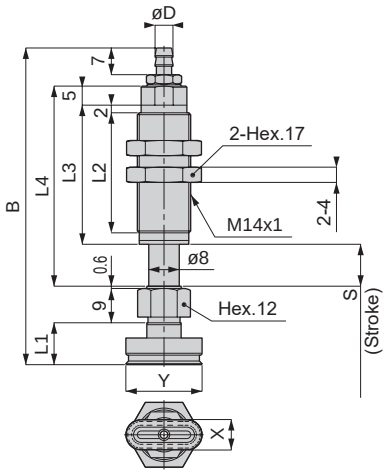
Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	L4	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-LFC8×20-5E*-4	8	20	4	76.1	11	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	54
VSP-LFC8×20-5E*-6			6	77.4					11.9			55
VSP-LFC8×20-10E*-4			4	86.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	56
VSP-LFC8×20-10E*-6			6	87.4					11.9			57
VSP-LFC8×20-15E*-4			4	96.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	59
VSP-LFC8×20-15E*-6			6	97.4					11.9			60
VSP-LFC8×20-20E*-4			4	106.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	62
VSP-LFC8×20-20E*-6			6	107.4					11.9			63
VSP-LFC8×30-5E*-4		30	4	76.1		26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	54
VSP-LFC8×30-5E*-6			6	77.4					11.9			55
VSP-LFC8×30-10E*-4			4	86.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	56
VSP-LFC8×30-10E*-6			6	87.4					11.9			57
VSP-LFC8×30-15E*-4			4	96.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	59
VSP-LFC8×30-15E*-6			6	97.4					11.9			60
VSP-LFC8×30-20E*-4			4	106.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	62
VSP-LFC8×30-20E*-6			6	107.4					11.9			63

*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, barbed fitting)

●VSP-LFC2×4-□E*-4T/6T
●VSP-LFC3.5×7-□E*-4T/6T
●VSP-LFC4×*-□E*-4T/6T



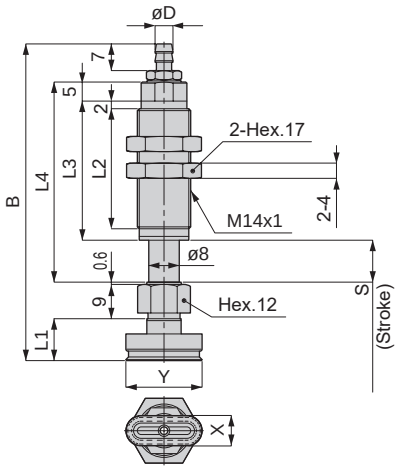
Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
VSP-LFC2×4-5E*-4T	2	4	2.5	73.2	11	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	48
VSP-LFC2×4-5E*-6T			4								
VSP-LFC2×4-10E*-4T			2.5	83.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	50
VSP-LFC2×4-10E*-6T			4								
VSP-LFC2×4-15E*-4T			2.5	93.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	53
VSP-LFC2×4-15E*-6T			4								
VSP-LFC2×4-20E*-4T			2.5	103.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	56
VSP-LFC2×4-20E*-6T			4								
VSP-LFC3.5×7-5E*-4T	3.5	7	2.5	73.2	11	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	48
VSP-LFC3.5×7-5E*-6T			4								
VSP-LFC3.5×7-10E*-4T			2.5	83.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	50
VSP-LFC3.5×7-10E*-6T			4								
VSP-LFC3.5×7-15E*-4T			2.5	93.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	53
VSP-LFC3.5×7-15E*-6T			4								
VSP-LFC3.5×7-20E*-4T			2.5	103.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	56
VSP-LFC3.5×7-20E*-6T			4								
VSP-LFC4×10-5E*-4T	4	10	2.5	73.2	11	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	48
VSP-LFC4×10-5E*-6T			4								
VSP-LFC4×10-10E*-4T			2.5	83.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	50
VSP-LFC4×10-10E*-6T			4								
VSP-LFC4×10-15E*-4T			2.5	93.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	53
VSP-LFC4×10-15E*-6T			4								
VSP-LFC4×10-20E*-4T			2.5	103.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	56
VSP-LFC4×10-20E*-6T			4								
VSP-LFC4×20-5E*-4T		20	2.5	73.2		26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	49
VSP-LFC4×20-5E*-6T			4								
VSP-LFC4×20-10E*-4T			2.5	83.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	51
VSP-LFC4×20-10E*-6T			4								
VSP-LFC4×20-15E*-4T			2.5	93.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	54
VSP-LFC4×20-15E*-6T			4								
VSP-LFC4×20-20E*-4T			2.5	103.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	57
VSP-LFC4×20-20E*-6T			4								
VSP-LFC4×30-5E*-4T		30	2.5	73.2		26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	49
VSP-LFC4×30-5E*-6T			4								
VSP-LFC4×30-10E*-4T			2.5	83.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	51
VSP-LFC4×30-10E*-6T			4								
VSP-LFC4×30-15E*-4T			2.5	93.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	54
VSP-LFC4×30-15E*-6T			4								
VSP-LFC4×30-20E*-4T			2.5	103.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	57
VSP-LFC4×30-20E*-6T			4								

*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, barbed fitting)

●VSP-LFC5×*-□E*-4T/6T
●VSP-LFC6×*-□E*-4T/6T



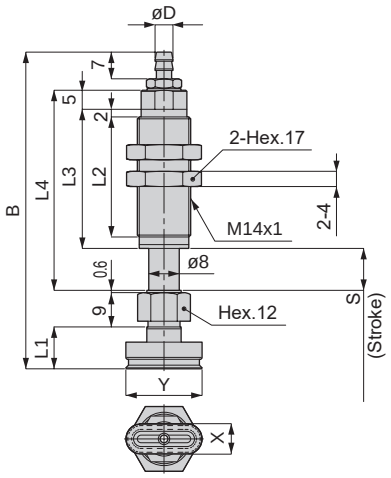
Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
VSP-LFC5×10-5E*-4T	5	10	2.5	73.2	11	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	48
VSP-LFC5×10-5E*-6T			4								
VSP-LFC5×10-10E*-4T			2.5	83.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	50
VSP-LFC5×10-10E*-6T			4								
VSP-LFC5×10-15E*-4T			2.5	93.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	53
VSP-LFC5×10-15E*-6T			4								
VSP-LFC5×10-20E*-4T			2.5	103.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	56
VSP-LFC5×10-20E*-6T			4								
VSP-LFC5×20-5E*-4T		20	2.5	73.2		26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	49
VSP-LFC5×20-5E*-6T			4								
VSP-LFC5×20-10E*-4T			2.5	83.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	51
VSP-LFC5×20-10E*-6T			4								
VSP-LFC5×20-15E*-4T			2.5	93.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	54
VSP-LFC5×20-15E*-6T			4								
VSP-LFC5×20-20E*-4T			2.5	103.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	57
VSP-LFC5×20-20E*-6T			4								
VSP-LFC5×30-5E*-4T		30	2.5	73.2		26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	49
VSP-LFC5×30-5E*-6T			4								
VSP-LFC5×30-10E*-4T			2.5	83.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	51
VSP-LFC5×30-10E*-6T			4								
VSP-LFC5×30-15E*-4T			2.5	93.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	54
VSP-LFC5×30-15E*-6T			4								
VSP-LFC5×30-20E*-4T			2.5	103.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	57
VSP-LFC5×30-20E*-6T			4								
VSP-LFC6×10-5E*-4T	6	10	2.5	73.2	11	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	48
VSP-LFC6×10-5E*-6T			4								
VSP-LFC6×10-10E*-4T			2.5	83.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	50
VSP-LFC6×10-10E*-6T			4								
VSP-LFC6×10-15E*-4T			2.5	93.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	53
VSP-LFC6×10-15E*-6T			4								
VSP-LFC6×10-20E*-4T			2.5	103.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	56
VSP-LFC6×10-20E*-6T			4								
VSP-LFC6×20-5E*-4T		20	2.5	73.2		26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	49
VSP-LFC6×20-5E*-6T			4								
VSP-LFC6×20-10E*-4T			2.5	83.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	51
VSP-LFC6×20-10E*-6T			4								
VSP-LFC6×20-15E*-4T			2.5	93.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	54
VSP-LFC6×20-15E*-6T			4								
VSP-LFC6×20-20E*-4T			2.5	103.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	57
VSP-LFC6×20-20E*-6T			4								
VSP-LFC6×30-5E*-4T		30	2.5	73.2		26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	49
VSP-LFC6×30-5E*-6T			4								
VSP-LFC6×30-10E*-4T			2.5	83.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	51
VSP-LFC6×30-10E*-6T			4								
VSP-LFC6×30-15E*-4T			2.5	93.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	54
VSP-LFC6×30-15E*-6T			4								
VSP-LFC6×30-20E*-4T			2.5	103.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	57
VSP-LFC6×30-20E*-6T			4								

*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, top, VSP-LFC, barbed fitting)

●VSP-LFC8×*-□E*-4T/6T



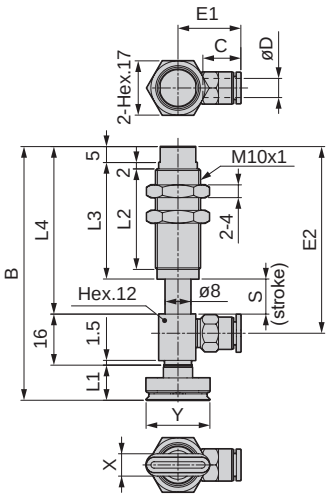
Unit: mm

Model No.	Pad size		Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
	X	Y									
VSP-LFC8×20-5E*-4T	8	20	2.5	73.2	11	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	49
VSP-LFC8×20-5E*-6T			4								
VSP-LFC8×20-10E*-4T			2.5	83.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	51
VSP-LFC8×20-10E*-6T			4								
VSP-LFC8×20-15E*-4T			2.5	93.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	54
VSP-LFC8×20-15E*-6T			4								
VSP-LFC8×20-20E*-4T			2.5	103.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	57
VSP-LFC8×20-20E*-6T			4								
VSP-LFC8×30-5E*-4T		30	2.5	73.2		26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	49
VSP-LFC8×30-5E*-6T			4								
VSP-LFC8×30-10E*-4T			2.5	83.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	51
VSP-LFC8×30-10E*-6T			4								
VSP-LFC8×30-15E*-4T			2.5	93.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	54
VSP-LFC8×30-15E*-6T			4								
VSP-LFC8×30-20E*-4T			2.5	103.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	57
VSP-LFC8×30-20E*-6T			4								

*1: Values in [ ] are for low load.

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, push-in fitting)

●VSP-LFD2×4-□E*-4/6
●VSP-LFD3.5×7-□E*-4/6
●VSP-LFD4×*-□E*-4/6

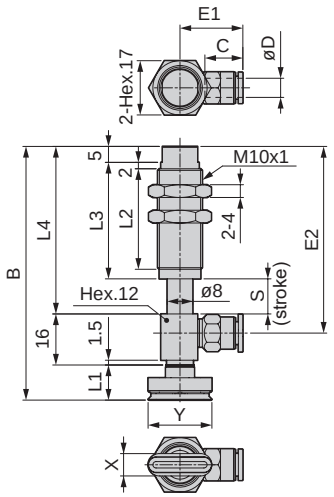


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	L4	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-LFD2×4-5E*-4	2	4	4	69.5	11	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	50
VSP-LFD2×4-5E*-6			6						11.9	19.7				
VSP-LFD2×4-10E*-4			4	79.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	53
VSP-LFD2×4-10E*-6			6						11.9	19.7				
VSP-LFD2×4-15E*-4			4	89.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	57
VSP-LFD2×4-15E*-6			6						11.9	19.7				
VSP-LFD2×4-20E*-4			4	99.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	61
VSP-LFD2×4-20E*-6			6						11.9	19.7				
VSP-LFD3.5×7-5E*-4	3.5	7	4	69.5	11	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	50
VSP-LFD3.5×7-5E*-6			6						11.9	19.7				
VSP-LFD3.5×7-10E*-4			4	79.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	53
VSP-LFD3.5×7-10E*-6			6						11.9	19.7				
VSP-LFD3.5×7-15E*-4			4	89.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	57
VSP-LFD3.5×7-15E*-6			6						11.9	19.7				
VSP-LFD3.5×7-20E*-4			4	99.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	61
VSP-LFD3.5×7-20E*-6			6						11.9	19.7				
VSP-LFD4×10-5E*-4	4	10	4	69.5	11	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	50
VSP-LFD4×10-5E*-6			6						11.9	19.7				
VSP-LFD4×10-10E*-4			4	79.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	53
VSP-LFD4×10-10E*-6			6						11.9	19.7				
VSP-LFD4×10-15E*-4			4	89.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	57
VSP-LFD4×10-15E*-6			6						11.9	19.7				
VSP-LFD4×10-20E*-4			4	99.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	61
VSP-LFD4×10-20E*-6			6						11.9	19.7				
VSP-LFD4×20-5E*-4		20	4	69.5		26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	51
VSP-LFD4×20-5E*-6			6						11.9	19.7				
VSP-LFD4×20-10E*-4			4	79.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	54
VSP-LFD4×20-10E*-6			6						11.9	19.7				
VSP-LFD4×20-15E*-4			4	89.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	58
VSP-LFD4×20-15E*-6			6						11.9	19.7				
VSP-LFD4×20-20E*-4			4	99.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	62
VSP-LFD4×20-20E*-6			6						11.9	19.7				
VSP-LFD4×30-5E*-4		30	4	69.5		26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	51
VSP-LFD4×30-5E*-6			6						11.9	19.7				
VSP-LFD4×30-10E*-4			4	79.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	54
VSP-LFD4×30-10E*-6			6						11.9	19.7				
VSP-LFD4×30-15E*-4			4	89.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	58
VSP-LFD4×30-15E*-6			6						11.9	19.7				
VSP-LFD4×30-20E*-4			4	99.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	62
VSP-LFD4×30-20E*-6			6						11.9	19.7				

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, push-in fitting)

●VSP-LFD5×*-□E*-4/6
●VSP-LFD6×*-□E*-4/6

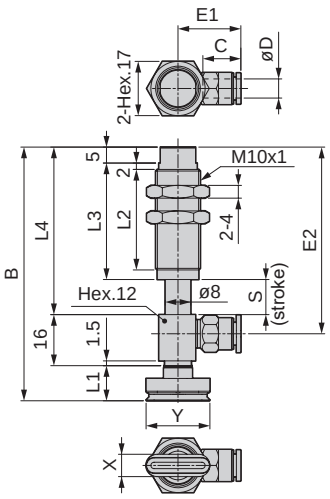


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	L4	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-LFD5×10-5E*-4	5	10	4	69.5	11	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	50
VSP-LFD5×10-5E*-6			6						11.9	19.7				
VSP-LFD5×10-10E*-4			4	79.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	53
VSP-LFD5×10-10E*-6			6						11.9	19.7				
VSP-LFD5×10-15E*-4			4	89.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	57
VSP-LFD5×10-15E*-6			6						11.9	19.7				
VSP-LFD5×10-20E*-4			4	99.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	61
VSP-LFD5×10-20E*-6			6						11.9	19.7				
VSP-LFD5×20-5E*-4		20	4	69.5		26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	51
VSP-LFD5×20-5E*-6			6						11.9	19.7				
VSP-LFD5×20-10E*-4			4	79.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	54
VSP-LFD5×20-10E*-6			6						11.9	19.7				
VSP-LFD5×20-15E*-4			4	89.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	58
VSP-LFD5×20-15E*-6			6						11.9	19.7				
VSP-LFD5×20-20E*-4			4	99.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	62
VSP-LFD5×20-20E*-6			6						11.9	19.7				
VSP-LFD5×30-5E*-4		30	4	69.5		26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	51
VSP-LFD5×30-5E*-6			6						11.9	19.7				
VSP-LFD5×30-10E*-4			4	79.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	54
VSP-LFD5×30-10E*-6			6						11.9	19.7				
VSP-LFD5×30-15E*-4			4	89.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	58
VSP-LFD5×30-15E*-6			6						11.9	19.7				
VSP-LFD5×30-20E*-4			4	99.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	62
VSP-LFD5×30-20E*-6			6						11.9	19.7				
VSP-LFD6×10-5E*-4	6	10	4	69.5	11	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	50
VSP-LFD6×10-5E*-6			6						11.9	19.7				
VSP-LFD6×10-10E*-4			4	79.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	53
VSP-LFD6×10-10E*-6			6						11.9	19.7				
VSP-LFD6×10-15E*-4			4	89.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	57
VSP-LFD6×10-15E*-6			6						11.9	19.7				
VSP-LFD6×10-20E*-4			4	99.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	61
VSP-LFD6×10-20E*-6			6						11.9	19.7				
VSP-LFD6×20-5E*-4		20	4	69.5		26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	51
VSP-LFD6×20-5E*-6			6						11.9	19.7				
VSP-LFD6×20-10E*-4			4	79.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	54
VSP-LFD6×20-10E*-6			6						11.9	19.7				
VSP-LFD6×20-15E*-4			4	89.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	58
VSP-LFD6×20-15E*-6			6						11.9	19.7				
VSP-LFD6×20-20E*-4			4	99.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	62
VSP-LFD6×20-20E*-6			6						11.9	19.7				
VSP-LFD6×30-5E*-4		30	4	69.5		26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	51
VSP-LFD6×30-5E*-6			6						11.9	19.7				
VSP-LFD6×30-10E*-4			4	79.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	54
VSP-LFD6×30-10E*-6			6						11.9	19.7				
VSP-LFD6×30-15E*-4			4	89.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	58
VSP-LFD6×30-15E*-6			6						11.9	19.7				
VSP-LFD6×30-20E*-4			4	99.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	62
VSP-LFD6×30-20E*-6			6						11.9	19.7				

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, push-in fitting)

●VSP-LFD8×*-□E*-4/6

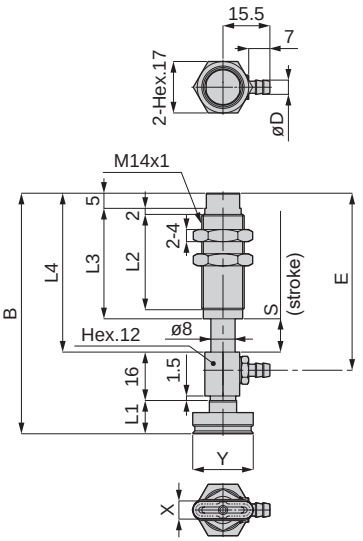


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	L4	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-LFD8×20-5E*-4	8	20	4	69.5	11	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	51
VSP-LFD8×20-5E*-6			6						11.9	19.7				
VSP-LFD8×20-10E*-4			4	79.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	54
VSP-LFD8×20-10E*-6			6						11.9	19.7				
VSP-LFD8×20-15E*-4			4	89.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	58
VSP-LFD8×20-15E*-6			6						11.9	19.7				
VSP-LFD8×20-20E*-4			4	99.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	62
VSP-LFD8×20-20E*-6			6						11.9	19.7				
VSP-LFD8×30-5E*-4		30	4	69.5		26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	51
VSP-LFD8×30-5E*-6			6						11.9	19.7				
VSP-LFD8×30-10E*-4			4	79.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	54
VSP-LFD8×30-10E*-6			6						11.9	19.7				
VSP-LFD8×30-15E*-4			4	89.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	58
VSP-LFD8×30-15E*-6			6						11.9	19.7				
VSP-LFD8×30-20E*-4			4	99.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	62
VSP-LFD8×30-20E*-6			6						11.9	19.7				

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, barbed fitting)

●VSP-LFD2×4-□E*-4T/6T
●VSP-LFD3.5×7-□E*-4T/6T
●VSP-LFD4×*-□E*-4T/6T

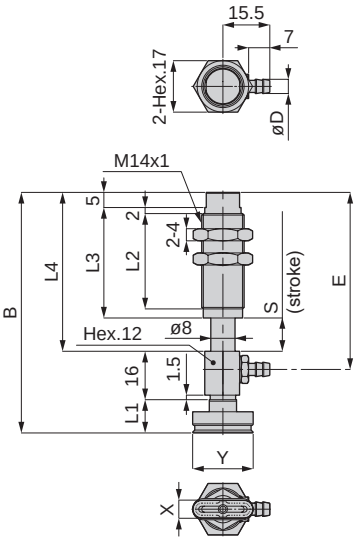


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	L4	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD2×4-5E*-4T	2	4	2.5	69.5	11	26.5	31.5	42.5	48.5	5	4.5 to 6.5	50
VSP-LFD2×4-5E*-6T			4									
VSP-LFD2×4-10E*-4T			2.5	79.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	53
VSP-LFD2×4-10E*-6T			4									
VSP-LFD2×4-15E*-4T			2.5	89.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	57
VSP-LFD2×4-15E*-6T			4									
VSP-LFD2×4-20E*-4T			2.5	99.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	61
VSP-LFD2×4-20E*-6T			4									
VSP-LFD3.5×7-5E*-4T	3.5	7	2.5	69.5	11	26.5	31.5	42.5	48.5	5	4.5 to 6.5	50
VSP-LFD3.5×7-5E*-6T			4									
VSP-LFD3.5×7-10E*-4T			2.5	79.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	53
VSP-LFD3.5×7-10E*-6T			4									
VSP-LFD3.5×7-15E*-4T			2.5	89.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	57
VSP-LFD3.5×7-15E*-6T			4									
VSP-LFD3.5×7-20E*-4T			2.5	99.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	61
VSP-LFD3.5×7-20E*-6T			4									
VSP-LFD4×10-5E*-4T	4	10	2.5	69.5	11	26.5	31.5	42.5	48.5	5	4.5 to 6.5	50
VSP-LFD4×10-5E*-6T			4									
VSP-LFD4×10-10E*-4T			2.5	79.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	53
VSP-LFD4×10-10E*-6T			4									
VSP-LFD4×10-15E*-4T			2.5	89.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	57
VSP-LFD4×10-15E*-6T			4									
VSP-LFD4×10-20E*-4T			2.5	99.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	61
VSP-LFD4×10-20E*-6T			4									
VSP-LFD4×20-5E*-4T		20	2.5	69.5		26.5	31.5	42.5	48.5	5	4.5 to 6.5	51
VSP-LFD4×20-5E*-6T			4									
VSP-LFD4×20-10E*-4T			2.5	79.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	54
VSP-LFD4×20-10E*-6T			4									
VSP-LFD4×20-15E*-4T			2.5	89.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	58
VSP-LFD4×20-15E*-6T			4									
VSP-LFD4×20-20E*-4T			2.5	99.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	62
VSP-LFD4×20-20E*-6T			4									
VSP-LFD4×30-5E*-4T		30	2.5	69.5		26.5	31.5	42.5	48.5	5	4.5 to 6.5	51
VSP-LFD4×30-5E*-6T			4									
VSP-LFD4×30-10E*-4T			2.5	79.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	54
VSP-LFD4×30-10E*-6T			4									
VSP-LFD4×30-15E*-4T			2.5	89.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	58
VSP-LFD4×30-15E*-6T			4									
VSP-LFD4×30-20E*-4T			2.5	99.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	62
VSP-LFD4×30-20E*-6T			4									

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, barbed fitting)

●VSP-LFD5×*-□E*-4T/6T
●VSP-LFD6×*-□E*-4T/6T

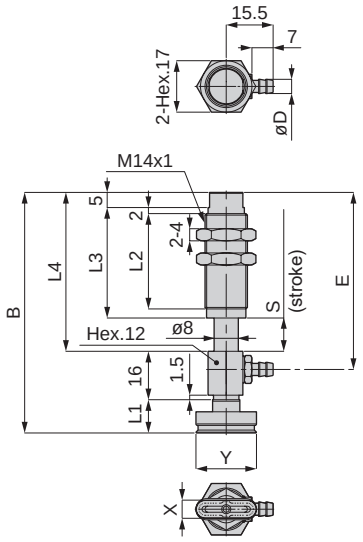


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	L4	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD5×10-5E*-4T	5	10	2.5	69.5	11	26.5	31.5	42.5	48.5	5	4.5 to 6.5	50
VSP-LFD5×10-5E*-6T			4									
VSP-LFD5×10-10E*-4T			2.5	79.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	53
VSP-LFD5×10-10E*-6T			4									
VSP-LFD5×10-15E*-4T			2.5	89.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	57
VSP-LFD5×10-15E*-6T			4									
VSP-LFD5×10-20E*-4T			2.5	99.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	61
VSP-LFD5×10-20E*-6T			4									
VSP-LFD5×20-5E*-4T		20	2.5	69.5		26.5	31.5	42.5	48.5	5	4.5 to 6.5	51
VSP-LFD5×20-5E*-6T			4									
VSP-LFD5×20-10E*-4T			2.5	79.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	54
VSP-LFD5×20-10E*-6T			4									
VSP-LFD5×20-15E*-4T			2.5	89.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	58
VSP-LFD5×20-15E*-6T			4									
VSP-LFD5×20-20E*-4T			2.5	99.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	62
VSP-LFD5×20-20E*-6T			4									
VSP-LFD5×30-5E*-4T		30	2.5	69.5		26.5	31.5	42.5	48.5	5	4.5 to 6.5	51
VSP-LFD5×30-5E*-6T			4									
VSP-LFD5×30-10E*-4T			2.5	79.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	54
VSP-LFD5×30-10E*-6T			4									
VSP-LFD5×30-15E*-4T			2.5	89.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	58
VSP-LFD5×30-15E*-6T			4									
VSP-LFD5×30-20E*-4T			2.5	99.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	62
VSP-LFD5×30-20E*-6T			4									
VSP-LFD6×10-5E*-4T	6	10	2.5	69.5	11	26.5	31.5	42.5	48.5	5	4.5 to 6.5	50
VSP-LFD6×10-5E*-6T			4									
VSP-LFD6×10-10E*-4T			2.5	79.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	53
VSP-LFD6×10-10E*-6T			4									
VSP-LFD6×10-15E*-4T			2.5	89.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	57
VSP-LFD6×10-15E*-6T			4									
VSP-LFD6×10-20E*-4T			2.5	99.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	61
VSP-LFD6×10-20E*-6T			4									
VSP-LFD6×20-5E*-4T		20	2.5	69.5		26.5	31.5	42.5	48.5	5	4.5 to 6.5	51
VSP-LFD6×20-5E*-6T			4									
VSP-LFD6×20-10E*-4T			2.5	79.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	54
VSP-LFD6×20-10E*-6T			4									
VSP-LFD6×20-15E*-4T			2.5	89.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	58
VSP-LFD6×20-15E*-6T			4									
VSP-LFD6×20-20E*-4T			2.5	99.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	62
VSP-LFD6×20-20E*-6T			4									
VSP-LFD6×30-5E*-4T		30	2.5	69.5		26.5	31.5	42.5	48.5	5	4.5 to 6.5	51
VSP-LFD6×30-5E*-6T			4									
VSP-LFD6×30-10E*-4T			2.5	79.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	54
VSP-LFD6×30-10E*-6T			4									
VSP-LFD6×30-15E*-4T			2.5	89.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	58
VSP-LFD6×30-15E*-6T			4									
VSP-LFD6×30-20E*-4T			2.5	99.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	62
VSP-LFD6×30-20E*-6T			4									

Dimensions (low dust generation, buffer, vacuum outlet, side, VSP-LFD, barbed fitting)

●VSP-LFD8×*-□E*-4T/6T

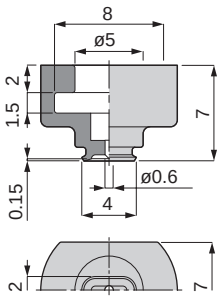


Unit: mm

Model No.	Pad size X	Pad size Y	Bore size øD	B	L1	L2	L3	L4	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD8×20-5E*-4T	8	20	2.5	69.5	11	26.5	31.5	42.5	48.5	5	4.5 to 6.5	51
VSP-LFD8×20-5E*-6T			4									
VSP-LFD8×20-10E*-4T			2.5	79.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	54
VSP-LFD8×20-10E*-6T			4									
VSP-LFD8×20-15E*-4T			2.5	89.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	58
VSP-LFD8×20-15E*-6T			4									
VSP-LFD8×20-20E*-4T			2.5	99.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	62
VSP-LFD8×20-20E*-6T			4									
VSP-LFD8×30-5E*-4T		30	2.5	69.5		26.5	31.5	42.5	48.5	5	4.5 to 6.5	51
VSP-LFD8×30-5E*-6T			4									
VSP-LFD8×30-10E*-4T			2.5	79.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	54
VSP-LFD8×30-10E*-6T			4									
VSP-LFD8×30-15E*-4T			2.5	89.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	58
VSP-LFD8×30-15E*-6T			4									
VSP-LFD8×30-20E*-4T			2.5	99.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	62
VSP-LFD8×30-20E*-6T			4									

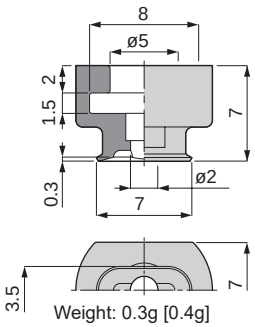
Dimensions: pad only

●VSPG-2×4E*



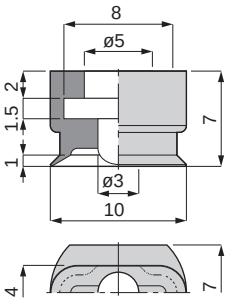
Weight: 0.3g [0.4g]

●VSPG-3.5×7E*



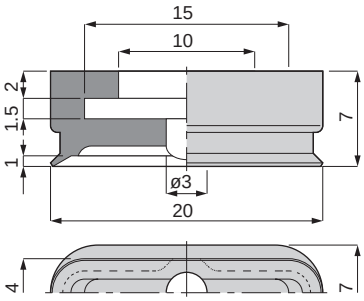
Weight: 0.3g [0.4g]

●VSPG-4×10E*



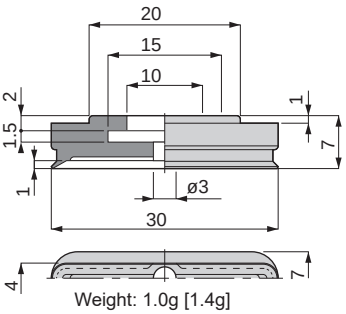
Weight: 0.3g [0.4g]

●VSPG-4×20E*



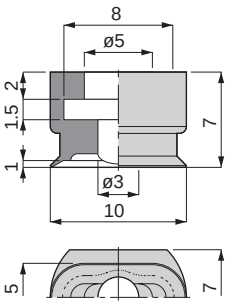
Weight: 0.6g [0.9g]

●VSPG-4×30E*



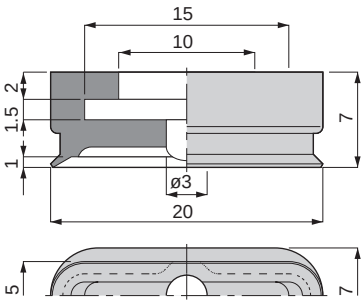
Weight: 1.0g [1.4g]

●VSPG-5×10E*



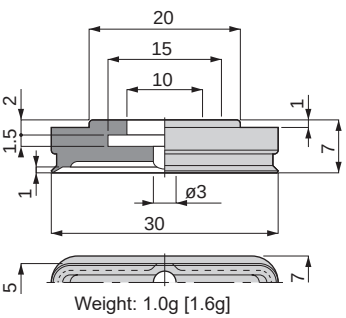
Weight: 0.3g [0.5g]

●VSPG-5×20E*



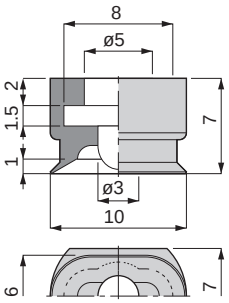
Weight: 0.6g [1.0g]

●VSPG-5×30E*



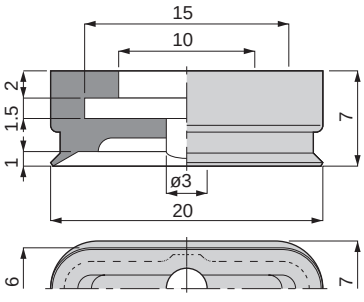
Weight: 1.0g [1.6g]

●VSPG-6×10E*



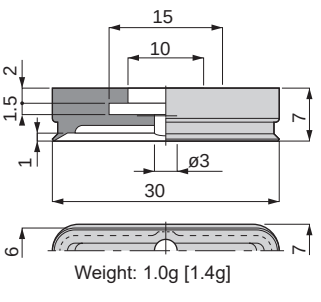
Weight: 0.3g [0.5g]

●VSPG-6×20E*



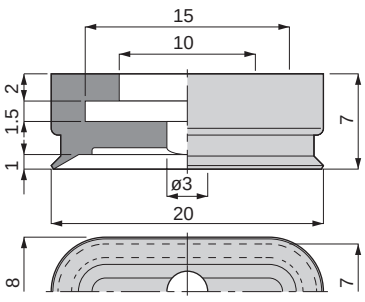
Weight: 0.6g [1.0g]

●VSPG-6×30E*



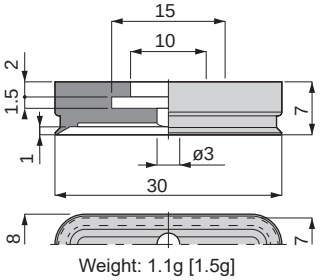
Weight: 1.0g [1.4g]

●VSPG-8×20E*



Weight: 0.7g [1.0g]

●VSPG-8×30E*

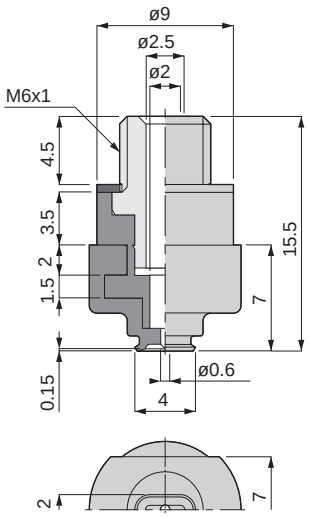


Weight: 1.1g [1.5g]

* Values in [ ] for fluoro rubber only.

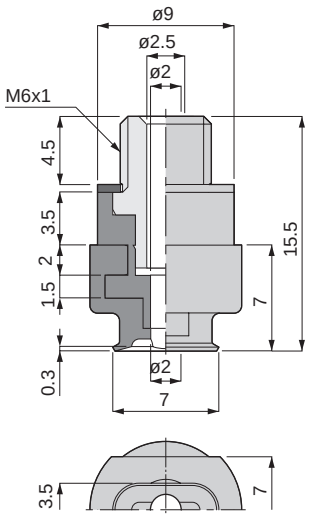
Pad screw Dimensions

●VSPG-2×4E*A



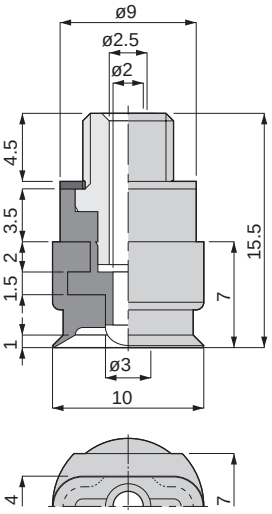
Weight: 1.9g [2.0g]

●VSPG-3.5×7E*A



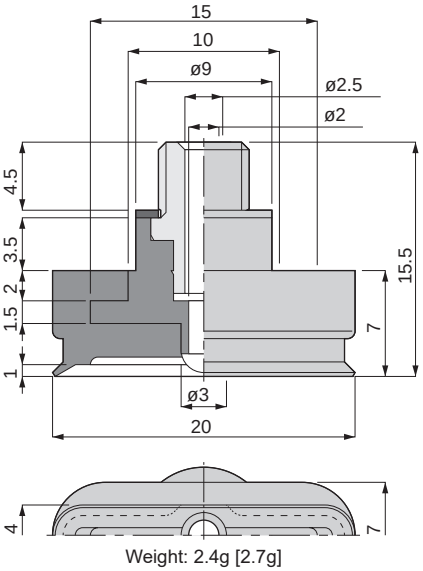
Weight: 1.9g [2.0g]

●VSPG-4×10E*A



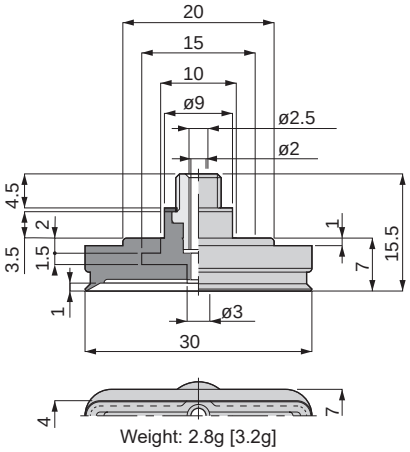
Weight: 1.9g [2.0g]

●VSPG-4×20E*A



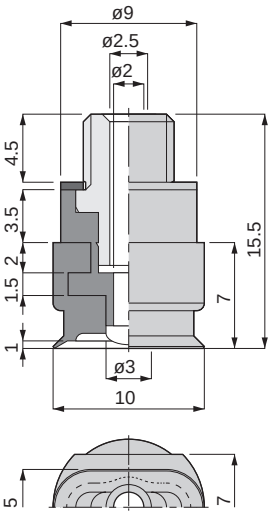
Weight: 2.4g [2.7g]

●VSPG-4×30E*A



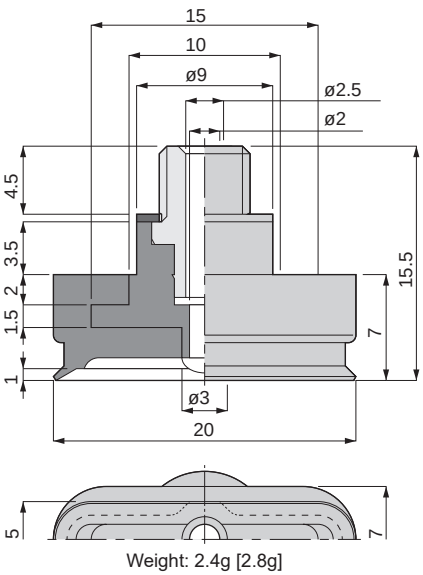
Weight: 2.8g [3.2g]

●VSPG-5×10E*A



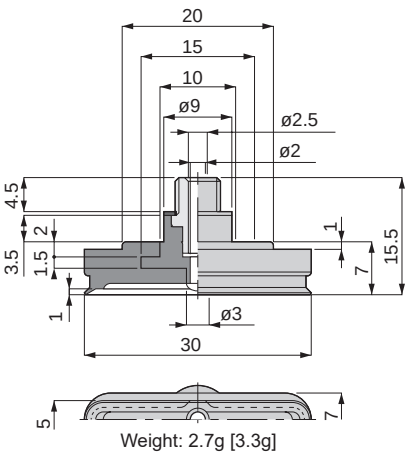
Weight: 1.9g [2.1g]

●VSPG-5×20E*A



Weight: 2.4g [2.8g]

●VSPG-5×30E*A

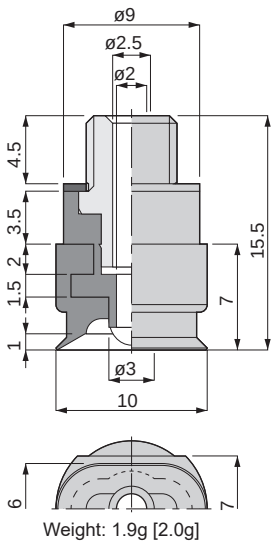


Weight: 2.7g [3.3g]

* Values in [ ] for fluoro rubber only.

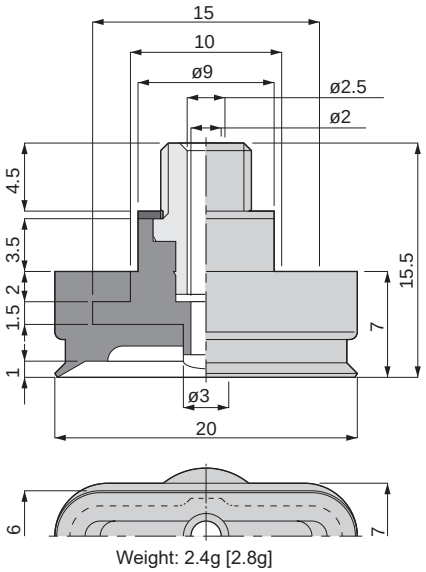
Pad screw Dimensions

●VSPG-6×10E*A



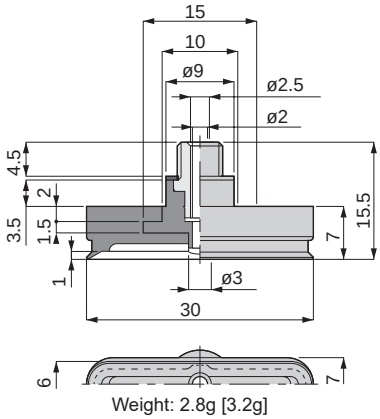
Weight: 1.9g [2.0g]

●VSPG-6×20E*A



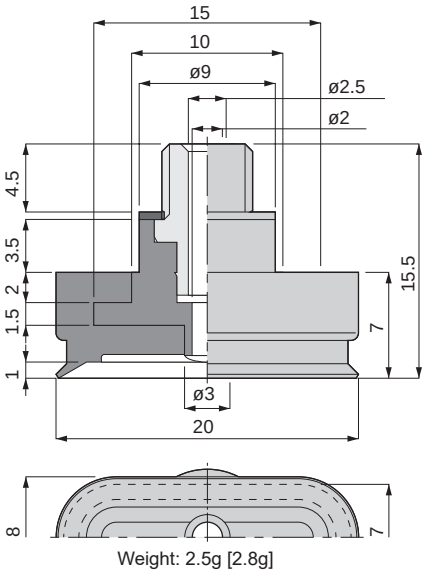
Weight: 2.4g [2.8g]

●VSPG-6×30E*A



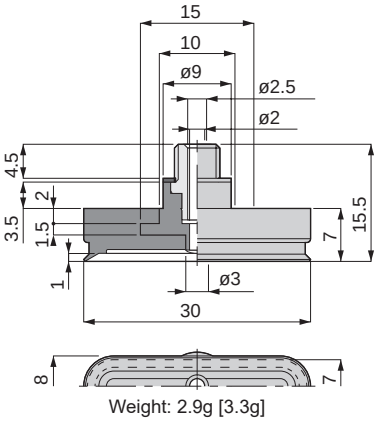
Weight: 2.8g [3.2g]

●VSPG-8×20E*A



Weight: 2.5g [2.8g]

●VSPG-8×30E*A

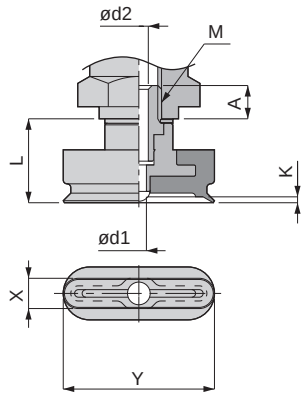


Weight: 2.9g [3.3g]

* Values in [ ] for fluoro rubber only.

Detailed view of pad and holder connection

●VSPG-*E*A

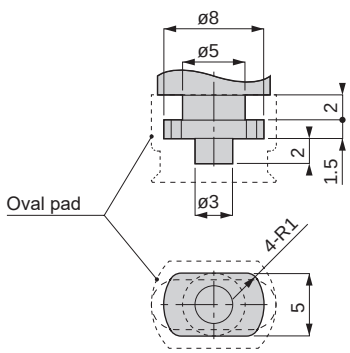


Unit: mm

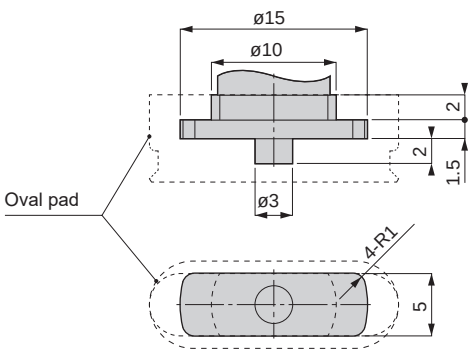
Model No.	Pad size		Fixing screw	A	Lip internal height	L	ød1	ød2
	X	Y	M		K			
VSPG-2×4E*	2	4	-	-	0.15	-	-	-
VSPG-3.5×7E*	3.5	7	-	-	0.3	-	-	-
VSPG-4×10E*	4	10	-	-	0.8	-	-	-
VSPG-4×20E*		20						
VSPG-4×30E*		30						
VSPG-5×10E*	5	10	-	-	0.8	-	-	-
VSPG-5×20E*		20						
VSPG-5×30E*		30						
VSPG-6×10E*	6	10	-	-	1	-	-	-
VSPG-6×20E*		20						
VSPG-6×30E*		30						
VSPG-8×20E*	8	20	-	-	1	-	-	-
VSPG-8×30E*		30						
VSPG-2×4E*A	2	4	M6x1	3.4	0.15	11	2	2.5
VSPG-3.5×7E*A	3.5	7	M6x1	3.4	0.3	11	2	2.5
VSPG-4×10E*A	4	10	M6x1	3.4	0.8	11	2	2.5
VSPG-4×20E*A		20						
VSPG-4×30E*A		30						
VSPG-5×10E*A	5	10	M6x1	3.4	0.8	11	2	2.5
VSPG-5×20E*A		20						
VSPG-5×30E*A		30						
VSPG-6×10E*A	6	10	M6x1	3.4	1	11	2	2.5
VSPG-6×20E*A		20						
VSPG-6×30E*A		30						
VSPG-8×20E*A	8	20	M6x1	3.4	1	11	2	2.5
VSPG-8×30E*A		30						

Pad fitting part dimensions

●VSPG-2×4E*
3. 5×7E*
x10E



●VSPG-*x20E*
x30E



Safety precautions

WARNING

■ Use appropriate torque to tighten and fix the oval pad rubber holder.
Tighten using a tool that does not damage the frame and confirm that there is no looseness.

Machine, type	Fixing screw size	Tightening torque
Oval type all models	M6x1	0.27 to 0.33 N·m

CAUTION

■ The oval pad fixing holder has no conductivity. When using a vacuum pad of conductive material, take measures to let electricity pass directly from the pad rubber.

MEMO



Suction pad, soft

VSP-*L* Series

Suction pad with flexible pad rubber that is gentle on the workpiece

RoHS

Ideal for retrieving molded products or for transporting fragile workpieces

A wide range of holder variations

Shape 16types

- Standard5 types
- CompactClass 4
- Low dust generation 2 types
- Lightweight3 types
- Low back: 2 types

Pipingconnection 5types

- Push-in fitting (ø1.8 to ø6)Three types
- Barbed fitting (ø4, ø6) Two types

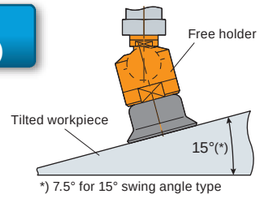
Stroke 12types

2 mm to 50 mm
(Depends on the pad size and holder)

Low dust generation holders (LFC, LFD) are available, with minimal friction powder and low noise caused by sliding.

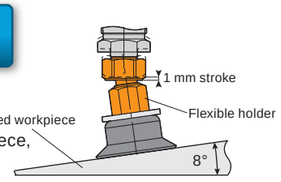
Supports assembly options of track swinging (free holder, flexible holder) on a workpiece surface with an angle.

Free holder (F1:30°, F2:15°)



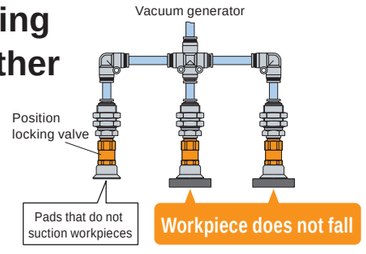
*) 7.5° for 15° swing angle type

Flexible holder (CF)



After removing the workpiece, returns to the normal position (vertical)

Supports assembly option of position locking valve (V) that reduces vacuum drop in another circuit even without a workpiece



Pad surface treatment (option) is available for special treatment to reduce suction marks

	-NF	-SF	-DL	-ER	-FG
Surface-Treated	Fiber raising: Nylon	Fiber raising: Silk	Anti-sticking	Reduced suction marks	Fluorine coating
Compatible materials	Silicone	Silicone	Silicone Conductive silicone	Nitriles Conductive NBR (low resistance)	Silicone Conductive silicone
Features	The fibers (nylon or silk) on the pad surface prevent rubber material transfer by avoiding direct contact with the workpiece.		Special coating with good slip. Effective for preventing adhesion of lightweight and thin workpieces.	Reduces suction marks by modifying the surface with an environmentally friendly chemical liquid.	Surface modification for special treatment to prevent adhesion to workpieces. Improved pad durability and wear resistance.

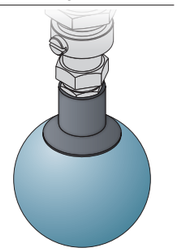
Pad shape





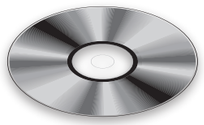
Softness that does not damage workpieces

Rubber hardness is available from A40. The lip is soft and track well even on workpieces with irregular shapes.



Recommended workpiece

Easily damaged workpieces such as molded products



Pad diameter

8 types | 4 | 6 | 8 | 10 | 15 | 20 | 30 | 40

Pad material

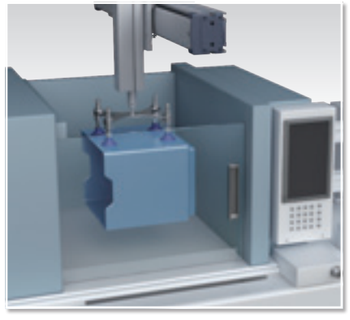
5 types | Nitriles | Silicone | Conductive silicone | Conductive NBR (low resistance) | Fluorosilicone

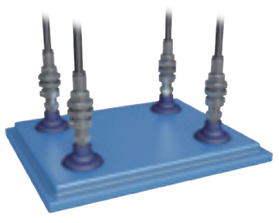
* Silicone (S) is compatible with the Food Sanitation Act. (Holder is not supported/suction pad is compatible only with workpiece contact part.)

Solution examples

Delicate resin molded products, etc.

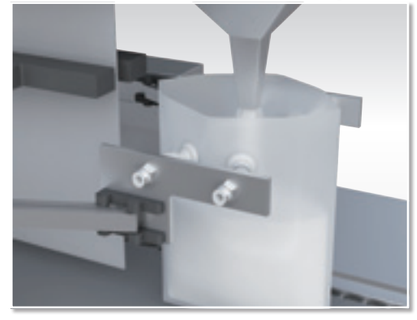
Gently transport workpieces that are easily damaged.





Opening/closing of packaging bags, etc.

Soft lips track even on irregularly shaped workpieces such as packaging bags.



How to order

●Soft

Suction pad

VSP - C - 30 - -20 - L - N - -ER - 6 - - F1 - V

VSP	C	30	-20	L	N	-ER	6		F1	V
Model No.	❶ Holder type	❷ Pad diameter	❸ Stroke option	❹ Pad shape	❺ Pad material	❻ Surface-treated	❼ Port size/shape	❽ Buffer load	❾ Swiveling pad	❿ Position locking valve

Pad rubber only

VSPG - 30 - L - N - -ER

VSPG	30	L	N	-ER
Model No.	❷	❹	❺	❻

Pad rubber + Set with fixing screw

VSPG - 30 - L - N - -ER - A

VSPG	30	L	N	-ER	A
Model No.	❷ Pad diameter	❹ Pad shape	❺ Pad material	❻ Surface-Treated	

❶ Holder type

With/Without buffer	Type	Vacuum outlet	Code	
Fixed	Standard	Upward direction	A	
	Compact		MA	
	Standard	Lateral direction	B	
	Compact		MB	
	Low height		HE	
		Both lateral directions	HEW	
Buffer type	Standard	Upward direction	C	
	Compact		MC	
	Low dust generation		LFC	
	Lightweight		HC	
	Standard	Lateral direction	D	
	Compact		MD	
	Low dust generation		LFD	
	Light-weight		HD	
		Both lateral directions	HDW	
	Stan-dard	Direct mounting	F	

❷ Pad diameter

Code	Description
4	ø4
6	ø6
8	ø8
10	ø10
15	ø15
20	ø20
30	ø30
40	ø40

❸ Stroke option

Description	Holder type C	D	HC	LFC	LFD	Code	
Specified stroke or without buffer	●	●	●			Blank	*1,*2
Stroke 2 mm				●		-2	*3
Stroke 5 mm				●	●	-5	
Stroke 10 mm	●	●	●	●	●	-10	
Stroke 15 mm	●	●	●	●	●	-15	
Stroke 20 mm	●	●	●	●	●	-20	
Stroke 25 mm			●			-25	
Stroke 30 mm	●	●	●			-30	
Stroke 40 mm	●	●	●			-40	
Stroke 50 mm	●	●	●			-50	

*1: Blank for models other than C, D, HC, LFC, LFD.
*2: For a designated stroke with blank, check the stroke dimensions.
*3: For ❷4 to 15, ❸-2 can be selected.

❹ Pad shape

Code	Description	
L	Soft	

❺ Pad material

Code	Description
N	Nitrile rubber
S	Silicone rubber
FS	Fluorosilicone rubber
SE	Conductive silicone rubber
NE	Conductive NBR (low resistance)

❻ Surface-treated

Description	Compatible pad material N	S	SE	NE	Supported pad diameter Soft (L)	Code
No surface treatment	All pads material, all pad diameters					Blank
Fiber nap (nylon)		●			ø10 to ø40	-NF
Fiber raising (silk)		●			ø10 to ø40	-SF
Anti-stick special coating		●	●		All sizes	-DL
Suction mark reduction surface modification	●			●	All sizes	-ER
Fluorine coating		●	●		All sizes	-FG

How to order

Specifications for rechargeable battery (Catalog No.CC-1226A)

●Design compatible with rechargeable battery manufacturing process

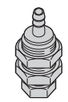
VSP - ..... - P4*

Specifications for food manufacturing processes (Catalog No.CC-1271A)

●Food-grade lubricants that can be used in food manufacturing processes, and resin/rubber materials that are compatible with the Food Sanitation Act are used

VSP - ..... - FP*

❼ Port size/shape

Description	Holder type A	B	C	D	MA	MB	MC	MD	LFC	LFD	HC	HD	HDW	HE	HEW	Code	
(❶: for F)																Blank	
ø1.8 push-in fitting						●	●	●			●	●	●	●	●	2	
ø4 push-in fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	
ø6 push-in fitting	●	●	●	●		●		●	●	●	●	●	●	●	●	6	
ø4 Push-in fitting, without spring cover			●	●												4C	
ø6 Push-in fitting, without spring cover			●	●												6C	
ø4 barbed fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4T	
ø6 barbed fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	6T	
ø4 barbed fitting, without spring cover			●	●												4TC	
ø6 Barbed fitting, without spring cover			●	●												6TC	

*1: If ❸-20 to-50 is available for ❶C and D, ❼4C, 6C, 4TC, 6TC can be selected.
*2: The available port size and shape differ depending on the pad diameter. Check with the combination table below.

❽ Buffer load

Code	Description
Blank	Standard load or without buffer
L	Low load (1/4 of standard load)

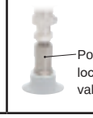
*1: ❶Blank for models other than LFC.
*2: ❸When -2 is selected, blank.

❾ Swiveling pad

Code	Description	
Blank	None	
F1	With free holder swing angle 30°	 Free holder
F2	With free holder swing angle 15°	
CF	With flexible holder angle of 8°	 Flexible holder

*1: ❶For HD, HE, HDW and HEW, is blank.
*2: ❶Blank for HC.

❿ Position locking valve

Code	Description	
Blank	None	
V	With position locking valve	 Position locking valve

*1: ❶For HD, HE, HDW and HEW, is blank.
*2: ❻For -NF and -SF, is blank.

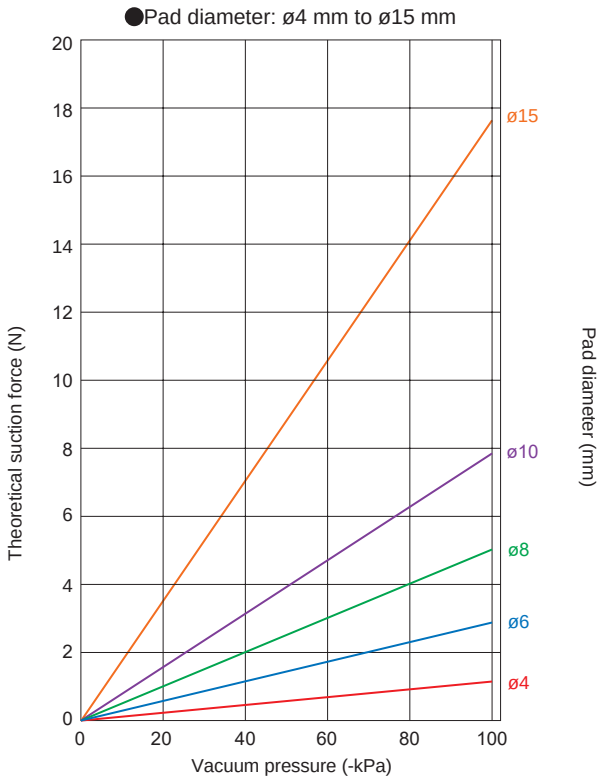
Holder shape - pad diameter - pad shape - port size/shape combinations

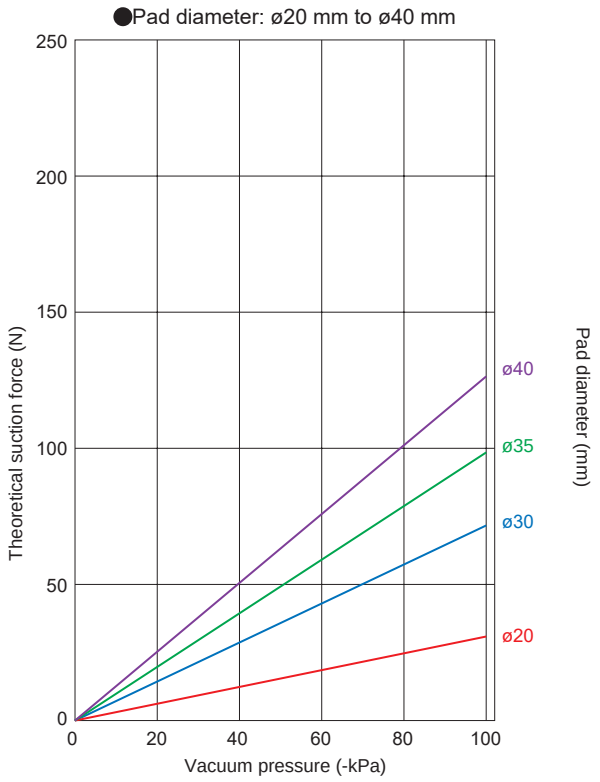
Holder type	Pad diameter	Push-in fitting ø4 4	ø4 4C	ø6 6	ø6 6C	Barbed fitting ø4 4T	ø4 4TC	ø6 6T	ø6 6TC
A	ø4 to ø15			●				●	
	ø20 to ø40	●		●		●		●	
B	All sizes	●		●		●		●	
C	All sizes	●	●	●	●	●	●	●	●
D	All sizes	●	●	●	●	●	●	●	●

Holder type	Pad diameter	Thread M14	Blank
F	All sizes		●

Holder type	Pad diameter	Push-in fitting ø1.8 2	ø4 4	ø6 6	Barbed fitting ø4 4T	ø6 6T
MA	ø4 to ø15		●		●	
	ø20 to ø40		●		●	●
MB	All sizes	●	●	●	●	●
MC	All sizes	●	●		●	●
MD	All sizes	●	●	●	●	●
LFC	ø4 to ø15		●		●	●
	ø20 to ø40		●	●	●	●
LFD	ø4 to ø15		●		●	●
	ø20 to ø40		●	●	●	●
HC	All sizes	●	●	●	●	●
HD	All sizes	●	●	●	●	●
HDW	All sizes	●	●	●	●	●
HE	All sizes	●	●	●	●	●
HEW	All sizes	●	●	●	●	●

Theoretical suction force

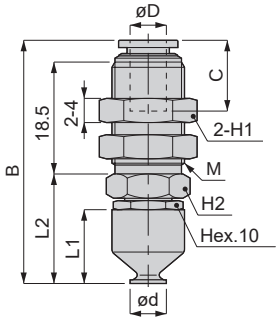




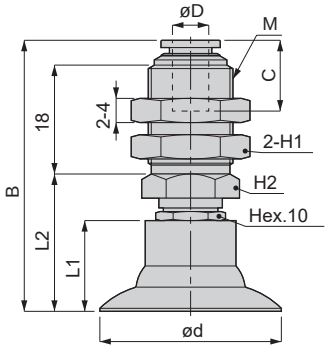
For soft type suction force, it may not be possible to secure the calculated suction force (theoretical suction force x safety factor) due to the effect of pad characteristics such as degree of vacuum/pad material/suctioned object. Before selection, use the suction force obtained by ”Selection method of suction pad” (page 288) as a guide, and make sure that there is no problem with the suction capacity on the actual machine.

Dimensions (fixed, vacuum outlet, top, VSP-A, push-in fitting)

●VSP-A4 to 15L*-6



●VSP-A20 to 40L*-4/6

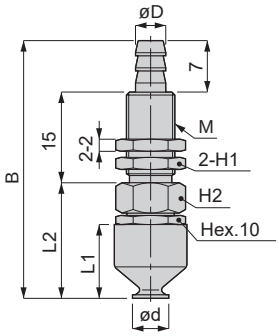


Unit: mm

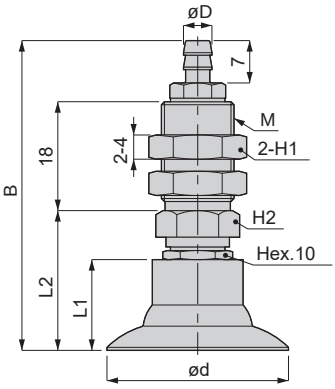
Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	Tube end C	Hexagon H1	Hexagon H2	Weight (g)
VSP-A4L*-6	4	6	M12x1	40.6	12.2	18.3	11.9	14	12	24
VSP-A6L*-6	6	6	M12x1	40.6	12.2	18.3	11.9	14	12	24
VSP-A8L*-6	8	6	M12x1	40.6	12.2	18.3	11.9	14	12	24
VSP-A10L*-6	10	6	M12x1	42.4	14	20.1	11.9	14	12	25
VSP-A15L*-6	15	6	M12x1	42.4	14	20.1	11.9	14	12	25
VSP-A20L*-4	20	4	M12x1	53.9	15	23	11.2	14	12	35
VSP-A20L*-6		6	M14x1	44.9		22.6	11.9	17	14	41
VSP-A30L*-4	30	4	M12x1	53.9	15	23	11.2	14	12	38
VSP-A30L*-6		6	M14x1	44.9		22.6	11.9	17	14	44
VSP-A40L*-4	40	4	M12x1	53.9	15	23	11.2	14	12	44
VSP-A40L*-6		6	M14x1	44.9		22.6	11.9	17	14	50

Dimensions (fixed, vacuum outlet top VSP-A, barbed fitting)

●VSP-A4 to 15L*-6T



●VSP-A20 to 40L*-4T/6T

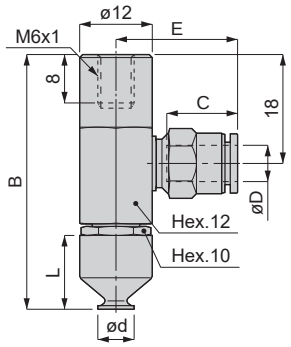


Unit: mm

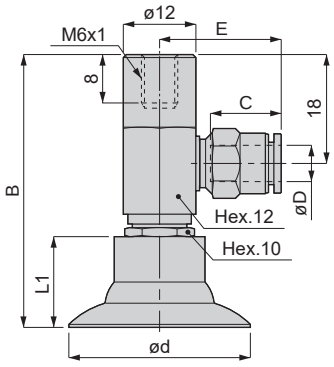
Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	Hexagon H1	Hexagon H2	Weight (g)
VSP-A4L*-6T	4	4	M8x0.75	41.3	12.2	19.3	10	10	14
VSP-A6L*-6T	6	4	M8x0.75	41.3	12.2	19.3	10	10	14
VSP-A8L*-6T	8	4	M8x0.75	41.3	12.2	19.3	10	10	14
VSP-A10L*-6T	10	4	M8x0.75	43.1	14	21.1	10	10	15
VSP-A15L*-6T	15	4	M8x0.75	43.1	14	21.1	10	10	15
VSP-A20L*-4T	20	2.5	M12x1	51	15	23	14	12	34
VSP-A20L*-6T		4							
VSP-A30L*-4T	30	2.5	M12x1	51	15	23	14	12	37
VSP-A30L*-6T		4							
VSP-A40L*-4T	40	2.5	M12x1	51	15	23	14	12	44
VSP-A40L*-6T		4							

Dimensions (fixed, vacuum outlet, side, VSP-B, push-in fitting)

●VSP-B4 to 15L*-4/6



●VSP-B20 to 40L*-4/6

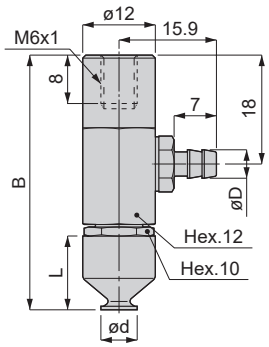


Unit: mm

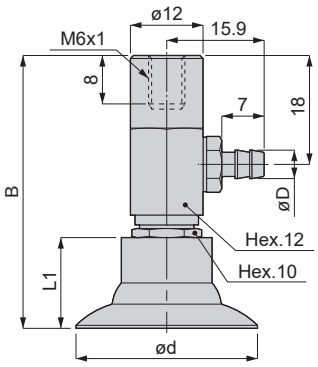
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-B4L*-4	4	4	42.3	12.2	11.2	18.8	32
VSP-B4L*-6		6			11.9	20.1	33
VSP-B6L*-4	6	4	42.3	12.2	11.2	18.8	32
VSP-B6L*-6		6			11.9	20.1	33
VSP-B8L*-4	8	4	42.3	12.2	11.2	18.8	32
VSP-B8L*-6		6			11.9	20.1	33
VSP-B10L*-4	10	4	44.1	14	11.2	18.8	33
VSP-B10L*-6		6			11.9	20.1	34
VSP-B15L*-4	15	4	44.1	14	11.2	18.8	33
VSP-B15L*-6		6			11.9	20.1	34
VSP-B20L*-4	20	4	45	15	11.2	18.8	37
VSP-B20L*-6		6			11.9	20.1	38
VSP-B30L*-4	30	4	45	15	11.2	18.8	40
VSP-B30L*-6		6			11.9	20.1	41
VSP-B40L*-4	40	4	45	15	11.2	18.8	47
VSP-B40L*-6		6			11.9	20.1	48

Dimensions (fixed, vacuum outlet side VSP-B, barbed fitting)

●VSP-B4 to 15L*-4T/6T



●VSP-B20 to 40L*-4T/6T

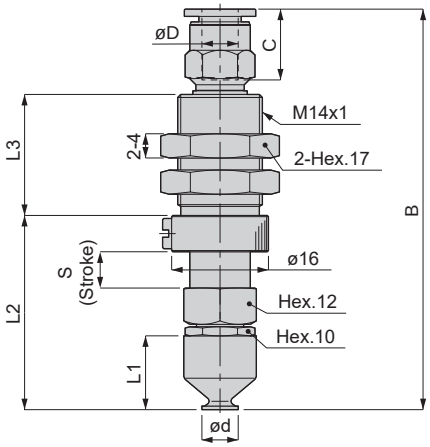


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-B4L*-4T	4	2.5	42.3	12.2	31
VSP-B4L*-6T		4			
VSP-B6L*-4T	6	2.5	42.3	12.2	32
VSP-B6L*-6T		4			
VSP-B8L*-4T	8	2.5	42.3	12.2	32
VSP-B8L*-6T		4			
VSP-B10L*-4T	10	2.5	44.1	14	32
VSP-B10L*-6T		4			
VSP-B15L*-4T	15	2.5	44.1	14	32
VSP-B15L*-6T		4			
VSP-B20L*-4T	20	2.5	45	15	36
VSP-B20L*-6T		4			
VSP-B30L*-4T	30	2.5	45	15	39
VSP-B30L*-6T		4			
VSP-B40L*-4T	40	2.5	45	15	46
VSP-B40L*-6T		4			

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting)

●VSP-C4 to 15L*-4/6
●VSP-C4 to 15-□L*-4/6

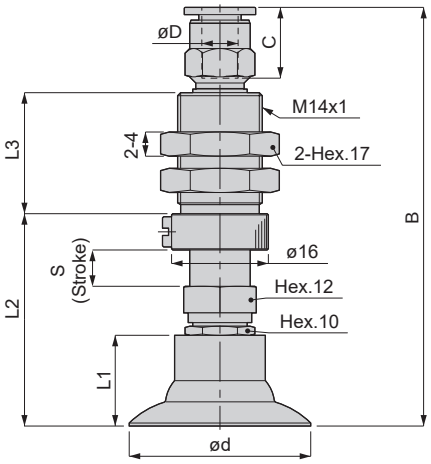


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C4L*-4	4	4	65.3	12.2	32.3	20	11.2	6	4.0 to 7.1	37
VSP-C4L*-6		6	66.6				11.9			38
VSP-C4-10L*-4		4	69.8		36.8		11.2	10	2.0 to 5.2	39
VSP-C4-10L*-6		6	71.1				11.9			40
VSP-C4-15L*-4		4	79.8		41.8	25	11.2	15	2.0 to 5.9	44
VSP-C4-15L*-6		6	81.1				11.9			45
VSP-C4-20L*-4		4	95.8		48.8	34	11.2	20	1.1 to 4.8	51
VSP-C4-20L*-6		6	97.1				11.9			52
VSP-C6L*-4	6	4	65.3	12.2	32.3	20	11.2	6	4.0 to 7.1	37
VSP-C6L*-6		6	66.6				11.9			38
VSP-C6-10L*-4		4	69.8		36.8		11.2	10	2.0 to 5.2	39
VSP-C6-10L*-6		6	71.1				11.9			40
VSP-C6-15L*-4		4	79.8		41.8	25	11.2	15	2.0 to 5.9	44
VSP-C6-15L*-6		6	81.1				11.9			45
VSP-C6-20L*-4		4	95.8		48.8	34	11.2	20	1.1 to 4.8	51
VSP-C6-20L*-6		6	97.1				11.9			52
VSP-C8L*-4	8	4	65.3	12.2	32.3	20	11.2	6	4.0 to 7.1	37
VSP-C8L*-6		6	66.6				11.9			38
VSP-C8-10L*-4		4	69.8		36.8		11.2	10	2.0 to 5.2	39
VSP-C8-10L*-6		6	71.1				11.9			40
VSP-C8-15L*-4		4	79.8		41.8	25	11.2	15	2.0 to 5.9	44
VSP-C8-15L*-6		6	81.1				11.9			45
VSP-C8-20L*-4		4	95.8		48.8	34	11.2	20	1.1 to 4.8	51
VSP-C8-20L*-6		6	97.1				11.9			52
VSP-C10L*-4	10	4	67.1	14	34.1	20	11.2	6	4.0 to 7.1	38
VSP-C10L*-6		6	68.5				11.9			39
VSP-C10-10L*-4		4	71.6		38.6		11.2	10	2.0 to 5.2	40
VSP-C10-10L*-6		6	72.9				11.9			41
VSP-C10-15L*-4		4	81.6		43.6	25	11.2	15	2.0 to 5.9	45
VSP-C10-15L*-6		6	82.9				11.9			46
VSP-C10-20L*-4		4	97.6		50.6	34	11.2	20	1.1 to 4.8	52
VSP-C10-20L*-6		6	98.9				11.9			53
VSP-C15L*-4	15	4	67.1	14	34.1	20	11.2	6	4.0 to 7.1	38
VSP-C15L*-6		6	68.5				11.9			39
VSP-C15-10L*-4		4	71.6		38.6		11.2	10	2.0 to 5.2	40
VSP-C15-10L*-6		6	72.9				11.9			41
VSP-C15-15L*-4		4	81.6		43.6	25	11.2	15	2.0 to 5.9	45
VSP-C15-15L*-6		6	82.9				11.9			46
VSP-C15-20L*-4		4	97.6		50.6	34	11.2	20	1.1 to 4.8	52
VSP-C15-20L*-6		6	98.9				11.9			53

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting)

●VSP-C20 to 40L*-4/6
●VSP-C20 to 40-□*-4/6

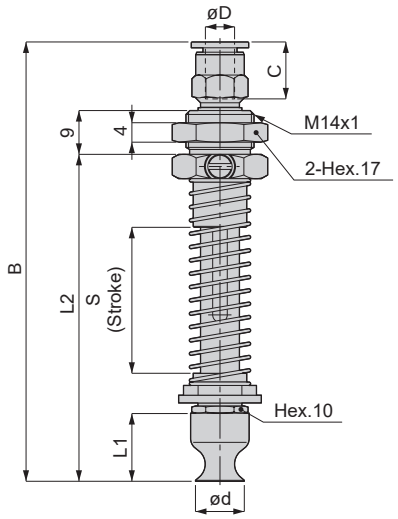


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C20L*-4	20	4	68	15	35	20	11.2	6	7.0 to 12.6	43
VSP-C20L*-6		6	69.3				11.9			44
VSP-C20-10L*-4		4	74		41		11.2	10	3.3 to 10.0	47
VSP-C20-10L*-6		6	75.3				11.9			48
VSP-C20-15L*-4		4	84		46	25	11.2	15	3.3 to 10.4	52
VSP-C20-15L*-6		6	85.3				11.9			53
VSP-C20-20L*-4		4	100		53	34	11.2	20	2.0 to 8.7	58
VSP-C20-20L*-6		6	101.3				11.9			59
VSP-C30L*-4	30	4	68	15	35	20	11.2	6	7.0 to 12.6	46
VSP-C30L*-6		6	69.3				11.9			47
VSP-C30-10L*-4		4	74		41		11.2	10	3.3 to 10.0	50
VSP-C30-10L*-6		6	75.3				11.9			51
VSP-C30-15L*-4		4	84		46	25	11.2	15	3.3 to 10.4	55
VSP-C30-15L*-6		6	85.3				11.9			56
VSP-C30-20L*-4		4	100		53	34	11.2	20	2.0 to 8.7	61
VSP-C30-20L*-6		6	101.3				11.9			62
VSP-C40L*-4	40	4	68	15	35	20	11.2	6	7.0 to 12.6	53
VSP-C40L*-6		6	69.3				11.9			54
VSP-C40-10L*-4		4	74		41		11.2	10	3.3 to 10.0	57
VSP-C40-10L*-6		6	75.3				11.9			58
VSP-C40-15L*-4		4	84		46	25	11.2	15	3.3 to 10.4	62
VSP-C40-15L*-6		6	85.3				11.9			63
VSP-C40-20L*-4		4	100		53	34	11.2	20	2.0 to 8.7	68
VSP-C40-20L*-6		6	101.3				11.9			69

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting, without spring cover)

●VSP-C4 to 15-□L*-4C/6C

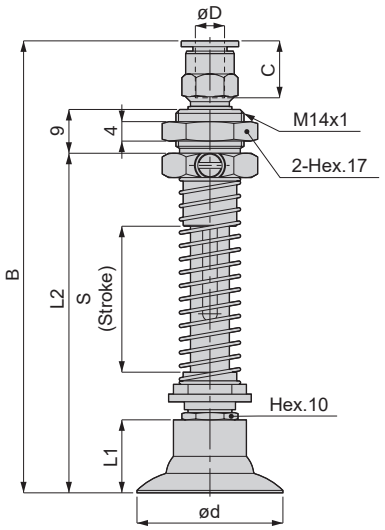


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C4-20L*-4C	4	4	72.8	12.2	50.8	11.2	20	1.5 to 4.9	45
VSP-C4-20L*-6C		6	74.1			11.9			46
VSP-C4-30L*-4C		4	85.8		63.8	11.2	30	1.1 to 4.8	51
VSP-C4-30L*-6C		6	87.1			11.9			52
VSP-C4-40L*-4C		4	98.8		76.8	11.2	40	1.0 to 4.5	56
VSP-C4-40L*-6C		6	100.1			11.9			57
VSP-C4-50L*-4C		4	111.8		89.8	11.2	50	0.9 to 4.5	61
VSP-C4-50L*-6C		6	113.1			11.9			62
VSP-C6-20L*-4C	6	4	72.8	12.2	50.8	11.2	20	1.5 to 4.9	45
VSP-C6-20L*-6C		6	74.1			11.9			46
VSP-C6-30L*-4C		4	85.8		63.8	11.2	30	1.1 to 4.8	51
VSP-C6-30L*-6C		6	87.1			11.9			52
VSP-C6-40L*-4C		4	98.8		76.8	11.2	40	1.0 to 4.5	56
VSP-C6-40L*-6C		6	100.1			11.9			57
VSP-C6-50L*-4C		4	111.8		89.8	11.2	50	0.9 to 4.5	61
VSP-C6-50L*-6C		6	113.1			11.9			62
VSP-C8-20L*-4C	8	4	72.8	12.2	50.8	11.2	20	1.5 to 4.9	45
VSP-C8-20L*-6C		6	74.1			11.9			46
VSP-C8-30L*-4C		4	85.8		63.8	11.2	30	1.1 to 4.8	51
VSP-C8-30L*-6C		6	87.1			11.9			52
VSP-C8-40L*-4C		4	98.8		76.8	11.2	40	1.0 to 4.5	56
VSP-C8-40L*-6C		6	100.1			11.9			57
VSP-C8-50L*-4C		4	111.8		89.8	11.2	50	0.9 to 4.5	61
VSP-C8-50L*-6C		6	113.1			11.9			62
VSP-C10-20L*-4C	10	4	74.6	14	52.6	11.2	20	1.5 to 4.9	45
VSP-C10-20L*-6C		6	75.9			11.9			46
VSP-C10-30L*-4C		4	87.6		65.6	11.2	30	1.1 to 4.8	51
VSP-C10-30L*-6C		6	88.9			11.9			52
VSP-C10-40L*-4C		4	100.6		78.6	11.2	40	1.0 to 4.5	56
VSP-C10-40L*-6C		6	101.9			11.9			57
VSP-C10-50L*-4C		4	113.6		91.6	11.2	50	0.9 to 4.5	61
VSP-C10-50L*-6C		6	114.9			11.9			62
VSP-C15-20L*-4C	15	4	74.6	14	52.6	11.2	20	1.5 to 4.9	45
VSP-C15-20L*-6C		6	75.9			11.9			46
VSP-C15-30L*-4C		4	87.6		65.6	11.2	30	1.1 to 4.8	51
VSP-C15-30L*-6C		6	88.9			11.9			52
VSP-C15-40L*-4C		4	100.6		78.6	11.2	40	1.0 to 4.5	56
VSP-C15-40L*-6C		6	101.9			11.9			57
VSP-C15-50L*-4C		4	113.6		91.6	11.2	50	0.9 to 4.5	61
VSP-C15-50L*-6C		6	114.9			11.9			62

Dimensions (buffer, vacuum outlet, top, VSP-C, push-in fitting, without spring cover)

●VSP-C20 to 40-□L*-4C/6C

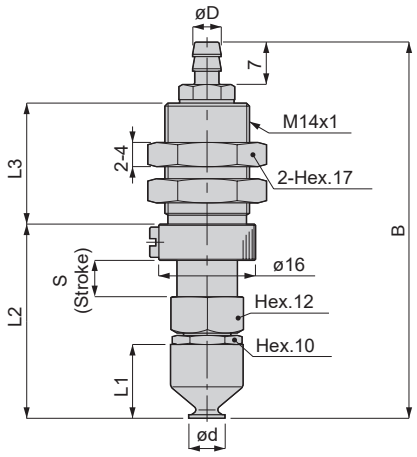


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C20-20L*-4C	20	4	77	15	55	11.2	20	1.5 to 4.9	50
VSP-C20-20L*-6C		6	78.3			11.9			51
VSP-C20-30L*-4C		4	90		68	11.2	30	1.1 to 4.8	55
VSP-C20-30L*-6C		6	91.3			11.9			56
VSP-C20-40L*-4C		4	103		81	11.2	40	1.0 to 4.5	60
VSP-C20-40L*-6C		6	104.3			11.9			61
VSP-C20-50L*-4C		4	116		94	11.2	50	0.9 to 4.5	65
VSP-C20-50L*-6C		6	117.3			11.9			66
VSP-C30-20L*-4C	30	4	77	15	55	11.2	20	1.5 to 4.9	53
VSP-C30-20L*-6C		6	78.3			11.9			54
VSP-C30-30L*-4C		4	90		68	11.2	30	1.1 to 4.8	58
VSP-C30-30L*-6C		6	91.3			11.9			59
VSP-C30-40L*-4C		4	103		81	11.2	40	1.0 to 4.5	63
VSP-C30-40L*-6C		6	104.3			11.9			64
VSP-C30-50L*-4C		4	116		94	11.2	50	0.9 to 4.5	68
VSP-C30-50L*-6C		6	117.3			11.9			69
VSP-C40-20L*-4C	40	4	77	15	55	11.2	20	1.5 to 4.9	57
VSP-C40-20L*-6C		6	78.3			11.9			58
VSP-C40-30L*-4C		4	90		68	11.2	30	1.1 to 4.8	62
VSP-C40-30L*-6C		6	91.3			11.9			63
VSP-C40-40L*-4C		4	103		81	11.2	40	1.0 to 4.5	67
VSP-C40-40L*-6C		6	104.3			11.9			68
VSP-C40-50L*-4C		4	116		94	11.2	50	0.9 to 4.5	72
VSP-C40-50L*-6C		6	117.3			11.9			73

Dimensions (buffer, vacuum outlet, top, VSP-C, barbed fitting)

●VSP-C4 to 15L*-4T/6T
●VSP-C4 to 15-□L*-4/6

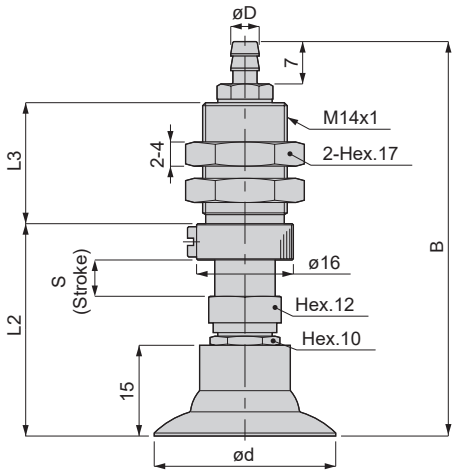


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-C4L*-4T	4	4	62.4	12.2	32.3	20	6	4.0 to 7.1	37
VSP-C4L*-6T		6							
VSP-C4-10L*-4T		4	66.9		36.8		10	2.0 to 5.2	40
VSP-C4-10L*-6T		6							
VSP-C4-15L*-4T		4	76.9		41.8	25	15	2.0 to 5.9	45
VSP-C4-15L*-6T		6							
VSP-C4-20L*-4T		4	92.9		48.8	34	20	1.1 to 4.8	51
VSP-C4-20L*-6T		6							
VSP-C6L*-4T	6	4	62.4	12.2	32.3	20	6	4.0 to 7.1	37
VSP-C6L*-6T		6							
VSP-C6-10L*-4T		4	66.9		36.8		10	2.0 to 5.2	40
VSP-C6-10L*-6T		6							
VSP-C6-15L*-4T		4	76.9		41.8	25	15	2.0 to 5.9	45
VSP-C6-15L*-6T		6							
VSP-C6-20L*-4T		4	92.9		48.8	34	20	1.1 to 4.8	51
VSP-C6-20L*-6T		6							
VSP-C8L*-4T	8	4	62.4	12.2	32.3	20	6	4.0 to 7.1	37
VSP-C8L*-6T		6							
VSP-C8-10L*-4T		4	66.9		36.8		10	2.0 to 5.2	40
VSP-C8-10L*-6T		6							
VSP-C8-15L*-4T		4	76.9		41.8	25	15	2.0 to 5.9	45
VSP-C8-15L*-6T		6							
VSP-C8-20L*-4T		4	92.9		48.8	34	20	1.1 to 4.8	51
VSP-C8-20L*-6T		6							
VSP-C10L*-4T	10	4	64.2	14	34.1	20	6	4.0 to 7.1	37
VSP-C10L*-6T		6							
VSP-C10-10L*-4T		4	68.7		38.6		10	2.0 to 5.2	40
VSP-C10-10L*-6T		6							
VSP-C10-15L*-4T		4	78.7		43.6	25	15	2.0 to 5.9	45
VSP-C10-15L*-6T		6							
VSP-C10-20L*-4T		4	94.7		50.6	34	20	1.1 to 4.8	51
VSP-C10-20L*-6T		6							
VSP-C15L*-4T	15	4	64.2	14	34.1	20	6	4.0 to 7.1	37
VSP-C15L*-6T		6							
VSP-C15-10L*-4T		4	68.7		38.6		10	2.0 to 5.2	40
VSP-C15-10L*-6T		6							
VSP-C15-15L*-4T		4	78.7		43.6	25	15	2.0 to 5.9	45
VSP-C15-15L*-6T		6							
VSP-C15-20L*-4T		4	94.7		50.6	34	20	1.1 to 4.8	51
VSP-C15-20L*-6T		6							

Dimensions (buffer, vacuum outlet, top, VSP-C, barbed fitting)

●VSP-C20 to 40L*-4T/6T

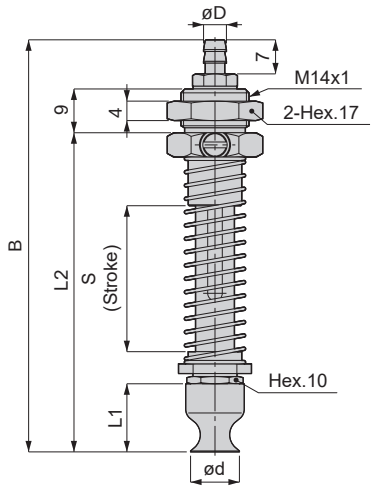


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C20L*-4T	20	4	65.1	15	35	20	11.2	6	7.0 to 12.6	42
VSP-C20L*-6T		6					11.9			
VSP-C20-10L*-4T		4	71.1		41		11.2	10	3.3 to 10.0	46
VSP-C20-10L*-6T		6					11.9			
VSP-C20-15L*-4T		4	81.1		46	25	11.2	15	3.3 to 10.4	51
VSP-C20-15L*-6T		6					11.9			
VSP-C20-20L*-4T		4	97.1		53	34	11.2	20	2.0 to 8.7	57
VSP-C20-20L*-6T		6					11.9			
VSP-C30L*-4T	30	4	65.1	15	35	20	11.2	6	7.0 to 12.6	45
VSP-C30L*-6T		6					11.9			
VSP-C30-10L*-4T		4	71.1		41		11.2	10	3.3 to 10.0	49
VSP-C30-10L*-6T		6					11.9			
VSP-C30-15L*-4T		4	81.1		46	25	11.2	15	3.3 to 10.4	54
VSP-C30-15L*-6T		6					11.9			
VSP-C30-20L*-4T		4	97.1		53	34	11.2	20	2.0 to 8.7	60
VSP-C30-20L*-6T		6					11.9			
VSP-C40L*-4T	40	4	65.1	15	35	20	11.2	6	7.0 to 12.6	51
VSP-C40L*-6T		6					11.9			
VSP-C40-10L*-4T		4	71.1		41		11.2	10	3.3 to 10.0	55
VSP-C40-10L*-6T		6					11.9			
VSP-C40-15L*-4T		4	81.1		46	25	11.2	15	3.3 to 10.4	59
VSP-C40-15L*-6T		6					11.9			
VSP-C40-20L*-4T		4	97.1		53	34	11.2	20	2.0 to 8.7	65
VSP-C40-20L*-6T		6					11.9			

Dimensions (buffer, vacuum outlet, top, VSP-C, barbed fitting, without spring cover)

●VSP-C4 to 15-□L*-4TC/6TC

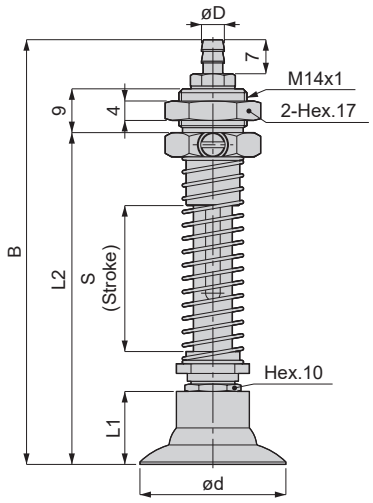


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-C4-20L*-4TC	4	4	69.9	12.2	50.8	20	1.5 to 4.9	44
VSP-C4-20L*-6TC		6						
VSP-C4-30L*-4TC		4	82.9		63.8	30	1.1 to 4.8	50
VSP-C4-30L*-6TC		6						
VSP-C4-40L*-4TC		4	95.9		76.8	40	1.0 to 4.5	55
VSP-C4-40L*-6TC		6						
VSP-C4-50L*-4TC		4	108.9		89.8	50	0.9 to 4.5	60
VSP-C4-50L*-6TC		6						
VSP-C6-20L*-4TC	6	4	69.9	12.2	50.8	20	1.5 to 4.9	44
VSP-C6-20L*-6TC		6						
VSP-C6-30L*-4TC		4	82.9		63.8	30	1.1 to 4.8	50
VSP-C6-30L*-6TC		6						
VSP-C6-40L*-4TC		4	95.9		76.8	40	1.0 to 4.5	55
VSP-C6-40L*-6TC		6						
VSP-C6-50L*-4TC		4	108.9		89.8	50	0.9 to 4.5	60
VSP-C6-50L*-6TC		6						
VSP-C8-20L*-4TC	8	4	69.9	12.2	50.8	20	1.5 to 4.9	44
VSP-C8-20L*-6TC		6						
VSP-C8-30L*-4TC		4	82.9		63.8	30	1.1 to 4.8	50
VSP-C8-30L*-6TC		6						
VSP-C8-40L*-4TC		4	95.9		76.8	40	1.0 to 4.5	55
VSP-C8-40L*-6TC		6						
VSP-C8-50L*-4TC		4	108.9		89.8	50	0.9 to 4.5	60
VSP-C8-50L*-6TC		6						
VSP-C10-20L*-4TC	10	4	71.7	14	52.6	20	1.5 to 4.9	44
VSP-C10-20L*-6TC		6						
VSP-C10-30L*-4TC		4	84.7		65.6	30	1.1 to 4.8	50
VSP-C10-30L*-6TC		6						
VSP-C10-40L*-4TC		4	97.7		78.6	40	1.0 to 4.5	55
VSP-C10-40L*-6TC		6						
VSP-C10-50L*-4TC		4	110.7		91.6	50	0.9 to 4.5	60
VSP-C10-50L*-6TC		6						
VSP-C15-20L*-4TC	15	4	71.7	14	52.6	20	1.5 to 4.9	44
VSP-C15-20L*-6TC		6						
VSP-C15-30L*-4TC		4	84.7		65.6	30	1.1 to 4.8	50
VSP-C15-30L*-6TC		6						
VSP-C15-40L*-4TC		4	97.7		78.6	40	1.0 to 4.5	55
VSP-C15-40L*-6TC		6						
VSP-C15-50L*-4TC		4	110.7		91.6	50	0.9 to 4.5	60
VSP-C15-50L*-6TC		6						

Dimensions (buffer, vacuum outlet, top, VSP-C, barbed fitting, without spring cover)

●VSP-C20 to to 40-□L*-4TC/6TC

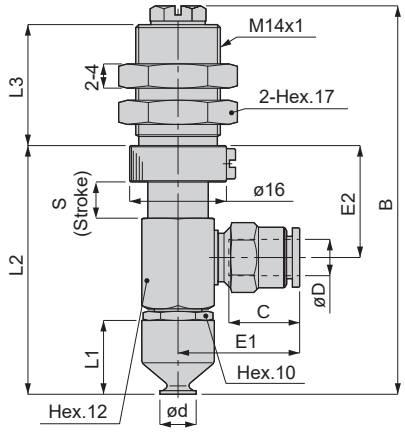


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-C20-20L*-4TC	20	4	74.1	15	55	20	1.5 to 4.9	44
VSP-C20-20L*-6TC		6						
VSP-C20-30L*-4TC		4	87.1		68	30	1.1 to 4.8	50
VSP-C20-30L*-6TC		6						
VSP-C20-40L*-4TC		4	110.1		81	40	1.0 to 4.5	55
VSP-C20-40L*-6TC		6						
VSP-C20-50L*-4TC		4	123.1		94	50	0.9 to 4.5	60
VSP-C20-50L*-6TC		6						
VSP-C30-20L*-4TC	30	4	74.1	15	55	20	1.5 to 4.9	44
VSP-C30-20L*-6TC		6						
VSP-C30-30L*-4TC		4	87.1		68	30	1.1 to 4.8	50
VSP-C30-30L*-6TC		6						
VSP-C30-40L*-4TC		4	110.1		81	40	1.0 to 4.5	55
VSP-C30-40L*-6TC		6						
VSP-C30-50L*-4TC		4	123.1		94	50	0.9 to 4.5	60
VSP-C30-50L*-6TC		6						
VSP-C40-20L*-4TC	40	4	74.1	15	55	20	1.5 to 4.9	44
VSP-C40-20L*-6TC		6						
VSP-C40-30L*-4TC		4	87.1		68	30	1.1 to 4.8	50
VSP-C40-30L*-6TC		6						
VSP-C40-40L*-4TC		4	110.1		81	40	1.0 to 4.5	55
VSP-C40-40L*-6TC		6						
VSP-C40-50L*-4TC		4	123.1		94	50	0.9 to 4.5	60
VSP-C40-50L*-6TC		6						

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting)

●VSP-D4 to 15L*-4/6
●VSP-D4 to 15-□L*-4/6

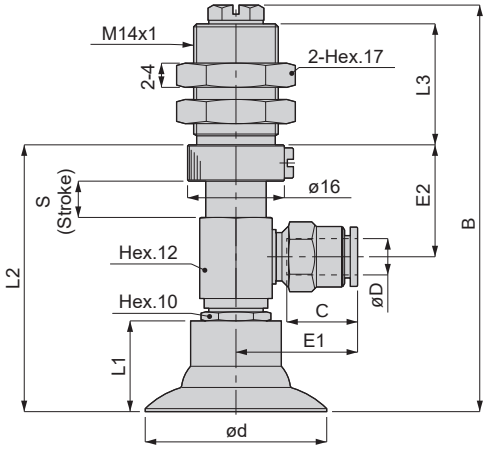


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D4L*-4	4	4	64.4	12.2	41.3	20	11.2	18.8	18.5	6	4.0 to 7.1	49
VSP-D4L*-6		6					11.9	20.1				50
VSP-D4-10L*-4		4	69.4		46.3		11.2	18.8	25	10	2.0 to 5.2	52
VSP-D4-10L*-6		6					11.9	20.1				53
VSP-D4-15L*-4		4	79.4		51.3	25	11.2	18.8	30	15	2.0 to 5.9	58
VSP-D4-20L*-6		6					11.9	20.1				59
VSP-D4-20L*-4		4	95.4		58.3	34	11.2	18.8	37	20	1.1 to 4.8	68
VSP-D4-20L*-6		6					11.9	20.1				69
VSP-D6L*-4	6	4	64.4	12.2	41.3	20	11.2	18.8	18.5	6	4.0 to 7.1	49
VSP-D6L*-6		6					11.9	20.1				50
VSP-D6-10L*-4		4	69.4		46.3		11.2	18.8	25	10	2.0 to 5.2	52
VSP-D6-10L*-6		6					11.9	20.1				53
VSP-D6-15L*-4		4	79.4		51.3	25	11.2	18.8	30	15	2.0 to 5.9	58
VSP-D6-20L*-6		6					11.9	20.1				59
VSP-D6-20L*-4		4	95.4		58.3	34	11.2	18.8	37	20	1.1 to 4.8	68
VSP-D6-20L*-6		6					11.9	20.1				69
VSP-D8L*-4	8	4	64.4	12.2	41.3	20	11.2	18.8	18.5	6	4.0 to 7.1	49
VSP-D8L*-6		6					11.9	20.1				50
VSP-D8-10L*-4		4	69.4		46.3		11.2	18.8	25	10	2.0 to 5.2	52
VSP-D8-10L*-6		6					11.9	20.1				53
VSP-D8-15L*-4		4	79.4		51.3	25	11.2	18.8	30	15	2.0 to 5.9	58
VSP-D8-20L*-6		6					11.9	20.1				59
VSP-D8-20L*-4		4	95.4		58.3	34	11.2	18.8	37	20	1.1 to 4.8	68
VSP-D8-20L*-6		6					11.9	20.1				69
VSP-D10L*-4	10	4	66.2	14	43.1	20	11.2	18.8	18.5	6	4.0 to 7.1	50
VSP-D10L*-6		6					11.9	20.1				51
VSP-D10-10L*-4		4	71.2		48.1		11.2	18.8	25	10	2.0 to 5.2	53
VSP-D10-10L*-6		6					11.9	20.1				54
VSP-D10-15L*-4		4	81.2		53.1	25	11.2	18.8	30	15	2.0 to 5.9	59
VSP-D10-20L*-6		6					11.9	20.1				60
VSP-D10-20L*-4		4	97.2		60.1	34	11.2	18.8	37	20	1.1 to 4.8	69
VSP-D10-20L*-6		6					11.9	20.1				70
VSP-D15L*-4	15	4	66.2	14	43.1	20	11.2	18.8	18.5	6	4.0 to 7.1	50
VSP-D15L*-6		6					11.9	20.1				51
VSP-D15-10L*-4		4	71.2		48.1		11.2	18.8	25	10	2.0 to 5.2	53
VSP-D15-10L*-6		6					11.9	20.1				54
VSP-D15-15L*-4		4	81.2		53.1	25	11.2	18.8	30	15	2.0 to 5.9	59
VSP-D15-20L*-6		6					11.9	20.1				60
VSP-D15-20L*-4		4	97.2		60.1	34	11.2	18.8	37	20	1.1 to 4.8	69
VSP-D15-20L*-6		6					11.9	20.1				70

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting)

●VSP-D20 to 40L*-4/6
●VSP-D20 to 40-□L*-4/6

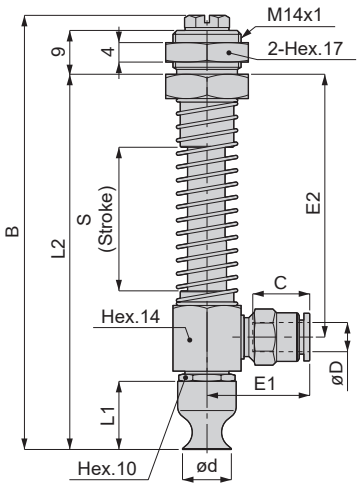


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D20L*-4	20	4	67.1	15	44	20	11.2	18.8	18.5	6	7.0 to 12.6	55
VSP-D20L*-6		6					11.9	20.1				56
VSP-D20-10L*-4		4	73.1		50		11.2	18.8	24.5	10	3.3 to 10.0	58
VSP-D20-10L*-6		6					11.9	20.1				59
VSP-D20-15L*-4		4	83.1		55	25	11.2	18.8	29.5	15	3.3 to 10.4	63
VSP-D20-15L*-6		6					11.9	20.1				64
VSP-D20-20L*-4		4	99.1		62	34	11.2	18.8	36.5	20	2.0 to 8.7	73
VSP-D20-20L*-6		6					11.9	20.1				74
VSP-D30L*-4	30	4	67.1	15	44	20	11.2	18.8	18.5	6	7.0 to 12.6	58
VSP-D30L*-6		6					11.9	20.1				59
VSP-D30-10L*-4		4	73.1		50		11.2	18.8	24.5	10	3.3 to 10.0	61
VSP-D30-10L*-6		6					11.9	20.1				62
VSP-D30-15L*-4		4	83.1		55	25	11.2	18.8	29.5	15	3.3 to 10.4	66
VSP-D30-15L*-6		6					11.9	20.1				67
VSP-D30-20L*-4		4	99.1		62	34	11.2	18.8	36.5	20	2.0 to 8.7	76
VSP-D30-20L*-6		6					11.9	20.1				77
VSP-D40L*-4	40	4	67.1	15	44	20	11.2	18.8	18.5	6	7.0 to 12.6	59
VSP-D40L*-6		6					11.9	20.1				60
VSP-D40-10L*-4		4	73.1		50		11.2	18.8	24.5	10	3.3 to 10.0	62
VSP-D40-10L*-6		6					11.9	20.1				63
VSP-D40-15L*-4		4	83.1		55	25	11.2	18.8	29.5	15	3.3 to 10.4	67
VSP-D40-15L*-6		6					11.9	20.1				68
VSP-D40-20L*-4		4	99.1		62	34	11.2	18.8	36.5	20	2.0 to 8.7	77
VSP-D40-20L*-6		6					11.9	20.1				78

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting, without spring cover)

●VSP-D4 to 15-□L*-4C/6C

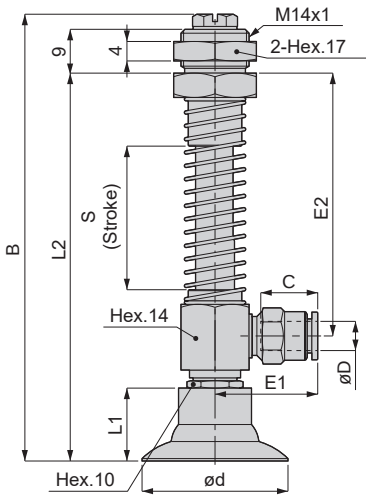


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D4-20L*-4C	4	4	74.4	12.2	62.3	11.2	19.8	40.5	20	1.5 to 4.9	71
VSP-D4-20L*-6C		6				11.9	21.1				72
VSP-D4-30L*-4C		4	87.4		75.3	11.2	19.8	53.5	30	1.1 to 4.8	77
VSP-D4-30L*-6C		6				11.9	21.1				78
VSP-D4-40L*-4C		4	100.4		88.3	11.2	19.8	66.5	40	1.0 to 4.5	84
VSP-D4-40L*-6C		6				11.9	21.1				85
VSP-D4-50L*-4C		4	113.4		101.3	11.2	19.8	79.5	50	0.9 to 4.5	91
VSP-D4-50L*-6C		6				11.9	21.1				92
VSP-D6-20L*-4C	6	4	74.4	12.2	62.3	11.2	19.8	40.5	20	1.5 to 4.9	71
VSP-D6-20L*-6C		6				11.9	21.1				72
VSP-D6-30L*-4C		4	87.4		75.3	11.2	19.8	53.5	30	1.1 to 4.8	77
VSP-D6-30L*-6C		6				11.9	21.1				78
VSP-D6-40L*-4C		4	100.4		88.3	11.2	19.8	66.5	40	1.0 to 4.5	84
VSP-D6-40L*-6C		6				11.9	21.1				85
VSP-D6-50L*-4C		4	113.4		101.3	11.2	19.8	79.5	50	0.9 to 4.5	91
VSP-D6-50L*-6C		6				11.9	21.1				92
VSP-D8-20L*-4C	8	4	74.4	12.2	62.3	11.2	19.8	40.5	20	1.5 to 4.9	71
VSP-D8-20L*-6C		6				11.9	21.1				72
VSP-D8-30L*-4C		4	87.4		75.3	11.2	19.8	53.5	30	1.1 to 4.8	77
VSP-D8-30L*-6C		6				11.9	21.1				78
VSP-D8-40L*-4C		4	100.4		88.3	11.2	19.8	66.5	40	1.0 to 4.5	84
VSP-D8-40L*-6C		6				11.9	21.1				85
VSP-D8-50L*-4C		4	113.4		101.3	11.2	19.8	79.5	50	0.9 to 4.5	91
VSP-D8-50L*-6C		6				11.9	21.1				92
VSP-D10-20L*-4C	10	4	76.2	14	64.1	11.2	19.8	40.5	20	1.5 to 4.9	71
VSP-D10-20L*-6C		6				11.9	21.1				72
VSP-D10-30L*-4C		4	89.2		77.1	11.2	19.8	53.5	30	1.1 to 4.8	77
VSP-D10-30L*-6C		6				11.9	21.1				78
VSP-D10-40L*-4C		4	102.2		90.1	11.2	19.8	66.5	40	1.0 to 4.5	84
VSP-D10-40L*-6C		6				11.9	21.1				85
VSP-D10-50L*-4C		4	115.2		103.1	11.2	19.8	79.5	50	0.9 to 4.5	91
VSP-D10-50L*-6C		6				11.9	21.1				92
VSP-D15-20L*-4C	15	4	76.2	14	64.1	11.2	19.8	40.5	20	1.5 to 4.9	71
VSP-D15-20L*-6C		6				11.9	21.1				72
VSP-D15-30L*-4C		4	89.2		77.1	11.2	19.8	53.5	30	1.1 to 4.8	77
VSP-D15-30L*-6C		6				11.9	21.1				78
VSP-D15-40L*-4C		4	102.2		90.1	11.2	19.8	66.5	40	1.0 to 4.5	84
VSP-D15-40L*-6C		6				11.9	21.1				85
VSP-D15-50L*-4C		4	115.2		103.1	11.2	19.8	79.5	50	0.9 to 4.5	91
VSP-D15-50L*-6C		6				11.9	21.1				92

Dimensions (buffer, vacuum outlet, side, VSP-D, push-in fitting, without spring cover)

●VSP-D20 to to 40-□L*-4C/6C

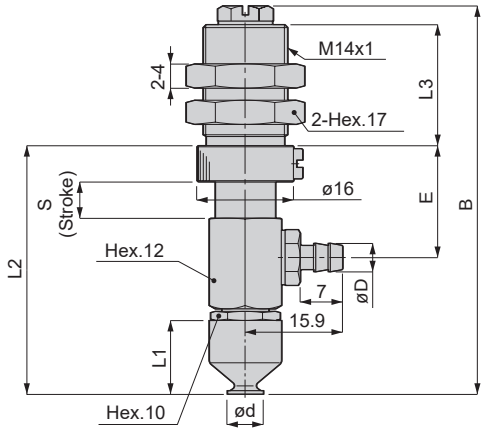


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D20-20L*-4C	20	4	78.6	15	66.5	11.2	19.8	41	20	1.5 to 4.9	72
VSP-D20-20L*-6C		6				11.9	21.1				73
VSP-D20-30L*-4C		4	91.6		79.5	11.2	19.8	54	30	1.1 to 4.8	79
VSP-D20-30L*-6C		6				11.9	21.1				80
VSP-D20-40L*-4C		4	104.6		92.5	11.2	19.8	67	40	1.0 to 4.5	84
VSP-D20-40L*-6C		6				11.9	21.1				85
VSP-D20-50L*-4C		4	117.6		105.5	11.2	19.8	80	50	0.9 to 4.5	92
VSP-D20-50L*-6C		6				11.9	21.1				93
VSP-D30-20L*-4C	30	4	78.6	15	66.5	11.2	19.8	41	20	1.5 to 4.9	75
VSP-D30-20L*-6C		6				11.9	21.1				76
VSP-D30-30L*-4C		4	91.6		79.5	11.2	19.8	54	30	1.1 to 4.8	82
VSP-D30-30L*-6C		6				11.9	21.1				83
VSP-D30-40L*-4C		4	104.6		92.5	11.2	19.8	67	40	1.0 to 4.5	87
VSP-D30-40L*-6C		6				11.9	21.1				88
VSP-D30-50L*-4C		4	117.6		105.5	11.2	19.8	80	50	0.9 to 4.5	95
VSP-D30-50L*-6C		6				11.9	21.1				96
VSP-D40-20L*-4C	40	4	78.6	15	66.5	11.2	19.8	41	20	1.5 to 4.9	79
VSP-D40-20L*-6C		6				11.9	21.1				80
VSP-D40-30L*-4C		4	91.6		79.5	11.2	19.8	54	30	1.1 to 4.8	86
VSP-D40-30L*-6C		6				11.9	21.1				87
VSP-D40-40L*-4C		4	104.6		92.5	11.2	19.8	67	40	1.0 to 4.5	91
VSP-D40-40L*-6C		6				11.9	21.1				92
VSP-D40-50L*-4C		4	117.6		105.5	11.2	19.8	80	50	0.9 to 4.5	99
VSP-D40-50L*-6C		6				11.9	21.1				100

Dimensions (buffer, vacuum outlet, side, VSP-D, barbed fitting)

●VSP-D4 to 15L*-4T/6T
●VSP-D4 to 15-□L*-4T/6T

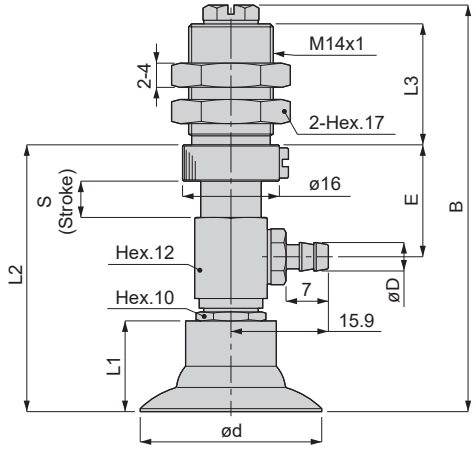


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	E	Stroke S	Spring force (N)	Weight (g)
VSP-D4L*-4T	4	2.5	64.4	12.2	41.3	20	18.5	6	4.0 to 7.1	48
VSP-D4L*-6T		4								
VSP-D4-10L*-4T		2.5	69.4		46.3		25	10	2.0 to 5.2	49
VSP-D4-10L*-6T		4								
VSP-D4-15L*-4T		2.5	79.4		51.3	25	30	15	2.0 to 5.9	55
VSP-D4-15L*-6T		4								
VSP-D4-20L*-4T		2.5	95.4		58.3	34	37	20	1.1 to 4.8	65
VSP-D4-20L*-6T		4								
VSP-D6L*-4T	6	2.5	64.4	12.2	41.3	20	18.5	6	4.0 to 7.1	49
VSP-D6L*-6T		4								
VSP-D6-10L*-4T		2.5	69.4		46.3		25	10	2.0 to 5.2	50
VSP-D6-10L*-6T		4								
VSP-D6-15L*-4T		2.5	79.4		51.3	25	30	15	2.0 to 5.9	56
VSP-D6-15L*-6T		4								
VSP-D6-20L*-4T		2.5	95.4		58.3	34	37	20	1.1 to 4.8	66
VSP-D6-20L*-6T		4								
VSP-D8L*-4T	8	2.5	64.4	12.2	41.3	20	18.5	6	4.0 to 7.1	49
VSP-D8L*-6T		4								
VSP-D8-10L*-4T		2.5	69.4		46.3		25	10	2.0 to 5.2	50
VSP-D8-10L*-6T		4								
VSP-D8-15L*-4T		2.5	79.4		51.3	25	30	15	2.0 to 5.9	56
VSP-D8-15L*-6T		4								
VSP-D8-20L*-4T		2.5	95.4		58.3	34	37	20	1.1 to 4.8	66
VSP-D8-20L*-6T		4								
VSP-D10L*-4T	10	2.5	66.2	14	43.1	20	18.5	6	4.0 to 7.1	49
VSP-D10L*-6T		4								
VSP-D10-10L*-4T		2.5	71.2		48.1		25	10	2.0 to 5.2	50
VSP-D10-10L*-6T		4								
VSP-D10-15L*-4T		2.5	81.2		53.1	25	30	15	2.0 to 5.9	56
VSP-D10-15L*-6T		4								
VSP-D10-20L*-4T		2.5	97.2		60.1	34	37	20	1.1 to 4.8	66
VSP-D10-20L*-6T		4								
VSP-D15L*-4T	15	2.5	66.2	14	43.1	20	18.5	6	4.0 to 7.1	49
VSP-D15L*-6T		4								
VSP-D15-10L*-4T		2.5	71.2		48.1		25	10	2.0 to 5.2	50
VSP-D15-10L*-6T		4								
VSP-D15-15L*-4T		2.5	81.2		53.1	25	30	15	2.0 to 5.9	56
VSP-D15-15L*-6T		4								
VSP-D15-20L*-4T		2.5	97.2		60.1	34	37	20	1.1 to 4.8	66
VSP-D15-20L*-6T		4								

Dimensions (buffer, vacuum outlet, side, VSP-D, barbed fitting)

●VSP-D20 to 40L*-4T/6T
●VSP-D20 to 40-□L*-4T/6T

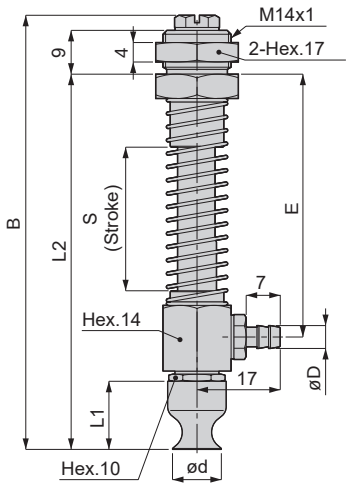


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D20L*-4T	20	2.5	67.1	15	44	20	18.5	6	7.0 to 12.6	53
VSP-D20L*-6T		4								
VSP-D20-10L*-4T		2.5	73.1		50		24.5	10	3.3 to 10.0	54
VSP-D20-10L*-6T		4								
VSP-D20-15L*-4T		2.5	83.1		55	25	29.5	15	3.3 to 10.4	61
VSP-D20-15L*-6T		4								
VSP-D20-20L*-4T		2.5	99.1		62	34	36.5	20	2.0 to 8.7	71
VSP-D20-20L*-6T		4								
VSP-D30L*-4T	30	2.5	67.1	15	44	20	18.5	6	7.0 to 12.6	56
VSP-D30L*-6T		4								
VSP-D30-10L*-4T		2.5	73.1		50		24.5	10	3.3 to 10.0	57
VSP-D30-10L*-6T		4								
VSP-D30-15L*-4T		2.5	83.1		55	25	29.5	15	3.3 to 10.4	64
VSP-D30-15L*-6T		4								
VSP-D30-20L*-4T		2.5	99.1		62	34	36.5	20	2.0 to 8.7	74
VSP-D30-20L*-6T		4								
VSP-D40L*-4T	40	2.5	67.1	15	44	20	18.5	6	7.0 to 12.6	61
VSP-D40L*-6T		4								
VSP-D40-10L*-4T		2.5	73.1		50		24.5	10	3.3 to 10.0	62
VSP-D40-10L*-6T		4								
VSP-D40-15L*-4T		2.5	83.1		55	25	29.5	15	3.3 to 10.4	69
VSP-D40-15L*-6T		4								
VSP-D40-20L*-4T		2.5	99.1		62	34	36.5	20	2.0 to 8.7	79
VSP-D40-20L*-6T		4								

Dimensions (buffer, vacuum outlet, side, VSP-D, barbed fitting, without spring cover)

●VSP-D4 to 15-□L*-4TC/6TC

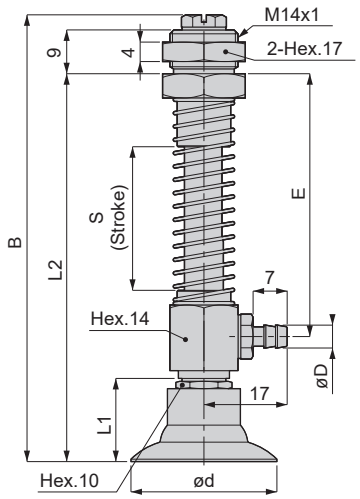


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-D4-20L*-4TC	4	2.5	74.4	12.2	62.3	40.5	20	1.5 to 4.9	67
VSP-D4-20L*-6TC		4							
VSP-D4-30L*-4TC		2.5	87.4		75.3	53.5	30	1.1 to 4.8	74
VSP-D4-30L*-6TC		4							
VSP-D4-40L*-4TC		2.5	100.4		88.3	66.5	40	1.0 to 4.5	81
VSP-D4-40L*-6TC		4							
VSP-D4-50L*-4TC		2.5	113.4		101.3	79.5	50	0.9 to 4.5	87
VSP-D4-50L*-6TC		4							
VSP-D6-20L*-4TC	6	2.5	74.4	12.2	62.3	40.5	20	1.5 to 4.9	68
VSP-D6-20L*-6TC		4							
VSP-D6-30L*-4TC		2.5	87.4		75.3	53.5	30	1.1 to 4.8	75
VSP-D6-30L*-6TC		4							
VSP-D6-40L*-4TC		2.5	100.4		88.3	66.5	40	1.0 to 4.5	82
VSP-D6-40L*-6TC		4							
VSP-D6-50L*-4TC		2.5	113.4		101.3	79.5	50	0.9 to 4.5	88
VSP-D6-50L*-6TC		4							
VSP-D8-20L*-4TC	8	2.5	74.4	12.2	62.3	40.5	20	1.5 to 4.9	68
VSP-D8-20L*-6TC		4							
VSP-D8-30L*-4TC		2.5	87.4		75.3	53.5	30	1.1 to 4.8	75
VSP-D8-30L*-6TC		4							
VSP-D8-40L*-4TC		2.5	100.4		88.3	66.5	40	1.0 to 4.5	82
VSP-D8-40L*-6TC		4							
VSP-D8-50L*-4TC		2.5	113.4		101.3	79.5	50	0.9 to 4.5	88
VSP-D8-50L*-6TC		4							
VSP-D10-20L*-4TC	10	2.5	76.2	14	64.1	40.5	20	1.5 to 4.9	68
VSP-D10-20L*-6TC		4							
VSP-D10-30L*-4TC		2.5	89.4		77.1	53.5	30	1.1 to 4.8	75
VSP-D10-30L*-6TC		4							
VSP-D10-40L*-4TC		2.5	102.4		90.1	66.5	40	1.0 to 4.5	82
VSP-D10-40L*-6TC		4							
VSP-D10-50L*-4TC		2.5	115.4		103.1	79.5	50	0.9 to 4.5	88
VSP-D10-50L*-6TC		4							
VSP-D15-20L*-4TC	15	2.5	76.2	14	64.1	40.5	20	1.5 to 4.9	68
VSP-D15-20L*-6TC		4							
VSP-D15-30L*-4TC		2.5	89.4		77.1	53.5	30	1.1 to 4.8	75
VSP-D15-30L*-6TC		4							
VSP-D15-40L*-4TC		2.5	102.4		90.1	66.5	40	1.0 to 4.5	82
VSP-D15-40L*-6TC		4							
VSP-D15-50L*-4TC		2.5	115.4		103.1	79.5	50	0.9 to 4.5	88
VSP-D15-50L*-6TC		4							

Dimensions (buffer, vacuum outlet, side, VSP-D, barbed fitting, without spring cover)

●VSP-D20 to 50-□L*-4TC/6TC

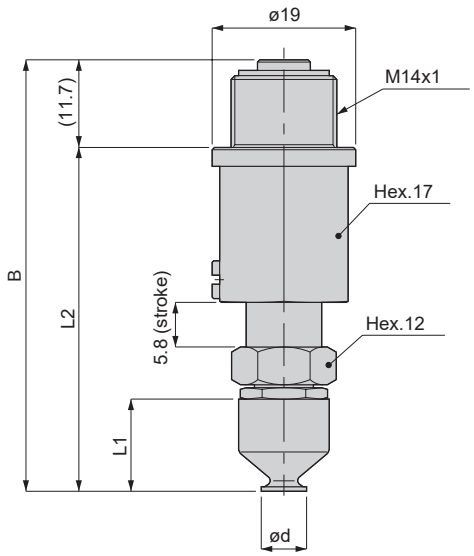


Unit: mm

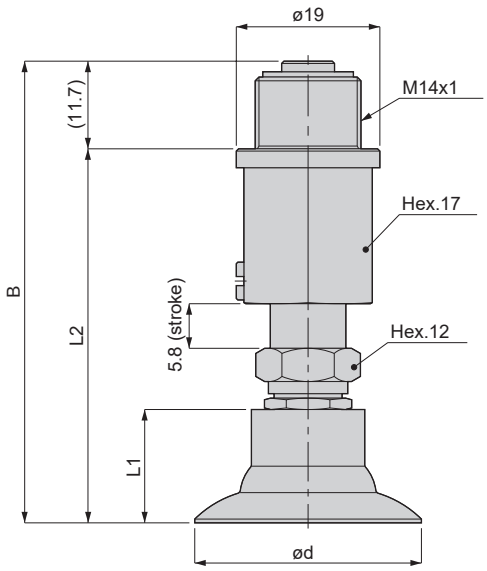
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-D20-20L*-4TC	20	4	78.6	15	66.5	41	20	1.5 to 4.9	70
VSP-D20-20L*-6TC		6							
VSP-D20-30L*-4TC		4	91.6		79.5	54	30	1.1 to 4.8	77
VSP-D20-30L*-6TC		6							
VSP-D20-40L*-4TC		4	104.6		92.5	67	40	1.0 to 4.5	84
VSP-D20-40L*-6TC		6							
VSP-D20-50L*-4TC		4	117.6		105.5	80	50	0.9 to 4.5	90
VSP-D20-50L*-6TC		6							
VSP-D30-20L*-4TC	30	4	78.6	15	66.5	41	20	1.5 to 4.9	70
VSP-D30-20L*-6TC		6							
VSP-D30-30L*-4TC		4	91.6		79.5	54	30	1.1 to 4.8	77
VSP-D30-30L*-6TC		6							
VSP-D30-40L*-4TC		4	104.6		92.5	67	40	1.0 to 4.5	84
VSP-D30-40L*-6TC		6							
VSP-D30-50L*-4TC		4	117.6		105.5	80	50	0.9 to 4.5	90
VSP-D30-50L*-6TC		6							
VSP-D40-20L*-4TC	40	4	78.6	15	66.5	41	20	1.5 to 4.9	70
VSP-D40-20L*-6TC		6							
VSP-D40-30L*-4TC		4	91.6		79.5	54	30	1.1 to 4.8	77
VSP-D40-30L*-6TC		6							
VSP-D40-40L*-4TC		4	104.6		92.5	67	40	1.0 to 4.5	84
VSP-D40-40L*-6TC		6							
VSP-D40-50L*-4TC		4	117.6		105.5	80	50	0.9 to 4.5	90
VSP-D40-50L*-6TC		6							

Dimensions (direct mounting, buffer, VSP-F male thread)

●VSP-F4 to 15L*



●VSP-F20 to 40L*

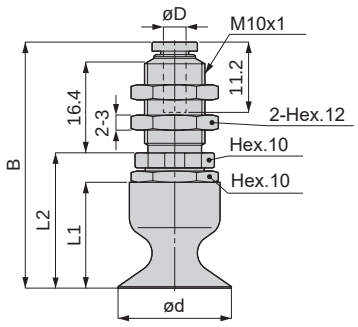


Unit: mm

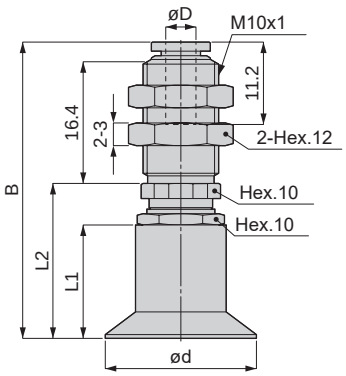
Model No.	Pad diameter ød	B	L1	L2	Spring force (N)	Weight (g)
VSP-F4L*	4	57.3	12.2	45.6	7.9 to 15	58
VSP-F6L*	6	57.3	12.2	45.6	7.9 to 15	58
VSP-F8L*	8	57.3	12.2	45.6	7.9 to 15	58
VSP-F10L*	10	59.1	14	47.4	7.9 to 15	59
VSP-F15L*	15	59.1	14	47.4	7.9 to 15	59
VSP-F20L*	20	61.1	15	49.5	7.9 to 15	63
VSP-F30L*	30	61.1	15	49.5	7.9 to 15	66
VSP-F40L*	40	61.1	15	49.5	7.9 to 15	72

Dimensions (compact, fixed, vacuum outlet, top, VSP-MA, push-in fitting)

●VSP-MA4 to 15L*-4



●VSP-MA20 to 40L*-4

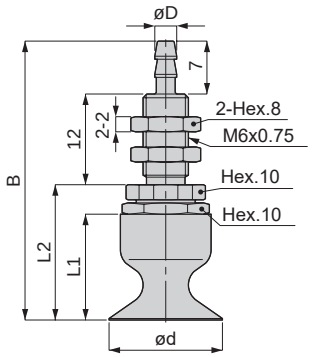


Unit: mm

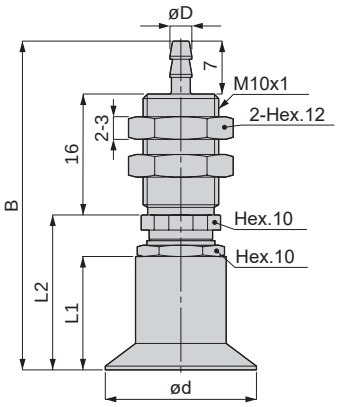
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Weight (g)
VSP-MA4L*-4	4	4	35.3	12.2	16.3	8.7
VSP-MA6L*-4	6	4	35.3	12.2	16.3	8.6
VSP-MA8L*-4	8	4	35.3	12.2	16.3	8.5
VSP-MA10L*-4	10	4	37.1	14	18.1	8.6
VSP-MA15L*-4	15	4	37.1	14	18.1	8.6
VSP-MA20L*-4	20	4	39.6	15	20.6	11
VSP-MA30L*-4	30	4	39.6	15	20.6	13
VSP-MA40L*-4	40	4	39.6	15	20.6	19

Dimensions (compact fixed, vacuum outlet side VSP-MA, barbed fitting)

●VSP-MA4 to 15L*-4T



●VSP-MA20 to 40L*-4T/6T

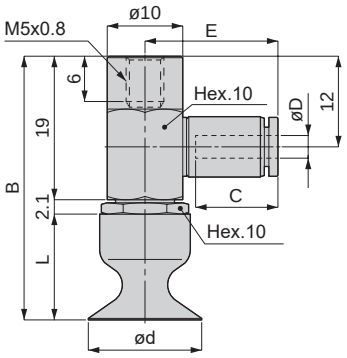


Unit: mm

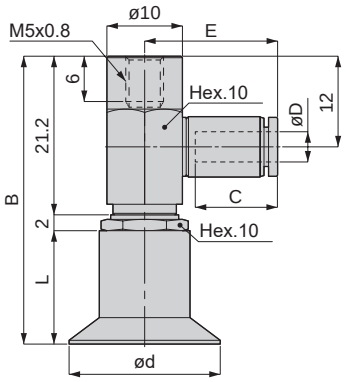
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Weight (g)
VSP-MA4L*-4T	4	2.5	35.3	12.2	16.3	5.9
VSP-MA6L*-4T	6	2.5	35.3	12.2	16.3	5.8
VSP-MA8L*-4T	8	2.5	35.3	12.2	16.3	5.7
VSP-MA10L*-4T	10	2.5	37.1	14	18.1	5.8
VSP-MA15L*-4T	15	2.5	37.1	14	18.1	5.8
VSP-MA20L*-4T	20	2.5	43.6	15	20.6	11
VSP-MA20L*-6T		4				
VSP-MA30L*-4T	30	2.5	43.6	15	20.6	13
VSP-MA30L*-6T		4				
VSP-MA40L*-4T	40	2.5	43.6	15	20.6	19
VSP-MA40L*-6T		4				

Dimensions (compact, fixed, vacuum outlet, lateral, VSP-MB, push-in fitting)

●VSP-MB4 to 15L*-2/4/6



●VSP-MB20 to 40L*-2/4/6

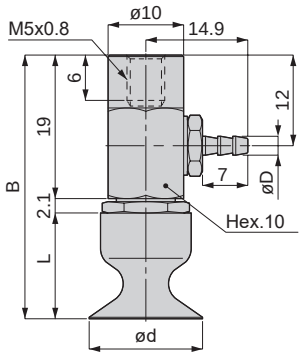


Unit: mm

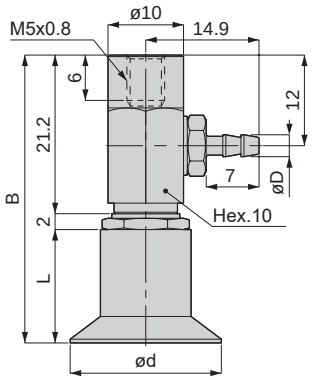
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-MB4L*-2	4	1.8	33.3	12.2	8.4	13.7	10
VSP-MB4L*-4		4			11.2	17.8	11
VSP-MB4L*-6		6			11.9	19.6	12
VSP-MB6L*-2	6	1.8	33.3	12.2	8.4	13.7	10
VSP-MB6L*-4		4			11.2	17.8	11
VSP-MB6L*-6		6			11.9	19.6	12
VSP-MB8L*-2	8	1.8	33.3	12.2	8.4	13.7	10
VSP-MB8L*-4		4			11.2	17.8	11
VSP-MB8L*-6		6			11.9	19.6	12
VSP-MB10L*-2	10	1.8	35.1	14	8.4	13.7	10
VSP-MB10L*-4		4			11.2	17.8	11
VSP-MB10L*-6		6			11.9	19.6	12
VSP-MB15L*-2	15	1.8	35.1	14	8.4	13.7	10
VSP-MB15L*-4		4			11.2	17.8	11
VSP-MB15L*-6		6			11.9	19.6	12
VSP-MB20L*-2	20	1.8	38.2	15	8.4	13.7	11
VSP-MB20L*-4		4			11.2	17.8	12
VSP-MB20L*-6		6			11.9	19.6	13
VSP-MB30L*-2	30	1.8	38.2	15	8.4	13.7	13
VSP-MB30L*-4		4			11.2	17.8	14
VSP-MB30L*-6		6			11.9	19.6	15
VSP-MB40L*-2	40	1.8	38.2	15	8.4	13.7	19
VSP-MB40L*-4		4			11.2	17.8	20
VSP-MB40L*-6		6			11.9	19.6	21

Dimensions (compact, fixed, vacuum outlet, side, VSP-MB, barbed fitting)

●VSP-MB4 to 15L*-4T/6T



●VSP-MB20 to 40L*-4T/6T

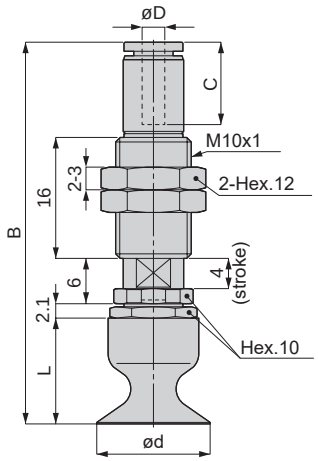


Unit: mm

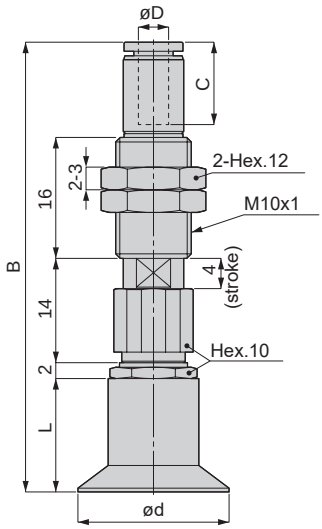
Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-MB4L*-4T	4	2.5	33.3	12.2	9
VSP-MB4L*-6T		4			
VSP-MB6L*-4T	6	2.5	33.3	12.2	8.9
VSP-MB6L*-6T		4			
VSP-MB8L*-4T	8	2.5	33.3	12.2	8.8
VSP-MB8L*-6T		4			
VSP-MB10L*-4T	10	2.5	35.1	14	8.9
VSP-MB10L*-6T		4			
VSP-MB15L*-4T	15	2.5	35.1	14	8.9
VSP-MB15L*-6T		4			
VSP-MB20L*-4T	20	2.5	38.2	15	11
VSP-MB20L*-6T		4			
VSP-MB30L*-4T	30	2.5	38.2	15	13
VSP-MB30L*-6T		4			
VSP-MB40L*-4T	40	2.5	38.2	15	19
VSP-MB40L*-6T		4			

Dimensions (compact, buffer, vacuum outlet, top, VSP-MC, push-in fitting)

●VSP-MC4 to 15L*-2/4



●VSP-MC20 to 40L*-2/4

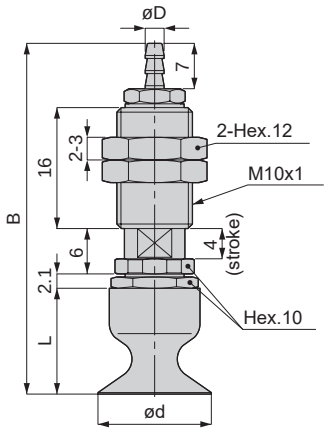


Unit: mm

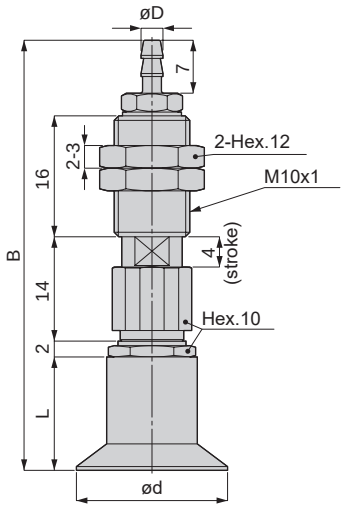
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	Spring force (N)	Weight (g)
VSP-MC4L*-2	4	1.8	45.2	12.2	8.4	1 to 1.3	17
VSP-MC4L*-4		4	49.3		11.2		18
VSP-MC6L*-2	6	1.8	45.2	12.2	8.4	1 to 1.3	17
VSP-MC6L*-4		4	49.3		11.2		18
VSP-MC8L*-2	8	1.8	45.2	12.2	8.4	1 to 1.3	17
VSP-MC8L*-4		4	49.3		11.2		18
VSP-MC10L*-2	10	1.8	47	14	8.4	1 to 1.3	17
VSP-MC10L*-4		4	51.1		11.2		18
VSP-MC15L*-2	15	1.8	47	14	8.4	1 to 1.3	17
VSP-MC15L*-4		4	51.1		11.2		18
VSP-MC20L*-2	20	1.8	55.9	15	8.4	1 to 1.3	22
VSP-MC20L*-4		4	60		11.2		23
VSP-MC30L*-2	30	1.8	55.9	15	8.4	1 to 1.3	22
VSP-MC30L*-4		4	60		11.2		23
VSP-MC40L*-2	40	1.8	55.9	15	8.4	1 to 1.3	28
VSP-MC40L*-4		4	60		11.2		29

Dimensions (compact buffer, vacuum outlet top VSP-MC, barbed fitting)

●VSP-MC4 to 15L*-4T/6T



●VSP-MC20 to 40L*-4T/6T

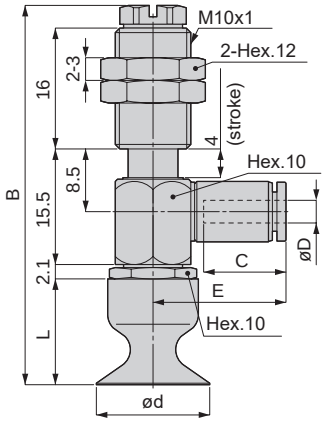


Unit: mm

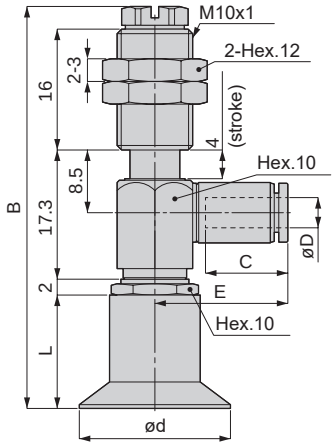
Model No.	Pad diameter ød	Bore size øD	B	L	Spring force (N)	Weight (g)
VSP-MC4L*-4T	4	2.5	46.4	12.2	0.5 to 0.6	17
VSP-MC4L*-6T		4				
VSP-MC6L*-4T	6	2.5	46.4	12.2	0.5 to 0.6	17
VSP-MC6L*-6T		4				
VSP-MC8L*-4T	8	2.5	46.4	12.2	0.5 to 0.6	17
VSP-MC8L*-6T		4				
VSP-MC10L*-4T	10	2.5	48.2	14	0.5 to 0.6	17
VSP-MC10L*-6T		4				
VSP-MC15L*-4T	15	2.5	48.2	14	0.5 to 0.6	17
VSP-MC15L*-6T		4				
VSP-MC20L*-4T	20	2.5	57.1	15	1 to 1.3	22
VSP-MC20L*-6T		4				
VSP-MC30L*-4T	30	2.5	57.1	15	1 to 1.3	24
VSP-MC30L*-6T		4				
VSP-MC40L*-4T	40	2.5	57.1	15	1 to 1.3	30
VSP-MC40L*-6T		4				

Dimensions (compact buffer, vacuum outlet side VSP-MD, push-in fitting)

●VSP-MD4 to 15L*-2/4/6



●VSP-MD20 to 40L*-2/4/6

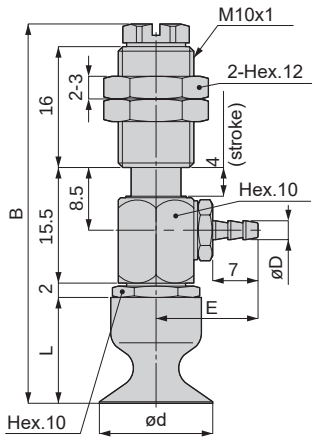


Unit: mm

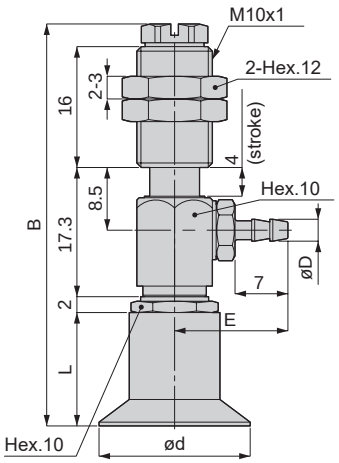
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Spring force (N)	Weight (g)
VSP-MD4L*-2	4	1.8	48.8	12.2	8.4	13.6	1 to 1.3	25
VSP-MD4L*-4		4			11.2	17.7		26
VSP-MD4L*-6		6			11.9	19.5		27
VSP-MD6L*-2	6	1.8	48.8	12.2	8.4	13.6	1 to 1.3	25
VSP-MD6L*-4		4			11.2	17.7		26
VSP-MD6L*-6		6			11.9	19.5		27
VSP-MD8L*-2	8	1.8	48.8	12.2	8.4	13.6	1 to 1.3	25
VSP-MD8L*-4		4			11.2	17.7		26
VSP-MD8L*-6		6			11.9	19.5		27
VSP-MD10L*-2	10	1.8	50.6	14	8.4	13.6	1 to 1.3	25
VSP-MD10L*-4		4			11.2	17.7		26
VSP-MD10L*-6		6			11.9	19.5		27
VSP-MD15L*-2	15	1.8	50.6	14	8.4	13.6	1 to 1.3	25
VSP-MD15L*-4		4			11.2	17.7		26
VSP-MD15L*-6		6			11.9	19.5		27
VSP-MD20L*-2	20	1.8	53.3	15	8.4	13.6	1 to 1.3	26
VSP-MD20L*-4		4			11.2	17.7		27
VSP-MD20L*-6		6			11.9	19.5		28
VSP-MD30L*-2	30	1.8	53.3	15	8.4	13.6	1 to 1.3	27
VSP-MD30L*-4		4			11.2	17.7		28
VSP-MD30L*-6		6			11.9	19.5		29
VSP-MD40L*-2	40	1.8	53.3	15	8.4	13.6	1 to 1.3	33
VSP-MD40L*-4		4			11.2	17.7		34
VSP-MD40L*-6		6			11.9	19.5		35

Dimensions (compact buffer, vacuum outlet side VSP-MD, barbed fitting)

●VSP-MD4 to 15L*-4T/6T



●VSP-MD20 to 40L*-4T/6T

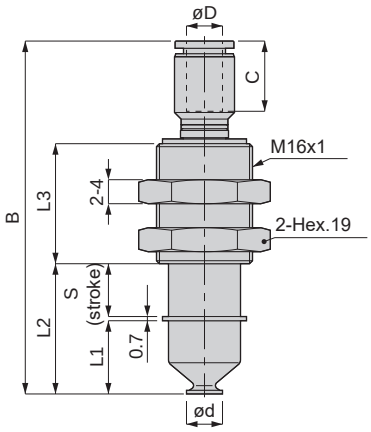


Unit: mm

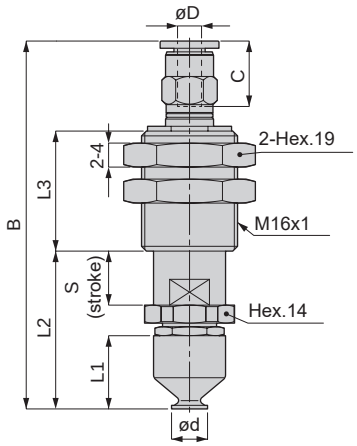
Model No.	Pad diameter ød	Bore size øD	B	L	E	Spring force (N)	Weight (g)
VSP-MD4L*-4T	4	2.5	48.8	12.2	14.8	1 to 1.3	24
VSP-MD4L*-6T		4					
VSP-MD6L*-4T	6	2.5	48.8	12.2	14.8	1 to 1.3	24
VSP-MD6L*-6T		4					
VSP-MD8L*-4T	8	2.5	48.8	12.2	14.8	1 to 1.3	24
VSP-MD8L*-6T		4					
VSP-MD10L*-4T	10	2.5	50.6	14	14.8	1 to 1.3	24
VSP-MD10L*-6T		4					
VSP-MD15L*-4T	15	2.5	50.6	14	14.8	1 to 1.3	24
VSP-MD15L*-6T		4					
VSP-MD20L*-4T	20	2.5	53.3	15	14.8	1 to 1.3	26
VSP-MD20L*-6T		4					
VSP-MD30L*-4T	30	2.5	53.3	15	14.8	1 to 1.3	27
VSP-MD30L*-6T		4					
VSP-MD40L*-4T	40	2.5	53.3	15	14.8	1 to 1.3	33
VSP-MD40L*-6T		4					

Dimensions (low back buffer, vacuum outlet top VSP-HC, push-in fitting)

●VSP-HC4L*-2/4/6



●VSP-HC4-□L*-2/4/6

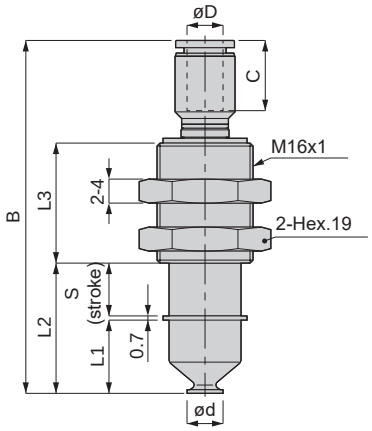


Unit: mm

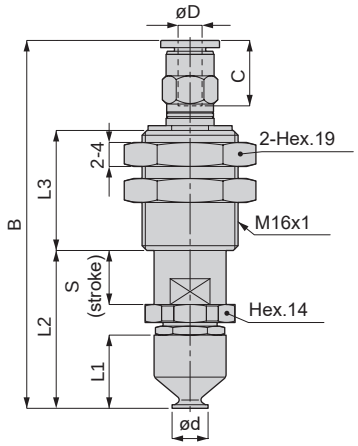
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC4L*-2	4	1.8	53.1	12.2	21.9	20	8.4	9	0.9 to 2.7	19
VSP-HC4L*-4		4	57.1				11.2			20
VSP-HC4L*-6		6	58.4				11.9			21
VSP-HC4-10L*-2		1.8	59.9		27.3	21.5	8.4	10	1.0 to 2.4	24
VSP-HC4-10L*-4		4	64				11.2			25
VSP-HC4-10L*-6		6	65.3				11.9			26
VSP-HC4-15L*-2		1.8	69.9		32.3	26.5	8.4	15	1.0 to 2.7	26
VSP-HC4-15L*-4		4	74				11.2			27
VSP-HC4-15L*-6		6	75.3				11.9			28
VSP-HC4-20L*-2		1.8	79.9		37.3	31.5	8.4	20	1.0 to 3.0	28
VSP-HC4-20L*-4		4	84				11.2			29
VSP-HC4-20L*-6		6	85.3				11.9			30
VSP-HC4-25L*-2		1.8	90.4		42.3	37	8.4	25	1.0 to 3.0	30
VSP-HC4-25L*-4		4	94.5				11.2			31
VSP-HC4-25L*-6		6	95.8				11.9			32
VSP-HC4-30L*-2		1.8	101.4		47.3	43	8.4	30	1.0 to 3.0	32
VSP-HC4-30L*-4		4	105.5				11.2			33
VSP-HC4-30L*-6		6	106.8				11.9			34
VSP-HC4-40L*-2		1.8	123.4		57.3	55	8.4	40	1.0 to 3.0	35
VSP-HC4-40L*-4		4	127.5				11.2			36
VSP-HC4-40L*-6		6	128.8				11.9			37
VSP-HC4-50L*-2		1.8	144.9		67.3	66.5	8.4	50	1.0 to 3.1	39
VSP-HC4-50L*-4		4	149				11.2			40
VSP-HC4-50L*-6		6	150.3				11.9			41

Dimensions (low back buffer, vacuum outlet top VSP-HC, push-in fitting)

●VSP-HC6, 8L*-2/4/6



●VSP-HC6, 8-□L*-2/4/6

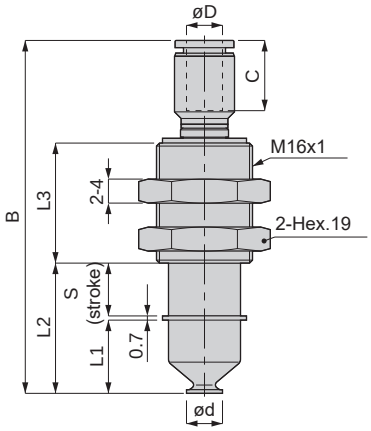


Unit: mm

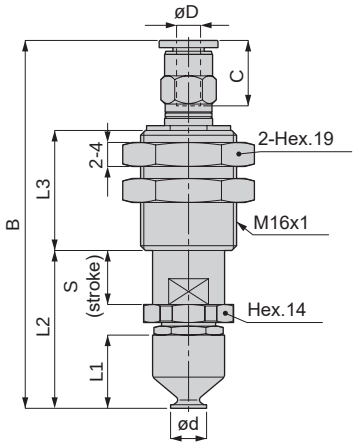
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC6L*-2	6	1.8	53.1	12.2	21.9	20	8.4	9	0.9 to 2.7	20
VSP-HC6L*-4		4	57.1				11.2			21
VSP-HC6L*-6		6	58.4				11.9			22
VSP-HC6-10L*-2		1.8	59.9		27.3	21.5	8.4	10	1.0 to 2.4	24
VSP-HC6-10L*-4		4	64				11.2			25
VSP-HC6-10L*-6		6	65.3				11.9			26
VSP-HC6-15L*-2		1.8	69.9		32.3	26.5	8.4	15	1.0 to 2.7	26
VSP-HC6-15L*-4		4	74				11.2			27
VSP-HC6-15L*-6		6	75.3				11.9			28
VSP-HC6-20L*-2		1.8	79.9		37.3	31.5	8.4	20	1.0 to 3.0	28
VSP-HC6-20L*-4		4	84				11.2			29
VSP-HC6-20L*-6		6	85.3				11.9			30
VSP-HC6-25L*-2		1.8	90.4		42.3	37	8.4	25	1.0 to 3.0	30
VSP-HC6-25L*-4		4	94.5				11.2			31
VSP-HC6-25L*-6		6	95.8				11.9			32
VSP-HC6-30L*-2		1.8	101.4		47.3	43	8.4	30	1.0 to 3.0	32
VSP-HC6-30L*-4		4	105.5				11.2			33
VSP-HC6-30L*-6		6	106.8				11.9			34
VSP-HC6-40L*-2		1.8	123.4		57.3	55	8.4	40	1.0 to 3.0	35
VSP-HC6-40L*-4		4	127.5				11.2			36
VSP-HC6-40L*-6		6	128.8				11.9			37
VSP-HC6-50L*-2		1.8	144.9		67.3	66.5	8.4	50	1.0 to 3.1	39
VSP-HC6-50L*-4		4	149				11.2			40
VSP-HC6-50L*-6		6	150.3				11.9			41
VSP-HC8L*-2	8	1.8	53.1	12.2	21.9	20	8.4	9	0.9 to 2.7	20
VSP-HC8L*-4		4	57.1				11.2			21
VSP-HC8L*-6		6	58.4				11.9			22
VSP-HC8-10L*-2		1.8	59.9		27.3	21.5	8.4	10	1.0 to 2.4	24
VSP-HC8-10L*-4		4	64				11.2			25
VSP-HC8-10L*-6		6	65.3				11.9			26
VSP-HC8-15L*-2		1.8	69.9		32.3	26.5	8.4	15	1.0 to 2.7	26
VSP-HC8-15L*-4		4	74				11.2			27
VSP-HC8-15L*-6		6	75.3				11.9			28
VSP-HC8-20L*-2		1.8	79.9		37.3	31.5	8.4	20	1.0 to 3.0	28
VSP-HC8-20L*-4		4	84				11.2			29
VSP-HC8-20L*-6		6	85.3				11.9			30
VSP-HC8-25L*-2		1.8	90.4		42.3	37	8.4	25	1.0 to 3.0	30
VSP-HC8-25L*-4		4	94.5				11.2			31
VSP-HC8-25L*-6		6	95.8				11.9			32
VSP-HC8-30L*-2		1.8	101.4		47.3	43	8.4	30	1.0 to 3.0	32
VSP-HC8-30L*-4		4	105.5				11.2			33
VSP-HC8-30L*-6		6	106.8				11.9			34
VSP-HC8-40L*-2		1.8	123.4		57.3	55	8.4	40	1.0 to 3.0	35
VSP-HC8-40L*-4		4	127.5				11.2			36
VSP-HC8-40L*-6		6	128.8				11.9			37
VSP-HC8-50L*-2		1.8	144.9		67.3	66.5	8.4	50	1.0 to 3.1	39
VSP-HC8-50L*-4		4	149				11.2			40
VSP-HC8-50L*-6		6	150.3				11.9			41

Dimensions (low back buffer, vacuum outlet top VSP-HC, push-in fitting)

●VSP-HC10, 15L*-2/4/6



●VSP-HC10, 15-□L*-2/4/6

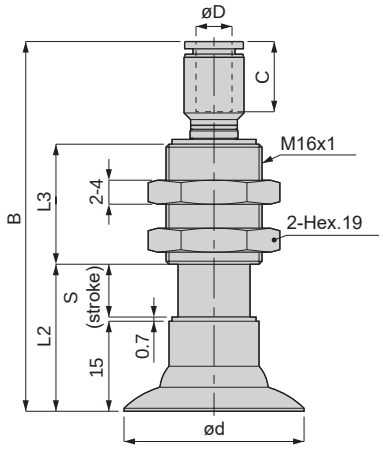


Unit: mm

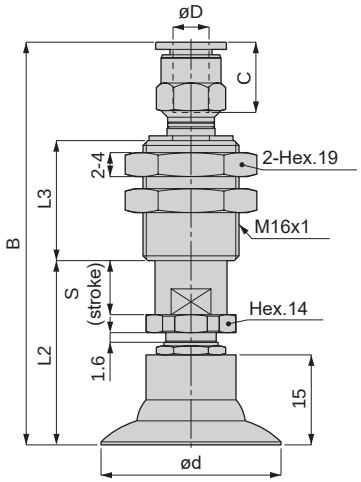
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC10L*-2	10	1.8	54.9	14	23.7	20	8.4	9	0.9 to 2.7	20
VSP-HC10L*-4		4	58.9				11.2			21
VSP-HC10L*-6		6	60.2				11.9			22
VSP-HC10-10L*-2		1.8	61.7		29.1	21.5	8.4	10	1.0 to 2.4	24
VSP-HC10-10L*-4		4	65.8				11.2			25
VSP-HC10-10L*-6		6	67.1				11.9			26
VSP-HC10-15L*-2		1.8	71.7		34.1	26.5	8.4	15	1.0 to 2.7	26
VSP-HC10-15L*-4		4	75.8				11.2			27
VSP-HC10-15L*-6		6	77.1				11.9			28
VSP-HC10-20L*-2		1.8	81.7		39.1	31.5	8.4	20	1.0 to 3.0	28
VSP-HC10-20L*-4		4	85.8				11.2			29
VSP-HC10-20L*-6		6	87.1				11.9			30
VSP-HC10-25L*-2		1.8	92.2		44.1	37	8.4	25	1.0 to 3.0	30
VSP-HC10-25L*-4		4	96.3				11.2			31
VSP-HC10-25L*-6		6	97.6				11.9			32
VSP-HC10-30L*-2		1.8	103.2		49.1	43	8.4	30	1.0 to 3.0	32
VSP-HC10-30L*-4		4	107.3				11.2			33
VSP-HC10-30L*-6		6	108.6				11.9			34
VSP-HC10-40L*-2		1.8	125.2		59.1	55	8.4	40	1.0 to 3.0	35
VSP-HC10-40L*-4		4	129.3				11.2			36
VSP-HC10-40L*-6		6	130.6				11.9			37
VSP-HC10-50L*-2		1.8	146.7		69.1	66.5	8.4	50	1.0 to 3.1	39
VSP-HC10-50L*-4		4	150.8				11.2			40
VSP-HC10-50L*-6		6	152.1				11.9			41
VSP-HC15L*-2	15	1.8	54.9	14	23.7	20	8.4	9	0.9 to 2.7	20
VSP-HC15L*-4		4	58.9				11.2			21
VSP-HC15L*-6		6	60.2				11.9			22
VSP-HC15-10L*-2		1.8	61.7		29.1	21.5	8.4	10	1.0 to 2.4	24
VSP-HC15-10L*-4		4	65.8				11.2			25
VSP-HC15-10L*-6		6	67.1				11.9			26
VSP-HC15-15L*-2		1.8	71.7		34.1	26.5	8.4	15	1.0 to 2.7	26
VSP-HC15-15L*-4		4	75.8				11.2			27
VSP-HC15-15L*-6		6	77.1				11.9			28
VSP-HC15-20L*-2		1.8	81.7		39.1	31.5	8.4	20	1.0 to 3.0	28
VSP-HC15-20L*-4		4	85.8				11.2			29
VSP-HC15-20L*-6		6	87.1				11.9			30
VSP-HC15-25L*-2		1.8	92.2		44.1	37	8.4	25	1.0 to 3.0	30
VSP-HC15-25L*-4		4	96.3				11.2			31
VSP-HC15-25L*-6		6	97.6				11.9			32
VSP-HC15-30L*-2		1.8	103.2		49.1	43	8.4	30	1.0 to 3.0	32
VSP-HC15-30L*-4		4	107.3				11.2			33
VSP-HC15-30L*-6		6	108.6				11.9			34
VSP-HC15-40L*-2		1.8	125.2		59.1	55	8.4	40	1.0 to 3.0	35
VSP-HC15-40L*-4		4	129.3				11.2			36
VSP-HC15-40L*-6		6	130.6				11.9			37
VSP-HC15-50L*-2		1.8	146.7		69.1	66.5	8.4	50	1.0 to 3.1	39
VSP-HC15-50L*-4		4	150.8				11.2			40
VSP-HC15-50L*-6		6	152.1				11.9			41

Dimensions (low back buffer, vacuum outlet top VSP-HC, push-in fitting)

●VSP-HC20, 30L*-2/4/6



●VSP-HC20, 30-□L*-2/4/6

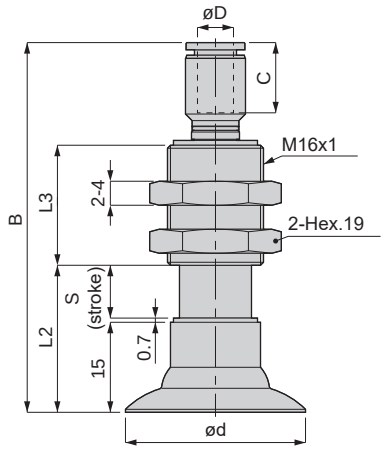


Unit: mm

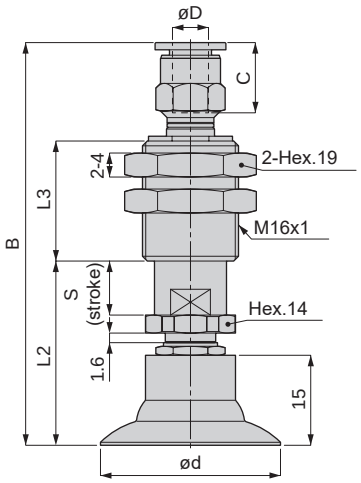
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC20L*-2	20	1.8	55.9	15	24.7	20	8.4	9	0.9 to 2.7	21
VSP-HC20L*-4		4	59.9				11.2			22
VSP-HC20L*-6		6	61.2				11.9			23
VSP-HC20-10L*-2		1.8	64.2		30	21.5	8.4	10	1.0 to 2.4	27
VSP-HC20-10L*-4		4	68.3				11.2			28
VSP-HC20-10L*-6		6	69.6				11.9			29
VSP-HC20-15L*-2		1.8	74.2		35	26.5	8.4	15	1.0 to 2.7	29
VSP-HC20-15L*-4		4	78.3				11.2			30
VSP-HC20-15L*-6		6	79.6				11.9			31
VSP-HC20-20L*-2		1.8	84.2		40	31.5	8.4	20	1.0 to 3.0	31
VSP-HC20-20L*-4		4	88.3				11.2			32
VSP-HC20-20L*-6		6	89.6				11.9			33
VSP-HC20-25L*-2		1.8	94.7		45	37	8.4	25	1.0 to 3.0	33
VSP-HC20-25L*-4		4	98.8				11.2			34
VSP-HC20-25L*-6		6	100.1				11.9			35
VSP-HC20-30L*-2		1.8	105.7		50	43	8.4	30	1.0 to 3.0	35
VSP-HC20-30L*-4		4	109.8				11.2			36
VSP-HC20-30L*-6		6	111.1				11.9			37
VSP-HC20-40L*-2		1.8	127.7		60	55	8.4	40	1.0 to 3.0	39
VSP-HC20-40L*-4		4	131.8				11.2			40
VSP-HC20-40L*-6		6	133.1				11.9			41
VSP-HC20-50L*-2		1.8	149.2		70	66.5	8.4	50	1.0 to 3.1	43
VSP-HC20-50L*-4		4	153.3				11.2			44
VSP-HC20-50L*-6		6	154.6				11.9			45
VSP-HC30L*-2	30	1.8	55.9	15	24.7	20	8.4	9	0.9 to 2.7	22
VSP-HC30L*-4		4	59.9				11.2			23
VSP-HC30L*-6		6	61.2				11.9			24
VSP-HC30-10L*-2		1.8	64.2		30	21.5	8.4	10	1.0 to 2.4	29
VSP-HC30-10L*-4		4	68.3				11.2			30
VSP-HC30-10L*-6		6	69.6				11.9			31
VSP-HC30-15L*-2		1.8	74.2		35	26.5	8.4	15	1.0 to 2.7	31
VSP-HC30-15L*-4		4	78.3				11.2			32
VSP-HC30-15L*-6		6	79.6				11.9			33
VSP-HC30-20L*-2		1.8	84.2		40	31.5	8.4	20	1.0 to 3.0	33
VSP-HC30-20L*-4		4	88.3				11.2			34
VSP-HC30-20L*-6		6	89.6				11.9			35
VSP-HC30-25L*-2		1.8	94.7		45	37	8.4	25	1.0 to 3.0	35
VSP-HC30-25L*-4		4	98.8				11.2			36
VSP-HC30-25L*-6		6	100.1				11.9			37
VSP-HC30-30L*-2		1.8	105.7		50	43	8.4	30	1.0 to 3.0	37
VSP-HC30-30L*-4		4	109.8				11.2			38
VSP-HC30-30L*-6		6	111.1				11.9			39
VSP-HC30-40L*-2		1.8	127.7		60	55	8.4	40	1.0 to 3.0	41
VSP-HC30-40L*-4		4	131.8				11.2			42
VSP-HC30-40L*-6		6	133.1				11.9			43
VSP-HC30-50L*-2		1.8	149.2		70	66.5	8.4	50	1.0 to 3.1	45
VSP-HC30-50L*-4		4	153.3				11.2			46
VSP-HC30-50L*-6		6	154.6				11.9			47

Dimensions (low back buffer, vacuum outlet top VSP-HC, push-in fitting)

●VSP-HC40L*-2/4/6



●VSP-HC40-□L*-2/4/6

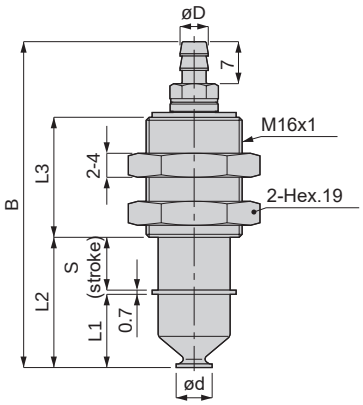


Unit: mm

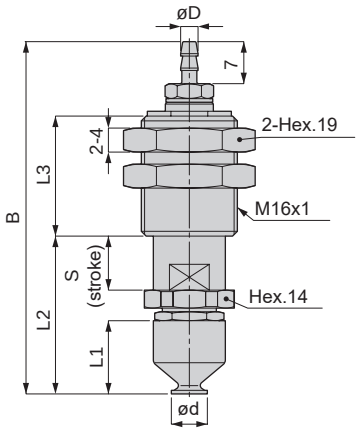
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC40L*-2	40	1.8	55.9	15	24.7	20	8.4	9	0.9 to 2.7	26
VSP-HC40L*-4		4	59.9				11.2			27
VSP-HC40L*-6		6	61.2				11.9			28
VSP-HC40-10L*-2		1.8	64.2		30	21.5	8.4	10	1.0 to 2.4	33
VSP-HC40-10L*-4		4	68.3				11.2			34
VSP-HC40-10L*-6		6	69.6				11.9			35
VSP-HC40-15L*-2		1.8	74.2		35	26.5	8.4	15	1.0 to 2.7	35
VSP-HC40-15L*-4		4	78.3				11.2			36
VSP-HC40-15L*-6		6	79.6				11.9			37
VSP-HC40-20L*-2		1.8	84.2		40	31.5	8.4	20	1.0 to 3.0	37
VSP-HC40-20L*-4		4	88.3				11.2			38
VSP-HC40-20L*-6		6	89.6				11.9			39
VSP-HC40-25L*-2		1.8	94.7		45	37	8.4	25	1.0 to 3.0	39
VSP-HC40-25L*-4		4	98.8				11.2			40
VSP-HC40-25L*-6		6	100.1				11.9			41
VSP-HC40-30L*-2		1.8	105.7		50	43	8.4	30	1.0 to 3.0	41
VSP-HC40-30L*-4		4	109.8				11.2			42
VSP-HC40-30L*-6		6	111.1				11.9			43
VSP-HC40-40L*-2		1.8	127.7		60	55	8.4	40	1.0 to 3.0	45
VSP-HC40-40L*-4		4	131.8				11.2			46
VSP-HC40-40L*-6		6	133.1				11.9			47
VSP-HC40-50L*-2		1.8	149.2		70	66.5	8.4	50	1.0 to 3.1	49
VSP-HC40-50L*-4		4	153.3				11.2			50
VSP-HC40-50L*-6		6	154.6				11.9			51

Dimensions (low back buffer, vacuum outlet top VSP-HC, barbed fitting)

●VSP-HC4 to 8L*-4T/6T



●VSP-HC4 to 8-□L*-4T/6T

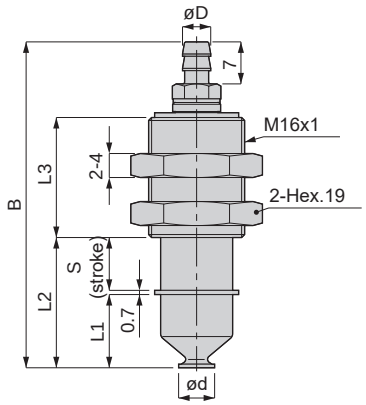


Unit: mm

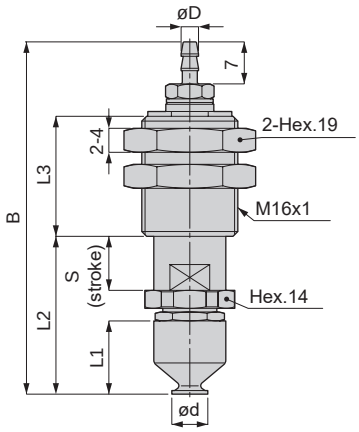
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC4L*-4T	4	2.5	54.3	12.2	21.9	20	9	0.9 to 2.7	18
VSP-HC4L*-6T		4							
VSP-HC4-10L*-4T		2.5	61.1		27.3	21.5	10	1.0 to 2.4	23
VSP-HC4-10L*-6T		4							
VSP-HC4-15L*-4T		2.5	71.1		32.3	26.5	15	1.0 to 2.7	25
VSP-HC4-15L*-6T		4							
VSP-HC4-20L*-4T		2.5	81.1		37.3	31.5	20	1.0 to 3.0	27
VSP-HC4-20L*-6T		4							
VSP-HC4-25L*-4T		2.5	91.6		42.3	37	25	1.0 to 3.0	30
VSP-HC4-25L*-6T		4							
VSP-HC4-30L*-4T		2.5	102.6		47.3	43	30	1.0 to 3.0	32
VSP-HC4-30L*-6T		4							
VSP-HC4-40L*-4T		2.5	124.6		57.3	55	40	1.0 to 3.0	36
VSP-HC4-40L*-6T		4							
VSP-HC4-50L*-4T		2.5	146.1		67.3	66.5	50	1.0 to 3.1	40
VSP-HC4-50L*-6T		4							
VSP-HC6L*-4T	6	2.5	54.3	12.2	21.9	20	9	0.9 to 2.7	20
VSP-HC6L*-6T		4							
VSP-HC6-10L*-4T		2.5	61.1		27.3	21.5	10	1.0 to 2.4	24
VSP-HC6-10L*-6T		4							
VSP-HC6-15L*-4T		2.5	71.1		32.3	26.5	15	1.0 to 2.7	26
VSP-HC6-15L*-6T		4							
VSP-HC6-20L*-4T		2.5	81.1		37.3	31.5	20	1.0 to 3.0	28
VSP-HC6-20L*-6T		4							
VSP-HC6-25L*-4T		2.5	91.6		42.3	37	25	1.0 to 3.0	31
VSP-HC6-25L*-6T		4							
VSP-HC6-30L*-4T		2.5	102.6		47.3	43	30	1.0 to 3.0	33
VSP-HC6-30L*-6T		4							
VSP-HC6-40L*-4T		2.5	124.6		57.3	55	40	1.0 to 3.0	37
VSP-HC6-40L*-6T		4							
VSP-HC6-50L*-4T		2.5	146.1		67.3	66.5	50	1.0 to 3.1	41
VSP-HC6-50L*-6T		4							
VSP-HC8L*-4T	8	2.5	54.3	12.2	21.9	20	9	0.9 to 2.7	20
VSP-HC8L*-6T		4							
VSP-HC8-10L*-4T		2.5	61.1		27.3	21.5	10	1.0 to 2.4	24
VSP-HC8-10L*-6T		4							
VSP-HC8-15L*-4T		2.5	71.1		32.3	26.5	15	1.0 to 2.7	26
VSP-HC8-15L*-6T		4							
VSP-HC8-20L*-4T		2.5	81.1		37.3	31.5	20	1.0 to 3.0	28
VSP-HC8-20L*-6T		4							
VSP-HC8-25L*-4T		2.5	91.6		42.3	37	25	1.0 to 3.0	31
VSP-HC8-25L*-6T		4							
VSP-HC8-30L*-4T		2.5	102.6		47.3	43	30	1.0 to 3.0	33
VSP-HC8-30L*-6T		4							
VSP-HC8-40L*-4T		2.5	124.6		57.3	55	40	1.0 to 3.0	37
VSP-HC8-40L*-6T		4							
VSP-HC8-50L*-4T		2.5	146.1		67.3	66.5	50	1.0 to 3.1	41
VSP-HC8-50L*-6T		4							

Dimensions (low back buffer, vacuum outlet top VSP-HC, barbed fitting)

●VSP-HC10, 15L*-4T/6T



●VSP-HC10, 15-□L*-4T/6T

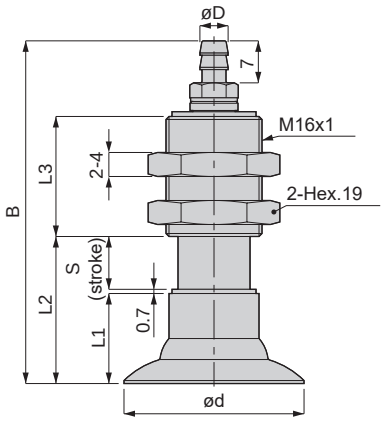


Unit: mm

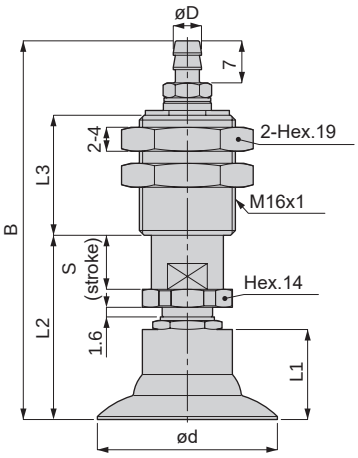
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC10L*-4T	10	2.5	56.1	14	23.7	20	9	0.9 to 2.7	20
VSP-HC10L*-6T		4							
VSP-HC10-10L*-4T		2.5	62.9		29.1	21.5	10	1.0 to 2.4	24
VSP-HC10-10L*-6T		4							
VSP-HC10-15L*-4T		2.5	72.9		34.1	26.5	15	1.0 to 2.7	26
VSP-HC10-15L*-6T		4							
VSP-HC10-20L*-4T		2.5	82.9		39.1	31.5	20	1.0 to 3.0	28
VSP-HC10-20L*-6T		4							
VSP-HC10-25L*-4T		2.5	93.4		44.1	37	25	1.0 to 3.0	31
VSP-HC10-25L*-6T		4							
VSP-HC10-30L*-4T		2.5	104.4		49.1	43	30	1.0 to 3.0	33
VSP-HC10-30L*-6T		4							
VSP-HC10-40L*-4T		2.5	126.4		59.1	55	40	1.0 to 3.0	37
VSP-HC10-40L*-6T		4							
VSP-HC10-50L*-4T		2.5	147.9		69.1	66.5	50	1.0 to 3.1	41
VSP-HC10-50L*-6T		4							
VSP-HC15L*-4T	15	2.5	56.1	14	23.7	20	9	0.9 to 2.7	20
VSP-HC15L*-6T		4							
VSP-HC15-10L*-4T		2.5	62.9		29.1	21.5	10	1.0 to 2.4	24
VSP-HC15-10L*-6T		4							
VSP-HC15-15L*-4T		2.5	72.9		34.1	26.5	15	1.0 to 2.7	26
VSP-HC15-15L*-6T		4							
VSP-HC15-20L*-4T		2.5	82.9		39.1	31.5	20	1.0 to 3.0	28
VSP-HC15-20L*-6T		4							
VSP-HC15-25L*-4T		2.5	93.4		44.1	37	25	1.0 to 3.0	31
VSP-HC15-25L*-6T		4							
VSP-HC15-30L*-4T		2.5	104.4		49.1	43	30	1.0 to 3.0	33
VSP-HC15-30L*-6T		4							
VSP-HC15-40L*-4T		2.5	126.4		59.1	55	40	1.0 to 3.0	37
VSP-HC15-40L*-6T		4							
VSP-HC15-50L*-4T		2.5	147.9		69.1	66.5	50	1.0 to 3.1	41
VSP-HC15-50L*-6T		4							

Dimensions (low back buffer, vacuum outlet top VSP-HC, barbed fitting)

●VSP-HC20 to 40L*-4T/6T



●VSP-HC20 to 40-□L*-4T/6T

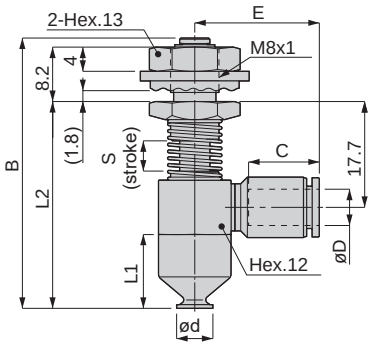


Unit: mm

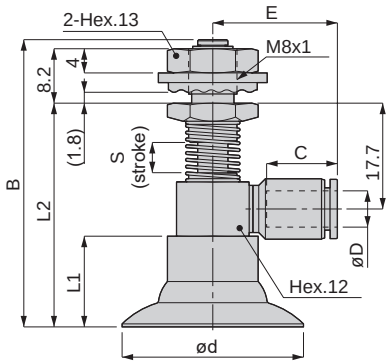
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC20L*-4T	20	2.5	57.1	15	24.7	20	9	0.9 to 2.7	21
VSP-HC20L*-6T		4							
VSP-HC20-10L*-4T		2.5	65.4		30	21.5	10	1.0 to 2.4	26
VSP-HC20-10L*-6T		4							
VSP-HC20-15L*-4T		2.5	75.4		35	26.5	15	1.0 to 2.7	28
VSP-HC20-15L*-6T		4							
VSP-HC20-20L*-4T		2.5	85.4		40	31.5	20	1.0 to 3.0	30
VSP-HC20-20L*-6T		4							
VSP-HC20-25L*-4T		2.5	95.9		45	37	25	1.0 to 3.0	32
VSP-HC20-25L*-6T		4							
VSP-HC20-30L*-4T		2.5	106.9		50	43	30	1.0 to 3.0	35
VSP-HC20-30L*-6T		4							
VSP-HC20-40L*-4T		2.5	128.9		60	55	40	1.0 to 3.0	39
VSP-HC20-40L*-6T		4							
VSP-HC20-50L*-4T		2.5	150.4		70	66.5	50	1.0 to 3.1	43
VSP-HC20-50L*-6T		4							
VSP-HC30L*-4T	30	2.5	57.1	15	24.7	20	9	0.9 to 2.7	23
VSP-HC30L*-6T		4							
VSP-HC30-10L*-4T		2.5	65.4		30	21.5	10	1.0 to 2.4	28
VSP-HC30-10L*-6T		4							
VSP-HC30-15L*-4T		2.5	75.4		35	26.5	15	1.0 to 2.7	30
VSP-HC30-15L*-6T		4							
VSP-HC30-20L*-4T		2.5	85.4		40	31.5	20	1.0 to 3.0	32
VSP-HC30-20L*-6T		4							
VSP-HC30-25L*-4T		2.5	95.9		45	37	25	1.0 to 3.0	34
VSP-HC30-25L*-6T		4							
VSP-HC30-30L*-4T		2.5	106.9		50	43	30	1.0 to 3.0	37
VSP-HC30-30L*-6T		4							
VSP-HC30-40L*-4T		2.5	128.9		60	55	40	1.0 to 3.0	41
VSP-HC30-40L*-6T		4							
VSP-HC30-50L*-4T		2.5	150.4		70	66.5	50	1.0 to 3.1	45
VSP-HC30-50L*-6T		4							
VSP-HC40L*-4T	40	2.5	57.1	15	24.7	20	9	0.9 to 2.7	27
VSP-HC40L*-6T		4							
VSP-HC40-10L*-4T		2.5	65.4		30	21.5	10	1.0 to 2.4	32
VSP-HC40-10L*-6T		4							
VSP-HC40-15L*-4T		2.5	75.4		35	26.5	15	1.0 to 2.7	34
VSP-HC40-15L*-6T		4							
VSP-HC40-20L*-4T		2.5	85.4		40	31.5	20	1.0 to 3.0	36
VSP-HC40-20L*-6T		4							
VSP-HC40-25L*-4T		2.5	95.9		45	37	25	1.0 to 3.0	38
VSP-HC40-25L*-6T		4							
VSP-HC40-30L*-4T		2.5	106.9		50	43	30	1.0 to 3.0	41
VSP-HC40-30L*-6T		4							
VSP-HC40-40L*-4T		2.5	128.9		60	55	40	1.0 to 3.0	45
VSP-HC40-40L*-6T		4							
VSP-HC40-50L*-4T		2.5	150.4		70	66.5	50	1.0 to 3.1	49
VSP-HC40-50L*-6T		4							

Dimensions (lightweight buffer, vacuum outlet side VSP-HD, push-in fitting)

●VSP-HD4 to 15L*-2/4/6



●VSP-HD20 to 40L*-2/4/6

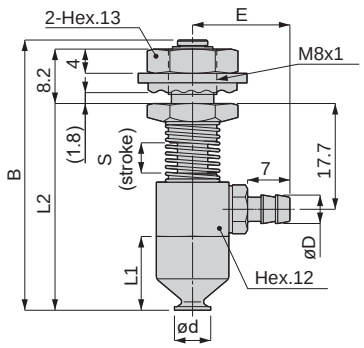


Unit: mm

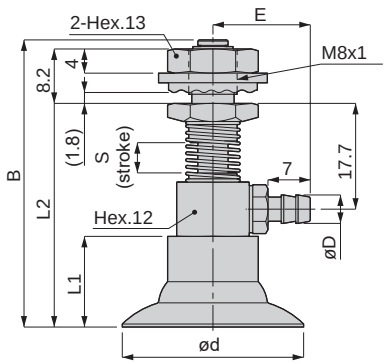
Model No.	Pad diameter Ød	Bore size ØD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD4L*-2	4	1.8	44.7	12.2	34.4	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HD4L*-4		4				11.2	18.8			30
VSP-HD4L*-6		6				11.9	20.6			31
VSP-HD6L*-2	6	1.8	44.7	12.2	34.4	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HD6L*-4		4				11.2	18.8			30
VSP-HD6L*-6		6				11.9	20.6			31
VSP-HD8L*-2	8	1.8	44.7	12.2	34.4	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HD8L*-4		4				11.2	18.8			30
VSP-HD8L*-6		6				11.9	20.6			31
VSP-HD10L*-2	10	1.8	46.5	14	36.2	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HD10L*-4		4				11.2	18.8			30
VSP-HD10L*-6		6				11.9	20.6			31
VSP-HD15L*-2	15	1.8	46.5	14	36.2	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HD15L*-4		4				11.2	18.8			30
VSP-HD15L*-6		6				11.9	20.6			31
VSP-HD20L*-2	20	1.8	47.5	15	37.2	8.4	14.7	5.2	1.6 to 2.9	31
VSP-HD20L*-4		4				11.2	18.8			32
VSP-HD20L*-6		6				11.9	20.6			33
VSP-HD30L*-2	30	1.8	47.5	15	37.2	8.4	14.7	5.2	1.6 to 2.9	33
VSP-HD30L*-4		4				11.2	18.8			34
VSP-HD30L*-6		6				11.9	20.6			35
VSP-HD40L*-2	40	1.8	47.5	15	37.2	8.4	14.7	5.2	1.6 to 2.9	37
VSP-HD40L*-4		4				11.2	18.8			38
VSP-HD40L*-6		6				11.9	20.6			39

Dimensions (lightweight buffer, vacuum outlet side VSP-HD, barbed fitting)

●VSP-HD4 to 15L*-4T/6T



●VSP-HD20 to 40L*-4T/6T

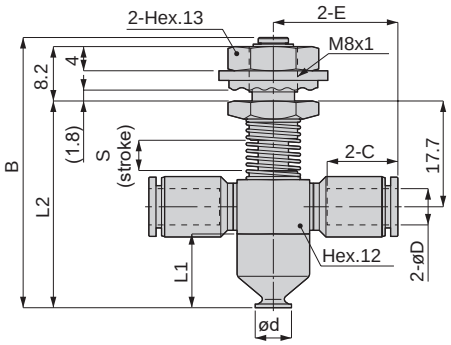


Unit: mm

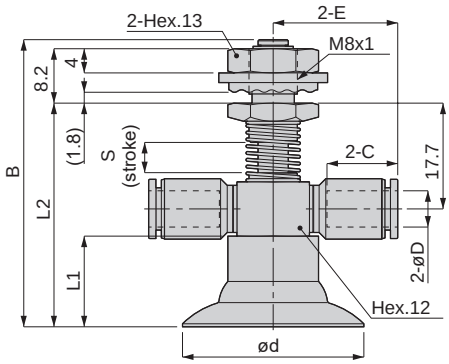
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD4L*-4T	4	2.5	44.7	12.2	34.4	15.9	5.2	1.6 to 2.9	27
VSP-HD4L*-6T		4							
VSP-HD6L*-4T	6	2.5	44.7	12.2	34.4	15.9	5.2	1.6 to 2.9	30
VSP-HD6L*-6T		4							
VSP-HD8L*-4T	8	2.5	44.7	12.2	34.4	15.9	5.2	1.6 to 2.9	30
VSP-HD8L*-6T		4							
VSP-HD10L*-4T	10	2.5	46.5	14	36.2	15.9	5.2	1.6 to 2.9	30
VSP-HD10L*-6T		4							
VSP-HD15L*-4T	15	2.5	46.5	14	36.2	15.9	5.2	1.6 to 2.9	30
VSP-HD15L*-6T		4							
VSP-HD20L*-4T	20	2.5	47.5	15	37.2	15.9	5.2	1.6 to 2.9	32
VSP-HD20L*-6T		4							
VSP-HD30L*-4T	30	2.5	47.5	15	37.2	15.9	5.2	1.6 to 2.9	33
VSP-HD30L*-6T		4							
VSP-HD40L*-4T	40	2.5	47.5	15	37.2	15.9	5.2	1.6 to 2.9	37
VSP-HD40L*-6T		4							

Dimensions (lightweight buffer, vacuum outlet on both sides VSP-HDW, push-in fitting)

●VSP-HDW4 to 15L*-2/4/6



●VSP-HDW20 to 40L*-2/4/6

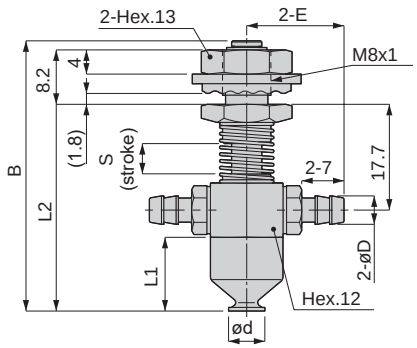


Unit: mm

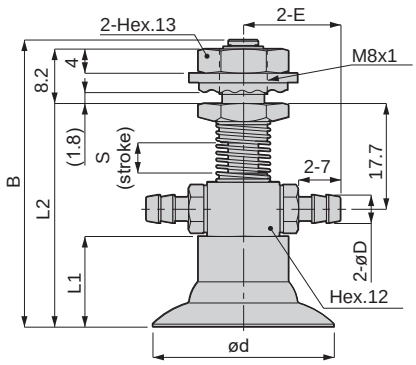
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW4L*-2	4	1.8	44.7	12.2	34.4	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HDW4L*-4		4				11.2	18.8			30
VSP-HDW4L*-6		6				11.9	20.6			31
VSP-HDW6L*-2	6	1.8	44.7	12.2	34.4	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HDW6L*-4		4				11.2	18.8			30
VSP-HDW6L*-6		6				11.9	20.6			31
VSP-HDW8L*-2	8	1.8	44.7	12.2	34.4	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HDW8L*-4		4				11.2	18.8			30
VSP-HDW8L*-6		6				11.9	20.6			31
VSP-HDW10L*-2	10	1.8	46.5	14	36.2	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HDW10L*-4		4				11.2	18.8			30
VSP-HDW10L*-6		6				11.9	20.6			31
VSP-HDW15L*-2	15	1.8	46.5	14	36.2	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HDW15L*-4		4				11.2	18.8			30
VSP-HDW15L*-6		6				11.9	20.6			31
VSP-HDW20L*-2	20	1.8	47.5	15	37.2	8.4	14.7	5.2	1.6 to 2.9	31
VSP-HDW20L*-4		4				11.2	18.8			32
VSP-HDW20L*-6		6				11.9	20.6			33
VSP-HDW30L*-2	30	1.8	47.5	15	37.2	8.4	14.7	5.2	1.6 to 2.9	33
VSP-HDW30L*-4		4				11.2	18.8			34
VSP-HDW30L*-6		6				11.9	20.6			35
VSP-HDW40L*-2	40	1.8	47.5	15	37.2	8.4	14.7	5.2	1.6 to 2.9	37
VSP-HDW40L*-4		4				11.2	18.8			38
VSP-HDW40L*-6		6				11.9	20.6			39

Dimensions (lightweight buffer, vacuum outlet on both sides VSP-HDW, barbed fitting)

●VSP-HDW4 to 15L*-4T/6T



●VSP-HDW20 to 40L*-4T/6T

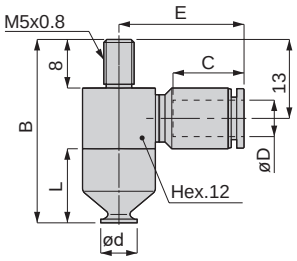


Unit: mm

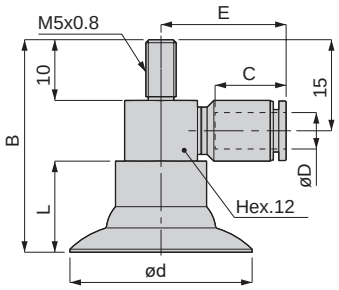
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW4L*-4T	4	2.5	44.7	12.2	34.4	15.9	5.2	1.6 to 2.9	27
VSP-HDW4L*-6T		4							
VSP-HDW6L*-4T	6	2.5	44.7	12.2	34.4	15.9	5.2	1.6 to 2.9	30
VSP-HDW6L*-6T		4							
VSP-HDW8L*-4T	8	2.5	44.7	12.2	34.4	15.9	5.2	1.6 to 2.9	30
VSP-HDW8L*-6T		4							
VSP-HDW10L*-4T	10	2.5	46.5	14	36.2	15.9	5.2	1.6 to 2.9	30
VSP-HDW10L*-6T		4							
VSP-HDW15L*-4T	15	2.5	46.5	14	36.2	15.9	5.2	1.6 to 2.9	30
VSP-HDW15L*-6T		4							
VSP-HDW20L*-4T	20	2.5	47.5	15	37.2	15.9	5.2	1.6 to 2.9	32
VSP-HDW20L*-6T		4							
VSP-HDW30L*-4T	30	2.5	47.5	15	37.2	15.9	5.2	1.6 to 2.9	33
VSP-HDW30L*-6T		4							
VSP-HDW40L*-4T	40	2.5	47.5	15	37.2	15.9	5.2	1.6 to 2.9	37
VSP-HDW40L*-6T		4							

Dimensions (low back fixed, vacuum outlet side VSP-HE, push-in fitting)

●VSP-HE4 to 15L*-2/4/6



●VSP-HE20 to 40L*-2/4/6

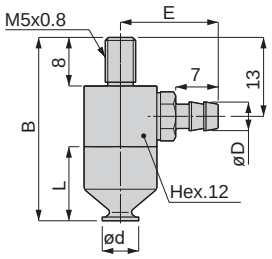


Unit: mm

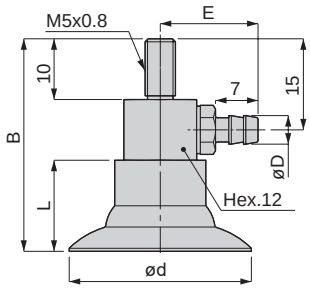
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HE4L*-2	4	1.8	30.2	12.2	8.4	14.7	14
VSP-HE4L*-4		4			11.2	18.8	15
VSP-HE4L*-6		6			11.9	20.6	16
VSP-HE6L*-2	6	1.8	30.2	12.2	8.4	14.7	15
VSP-HE6L*-4		4			11.2	18.8	16
VSP-HE6L*-6		6			11.9	20.6	17
VSP-HE8L*-2	8	1.8	30.2	12.2	8.4	14.7	15
VSP-HE8L*-4		4			11.2	18.8	16
VSP-HE8L*-6		6			11.9	20.6	17
VSP-HE10L*-2	10	1.8	32	12.2	8.4	14.7	14
VSP-HE10L*-4		4			11.2	18.8	15
VSP-HE10L*-6		6			11.9	20.6	17
VSP-HE15L*-2	15	1.8	32	14	8.4	14.7	14
VSP-HE15L*-4		4			11.2	18.8	15
VSP-HE15L*-6		6			11.9	20.6	17
VSP-HE20L*-2	20	1.8	35	14	8.4	14.7	17
VSP-HE20L*-4		4			11.2	18.8	18
VSP-HE20L*-6		6			11.9	20.6	19
VSP-HE30L*-2	30	1.8	35	15	8.4	14.7	19
VSP-HE30L*-4		4			11.2	18.8	20
VSP-HE30L*-6		6			11.9	20.6	21
VSP-HE40L*-2	40	1.8	35	15	8.4	14.7	23
VSP-HE40L*-4		4			11.2	18.8	24
VSP-HE40L*-6		6			11.9	20.6	25

Dimensions (low back fixed, vacuum outlet side VSP-HE, barbed fitting)

●VSP-HE4 to 15L*-4T/6T



●VSP-HE20 to 40L*-4T/6T

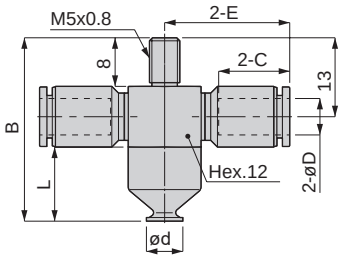


Unit: mm

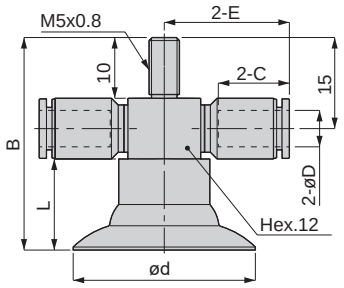
Model No.	Pad diameter ød	Bore size øD	B	L	E	Weight (g)
VSP-HE4L*-4T	4	2.5	30.2	12.2	15.9	13
VSP-HE4L*-6T		4				
VSP-HE6L*-4T	6	2.5	30.2	12.2	15.9	15
VSP-HE6L*-6T		4				
VSP-HE8L*-4T	8	2.5	30.2	12.2	15.9	15
VSP-HE8L*-6T		4				
VSP-HE10L*-4T	10	2.5	32	14	15.9	15
VSP-HE10L*-6T		4				
VSP-HE15L*-4T	15	2.5	32	14	15.9	15
VSP-HE15L*-6T		4				
VSP-HE20L*-4T	20	2.5	35	15	15.9	18
VSP-HE20L*-6T		4				
VSP-HE30L*-4T	30	2.5	35	15	15.9	19
VSP-HE30L*-6T		4				
VSP-HE40L*-4T	40	2.5	35	15	15.9	23
VSP-HE40L*-6T		4				

Dimensions (low back fixed, vacuum outlet on both sides VSP-HEW, push-in fitting)

●VSP-HEW4 to 15L*-2/4/6



●VSP-HEW20 to 40L*-2/4/6

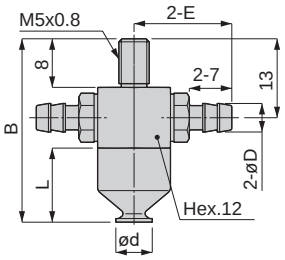


Unit: mm

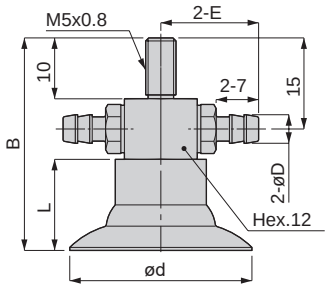
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HEW4L*-2	4	1.8	30.2	12.2	8.4	14.7	14
VSP-HEW4L*-4		4			11.2	18.8	15
VSP-HEW4L*-6		6			11.9	20.6	16
VSP-HEW6L*-2	6	1.8	30.2	12.2	8.4	14.7	15
VSP-HEW6L*-4		4			11.2	18.8	16
VSP-HEW6L*-6		6			11.9	20.6	17
VSP-HEW8L*-2	8	1.8	30.2	12.2	8.4	14.7	15
VSP-HEW8L*-4		4			11.2	18.8	16
VSP-HEW8L*-6		6			11.9	20.6	17
VSP-HEW10L*-2	10	1.8	32	12.2	8.4	14.7	15
VSP-HEW10L*-4		4			11.2	18.8	16
VSP-HEW10L*-6		6			11.9	20.6	17
VSP-HEW15L*-2	15	1.8	32	14	8.4	14.7	15
VSP-HEW15L*-4		4			11.2	18.8	16
VSP-HEW15L*-6		6			11.9	20.6	17
VSP-HEW20L*-2	20	1.8	35	14	8.4	14.7	17
VSP-HEW20L*-4		4			11.2	18.8	18
VSP-HEW20L*-6		6			11.9	20.6	19
VSP-HEW30L*-2	30	1.8	35	15	8.4	14.7	19
VSP-HEW30L*-4		4			11.2	18.8	20
VSP-HEW30L*-6		6			11.9	20.6	21
VSP-HEW40L*-2	40	1.8	35	15	8.4	14.7	23
VSP-HEW40L*-4		4			11.2	18.8	24
VSP-HEW40L*-6		6			11.9	20.6	25

Dimensions (low back fixed, vacuum outlet on both sides VSP-HEW, barbed fitting)

●VSP-HEW4 to 15L*-4T/6T



●VSP-HEW20 to 40L*-4T/6T

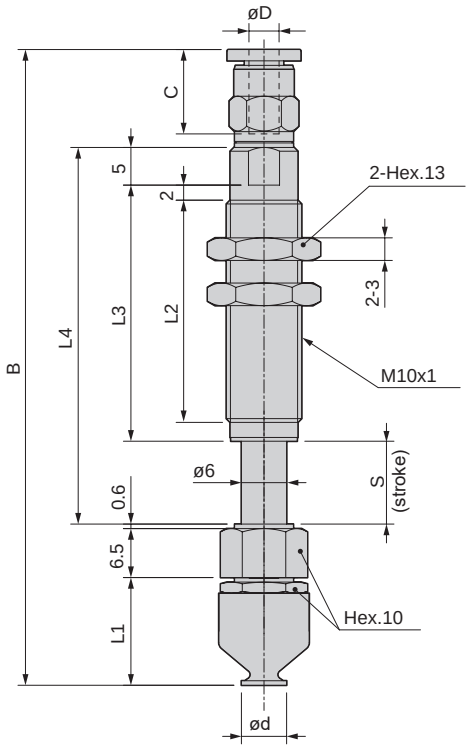


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	E	Weight (g)
VSP-HEW4L*-4T	4	2.5	30.2	12.2	15.9	13
VSP-HEW4L*-6T		4				
VSP-HEW6L*-4T	6	2.5	30.2	12.2	15.9	15
VSP-HEW6L*-6T		4				
VSP-HEW8L*-4T	8	2.5	30.2	12.2	15.9	15
VSP-HEW8L*-6T		4				
VSP-HEW10L*-4T	10	2.5	32	14	15.9	15
VSP-HEW10L*-6T		4				
VSP-HEW15L*-4T	15	2.5	32	14	15.9	15
VSP-HEW15L*-6T		4				
VSP-HEW20L*-4T	20	2.5	35	15	15.9	18
VSP-HEW20L*-6T		4				
VSP-HEW30L*-4T	30	2.5	35	15	15.9	19
VSP-HEW30L*-6T		4				
VSP-HEW40L*-4T	40	2.5	35	15	15.9	23
VSP-HEW40L*-6T		4				

Dimensions (low dust generation buffer, vacuum outlet top VSP-LFC, push-in fitting)

●VSP-LFC4 to 15-□L*-4



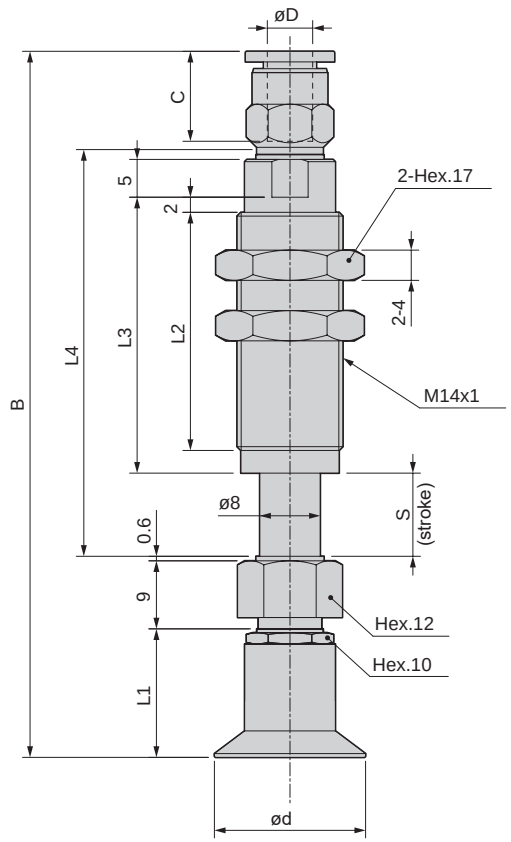
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-LFC4-2L*-4	4	4	68.4	12.2	21.5	26	34	11.2	2	1.3 to 1.8	30
VSP-LFC4-5L*-4			74.4		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	32
VSP-LFC4-10L*-4			84.4		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	34
VSP-LFC4-15L*-4			94.4		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	36
VSP-LFC4-20L*-4			104.4		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	38
VSP-LFC6-2L*-4	6	4	68.4	12.2	21.5	26	34	11.2	2	1.3 to 1.8	30
VSP-LFC6-5L*-4			74.4		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	32
VSP-LFC6-10L*-4			84.4		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	34
VSP-LFC6-15L*-4			94.4		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	36
VSP-LFC6-20L*-4			104.4		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	38
VSP-LFC8-2L*-4	8	4	68.4	12.2	21.5	26	34	11.2	2	1.3 to 1.8	30
VSP-LFC8-5L*-4			74.4		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	32
VSP-LFC8-10L*-4			84.4		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	34
VSP-LFC8-15L*-4			94.4		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	36
VSP-LFC8-20L*-4			104.4		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	38
VSP-LFC10-2L*-4	10	4	70.2	14	21.5	26	34	11.2	2	1.3 to 1.8	30
VSP-LFC10-5L*-4			76.2		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	32
VSP-LFC10-10L*-4			86.2		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	34
VSP-LFC10-15L*-4			96.2		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	36
VSP-LFC10-20L*-4			106.2		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	38
VSP-LFC15-2L*-4	15	4	70.2	14	21.5	26	34	11.2	2	1.3 to 1.8	30
VSP-LFC15-5L*-4			76.2		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	32
VSP-LFC15-10L*-4			86.2		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	34
VSP-LFC15-15L*-4			96.2		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	36
VSP-LFC15-20L*-4			106.2		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	38

*1: Values in [ ] are for low load.

Dimensions (low dust generation buffer, vacuum outlet top VSP-LFC, push-in fitting)

●VSP-LFC20 to 40-□L*-4/6



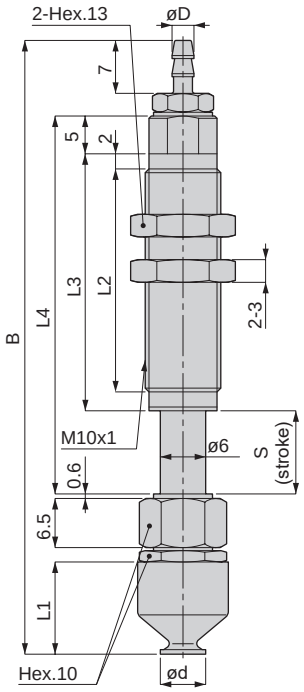
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-LFC20-5L*-4	20	4	82.1	15	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	57
VSP-LFC20-5L*-6		6	83.4					11.9			58
VSP-LFC20-10L*-4		4	92.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	59
VSP-LFC20-10L*-6		6	93.4					11.9			60
VSP-LFC20-15L*-4		4	102.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	62
VSP-LFC20-15L*-6		6	103.4					11.9			63
VSP-LFC20-20L*-4		4	112.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	65
VSP-LFC20-20L*-6		6	113.4					11.9			66
VSP-LFC30-5L*-4	30	4	82.1	15	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	59
VSP-LFC30-5L*-6		6	83.4					11.9			60
VSP-LFC30-10L*-4		4	92.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	61
VSP-LFC30-10L*-6		6	93.4					11.9			62
VSP-LFC30-15L*-4		4	102.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	64
VSP-LFC30-15L*-6		6	103.4					11.9			65
VSP-LFC30-20L*-4		4	112.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	67
VSP-LFC30-20L*-6		6	113.4					11.9			68
VSP-LFC40-5L*-4	40	4	82.1	15	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	64
VSP-LFC40-5L*-6		6	83.4					11.9			65
VSP-LFC40-10L*-4		4	92.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	66
VSP-LFC40-10L*-6		6	93.4					11.9			67
VSP-LFC40-15L*-4		4	102.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	69
VSP-LFC40-15L*-6		6	103.4					11.9			70
VSP-LFC40-20L*-4		4	112.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	72
VSP-LFC40-20L*-6		6	113.4					11.9			73

*1: Values in [ ] are for low load.

Dimensions (low dust generation buffer, vacuum outlet top VSP-LFC, barbed fitting)

●VSP-LFC4 to 8-□L*-4T/6T



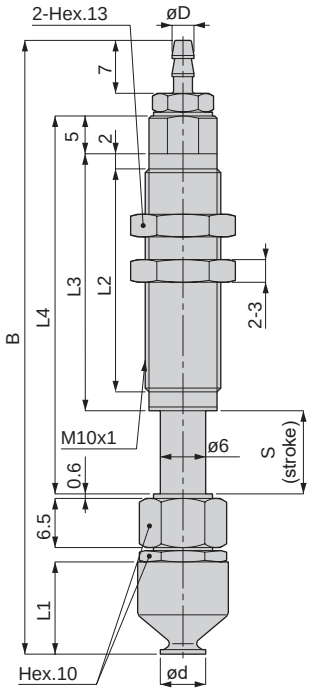
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
VSP-LFC4-2L*-4T	4	2.5	65.5	12.2	21.5	26	34	2	1.3 to 1.8	28
VSP-LFC4-2L*-6T		4								
VSP-LFC4-5L*-4T		2.5	71.5		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	30
VSP-LFC4-5L*-6T		4								
VSP-LFC4-10L*-4T		2.5	81.5		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	32
VSP-LFC4-10L*-6T		4								
VSP-LFC4-15L*-4T		2.5	91.5		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	34
VSP-LFC4-15L*-6T		4								
VSP-LFC4-20L*-4T		2.5	101.5		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	36
VSP-LFC4-20L*-6T		4								
VSP-LFC6-2L*-4T	6	2.5	65.5	12.2	21.5	26	34	2	1.3 to 1.8	28
VSP-LFC6-2L*-6T		4								
VSP-LFC6-5L*-4T		2.5	71.5		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	30
VSP-LFC6-5L*-6T		4								
VSP-LFC6-10L*-4T		2.5	81.5		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	32
VSP-LFC6-10L*-6T		4								
VSP-LFC6-15L*-4T		2.5	91.5		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	34
VSP-LFC6-15L*-6T		4								
VSP-LFC6-20L*-4T		2.5	101.5		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	36
VSP-LFC6-20L*-6T		4								
VSP-LFC8-2L*-4T	8	2.5	65.5	12.2	21.5	26	34	2	1.3 to 1.8	28
VSP-LFC8-2L*-6T		4								
VSP-LFC8-5L*-4T		2.5	71.5		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	30
VSP-LFC8-5L*-6T		4								
VSP-LFC8-10L*-4T		2.5	81.5		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	32
VSP-LFC8-10L*-6T		4								
VSP-LFC8-15L*-4T		2.5	91.5		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	34
VSP-LFC8-15L*-6T		4								
VSP-LFC8-20L*-4T		2.5	101.5		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	36
VSP-LFC8-20L*-6T		4								

*1: Values in [ ] are for low load.

Dimensions (low dust generation buffer, vacuum outlet top VSP-LFC, barbed fitting)

●VSP-LFC10, 15-□L*-4T/6T



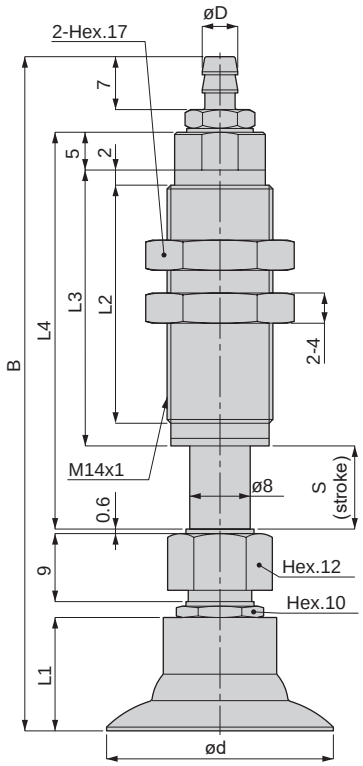
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
VSP-LFC10-2L*-4T	10	2.5	67.3	14	21.5	26	34	2	1.3 to 1.8	28
VSP-LFC10-2L*-6T		4								
VSP-LFC10-5L*-4T		2.5	73.3		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	30
VSP-LFC10-5L*-6T		4								
VSP-LFC10-10L*-4T		2.5	83.3		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	32
VSP-LFC10-10L*-6T		4								
VSP-LFC10-15L*-4T		2.5	93.3		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	34
VSP-LFC10-15L*-6T		4								
VSP-LFC10-20L*-4T		2.5	103.3		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	36
VSP-LFC10-20L*-6T		4								
VSP-LFC15-2L*-4T	15	2.5	67.3	14	21.5	26	34	2	1.3 to 1.8	28
VSP-LFC15-2L*-6T		4								
VSP-LFC15-5L*-4T		2.5	73.3		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	30
VSP-LFC15-5L*-6T		4								
VSP-LFC15-10L*-4T		2.5	83.3		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	32
VSP-LFC15-10L*-6T		4								
VSP-LFC15-15L*-4T		2.5	93.3		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	34
VSP-LFC15-15L*-6T		4								
VSP-LFC15-20L*-4T		2.5	103.3		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	36
VSP-LFC15-20L*-6T		4								

*1: Values in [ ] are for low load.

Dimensions (low dust generation buffer, vacuum outlet top VSP-LFC, barbed fitting)

●VSP-LFC20 to 40-□W*-4T/6T



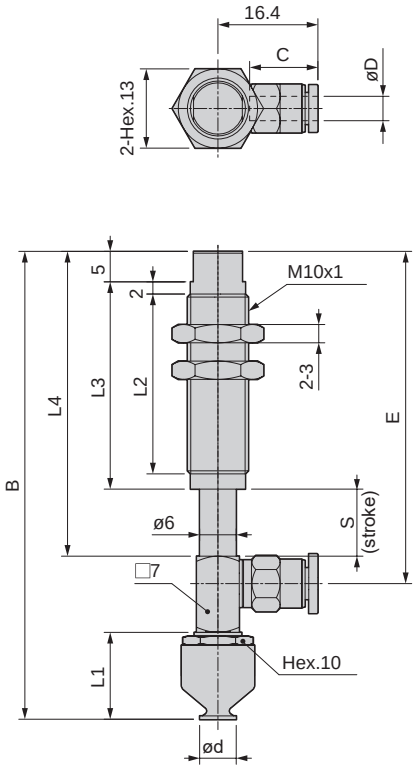
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
VSP-LFC20-5L*-4T	20	2.5	79.2	15	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	52
VSP-LFC20-5L*-6T		4								
VSP-LFC20-10L*-4T		2.5	89.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	54
VSP-LFC20-10L*-6T		4								
VSP-LFC20-15L*-4T		2.5	99.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	57
VSP-LFC20-15L*-6T		4								
VSP-LFC20-20L*-4T		2.5	109.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	60
VSP-LFC20-20L*-6T		4								
VSP-LFC30-5L*-4T	30	2.5	79.2	15	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	54
VSP-LFC30-5L*-6T		4								
VSP-LFC30-10L*-4T		2.5	89.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	56
VSP-LFC30-10L*-6T		4								
VSP-LFC30-15L*-4T		2.5	99.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	59
VSP-LFC30-15L*-6T		4								
VSP-LFC30-20L*-4T		2.5	109.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	62
VSP-LFC30-20L*-6T		4								
VSP-LFC40-5L*-4T	40	2.5	79.2	15	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	59
VSP-LFC40-5L*-6T		4								
VSP-LFC40-10L*-4T		2.5	89.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	61
VSP-LFC40-10L*-6T		4								
VSP-LFC40-15L*-4T		2.5	99.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	64
VSP-LFC40-15L*-6T		4								
VSP-LFC40-20L*-4T		2.5	109.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	67
VSP-LFC40-20L*-6T		4								

*1: Values in [ ] are for low load.

Dimensions (low dust generation buffer, vacuum outlet side VSP-LFD, push-in fitting)

●VSP-LFD4 to 15-□L*-4

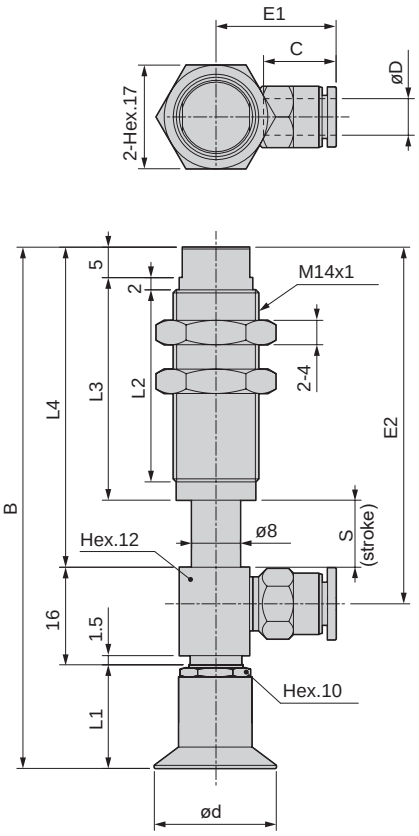


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD4-5L*-4	4	4	66.8	12.2	24.5	29	40	11.2	44.5	5	1.3 to 2.4	28
VSP-LFD4-10L*-4			76.8		29.5	34	50		54.5	10	1.3 to 3.3	30
VSP-LFD4-15L*-4			86.8		34.5	39	60		64.5	15	1.3 to 4.2	32
VSP-LFD4-20L*-4			96.8		39.5	44	70		74.5	20	1.3 to 5.1	34
VSP-LFD6-5L*-4	6	4	66.8	12.2	24.5	29	40	11.2	44.5	5	1.3 to 2.4	28
VSP-LFD6-10L*-4			76.8		29.5	34	50		54.5	10	1.3 to 3.3	30
VSP-LFD6-15L*-4			86.8		34.5	39	60		64.5	15	1.3 to 4.2	32
VSP-LFD6-20L*-4			96.8		39.5	44	70		74.5	20	1.3 to 5.1	34
VSP-LFD8-5L*-4	8	4	66.8	12.2	24.5	29	40	11.2	44.5	5	1.3 to 2.4	28
VSP-LFD8-10L*-4			76.8		29.5	34	50		54.5	10	1.3 to 3.3	30
VSP-LFD8-15L*-4			86.8		34.5	39	60		64.5	15	1.3 to 4.2	32
VSP-LFD8-20L*-4			96.8		39.5	44	70		74.5	20	1.3 to 5.1	34
VSP-LFD10-5L*-4	10	4	68.6	14	24.5	29	40	11.2	44.5	5	1.3 to 2.4	28
VSP-LFD10-10L*-4			78.6		29.5	34	50		54.5	10	1.3 to 3.3	30
VSP-LFD10-15L*-4			88.6		34.5	39	60		64.5	15	1.3 to 4.2	32
VSP-LFD10-20L*-4			98.6		39.5	44	70		74.5	20	1.3 to 5.1	34
VSP-LFD15-5L*-4	15	4	68.6	14	24.5	29	40	11.2	44.5	5	1.3 to 2.4	28
VSP-LFD15-10L*-4			78.6		29.5	34	50		54.5	10	1.3 to 3.3	30
VSP-LFD15-15L*-4			88.6		34.5	39	60		64.5	15	1.3 to 4.2	32
VSP-LFD15-20L*-4			98.6		39.5	44	70		74.5	20	1.3 to 5.1	34

Dimensions (low dust generation buffer, vacuum outlet side VSP-LFD, push-in fitting)

●VSP-LFD20 to 40-□L*-4/6

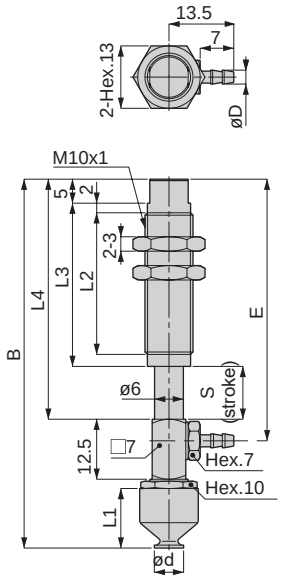


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-LFD20-5L*-4	20	4	75.5	15	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	58
VSP-LFD20-5L*-6		6						11.9	19.7				59
VSP-LFD20-10L*-4		4	85.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	62
VSP-LFD20-10L*-6		6						11.9	19.7				63
VSP-LFD20-15L*-4		4	95.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	66
VSP-LFD20-15L*-6		6						11.9	19.7				67
VSP-LFD20-20L*-4		4	105.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	70
VSP-LFD20-20L*-6		6						11.9	19.7				71
VSP-LFD30-5L*-4	30	4	75.5	15	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	60
VSP-LFD30-5L*-6		6						11.9	19.7				61
VSP-LFD30-10L*-4		4	85.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	64
VSP-LFD30-10L*-6		6						11.9	19.7				65
VSP-LFD30-15L*-4		4	95.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	68
VSP-LFD30-15L*-6		6						11.9	19.7				69
VSP-LFD30-20L*-4		4	105.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	72
VSP-LFD30-20L*-6		6						11.9	19.7				73
VSP-LFD40-5L*-4	40	4	75.5	15	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	65
VSP-LFD40-5L*-6		6						11.9	19.7				66
VSP-LFD40-10L*-4		4	85.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	69
VSP-LFD40-10L*-6		6						11.9	19.7				70
VSP-LFD40-15L*-4		4	95.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	73
VSP-LFD40-15L*-6		6						11.9	19.7				74
VSP-LFD40-20L*-4		4	105.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	77
VSP-LFD40-20L*-6		6						11.9	19.7				78

Dimensions (low dust generation buffer, vacuum outlet side VSP-LFD, barbed fitting)

●VSP-LFD4 to 15-□L*-4T/6T

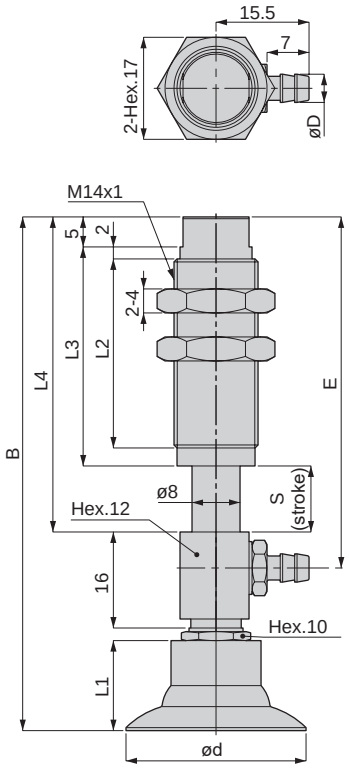


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD4-5L*-4T	4	2.5	66.8	12.2	24.5	29	40	44.5	5	1.3 to 2.4	27
VSP-LFD4-5L*-6T		4									
VSP-LFD4-10L*-4T		2.5	76.8		29.5	34	50	54.5	10	1.3 to 3.3	29
VSP-LFD4-10L*-6T		4									
VSP-LFD4-15L*-4T		2.5	86.8		34.5	39	60	64.5	15	1.3 to 4.2	31
VSP-LFD4-15L*-6T		4									
VSP-LFD4-20L*-4T		2.5	96.8		39.5	44	70	74.5	20	1.3 to 5.1	33
VSP-LFD4-20L*-6T		4									
VSP-LFD6-5L*-4T	6	2.5	66.8	12.2	24.5	29	40	44.5	5	1.3 to 2.4	27
VSP-LFD6-5L*-6T		4									
VSP-LFD6-10L*-4T		2.5	76.8		29.5	34	50	54.5	10	1.3 to 3.3	29
VSP-LFD6-10L*-6T		4									
VSP-LFD6-15L*-4T		2.5	86.8		34.5	39	60	64.5	15	1.3 to 4.2	31
VSP-LFD6-15L*-6T		4									
VSP-LFD6-20L*-4T		2.5	96.8		39.5	44	70	74.5	20	1.3 to 5.1	33
VSP-LFD6-20L*-6T		4									
VSP-LFD8-5L*-4T	8	2.5	66.8	12.2	24.5	29	40	44.5	5	1.3 to 2.4	27
VSP-LFD8-5L*-6T		4									
VSP-LFD8-10L*-4T		2.5	76.8		29.5	34	50	54.5	10	1.3 to 3.3	29
VSP-LFD8-10L*-6T		4									
VSP-LFD8-15L*-4T		2.5	86.8		34.5	39	60	64.5	15	1.3 to 4.2	31
VSP-LFD8-15L*-6T		4									
VSP-LFD8-20L*-4T		2.5	96.8		39.5	44	70	74.5	20	1.3 to 5.1	33
VSP-LFD8-20L*-6T		4									
VSP-LFD10-5L*-4T	10	2.5	68.6	14	24.5	29	40	44.5	5	1.3 to 2.4	27
VSP-LFD10-5L*-6T		4									
VSP-LFD10-10L*-4T		2.5	78.6		29.5	34	50	54.5	10	1.3 to 3.3	29
VSP-LFD10-10L*-6T		4									
VSP-LFD10-15L*-4T		2.5	88.6		34.5	39	60	64.5	15	1.3 to 4.2	31
VSP-LFD10-15L*-6T		4									
VSP-LFD10-20L*-4T		2.5	98.6		39.5	44	70	74.5	20	1.3 to 5.1	33
VSP-LFD10-20L*-6T		4									
VSP-LFD15-5L*-4T	15	2.5	68.6	14	24.5	29	40	44.5	5	1.3 to 2.4	27
VSP-LFD15-5L*-6T		4									
VSP-LFD15-10L*-4T		2.5	78.6		29.5	34	50	54.5	10	1.3 to 3.3	29
VSP-LFD15-10L*-6T		4									
VSP-LFD15-15L*-4T		2.5	88.6		34.5	39	60	64.5	15	1.3 to 4.2	31
VSP-LFD15-15L*-6T		4									
VSP-LFD15-20L*-4T		2.5	98.6		39.5	44	70	74.5	20	1.3 to 5.1	33
VSP-LFD15-20L*-6T		4									

Dimensions (low dust generation buffer, vacuum outlet side VSP-LFD, barbed fitting)

●VSP-LFD20 to 40-□L*-4T/6T

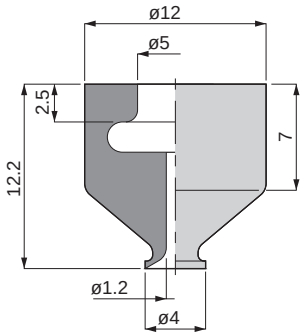


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD20-5L*-4T	20	2.5	75.5	15	26.5	31.5	42.5	48.5	5	4.5 to 6.5	54
VSP-LFD20-5L*-6T		4									
VSP-LFD20-10L*-4T		2.5	85.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	57
VSP-LFD20-10L*-6T		4									
VSP-LFD20-15L*-4T		2.5	95.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	61
VSP-LFD20-15L*-6T		4									
VSP-LFD20-20L*-4T		2.5	105.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	65
VSP-LFD20-20L*-6T		4									
VSP-LFD30-5L*-4T	30	2.5	75.5	15	26.5	31.5	42.5	48.5	5	4.5 to 6.5	56
VSP-LFD30-5L*-6T		4									
VSP-LFD30-10L*-4T		2.5	85.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	59
VSP-LFD30-10L*-6T		4									
VSP-LFD30-15L*-4T		2.5	95.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	63
VSP-LFD30-15L*-6T		4									
VSP-LFD30-20L*-4T		2.5	105.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	67
VSP-LFD30-20L*-6T		4									
VSP-LFD40-5L*-4T	40	2.5	75.5	15	26.5	31.5	42.5	48.5	5	4.5 to 6.5	61
VSP-LFD40-5L*-6T		4									
VSP-LFD40-10L*-4T		2.5	85.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	64
VSP-LFD40-10L*-6T		4									
VSP-LFD40-15L*-4T		2.5	95.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	68
VSP-LFD40-15L*-6T		4									
VSP-LFD40-20L*-4T		2.5	105.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	72
VSP-LFD40-20L*-6T		4									

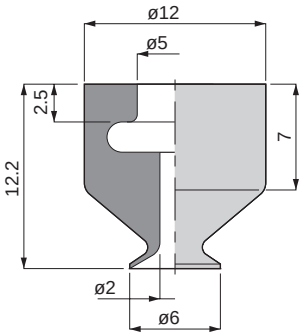
Dimensions: pad only

●VSPG-4L*



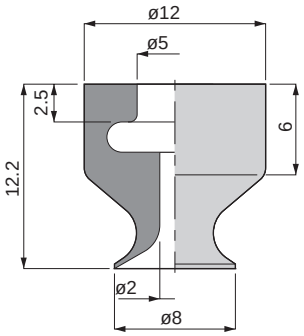
Weight: 1.2g

●VSPG-6L*



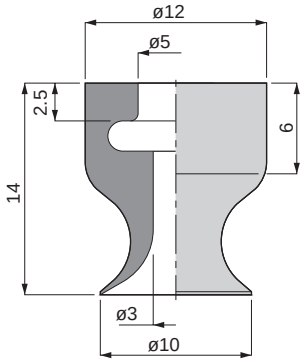
Weight: 1.2g

●VSPG-8L*



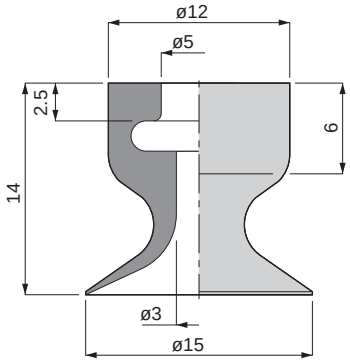
Weight: 1.1g

●VSPG-10L*



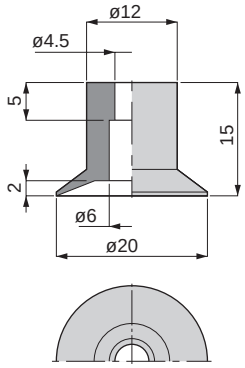
Weight: 1.2g

●VSPG-15L*



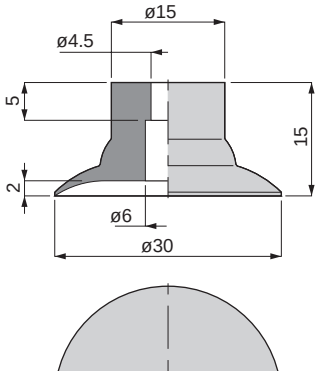
Weight: 1.2g

●VSPG-20L*



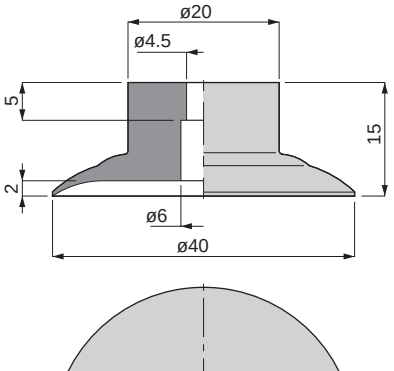
Weight: 2g

●VSPG-30L*



Weight: 4.3g

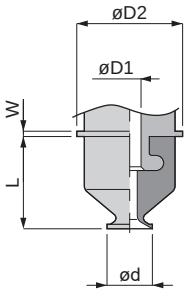
●VSPG-40L*



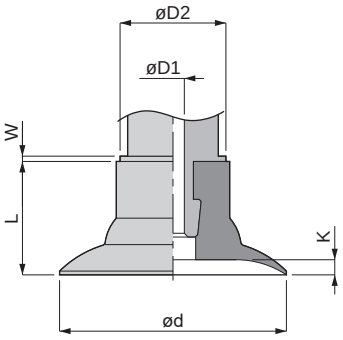
Weight: 8.6g

Detailed view of pad and holder connection

●VSPG-4 to 15L*A



●VSPG-20 to 40L*A



Unit: mm

Model No.	Pad diameter ød	L	Lip internal height K	øD1	øD2	W
VSPG-4L*	4	12.2	-	3	14	0.7
VSPG-6L*	6	12.2	-	3	14	0.7
VSPG-8L*	8	12.2	-	3	14	0.7
VSPG-10L*	10	14	-	3	14	0.7
VSPG-15L*	15	14	-	3	14	0.7
VSPG-20L*	20	15	2	3	14	0.7
VSPG-30L*	30	15	2	3	14	0.7
VSPG-40L*	40	15	2	3	14	0.7

*1: øD2 and W dimensions in the table are only for VSP-HC type.

Safety precautions

CAUTION

■The VPHC type holder has no conductivity. When using a suction pad of conductive material, take measures to let electricity pass directly from the pad rubber.



Suction pad, soft bellows

VSP-*LB* Series

Suction pad with excellent pad rubber flexibility and a bellows structure that molds softly to the workpiece

RoHS

The bellows (bellows) section contracts and contracts to reduce the load on the workpiece when using a molded article that is easily scratched or tilted

A wide range of holder variations

Shape 16types

- Standard5 types
- CompactClass 4
- Low dust generation 2 types
- Lightweight3 types
- Low back: 2 types

Pipingconnection 5types

- Push-in fitting (ø1.8 to ø6)Three types
- Barbed fitting (ø4, ø6) Two types

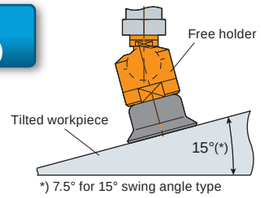
Stroke 12types

2 mm to 50 mm
(Depends on pad diameter and holder)

Low dust generation holders (LFC, LFD) are available, with minimal friction powder and low noise caused by sliding.

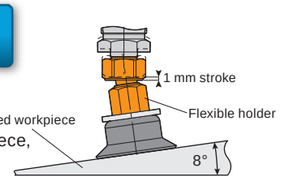
Supports assembly options of track swinging (free holder, flexible holder) on a workpiece surface with an angle.

Free holder (F1:30°, F2:15°)



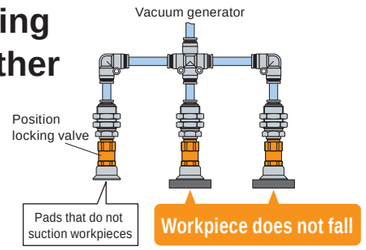
*) 7.5° for 15° swing angle type

Flexible holder (CF)



After removing the workpiece, returns to the normal position (vertical)

Supports assembly option of position locking valve (V) that reduces vacuum drop in another circuit even without a workpiece



Pad surface treatment (option) is available for special treatment to reduce suction marks

	-NF	-SF	-DL	-ER	-FG
Surface-Treated	Fiber raising: Nylon	Fiber raising: Silk	Anti-sticking	Reduced suction marks	Fluorine coating
Compatible materials	Silicone	Silicone	Silicone Conductive silicone	Nitriles Nitrile conductive NBR	Silicone Conductive silicone
Features	The fibers (nylon or silk) on the pad surface prevent rubber material transfer by avoiding direct contact with the workpiece.		Special coating with good slip. Effective for preventing adhesion of lightweight and thin workpieces.	Reduces suction marks by modifying the surface with an environmentally friendly chemical liquid.	Surface modification for special treatment to prevent adhesion to workpieces. Improved pad durability and wear resistance.

Pad shape

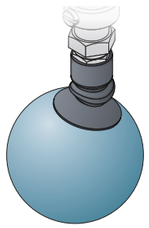






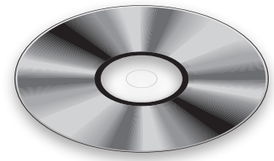
Softness that does not damage workpiece + 1-stage bellows structure

Rubber hardness is available from A40. The lip is soft and track well even on workpieces with irregular shapes. It also has a bellows structure, making it possible to track to changes in the height of the workpiece in contact with it and surface tilting.



Recommended workpiece

Easily damaged workpieces such as molded products



Pad diameter

5 types | 6 | 8 | 10 | 15 | 20

Pad material

7 types

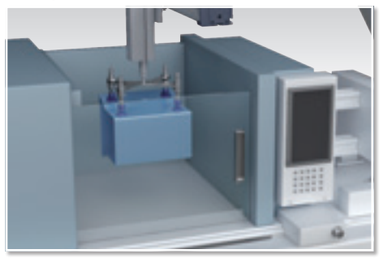
Nitriles | Silicone | Urethane | Conductive silicone | Conductive NBR (low resistance) | HNBR | EPDM

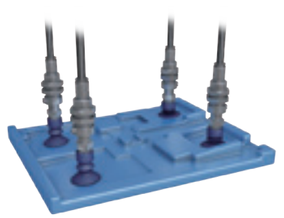
* Silicone (S) is compatible with the Food Sanitation Act. (holder is not supported/suction pad is compatible only with workpiece contact part)

Solution examples

Delicate resin molded products, etc.

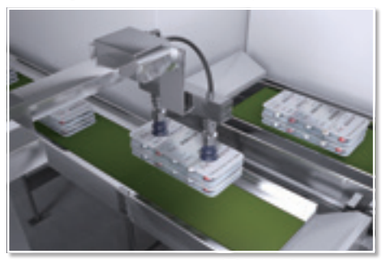
Gently transport workpieces that are easily damaged. In addition, the bellows structure track to vertical difference and workpiece inclination.





Transport of pharmaceuticals, etc.

The bellows structure extends and contracts to workpieces that are prone to scratches, reducing the load on the workpiece.



How to order

● Soft bellows

Suction pad

VSP	C	20	-20	LB	N	-ER	6		F1	V
Model No.	❶ Holder type	❷ Pad diameter	❸ Stroke option	❹ Pad shape	❺ Pad material	❻ Surface-treated	❼ Port size/shape	❽ Buffer load	❾ Swiveling pad	❿ Position locking valve

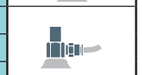
Pad rubber only

VSP	20	LB	N	-ER
Model No.	❷	❹	❺	❻

Pad rubber + set with fixing screw

VSPG	20	LB	N	-ER	A
Model No.	❷ Pad diameter	❹ Pad shape	❺ Pad material	❻ Surface-treated	

❶ Holder type

With/Without buffer	Type	Vacuum outlet	Code	
Fixed	Standard	Upward direction	A	
	Compact		MA	
	Standard	Lateral direction	B	
	Compact		MB	
	Low height		HE	
		Both lateral directions	HEW	
Buffer type	Standard	Upward direction	C	
	Compact		MC	
	Low dust generation		LFC	
	Lightweight		HC	
	Standard	Lateral direction	D	
	Compact		MD	
	Low dust generation		LFD	
			HD	
	Lightweight	Both lateral directions	HDW	
	Standard	Direct mounting	F	

❷ Pad diameter

Code	Description
6	ø6
8	ø8
10	ø10
15	ø15
20	ø20

❸ Stroke option

Description	Holder type C	D	HC	LFC	LFD	Code	
Specified stroke or without buffer	●	●	●			Blank	*1, *2
Stroke 2 mm				●		–2	*3
Stroke 5 mm				●	●	–5	
Stroke 10 mm	●	●	●	●	●	–10	
Stroke 15 mm	●	●	●	●	●	–15	
Stroke 20 mm	●	●	●	●	●	–20	
Stroke 25 mm			●			–25	
Stroke 30 mm	●	●	●			–30	
Stroke 40 mm	●	●	●			–40	
Stroke 50 mm	●	●	●			–50	

*1: ❶Blank for models other than C, D, HC, LFC, LFD.
*2: For blank designated strokes, check the stroke dimensions with the O.D. dimensions.
*3: For 6 to 15, -2 can be selected.

❹ Pad shape

Code	Description	
LB	Soft bellows	

❺ Pad material

Code	Description
N	Nitrile rubber
S	Silicone rubber
U	Urethane rubber
SE	Conductive silicone rubber
NE	Conductive NBR (low resistance)
HN	HNBR
EP	EPDM

❻ Surface-treated

Description	Compatible pad material N	S	SE	NE	Supported pad diameter Soft bellows (LB)	Code
No surface treatment	All pads material, all pad diameters					Blank
Fiber nap (nylon)		●			ø10 to ø20	–NF
Fiber raising (silk)		●			ø10 to ø20	–SF
Anti-stick special coating		●	●		All sizes	–DL
Suction mark reduction surface modification	●			●	All sizes	–ER
Fluorine coating		●	●		All sizes	–FG

Specifications for rechargeable battery (Catalog No.CC-1226A)

●Design compatible with rechargeable battery manufacturing process

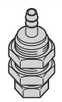
VSP -..... -P4*

Specifications for food manufacturing processes (Catalog No.CC-1271A)

●Food-grade lubricants that can be used in food manufacturing processes, and resin/rubber materials that are compatible with the Food Sanitation Act are used

VSP -..... -FP*

❼ Port size/shape

Description	Holder type A	B	C	D	MA	MB	MC	MD	LFC	LFD	HC	HD	HDW	HE	HEW	Code	
(❶: for F)																Blank	
ø1.8 push-in fitting						●	●	●			●	●	●	●	●	2	
ø4 push-in fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	
ø6 push-in fitting	●	●	●	●		●		●	●	●	●	●	●	●	●	6	
ø4 Push-in fitting, without spring cover			●	●												4C	
ø6 Push-in fitting, without spring cover			●	●												6C	
ø4 barbed fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4T	
ø6 barbed fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	6T	
ø4 barbed fitting, without spring cover			●	●												4TC	
ø6 Barbed fitting, without spring cover			●	●												6TC	

*1: ❶If -20 to -50 is selected for C and D, 4C, 6C, 4TC, 6TC can be selected.
*2: ❷The available port size and shape differ depending on the pad diameter. Check with the combination table below.

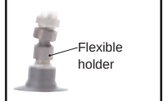
❽ Buffer load

Code	Description
Blank	Standard load or without buffer
L	Low load (1/4 of standard load)

*1 *2

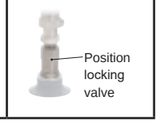
*1: Blank for models other than LFC.
*2: When -2 is selected, blank.

❾ Swiveling pad

Code	Description	
Blank	None	*1, *2
F1	With free holder swing angle 30°	 Free holder
F2	With free holder swing angle 15°	
CF	With flexible holder angle of 8°	 Flexible holder

*1: For HD, HE, HDW and HEW, is blank.
*2: Blank for HC.

❿ Position locking valve

Code	Description	
Blank	None	*1, *2
V	With position locking valve	 Position locking valve

*1: For HD, HE, HDW and HEW, is blank.
*2: For -NF and -SF, is blank.

Holder shape - pad diameter - pad shape - port size/shape combinations

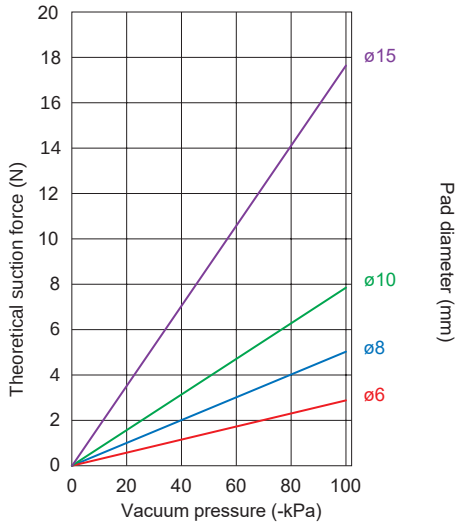
Holder type	Pad diameter	Push-in fitting ø4 4	ø4 4C	ø6 6	ø6 6C	Barbed fitting ø4 4T	ø4 4TC	ø6 6T	ø6 6TC
A	ø6 to ø15			●				●	
	ø20	●		●		●		●	
B	All sizes	●		●		●		●	
C	All sizes	●	●	●	●	●	●	●	●
D	All sizes	●	●	●	●	●	●	●	●

Holder type	Pad diameter	Thread M14 Blank
F	All sizes	●

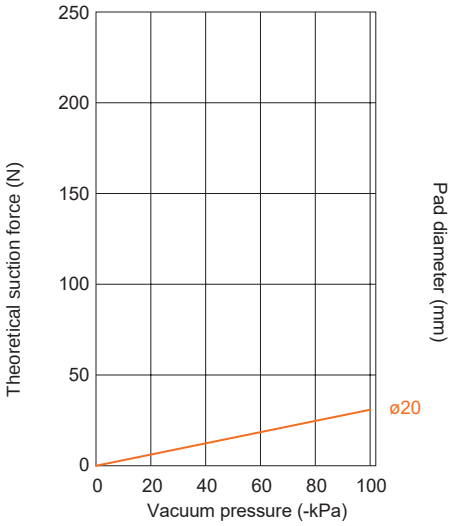
Holder type	Pad diameter	Push-in fitting ø1.8 2	ø4 4	ø6 6	Barbed fitting ø4 4T	ø6 6T
MA	ø6 to ø15		●		●	
	ø20		●		●	●
MB	All sizes	●	●	●	●	●
MC	All sizes	●	●		●	●
MD	All sizes	●	●	●	●	●
LFC	ø6 to ø15		●		●	●
	ø20		●	●	●	●
LFD	ø6 to ø15		●		●	●
	ø20		●	●	●	●
HC	All sizes	●	●	●	●	●
HD	All sizes	●	●	●	●	●
HDW	All sizes	●	●	●	●	●
HE	All sizes	●	●	●	●	●
HEW	All sizes	●	●	●	●	●

Theoretical suction force

●Pad diameter: ø6 mm to ø15 mm



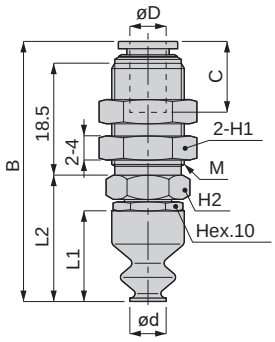
●Pad diameter: ø20 mm



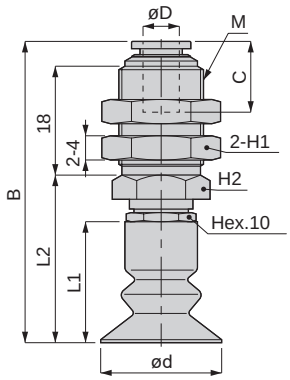
For soft bellows type suction force, it may not be possible to secure the calculated suction force (theoretical suction force x safety factor) due to the effect of pad characteristics such as degree of vacuum/pad material/suctioned object. Before selection, use the suction force obtained by “Selection method of suction pad” (page 288) as a guide, and make sure that there are no problems with the suction capacity on the actual machine. In addition, the soft bellows type is not suitable for vertical lifting. Before use, check operation sufficiently with the actual device.

Dimensions (fixed, vacuum outlet top VSP-A, push-in fitting)

●VSP-A6 to 15LB*-6



●VSP-A20LB*-4/6

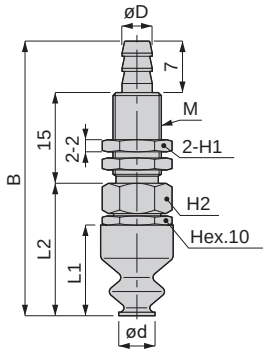


Unit: mm

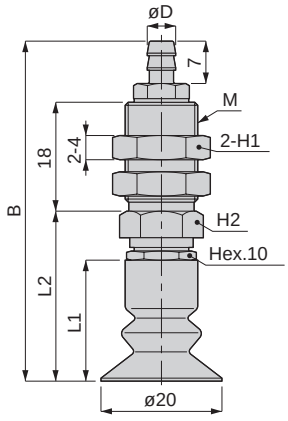
Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	Tube end C	Hexagon H1	Hexagon H2	Weight (g)
VSP-A6LB*-6	6	6	M12x1	43.4	15	21.1	11.9	14	12	24
VSP-A8LB*-6	8	6	M12x1	43.4	15	21.1	11.9	14	12	24
VSP-A10LB*-6	10	6	M12x1	43.9	15.5	21.6	11.9	14	12	25
VSP-A15LB*-6	15	6	M12x1	45.9	17.5	23.6	11.9	14	12	25
VSP-A20LB*-4	20	4	M12x1	58.9	20	28	11.2	14	12	35
VSP-A20LB*-6		6	M14x1	49.9		27.6	11.9	17	14	41

Dimensions (fixed, vacuum outlet top VSP-A, barbed fitting)

●VSP-A6 to 15LB*-6T



●VSP-A20LB*-4T/6T

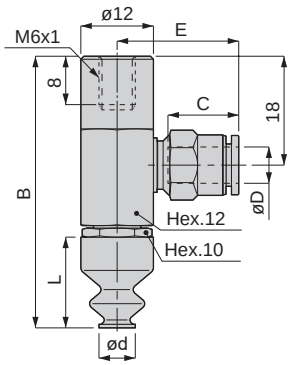


Unit: mm

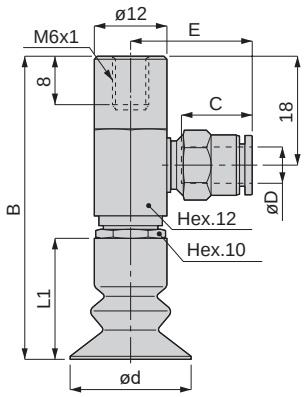
Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	Hexagon H1	Hexagon H2	Weight (g)
VSP-A6LB*-6T	6	4	M8x0.75	44.1	15	22.1	10	10	14
VSP-A8LB*-6T	8	4	M8x0.75	44.1	15	22.1	10	10	14
VSP-A10LB*-6T	10	4	M8x0.75	44.6	15.5	22.6	10	10	15
VSP-A15LB*-6T	15	4	M8x0.75	46.6	17.5	24.6	10	10	16
VSP-A20LB*-4T	20	2.5	M12x1	56	20	28	14	12	34
VSP-A20LB*-6T		4							

Dimensions (fixed, vacuum outlet side VSP-B, push-in fitting)

●VSP-B6 to 15LB*-4/6



●VSP-B20LB*-4/6

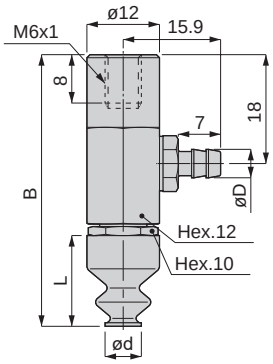


Unit: mm

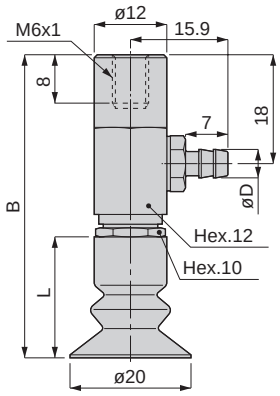
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-B6LB*-4	6	4	45.1	15	11.2	18.8	32
VSP-B6LB*-6		6			11.9	20.1	33
VSP-B8LB*-4	8	4	45.1	15	11.2	18.8	32
VSP-B8LB*-6		6			11.9	20.1	33
VSP-B10LB*-4	10	4	45.6	15.5	11.2	18.8	33
VSP-B10LB*-6		6			11.9	20.1	34
VSP-B15LB*-4	15	4	47.6	17.5	11.2	18.8	33
VSP-B15LB*-6		6			11.9	20.1	34
VSP-B20LB*-4	20	4	50	20	11.2	18.8	37
VSP-B20LB*-6		6			11.9	20.1	38

Dimensions (fixed, vacuum outlet side VSP-B, barbed fitting)

●VSP-B6 to 15LB*-4T/6T



●VSP-B20LB*-4T/6T

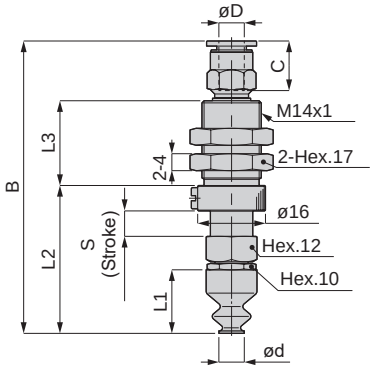


Unit: mm

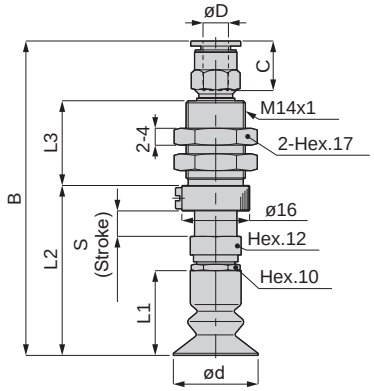
Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-B6LB*-4T	6	2.5	42.3	12.2	32
VSP-B6LB*-6T		4			
VSP-B8LB*-4T	8	2.5	42.3	12.2	32
VSP-B8LB*-6T		4			
VSP-B10LB*-4T	10	2.5	44.1	14	32
VSP-B10LB*-6T		4			
VSP-B15LB*-4T	15	2.5	44.1	14	33
VSP-B15LB*-6T		4			
VSP-B20LB*-4T	20	2.5	45	15	38
VSP-B20LB*-6T		4			

Dimensions (buffer, vacuum outlet top VSP-C, push-in fitting)

●VSP-C6 to 15LB*-4/6
●VSP-C6 to 15-□LB*-4/6



●VSP-C20LB*-4/6
●VSP-C20-□LB*-4/6

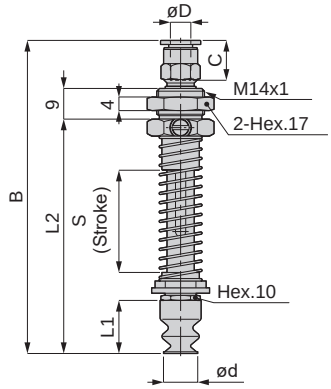


Unit: mm

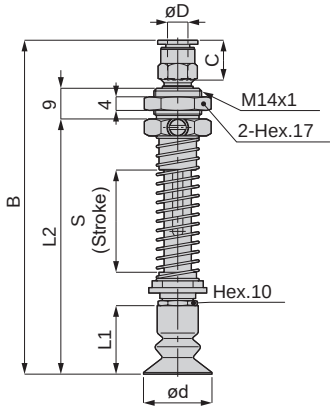
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C6LB*-4	6	4	68.1	15	35.1	20	11.2	6	4.0 to 7.1	38
VSP-C6LB*-6		6	69.4				11.9			39
VSP-C6-10LB*-4		4	72.6		39.6		11.2	10	2.0 to 5.2	40
VSP-C6-10LB*-6		6	73.9				11.9			41
VSP-C6-15LB*-4		4	82.6		44.6	25	11.2	15	2.0 to 5.9	46
VSP-C6-15LB*-6		6	83.9				11.9			47
VSP-C6-20LB*-4		4	98.5		51.6	34	11.2	20	1.1 to 4.8	53
VSP-C6-20LB*-6		6	99.9				11.9			54
VSP-C8LB*-4	8	4	68.1	15	35.1	20	11.2	6	4.0 to 7.1	38
VSP-C8LB*-6		6	69.4				11.9			39
VSP-C8-10LB*-4		4	72.6		39.6		11.2	10	2.0 to 5.2	40
VSP-C8-10LB*-6		6	73.9				11.9			41
VSP-C8-15LB*-4		4	82.6		44.6	25	11.2	15	2.0 to 5.9	46
VSP-C8-15LB*-6		6	83.9				11.9			47
VSP-C8-20LB*-4		4	98.5		51.6	34	11.2	20	1.1 to 4.8	53
VSP-C8-20LB*-6		6	99.9				11.9			54
VSP-C10LB*-4	10	4	68.6	15.5	35.6	20	11.2	6	4.0 to 7.1	38
VSP-C10LB*-6		6	69.9				11.9			39
VSP-C10-10LB*-4		4	73.1		40.1		11.2	10	2.0 to 5.2	40
VSP-C10-10LB*-6		6	74.4				11.9			41
VSP-C10-15LB*-4		4	83.1		45.1	25	11.2	15	2.0 to 5.9	45
VSP-C10-15LB*-6		6	84.4				11.9			46
VSP-C10-20LB*-4		4	99.1		52.1	34	11.2	20	1.1 to 4.8	52
VSP-C10-20LB*-6		6	100.4				11.9			53
VSP-C15LB*-4	15	4	70.6	17.5	37.6	20	11.2	6	4.0 to 7.1	39
VSP-C15LB*-6		6	71.9				11.9			40
VSP-C15-10LB*-4		4	75.1		42.1		11.2	10	2.0 to 5.2	41
VSP-C15-10LB*-6		6	76.4				11.9			42
VSP-C15-15LB*-4		4	85.1		47.1	25	11.2	15	2.0 to 5.9	46
VSP-C15-15LB*-6		6	86.4				11.9			47
VSP-C15-20LB*-4		4	101.1		54.1	34	11.2	20	1.1 to 4.8	53
VSP-C15-20LB*-6		6	102.4				11.9			54
VSP-C20LB*-4	20	4	73	20	40	20	11.2	6	7.0 to 12.6	43
VSP-C20LB*-6		6	74.3				11.9			44
VSP-C20-10LB*-4		4	79		46		11.2	10	3.3 to 10.0	47
VSP-C20-10LB*-6		6	80.3				11.9			48
VSP-C20-15LB*-4		4	89		51	25	11.2	15	3.3 to 10.4	52
VSP-C20-15LB*-6		6	90.3				11.9			53
VSP-C20-20LB*-4		4	105		58	34	11.2	20	2.0 to 8.7	58
VSP-C20-20LB*-6		6	106.3				11.9			59

Dimensions (buffer, vacuum outlet top VSP-C, push-in fitting without spring cover)

●VSP-C6B*15-□LB*-4C/6C



●VSP-C20-□LB*-4C/6C

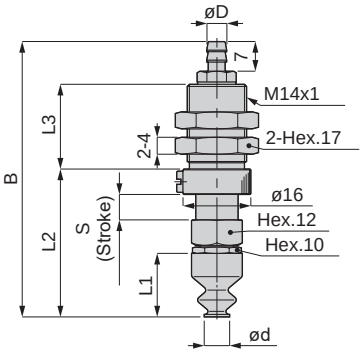


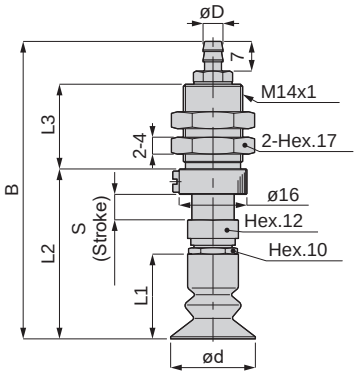
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C6-20LB*-4C	6	4	75.6	15	53.6	11.2	20	1.5 to 4.9	45
VSP-C6-20LB*-6C		6	76.9			11.9			46
VSP-C6-30LB*-4C		4	88.6		66.6	11.2	30	1.1 to 4.8	51
VSP-C6-30LB*-6C		6	89.9			11.9			52
VSP-C6-40LB*-4C		4	101.6		79.6	11.2	40	1.0 to 4.5	56
VSP-C6-40LB*-6C		6	102.9			11.9			57
VSP-C6-50LB*-4C		4	114.6		92.6	11.2	50	0.9 to 4.5	61
VSP-C6-50LB*-6C		6	115.9			11.9			62
VSP-C8-20LB*-4C	8	4	75.6	15	53.6	11.2	20	1.5 to 4.9	45
VSP-C8-20LB*-6C		6	76.9			11.9			46
VSP-C8-30LB*-4C		4	88.6		66.6	11.2	30	1.1 to 4.8	51
VSP-C8-30LB*-6C		6	89.9			11.9			52
VSP-C8-40LB*-4C		4	101.6		79.6	11.2	40	1.0 to 4.5	56
VSP-C8-40LB*-6C		6	102.9			11.9			57
VSP-C8-50LB*-4C		4	114.6		92.6	11.2	50	0.9 to 4.5	61
VSP-C8-50LB*-6C		6	115.9			11.9			62
VSP-C10-20LB*-4C	10	4	76.1	15.5	54.1	11.2	20	1.5 to 4.9	45
VSP-C10-20LB*-6C		6	77.4			11.9			46
VSP-C10-30LB*-4C		4	89.1		67.1	11.2	30	1.1 to 4.8	51
VSP-C10-30LB*-6C		6	90.4			11.9			52
VSP-C10-40LB*-4C		4	102.1		80.1	11.2	40	1.0 to 4.5	56
VSP-C10-40LB*-6C		6	103.4			11.9			57
VSP-C10-50LB*-4C		4	115.1		93.1	11.2	50	0.9 to 4.5	61
VSP-C10-50LB*-6C		6	116.4			11.9			62
VSP-C15-20LB*-4C	15	4	78.1	17.5	56.1	11.2	20	1.5 to 4.9	45
VSP-C15-20LB*-6C		6	79.4			11.9			46
VSP-C15-30LB*-4C		4	91.1		69.1	11.2	30	1.1 to 4.8	51
VSP-C15-30LB*-6C		6	92.4			11.9			52
VSP-C15-40LB*-4C		4	104.1		82.1	11.2	40	1.0 to 4.5	56
VSP-C15-40LB*-6C		6	105.4			11.9			57
VSP-C15-50LB*-4C		4	117.1		95.1	11.2	50	0.9 to 4.5	61
VSP-C15-50LB*-6C		6	118.4			11.9			62
VSP-C20-20LB*-4C	20	4	82	20	60	11.2	20	1.5 to 4.9	50
VSP-C20-20LB*-6C		6	83.3			11.9			51
VSP-C20-30LB*-4C		4	95		73	11.2	30	1.1 to 4.8	55
VSP-C20-30LB*-6C		6	96.3			11.9			56
VSP-C20-40LB*-4C		4	108		86	11.2	40	1.0 to 4.5	60
VSP-C20-40LB*-6C		6	109.3			11.9			61
VSP-C20-50LB*-4C		4	121		99	11.2	50	0.9 to 4.5	65
VSP-C20-50LB*-6C		6	122.3			11.9			66

Dimensions (buffer, vacuum outlet top VSP-C, barbed fitting)

●VSP-C6 to 15LB*-4T/6T
●VSP-C6 to 15-□LB*-4T/6T
●VSP-C20LB*-4T/6T
●VSP-C20-□LB*-4T/6T



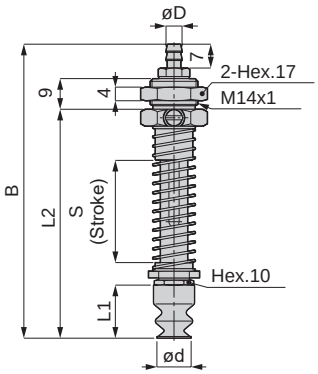


Unit: mm

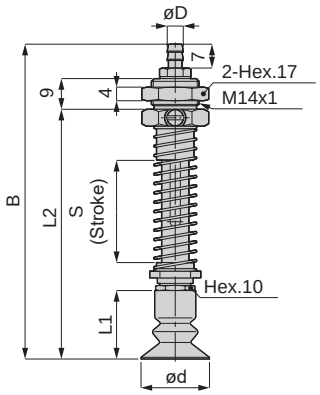
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-C6LB*-4T	6	4	65.2	15	35.1	20	6	4.0 to 7.1	37
VSP-C6LB*-6T		6							
VSP-C6-10LB*-4T		4	69.7		39.6		10	2.0 to 5.2	40
VSP-C6-10LB*-6T		6							
VSP-C6-15LB*-4T		4	79.7		44.6	25	15	2.0 to 5.9	45
VSP-C6-15LB*-6T		6							
VSP-C6-20LB*-4T		4	95.7		51.6	34	20	1.1 to 4.8	51
VSP-C6-20LB*-6T		6							
VSP-C8LB*-4T	8	4	65.2	15	35.1	20	6	4.0 to 7.1	37
VSP-C8LB*-6T		6							
VSP-C8-10LB*-4T		4	69.7		39.6		10	2.0 to 5.2	40
VSP-C8-10LB*-6T		6							
VSP-C8-15LB*-4T		4	79.7		44.6	25	15	2.0 to 5.9	45
VSP-C8-15LB*-6T		6							
VSP-C8-20LB*-4T		4	95.7		51.6	34	20	1.1 to 4.8	51
VSP-C8-20LB*-6T		6							
VSP-C10LB*-4T	10	4	65.7	15.5	35.6	20	6	4.0 to 7.1	37
VSP-C10LB*-6T		6							
VSP-C10-10LB*-4T		4	70.2		40.1		10	2.0 to 5.2	40
VSP-C10-10LB*-6T		6							
VSP-C10-15LB*-4T		4	80.2		45.1	25	15	2.0 to 5.9	45
VSP-C10-15LB*-6T		6							
VSP-C10-20LB*-4T		4	96.2		52.1	34	20	1.1 to 4.8	51
VSP-C10-20LB*-6T		6							
VSP-C15LB*-4T	15	4	67.7	17.5	37.6	20	6	4.0 to 7.1	38
VSP-C15LB*-6T		6							
VSP-C15-10LB*-4T		4	72.2		42.1		10	2.0 to 5.2	41
VSP-C15-10LB*-6T		6							
VSP-C15-15LB*-4T		4	82.2		47.1	25	15	2.0 to 5.9	46
VSP-C15-15LB*-6T		6							
VSP-C15-20LB*-4T		4	98.2		54.1	34	20	1.1 to 4.8	52
VSP-C15-20LB*-6T		6							
VSP-C20LB*-4T	20	4	70.1	20	40	20	6	7.0 to 12.6	42
VSP-C20LB*-6T		6							
VSP-C20-10LB*-4T		4	76.1		46		10	3.3 to 10.0	46
VSP-C20-10LB*-6T		6							
VSP-C20-15LB*-4T		4	86.1		51	25	15	3.3 to 10.4	51
VSP-C20-15LB*-6T		6							
VSP-C20-20LB*-4T		4	102.1		58	34	20	2.0 to 8.7	57
VSP-C20-20LB*-6T		6							

Dimensions (buffer, vacuum outlet top VSP-C, barbed fitting without spring cover)

●VSP-C6 to 15-□LB*-4TC/6TC



●VSP-C20-□LB*-4TC/6TC

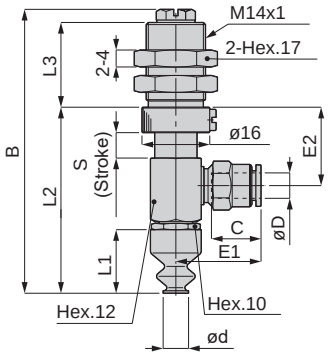


Unit: mm

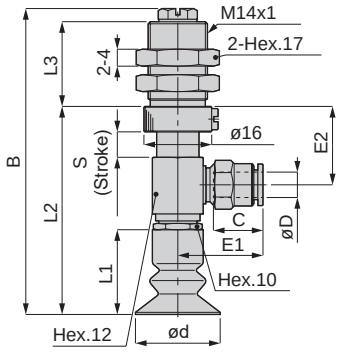
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-C6-20LB*-4TC	6	4	72.7	15	53.6	20	1.5 to 4.9	44
VSP-C6-20LB*-6TC		6						
VSP-C6-30LB*-4TC		4	85.7		66.6	30	1.1 to 4.8	50
VSP-C6-30LB*-6TC		6						
VSP-C6-40LB*-4TC		4	98.7		79.6	40	1.0 to 4.5	55
VSP-C6-40LB*-6TC		6						
VSP-C6-50LB*-4TC		4	111.7		92.6	50	0.9 to 4.5	60
VSP-C6-50LB*-6TC		6						
VSP-C8-20LB*-4TC	8	4	72.7	15	53.6	20	1.5 to 4.9	44
VSP-C8-20LB*-6TC		6						
VSP-C8-30LB*-4TC		4	85.7		66.6	30	1.1 to 4.8	50
VSP-C8-30LB*-6TC		6						
VSP-C8-40LB*-4TC		4	98.7		79.6	40	1.0 to 4.5	55
VSP-C8-40LB*-6TC		6						
VSP-C8-50LB*-4TC		4	111.7		92.6	50	0.9 to 4.5	60
VSP-C8-50LB*-6TC		6						
VSP-C10-20LB*-4TC	10	4	73.2	15.5	54.1	20	1.5 to 4.9	44
VSP-C10-20LB*-6TC		6						
VSP-C10-30LB*-4TC		4	86.2		67.1	30	1.1 to 4.8	50
VSP-C10-30LB*-6TC		6						
VSP-C10-40LB*-4TC		4	99.2		80.1	40	1.0 to 4.5	55
VSP-C10-40LB*-6TC		6						
VSP-C10-50LB*-4TC		4	112.2		93.1	50	0.9 to 4.5	60
VSP-C10-50LB*-6TC		6						
VSP-C15-20LB*-4TC	15	4	75.2	17.5	56.1	20	1.5 to 4.9	44
VSP-C15-20LB*-6TC		6						
VSP-C15-30LB*-4TC		4	88.2		69.1	30	1.1 to 4.8	50
VSP-C15-30LB*-6TC		6						
VSP-C15-40LB*-4TC		4	101.2		82.1	40	1.0 to 4.5	55
VSP-C15-40LB*-6TC		6						
VSP-C15-50LB*-4TC		4	114.2		95.1	50	0.9 to 4.5	60
VSP-C15-50LB*-6TC		6						
VSP-C20-20LB*-4TC	20	4	79.1	20	60	20	1.5 to 4.9	53
VSP-C20-20LB*-6TC		6						
VSP-C20-30LB*-4TC		4	92.1		73	30	1.1 to 4.8	58
VSP-C20-30LB*-6TC		6						
VSP-C20-40LB*-4TC		4	105.1		86	40	1.0 to 4.5	63
VSP-C20-40LB*-6TC		6						
VSP-C20-50LB*-4TC		4	118.1		99	50	0.9 to 4.5	68
VSP-C20-50LB*-6TC		6						

Dimensions (buffer, vacuum outlet side VSP-D, push-in fitting)

●VSP-D6 to 15LB*-4/6
●VSP-D6 to 15-□LB*-4/6



●VSP-D20LB*-4/6
●VSP-D20-□LB*-4/6

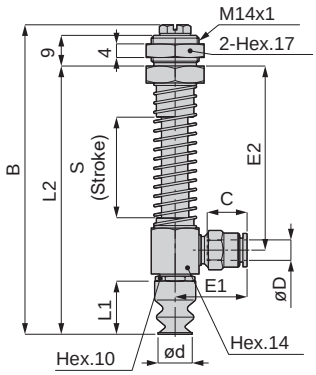


Unit: mm

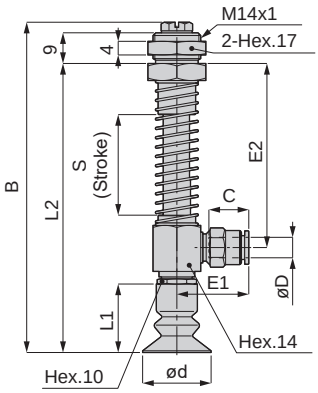
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D6LB*-4	6	4	67.2	15	44.1	20	11.2	18.8	18.5	6	4.0 to 7.1	49
VSP-D6LB*-6		6					11.9	20.1				50
VSP-D6-10LB*-4		4	72.2		49.1		11.2	18.8	25	10	2.0 to 5.2	52
VSP-D6-10LB*-6		6					11.9	20.1				53
VSP-D6-15LB*-4		4	82.2		54.1	25	11.2	18.8	30	15	2.0 to 5.9	58
VSP-D6-15LB*-6		6					11.9	20.1				59
VSP-D6-20LB*-4		4	98.2		61.1	34	11.2	18.8	37	20	1.1 to 4.8	68
VSP-D6-20LB*-6		6					11.9	20.1				69
VSP-D8LB*-4	8	4	67.2	15	44.1	20	11.2	18.8	18.5	6	4.0 to 7.1	49
VSP-D8LB*-6		6					11.9	20.1				50
VSP-D8-10LB*-4		4	72.2		49.1		11.2	18.8	25	10	2.0 to 5.2	52
VSP-D8-10LB*-6		6					11.9	20.1				53
VSP-D8-15LB*-4		4	82.2		54.1	25	11.2	18.8	30	15	2.0 to 5.9	58
VSP-D8-15LB*-6		6					11.9	20.1				59
VSP-D8-20LB*-4		4	98.2		61.1	34	11.2	18.8	37	20	1.1 to 4.8	68
VSP-D8-20LB*-6		6					11.9	20.1				69
VSP-D10LB*-4	10	4	67.7	15.5	44.6	20	11.2	18.8	18.5	6	4.0 to 7.1	50
VSP-D10LB*-6		6					11.9	20.1				51
VSP-D10-10LB*-4		4	72.7		49.6		11.2	18.8	25	10	2.0 to 5.2	53
VSP-D10-10LB*-6		6					11.9	20.1				54
VSP-D10-15LB*-4		4	82.7		54.6	25	11.2	18.8	30	15	2.0 to 5.9	59
VSP-D10-15LB*-6		6					11.9	20.1				60
VSP-D10-20LB*-4		4	98.7		61.6	34	11.2	18.8	37	20	1.1 to 4.8	69
VSP-D10-20LB*-6		6					11.9	20.1				70
VSP-D15LB*-4	15	4	69.7	17.5	46.6	20	11.2	18.8	18.5	6	4.0 to 7.1	51
VSP-D15LB*-6		6					11.9	20.1				52
VSP-D15-10LB*-4		4	74.7		51.6		11.2	18.8	25	10	2.0 to 5.2	54
VSP-D15-10LB*-6		6					11.9	20.1				55
VSP-D15-15LB*-4		4	84.7		56.6	25	11.2	18.8	30	15	2.0 to 5.9	60
VSP-D15-15LB*-6		6					11.9	20.1				61
VSP-D15-20LB*-4		4	100.7		63.6	34	11.2	18.8	37	20	1.1 to 4.8	70
VSP-D15-20LB*-6		6					11.9	20.1				71
VSP-D20LB*-4	20	4	72.1	20	49	20	11.2	18.8	18.5	6	7.0 to 12.6	55
VSP-D20LB*-6		6					11.9	20.1				56
VSP-D20-10LB*-4		4	78.1		55		11.2	18.8	24.5	10	3.3 to 10.0	58
VSP-D20-10LB*-6		6					11.9	20.1				59
VSP-D20-15LB*-4		4	88.1		60	25	11.2	18.8	29.5	15	3.3 to 10.4	63
VSP-D20-15LB*-6		6					11.9	20.1				64
VSP-D20-20LB*-4		4	104.1		67	34	11.2	18.8	36.5	20	2.0 to 8.7	73
VSP-D20-20LB*-6		6					11.9	20.1				74

Dimensions (buffer, vacuum outlet side VSP-D, push-in fitting without spring cover)

●VSP-D6 to 15-□LB*-4C/6C



●VSP-D20-□LB*-4C/6C



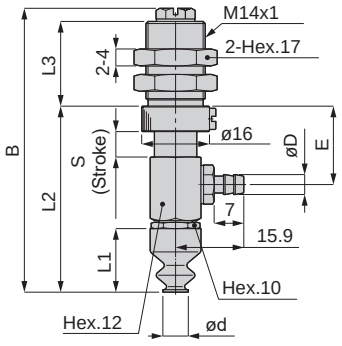
Unit: mm

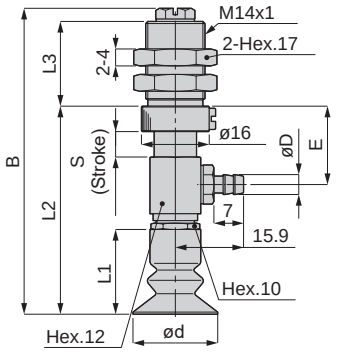
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D6-20LB*-4C	6	4	77.2	15	65.1	11.2	19.8	40.5	20	1.5 to 4.9	71
VSP-D6-20LB*-6C		6				11.9	21.1				72
VSP-D6-30LB*-4C		4	90.2		78.1	11.2	19.8	53.5	30	1.1 to 4.8	77
VSP-D6-30LB*-6C		6				11.9	21.1				78
VSP-D6-40LB*-4C		4	103.2		91.1	11.2	19.8	66.5	40	1.0 to 4.5	84
VSP-D6-40LB*-6C		6				11.9	21.1				85
VSP-D6-50LB*-4C		4	116.2		104.1	11.2	19.8	79.5	50	0.9 to 4.5	91
VSP-D6-50LB*-6C		6				11.9	21.1				92
VSP-D8-20LB*-4C	8	4	77.2	15	65.1	11.2	19.8	40.5	20	1.5 to 4.9	71
VSP-D8-20LB*-6C		6				11.9	21.1				72
VSP-D8-30LB*-4C		4	90.2		78.1	11.2	19.8	53.5	30	1.1 to 4.8	77
VSP-D8-30LB*-6C		6				11.9	21.1				78
VSP-D8-40LB*-4C		4	103.2		91.1	11.2	19.8	66.5	40	1.0 to 4.5	84
VSP-D8-40LB*-6C		6				11.9	21.1				85
VSP-D8-50LB*-4C		4	116.2		104.1	11.2	19.8	79.5	50	0.9 to 4.5	91
VSP-D8-50LB*-6C		6				11.9	21.1				92
VSP-D10-20LB*-4C	10	4	77.7	15.5	65.6	11.2	19.8	40.5	20	1.5 to 4.9	71
VSP-D10-20LB*-6C		6				11.9	21.1				72
VSP-D10-30LB*-4C		4	90.7		78.6	11.2	19.8	53.5	30	1.1 to 4.8	77
VSP-D10-30LB*-6C		6				11.9	21.1				78
VSP-D10-40LB*-4C		4	103.7		91.6	11.2	19.8	66.5	40	1.0 to 4.5	84
VSP-D10-40LB*-6C		6				11.9	21.1				85
VSP-D10-50LB*-4C		4	116.7		104.6	11.2	19.8	79.5	50	0.9 to 4.5	91
VSP-D10-50LB*-6C		6				11.9	21.1				92
VSP-D15-20LB*-4C	15	4	79.7	17.5	67.6	11.2	19.8	40.5	20	1.5 to 4.9	71
VSP-D15-20LB*-6C		6				11.9	21.1				72
VSP-D15-30LB*-4C		4	92.7		80.6	11.2	19.8	53.5	30	1.1 to 4.8	77
VSP-D15-30LB*-6C		6				11.9	21.1				78
VSP-D15-40LB*-4C		4	105.7		93.6	11.2	19.8	66.5	40	1.0 to 4.5	84
VSP-D15-40LB*-6C		6				11.9	21.1				85
VSP-D15-50LB*-4C		4	118.7		106.6	11.2	19.8	79.5	50	0.9 to 4.5	91
VSP-D15-50LB*-6C		6				11.9	21.1				92
VSP-D20-20LB*-4C	20	4	83.6	20	71.5	11.2	19.8	41	20	1.5 to 4.9	72
VSP-D20-20LB*-6C		6				11.9	21.1				73
VSP-D20-30LB*-4C		4	96.6		84.5	11.2	19.8	54	30	1.1 to 4.8	79
VSP-D20-30LB*-6C		6				11.9	21.1				80
VSP-D20-40LB*-4C		4	109.6		97.5	11.2	19.8	67	40	1.0 to 4.5	84
VSP-D20-40LB*-6C		6				11.9	21.1				85
VSP-D20-50LB*-4C		4	122.6		110.5	11.2	19.8	80	50	0.9 to 4.5	92
VSP-D20-50LB*-6C		6				11.9	21.1				93

Dimensions (buffer, vacuum outlet side VSP-D, barbed fitting)

●VSP-D6 to 15LB*-4T/6T
●VSP-D6 to 15-□LB*-4T/6T

●VSP-D20LB*-4T/6T
●VSP-D20-□LB*-4T/6T



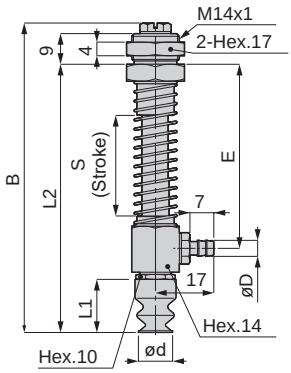


Unit: mm

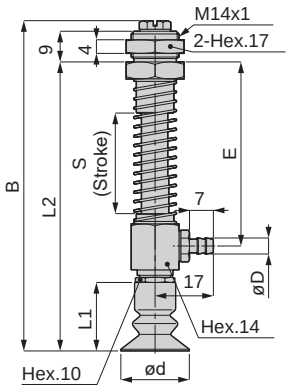
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	E	Stroke S	Spring force (N)	Weight (g)
VSP-D6LB*-4T	6	2.5	67.2	15	44.1	20	18.5	6	4.0 to 7.1	49
VSP-D6LB*-6T		4								
VSP-D6-10LB*-4T		2.5	72.2		49.1		25	10	2.0 to 5.2	50
VSP-D6-10LB*-6T		4								
VSP-D6-15LB*-4T		2.5	82.2		54.1	25	30	15	2.0 to 5.9	56
VSP-D6-15LB*-6T		4								
VSP-D6-20LB*-4T		2.5	98.2		61.1	34	37	20	1.1 to 4.8	66
VSP-D6-20LB*-6T		4								
VSP-D8LB*-4T	8	2.5	67.2	15	44.1	20	18.5	6	4.0 to 7.1	48
VSP-D8LB*-6T		4								
VSP-D8-10LB*-4T		2.5	72.2		49.1		25	10	2.0 to 5.2	50
VSP-D8-10LB*-6T		4								
VSP-D8-15LB*-4T		2.5	82.2		54.1	25	30	15	2.0 to 5.9	56
VSP-D8-15LB*-6T		4								
VSP-D8-20LB*-4T		2.5	98.2		61.1	34	37	20	1.1 to 4.8	66
VSP-D8-20LB*-6T		4								
VSP-D10LB*-4T	10	2.5	67.7	15.5	44.6	20	18.5	6	4.0 to 7.1	49
VSP-D10LB*-6T		4								
VSP-D10-10LB*-4T		2.5	72.7		49.6		25	10	2.0 to 5.2	50
VSP-D10-10LB*-6T		4								
VSP-D10-15LB*-4T		2.5	82.7		54.6	25	30	15	2.0 to 5.9	56
VSP-D10-15LB*-6T		4								
VSP-D10-20LB*-4T		2.5	98.2		61.6	34	37	20	1.1 to 4.8	66
VSP-D10-20LB*-6T		4								
VSP-D15LB*-4T	15	2.5	69.7	17.5	46.6	20	18.5	6	4.0 to 7.1	50
VSP-D15LB*-6T		4								
VSP-D15-10LB*-4T		2.5	74.7		51.6		25	10	2.0 to 5.2	51
VSP-D15-10LB*-6T		4								
VSP-D15-15LB*-4T		2.5	84.7		56.6	25	30	15	2.0 to 5.9	57
VSP-D15-15LB*-6T		4								
VSP-D15-20LB*-4T		2.5	100.7		63.6	34	37	20	1.1 to 4.8	67
VSP-D15-20LB*-6T		4								
VSP-D20LB*-4T	20	2.5	72.1	20	49	20	18.5	6	7.0 to 12.6	53
VSP-D20LB*-6T		4								
VSP-D20-10LB*-4T		2.5	78.1		55		24.5	10	3.3 to 10.0	54
VSP-D20-10LB*-6T		4								
VSP-D20-15LB*-4T		2.5	88.1		60	25	29.5	15	3.3 to 10.4	61
VSP-D20-15LB*-6T		4								
VSP-D20-20LB*-4T		2.5	104.1		67	34	36.5	20	2.0 to 8.7	71
VSP-D20-20LB*-6T		4								

Dimensions (buffer, vacuum outlet side VSP-D, barbed fitting without spring cover)

●VSP-D6 to 15-□LB*-4TC/6TC



●VSP-D20-□LB*-4TC/6TC

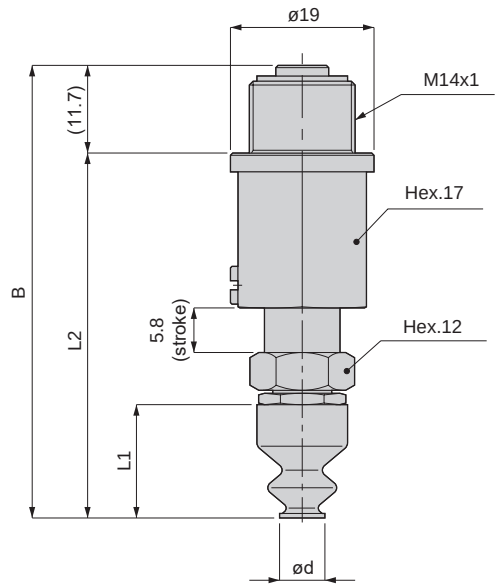


Unit: mm

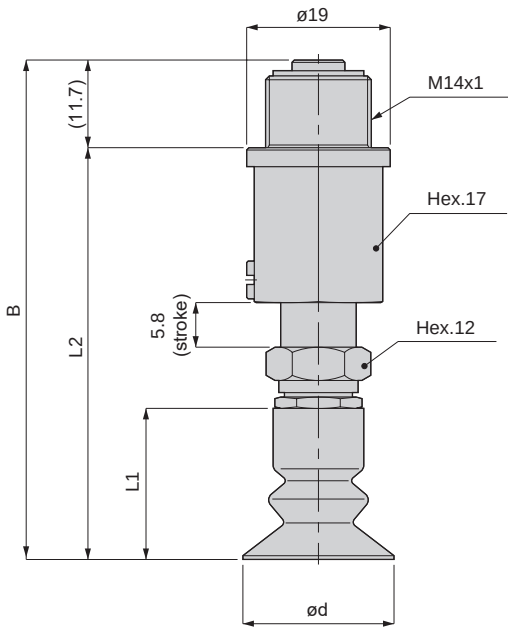
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-D6-20LB*-4TC	6	2.5	77.2	15	65.1	40.5	20	1.5 to 4.9	67
VSP-D6-20LB*-6TC		4							
VSP-D6-30LB*-4TC		2.5	90.2		78.1	53.5	30	1.1 to 4.8	74
VSP-D6-30LB*-6TC		4							
VSP-D6-40LB*-4TC		2.5	103.2		91.1	66.5	40	1.0 to 4.5	81
VSP-D6-40LB*-6TC		4							
VSP-D6-50LB*-4TC		2.5	116.2		104.1	79.5	50	0.9 to 4.5	87
VSP-D6-50LB*-6TC		4							
VSP-D8-20LB*-4TC	8	2.5	77.2	15	65.1	40.5	20	1.5 to 4.9	68
VSP-D8-20LB*-6TC		4							
VSP-D8-30LB*-4TC		2.5	90.2		78.1	53.5	30	1.1 to 4.8	75
VSP-D8-30LB*-6TC		4							
VSP-D8-40LB*-4TC		2.5	103.2		91.1	66.5	40	1.0 to 4.5	82
VSP-D8-40LB*-6TC		4							
VSP-D8-50LB*-4TC		2.5	116.2		104.1	79.5	50	0.9 to 4.5	88
VSP-D8-50LB*-6TC		4							
VSP-D10-20LB*-4TC	10	2.5	77.7	15.5	65.6	40.5	20	1.5 to 4.9	68
VSP-D10-20LB*-6TC		4							
VSP-D10-30LB*-4TC		2.5	90.7		78.6	53.5	30	1.1 to 4.8	75
VSP-D10-30LB*-6TC		4							
VSP-D10-40LB*-4TC		2.5	103.7		91.6	66.5	40	1.0 to 4.5	82
VSP-D10-40LB*-6TC		4							
VSP-D10-50LB*-4TC		2.5	116.7		104.6	79.5	50	0.9 to 4.5	88
VSP-D10-50LB*-6TC		4							
VSP-D15-20LB*-4TC	15	2.5	79.7	17.5	67.6	40.5	20	1.5 to 4.9	68
VSP-D15-20LB*-6TC		4							
VSP-D15-30LB*-4TC		2.5	92.7		80.6	53.5	30	1.1 to 4.8	75
VSP-D15-30LB*-6TC		4							
VSP-D15-40LB*-4TC		2.5	105.7		93.6	66.5	40	1.0 to 4.5	82
VSP-D15-40LB*-6TC		4							
VSP-D15-50LB*-4TC		2.5	118.7		106.6	79.5	50	0.9 to 4.5	88
VSP-D15-50LB*-6TC		4							
VSP-D20-20LB*-4TC	20	4	83.6	20	71.5	41	20	1.5 to 4.9	70
VSP-D20-20LB*-6TC		6							
VSP-D20-30LB*-4TC		4	96.6		84.5	54	30	1.1 to 4.8	77
VSP-D20-30LB*-6TC		6							
VSP-D20-40LB*-4TC		4	109.6		97.5	67	40	1.0 to 4.5	84
VSP-D20-40LB*-6TC		6							
VSP-D20-50LB*-4TC		4	122.6		110.5	80	50	0.9 to 4.5	90
VSP-D20-50LB*-6TC		6							

Dimensions (direct mounting buffer, VSP-F)

●VSP-F6 to 15LB*



●VSP-F20LB*

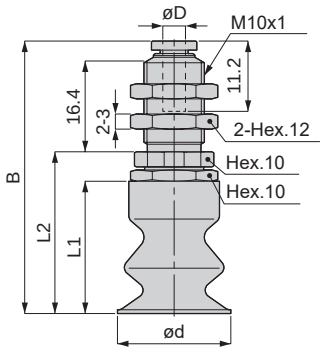


Unit: mm

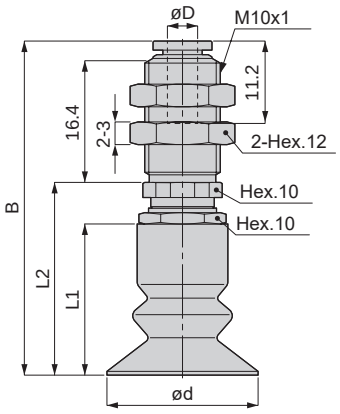
Model No.	Pad diameter ød	B	L1	L2	Spring force (N)	Weight (g)
VSP-F6LB*	6	60.1	15	48.4	8.8 to 12.7	58
VSP-F8LB*	8	60.1	15	48.4	8.8 to 12.7	58
VSP-F10LB*	10	60.6	15.5	48.9	8.8 to 12.7	59
VSP-F15LB*	15	62.6	17.5	50.9	8.8 to 12.7	60
VSP-F20LB*	20	66.1	20	54.5	8.8 to 12.7	63

Dimensions (compact fixed, vacuum outlet top VSP-MA, push-in fitting)

●VSP-MA6 to 15LB*-4



●VSP-MA20LB*-4

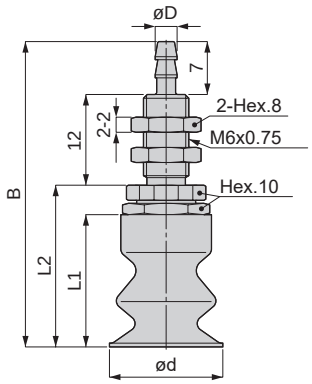


Unit: mm

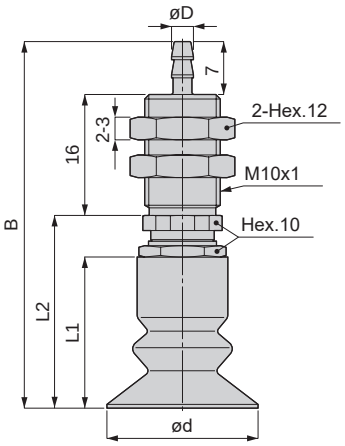
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Weight (g)
VSP-MA6LB*-4	6	4	38.1	15	19.1	8.6
VSP-MA8LB*-4	8	4	38.1	15	19.1	8.6
VSP-MA10LB*-4	10	4	38.6	15.5	19.6	8.6
VSP-MA15LB*-4	15	4	40.6	17.5	21.6	8.8
VSP-MA20LB*-4	20	4	44.6	20	25.6	12

Dimensions (compact fixed, vacuum outlet side VSP-MA, barbed fitting)

●VSP-MA6 to 15LB*-4T



●VSP-MA20LB*-4T/6T

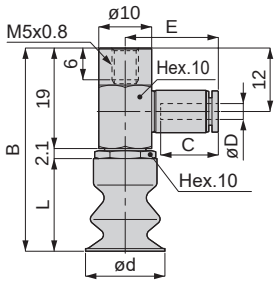


Unit: mm

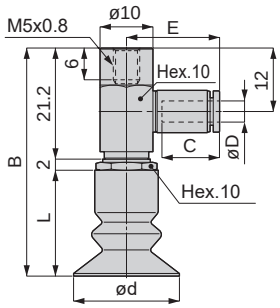
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Weight (g)
VSP-MA6LB*-4T	6	2.5	38.1	15	19.1	5.8
VSP-MA8LB*-4T	8	2.5	38.1	15	19.1	5.8
VSP-MA10LB*-4T	10	2.5	38.6	15.5	19.6	5.8
VSP-MA15LB*-4T	15	2.5	40.6	17.5	21.6	6
VSP-MA20LB*-4T	20	2.5	48.6	20	25.6	12
VSP-MA20LB*-6T		4				

Dimensions (compact fixed, vacuum outlet side VSP-MB, push-in fitting)

●VSP-MB6 to 15LB*-2/4/6



●VSP-MB20LB*-2/4/6

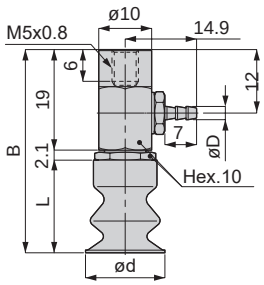


Unit: mm

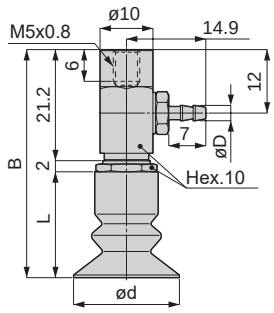
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-MB6LB*-2	6	1.8	36.1	15	8.4	13.7	10
VSP-MB6LB*-4		4			11.2	17.8	11
VSP-MB6LB*-6		6			11.9	19.6	12
VSP-MB8LB*-2	8	1.8	36.1	15	8.4	13.7	10
VSP-MB8LB*-4		4			11.2	17.8	11
VSP-MB8LB*-6		6			11.9	19.6	12
VSP-MB10LB*-2	10	1.8	36.6	15.5	8.4	13.7	10
VSP-MB10LB*-4		4			11.2	17.8	11
VSP-MB10LB*-6		6			11.9	19.6	12
VSP-MB15LB*-2	15	1.8	38.6	17.5	8.4	13.7	10
VSP-MB15LB*-4		4			11.2	17.8	11
VSP-MB15LB*-6		6			11.9	19.6	12
VSP-MB20LB*-2	20	1.8	43.2	20	8.4	13.7	12
VSP-MB20LB*-4		4			11.2	17.8	13
VSP-MB20LB*-6		6			11.9	19.6	14

Dimensions (compact fixed, vacuum outlet side VSP-MB, barbed fitting)

●VSP-MB6 to 15LB*-4T/6T



●VSP-MB20LB*-4T/6T

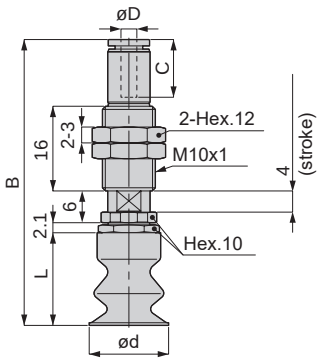


Unit: mm

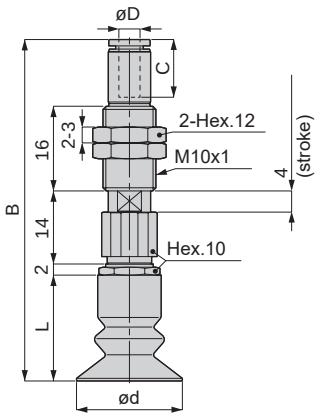
Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-MB6LB*-4T	6	2.5	36.1	15	8.9
VSP-MB6LB*-6T		4			
VSP-MB8LB*-4T	8	2.5	36.1	15	8.9
VSP-MB8LB*-6T		4			
VSP-MB10LB*-4T	10	2.5	36.6	15.5	9
VSP-MB10LB*-6T		4			
VSP-MB15LB*-4T	15	2.5	38.6	17.5	9.1
VSP-MB15LB*-6T		4			
VSP-MB20LB*-4T	20	2.5	43.2	20	11
VSP-MB20LB*-6T		4			

Dimensions (compact buffer, vacuum outlet top VSP-MC, push-in fitting)

●VSP-MC6 to 15LB*-2/4



●VSP-MC20LB*-2/4

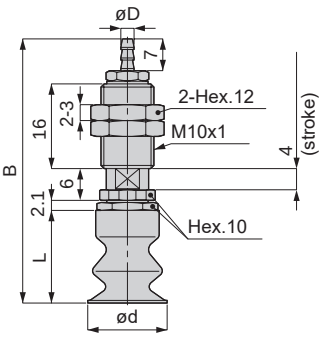


Unit: mm

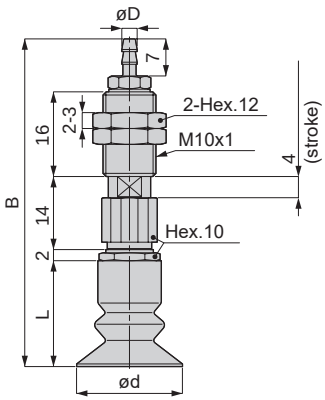
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	Spring force (N)	Weight (g)
VSP-MC6LB*-2	6	1.8	48	15	8.4	1 to 1.3	17
VSP-MC6LB*-4		4	52.1		11.2		18
VSP-MC8LB*-2	8	1.8	48	15	8.4	1 to 1.3	17
VSP-MC8LB*-4		4	52.1		11.2		18
VSP-MC10LB*-2	10	1.8	48.5	15.5	8.4	1 to 1.3	17
VSP-MC10LB*-4		4	52.6		11.2		18
VSP-MC15LB*-2	15	1.8	50.5	17.5	8.4	1 to 1.3	17
VSP-MC15LB*-4		4	54.6		11.2		18
VSP-MC20LB*-2	20	1.8	60.9	20	8.4	1 to 1.3	22
VSP-MC20LB*-4		4	65		11.2		23

Dimensions (compact buffer, vacuum outlet top VSP-MC, barbed fitting)

●VSP-MC6 to 15LB*-4T/6T



●VSP-MC20LB*-4T/6T

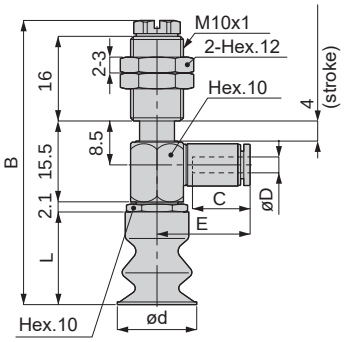


Unit: mm

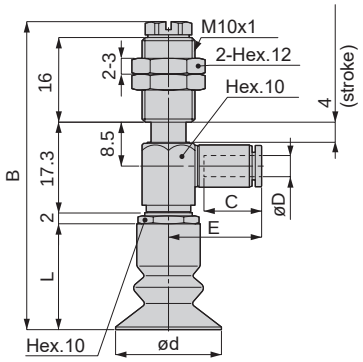
Model No.	Pad diameter ød	Bore size øD	B	L	Spring force (N)	Weight (g)
VSP-MC6LB*-4T	6	2.5	49.2	15	0.5 to 0.6	17
VSP-MC6LB*-6T		4				
VSP-MC8LB*-4T	8	2.5	49.2	15	0.5 to 0.6	17
VSP-MC8LB*-6T		4				
VSP-MC10LB*-4T	10	2.5	49.7	15.5	0.5 to 0.6	17
VSP-MC10LB*-6T		4				
VSP-MC15LB*-4T	15	2.5	51.7	17.5	0.5 to 0.6	17
VSP-MC15LB*-6T		4				
VSP-MC20LB*-4T	20	2.5	62.1	20	1 to 1.3	22
VSP-MC20LB*-6T		4				

Dimensions (compact buffer, vacuum outlet side VSP-MD, push-in fitting)

●VSP-MD6 to 15LB*-2/4/6



●VSP-MD20LB*-2/4/6

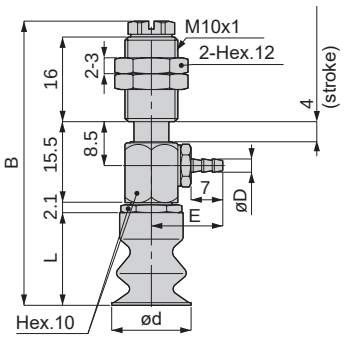


Unit: mm

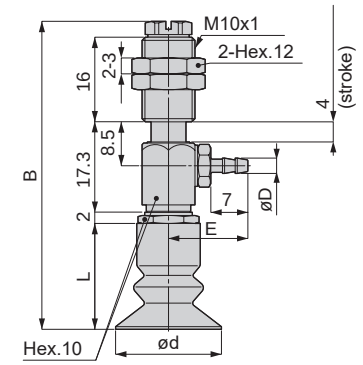
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Spring force (N)	Weight (g)
VSP-MD6LB*-2	6	1.8	51.6	15	8.4	13.6	1 to 1.3	25
VSP-MD6LB*-4		4			11.2	17.7		26
VSP-MD6LB*-6		6			11.9	19.5		27
VSP-MD8LB*-2	8	1.8	51.6	15	8.4	13.6	1 to 1.3	25
VSP-MD8LB*-4		4			11.2	17.7		26
VSP-MD8LB*-6		6			11.9	19.5		27
VSP-MD10LB*-2	10	1.8	52.1	15.5	8.4	13.6	1 to 1.3	25
VSP-MD10LB*-4		4			11.2	17.7		26
VSP-MD10LB*-6		6			11.9	19.5		27
VSP-MD15LB*-2	15	1.8	54.1	17.5	8.4	13.6	1 to 1.3	25
VSP-MD15LB*-4		4			11.2	17.7		26
VSP-MD15LB*-6		6			11.9	19.5		27
VSP-MD20LB*-2	20	1.8	58.3	20	8.4	13.6	1 to 1.3	26
VSP-MD20LB*-4		4			11.2	17.7		27
VSP-MD20LB*-6		6			11.9	19.5		28

Dimensions (compact buffer, vacuum outlet side VSP-MD, barbed fitting)

●VSP-MD6 to 15LB*-4T/6T



●VSP-MD20LB*-4T/6T

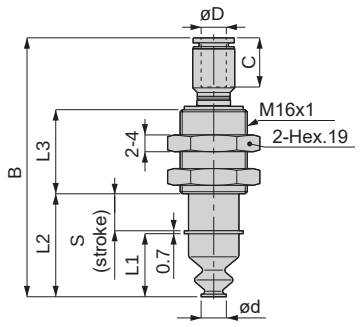


Unit: mm

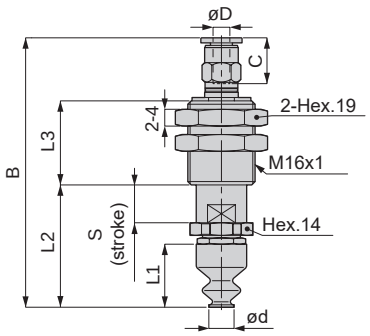
Model No.	Pad diameter ød	Bore size øD	B	L	E	Spring force (N)	Weight (g)
VSP-MD6LB*-4T	6	2.5	51.6	15	14.8	1 to 1.3	24
VSP-MD6LB*-6T		4					
VSP-MD8LB*-4T	8	2.5	51.6	15	14.8	1 to 1.3	24
VSP-MD8LB*-6T		4					
VSP-MD10LB*-4T	10	2.5	52.1	15.5	14.8	1 to 1.3	24
VSP-MD10LB*-6T		4					
VSP-MD15LB*-4T	15	2.5	54.1	17.5	14.8	1 to 1.3	24
VSP-MD15LB*-6T		4					
VSP-MD20LB*-4T	20	2.5	58.3	20	14.8	1 to 1.3	26
VSP-MD20LB*-6T		4					

Dimensions (low back buffer, vacuum outlet top VSP-HC, push-in fitting)

●VSP-HC6, 8LB*-2/4/6



●VSP-HC6, 8-□LB*-2/4/6

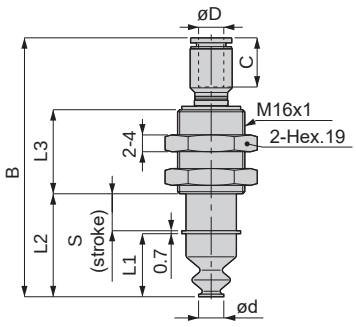


Unit: mm

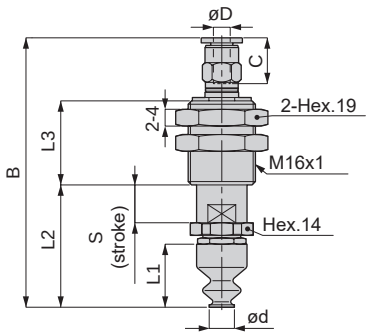
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC6LB*-2	6	1.8	55.9	15	24.7	20	8.4	9	0.9 to 2.7	20
VSP-HC6LB*-4		4	59.9				11.2			21
VSP-HC6LB*-6		6	61.2				11.9			22
VSP-HC6-10LB*-2		1.8	62.7		30.1	21.5	8.4	10	1.0 to 2.4	24
VSP-HC6-10LB*-4		4	66.8				11.2			25
VSP-HC6-10LB*-6		6	68.1				11.9			26
VSP-HC6-15LB*-2		1.8	72.7		35.1	26.5	8.4	15	1.0 to 2.7	26
VSP-HC6-15LB*-4		4	76.8				11.2			27
VSP-HC6-15LB*-6		6	78.1				11.9			28
VSP-HC6-20LB*-2		1.8	82.7		40.1	31.5	8.4	20	1.0 to 3.0	28
VSP-HC6-20LB*-4		4	86.8				11.2			29
VSP-HC6-20LB*-6		6	88.1				11.9			30
VSP-HC6-25LB*-2		1.8	93.2		45.1	37	8.4	25	1.0 to 3.0	30
VSP-HC6-25LB*-4		4	97.3				11.2			31
VSP-HC6-25LB*-6		6	98.6				11.9			32
VSP-HC6-30LB*-2		1.8	104.2		50.1	43	8.4	30	1.0 to 3.0	32
VSP-HC6-30LB*-4		4	108.3				11.2			33
VSP-HC6-30LB*-6		6	109.6				11.9			34
VSP-HC6-40LB*-2		1.8	126.2		60.1	55	8.4	40	1.0 to 3.0	35
VSP-HC6-40LB*-4		4	130.3				11.2			36
VSP-HC6-40LB*-6		6	131.6				11.9			37
VSP-HC6-50LB*-2		1.8	147.7		70.1	66.5	8.4	50	1.0 to 3.1	39
VSP-HC6-50LB*-4		4	151.8				11.2			40
VSP-HC6-50LB*-6		6	153.1				11.9			41
VSP-HC8LB*-2	8	1.8	55.9	15	24.7	20	8.4	9	0.9 to 2.7	20
VSP-HC8LB*-4		4	59.9				11.2			21
VSP-HC8LB*-6		6	61.2				11.9			22
VSP-HC8-10LB*-2		1.8	62.7		30.1	21.5	8.4	10	1.0 to 2.4	24
VSP-HC8-10LB*-4		4	66.8				11.2			25
VSP-HC8-10LB*-6		6	68.1				11.9			26
VSP-HC8-15LB*-2		1.8	72.7		35.1	26.5	8.4	15	1.0 to 2.7	26
VSP-HC8-15LB*-4		4	76.8				11.2			27
VSP-HC8-15LB*-6		6	78.1				11.9			28
VSP-HC8-20LB*-2		1.8	82.7		40.1	31.5	8.4	20	1.0 to 3.0	28
VSP-HC8-20LB*-4		4	86.8				11.2			29
VSP-HC8-20LB*-6		6	88.1				11.9			30
VSP-HC8-25LB*-2		1.8	93.2		45.1	37	8.4	25	1.0 to 3.0	30
VSP-HC8-25LB*-4		4	97.3				11.2			31
VSP-HC8-25LB*-6		6	98.6				11.9			32
VSP-HC8-30LB*-2		1.8	104.2		50.1	43	8.4	30	1.0 to 3.0	32
VSP-HC8-30LB*-4		4	108.3				11.2			33
VSP-HC8-30LB*-6		6	109.6				11.9			34
VSP-HC8-40LB*-2		1.8	126.2		60.1	55	8.4	40	1.0 to 3.0	35
VSP-HC8-40LB*-4		4	130.3				11.2			36
VSP-HC8-40LB*-6		6	131.6				11.9			37
VSP-HC8-50LB*-2		1.8	147.7		70.1	66.5	8.4	50	1.0 to 3.1	39
VSP-HC8-50LB*-4		4	151.8				11.2			40
VSP-HC8-50LB*-6		6	153.1				11.9			41

Dimensions (low back buffer, vacuum outlet top VSP-HC, push-in fitting)

●VSP-HC10, 15LB*-2/4/6



●VSP-HC10, 15-□LB*-2/4/6

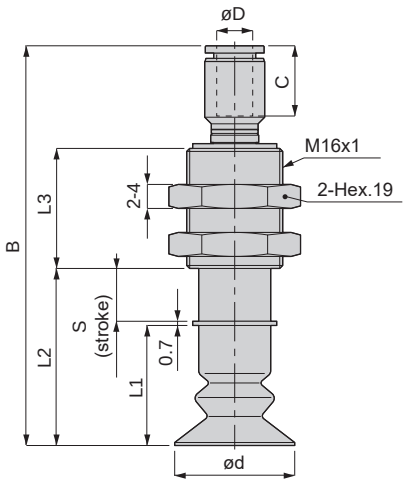


Unit: mm

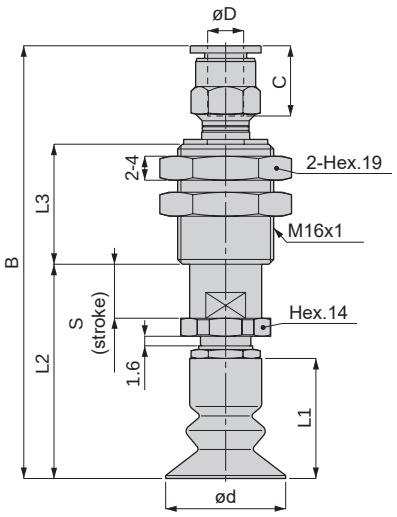
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC10LB*-2	10	1.8	56.4	15.5	25.2	20	8.4	9	0.9 to 2.7	20
VSP-HC10LB*-4		4	60.4				11.2			21
VSP-HC10LB*-6		6	61.7				11.9			22
VSP-HC10-10LB*-2		1.8	63.2		30.6	21.5	8.4	10	1.0 to 2.4	24
VSP-HC10-10LB*-4		4	67.3				11.2			25
VSP-HC10-10LB*-6		6	68.6				11.9			26
VSP-HC10-15LB*-2		1.8	73.2		35.6	26.5	8.4	15	1.0 to 2.7	26
VSP-HC10-15LB*-4		4	77.3				11.2			27
VSP-HC10-15LB*-6		6	78.6				11.9			28
VSP-HC10-20LB*-2		1.8	83.2		40.6	31.5	8.4	20	1.0 to 3.0	28
VSP-HC10-20LB*-4		4	87.3				11.2			29
VSP-HC10-20LB*-6		6	88.6				11.9			30
VSP-HC10-25LB*-2		1.8	93.7		45.6	37	8.4	25	1.0 to 3.0	30
VSP-HC10-25LB*-4		4	97.8				11.2			31
VSP-HC10-25LB*-6		6	99.1				11.9			32
VSP-HC10-30LB*-2		1.8	104.7		50.6	43	8.4	30	1.0 to 3.0	32
VSP-HC10-30LB*-4		4	108.8				11.2			33
VSP-HC10-30LB*-6		6	110.1				11.9			34
VSP-HC10-40LB*-2		1.8	126.7		60.6	55	8.4	40	1.0 to 3.0	35
VSP-HC10-40LB*-4		4	130.8				11.2			36
VSP-HC10-40LB*-6		6	132.1				11.9			37
VSP-HC10-50LB*-2		1.8	148.2		70.6	66.5	8.4	50	1.0 to 3.1	39
VSP-HC10-50LB*-4		4	152.3				11.2			40
VSP-HC10-50LB*-6		6	153.6				11.9			41
VSP-HC15LB*-2	15	1.8	58.4	17.5	27.2	20	8.4	9	0.9 to 2.7	20
VSP-HC15LB*-4		4	62.4				11.2			21
VSP-HC15LB*-6		6	63.7				11.9			22
VSP-HC15-10LB*-2		1.8	65.2		32.6	21.5	8.4	10	1.0 to 2.4	24
VSP-HC15-10LB*-4		4	69.3				11.2			25
VSP-HC15-10LB*-6		6	70.6				11.9			26
VSP-HC15-15LB*-2		1.8	75.2		37.6	26.5	8.4	15	1.0 to 2.7	26
VSP-HC15-15LB*-4		4	79.3				11.2			27
VSP-HC15-15LB*-6		6	80.6				11.9			28
VSP-HC15-20LB*-2		1.8	85.2		42.6	31.5	8.4	20	1.0 to 3.0	28
VSP-HC15-20LB*-4		4	89.3				11.2			29
VSP-HC15-20LB*-6		6	90.6				11.9			30
VSP-HC15-25LB*-2		1.8	95.7		47.6	37	8.4	25	1.0 to 3.0	30
VSP-HC15-25LB*-4		4	99.8				11.2			31
VSP-HC15-25LB*-6		6	101.1				11.9			32
VSP-HC15-30LB*-2		1.8	106.7		52.6	43	8.4	30	1.0 to 3.0	32
VSP-HC15-30LB*-4		4	110.8				11.2			33
VSP-HC15-30LB*-6		6	112.1				11.9			34
VSP-HC15-40LB*-2		1.8	128.7		62.6	55	8.4	40	1.0 to 3.0	35
VSP-HC15-40LB*-4		4	132.8				11.2			36
VSP-HC15-40LB*-6		6	134.1				11.9			37
VSP-HC15-50LB*-2		1.8	150.2		72.6	66.5	8.4	50	1.0 to 3.1	39
VSP-HC15-50LB*-4		4	154.3				11.2			40
VSP-HC15-50LB*-6		6	155.6				11.9			41

Dimensions (low back buffer, vacuum outlet top VSP-HC, push-in fitting)

●VSP-HC20LB*-2/4/6



●VSP-HC20-□LB*-2/4/6

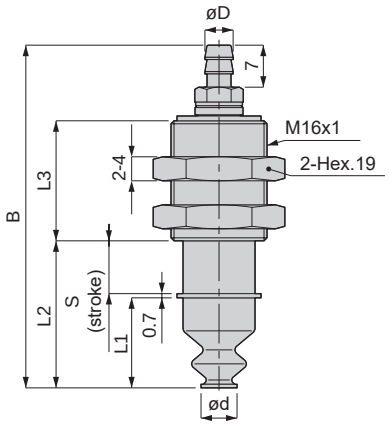


Unit: mm

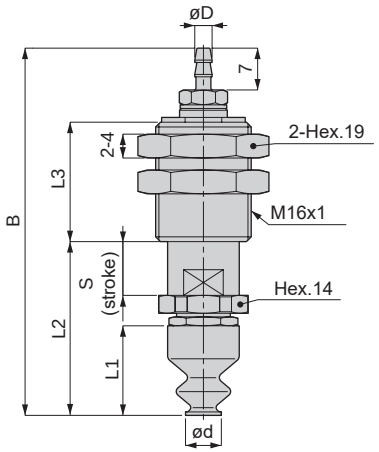
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC20LB*-2	20	1.8	60.9	20	29.7	20	8.4	9	0.9 to 2.7	21
VSP-HC20LB*-4		4	64.9				11.2			22
VSP-HC20LB*-6		6	66.2				11.9			23
VSP-HC20-10LB*-2		1.8	69.2		35	21.5	8.4	10	1.0 to 2.4	27
VSP-HC20-10LB*-4		4	73.3				11.2			28
VSP-HC20-10LB*-6		6	74.6				11.9			29
VSP-HC20-15LB*-2		1.8	79.2		40	26.5	8.4	15	1.0 to 2.7	29
VSP-HC20-15LB*-4		4	83.3				11.2			30
VSP-HC20-15LB*-6		6	84.6				11.9			31
VSP-HC20-20LB*-2		1.8	89.2		45	31.5	8.4	20	1.0 to 3.0	31
VSP-HC20-20LB*-4		4	93.3				11.2			32
VSP-HC20-20LB*-6		6	94.6				11.9			33
VSP-HC20-25LB*-2		1.8	99.7		50	37	8.4	25	1.0 to 3.0	33
VSP-HC20-25LB*-4		4	103.8				11.2			34
VSP-HC20-25LB*-6		6	105.1				11.9			35
VSP-HC20-30LB*-2		1.8	110.7		55	43	8.4	30	1.0 to 3.0	35
VSP-HC20-30LB*-4		4	114.8				11.2			36
VSP-HC20-30LB*-6		6	116.1				11.9			37
VSP-HC20-40LB*-2		1.8	132.7		65	55	8.4	40	1.0 to 3.0	39
VSP-HC20-40LB*-4		4	136.8				11.2			40
VSP-HC20-40LB*-6		6	138.1				11.9			41
VSP-HC20-50LB*-2		1.8	154.2		75	66.5	8.4	50	1.0 to 3.1	43
VSP-HC20-50LB*-4		4	158.3				11.2			44
VSP-HC20-50LB*-6		6	159.6				11.9			45

Dimensions (low back buffer, vacuum outlet top VSP-HC, barbed fitting)

●VSP-HC6, 8LB*-4T/6T



●VSP-HC6, 8-□LB*-4T/6T

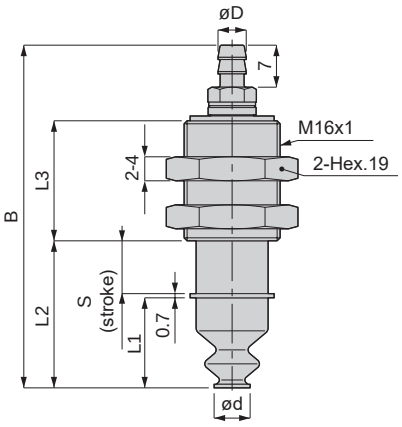


Unit: mm

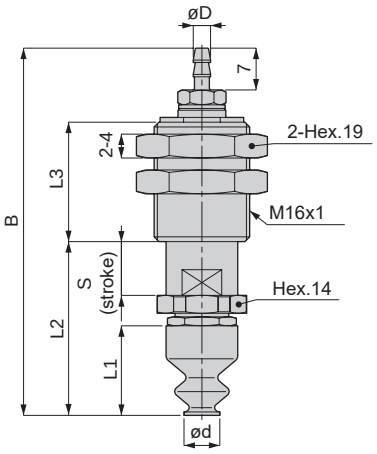
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC6LB*-4T	6	2.5	57.1	15	24.7	20	9	0.9 to 2.7	20
VSP-HC6LB*-6T		4							
VSP-HC6-10LB*-4T		2.5	63.9		30.1	21.5	10	1.0 to 2.4	24
VSP-HC6-10LB*-6T		4							
VSP-HC6-15LB*-4T		2.5	73.9		35.1	26.5	15	1.0 to 2.7	26
VSP-HC6-15LB*-6T		4							
VSP-HC6-20LB*-4T		2.5	83.9		40.1	31.5	20	1.0 to 3.0	28
VSP-HC6-20LB*-6T		4							
VSP-HC6-25LB*-4T		2.5	94.4		45.1	37	25	1.0 to 3.0	31
VSP-HC6-25LB*-6T		4							
VSP-HC6-30LB*-4T		2.5	105.4		50.1	43	30	1.0 to 3.0	33
VSP-HC6-30LB*-6T		4							
VSP-HC6-40LB*-4T		2.5	127.4		60.1	55	40	1.0 to 3.0	37
VSP-HC6-40LB*-6T		4							
VSP-HC6-50LB*-4T		2.5	148.9		70.1	66.5	50	1.0 to 3.1	41
VSP-HC6-50LB*-6T		4							
VSP-HC8LB*-4T	8	2.5	57.1	15	24.7	20	9	0.9 to 2.7	20
VSP-HC8LB*-6T		4							
VSP-HC8-10LB*-4T		2.5	63.9		30.1	21.5	10	1.0 to 2.4	24
VSP-HC8-10LB*-6T		4							
VSP-HC8-15LB*-4T		2.5	73.9		35.1	26.5	15	1.0 to 2.7	26
VSP-HC8-15LB*-6T		4							
VSP-HC8-20LB*-4T		2.5	83.9		40.1	31.5	20	1.0 to 3.0	28
VSP-HC8-20LB*-6T		4							
VSP-HC8-25LB*-4T		2.5	94.4		45.1	37	25	1.0 to 3.0	31
VSP-HC8-25LB*-6T		4							
VSP-HC8-30LB*-4T		2.5	105.4		50.1	43	30	1.0 to 3.0	33
VSP-HC8-30LB*-6T		4							
VSP-HC8-40LB*-4T		2.5	127.4		60.1	55	40	1.0 to 3.0	37
VSP-HC8-40LB*-6T		4							
VSP-HC8-50LB*-4T		2.5	148.9		70.1	66.5	50	1.0 to 3.1	41
VSP-HC8-50LB*-6T		4							

Dimensions (low back buffer, vacuum outlet top VSP-HC, barbed fitting)

●VSP-HC10, 15LB*-4T/6T



●VSP-HC10, 15-□LB*-4T/6T

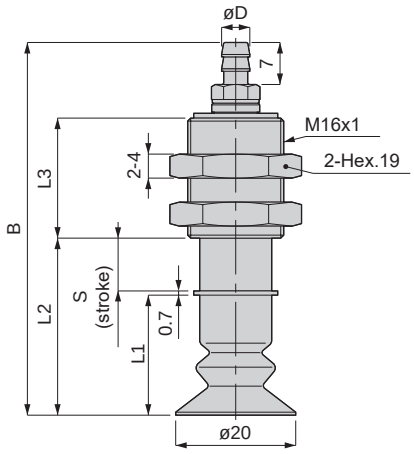


Unit: mm

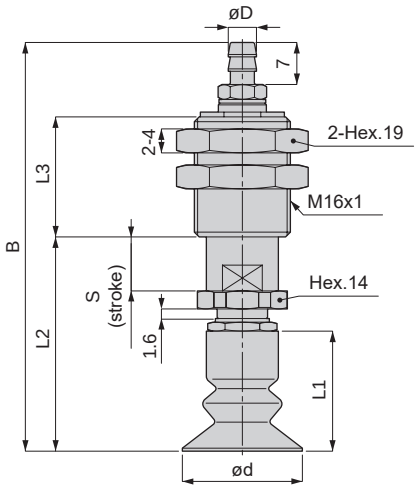
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC10LB*-4T	10	2.5	57.6	15.5	25.2	20	9	0.9 to 2.7	20
VSP-HC10LB*-6T		4							
VSP-HC10-10LB*-4T		2.5	64.4		30.6	21.5	10	1.0 to 2.4	24
VSP-HC10-10LB*-6T		4							
VSP-HC10-15LB*-4T		2.5	74.4		35.6	26.5	15	1.0 to 2.7	26
VSP-HC10-15LB*-6T		4							
VSP-HC10-20LB*-4T		2.5	84.4		40.6	31.5	20	1.0 to 3.0	28
VSP-HC10-20LB*-6T		4							
VSP-HC10-25LB*-4T		2.5	94.9		45.6	37	25	1.0 to 3.0	31
VSP-HC10-25LB*-6T		4							
VSP-HC10-30LB*-4T		2.5	105.9		50.6	43	30	1.0 to 3.0	33
VSP-HC10-30LB*-6T		4							
VSP-HC10-40LB*-4T		2.5	127.9		60.6	55	40	1.0 to 3.0	37
VSP-HC10-40LB*-6T		4							
VSP-HC10-50LB*-4T		2.5	149.4		70.6	66.5	50	1.0 to 3.1	41
VSP-HC10-50LB*-6T		4							
VSP-HC15LB*-4T	15	2.5	59.6	17.5	27.2	20	9	0.9 to 2.7	20
VSP-HC15LB*-6T		4							
VSP-HC15-10LB*-4T		2.5	66.4		32.6	21.5	10	1.0 to 2.4	24
VSP-HC15-10LB*-6T		4							
VSP-HC15-15LB*-4T		2.5	76.4		37.6	26.5	15	1.0 to 2.7	26
VSP-HC15-15LB*-6T		4							
VSP-HC15-20LB*-4T		2.5	86.4		42.6	31.5	20	1.0 to 3.0	28
VSP-HC15-20LB*-6T		4							
VSP-HC15-25LB*-4T		2.5	96.9		47.6	37	25	1.0 to 3.0	31
VSP-HC15-25LB*-6T		4							
VSP-HC15-30LB*-4T		2.5	107.9		52.6	43	30	1.0 to 3.0	33
VSP-HC15-30LB*-6T		4							
VSP-HC15-40LB*-4T		2.5	129.9		62.6	55	40	1.0 to 3.0	37
VSP-HC15-40LB*-6T		4							
VSP-HC15-50LB*-4T		2.5	151.4		72.6	66.5	50	1.0 to 3.1	41
VSP-HC15-50LB*-6T		4							

Dimensions (low back buffer, vacuum outlet top VSP-HC, barbed fitting)

●VSP-HC20LB*-4T/6T



●VSP-HC20-□LB*-4T/6T

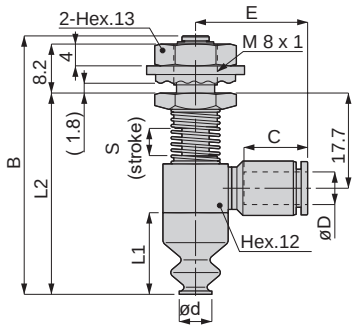


Unit: mm

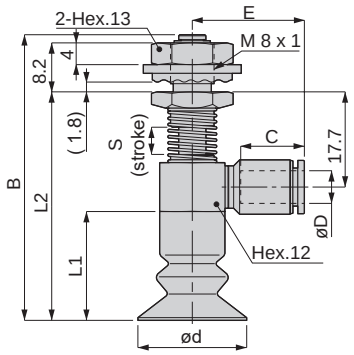
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC20LB*-4T	20	2.5	57.1	20	29.7	20	9	0.9 to 2.7	21
VSP-HC20LB*-6T		4							
VSP-HC20-10LB*-4T		2.5	70.4		35	21.5	10	1.0 to 2.4	26
VSP-HC20-10LB*-6T		4							
VSP-HC20-15LB*-4T		2.5	80.4		40	26.5	15	1.0 to 2.7	28
VSP-HC20-15LB*-6T		4							
VSP-HC20-20LB*-4T		2.5	90.4		45	31.5	20	1.0 to 3.0	30
VSP-HC20-20LB*-6T		4							
VSP-HC20-25LB*-4T		2.5	100.9		50	37	25	1.0 to 3.0	32
VSP-HC20-25LB*-6T		4							
VSP-HC20-30LB*-4T		2.5	111.9		55	43	30	1.0 to 3.0	35
VSP-HC20-30LB*-6T		4							
VSP-HC20-40LB*-4T		2.5	133.9		65	55	40	1.0 to 3.0	39
VSP-HC20-40LB*-6T		4							
VSP-HC20-50LB*-4T		2.5	155.4		75	66.5	50	1.0 to 3.1	43
VSP-HC20-50LB*-6T		4							

Dimensions (lightweight buffer, vacuum outlet side VSP-HD, push-in fitting)

●VSP-HD6 to 15LB*-2/4/6



●VSP-HD20LB*-2/4/6

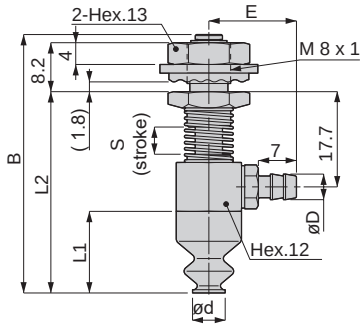


Unit: mm

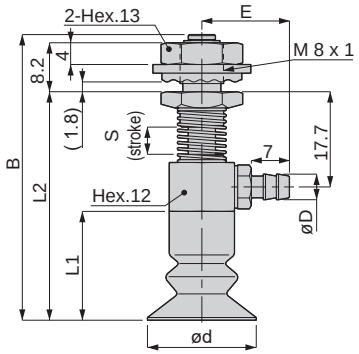
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD6LB*-2	6	1.8	47.5	15	37.2	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HD6LB*-4		4				11.2	18.8			30
VSP-HD6LB*-6		6				11.9	20.6			31
VSP-HD8LB*-2	8	1.8	47.5	15	37.2	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HD8LB*-4		4				11.2	18.8			30
VSP-HD8LB*-6		6				11.9	20.6			31
VSP-HD10LB*-2	10	1.8	48	15.5	37.7	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HD10LB*-4		4				11.2	18.8			30
VSP-HD10LB*-6		6				11.9	20.6			31
VSP-HD15LB*-2	15	1.8	50	17.5	39.7	8.4	14.7	5.2	1.6 to 2.9	30
VSP-HD15LB*-4		4				11.2	18.8			31
VSP-HD15LB*-6		6				11.9	20.6			32
VSP-HD20LB*-2	20	1.8	52.5	20	42.2	8.4	14.7	5.2	1.6 to 2.9	31
VSP-HD20LB*-4		4				11.2	18.8			32
VSP-HD20LB*-6		6				11.9	20.6			33

Dimensions (lightweight buffer, vacuum outlet side VSP-HD, barbed fitting)

●VSP-HD6 to 15LB*-4T/6T



●VSP-HD20LB*-4T/6T

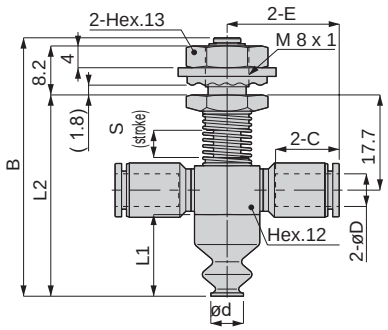


Unit: mm

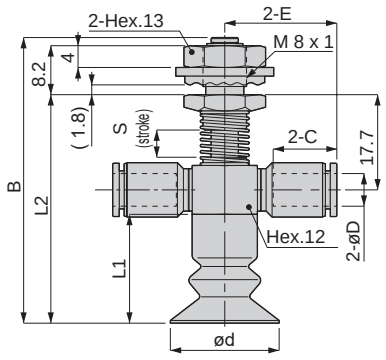
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD6LB*-4T	6	2.5	47.5	15	37.2	15.9	5.2	1.6 to 2.9	30
VSP-HD6LB*-6T		4							
VSP-HD8LB*-4T	8	2.5	47.5	15	37.2	15.9	5.2	1.6 to 2.9	30
VSP-HD8LB*-6T		4							
VSP-HD10LB*-4T	10	2.5	48	15.5	37.7	15.9	5.2	1.6 to 2.9	30
VSP-HD10LB*-6T		4							
VSP-HD15LB*-4T	15	2.5	50	17.5	39.7	15.9	5.2	1.6 to 2.9	30
VSP-HD15LB*-6T		4							
VSP-HD20LB*-4T	20	2.5	52.5	20	52.5	15.9	5.2	1.6 to 2.9	32
VSP-HD20LB*-6T		4							

Dimensions (lightweight buffer, vacuum outlet on both sides VSP-HDW, push-in fitting)

●VSP-HDW6 to 15LB*-2/4/6



●VSP-HDW20LB*-2/4/6

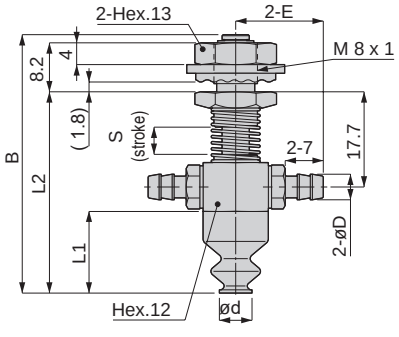


Unit: mm

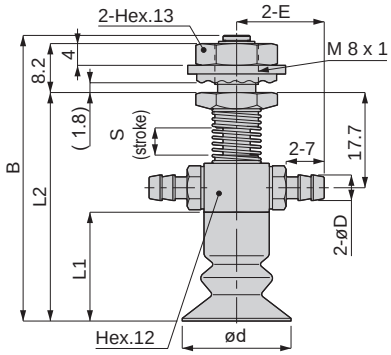
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW6LB*-2	6	1.8	47.5	12.2	37.2	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HDW6LB*-4		4				11.2	18.8			30
VSP-HDW6LB*-6		6				11.9	20.6			31
VSP-HDW8LB*-2	8	1.8	47.5	12.2	37.2	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HDW8LB*-4		4				11.2	18.8			30
VSP-HDW8LB*-6		6				11.9	20.6			31
VSP-HDW10LB*-2	10	1.8	48	14	37.7	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HDW10LB*-4		4				11.2	18.8			30
VSP-HDW10LB*-6		6				11.9	20.6			31
VSP-HDW15LB*-2	15	1.8	50	14	39.7	8.4	14.7	5.2	1.6 to 2.9	30
VSP-HDW15LB*-4		4				11.2	18.8			31
VSP-HDW15LB*-6		6				11.9	20.6			32
VSP-HDW20LB*-2	20	1.8	52.5	15	42.2	8.4	14.7	5.2	1.6 to 2.9	31
VSP-HDW20LB*-4		4				11.2	18.8			32
VSP-HDW20LB*-6		6				11.9	20.6			33

Dimensions (lightweight buffer, vacuum outlet on both sides VSP-HDW, barbed fitting)

●VSP-HDW6 to 15LB*-4T/6T



●VSP-HDW20LB*-4T/6T

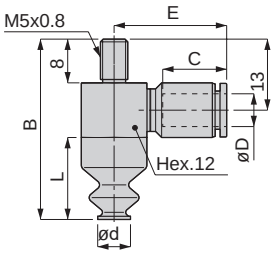


Unit: mm

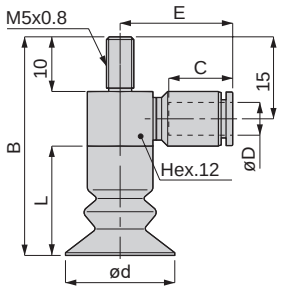
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW6LB*-4T	6	2.5	47.5	15	37.2	15.9	5.2	1.6 to 2.9	30
VSP-HDW6LB*-6T		4							
VSP-HDW8LB*-4T	8	2.5	47.5	15	37.2	15.9	5.2	1.6 to 2.9	30
VSP-HDW8LB*-6T		4							
VSP-HDW10LB*-4T	10	2.5	48	15.5	37.7	15.9	5.2	1.6 to 2.9	30
VSP-HDW10LB*-6T		4							
VSP-HDW15LB*-4T	15	2.5	50	17.5	39.7	15.9	5.2	1.6 to 2.9	30
VSP-HDW15LB*-6T		4							
VSP-HDW20LB*-4T	20	2.5	52.5	20	52.5	15.9	5.2	1.6 to 2.9	32
VSP-HDW20LB*-6T		4							

Dimensions (low back fixed, vacuum outlet side VSP-HE, push-in fitting)

●VSP-HE6 to 15LB*-2/4/6



●VSP-HE20LB*-2/4/6

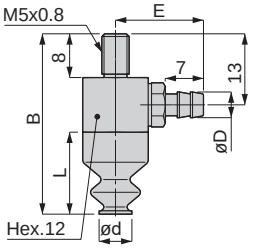


Unit: mm

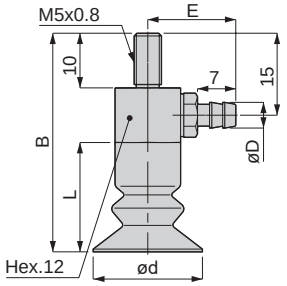
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HE6LB*-2	6	1.8	33	15	8.4	14.7	15
VSP-HE6LB*-4		4			11.2	18.8	16
VSP-HE6LB*-6		6			11.9	20.6	17
VSP-HE8LB*-2	8	1.8	33	15	8.4	14.7	15
VSP-HE8LB*-4		4			11.2	18.8	16
VSP-HE8LB*-6		6			11.9	20.6	17
VSP-HE10LB*-2	10	1.8	33.5	15.5	8.4	14.7	15
VSP-HE10LB*-4		4			11.2	18.8	16
VSP-HE10LB*-6		6			11.9	20.6	17
VSP-HE15LB*-2	15	1.8	35.5	17.5	8.4	14.7	15
VSP-HE15LB*-4		4			11.2	18.8	16
VSP-HE15LB*-6		6			11.9	20.6	17
VSP-HE20LB*-2	20	1.8	40	20	8.4	14.7	17
VSP-HE20LB*-4		4			11.2	18.8	18
VSP-HE20LB*-6		6			11.9	20.6	19

Dimensions (low back fixed, vacuum outlet side VSP-HE, barbed fitting)

●VSP-HE6 to 15LB*-4T/6T



●VSP-HE20LB*-4T/6T

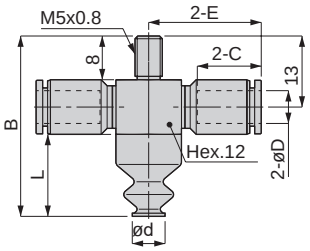


Unit: mm

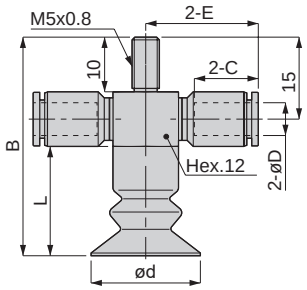
Model No.	Pad diameter ød	Bore size øD	B	L	E	Weight (g)
VSP-HE6LB*-4T	6	2.5	33	15	15.9	15
VSP-HE6LB*-6T		4				
VSP-HE8LB*-4T	8	2.5	33	15	15.9	15
VSP-HE8LB*-6T		4				
VSP-HE10LB*-4T	10	2.5	33.5	15.5	15.9	15
VSP-HE10LB*-6T		4				
VSP-HE15LB*-4T	15	2.5	35.5	17.5	15.9	16
VSP-HE15LB*-6T		4				
VSP-HE20LB*-4T	20	2.5	40	20	15.9	18
VSP-HE20LB*-6T		4				

Dimensions (low back fixed, vacuum outlet on both sides VSP-HEW, push-in fitting)

●VSP-HEW6 to 15LB*-2/4/6



●VSP-HEW20LB*-2/4/6

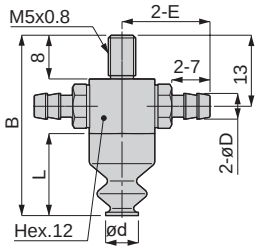


Unit: mm

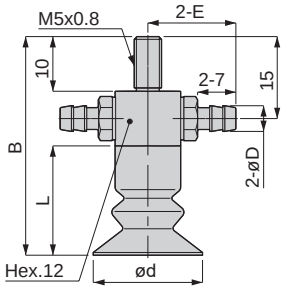
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HEW6LB*-2	6	1.8	33	15	8.4	14.7	15
VSP-HEW6LB*-4		4			11.2	18.8	16
VSP-HEW6LB*-6		6			11.9	20.6	17
VSP-HEW8LB*-2	8	1.8	33	15	8.4	14.7	15
VSP-HEW8LB*-4		4			11.2	18.8	16
VSP-HEW8LB*-6		6			11.9	20.6	17
VSP-HEW10LB*-2	10	1.8	33.5	15.5	8.4	14.7	15
VSP-HEW10LB*-4		4			11.2	18.8	16
VSP-HEW10LB*-6		6			11.9	20.6	17
VSP-HEW15LB*-2	15	1.8	35.5	17.5	8.4	14.7	15
VSP-HEW15LB*-4		4			11.2	18.8	16
VSP-HEW15LB*-6		6			11.9	20.6	17
VSP-HEW20LB*-2	20	1.8	40	20	8.4	14.7	17
VSP-HEW20LB*-4		4			11.2	18.8	18
VSP-HEW20LB*-6		6			11.9	20.6	19

Dimensions (low back fixed, vacuum outlet on both sides VSP-HEW, barbed fitting)

●VSP-HEW6 to 15LB*-4T/6T



●VSP-HEW20LB*-4T/6T

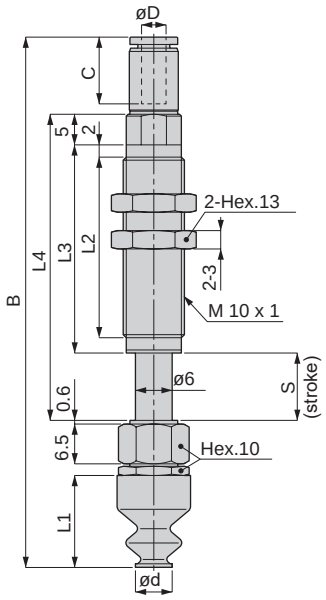


Unit: mm

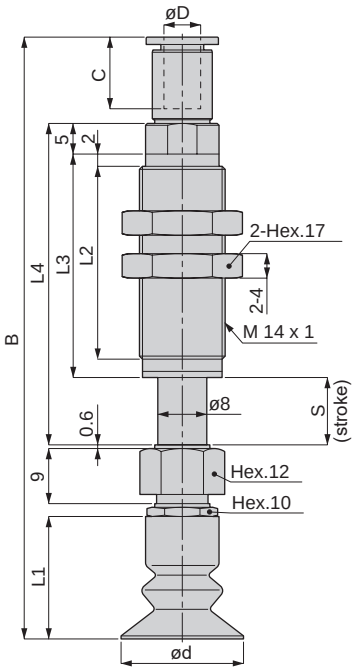
Model No.	Pad diameter ød	Bore size øD	B	L	E	Weight (g)
VSP-HEW6LB*-4T	6	2.5	33	15	15.9	15
VSP-HEW6LB*-6T		4				
VSP-HEW8LB*-4T	8	2.5	33	15	15.9	15
VSP-HEW8LB*-6T		4				
VSP-HEW10LB*-4T	10	2.5	33.5	15.5	15.9	15
VSP-HEW10LB*-6T		4				
VSP-HEW15LB*-4T	15	2.5	35.5	17.5	15.9	16
VSP-HEW15LB*-6T		4				
VSP-HEW20LB*-4T	20	2.5	40	20	15.9	18
VSP-HEW20LB*-6T		4				

Dimensions (low dust generation buffer, vacuum outlet top VSP-LFC, push-in fitting)

●VSP-LFC6 to 15-□LB*-4



●VSP-LFC20-□LB*-4



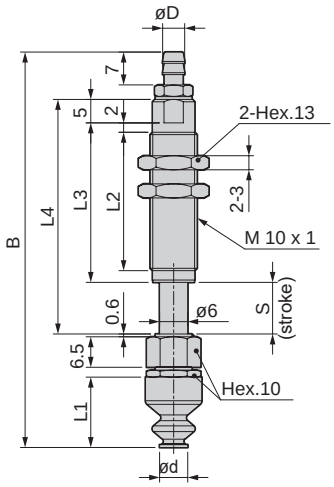
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-LFC6-2LB*-4	6	4	71.2	15	21.5	26	34	11.2	2	1.3 to 1.8	30
VSP-LFC6-5LB*-4			77.2		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	32
VSP-LFC6-10LB*-4			87.2		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	34
VSP-LFC6-15LB*-4			97.2		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	36
VSP-LFC6-20LB*-4			107.2		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	38
VSP-LFC8-2LB*-4	8	4	71.2	15	21.5	26	34	11.2	2	1.3 to 1.8	30
VSP-LFC8-5LB*-4			77.2		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	32
VSP-LFC8-10LB*-4			87.2		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	34
VSP-LFC8-15LB*-4			97.2		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	36
VSP-LFC8-20LB*-4			107.2		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	38
VSP-LFC10-2LB*-4	10	4	71.7	15.5	21.5	26	34	11.2	2	1.3 to 1.8	30
VSP-LFC10-5LB*-4			77.7		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	32
VSP-LFC10-10LB*-4			87.7		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	34
VSP-LFC10-15LB*-4			97.7		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	36
VSP-LFC10-20LB*-4			107.7		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	38
VSP-LFC15-2LB*-4	15	4	73.7	17.5	21.5	26	34	11.2	2	1.3 to 1.8	30
VSP-LFC15-5LB*-4			79.7		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	32
VSP-LFC15-10LB*-4			89.7		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	34
VSP-LFC15-15LB*-4			99.7		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	36
VSP-LFC15-20LB*-4			109.7		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	38
VSP-LFC20-5LB*-4	20	4	87.1	20	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	57
VSP-LFC20-5LB*-6		6	88.4					11.9			58
VSP-LFC20-10LB*-4		4	97.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	59
VSP-LFC20-10LB*-6		6	98.4					11.9			60
VSP-LFC20-15LB*-4		4	107.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	62
VSP-LFC20-15LB*-6		6	108.4					11.9			63
VSP-LFC20-20LB*-4		4	117.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	65
VSP-LFC20-20LB*-6		6	118.4					11.9			66

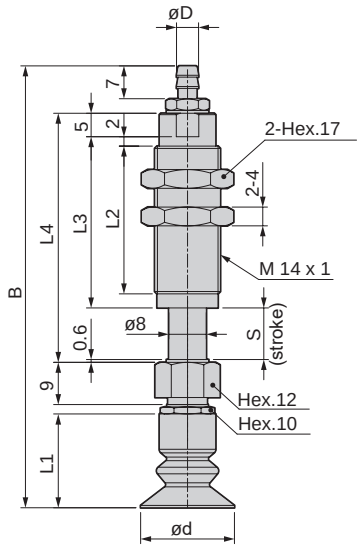
*1: Values in [ ] are for low load.

Dimensions (low dust generation buffer, vacuum outlet top VSP-LFC, barbed fitting)

●VSP-LFC6 to 15-□LB*-4T/6T



●VSP-LFC20-□LB*-4T/6T



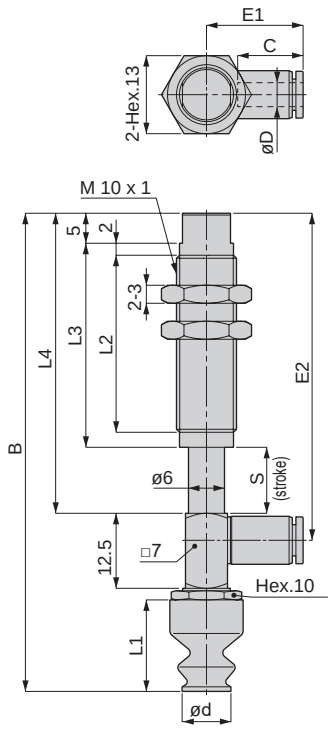
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
VSP-LFC6-2LB*-4T	6	2.5	68.3	15	21.5	26	34	2	1.3 to 1.8	28
VSP-LFC6-2LB*-6T		4								
VSP-LFC6-5LB*-4T		2.5	74.3		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	30
VSP-LFC6-5LB*-6T		4								
VSP-LFC6-10LB*-4T		2.5	84.3		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	32
VSP-LFC6-10LB*-6T		4								
VSP-LFC6-15LB*-4T		2.5	94.3		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	34
VSP-LFC6-15LB*-6T		4								
VSP-LFC6-20LB*-4T		2.5	104.3		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	36
VSP-LFC6-20LB*-6T		4								
VSP-LFC8-2LB*-4T	8	2.5	68.3	15	21.5	26	34	2	1.3 to 1.8	28
VSP-LFC8-2LB*-6T		4								
VSP-LFC8-5LB*-4T		2.5	74.3		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	30
VSP-LFC8-5LB*-6T		4								
VSP-LFC8-10LB*-4T		2.5	84.3		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	32
VSP-LFC8-10LB*-6T		4								
VSP-LFC8-15LB*-4T		2.5	94.3		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	34
VSP-LFC8-15LB*-6T		4								
VSP-LFC8-20LB*-4T		2.5	104.3		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	36
VSP-LFC8-20LB*-6T		4								
VSP-LFC10-2LB*-4T	10	2.5	68.8	15.5	21.5	26	34	2	1.3 to 1.8	28
VSP-LFC10-2LB*-6T		4								
VSP-LFC10-5LB*-4T		2.5	74.8		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	30
VSP-LFC10-5LB*-6T		4								
VSP-LFC10-10LB*-4T		2.5	84.8		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	32
VSP-LFC10-10LB*-6T		4								
VSP-LFC10-15LB*-4T		2.5	94.8		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	34
VSP-LFC10-15LB*-6T		4								
VSP-LFC10-20LB*-4T		2.5	104.8		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	36
VSP-LFC10-20LB*-6T		4								
VSP-LFC15-2LB*-4T	15	2.5	70.8	17.5	21.5	26	34	2	1.3 to 1.8	28
VSP-LFC15-2LB*-6T		4								
VSP-LFC15-5LB*-4T		2.5	76.8		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	30
VSP-LFC15-5LB*-6T		4								
VSP-LFC15-10LB*-4T		2.5	86.8		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	32
VSP-LFC15-10LB*-6T		4								
VSP-LFC15-15LB*-4T		2.5	96.8		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	34
VSP-LFC15-15LB*-6T		4								
VSP-LFC15-20LB*-4T		2.5	106.8		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	36
VSP-LFC15-20LB*-6T		4								
VSP-LFC20-5LB*-4T	20	2.5	84.2	20	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	52
VSP-LFC20-5LB*-6T		4								
VSP-LFC20-10LB*-4T		2.5	94.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	54
VSP-LFC20-10LB*-6T		4								
VSP-LFC20-15LB*-4T		2.5	104.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	57
VSP-LFC20-15LB*-6T		4								
VSP-LFC20-20LB*-4T		2.5	114.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	60
VSP-LFC20-20LB*-6T		4								

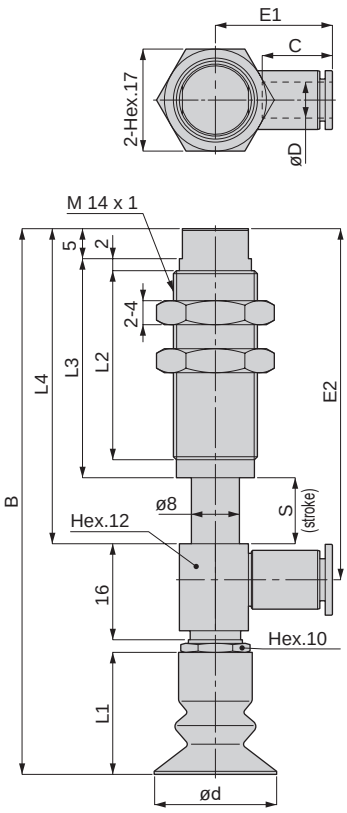
*1: Values in [ ] are for low load.

Dimensions (low dust generation buffer, vacuum outlet side VSP-LFD, push-in fitting)

●VSP-LFD6 to 15-□LB*-4



●VSP-LFD20-□LB*-4/6

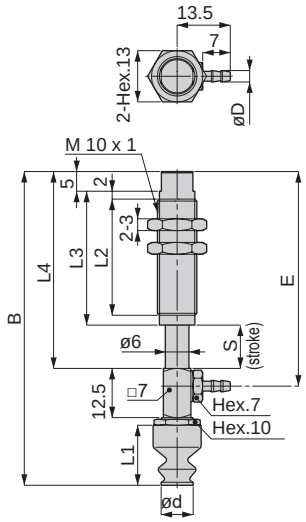


Unit: mm

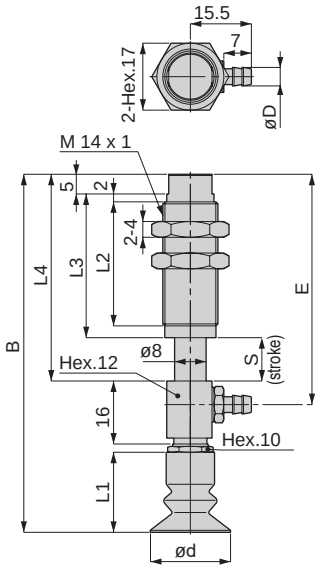
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-LFD6-5LB*-4	6	4	69.6	15	24.5	29	40	11.2	16.4	44.5	5	1.3 to 2.4	28
VSP-LFD6-10LB*-4			79.6		29.5	34	50			54.5	10	1.3 to 3.3	30
VSP-LFD6-15LB*-4			89.6		34.5	39	60			64.5	15	1.3 to 4.2	32
VSP-LFD6-20LB*-4			99.6		39.5	44	70			74.5	20	1.3 to 5.1	34
VSP-LFD8-5LB*-4	8	4	69.6	15	24.5	29	40	11.2	16.4	44.5	5	1.3 to 2.4	28
VSP-LFD8-10LB*-4			79.6		29.5	34	50			54.5	10	1.3 to 3.3	30
VSP-LFD8-15LB*-4			89.6		34.5	39	60			64.5	15	1.3 to 4.2	32
VSP-LFD8-20LB*-4			99.6		39.5	44	70			74.5	20	1.3 to 5.1	34
VSP-LFD10-5LB*-4	10	4	70.1	15.5	24.5	29	40	11.2	16.4	44.5	5	1.3 to 2.4	28
VSP-LFD10-10LB*-4			80.1		29.5	34	50			54.5	10	1.3 to 3.3	30
VSP-LFD10-15LB*-4			90.1		34.5	39	60			64.5	15	1.3 to 4.2	32
VSP-LFD10-20LB*-4			100.1		39.5	44	70			74.5	20	1.3 to 5.1	34
VSP-LFD15-5LB*-4	15	4	72.1	17.5	24.5	29	40	11.2	16.4	44.5	5	1.3 to 2.4	28
VSP-LFD15-10LB*-4			82.1		29.5	34	50			54.5	10	1.3 to 3.3	30
VSP-LFD15-15LB*-4			92.1		34.5	39	60			64.5	15	1.3 to 4.2	32
VSP-LFD15-20LB*-4			102.1		39.5	44	70			74.5	20	1.3 to 5.1	34
VSP-LFD20-5LB*-4	20	4	80.5	20	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	58
VSP-LFD20-5LB*-6		6						11.9	19.7				59
VSP-LFD20-10LB*-4		4	90.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	62
VSP-LFD20-10LB*-6		6						11.9	19.7				63
VSP-LFD20-15LB*-4		4	100.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	66
VSP-LFD20-15LB*-6		6						11.9	19.7				67
VSP-LFD20-20LB*-4		4	110.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	70
VSP-LFD20-20LB*-6		6						11.9	19.7				71

Dimensions (low dust generation buffer, vacuum outlet side VSP-LFD, barbed fitting)

●VSP-LFD6 to 15-□LB*-4T/6T



●VSP-LFD20-□LB*-4T/6T



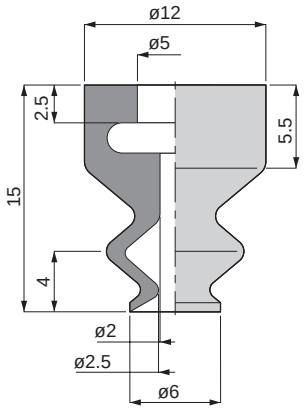
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD6-5LB*-4T	6	2.5	69.6	15	24.5	29	40	44.5	5	1.3 to 2.4	27
VSP-LFD6-5LB*-6T		4									
VSP-LFD6-10LB*-4T		2.5	79.6		29.5	34	50	54.5	10	1.3 to 3.3	29
VSP-LFD6-10LB*-6T		4									
VSP-LFD6-15LB*-4T		2.5	89.6		34.5	39	60	64.5	15	1.3 to 4.2	31
VSP-LFD6-15LB*-6T		4									
VSP-LFD6-20LB*-4T		2.5	99.6		39.5	44	70	74.5	20	1.3 to 5.1	33
VSP-LFD6-20LB*-6T		4									
VSP-LFD8-5LB*-4T	8	2.5	69.6	15	24.5	29	40	44.5	5	1.3 to 2.4	27
VSP-LFD8-5LB*-6T		4									
VSP-LFD8-10LB*-4T		2.5	79.6		29.5	34	50	54.5	10	1.3 to 3.3	29
VSP-LFD8-10LB*-6T		4									
VSP-LFD8-15LB*-4T		2.5	89.6		34.5	39	60	64.5	15	1.3 to 4.2	31
VSP-LFD8-15LB*-6T		4									
VSP-LFD8-20LB*-4T		2.5	99.6		39.5	44	70	74.5	20	1.3 to 5.1	33
VSP-LFD8-20LB*-6T		4									
VSP-LFD10-5LB*-4T	10	2.5	70.1	15.5	24.5	29	40	44.5	5	1.3 to 2.4	27
VSP-LFD10-5LB*-6T		4									
VSP-LFD10-10LB*-4T		2.5	80.1		29.5	34	50	54.5	10	1.3 to 3.3	29
VSP-LFD10-10LB*-6T		4									
VSP-LFD10-15LB*-4T		2.5	90.1		34.5	39	60	64.5	15	1.3 to 4.2	31
VSP-LFD10-15LB*-6T		4									
VSP-LFD10-20LB*-4T		2.5	100.1		39.5	44	70	74.5	20	1.3 to 5.1	33
VSP-LFD10-20LB*-6T		4									
VSP-LFD15-5LB*-4T	15	2.5	72.1	17.5	24.5	29	40	44.5	5	1.3 to 2.4	27
VSP-LFD15-5LB*-6T		4									
VSP-LFD15-10LB*-4T		2.5	82.1		29.5	34	50	54.5	10	1.3 to 3.3	29
VSP-LFD15-10LB*-6T		4									
VSP-LFD15-15LB*-4T		2.5	92.1		34.5	39	60	64.5	15	1.3 to 4.2	31
VSP-LFD15-15LB*-6T		4									
VSP-LFD15-20LB*-4T		2.5	102.1		39.5	44	70	74.5	20	1.3 to 5.1	33
VSP-LFD15-20LB*-6T		4									
VSP-LFD20-5LB*-4T	20	2.5	80.5	20	26.5	31.5	42.5	48.5	5	4.5 to 6.5	54
VSP-LFD20-5LB*-6T		4									
VSP-LFD20-10LB*-4T		2.5	90.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	57
VSP-LFD20-10LB*-6T		4									
VSP-LFD20-15LB*-4T		2.5	100.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	61
VSP-LFD20-15LB*-6T		4									
VSP-LFD20-20LB*-4T		2.5	110.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	65
VSP-LFD20-20LB*-6T		4									

VSPG-*LB* Series

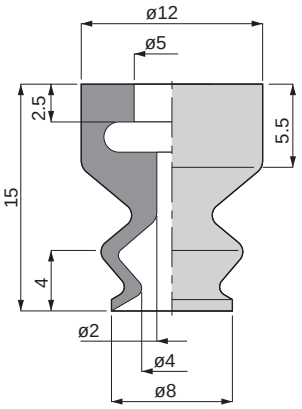
Dimensions: pad only

●VSPG-6LB*



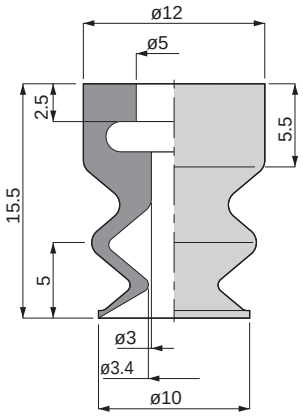
Weight: 1 g

●VSPG-8LB*



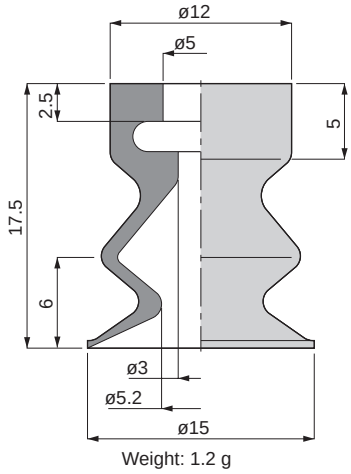
Weight: 1 g

●VSPG-10LB*



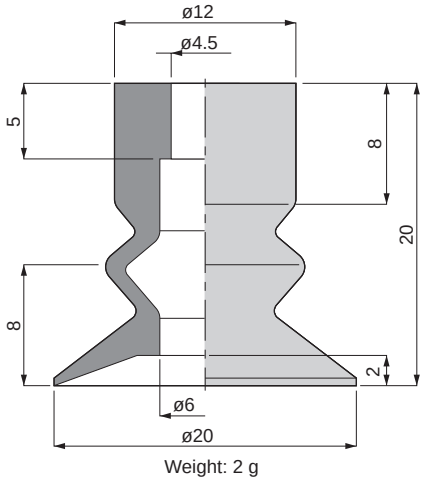
Weight: 1.1 g

●VSPG-15LB*



Weight: 1.2 g

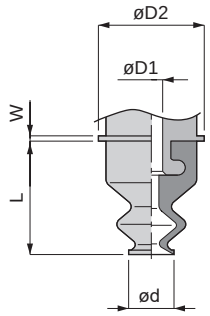
●VSPG-20LB*



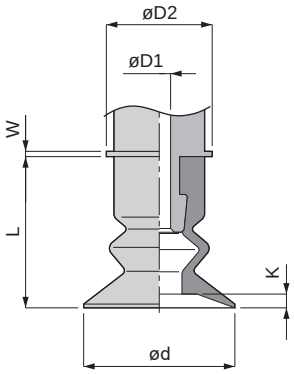
Weight: 2 g

Detailed view of pad and holder connection

●VSPG-6 to 15LB*A



●VSPG-20LB*A



Unit: mm

Model No.	Pad diameter ød	L	øD1	øD2	W
VSPG-6LB*	6	15	3	14	0.7
VSPG-8LB*	8	15	3	14	0.7
VSPG-10LB*	10	15.5	3	14	0.7
VSPG-15LB*	15	17.5	3	14	0.7
VSPG-20LB*	20	20	3	14	0.7

Note: øD2 and W dimensions in the dimensions table are only for the VPHC type.

Safety precautions

WARNING

■Since soft bellows type pads may adhere together due to working conditions and material characteristics, confirm performance with an actual device.
In addition, since stickiness may increase due to the operating environment and pad wear, review as necessary the pad shape, material, quantity, etc.

CAUTION

■The VPHC type holder has no conductivity. When using a vacuum pad of conductive material, take measures to let electricity pass directly from the pad rubber.

■Use the soft bellows so that they do not over-compress. If it is compressed too much, the bellows part may wear quickly, or cracks in the lip part may occur, or deformation due to strain may cause suction failure.



Suction pad, anti-slip type

VSP-*K* Series

Suction pad with anti-slip structure for gripping workpiece on suction surface of pad

RoHS

Ideal for transporting workpieces covered with an oil film such as pressed parts

A wide range of holder variations

Shape 16types

- Standard5 types
- Compact4 types
- Low dust generation . 2 types
- Lightweight3 types
- Low height2 types

Pipingconnection 5types

- Push-in fitting(ø1.8 to ø6) .... 3 types
- Barbed fitting(ø4, ø6) ..... 2 types

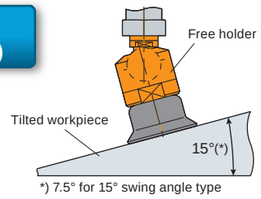
Stroke 11types

2 mm to 50 mm
(Depends on pad diameter and holder)

Low dust generation holders (LFC, LFD) are available, with minimal friction powder and low noise caused by sliding.

Supports assembly options of track swinging (free holder, flexible holder) on a workpiece surface with an angle.

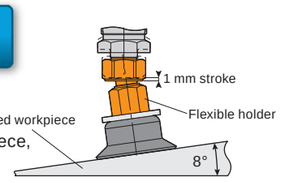
Free holder (F1:30°, F2:15°)



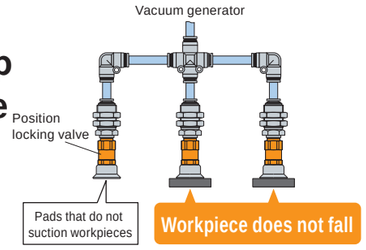
*) 7.5° for 15° swing angle type

Flexible holder (CF)

After removing the workpiece, returns to the normal position (vertical)



Supports assembly option of position locking valve (V) that reduces vacuum drop in another circuit even without a workpiece

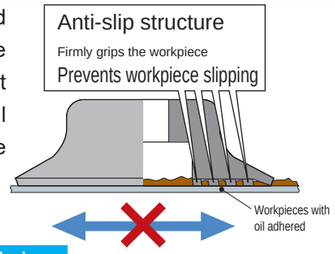


Pad shape



Oil resistance

Fluoro rubber and oil-resistant nitrile rubber excellent in durability in oil environments are available.



Recommended workpiece

Press parts with oil adhered, etc.



Pad diameter

5 types | 10 | 20 | 30 | 40 | 50

Pad material

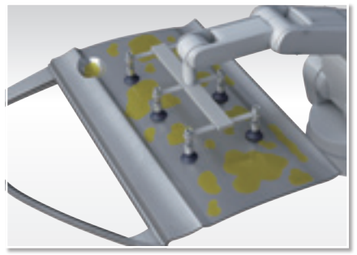
5 types | Oil-resistant NBR | silicone | Urethane | Fluorine | Conductive NBR (low resistance)

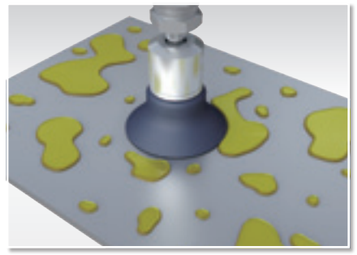
* Silicone (S) is compatible with the Food Sanitation Act. (holder is not supported/suction pad is compatible only with workpiece contact part)

Solution examples

Slippery parts covered with an oil film

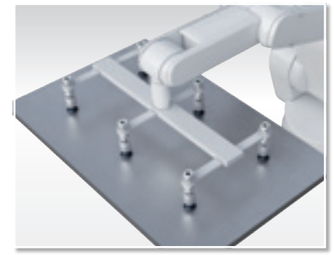
Workpieces with oil adhered such as press parts or automobile parts. The pad material can be selected according to the characteristics of the workpiece.





Conveying heavy steel plates

press, laser, etc.



How to order

●Anti-slip

Suction pad

VSP – C 30 -20 K NH – 6 – – F1 V

VSP	C	30	-20	K	NH	6		F1	V
Model No.	❶ Holder Shape	❷ Pad diameter	❸ Stroke option	❹ Pad shape	❺ Pad material	❻ Port size/ Shape	❼ Buffer Load	❽ Pad Swinging	❾ Drop Prevention valve

Pad rubber only

VSPG — 30 K NH

VSPG	30	K	NH
Model No.	❷	❹	❺

Pad rubber + Set with fixing screw

VSPG — 30 K NH A

VSPG	30	K	NH	A
Model No.	❷ Pad diameter	❹ Pad shape	❺ Pad material	

❶ Holder type

With/without buffer	Type	Vacuum outlet	Code	
Fixed	Standard	Upward direction	A	
	Compact		MA	
	Standard	Lateral direction	B	
	Compact		MB	
	Low height		HE	
		Both lateral directions	HEW	
Buffer type	Standard	Upward direction	C	
	Compact		MC	
	Low dust generation		LFC	
	Light weight		HC	
	Standard	Lateral direction	D	
	Compact		MD	
	Low dust generation		LFD	
	Light weight		HD	
		Both lateral directions	HDW	
	Standard	Direct mounting	F	

❷ Pad diameter

Code	Description
10	ø10
20	ø20
30	ø30
40	ø40
50	ø50

❸ Stroke option

Description	Holder type C	D	HC	LFC	LFD	Code	
Specified stroke or without buffer	●	●				Blank	*1,*2
Stroke 2 mm				●		-2	*3
Stroke 5 mm				●	●	- 5	
Stroke 10 mm	●	●	●	●	●	- 10	
Stroke 15 mm	●	●	●	●	●	- 15	
Stroke 20 mm	●	●	●	●	●	- 20	
Stroke 25 mm			●			- 25	
Stroke 30 mm	●	●	●			- 30	
Stroke 40 mm	●	●	●			- 40	
Stroke 50 mm	●	●	●			- 50	

*1: ❶Other than C, D, HC, LFC, LFD, ❸ is blank.
*2: ❸For blank designated strokes, check the stroke dimensions with the O.D. dimensions.
*3: ❷For 10, ❸-2 can be selected.

❹ Pad shape

Code	Description	
K	Anti-slip	

❺ Pad material

Code	Description
NH	Oil-resistant NBR
S	Silicone rubber
U	Urethane rubber
F	Fluoro rubber
NE	Conductive NBR (low resistance)

Specifications for rechargeable battery (Catalog No.CC-1226A)

●Design compatible with rechargeable battery manufacturing process

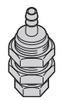
VSP -..... -P4*

Specifications for food manufacturing processes (Catalog No.CC-1271A)

●Food-grade lubricants that can be used in food manufacturing processes, and resin/rubber materials that are compatible with the Food Sanitation Act are used

VSP -..... -FP*

❻ Port size/shape

Description	Holder type A	B	C	D	MA	MB	MC	MD	LFC	LFD	HC	HD	HDW	HE	HEW	Code	
(❶: When F)																Blank	
ø1.8 push-in fitting						●	●	●			●	●	●	●	●	2	
ø4 push-in fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	
ø6 push-in fitting	●	●	●	●		●		●	●	●	●	●	●	●	●	6	
ø4 Push-in fitting, without spring cover			●	●												4C	
ø6 Push-in fitting, without spring cover			●	●												6C	
ø4 barbed fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4T	
ø6 barbed fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	6T	
ø4 barbed fitting, without spring cover			●	●												4TC	
ø6 Barbed fitting, without spring cover			●	●												6TC	

*1: ❶C, D❸-20 up-For 50, ❻4C, 6C, 4TC, 6TC can be selected.
*2: ❷The port size and shape that can be selected differ depending on the pad diameter. Check with the combination table below.

❼ Buffer load

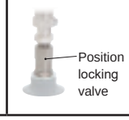
Code	Description	
Blank	Standard load or without buffer	*1 *2
L	Low load (1/4 of standard load)	

*1: ❶With the exception of LFC, ❼is blank.
*2: ❸For -2, ❼is blank.

❽ Swiveling pad

Code	Description	
Blank	None	
F1	With free holder swing angle 30°	 Free holder
F2	With free holder swing angle 15°	
CF	With flexible holder angle 8°	 Flexible holder

❾ Position locking valve

Code	Description	
Blank	None	
V	With position locking valve	 Position locking valve

Holder shape - pad diameter - pad shape - port size/shape combinations

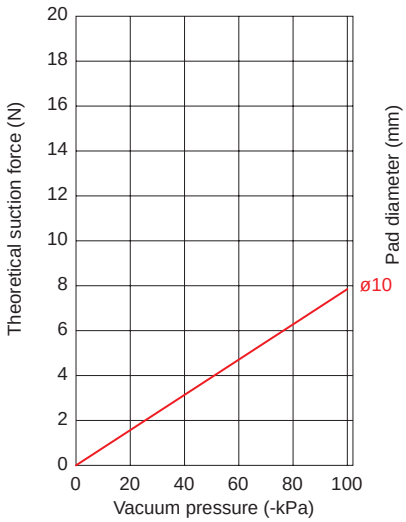
Holder type	Pad diameter	Push-in fitting ø4 4	ø4 4C	ø6 6	ø6 6C	Barbed fitting ø4 4T	ø4 4TC	ø6 6T	ø6 6TC
A	ø10			●				●	
	ø20 to ø50	●		●		●		●	
B	All sizes	●		●		●		●	
C	All sizes	●	●	●	●	●	●	●	●
D	All sizes	●	●	●	●	●	●	●	●

Holder type	Pad diameter	Thread M14	Thread Blank
F	All sizes		●

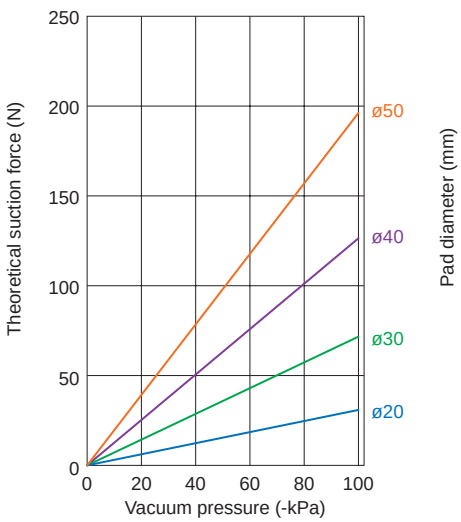
Holder type	Pad diameter	Push-in fitting ø1.8 2	ø4 4	ø6 6	Barbed fitting ø4 4T	ø6 6T
MA	ø10		●		●	
	ø20 to ø50		●		●	●
MB	All sizes	●	●	●	●	●
MC	All sizes	●	●		●	●
MD	All sizes	●	●	●	●	●
LFC	ø10		●		●	●
	ø20 to ø50		●	●	●	●
LFD	ø10		●		●	●
	ø20 to ø50		●	●	●	●
HC	All sizes	●	●	●	●	●
HD	All sizes	●	●	●	●	●
HDW	All sizes	●	●	●	●	●
HE	All sizes	●	●	●	●	●
HEW	All sizes	●	●	●	●	●

Theoretical suction force

● Pad diameter: ø10 mm



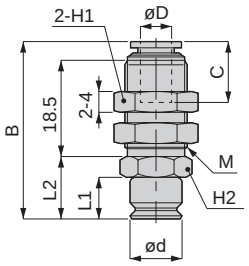
● Pad diameter: ø20 mm to ø50 mm



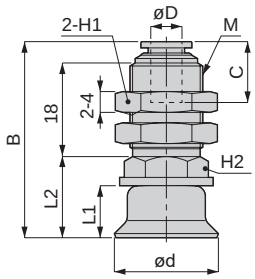
* Because the theoretical suction force is the value at static conditions, adopt a safety factor of 1/4 for horizontal lifting and 1/8 for vertical lifting in actual use.

Dimensions (fixed, vacuum outlet top VSP-A, push-in fitting)

●VSP-A10K*-6



●VSP-A20 to 50K*-4/6

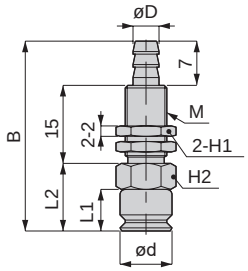


Unit: mm

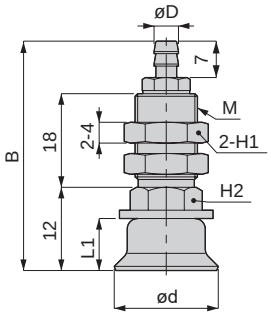
Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	Tube end C	Hexagon H1	Hexagon H2	Weight (g)
VSP-A10K*-6	10	6	M 12 x 1	34.3	8	12	11.9	14	12	22
VSP-A20K*-4	20	4	M 12 x 1	46.9	10	16	11.2	14	12	30
VSP-A20K*-6		6	M 14 x 1	37.9			11.9	17	14	36
VSP-A30K*-4	30	4	M 12 x 1	48.9	12	18	11.2	14	12	34
VSP-A30K*-6		6	M 14 x 1	39.9			11.9	17	14	40
VSP-A40K*-4	40	4	M 12 x 1	52.9	16	22	11.2	14	12	43
VSP-A40K*-6		6	M 14 x 1	43.9			11.9	17	14	49
VSP-A50K*-4	50	4	M 12 x 1	53.9	17	23	11.2	14	12	49
VSP-A50K*-6		6	M 14 x 1	44.9			11.9	17	14	55

Dimensions (fixed, vacuum outlet top VSP-A, barbed fitting)

●VSP-A10K*-6T



●VSP-A20 to 50K*-4T/6T

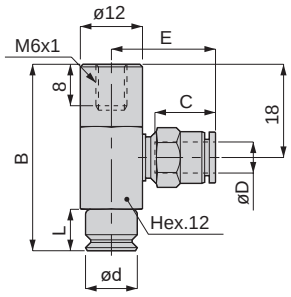


Unit: mm

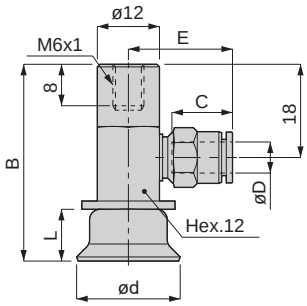
Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	Hexagon H1	Hexagon H2	Weight (g)
VSP-A10K*-6T	10	4	M 8 x 0.75	35	8	12	10	10	12
VSP-A20K*-4T	20	2.5	M 12 x 1	44	10	16	14	12	30
VSP-A20K*-6T		4							
VSP-A30K*-4T	30	2.5	M 12 x 1	46	12	18	14	12	34
VSP-A30K*-6T		4							
VSP-A40K*-4T	40	2.5	M 12 x 1	50	16	22	14	12	43
VSP-A40K*-6T		4							
VSP-A50K*-4T	50	2.5	M 12 x 1	51	17	23	14	12	49
VSP-A50K*-6T		4							

Dimensions (fixed, vacuum outlet side VSP-B, push-in fitting)

●VSP-B10K*-4/6



●VSP-B20 to 50K*-4/6

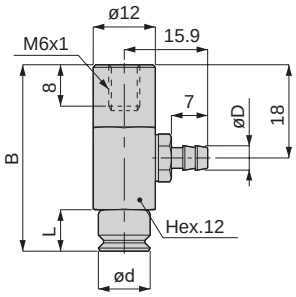


Unit: mm

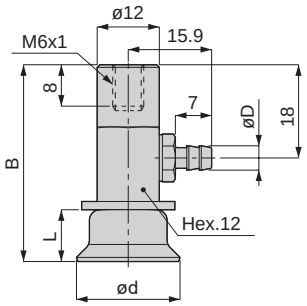
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-B10K*-4	10	4	36	8	11.2	18.8	30
VSP-B10K*-6		6			11.9	20.1	31
VSP-B20K*-4	20	4	38	10	11.2	18.8	33
VSP-B20K*-6		6			11.9	20.1	34
VSP-B30K*-4	30	4	40	12	11.2	18.8	37
VSP-B30K*-6		6			11.9	20.1	38
VSP-B40K*-4	40	4	44	16	11.2	18.8	46
VSP-B40K*-6		6			11.9	20.1	47
VSP-B50K*-4	50	4	45	17	11.2	18.8	52
VSP-B50K*-6		6			11.9	20.1	53

Dimensions (fixed, vacuum outlet side VSP-B, barbed fitting)

●VSP-B10K*-4T/6T



●VSP-B20 to 50K*-4T/6T

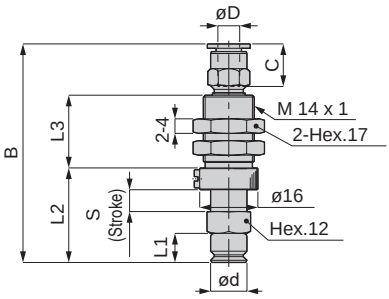


Unit: mm

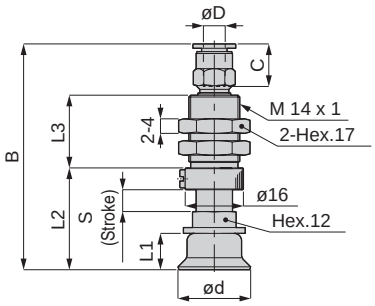
Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-B10K*-4T	10	2.5	36	8	29
VSP-B10K*-6T		4			
VSP-B20K*-4T	20	2.5	38	10	32
VSP-B20K*-6T		4			
VSP-B30K*-4T	30	2.5	40	12	36
VSP-B30K*-6T		4			
VSP-B40K*-4T	40	2.5	44	16	45
VSP-B40K*-6T		4			
VSP-B50K*-4T	50	2.5	45	17	51
VSP-B50K*-6T		4			

Dimensions (buffer, vacuum outlet top VSP-C, push-in fitting)

●VSP-C10K*-4/6
●VSP-C10-□K*-4/6



●VSP-C20 to 50K*-4/6
●VSP-C20 to 50-□K*-4/6

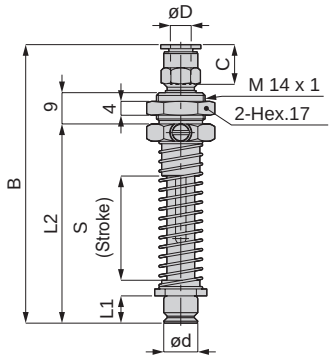


Unit: mm

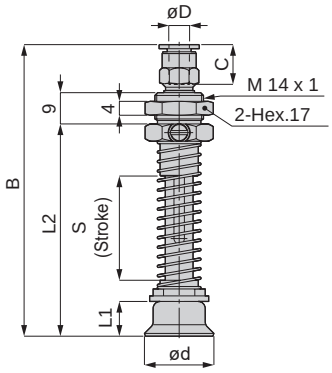
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C10K*-4	10	4	59	8	26	20	11.2	6	4.0 to 7.1	35
VSP-C10K*-6		6	60.3				11.9			36
VSP-C10-10K*-4		4	63.5		30.5		11.2	10	2.0 to 5.2	36
VSP-C10-10K*-6		6	64.8				11.9			37
VSP-C10-15K*-4		4	73.5		35.5	25	11.2	15	2.0 to 5.9	42
VSP-C10-15K*-6		6	74.8				11.9			43
VSP-C10-20K*-4		4	89.5		34	34	11.2	20	1.1 to 4.8	49
VSP-C10-20K*-6		6	90.8				11.9			50
VSP-C20K*-4	20	4	61	10	28	20	11.2	6	7.0 to 12.6	39
VSP-C20K*-6		6	62.3				11.9			40
VSP-C20-10K*-4		4	67		34		11.2	10	3.3 to 10.0	41
VSP-C20-10K*-6		6	68.3				11.9			42
VSP-C20-15K*-4		4	77		39	25	11.2	15	3.3 to 10.4	46
VSP-C20-15K*-6		6	78.3				11.9			47
VSP-C20-20K*-4		4	93		46	34	11.2	20	2.0 to 8.7	53
VSP-C20-20K*-6		6	94.3				11.9			54
VSP-C30K*-4	30	4	63	12	30	20	11.2	6	7.0 to 12.6	43
VSP-C30K*-6		6	64.3				11.9			44
VSP-C30-10K*-4		4	69		36		11.2	10	3.3 to 10.0	45
VSP-C30-10K*-6		6	70.3				11.9			46
VSP-C30-15K*-4		4	79		41	25	11.2	15	3.3 to 10.4	50
VSP-C30-15K*-6		6	80.3				11.9			51
VSP-C30-20K*-4		4	95		48	34	11.2	20	2.0 to 8.7	57
VSP-C30-20K*-6		6	96.3				11.9			58
VSP-C40K*-4	40	4	67	16	34	20	11.2	6	7.0 to 12.6	51
VSP-C40K*-6		6	68.3				11.9			52
VSP-C40-10K*-4		4	73		40		11.2	10	3.3 to 10.0	54
VSP-C40-10K*-6		6	74.3				11.9			55
VSP-C40-15K*-4		4	83		45	25	11.2	15	3.3 to 10.4	59
VSP-C40-15K*-6		6	84.3				11.9			60
VSP-C40-20K*-4		4	99		52	34	11.2	20	2.0 to 8.7	65
VSP-C40-20K*-6		6	100.3				11.9			66
VSP-C50K*-4	50	4	68	17	35	20	11.2	6	7.0 to 12.6	58
VSP-C50K*-6		6	69.3				11.9			59
VSP-C50-10K*-4		4	74		41		11.2	10	3.3 to 10.0	60
VSP-C50-10K*-6		6	75.3				11.9			61
VSP-C50-15K*-4		4	84		46	25	11.2	15	3.3 to 10.4	65
VSP-C50-15K*-6		6	85.3				11.9			66
VSP-C50-20K*-4		4	100		53	34	11.2	20	2.0 to 8.7	72
VSP-C50-20K*-6		6	101.3				11.9			73

Dimensions (buffer, vacuum outlet top VSP-C, push-in fitting without spring cover)

●VSP-C10-□K*-4C/6C



●VSP-C20 to 50-□K*-4C/6C

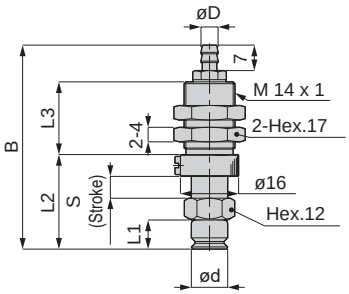


Unit: mm

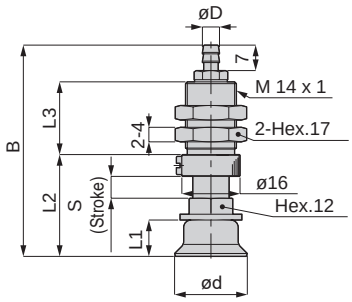
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C10-20K*-4C	10	4	66.5	8	44.5	11.2	20	1.5 to 4.9	44
VSP-C10-20K*-6C		6	67.8			11.9			45
VSP-C10-30K*-4C		4	79.5		57.5	11.2	30	1.1 to 4.8	49
VSP-C10-30K*-6C		6	80.8			11.9			50
VSP-C10-40K*-4C		4	92.5		70.5	11.2	40	1.0 to 4.5	54
VSP-C10-40K*-6C		6	93.8			11.9			55
VSP-C10-50K*-4C		4	105.5		83.5	11.2	50	0.9 to 4.5	59
VSP-C10-50K*-6C		6	106.8			11.9			60
VSP-C20-20K*-4C	20	4	70	10	48	11.2	20	1.5 to 4.9	49
VSP-C20-20K*-6C		6	71.3			11.9			50
VSP-C20-30K*-4C		4	83		61	11.2	30	1.1 to 4.8	54
VSP-C20-30K*-6C		6	84.3			11.9			55
VSP-C20-40K*-4C		4	96		74	11.2	40	1.0 to 4.5	59
VSP-C20-40K*-6C		6	97.3			11.9			60
VSP-C20-50K*-4C		4	109		87	11.2	50	0.9 to 4.5	64
VSP-C20-50K*-6C		6	110.3			11.9			65
VSP-C30-20K*-4C	30	4	72	12	50	11.2	20	1.5 to 4.9	53
VSP-C30-20K*-6C		6	73.3			11.9			54
VSP-C30-30K*-4C		4	85		63	11.2	30	1.1 to 4.8	58
VSP-C30-30K*-6C		6	86.3			11.9			59
VSP-C30-40K*-4C		4	98		76	11.2	40	1.0 to 4.5	63
VSP-C30-40K*-6C		6	99.3			11.9			64
VSP-C30-50K*-4C		4	111		89	11.2	50	0.9 to 4.5	68
VSP-C30-50K*-6C		6	112.3			11.9			69
VSP-C40-20K*-4C	40	4	76	16	54	11.2	20	1.5 to 4.9	61
VSP-C40-20K*-6C		6	77.3			11.9			62
VSP-C40-30K*-4C		4	89		67	11.2	30	1.1 to 4.8	66
VSP-C40-30K*-6C		6	90.3			11.9			67
VSP-C40-40K*-4C		4	102		80	11.2	40	1.0 to 4.5	71
VSP-C40-40K*-6C		6	103.3			11.9			72
VSP-C40-50K*-4C		4	115		93	11.2	50	0.9 to 4.5	77
VSP-C40-50K*-6C		6	116.3			11.9			78
VSP-C50-20K*-4C	50	4	77	17	55	11.2	20	1.5 to 4.9	68
VSP-C50-20K*-6C		6	78.3			11.9			69
VSP-C50-30K*-4C		4	90		68	11.2	30	1.1 to 4.8	73
VSP-C50-30K*-6C		6	91.3			11.9			74
VSP-C50-40K*-4C		4	103		81	11.2	40	1.0 to 4.5	78
VSP-C50-40K*-6C		6	104.3			11.9			79
VSP-C50-50K*-4C		4	116		94	11.2	50	0.9 to 4.5	83
VSP-C50-50K*-6C		6	117.3			11.9			84

Dimensions (buffer, vacuum outlet top VSP-C, barbed fitting)

●VSP-C10K*-4T/6T
●VSP-C10-□K*-4T/6T



●VSP-C20 to 50K*-4T/6T
●VSP-C20 to 50□K*-4T/6T

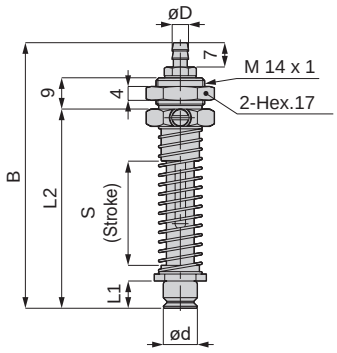


Unit: mm

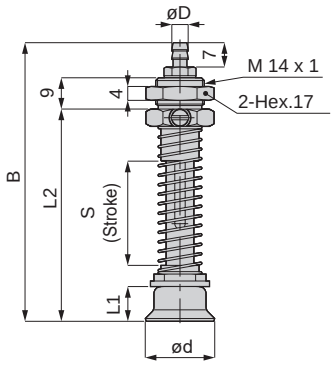
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-C10K*-4T	10	4	56.1	8	26	20	6	4.0 to 7.1	34
VSP-C10K*-6T		6							
VSP-C10-10K*-4T		4	60.6		30.5		10	2.0 to 5.2	35
VSP-C10-10K*-6T		6							
VSP-C10-15K*-4T		4	70.6		35.5	25	15	2.0 to 5.9	41
VSP-C10-15K*-6T		6							
VSP-C10-20K*-4T		4	86.6		42.5	34	20	1.1 to 4.8	48
VSP-C10-20K*-6T		6							
VSP-C20K*-4T	20	4	58.1	10	28	20	6	7.0 to 12.6	38
VSP-C20K*-6T		6							
VSP-C20-10K*-4T		4	64.1		34		10	3.3 to 10.0	40
VSP-C20-10K*-6T		6							
VSP-C20-15K*-4T		4	74.1		39	25	15	3.3 to 10.4	45
VSP-C20-15K*-6T		6							
VSP-C20-20K*-4T		4	90.1		46	34	20	2.0 to 8.7	52
VSP-C20-20K*-6T		6							
VSP-C30K*-4T	30	4	60.1	12	30	20	6	7.0 to 12.6	42
VSP-C30K*-6T		6							
VSP-C30-10K*-4T		4	66.1		36		10	3.3 to 10.0	44
VSP-C30-10K*-6T		6							
VSP-C30-15K*-4T		4	76.1		41	25	15	3.3 to 10.4	49
VSP-C30-15K*-6T		6							
VSP-C30-20K*-4T		4	92.1		48	34	20	2.0 to 8.7	56
VSP-C30-20K*-6T		6							
VSP-C40K*-4T	40	4	64.1	16	34	20	6	7.0 to 12.6	50
VSP-C40K*-6T		6							
VSP-C40-10K*-4T		4	70.1		40		10	3.3 to 10.0	53
VSP-C40-10K*-6T		6							
VSP-C40-15K*-4T		4	80.1		45	25	15	3.3 to 10.4	58
VSP-C40-15K*-6T		6							
VSP-C40-20K*-4T		4	96.1		52	34	20	2.0 to 8.7	64
VSP-C40-20K*-6T		6							
VSP-C50K*-4T	50	4	65.1	17	35	20	6	7.0 to 12.6	57
VSP-C50K*-6T		6							
VSP-C50-10K*-4T		4	71.1		41		10	3.3 to 10.0	59
VSP-C50-10K*-6T		6							
VSP-C50-15K*-4T		4	81.1		46	25	15	3.3 to 10.4	64
VSP-C50-15K*-6T		6							
VSP-C50-20K*-4T		4	97.1		53	34	20	2.0 to 8.7	71
VSP-C50-20K*-6T		6							

Dimensions (buffer, vacuum outlet top VSP-C, barbed fitting without spring cover)

●VSP-C10-□K*-4TC/6TC



●VSP-C20 to 50-□K*-4TC/6TC

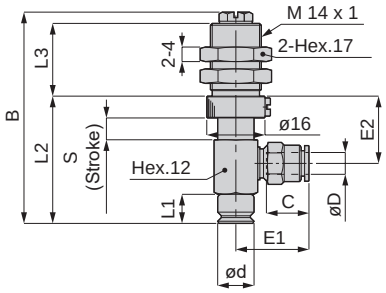


Unit: mm

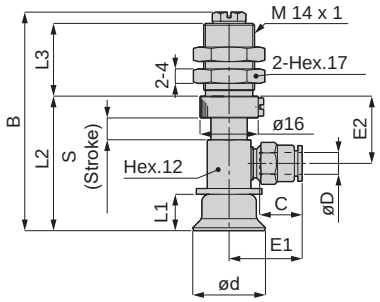
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-C10-20K*-4TC	10	4	63.6	8	44.5	20	1.5 to 4.9	43
VSP-C10-20K*-6TC		6						
VSP-C10-30K*-4TC		4	76.6		57.5	30	1.1 to 4.8	48
VSP-C10-30K*-6TC		6						
VSP-C10-40K*-4TC		4	89.6		70.5	40	1.0 to 4.5	53
VSP-C10-40K*-6TC		6						
VSP-C10-50K*-4TC		4	102.6		83.5	50	0.9 to 4.5	58
VSP-C10-50K*-6TC		6						
VSP-C20-20K*-4TC	20	4	67.1	10	48	20	1.5 to 4.9	48
VSP-C20-20K*-6TC		6						
VSP-C20-30K*-4TC		4	80.1		61	30	1.1 to 4.8	53
VSP-C20-30K*-6TC		6						
VSP-C20-40K*-4TC		4	93.1		74	40	1.0 to 4.5	58
VSP-C20-40K*-6TC		6						
VSP-C20-50K*-4TC		4	106.1		87	50	0.9 to 4.5	63
VSP-C20-50K*-6TC		6						
VSP-C30-20K*-4TC	30	4	69.1	12	50	20	1.5 to 4.9	52
VSP-C30-20K*-6TC		6						
VSP-C30-30K*-4TC		4	82.1		63	30	1.1 to 4.8	57
VSP-C30-30K*-6TC		6						
VSP-C30-40K*-4TC		4	95.1		76	40	1.0 to 4.5	62
VSP-C30-40K*-6TC		6						
VSP-C30-50K*-4TC		4	108.1		89	50	0.9 to 4.5	67
VSP-C30-50K*-6TC		6						
VSP-C40-20K*-4TC	40	4	73.1	16	54	20	1.5 to 4.9	60
VSP-C40-20K*-6TC		6						
VSP-C40-30K*-4TC		4	86.1		67	30	1.1 to 4.8	65
VSP-C40-30K*-6TC		6						
VSP-C40-40K*-4TC		4	99.1		80	40	1.0 to 4.5	70
VSP-C40-40K*-6TC		6						
VSP-C40-50K*-4TC		4	112.1		93	50	0.9 to 4.5	76
VSP-C40-50K*-6TC		6						
VSP-C50-20K*-4TC	50	4	74.1	17	55	20	1.5 to 4.9	67
VSP-C50-20K*-6TC		6						
VSP-C50-30K*-4TC		4	87.1		68	30	1.1 to 4.8	72
VSP-C50-30K*-6TC		6						
VSP-C50-40K*-4TC		4	100.1		81	40	1.0 to 4.5	77
VSP-C50-40K*-6TC		6						
VSP-C50-50K*-4TC		4	113.1		94	50	0.9 to 4.5	82
VSP-C50-50K*-6TC		6						

Dimensions (buffer, vacuum outlet side VSP-D, push-in fitting)

●VSP-D10K*-4/6
●VSP-D10-□K*-4/6



●VSP-D20 to 50K*-4/6
●VSP-D20 to 50-□K*-4/6

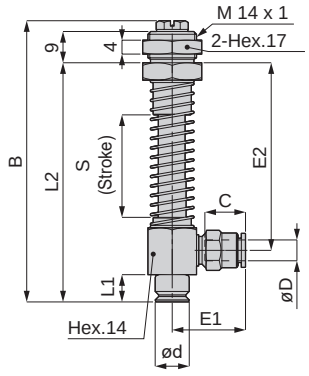


Unit: mm

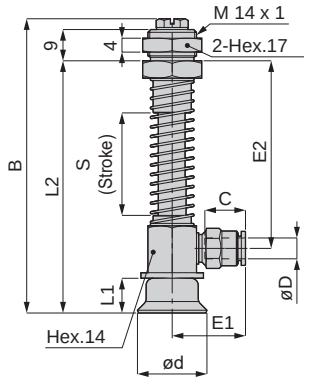
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D10K*-4	10	4	58.1	8	35	20	11.2	18.8	18.5	6	4.0 to 7.1	47
VSP-D10K*-6		6					11.9	20.1				48
VSP-D10-10K*-4		4	63.1		40		11.2	18.8	25	10	2.0 to 5.2	51
VSP-D10-10K*-6		6					11.9	20.1				52
VSP-D10-15K*-4		4	73.1		45	25	11.2	18.8	30	15	2.0 to 5.9	56
VSP-D10-15K*-6		6					11.9	20.1				57
VSP-D10-20K*-4		4	89.1		52	34	11.2	18.8	37	20	1.1 to 4.8	66
VSP-D10-20K*-6		6					11.9	20.1				67
VSP-D20K*-4	20	4	60.1	10	37	20	11.2	18.8	18.5	6	7.0 to 12.6	50
VSP-D20K*-6		6					11.9	20.1				51
VSP-D20-10K*-4		4	66.1		43		11.2	18.8	24.5	10	3.3 to 10.0	54
VSP-D20-10K*-6		6					11.9	20.1				55
VSP-D20-15K*-4		4	76.1		48	25	11.2	18.8	29.5	15	3.3 to 10.4	61
VSP-D20-15K*-6		6					11.9	20.1				62
VSP-D20-20K*-4		4	92.1		55	34	11.2	18.8	36.5	20	2.0 to 8.7	71
VSP-D20-20K*-6		6					11.9	20.1				72
VSP-D30K*-4	30	4	62.1	12	39	20	11.2	18.8	18.5	6	7.0 to 12.6	54
VSP-D30K*-6		6					11.9	20.1				55
VSP-D30-10K*-4		4	68.1		45		11.2	18.8	24.5	10	3.3 to 10.0	58
VSP-D30-10K*-6		6					11.9	20.1				59
VSP-D30-15K*-4		4	78.1		50	25	11.2	18.8	29.5	15	3.3 to 10.4	65
VSP-D30-15K*-6		6					11.9	20.1				66
VSP-D30-20K*-4		4	94.1		57	34	11.2	18.8	36.5	20	2.0 to 8.7	75
VSP-D30-20K*-6		6					11.9	20.1				76
VSP-D40K*-4	40	4	66.1	16	43	20	11.2	18.8	18.5	6	7.0 to 12.6	63
VSP-D40K*-6		6					11.9	20.1				64
VSP-D40-10K*-4		4	72.1		49		11.2	18.8	24.5	10	3.3 to 10.0	67
VSP-D40-10K*-6		6					11.9	20.1				68
VSP-D40-15K*-4		4	82.1		54	25	11.2	18.8	29.5	15	3.3 to 10.4	73
VSP-D40-15K*-6		6					11.9	20.1				74
VSP-D40-20K*-4		4	98.1		61	34	11.2	18.8	36.5	20	2.0 to 8.7	83
VSP-D40-20K*-6		6					11.9	20.1				84
VSP-D50K*-4	50	4	67.1	17	44	20	11.2	18.8	18.5	6	7.0 to 12.6	69
VSP-D50K*-6		6					11.9	20.1				70
VSP-D50-10K*-4		4	73.1		50		11.2	18.8	24.5	10	3.3 to 10.0	73
VSP-D50-10K*-6		6					11.9	20.1				74
VSP-D50-15K*-4		4	83.1		55	25	11.2	18.8	29.5	15	3.3 to 10.4	80
VSP-D50-15K*-6		6					11.9	20.1				81
VSP-D50-20K*-4		4	99.1		62	34	11.2	18.8	36.5	20	2.0 to 8.7	90
VSP-D50-20K*-6		6					11.9	20.1				91

Dimensions (buffer, vacuum outlet side VSP-D, push-in fitting without spring cover)

●VSP-D10-□K*-4C/6C



●VSP-D20 to 50-□K*-4C/6C

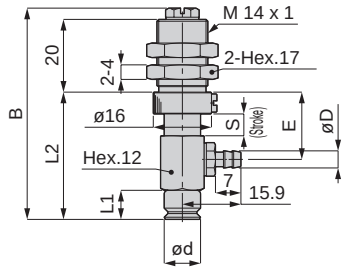


Unit: mm

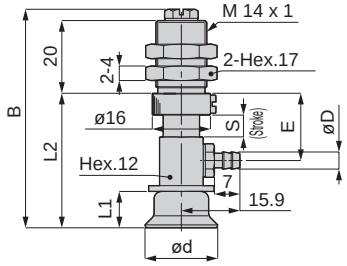
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D10-20K*-4C	10	4	68.1	8	56	11.2	19.8	40.5	20	1.5 to 4.9	68
VSP-D10-20K*-6C		6				11.9	21.1				69
VSP-D10-30K*-4C		4	81.1		69	11.2	19.8	53.5	30	1.1 to 4.8	74
VSP-D10-30K*-6C		6				11.9	21.1				75
VSP-D10-40K*-4C		4	94.1		82	11.2	19.8	66.5	40	1.0 to 4.5	81
VSP-D10-40K*-6C		6				11.9	21.1				82
VSP-D10-50K*-4C		4	107.1		95	11.2	19.8	79.5	50	0.9 to 4.5	88
VSP-D10-50K*-6C		6				11.9	21.1				89
VSP-D20-20K*-4C	20	4	71.6	10	59.5	11.2	19.8	41	20	1.5 to 4.9	69
VSP-D20-20K*-6C		6				11.9	21.1				70
VSP-D20-30K*-4C		4	84.6		72.5	11.2	19.8	54	30	1.1 to 4.8	76
VSP-D20-30K*-6C		6				11.9	21.1				77
VSP-D20-40K*-4C		4	97.6		85.5	11.2	19.8	67	40	1.0 to 4.5	82
VSP-D20-40K*-6C		6				11.9	21.1				83
VSP-D20-50K*-4C		4	110.6		98.5	11.2	19.8	80	50	0.9 to 4.5	89
VSP-D20-50K*-6C		6				11.9	21.1				90
VSP-D30-20K*-4C	30	4	73.6	12	61.5	11.2	19.8	41	20	1.5 to 4.9	73
VSP-D30-20K*-6C		6				11.9	21.1				74
VSP-D30-30K*-4C		4	86.6		74.5	11.2	19.8	54	30	1.1 to 4.8	80
VSP-D30-30K*-6C		6				11.9	21.1				81
VSP-D30-40K*-4C		4	99.6		87.5	11.2	19.8	67	40	1.0 to 4.5	86
VSP-D30-40K*-6C		6				11.9	21.1				87
VSP-D30-50K*-4C		4	112.6		100.5	11.2	19.8	80	50	0.9 to 4.5	93
VSP-D30-50K*-6C		6				11.9	21.1				94
VSP-D40-20K*-4C	40	4	77.6	16	65.5	11.2	19.8	41	20	1.5 to 4.9	81
VSP-D40-20K*-6C		6				11.9	21.1				82
VSP-D40-30K*-4C		4	90.6		78.5	11.2	19.8	54	30	1.1 to 4.8	88
VSP-D40-30K*-6C		6				11.9	21.1				89
VSP-D40-40K*-4C		4	103.6		91.5	11.2	19.8	67	40	1.0 to 4.5	95
VSP-D40-40K*-6C		6				11.9	21.1				96
VSP-D40-50K*-4C		4	116.6		104.5	11.2	19.8	80	50	0.9 to 4.5	102
VSP-D40-50K*-6C		6				11.9	21.1				103
VSP-D50-20K*-4C	50	4	78.6	17	66.5	11.2	19.8	41	20	1.5 to 4.9	88
VSP-D50-20K*-6C		6				11.9	21.1				89
VSP-D50-30K*-4C		4	91.6		79.5	11.2	19.8	54	30	1.1 to 4.8	95
VSP-D50-30K*-6C		6				11.9	21.1				96
VSP-D50-40K*-4C		4	104.6		92.5	11.2	19.8	67	40	1.0 to 4.5	101
VSP-D50-40K*-6C		6				11.9	21.1				102
VSP-D50-50K*-4C		4	117.6		105.5	11.2	19.8	80	50	0.9 to 4.5	108
VSP-D50-50K*-6C		6				11.9	21.1				109

Dimensions (buffer, vacuum outlet side VSP-D, barbed fitting)

●VSP-D10K*-4T/6T
●VSP-D10-□K*-4T/6T



●VSP-D20 to 50K*-4T/6T
●VSP-D20 to 50-□K*-4T/6T

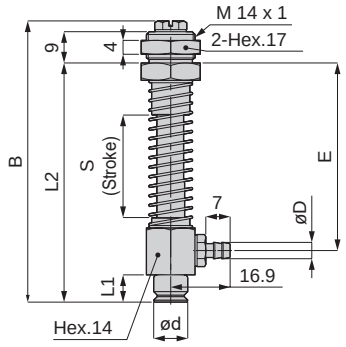


Unit: mm

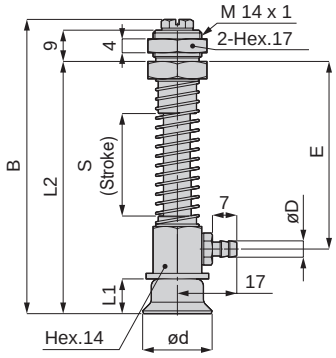
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	E	Stroke S	Spring force (N)	Weight (g)
VSP-D10K*-4T	10	2.5	58.1	8	35	20	18.5	6	4.0 to 7.1	46
VSP-D10K*-6T		4								
VSP-D10-10K*-4T		2.5	63.1		40		25	10	2.0 to 5.2	50
VSP-D10-10K*-6T		4								
VSP-D10-15K*-4T		2.5	73.1		45	25	30	15	2.0 to 5.9	55
VSP-D10-15K*-6T		4								
VSP-D10-20K*-4T		2.5	89.1		52	34	37	20	1.1 to 4.8	65
VSP-D10-20K*-6T		4								
VSP-D20K*-4T	20	2.5	60.1	10	37	20	18.5	6	7.0 to 12.6	49
VSP-D20K*-6T		4								
VSP-D20-10K*-4T		2.5	66.1		43		24.5	10	3.3 to 10.0	53
VSP-D20-10K*-6T		4								
VSP-D20-15K*-4T		2.5	76.1		48	25	29.5	15	3.3 to 10.4	60
VSP-D20-15K*-6T		4								
VSP-D20-20K*-4T		2.5	92.1		55	34	36.5	20	2.0 to 8.7	70
VSP-D20-20K*-6T		4								
VSP-D30K*-4T	30	2.5	62.1	12	39	20	18.5	6	7.0 to 12.6	53
VSP-D30K*-6T		4								
VSP-D30-10K*-4T		2.5	68.1		45		24.5	10	3.3 to 10.0	57
VSP-D30-10K*-6T		4								
VSP-D30-15K*-4T		2.5	78.1		50	25	29.5	15	3.3 to 10.4	64
VSP-D30-15K*-6T		4								
VSP-D30-20K*-4T		2.5	94.1		57	34	36.5	20	2.0 to 8.7	74
VSP-D30-20K*-6T		4								
VSP-D40K*-4T	40	2.5	66.1	16	43	20	18.5	6	7.0 to 12.6	62
VSP-D40K*-6T		4								
VSP-D40-10K*-4T		2.5	72.1		49		24.5	10	3.3 to 10.0	66
VSP-D40-10K*-6T		4								
VSP-D40-15K*-4T		2.5	82.1		54	25	29.5	15	3.3 to 10.4	72
VSP-D40-15K*-6T		4								
VSP-D40-20K*-4T		2.5	98.1		61	34	36.5	20	2.0 to 8.7	82
VSP-D40-20K*-6T		4								
VSP-D50K*-4T	50	2.5	67.1	17	44	20	18.5	6	7.0 to 12.6	68
VSP-D50K*-6T		4								
VSP-D50-10K*-4T		2.5	73.1		50		24.5	10	3.3 to 10.0	72
VSP-D50-10K*-6T		4								
VSP-D50-15K*-4T		2.5	83.1		55	25	29.5	15	3.3 to 10.4	79
VSP-D50-15K*-6T		4								
VSP-D50-20K*-4T		2.5	99.1		62	34	36.5	20	2.0 to 8.7	89
VSP-D50-20K*-6T		4								

Dimensions (buffer, vacuum outlet side VSP-D, barbed fitting without spring cover)

●VSP-D10-□K*-4TC/6TC



●VSP-D20 to 50-□K*-4TC/6TC

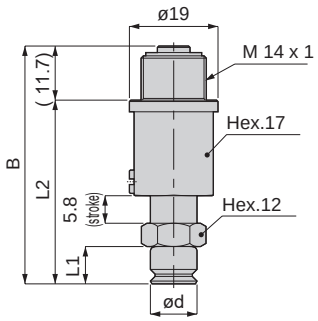


Unit: mm

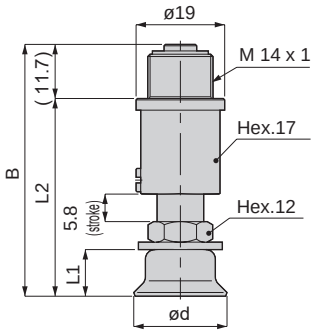
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-D10-20K*-4TC	10	2.5	68.1	8	56	40.5	20	1.5 to 4.9	67
VSP-D10-20K*-6TC		4							
VSP-D10-30K*-4TC		2.5	81.1		69	53.5	30	1.1 to 4.8	74
VSP-D10-30K*-6TC		4							
VSP-D10-40K*-4TC		2.5	94.1		82	66.5	40	1.0 to 4.5	80
VSP-D10-40K*-6TC		4							
VSP-D10-50K*-4TC		2.5	107.1		95	79.5	50	0.9 to 4.5	87
VSP-D10-50K*-6TC		4							
VSP-D20-20K*-4TC	20	4	71.6	10	59.5	41	20	1.5 to 4.9	68
VSP-D20-20K*-6TC		6							
VSP-D20-30K*-4TC		4	84.6		72.5	54	30	1.1 to 4.8	75
VSP-D20-30K*-6TC		6							
VSP-D20-40K*-4TC		4	97.6		85.5	67	40	1.0 to 4.5	81
VSP-D20-40K*-6TC		6							
VSP-D20-50K*-4TC		4	110.6		98.5	80	50	0.9 to 4.5	88
VSP-D20-50K*-6TC		6							
VSP-D30-20K*-4TC	30	4	73.6	12	61.5	41	20	1.5 to 4.9	72
VSP-D30-20K*-6TC		6							
VSP-D30-30K*-4TC		4	86.6		74.5	54	30	1.1 to 4.8	79
VSP-D30-30K*-6TC		6							
VSP-D30-40K*-4TC		4	99.6		87.5	67	40	1.0 to 4.5	85
VSP-D30-40K*-6TC		6							
VSP-D30-50K*-4TC		4	112.6		100.5	80	50	0.9 to 4.5	92
VSP-D30-50K*-6TC		6							
VSP-D40-20K*-4TC	40	4	77.6	16	65.5	41	20	1.5 to 4.9	80
VSP-D40-20K*-6TC		6							
VSP-D40-30K*-4TC		4	90.6		78.5	54	30	1.1 to 4.8	87
VSP-D40-30K*-6TC		6							
VSP-D40-40K*-4TC		4	103.6		91.5	67	40	1.0 to 4.5	94
VSP-D40-40K*-6TC		6							
VSP-D40-50K*-4TC		4	116.6		104.5	80	50	0.9 to 4.5	101
VSP-D40-50K*-6TC		6							
VSP-D50-20K*-4TC	50	4	78.6	17	66.5	41	20	1.5 to 4.9	87
VSP-D50-20K*-6TC		6							
VSP-D50-30K*-4TC		4	91.6		79.5	54	30	1.1 to 4.8	94
VSP-D50-30K*-6TC		6							
VSP-D50-40K*-4TC		4	104.6		92.5	67	40	1.0 to 4.5	100
VSP-D50-40K*-6TC		6							
VSP-D50-50K*-4TC		4	117.6		105.5	80	50	0.9 to 4.5	107
VSP-D50-50K*-6TC		6							

Dimensions (direct mounting buffer, VSP-F)

●VSP-F10K*



●VSP-F20 to 50K*

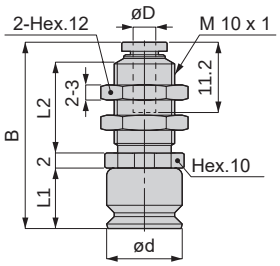


Unit: mm

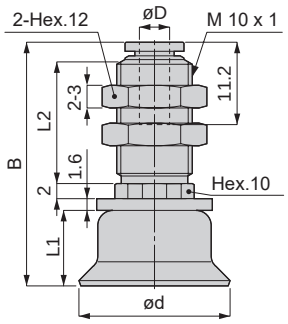
Model No.	Pad diameter ød	B	L1	L2	Spring force (N)	Weight (g)
VSP-F10K*	10	51	8	39.3	7.9 to 15	56
VSP-F20K*	20	54	10	42.3	7.9 to 15	59
VSP-F30K*	30	56	12	44.3	7.9 to 15	63
VSP-F40K*	40	60	16	48.3	7.9 to 15	71
VSP-F50K*	50	61	17	49.3	7.9 to 15	78

Dimensions (compact fixed, vacuum outlet top VSP-MA, push-in fitting)

●VSP-MA10K*-4



●VSP-MA20 to 50K*-4

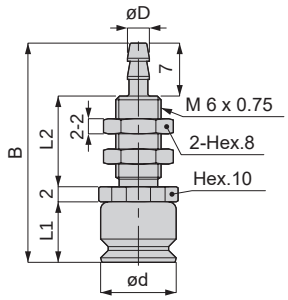


Unit: mm

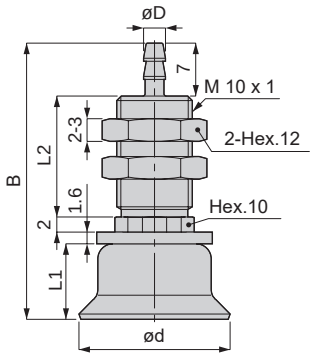
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Weight (g)
VSP-MA10K*-4	10	4	29	8	16.4	6.4
VSP-MA20K*-4	20	4	32.6	10	16.4	12
VSP-MA30K*-4	30	4	34.6	12	16.4	16
VSP-MA40K*-4	40	4	38.6	16	16.4	25
VSP-MA50K*-4	50	4	39.6	17	16.4	36

Dimensions (compact fixed, vacuum outlet top VSP-MB, barbed fitting)

●VSP-MA10K*-4T



●VSP-MA20 to 50K*-4T/6T

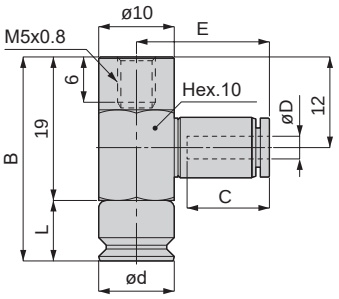


Unit: mm

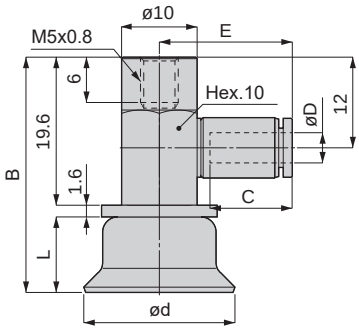
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Weight (g)
VSP-MA10K*-4T	10	2.5	29	8	12	3.6
VSP-MA20K*-4T	20	2.5	36.6	10	16	12
VSP-MA20K*-6T		4				
VSP-MA30K*-4T	30	2.5	38.6	12	16	16
VSP-MA30K*-6T		4				
VSP-MA40K*-4T	40	2.5	42.6	16	16	25
VSP-MA40K*-6T		4				
VSP-MA50K*-4T	50	2.5	43.6	17	16	36
VSP-MA50K*-6T		4				

Dimensions (compact fixed, vacuum outlet side VSP-MB, push-in fitting)

●VSP-MB10K*-2/4/6



●VSP-MB20 to 50K*-2/4/6

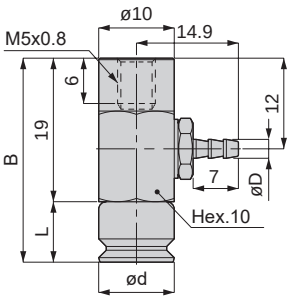


Unit: mm

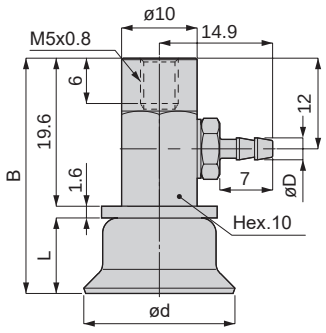
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-MB10K*-2	10	1.8	27	8	8.4	13.7	7.1
VSP-MB10K*-4		4			11.2	17.8	8.1
VSP-MB10K*-6		6			11.9	19.6	9.1
VSP-MB20K*-2	20	1.8	31.2	10	8.4	13.7	12
VSP-MB20K*-4		4			11.2	17.8	13
VSP-MB20K*-6		6			11.9	19.6	14
VSP-MB30K*-2	30	1.8	33.2	12	8.4	13.7	16
VSP-MB30K*-4		4			11.2	17.8	17
VSP-MB30K*-6		6			11.9	19.6	18
VSP-MB40K*-2	40	1.8	37.2	16	8.4	13.7	25
VSP-MB40K*-4		4			11.2	17.8	26
VSP-MB40K*-6		6			11.9	19.6	27
VSP-MB50K*-2	50	1.8	38.2	17	8.4	13.7	36
VSP-MB50K*-4		4			11.2	17.8	37
VSP-MB50K*-6		6			11.9	19.6	38

Dimensions (compact fixed, vacuum outlet side VSP-MB, barbed fitting)

●VSP-MB10K*-4T/6T



●VSP-MB20 to 50K*-4T/6T

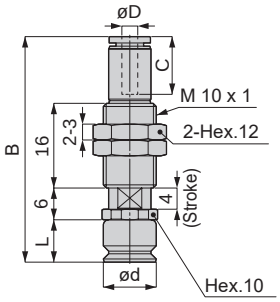


Unit: mm

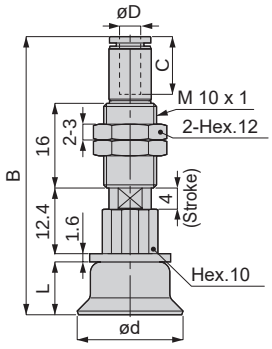
Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-MB10K*-4T	10	2.5	27	8	6.7
VSP-MB10K*-6T		4			
VSP-MB20K*-4T	20	2.5	31.2	10	12
VSP-MB20K*-6T		4			
VSP-MB30K*-4T	30	2.5	33.2	12	16
VSP-MB30K*-6T		4			
VSP-MB40K*-4T	40	2.5	37.2	16	25
VSP-MB40K*-6T		4			
VSP-MB50K*-4T	50	2.5	38.2	17	36
VSP-MB50K*-6T		4			

Dimensions (compact buffer, vacuum outlet top VSP-MC, push-in fitting)

●VSP-MC10K*-2/4



●VSP-MC20 to 50K*-2/4

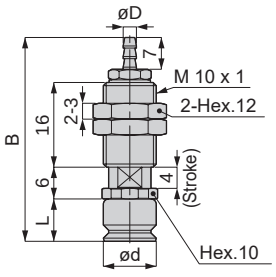


Unit: mm

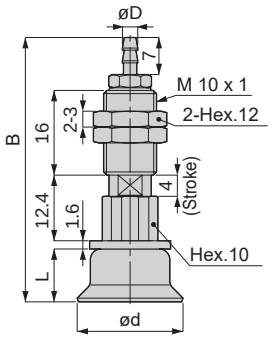
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	Spring force (N)	Weight (g)
VSP-MC10K*-2	10	1.8	38.9	8	8.4	1 to 1.3	15
VSP-MC10K*-4		4	43		11.2		16
VSP-MC20K*-2	20	1.8	48.9	10	8.4	1 to 1.3	23
VSP-MC20K*-4		4	53		11.2		24
VSP-MC30K*-2	30	1.8	50.9	12	8.4	1 to 1.3	27
VSP-MC30K*-4		4	55		11.2		28
VSP-MC40K*-2	40	1.8	54.9	16	8.4	1 to 1.3	36
VSP-MC40K*-4		4	59		11.2		37
VSP-MC50K*-2	50	1.8	55.9	17	8.4	1 to 1.3	47
VSP-MC50K*-4		4	60		11.2		48

Dimensions (compact buffer, vacuum outlet top VSP-MC, barbed fitting)

●VSP-MC10K*-4T/6T



●VSP-MC20 to 50K*-4T/6T

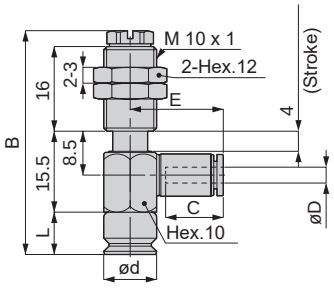


Unit: mm

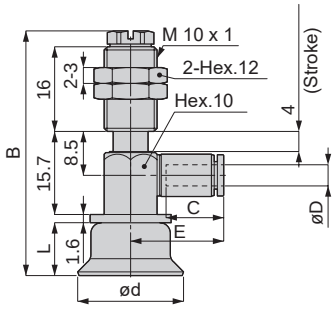
Model No.	Pad diameter ød	Bore size øD	B	L	Spring force (N)	Weight (g)
VSP-MC10K*-4T	10	2.5	40.1	8	0.5 to 0.6	15
VSP-MC10K*-6T		4				
VSP-MC20K*-4T	20	2.5	50.1	10	1 to 1.3	23
VSP-MC20K*-6T		4				
VSP-MC30K*-4T	30	2.5	52.1	12	1 to 1.3	27
VSP-MC30K*-6T		4				
VSP-MC40K*-4T	40	2.5	56.1	16	1 to 1.3	36
VSP-MC40K*-6T		4				
VSP-MC50K*-4T	50	2.5	57.1	17	1 to 1.3	47
VSP-MC50K*-6T		4				

Dimensions (compact buffer, vacuum outlet side VSP-MD, push-in fitting)

●VSP-MD10K*-2/4/6



●VSP-MD20 to 50K*-2/4/6

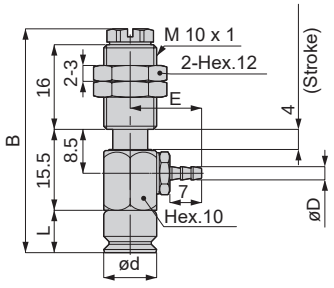


Unit: mm

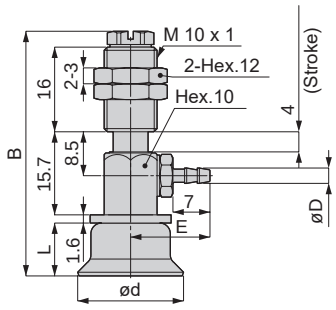
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Spring force (N)	Weight (g)
VSP-MD10K*-2	10	1.8	42.5	8	8.4	13.6	1 to 1.3	22
VSP-MD10K*-4		4			11.2	17.7		23
VSP-MD10K*-6		6			11.9	19.5		24
VSP-MD20K*-2	20	1.8	46.3	10	8.4	13.6	1 to 1.3	26
VSP-MD20K*-4		4			11.2	17.7		27
VSP-MD20K*-6		6			11.9	19.5		28
VSP-MD30K*-2	30	1.8	48.3	12	8.4	13.6	1 to 1.3	30
VSP-MD30K*-4		4			11.2	17.7		31
VSP-MD30K*-6		6			11.9	19.5		32
VSP-MD40K*-2	40	1.8	52.3	16	8.4	13.6	1 to 1.3	39
VSP-MD40K*-4		4			11.2	17.7		40
VSP-MD40K*-6		6			11.9	19.5		41
VSP-MD50K*-2	50	1.8	53.3	17	8.4	13.6	1 to 1.3	48
VSP-MD50K*-4		4			11.2	17.7		49
VSP-MD50K*-6		6			11.9	19.5		50

Dimensions (compact buffer, vacuum outlet side VSP-MD, barbed fitting)

●VSP-MD10K*-4T/6T



●VSP-MD20 to 50K*-4T/6T

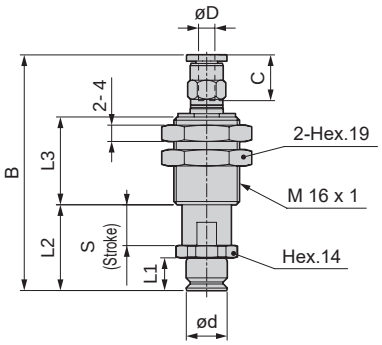


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	E	Spring force (N)	Weight (g)
VSP-MD10K*-4T	10	2.5	42.5	8	14.8	1 to 1.3	22
VSP-MD10K*-6T		4					
VSP-MD20K*-4T	20	2.5	46.3	10	14.8	1 to 1.3	26
VSP-MD20K*-6T		4					
VSP-MD30K*-4T	30	2.5	48.3	12	14.8	1 to 1.3	30
VSP-MD30K*-6T		4					
VSP-MD40K*-4T	40	2.5	52.3	16	14.8	1 to 1.3	39
VSP-MD40K*-6T		4					
VSP-MD50K*-4T	50	2.5	53.3	17	14.8	1 to 1.3	50
VSP-MD50K*-6T		4					

Dimensions (low back buffer, vacuum outlet top VSP-HC, push-in fitting)

●VSP-HC10-□K*-2/4/6

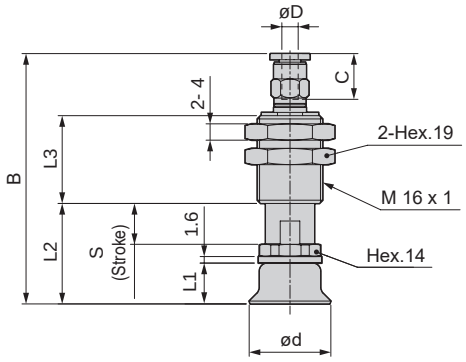


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC10-10K*-2	10	1.8	53.6	8	21	21.5	8.4	10	1.0 to 2.4	22
VSP-HC10-10K*-4		4	57.7				11.2			23
VSP-HC10-10K*-6		6	59				11.9			24
VSP-HC10-15K*-2		1.8	63.6		26	26.5	8.4	15	1.0 to 2.7	24
VSP-HC10-15K*-4		4	67.7				11.2			25
VSP-HC10-15K*-6		6	69				11.9			26
VSP-HC10-20K*-2		1.8	73.6		31	31.5	8.4	20	1.0 to 3.0	26
VSP-HC10-20K*-4		4	77.7				11.2			27
VSP-HC10-20K*-6		6	79				11.9			28
VSP-HC10-25K*-2		1.8	84.1		36	37	8.4	25	1.0 to 3.0	28
VSP-HC10-25K*-4		4	88.2				11.2			29
VSP-HC10-25K*-6		6	89.5				11.9			30
VSP-HC10-30K*-2		1.8	95.1		41	43	8.4	30	1.0 to 3.0	30
VSP-HC10-30K*-4		4	99.2				11.2			31
VSP-HC10-30K*-6		6	100.5				11.9			32
VSP-HC10-40K*-2		1.8	117.1		51	55	8.4	40	1.0 to 3.0	34
VSP-HC10-40K*-4		4	121.2				11.2			35
VSP-HC10-40K*-6		6	122.5				11.9			36
VSP-HC10-50K*-2		1.8	138.6		61	66.5	8.4	50	1.0 to 3.1	39
VSP-HC10-50K*-4		4	142.7				11.2			40
VSP-HC10-50K*-6		6	144				11.9			41

Dimensions (low back buffer, vacuum outlet top VSP-HC, push-in fitting)

●VSP-HC20, 30-□K*-2/4/6

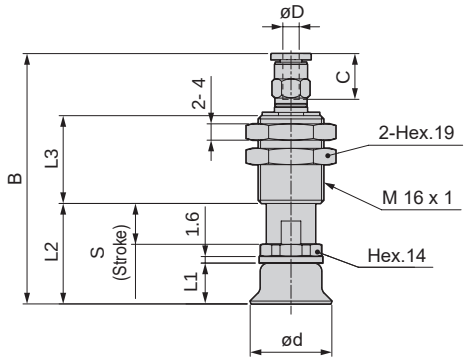


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC20-10K*-2	20	1.8	57.2	10	24.6	21.5	8.4	10	1.0 to 2.4	27
VSP-HC20-10K*-4		4	61.3				11.2			28
VSP-HC20-10K*-6		6	62.6				11.9			29
VSP-HC20-15K*-2		1.8	67.2		29.6	26.5	8.4	15	1.0 to 2.7	29
VSP-HC20-15K*-4		4	71.3				11.2			30
VSP-HC20-15K*-6		6	72.6				11.9			31
VSP-HC20-20K*-2		1.8	77.2		34.6	31.5	8.4	20	1.0 to 3.0	31
VSP-HC20-20K*-4		4	81.3				11.2			32
VSP-HC20-20K*-6		6	82.6				11.9			33
VSP-HC20-25K*-2		1.8	87.7		39.6	37	8.4	25	1.0 to 3.0	33
VSP-HC20-25K*-4		4	91.8				11.2			34
VSP-HC20-25K*-6		6	93.1				11.9			35
VSP-HC20-30K*-2		1.8	98.7		44.6	43	8.4	30	1.0 to 3.0	35
VSP-HC20-30K*-4		4	102.8				11.2			36
VSP-HC20-30K*-6		6	104.1				11.9			37
VSP-HC20-40K*-2		1.8	120.7		54.6	55	8.4	40	1.0 to 3.0	39
VSP-HC20-40K*-4		4	124.8				11.2			40
VSP-HC20-40K*-6		6	126.1				11.9			41
VSP-HC20-50K*-2		1.8	142.2		64.6	66.5	8.4	50	1.0 to 3.1	43
VSP-HC20-50K*-4		4	146.3				11.2			44
VSP-HC20-50K*-6		6	147.6				11.9			45
VSP-HC30-10K*-2	30	1.8	59.2	12	26.6	21.5	8.4	10	1.0 to 2.4	30
VSP-HC30-10K*-4		4	63.3				11.2			31
VSP-HC30-10K*-6		6	64.6				11.9			32
VSP-HC30-15K*-2		1.8	69.2		31.6	26.5	8.4	15	1.0 to 2.7	32
VSP-HC30-15K*-4		4	73.3				11.2			33
VSP-HC30-15K*-6		6	74.6				11.9			34
VSP-HC30-20K*-2		1.8	79.2		36.6	31.5	8.4	20	1.0 to 3.0	34
VSP-HC30-20K*-4		4	83.3				11.2			35
VSP-HC30-20K*-6		6	84.6				11.9			36
VSP-HC30-25K*-2		1.8	89.7		41.6	37	8.4	25	1.0 to 3.0	36
VSP-HC30-25K*-4		4	93.8				11.2			37
VSP-HC30-25K*-6		6	95.1				11.9			38
VSP-HC30-30K*-2		1.8	100.7		46.6	43	8.4	30	1.0 to 3.0	38
VSP-HC30-30K*-4		4	104.8				11.2			39
VSP-HC30-30K*-6		6	106.1				11.9			40
VSP-HC30-40K*-2		1.8	122.7		56.5	55	8.4	40	1.0 to 3.0	42
VSP-HC30-40K*-4		4	126.8				11.2			43
VSP-HC30-40K*-6		6	128.1				11.9			44
VSP-HC30-50K*-2		1.8	144.2		66.6	66.5	8.4	50	1.0 to 3.1	46
VSP-HC30-50K*-4		4	148.3				11.2			47
VSP-HC30-50K*-6		6	149.6				11.9			48

Dimensions (low back buffer, vacuum outlet top VSP-HC, push-in fitting)

●VSP-HC40, 50-□K*-2/4/6

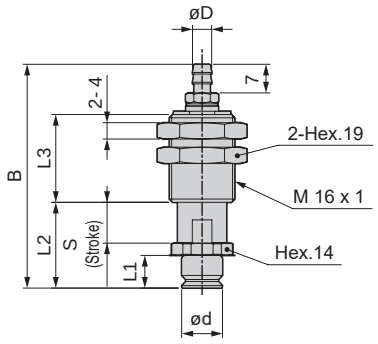


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC40-10K*-2	40	1.8	63.2	16	30.6	21.5	8.4	10	1.0 to 2.4	37
VSP-HC40-10K*-4		4	67.3				11.2			38
VSP-HC40-10K*-6		6	68.6				11.9			39
VSP-HC40-15K*-2		1.8	73.2		35.6	26.5	8.4	15	1.0 to 2.7	39
VSP-HC40-15K*-4		4	77.3				11.2			40
VSP-HC40-15K*-6		6	78.6				11.9			41
VSP-HC40-20K*-2		1.8	83.2		40.6	31.5	8.4	20	1.0 to 3.0	41
VSP-HC40-20K*-4		4	87.3				11.2			42
VSP-HC40-20K*-6		6	88.6				11.9			43
VSP-HC40-25K*-2		1.8	93.7		45.6	37	8.4	25	1.0 to 3.0	43
VSP-HC40-25K*-4		4	97.8				11.2			44
VSP-HC40-25K*-6		6	99.1				11.9			45
VSP-HC40-30K*-2		1.8	104.7		50.6	43	8.4	30	1.0 to 3.0	46
VSP-HC40-30K*-4		4	108.8				11.2			46
VSP-HC40-30K*-6		6	110.1				11.9			47
VSP-HC40-40K*-2		1.8	126.7		60.6	55	8.4	40	1.0 to 3.0	49
VSP-HC40-40K*-4		4	130.8				11.2			50
VSP-HC40-40K*-6		6	132.1				11.9			51
VSP-HC40-50K*-2		1.8	148.2		70.6	66.5	8.4	50	1.0 to 3.1	53
VSP-HC40-50K*-4		4	152.3				11.2			54
VSP-HC40-50K*-6		6	153.6				11.9			55
VSP-HC50-10K*-2	50	1.8	64.2	17	31.6	21.5	8.4	10	1.0 to 2.4	43
VSP-HC50-10K*-4		4	68.3				11.2			44
VSP-HC50-10K*-6		6	69.6				11.9			45
VSP-HC50-15K*-2		1.8	74.2		36.6	26.5	8.4	15	1.0 to 2.7	45
VSP-HC50-15K*-4		4	78.3				11.2			46
VSP-HC50-15K*-6		6	79.6				11.9			47
VSP-HC50-20K*-2		1.8	84.2		41.6	31.5	8.4	20	1.0 to 3.0	47
VSP-HC50-20K*-4		4	88.3				11.2			48
VSP-HC50-20K*-6		6	89.6				11.9			49
VSP-HC50-25K*-2		1.8	94.7		46.6	37	8.4	25	1.0 to 3.0	49
VSP-HC50-25K*-4		4	98.8				11.2			50
VSP-HC50-25K*-6		6	100.1				11.9			51
VSP-HC50-30K*-2		1.8	105.7		51.6	43	8.4	30	1.0 to 3.0	51
VSP-HC50-30K*-4		4	109.8				11.2			52
VSP-HC50-30K*-6		6	111.1				11.9			53
VSP-HC50-40K*-2		1.8	127.7		61.6	55	8.4	40	1.0 to 3.0	55
VSP-HC50-40K*-4		4	131.8				11.2			56
VSP-HC50-40K*-6		6	133.1				11.9			57
VSP-HC50-50K*-2		1.8	149.2		71.6	66.5	8.4	50	1.0 to 3.1	59
VSP-HC50-50K*-4		4	153.3				11.2			60
VSP-HC50-50K*-6		6	154.6				11.9			61

Dimensions (low back buffer, vacuum outlet top VSP-HC, barbed fitting)

●VSP-HC10-□K*-4T/6T

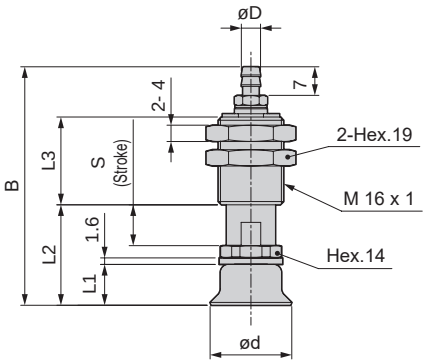


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC10-10K*-4T	10	2.5	54.8	8	21	21.5	10	1.0 to 2.4	21
VSP-HC10-10K*-6T		4							
VSP-HC10-15K*-4T		2.5	64.8		26	26.5	15	1.0 to 2.7	23
VSP-HC10-15K*-6T		4							
VSP-HC10-20K*-4T		2.5	74.8		31	31.5	20	1.0 to 3.0	25
VSP-HC10-20K*-6T		4							
VSP-HC10-25K*-4T		2.5	85.3		36	37	25	1.0 to 3.0	28
VSP-HC10-25K*-6T		4							
VSP-HC10-30K*-4T		2.5	96.3		41	43	30	1.0 to 3.0	30
VSP-HC10-30K*-6T		4							
VSP-HC10-40K*-4T		2.5	118.3		51	55	40	1.0 to 3.0	34
VSP-HC10-40K*-6T		4							
VSP-HC10-50K*-4T		2.5	139.8		61	66.5	50	1.0 to 3.1	38
VSP-HC10-50K*-6T		4							

Dimensions (low back buffer, vacuum outlet top VSP-HC, barbed fitting)

●VSP-HC20, 30-□K*-4T/6T

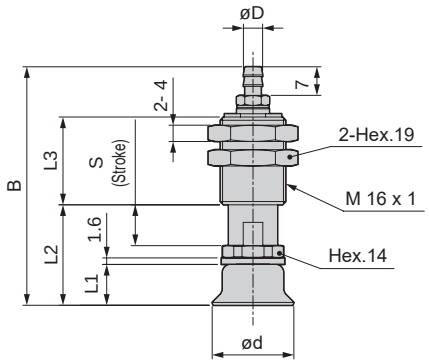


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC20-10K*-4T	20	2.5	58.4	10	24.6	21.5	10	1.0 to 2.4	25
VSP-HC20-10K*-6T		4							
VSP-HC20-15K*-4T		2.5	68.4		29.6	26.5	15	1.0 to 2.7	27
VSP-HC20-15K*-6T		4							
VSP-HC20-20K*-4T		2.5	78.4		34.6	31.5	20	1.0 to 3.0	29
VSP-HC20-20K*-6T		4							
VSP-HC20-25K*-4T		2.5	88.9		39.6	37	25	1.0 to 3.0	31
VSP-HC20-25K*-6T		4							
VSP-HC20-30K*-4T		2.5	99.9		44.6	43	30	1.0 to 3.0	33
VSP-HC20-30K*-6T		4							
VSP-HC20-40K*-4T		2.5	121.9		54.6	55	40	1.0 to 3.0	38
VSP-HC20-40K*-6T		4							
VSP-HC20-50K*-4T		2.5	143.4		64.6	66.5	50	1.0 to 3.1	42
VSP-HC20-50K*-6T		4							
VSP-HC30-10K*-4T	30	2.5	60.4	12	26.6	21.5	10	1.0 to 2.4	28
VSP-HC30-10K*-6T		4							
VSP-HC30-15K*-4T		2.5	70.4		31.6	26.5	15	1.0 to 2.7	30
VSP-HC30-15K*-6T		4							
VSP-HC30-20K*-4T		2.5	80.4		36.6	31.5	20	1.0 to 3.0	32
VSP-HC30-20K*-6T		4							
VSP-HC30-25K*-4T		2.5	90.9		41.6	37	25	1.0 to 3.0	34
VSP-HC30-25K*-6T		4							
VSP-HC30-30K*-4T		2.5	101.9		46.6	43	30	1.0 to 3.0	36
VSP-HC30-30K*-6T		4							
VSP-HC30-40K*-4T		2.5	123.9		56.6	55	40	1.0 to 3.0	41
VSP-HC30-40K*-6T		4							
VSP-HC30-50K*-4T		2.5	145.4		66.6	66.5	50	1.0 to 3.1	45
VSP-HC30-50K*-6T		4							

Dimensions (low back buffer, vacuum outlet top VSP-HC, barbed fitting)

●VSP-HC40, 50-□K*-4T/6T

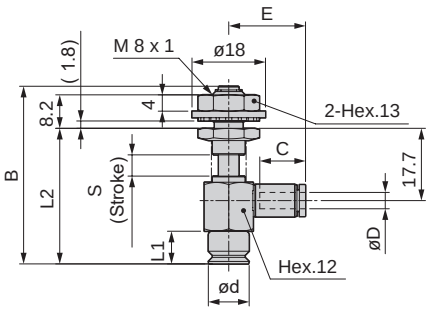


Unit: mm

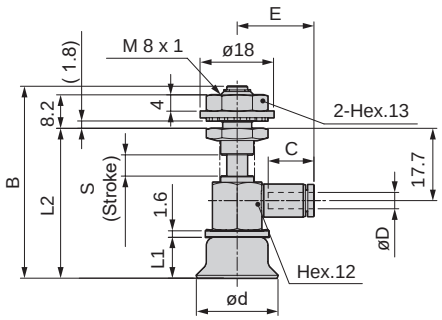
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC40-10K*-4T	40	2.5	64.4	16	30.6	21.5	10	1.0 to 2.4	35
VSP-HC40-10K*-6T		4							
VSP-HC40-15K*-4T		2.5	74.4		35.6	26.5	15	1.0 to 2.7	37
VSP-HC40-15K*-6T		4							
VSP-HC40-20K*-4T		2.5	84.4		40.6	31.5	20	1.0 to 3.0	39
VSP-HC40-20K*-6T		4							
VSP-HC40-25K*-4T		2.5	94.9		45.6	37	25	1.0 to 3.0	41
VSP-HC40-25K*-6T		4							
VSP-HC40-30K*-4T		2.5	105.9		50.6	43	30	1.0 to 3.0	43
VSP-HC40-30K*-6T		4							
VSP-HC40-40K*-4T		2.5	127.9		60.6	55	40	1.0 to 3.0	48
VSP-HC40-40K*-6T		4							
VSP-HC40-50K*-4T		2.5	149.4		70.6	66.5	50	1.0 to 3.1	52
VSP-HC40-50K*-6T		4							
VSP-HC50-10K*-4T	50	2.5	65.4	17	31.6	21.5	10	1.0 to 2.4	41
VSP-HC50-10K*-6T		4							
VSP-HC50-15K*-4T		2.5	75.4		36.6	26.5	15	1.0 to 2.7	43
VSP-HC50-15K*-6T		4							
VSP-HC50-20K*-4T		2.5	85.4		41.6	31.5	20	1.0 to 3.0	45
VSP-HC50-20K*-6T		4							
VSP-HC50-25K*-4T		2.5	95.9		46.6	37	25	1.0 to 3.0	47
VSP-HC50-25K*-6T		4							
VSP-HC50-30K*-4T		2.5	106.9		51.6	43	30	1.0 to 3.0	49
VSP-HC50-30K*-6T		4							
VSP-HC50-40K*-4T		2.5	128.9		61.6	55	40	1.0 to 3.0	54
VSP-HC50-40K*-6T		4							
VSP-HC50-50K*-4T		2.5	150.4		71.6	66.5	50	1.0 to 3.1	58
VSP-HC50-50K*-6T		4							

Dimensions (lightweight buffer, vacuum outlet side VSP-HD, push-in fitting)

●VSP-HD10K*-2/4/6



●VSP-HD20 to 50K*-2/4/6

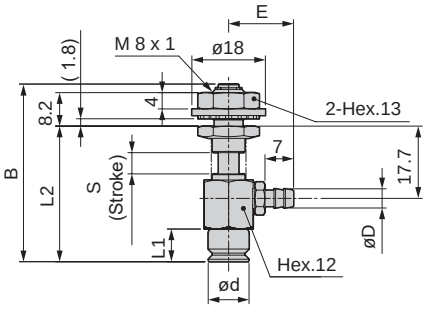


Unit: mm

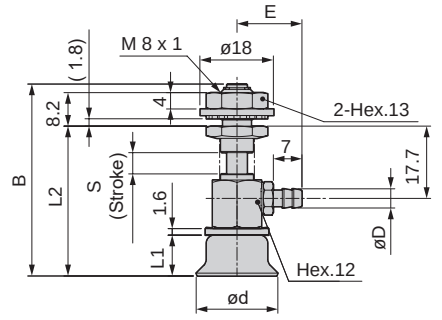
Model No.	Model No.	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD10K*-2	10	1.8	43.5	8	33.2	8.4	14.7	5.2	1.6 to 2.9	33
VSP-HD10K*-4		4				11.2	18.8			34
VSP-HD10K*-6		6				11.9	20.6			35
VSP-HD20K*-2	20	1.8	47	10	36.7	8.4	14.7	5.2	1.6 to 2.9	36
VSP-HD20K*-4		4				11.2	18.8			37
VSP-HD20K*-6		6				11.9	20.6			38
VSP-HD30K*-2	30	1.8	49	12	38.7	8.4	14.7	5.2	1.6 to 2.9	39
VSP-HD30K*-4		4				11.2	18.8			40
VSP-HD30K*-6		6				11.9	20.6			41
VSP-HD40K*-2	40	1.8	53	16	42.7	8.4	14.7	5.2	1.6 to 2.9	46
VSP-HD40K*-4		4				11.2	18.8			47
VSP-HD40K*-6		6				11.9	20.6			48
VSP-HD50K*-2	50	1.8	54	17	43.7	8.4	14.7	5.2	1.6 to 2.9	52
VSP-HD50K*-4		4				11.2	18.8			53
VSP-HD50K*-6		6				11.9	20.6			54

Dimensions (lightweight buffer, vacuum outlet side VSP-HD, barbed fitting)

●VSP-HD10K*-4T/6T



●VSP-HD20 to 50K*-4T/6T

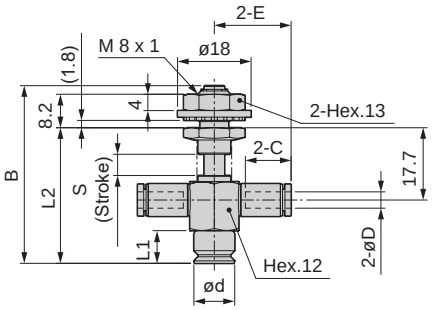


Unit: mm

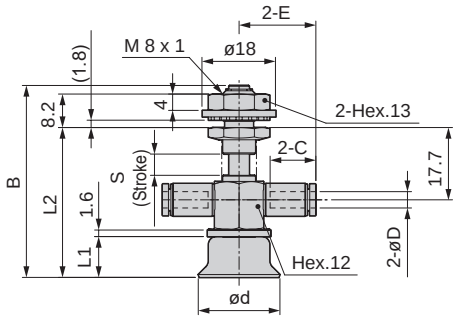
Model No.	Model No.	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD10K*-4T	10	2.5	43.5	8	33.2	15.9	5.2	1.6 to 2.9	29
VSP-HD10K*-6T		4							
VSP-HD20K*-4T	20	2.5	47	10	36.7	15.9	5.2	1.6 to 2.9	36
VSP-HD20K*-6T		4							
VSP-HD30K*-4T	30	2.5	49	12	38.7	15.9	5.2	1.6 to 2.9	39
VSP-HD30K*-6T		4							
VSP-HD40K*-4T	40	2.5	53	16	42.7	15.9	5.2	1.6 to 2.9	46
VSP-HD40K*-6T		4							
VSP-HD50K*-4T	50	2.5	54	17	43.7	15.9	5.2	1.6 to 2.9	52
VSP-HD50K*-6T		4							

Dimensions (lightweight buffer, vacuum outlet on both sides VSP-HDW, push-in fitting)

●VSP-HDW10K*-2/4/6



●VSP-HDW20 to 50K*-2/4/6

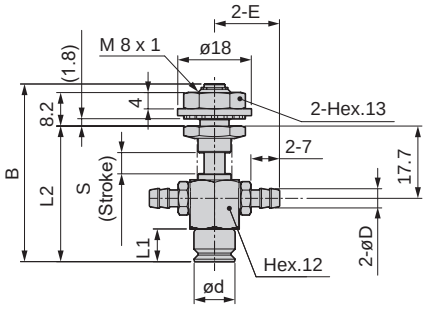


Unit: mm

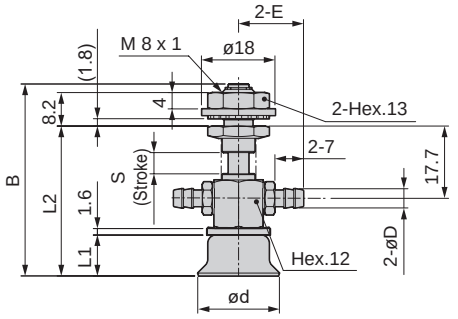
Model No.	Model No.	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW10K*-2	10	1.8	43.5	8	33.2	8.4	14.7	5.2	1.6 to 2.9	33
VSP-HDW10K*-4		4				11.2	18.8			35
VSP-HDW10K*-6		6				11.9	20.6			37
VSP-HDW20K*-2	20	1.8	47	10	36.7	8.4	14.7	5.2	1.6 to 2.9	38
VSP-HDW20K*-4		4				11.2	18.8			40
VSP-HDW20K*-6		6				11.9	20.6			42
VSP-HDW30K*-2	30	1.8	49	12	38.7	8.4	14.7	5.2	1.6 to 2.9	41
VSP-HDW30K*-4		4				11.2	18.8			43
VSP-HDW30K*-6		6				11.9	20.6			45
VSP-HDW40K*-2	40	1.8	53	16	42.7	8.4	14.7	5.2	1.6 to 2.9	48
VSP-HDW40K*-4		4				11.2	18.8			50
VSP-HDW40K*-6		6				11.9	20.6			52
VSP-HDW50K*-2	50	1.8	54	17	43.7	8.4	14.7	5.2	1.6 to 2.9	54
VSP-HDW50K*-4		4				11.2	18.8			56
VSP-HDW50K*-6		6				11.9	20.6			58

Dimensions (lightweight buffer, vacuum outlet on both sides VSP-HDW, barbed fitting)

●VSP-HDW10K*-4T/6T



●VSP-HDW20 to 50K*-4T/6T

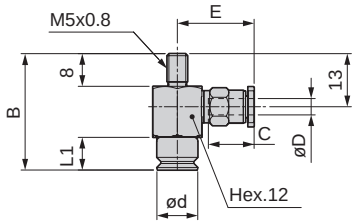


Unit: mm

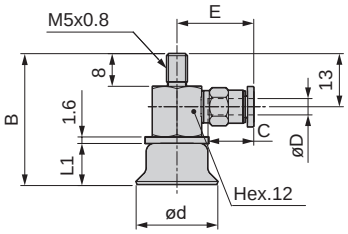
Model No.	Model No.	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW10K*-4T	10	2.5	43.5	8	33.2	15.9	5.2	1.6 to 2.9	32
VSP-HDW10K*-6T		4							
VSP-HDW20K*-4T	20	2.5	47	10	36.7	15.9	5.2	1.6 to 2.9	37
VSP-HDW20K*-6T		4							
VSP-HDW30K*-4T	30	2.5	49	12	38.7	15.9	5.2	1.6 to 2.9	40
VSP-HDW30K*-6T		4							
VSP-HDW40K*-4T	40	2.5	53	16	42.7	15.9	5.2	1.6 to 2.9	47
VSP-HDW40K*-6T		4							
VSP-HDW50K*-4T	50	2.5	54	17	43.7	15.9	5.2	1.6 to 2.9	53
VSP-HDW50K*-6T		4							

Dimensions (low back fixed, vacuum outlet side VSP-HE, push-in fitting)

●VSP-HE10K*-2/4/6



●VSP-HE20 to 50K*-2/4/6

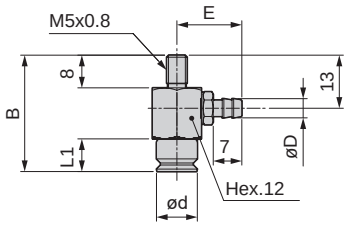


Unit: mm

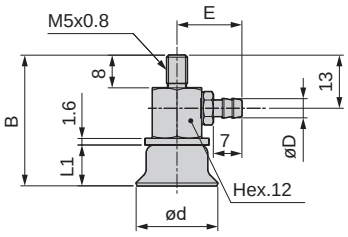
Model No.	Model No.	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HE10K*-2	10	1.8	28.5	8	8.4	14.7	17
VSP-HE10K*-4		4			11.2	18.8	18
VSP-HE10K*-6		6			11.9	20.6	19
VSP-HE20K*-2	20	1.8	32	10	8.4	14.7	22
VSP-HE20K*-4		4			11.2	18.8	23
VSP-HE20K*-6		6			11.9	20.6	24
VSP-HE30K*-2	30	1.8	34	12	8.4	14.7	25
VSP-HE30K*-4		4			11.2	18.8	26
VSP-HE30K*-6		6			11.9	20.6	27
VSP-HE40K*-2	40	1.8	38	16	8.4	14.7	32
VSP-HE40K*-4		4			11.2	18.8	33
VSP-HE40K*-6		6			11.9	20.6	34
VSP-HE50K*-2	50	1.8	39	17	8.4	14.7	38
VSP-HE50K*-4		4			11.2	18.8	39
VSP-HE50K*-6		6			11.9	20.6	40

Dimensions (low back fixed, vacuum outlet side VSP-HE, barbed fitting)

●VSP-HE10K*-4T/6T



●VSP-HE20 to 50K*-4T/6T

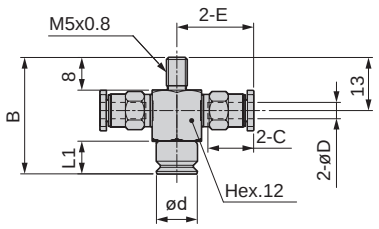


Unit: mm

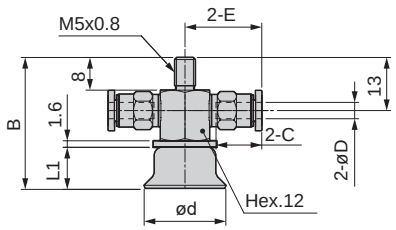
Model No.	Model No.	Bore size øD	B	L	E	Weight (g)
VSP-HE10K*-4T	10	2.5	28.5	8	15.9	17
VSP-HE10K*-6T		4				
VSP-HE20K*-4T	20	2.5	32	10	15.9	21
VSP-HE20K*-6T		4				
VSP-HE30K*-4T	30	2.5	34	12	15.9	24
VSP-HE30K*-6T		4				
VSP-HE40K*-4T	40	2.5	38	16	15.9	31
VSP-HE40K*-6T		4				
VSP-HE50K*-4T	50	2.5	39	17	15.9	37
VSP-HE50K*-6T		4				

Dimensions (low back fixed, vacuum outlet on both sides VSP-HEW, push-in fitting)

●VSP-HEW10K*-2/4/6



●VSP-HEW20 to 50K*-2/4/6

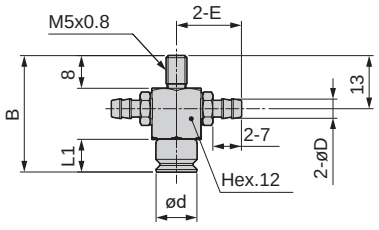


Unit: mm

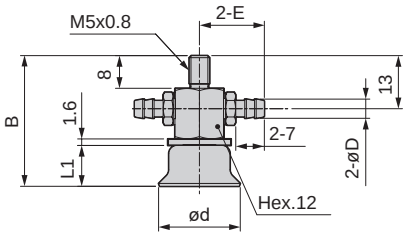
Model No.	Model No.	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HEW10K*-2	10	1.8	28.5	8	8.4	14.7	19
VSP-HEW10K*-4		4			11.2	18.8	21
VSP-HEW10K*-6		6			11.9	20.6	23
VSP-HEW20K*-2	20	1.8	32	10	8.4	14.7	23
VSP-HEW20K*-4		4			11.2	18.8	25
VSP-HEW20K*-6		6			11.9	20.6	27
VSP-HEW30K*-2	30	1.8	34	12	8.4	14.7	26
VSP-HEW30K*-4		4			11.2	18.8	28
VSP-HEW30K*-6		6			11.9	20.6	30
VSP-HEW40K*-2	40	1.8	38	16	8.4	14.7	33
VSP-HEW40K*-4		4			11.2	18.8	35
VSP-HEW40K*-6		6			11.9	20.6	37
VSP-HEW50K*-2	50	1.8	39	17	8.4	14.7	39
VSP-HEW50K*-4		4			11.2	18.8	41
VSP-HEW50K*-6		6			11.9	20.6	43

Dimensions (low back fixed, vacuum outlet on both sides VSP-HEW, barbed fitting)

●VSP-HEW10K*-4T/6T



●VSP-HEW20 to 50K*-4T/6T

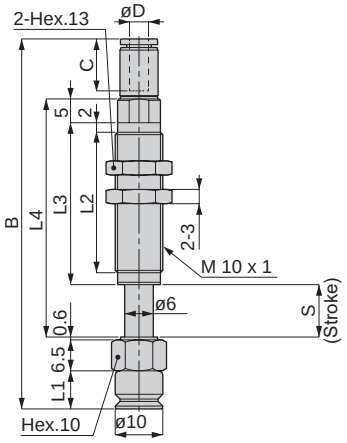


Unit: mm

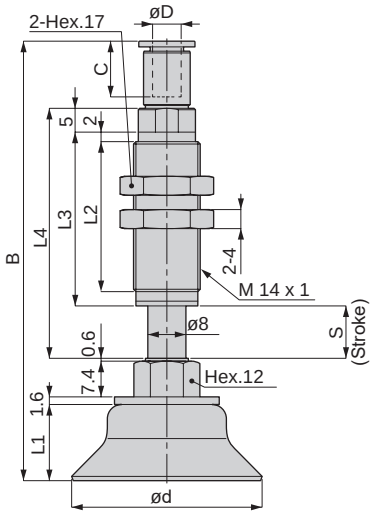
Model No.	Model No.	Bore size øD	B	L	E	Weight (g)
VSP-HEW10K*-4T	10	2.5	28.5	8	15.9	18
VSP-HEW10K*-6T		4				
VSP-HEW20K*-4T	20	2.5	32	10	15.9	22
VSP-HEW20K*-6T		4				
VSP-HEW30K*-4T	30	2.5	34	12	15.9	25
VSP-HEW30K*-6T		4				
VSP-HEW40K*-4T	40	2.5	38	16	15.9	32
VSP-HEW40K*-6T		4				
VSP-HEW50K*-4T	50	2.5	39	17	15.9	38
VSP-HEW50K*-6T		4				

Dimensions (low dust generation buffer, vacuum outlet top VSP-LFC, push-in fitting)

●VSP-LFC10-□K*-4



●VSP-LFC20 to 50-□K*-4/6



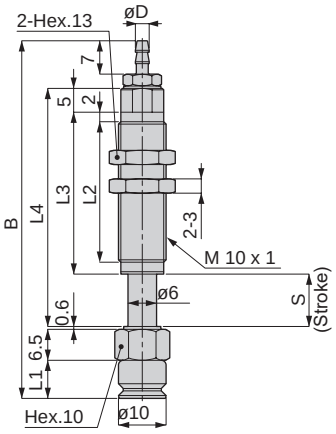
Unit: mm

Model No.	Model No.	Bore size øD	B	L1	L2	L3	L4	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-LFC10-2K*-4	10	4	62.1	8	21.5	26	34	11.2	2	1.3 to 1.8	28
VSP-LFC10-5K*-4			68.1		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	30
VSP-LFC10-10K*-4			78.1		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	32
VSP-LFC10-15K*-4			88.1		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	34
VSP-LFC10-20K*-4			98.1		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	36
VSP-LFC20-5K*-4	20	4	75.1	10	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	57
VSP-LFC20-5K*-6		6	76.4					11.9			58
VSP-LFC20-10K*-4		4	85.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	59
VSP-LFC20-10K*-6		6	86.4					11.9			60
VSP-LFC20-15K*-4		4	95.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	62
VSP-LFC20-15K*-6		6	96.4					11.9			63
VSP-LFC20-20K*-4		4	105.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	65
VSP-LFC20-20K*-6		6	106.4					11.9			66
VSP-LFC30-5K*-4	30	4	77.1	12	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	60
VSP-LFC30-5K*-6		6	78.4					11.9			61
VSP-LFC30-10K*-4		4	87.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	62
VSP-LFC30-10K*-6		6	88.4					11.9			63
VSP-LFC30-15K*-4		4	97.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	65
VSP-LFC30-15K*-6		6	98.4					11.9			66
VSP-LFC30-20K*-4		4	107.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	68
VSP-LFC30-20K*-6		6	108.4					11.9			69
VSP-LFC40-5K*-4	40	4	81.1	16	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	69
VSP-LFC40-5K*-6		6	82.4					11.9			70
VSP-LFC40-10K*-4		4	91.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	71
VSP-LFC40-10K*-6		6	92.4					11.9			72
VSP-LFC40-15K*-4		4	101.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	74
VSP-LFC40-15K*-6		6	102.4					11.9			75
VSP-LFC40-20K*-4		4	111.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	77
VSP-LFC40-20K*-6		6	112.4					11.9			78
VSP-LFC50-5K*-4	50	4	82.1	17	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	76
VSP-LFC50-5K*-6		6	83.4					11.9			77
VSP-LFC50-10K*-4		4	92.1		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	78
VSP-LFC50-10K*-6		6	93.4					11.9			79
VSP-LFC50-15K*-4		4	102.1		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	81
VSP-LFC50-15K*-6		6	103.4					11.9			82
VSP-LFC50-20K*-4		4	112.1		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	84
VSP-LFC50-20K*-6		6	113.4					11.9			85

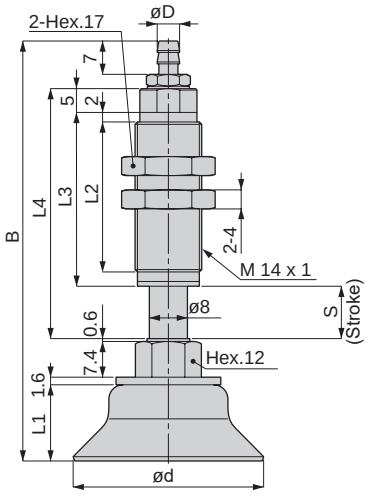
*1: Values in [ ] are for low load.

Dimensions (low dust generation buffer, vacuum outlet top VSP-LFC, barbed fitting)

●VSP-LFC10-□K*-4T/6T



●VSP-LFC20 to 50-□K*-4T/6T



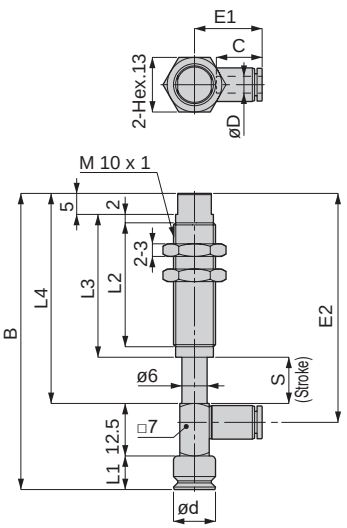
Unit: mm

Model No.	Model No.	Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
VSP-LFC10-2K*-4T	10	2.5	59.2	8	21.5	26	34	2	1.3 to 1.8	26
VSP-LFC10-2K*-6T		4								
VSP-LFC10-5K*-4T		2.5	65.2		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	28
VSP-LFC10-5K*-6T		4								
VSP-LFC10-10K*-4T		2.5	75.2		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	30
VSP-LFC10-10K*-6T		4								
VSP-LFC10-15K*-4T		2.5	85.2		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	32
VSP-LFC10-15K*-6T		4								
VSP-LFC10-20K*-4T		2.5	95.2		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	34
VSP-LFC10-20K*-6T		4								
VSP-LFC20-5K*-4T	20	2.5	72.2	10	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	52
VSP-LFC20-5K*-6T		4								
VSP-LFC20-10K*-4T		2.5	82.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	54
VSP-LFC20-10K*-6T		4								
VSP-LFC20-15K*-4T		2.5	92.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	57
VSP-LFC20-15K*-6T		4								
VSP-LFC20-20K*-4T		2.5	102.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	60
VSP-LFC20-20K*-6T		4								
VSP-LFC30-5K*-4T	30	2.5	74.2	12	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	55
VSP-LFC30-5K*-6T		4								
VSP-LFC30-10K*-4T		2.5	84.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	57
VSP-LFC30-10K*-6T		4								
VSP-LFC30-15K*-4T		2.5	94.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	60
VSP-LFC30-15K*-6T		4								
VSP-LFC30-20K*-4T		2.5	104.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	63
VSP-LFC30-20K*-6T		4								
VSP-LFC40-5K*-4T	40	2.5	78.2	16	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	64
VSP-LFC40-5K*-6T		4								
VSP-LFC40-10K*-4T		2.5	88.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	66
VSP-LFC40-10K*-6T		4								
VSP-LFC40-15K*-4T		2.5	98.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	69
VSP-LFC40-15K*-6T		4								
VSP-LFC40-20K*-4T		2.5	108.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	72
VSP-LFC40-20K*-6T		4								
VSP-LFC50-5K*-4T	50	2.5	79.2	17	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	71
VSP-LFC50-5K*-6T		4								
VSP-LFC50-10K*-4T		2.5	89.2		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	73
VSP-LFC50-10K*-6T		4								
VSP-LFC50-15K*-4T		2.5	99.2		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	76
VSP-LFC50-15K*-6T		4								
VSP-LFC50-20K*-4T		2.5	109.2		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	78
VSP-LFC50-20K*-6T		4								

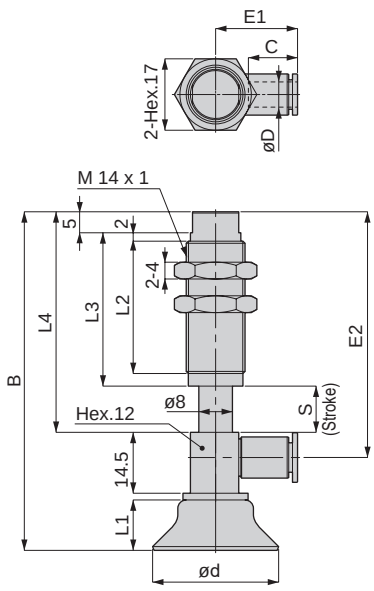
*1: Values in [ ] are for low load.

Dimensions (low dust generation buffer, vacuum outlet side VSP-LFD, push-in fitting)

●VSP-LFD10-□K*-4



●VSP-LFD20 to 50-□K*-4/6

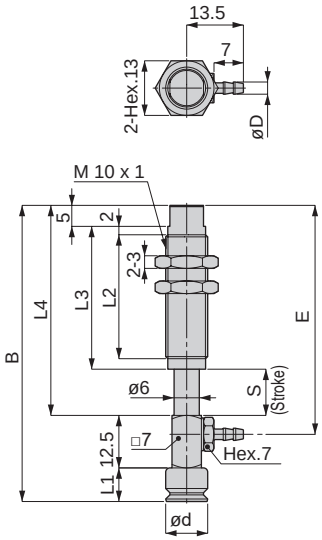


Unit: mm

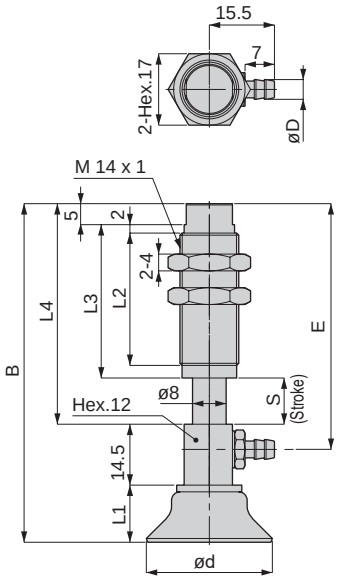
Model No.	Model No.	Bore size øD	B	L1	L2	L3	L4	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-LFD10-5K*-4	10	4	60.5	8	24.5	29	40	11.2	16.4	44.5	5	1.3 to 2.4	26
VSP-LFD10-10K*-4			70.5		29.5	34	50			54.5	10	1.3 to 3.3	28
VSP-LFD10-15K*-4			80.5		34.5	39	60			64.5	15	1.3 to 4.2	30
VSP-LFD10-20K*-4			90.5		39.5	44	70			74.5	20	1.3 to 5.1	32
VSP-LFD20-5K*-4	20	4	68.5	10	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	58
VSP-LFD20-5K*-6		6						11.9	19.7				59
VSP-LFD20-10K*-4		4	78.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	62
VSP-LFD20-10K*-6		6						11.9	19.7				63
VSP-LFD20-15K*-4		4	88.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	66
VSP-LFD20-15K*-6		6						11.9	19.7				67
VSP-LFD20-20K*-4		4	98.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	70
VSP-LFD20-20K*-6		6						11.9	19.7				71
VSP-LFD30-5K*-4	30	4	70.5	12	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	61
VSP-LFD30-5K*-6		6						11.9	19.7				62
VSP-LFD30-10K*-4		4	80.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	65
VSP-LFD30-10K*-6		6						11.9	19.7				66
VSP-LFD30-15K*-4		4	90.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	69
VSP-LFD30-15K*-6		6						11.9	19.7				70
VSP-LFD30-20K*-4		4	100.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	73
VSP-LFD30-20K*-6		6						11.9	19.7				74
VSP-LFD40-5K*-4	40	4	74.5	16	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	70
VSP-LFD40-5K*-6		6						11.9	19.7				71
VSP-LFD40-10K*-4		4	84.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	74
VSP-LFD40-10K*-6		6						11.9	19.7				75
VSP-LFD40-15K*-4		4	94.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	78
VSP-LFD40-15K*-6		6						11.9	19.7				79
VSP-LFD40-20K*-4		4	104.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	82
VSP-LFD40-20K*-6		6						11.9	19.7				83
VSP-LFD50-5K*-4	50	4	75.5	17	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	77
VSP-LFD50-5K*-6		6						11.9	19.7				78
VSP-LFD50-10K*-4		4	85.5		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	81
VSP-LFD50-10K*-6		6						11.9	19.7				82
VSP-LFD50-15K*-4		4	95.5		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	85
VSP-LFD50-15K*-6		6						11.9	19.7				86
VSP-LFD50-20K*-4		4	105.5		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	89
VSP-LFD50-20K*-6		6						11.9	19.7				90

Dimensions (low dust generation buffer, vacuum outlet side VSP-LFD, barbed fitting)

●VSP-LFD10-□K*-4T/6T



●VSP-LFD20 to 50-□K*-4T/6T

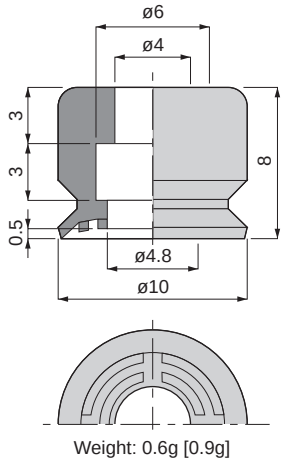


Unit: mm

Model No.	Model No.	Bore size øD	B	L1	L2	L3	L4	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD10-5K*-4T	10	2.5	60.5	8	24.5	29	40	44.5	5	1.3 to 2.4	25
VSP-LFD10-5K*-6T		4									
VSP-LFD10-10K*-4T		2.5	70.5		29.5	34	50	54.5	10	1.3 to 3.3	27
VSP-LFD10-10K*-6T		4									
VSP-LFD10-15K*-4T		2.5	80.5		34.5	39	60	64.5	15	1.3 to 4.2	29
VSP-LFD10-15K*-6T		4									
VSP-LFD10-20K*-4T		2.5	90.5		39.5	44	70	74.5	20	1.3 to 5.1	31
VSP-LFD10-20K*-6T		4									
VSP-LFD20-5K*-4T	20	2.5	68.5	10	26.5	31.5	42.5	48.5	5	4.5 to 6.5	54
VSP-LFD20-5K*-6T		4									
VSP-LFD20-10K*-4T		2.5	78.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	57
VSP-LFD20-10K*-6T		4									
VSP-LFD20-15K*-4T		2.5	88.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	61
VSP-LFD20-15K*-6T		4									
VSP-LFD20-20K*-4T		2.5	98.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	65
VSP-LFD20-20K*-6T		4									
VSP-LFD30-5K*-4T	30	2.5	70.5	12	26.5	31.5	42.5	48.5	5	4.5 to 6.5	57
VSP-LFD30-5K*-6T		4									
VSP-LFD30-10K*-4T		2.5	80.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	60
VSP-LFD30-10K*-6T		4									
VSP-LFD30-15K*-4T		2.5	90.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	64
VSP-LFD30-15K*-6T		4									
VSP-LFD30-20K*-4T		2.5	100.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	68
VSP-LFD30-20K*-6T		4									
VSP-LFD40-5K*-4T	40	2.5	74.5	16	26.5	31.5	42.5	48.5	5	4.5 to 6.5	66
VSP-LFD40-5K*-6T		4									
VSP-LFD40-10K*-4T		2.5	84.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	69
VSP-LFD40-10K*-6T		4									
VSP-LFD40-15K*-4T		2.5	94.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	73
VSP-LFD40-15K*-6T		4									
VSP-LFD40-20K*-4T		2.5	104.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	77
VSP-LFD40-20K*-6T		4									
VSP-LFD50-5K*-4T	50	2.5	75.5	17	26.5	31.5	42.5	48.5	5	4.5 to 6.5	73
VSP-LFD50-5K*-6T		4									
VSP-LFD50-10K*-4T		2.5	85.5		31.5	36.5	52.5	58.5	10	4.5 to 8.2	76
VSP-LFD50-10K*-6T		4									
VSP-LFD50-15K*-4T		2.5	95.5		36.5	41.5	62.5	68.5	15	4.5 to 9.9	80
VSP-LFD50-15K*-6T		4									
VSP-LFD50-20K*-4T		2.5	105.5		41.5	46.5	72.5	78.5	20	4.5 to 14.9	84
VSP-LFD50-20K*-6T		4									

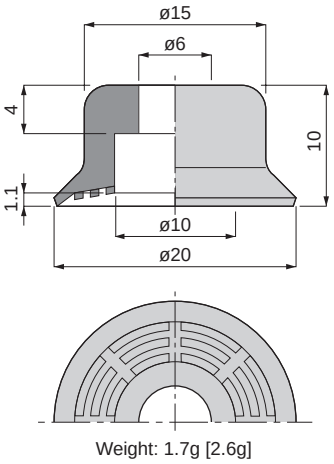
Dimensions: pad only

●VSPG-10K*



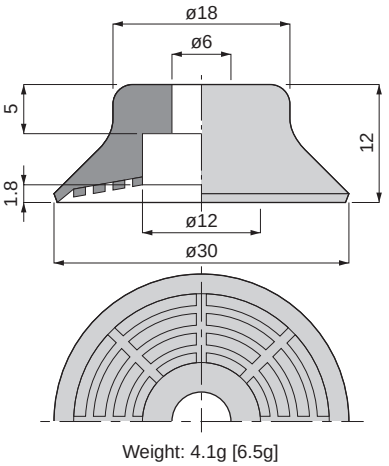
Weight: 0.6g [0.9g]

●VSPG-20K*



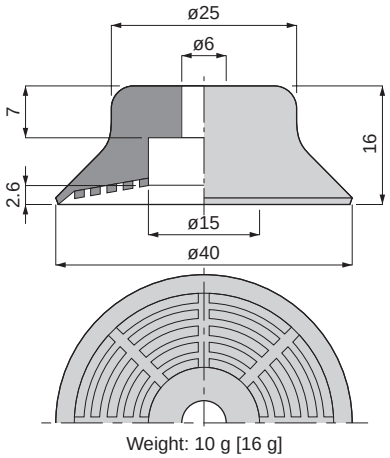
Weight: 1.7g [2.6g]

●VSPG-30K*



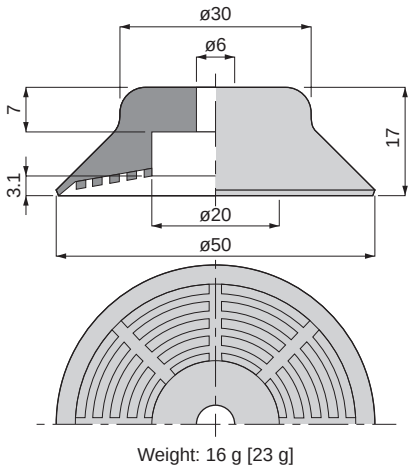
Weight: 4.1g [6.5g]

●VSPG-40K*



Weight: 10 g [16 g]

●VSPG-50K*

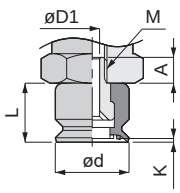


Weight: 16 g [23 g]

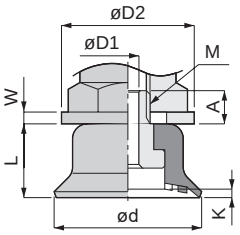
Note: Values in [ ] for fluoro rubber only.

Detailed view of pad and holder connection

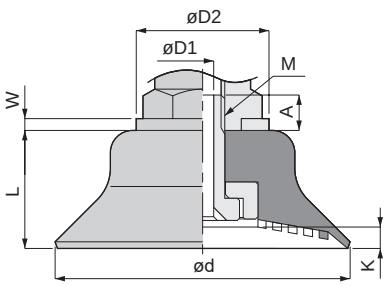
●VSPG-10K*



●VSPG-20,30K*



●VSPG-40,50K*



Unit: mm

Model No.	Model No.	L	Lip internal height K	Fixing screw M	A	øD1	øD2	W
VSPG-10K*	10	8	0.5	M4x0.7	3.5	2	-	-
VSPG-20K*	20	10	1.1	M6x1	4.5	3	18	1.6
VSPG-30K*	30	12	1.8	M6x1	5.5	3	18	1.6
VSPG-40K*	40	16	2.6	M6x1	5.3	3	22	1.6
VSPG-50K*	50	17	3.1	M6x1	5.3	3	22	1.6

MEMO



Suction pad, thin object type

VSP-*P* Series

Suction pad with thin lip and no rib structure that emphasizes adhesion to the workpiece

RoHS

Ideal for thin workpieces such as copy paper and vinyl
The soft pad lips make it harder for workpieces to wrinkle and reduce overlap suction (2-sheet removal)

A wide range of holder variations

Shape 17types

- Standard: 6
- Compact: 5-types
- Low dust generation: 2 types
- Lightweight:2 types
- Low: Two types

Piping 6types

- Push-in fitting(ø1.8 to ø6): 3 types
- Barbed fitting(ø4, ø6): 2 types
- Screw-in(M5): 1 type

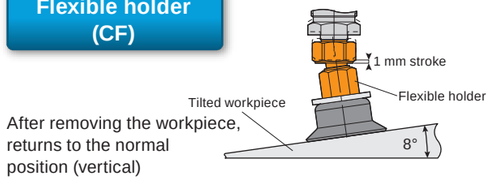
Stroke 10types

2 mm to 50 mm
(Depends on the pad size and holder)

Low dust generation holders (LFC, LFD) are available, with minimal friction powder and low noise caused by sliding.

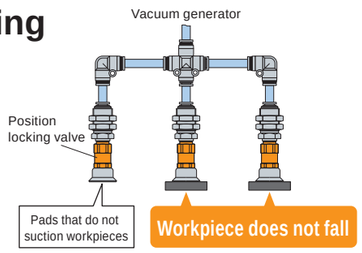
Supports options for track (flexible holder) on a workpiece surface with an angle.

Flexible holder (CF)



After removing the workpiece, returns to the normal position (vertical)

Supports assembly option of position locking valve (V) that reduces vacuum drop in another circuit even without a workpiece



Pad surface treatment (option) is available for special treatment to reduce suction marks

	-DL	-ER	-FG
	Anti-sticking	Reduced suction marks	Fluorine coating
Surface-treated			
Compatible materials	silicone Fluorine Conductive silicone	Nitriles Nitrile conductive NBR	silicone Conductive silicone super-soft silicone
Features	Special coating with good slip. Effective for preventing adhesion of lightweight and thin workpieces.	Reduces suction marks by modifying the surface with an environmentally friendly chemical liquid.	Surface modification for special treatment to prevent adhesion to workpieces. Improved pad durability and wear resistance.

Pad shape

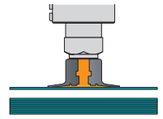






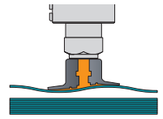
2 sheet reduction

There is no rib on the lip surface and the pad adheres closely to the workpiece during suction. At this time, the effective adsorption area becomes small, and it becomes difficult to lift the second sheet.



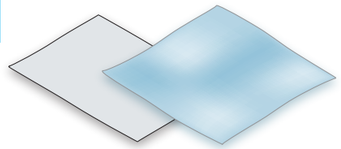
Ideal for thin workpieces

The absence of ribs adheres to the workpiece to prevent deformation. In addition, thin lips are good for waving workpieces. track.



Recommended workpiece

Thin workpieces such as sheets and vinyl



Pad diameter

4 types | 8 | 10 | 15 | 20

Pad material

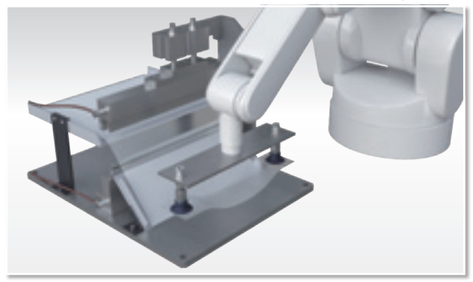
6 types | NitoriK | silicone | Urethane | Fluorine | Conductive NBR (low resistance) | fluorosilicone

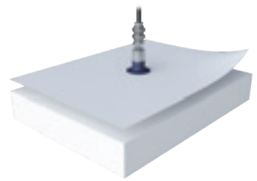
* Silicone (S) is compatible with the Food Sanitation Act. (holder is not supported/suction pad is compatible only with workpiece contact part)

Solution examples

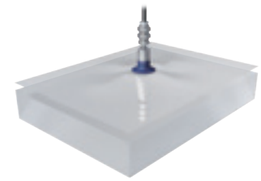
Thin workpieces

Reduces the two-sheet removal of thin workpieces such as film and permeable workpieces such as paper drawing paper.





Permeable workpieces such as paper drawing paper



Thin workpieces such as film

How to order

●Thin object type

Suction pad

VSP – ME – 20 – [ ] – P – N – -ER – M5 – [ ] – CF – V

VSP	ME	20	[ ]	P	N	-ER	M5	[ ]	CF	V
Model No.	❶ Holder Shape	❷ Pad diameter	❸ Stroke option	❹ Pad shape	❺ Pad material	❻ Surface Treatment	❼ Port size/ Shape	❽ Buffer Load	❾ Pad Swinging	❿ Drop Prevention valve

Pad rubber only

VSPG – 20 – P – N – -ER

VSPG	20	P	N	-ER
Model No.	❷ Pad diameter	❹ Pad shape	❺ Pad material	❻ Surface Treatment

❶ Holder type

With/without buffer	Type	Vacuum outlet	Code
Fixed	Standard	Upward direction	A
	Compact		MA
	Standard	Lateral direction	B
	Compact		MB
	Low height		HE
	Low height	Both lateral directions	HEW
	Standard	Direct mounting	E
	Compact		ME
Buffer type	Standard	Upward direction	C
	Compact		MC
	Low dust generation		LFC
	Standard	Lateral direction	D
	Compact		MD
	Low dust generation		LFD
	Lightweight		HD
	Lightweight	Both lateral directions	HDW
	Standard	Direct mounting	F

❷ Pad diameter

Code	Description
8	ø8
10	ø10
15	ø15
20	ø20

❸ Stroke option

Description	Holder type C	D	LFC	LFD	Code
Specified stroke or without buffer	●	●			Blank
Stroke 2 mm			●		-2
Stroke 5 mm			●	●	- 5
Stroke 10 mm	●	●	●	●	- 10
Stroke 15 mm	●	●	●	●	- 15
Stroke 20 mm	●	●	●	●	- 20
Stroke 30 mm	●	●			- 30
Stroke 40 mm	●	●			- 40
Stroke 50 mm	●	●			- 50

*1: ❶Other than C, D, LFC, LFD, ❸is blank.
*2: ❸For blank designated strokes, check the stroke dimensions with the O.D. dimensions.

❹ Pad shape

Code	Description
P	Thin object type

❺ Pad material

Code	Description
N	Nitrile rubber
S	Silicone rubber
U	Urethane rubber
F	Fluoro rubber
FS	Fluorosilicone rubber
NE	Conductive NBR (low resistance)

❻ Surface-treated

Description	Compatible pad material N	S	F	NE	Supported pad diameter For thin objects (P)	Code
No surface treatment	All pads material, all pad diameters					Blank
Anti-stick special coating		●	●		All sizes	-DL
Suction mark reduction surface modification	●			●	All sizes	-ER
Fluorine coating		●			All sizes	-FG

Specifications for rechargeable battery (Catalog No.CC-1226A)

●Design compatible with rechargeable battery manufacturing process

VSP – ..... – P4*

Specifications for food manufacturing processes (Catalog No.CC-1271A)

●Food-grade lubricants that can be used in food manufacturing processes, and resin/rubber materials that are compatible with the Food Sanitation Act are used

VSP – ..... – FP*

❼ Port size/shape

Description	Holder type A	B	C	D	MA	MB	MC	MD	ME	LFC	LFD	HD	HDW	HE	HEW	Code
(❶: For E and F)																Blank
ø1.8 push-in fitting		●	●	●	●	●	●	●				●	●	●	●	2
ø4 push-in fitting	●	●	●	●	●	●	●	●		●	●	●	●	●	●	4
ø6 push-in fitting	●	●	●	●		●		●		●	●	●	●	●	●	6
ø4 Push-in fitting, without spring cover			●	●												4C
ø6 Push-in fitting, without spring cover			●	●												6C
ø4 barbed fitting	●	●	●	●	●	●	●	●		●	●	●	●	●	●	4T
ø6 barbed fitting	●	●	●	●	●	●	●	●		●	●	●	●	●	●	6T
ø4 barbed fitting, without spring cover			●	●												4TC
ø6 Barbed fitting, without spring cover			●	●												6TC
M5X0.8									●							M5

*1: ❶C, D ❸–20 up–For 50, ❼4C, 6C, 4TC, 6TC can be selected.
*2: ❶C ❸ Blank indicates ❼ Only 2, 4, 4T, 6T can be selected.

❽ Buffer load

Code	Description
Blank	Standard load or without buffer
L	Low load (1/4 of standard load)

*1: ❶With the exception of LFC, ❽is blank.
*2: ❸For -2, ❽is blank.

❾ Swiveling pad

Code	Description
Blank	None
CF	Flexible With holder angle ° 8 *1



*1: ❶For E and ME, ❾CF can be selected.

❿ Position locking valve

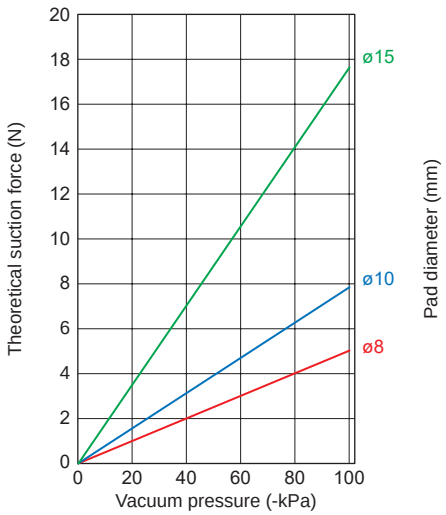
Code	Description
Blank	None
V	With position locking valve *1



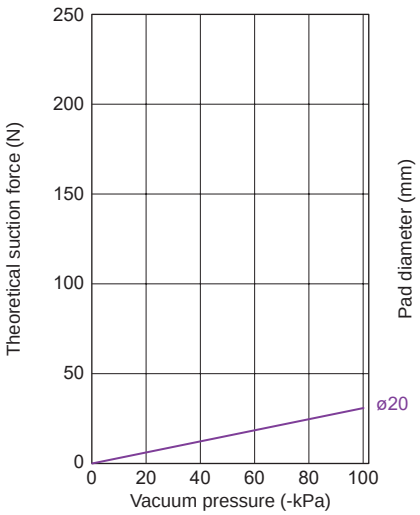
*1: ❶For E and ME, ❿V can be selected.

Theoretical suction force

●Pad diameter: ø8 mm to 15 mm



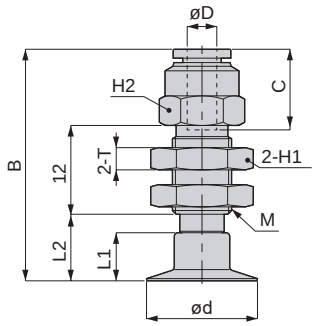
●Pad diameter: ø20 mm



For thin object type suction force, it may not be possible to secure the calculated suction force (theoretical suction force x safety factor) due to the effect of pad characteristics such as degree of vacuum/pad material/suctioned object.
When selecting with suction force obtained by the “Selection method for suction pad” (page 288) as a guideline, confirm that there is no problem in the suction performance of the actual device.

Dimensions (fixed, vacuum outlet top VSP-A, push-in fitting)

●VSP-A8 to 20P*-4/6

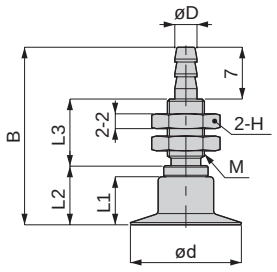


Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	Tube end C	Hexagon H1	Hexagon H2	T	Weight (g)
VSP-A8P*-4	8	4	M 8 x 0.75	30.6	5.5	8	11.2	10	8	2	10.2
VSP-A8P*-6		6	M 10 x 1	31.3			11.9	12	10	3	13.8
VSP-A10P*-4	10	4	M 8 x 0.75	30.9	5.8	8.3	11.2	10	8	2	10.3
VSP-A10P*-6		6	M 10 x 1	31.6			11.9	12	10	3	13.9
VSP-A15P*-4	15	4	M 8 x 0.75	31.6	6.5	9	11.2	10	8	2	10.4
VSP-A15P*-6		6	M 10 x 1	32.3			11.9	12	10	3	14
VSP-A20P*-4	20	4	M 8 x 0.75	32.4	7.3	9.8	11.2	10	8	2	10.5
VSP-A20P*-6		6	M 10 x 1	33.1			11.9	12	10	3	14.1

Dimensions (fixed, vacuum outlet top VSP-A, barbed fitting)

●VSP-A8 to 20P*-4T/6T

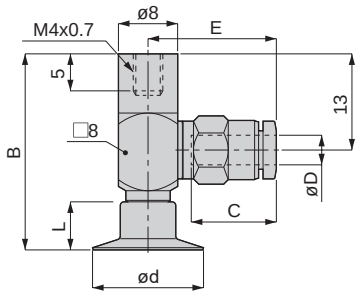


Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	Hexagon H	Weight (g)
VSP-A8P*-4T	8	2.5	M 5 x 0.5	23	5.5	7	9	8	3.2
VSP-A8P*-6T		4	M 8 x 0.75	24.5			10.5	10	14
VSP-A10P*-4T	10	2.5	M 5 x 0.5	23.3	5.8	7.3	9	8	3.2
VSP-A10P*-6T		4	M 8 x 0.75	24.8			10.5	10	14
VSP-A15P*-4T	15	2.5	M 5 x 0.5	24	6.5	8	9	8	3.3
VSP-A15P*-6T		4	M 8 x 0.75	25.5			10.5	10	14
VSP-A20P*-4T	20	2.5	M 5 x 0.5	24.8	7.3	8.8	9	8	3.4
VSP-A20P*-6T		4	M 8 x 0.75	26.3			10.5	10	14

Dimensions (fixed, vacuum outlet side VSP-B, push-in fitting)

●VSP-B8 to 20P*-2/4/6

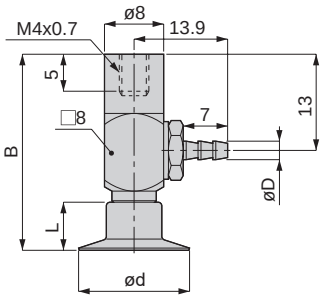


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-B8P*-2	8	1.8	25.5	5.5	8.4	12.7	12
VSP-B8P*-4		4			11.2	16.8	13
VSP-B8P*-6		6			11.9	18.6	14
VSP-B10P*-2	10	1.8	25.8	5.8	8.4	12.7	12
VSP-B10P*-4		4			11.2	16.8	13
VSP-B10P*-6		6			11.9	18.6	14
VSP-B15P*-2	15	1.8	26.5	6.5	8.4	12.7	12
VSP-B15P*-4		4			11.2	16.8	13
VSP-B15P*-6		6			11.9	18.6	14
VSP-B20P*-2	20	1.8	27.3	7.3	8.4	12.7	12
VSP-B20P*-4		4			11.2	16.8	13
VSP-B20P*-6		6			11.9	18.6	14

Dimensions (fixed, vacuum outlet side VSP-B, barbed fitting)

●VSP-B8 to 20P*-4T/6T

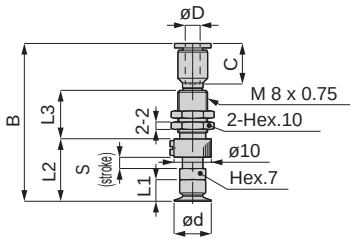


Unit: mm

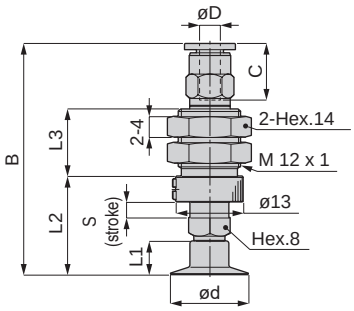
Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-B8P*-4T	8	2.5	25.5	5.5	10
VSP-B8P*-6T		4			
VSP-B10P*-4T	10	2.5	25.8	5.8	10
VSP-B10P*-6T		4			
VSP-B15P*-4T	15	2.5	26.5	6.5	10
VSP-B15P*-6T		4			
VSP-B20P*-4T	20	2.5	27.3	7.3	10
VSP-B20P*-6T		4			

Dimensions (buffer, vacuum outlet top VSP-C, push-in fitting)

●VSP-C8 to 20P*-2/4/6



●VSP-C8 to 20-□P*-2/4/6

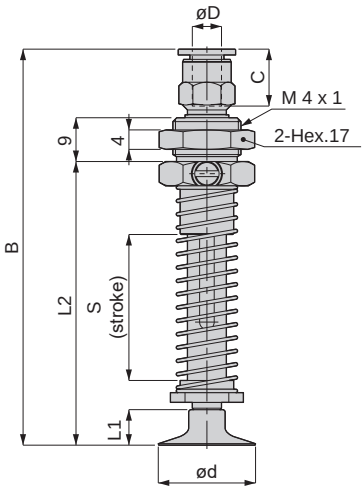


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C8P*-2	8	1.8	39.2	5.5	16.5	13	8.4	3	0.9 to 1.9	8
VSP-C8P*-4		4	42.5				11.2			9
VSP-C8-10P*-2		1.8	51.4		25	17.5	8.4	10	0.8 to 2.7	21
VSP-C8-10P*-4		4	55.5				11.2			22
VSP-C8-10P*-6		6	57.3				11.9			23
VSP-C8-15P*-2		1.8	62.4		30	23.5	8.4	15	0.7 to 3.0	25
VSP-C8-15P*-4		4	66.5				11.2			26
VSP-C8-15P*-6		6	68.3				11.9			27
VSP-C8-20P*-2		1.8	72.4		35	28.5	8.4	20	0.9 to 3.4	27
VSP-C8-20P*-4		4	76.5				11.2			28
VSP-C8-20P*-6		6	78.3				11.9			29
VSP-C10P*-2	10	1.8	39.5	5.8	16.8	13	8.4	3	0.9 to 1.9	8
VSP-C10P*-4		4	42.8				11.2			9
VSP-C10-10P*-2		1.8	51.7		25.3	17.5	8.4	10	0.8 to 2.7	21
VSP-C10-10P*-4		4	55.8				11.2			22
VSP-C10-10P*-6		6	57.6				11.9			23
VSP-C10-15P*-2		1.8	62.7		30.3	23.5	8.4	15	0.7 to 3.0	25
VSP-C10-15P*-4		4	66.8				11.2			26
VSP-C10-15P*-6		6	68.6				11.9			27
VSP-C10-20P*-2		1.8	72.7		35.3	28.5	8.4	20	0.9 to 3.4	27
VSP-C10-20P*-4		4	76.8				11.2			28
VSP-C10-20P*-6		6	78.6				11.9			29
VSP-C15P*-2	15	1.8	40.2	6.5	17.5	13	8.4	3	0.9 to 1.9	8
VSP-C15P*-4		4	43.5				11.2			9
VSP-C15-10P*-2		1.8	52.4		26	17.5	8.4	10	0.8 to 2.7	21
VSP-C15-10P*-4		4	56.5				11.2			22
VSP-C15-10P*-6		6	58.3				11.9			23
VSP-C15-15P*-2		1.8	63.4		31	23.5	8.4	15	0.7 to 3.0	25
VSP-C15-15P*-4		4	67.5				11.2			26
VSP-C15-15P*-6		6	69.3				11.9			27
VSP-C15-20P*-2		1.8	73.4		36	28.5	8.4	20	0.9 to 3.4	27
VSP-C15-20P*-4		4	77.5				11.2			28
VSP-C15-20P*-6		6	79.3				11.9			29
VSP-C20P*-2	20	1.8	41	7.3	18.3	13	8.4	3	0.9 to 1.9	8
VSP-C20P*-4		4	44.3				11.2			9
VSP-C20-10P*-2		1.8	53.2		26.8	17.5	8.4	10	0.8 to 2.7	21
VSP-C20-10P*-4		4	57.3				11.2			22
VSP-C20-10P*-6		6	59.1				11.9			23
VSP-C20-15P*-2		1.8	64.2		31.8	23.5	8.4	15	0.7 to 3.0	25
VSP-C20-15P*-4		4	68.3				11.2			26
VSP-C20-15P*-6		6	70.1				11.9			27
VSP-C20-20P*-2		1.8	74.2		36.8	28.5	8.4	20	0.9 to 3.4	27
VSP-C20-20P*-4		4	78.3				11.2			28
VSP-C20-20P*-6		6	80.1				11.9			29

Dimensions (buffer, vacuum outlet top VSP-C, push-in fitting without spring cover)

●VSP-C8 to 20-□P*-4C/6C

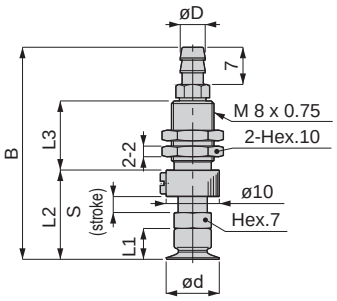


Unit: mm

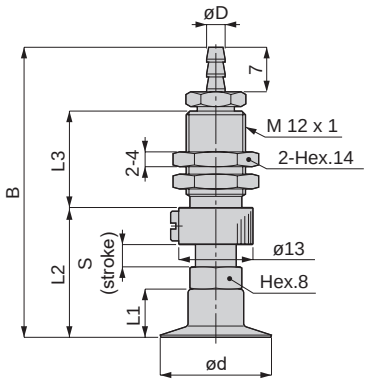
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C8-20P*-4C	8	4	65.5	5.5	43.5	11.2	20	1.5 to 4.9	43
VSP-C8-20P*-6C		6	66.8			11.9			44
VSP-C8-30P*-4C		4	78.5		56.5	11.2	30	1.1 to 4.8	48
VSP-C8-30P*-6C		6	79.8			11.9			49
VSP-C8-40P*-4C		4	91.5		69.5	11.2	40	1.0 to 4.5	54
VSP-C8-40P*-6C		6	92.8			11.9			55
VSP-C8-50P*-4C		4	104.5		82.5	11.2	50	0.9 to 4.5	59
VSP-C8-50P*-6C		6	105.8			11.9			60
VSP-C10-20P*-4C	10	4	65.8	5.8	43.8	11.2	20	1.5 to 4.9	43
VSP-C10-20P*-6C		6	67.1			11.9			44
VSP-C10-30P*-4C		4	78.8		56.8	11.2	30	1.1 to 4.8	48
VSP-C10-30P*-6C		6	80.1			11.9			49
VSP-C10-40P*-4C		4	91.8		69.8	11.2	40	1.0 to 4.5	54
VSP-C10-40P*-6C		6	93.1			11.9			55
VSP-C10-50P*-4C		4	104.8		82.8	11.2	50	0.9 to 4.5	59
VSP-C10-50P*-6C		6	106.1			11.9			60
VSP-C15-20P*-4C	15	4	66.5	6.5	44.5	11.2	20	1.5 to 4.9	43
VSP-C15-20P*-6C		6	67.8			11.9			44
VSP-C15-30P*-4C		4	79.5		57.5	11.2	30	1.1 to 4.8	48
VSP-C15-30P*-6C		6	80.8			11.9			49
VSP-C15-40P*-4C		4	92.5		70.5	11.2	40	1.0 to 4.5	54
VSP-C15-40P*-6C		6	93.8			11.9			55
VSP-C15-50P*-4C		4	105.5		83.5	11.2	50	0.9 to 4.5	59
VSP-C15-50P*-6C		6	106.8			11.9			60
VSP-C20-20P*-4C	20	4	67.3	7.3	45.3	11.2	20	1.5 to 4.9	43
VSP-C20-20P*-6C		6	68.6			11.9			44
VSP-C20-30P*-4C		4	80.3		58.3	11.2	30	1.1 to 4.8	48
VSP-C20-30P*-6C		6	81.6			11.9			49
VSP-C20-40P*-4C		4	93.3		71.3	11.2	40	1.0 to 4.5	54
VSP-C20-40P*-6C		6	94.6			11.9			55
VSP-C20-50P*-4C		4	106.3		84.3	11.2	50	0.9 to 4.5	59
VSP-C20-50P*-6C		6	107.6			11.9			60

Dimensions (buffer, vacuum outlet top VSP-C, barbed fitting)

●VSP-C8 to 20P*-4T/6T



●VSP-C8 to 20-□P*-4T/6T

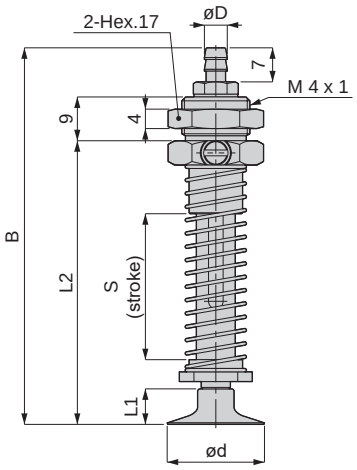


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-C8P*-4T	8	2.5	39.1	5.5	16.5	13	3	0.9 to 1.9	8
VSP-C8P*-6T		4							
VSP-C8-10P*-4T		2.5	52.6		25	17.5	10	0.8 to 2.7	21
VSP-C8-10P*-6T		4							
VSP-C8-15P*-4T		2.5	63.6		30	23.5	15	0.7 to 3.0	25
VSP-C8-15P*-6T		4							
VSP-C8-20P*-4T		2.5	73.6		35	28.5	20	0.9 to 3.4	27
VSP-C8-20P*-6T		4							
VSP-C10P*-4T	10	2.5	39.4	5.8	16.8	13	3	0.9 to 1.9	8
VSP-C10P*-6T		4							
VSP-C10-10P*-4T		2.5	52.9		25.3	17.5	10	0.8 to 2.7	21
VSP-C10-10P*-6T		4							
VSP-C10-15P*-4T		2.5	63.9		30.3	23.5	15	0.7 to 3.0	25
VSP-C10-15P*-6T		4							
VSP-C10-20P*-4T		2.5	73.9		35.3	28.5	20	0.9 to 3.4	27
VSP-C10-20P*-6T		4							
VSP-C15P*-4T	15	2.5	40.1	6.5	17.5	13	3	0.9 to 1.9	8
VSP-C15P*-6T		4							
VSP-C15-10P*-4T		2.5	53.6		26	17.5	10	0.8 to 2.7	21
VSP-C15-10P*-6T		4							
VSP-C15-15P*-4T		2.5	64.6		31	23.5	15	0.7 to 3.0	25
VSP-C15-15P*-6T		4							
VSP-C15-20P*-4T		2.5	74.6		36	28.5	20	0.9 to 3.4	27
VSP-C15-20P*-6T		4							
VSP-C20P*-4T	20	2.5	40.9	7.3	18.3	13	3	0.9 to 1.9	8
VSP-C20P*-6T		4							
VSP-C20-10P*-4T		2.5	54.4		26.8	17.5	10	0.8 to 2.7	21
VSP-C20-10P*-6T		4							
VSP-C20-15P*-4T		2.5	65.4		31.8	23.5	15	0.7 to 3.0	25
VSP-C20-15P*-6T		4							
VSP-C20-20P*-4T		2.5	75.4		36.8	28.5	20	0.9 to 3.4	27
VSP-C20-20P*-6T		4							

Dimensions (buffer, vacuum outlet top VSP-C, barbed fitting without spring cover)

●VSP-C8 to 20-□P*-4TC/6TC

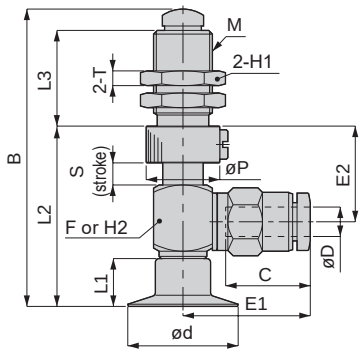


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-C8-20P*-4TC	8	2.5	62.6	5.5	43.5	20	1.5 to 4.9	42
VSP-C8-20P*-6TC		4						
VSP-C8-30P*-4TC		2.5	75.6		56.5	30	1.1 to 4.8	47
VSP-C8-30P*-6TC		4						
VSP-C8-40P*-4TC		2.5	88.6		69.5	40	1.0 to 4.5	52
VSP-C8-40P*-6TC		4						
VSP-C8-50P*-4TC		2.5	101.6		82.5	50	0.9 to 4.5	58
VSP-C8-50P*-6TC		4						
VSP-C10-20P*-4TC	10	2.5	62.9	5.8	43.8	20	1.5 to 4.9	42
VSP-C10-20P*-6TC		4						
VSP-C10-30P*-4TC		2.5	75.9		56.8	30	1.1 to 4.8	47
VSP-C10-30P*-6TC		4						
VSP-C10-40P*-4TC		2.5	88.9		69.8	40	1.0 to 4.5	52
VSP-C10-40P*-6TC		4						
VSP-C10-50P*-4TC		2.5	101.9		82.8	50	0.9 to 4.5	58
VSP-C10-50P*-6TC		4						
VSP-C15-20P*-4TC	15	2.5	63.6	6.5	44.5	20	1.5 to 4.9	42
VSP-C15-20P*-6TC		4						
VSP-C15-30P*-4TC		2.5	76.6		57.5	30	1.1 to 4.8	47
VSP-C15-30P*-6TC		4						
VSP-C15-40P*-4TC		2.5	89.6		70.5	40	1.0 to 4.5	52
VSP-C15-40P*-6TC		4						
VSP-C15-50P*-4TC		2.5	102.6		83.5	50	0.9 to 4.5	58
VSP-C15-50P*-6TC		4						
VSP-C20-20P*-4TC	20	2.5	64.4	7.3	45.3	20	1.5 to 4.9	42
VSP-C20-20P*-6TC		4						
VSP-C20-30P*-4TC		2.5	77.4		58.3	30	1.1 to 4.8	47
VSP-C20-30P*-6TC		4						
VSP-C20-40P*-4TC		2.5	90.4		71.3	40	1.0 to 4.5	52
VSP-C20-40P*-6TC		4						
VSP-C20-50P*-4TC		2.5	103.4		84.3	50	0.9 to 4.5	58
VSP-C20-50P*-6TC		4						

Dimensions (buffer, vacuum outlet side VSP-D, push-in fitting)

●VSP-D8 to 20P*-2/4/6
●VSP-D8 to 20-□P*-2/4/6

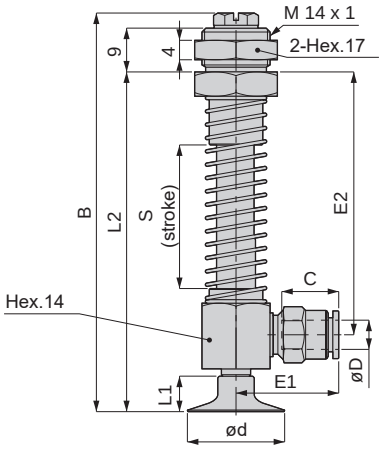


Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	øP	Tube end C	E1	E2	Hexagon H1	Hexagon H2	F	T	Stroke S	Spring force (N)	Weight (g)
VSP-D8P*-2	8	1.8	M 8 x 0.75	39.5	5.5	23.5	13	10	8.4	12.7	13	10	-	□8	2	3	0.9 to 1.9	13
VSP-D8P*-4		4							11.2	16.8								14
VSP-D8P*-6		6							11.9	18.6								15
VSP-D8-10P*-2		1.8	M 12 x 1	54.6		34	17.5	13	8.4	14.7	21	14	12	-	4	10	0.6 to 1.7	33
VSP-D8-10P*-4		4							11.2	18.8								34
VSP-D8-10P*-6		6							11.9	20.1								35
VSP-D8-15P*-2		1.8		65.6		39	23.5		8.4	14.7	26					15	0.4 to 1.7	37
VSP-D8-15P*-4		4							11.2	18.8								38
VSP-D8-15P*-6		6							11.9	20.1								39
VSP-D8-20P*-2		1.8		75.6		44	28.5		8.4	14.7	31					20	0.3 to 1.8	40
VSP-D8-20P*-4		4							11.2	18.8								41
VSP-D8-20P*-6		6							11.9	20.1								42
VSP-D10P*-2	10	1.8	M 8 x 0.75	39.8	5.8	23.8	13	10	8.4	12.7	13	10	-	□8	2	3	0.9 to 1.9	13
VSP-D10P*-4		4							11.2	16.8								14
VSP-D10P*-6		6							11.9	18.6								15
VSP-D10-10P*-2		1.8	M 12 x 1	54.9		34.3	17.5	13	8.4	14.7	21	14	12	-	4	10	0.6 to 1.7	33
VSP-D10-10P*-4		4							11.2	18.8								34
VSP-D10-10P*-6		6							11.9	20.1								35
VSP-D10-15P*-2		1.8		65.9		39.3	23.5		8.4	14.7	26					15	0.4 to 1.7	37
VSP-D10-15P*-4		4							11.2	18.8								38
VSP-D10-15P*-6		6							11.9	20.1								39
VSP-D10-20P*-2		1.8		75.9		44.3	28.5		8.4	14.7	31					20	0.3 to 1.8	40
VSP-D10-20P*-4		4							11.2	18.8								41
VSP-D10-20P*-6		6							11.9	20.1								42
VSP-D15P*-2	15	1.8	M 8 x 0.75	40.5	6.5	24.5	13	10	8.4	12.7	13	10	-	□8	2	3	0.9 to 1.9	13
VSP-D15P*-4		4							11.2	16.8								14
VSP-D15P*-6		6							11.9	18.6								15
VSP-D15-10P*-2		1.8	M 12 x 1	55.6		35	17.5	13	8.4	14.7	21	14	12	-	4	10	0.6 to 1.7	33
VSP-D15-10P*-4		4							11.2	18.8								34
VSP-D15-10P*-6		6							11.9	20.1								35
VSP-D15-15P*-2		1.8		66.6		40	23.5		8.4	14.7	26					15	0.4 to 1.7	37
VSP-D15-15P*-4		4							11.2	18.8								38
VSP-D15-15P*-6		6							11.9	20.1								39
VSP-D15-20P*-2		1.8		76.6		45	28.5		8.4	14.7	31					20	0.3 to 1.8	40
VSP-D15-20P*-4		4							11.2	18.8								41
VSP-D15-20P*-6		6							11.9	20.1								42
VSP-D20P*-2	20	1.8	M 8 x 0.75	41.3	7.3	25.3	13	10	8.4	12.7	13	10	-	□8	2	3	0.9 to 1.9	13
VSP-D20P*-4		4							11.2	16.8								14
VSP-D20P*-6		6							11.9	18.6								15
VSP-D20-10P*-2		1.8	M 12 x 1	56.4		35.8	17.5	13	8.4	14.7	21	14	12	-	4	10	0.6 to 1.7	33
VSP-D20-10P*-4		4							11.2	18.8								34
VSP-D20-10P*-6		6							11.9	20.1								35
VSP-D20-15P*-2		1.8		67.4		40.8	23.5		8.4	14.7	26					15	0.4 to 1.7	37
VSP-D20-15P*-4		4							11.2	18.8								38
VSP-D20-15P*-6		6							11.9	20.1								39
VSP-D20-20P*-2		1.8		77.4		45.8	28.5		8.4	14.7	31					20	0.3 to 1.8	40
VSP-D20-20P*-4		4							11.2	18.8								41
VSP-D20-20P*-6		6							11.9	20.1								42

Dimensions (buffer, vacuum outlet side VSP-D, push-in fitting without spring cover)

●VSP-D8 to 20-□P*-4C/6C

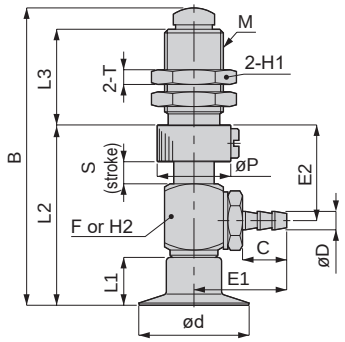


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D8-20P*-4C	8	4	65.6	5.5	53.5	11.2	19.8	40.5	20	1.5 to 4.9	62
VSP-D8-20P*-6C		6				11.9	21.1				63
VSP-D8-30P*-4C		4	78.6		66.5	11.2	19.8	53.5	30	1.1 to 4.8	68
VSP-D8-30P*-6C		6				11.9	21.1				69
VSP-D8-40P*-4C		4	91.6		79.5	11.2	19.8	66.5	40	1.0 to 4.5	75
VSP-D8-40P*-6C		6				11.9	21.1				76
VSP-D8-50P*-4C		4	104.6		92.5	11.2	19.8	79.5	50	0.9 to 4.5	82
VSP-D8-50P*-6C		6				11.9	21.1				83
VSP-D10-20P*-4C	10	4	65.9	5.8	53.8	11.2	19.8	40.5	20	1.5 to 4.9	62
VSP-D10-20P*-6C		6				11.9	21.1				63
VSP-D10-30P*-4C		4	78.9		66.8	11.2	19.8	53.5	30	1.1 to 4.8	68
VSP-D10-30P*-6C		6				11.9	21.1				69
VSP-D10-40P*-4C		4	91.9		79.8	11.2	19.8	66.5	40	1.0 to 4.5	75
VSP-D10-40P*-6C		6				11.9	21.1				76
VSP-D10-50P*-4C		4	104.9		92.8	11.2	19.8	79.5	50	0.9 to 4.5	82
VSP-D10-50P*-6C		6				11.9	21.1				83
VSP-D15-20P*-4C	15	4	66.6	6.5	54.5	11.2	19.8	40.5	20	1.5 to 4.9	62
VSP-D15-20P*-6C		6				11.9	21.1				63
VSP-D15-30P*-4C		4	79.6		67.5	11.2	19.8	53.5	30	1.1 to 4.8	68
VSP-D15-30P*-6C		6				11.9	21.1				69
VSP-D15-40P*-4C		4	92.6		80.5	11.2	19.8	66.5	40	1.0 to 4.5	75
VSP-D15-40P*-6C		6				11.9	21.1				76
VSP-D15-50P*-4C		4	105.6		93.5	11.2	19.8	79.5	50	0.9 to 4.5	82
VSP-D15-50P*-6C		6				11.9	21.1				83
VSP-D20-20P*-4C	20	4	67.4	7.3	55.3	11.2	19.8	40.5	20	1.5 to 4.9	62
VSP-D20-20P*-6C		6				11.9	21.1				63
VSP-D20-30P*-4C		4	80.4		68.3	11.2	19.8	53.5	30	1.1 to 4.8	68
VSP-D20-30P*-6C		6				11.9	21.1				69
VSP-D20-40P*-4C		4	93.4		81.3	11.2	19.8	66.5	40	1.0 to 4.5	75
VSP-D20-40P*-6C		6				11.9	21.1				76
VSP-D20-50P*-4C		4	106.4		94.3	11.2	19.8	79.5	50	0.9 to 4.5	82
VSP-D20-50P*-6C		6				11.9	21.1				83

Dimensions (buffer, vacuum outlet side VSP-D, barbed fitting)

●VSP-D8 to 20P*-4T/6T
●VSP-D8 to 20-□P-4T/6T

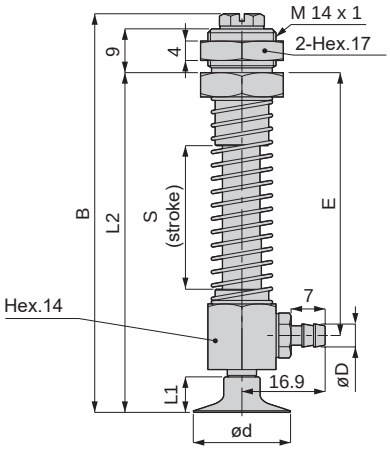


Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	L3	øP	E1	E2	Hexagon H1	Hexagon H2	F	T	Stroke S	Spring force (N)	Weight (g)
VSP-D8P*-4T	8	2.5	M 8 x 0.75	39.5	5.5	23.5	13	10	13.9	13	10	-	□8	2	3	0.9 to 1.9	14
VSP-D8P*-6T		4															
VSP-D8-10P*-4T		2.5	M 12 x 1	54.6		34	17.5	13	15.9	21	14	12	-	4	10	0.6 to 1.7	34
VSP-D8-10P*-6T		4															
VSP-D8-15P*-4T		2.5		65.6		39	23.5			26					15	0.4 to 1.7	38
VSP-D8-15P*-6T		4															
VSP-D8-20P*-4T		2.5		75.6		44	28.5			31					20	0.3 to 1.8	41
VSP-D8-20P*-6T		4															
VSP-D10P*-4T	10	2.5	M 8 x 0.75	39.8	5.8	23.8	13	10	13.9	13	10	-	□8	2	3	0.9 to 1.9	14
VSP-D10P*-6T		4															
VSP-D10-10P*-4T		2.5	M 12 x 1	54.9		34.3	17.5	13	15.9	21	14	12	-	4	10	0.6 to 1.7	34
VSP-D10-10P*-6T		4															
VSP-D10-15P*-4T		2.5		65.9		39.3	23.5			26					15	0.4 to 1.7	38
VSP-D10-15P*-6T		4															
VSP-D10-20P*-4T		2.5		75.9		44.3	28.5			31					20	0.3 to 1.8	41
VSP-D10-20P*-6T		4															
VSP-D15P*-4T	15	2.5	M 8 x 0.75	40.5	6.5	24.5	13	10	13.9	13	10	-	□8	2	3	0.9 to 1.9	14
VSP-D15P*-6T		4															
VSP-D15-10P*-4T		2.5	M 12 x 1	55.6		35	17.5	13	15.9	21	14	12	-	4	10	0.6 to 1.7	34
VSP-D15-10P*-6T		4															
VSP-D15-15P*-4T		2.5		66.6		40	23.5			26					15	0.4 to 1.7	38
VSP-D15-15P*-6T		4															
VSP-D15-20P*-4T		2.5		76.6		45	28.5			31					20	0.3 to 1.8	41
VSP-D15-20P*-6T		4															
VSP-D20P*-4T	20	2.5	M 8 x 0.75	41.3	7.3	25.3	13	10	13.9	13	10	-	□8	2	3	0.9 to 1.9	14
VSP-D20P*-6T		4															
VSP-D20-10P*-4T		2.5	M 12 x 1	56.4		35.8	17.5	13	15.9	21	14	12	-	4	10	0.6 to 1.7	34
VSP-D20-10P*-6T		4															
VSP-D20-15P*-4T		2.5		67.5		40.8	23.5			26					15	0.4 to 1.7	38
VSP-D20-15P*-6T		4															
VSP-D20-20P*-4T		2.5		77.4		45.8	28.5			31					20	0.3 to 1.8	41
VSP-D20-20P*-6T		4															

Dimensions (buffer, vacuum outlet side VSP-D, barbed fitting without spring cover)

●VSP-D8 to 20-□P*-4TC/6TC

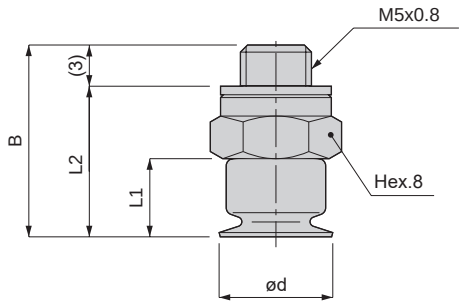


Unit: mm

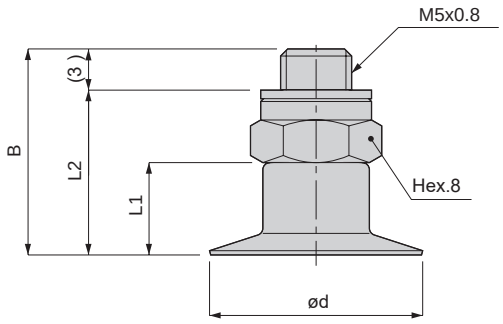
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-D8-20P*-4TC	8	2.5	65.6	5.5	53.5	40.5	20	1.5 to 4.9	60
VSP-D8-20P*-6TC		4							
VSP-D8-30P*-4TC		2.5	78.6		66.5	53.5	30	1.1 to 4.8	67
VSP-D8-30P*-6TC		4							
VSP-D8-40P*-4TC		2.5	91.6		79.5	66.5	40	1.0 to 4.5	74
VSP-D8-40P*-6TC		4							
VSP-D8-50P*-4TC		2.5	104.6		92.5	79.5	50	0.9 to 4.5	80
VSP-D8-50P*-6TC		4							
VSP-D10-20P*-4TC	10	2.5	65.9	5.8	53.8	40.5	20	1.5 to 4.9	60
VSP-D10-20P*-6TC		4							
VSP-D10-30P*-4TC		2.5	78.9		66.8	53.5	30	1.1 to 4.8	67
VSP-D10-30P*-6TC		4							
VSP-D10-40P*-4TC		2.5	91.9		79.8	66.5	40	1.0 to 4.5	74
VSP-D10-40P*-6TC		4							
VSP-D10-50P*-4TC		2.5	104.9		92.8	79.5	50	0.9 to 4.5	80
VSP-D10-50P*-6TC		4							
VSP-D15-20P*-4TC	15	2.5	66.6	6.5	54.5	40.5	20	1.5 to 4.9	60
VSP-D15-20P*-6TC		4							
VSP-D15-30P*-4TC		2.5	79.6		67.5	53.5	30	1.1 to 4.8	67
VSP-D15-30P*-6TC		4							
VSP-D15-40P*-4TC		2.5	92.6		80.5	66.5	40	1.0 to 4.5	74
VSP-D15-40P*-6TC		4							
VSP-D15-50P*-4TC		2.5	105.6		93.5	79.5	50	0.9 to 4.5	80
VSP-D15-50P*-6TC		4							
VSP-D20-20P*-4TC	20	2.5	67.4	7.3	55.3	40.5	20	1.5 to 4.9	60
VSP-D20-20P*-6TC		4							
VSP-D20-30P*-4TC		2.5	80.4		68.3	53.5	30	1.1 to 4.8	67
VSP-D20-30P*-6TC		4							
VSP-D20-40P*-4TC		2.5	93.4		81.3	66.5	40	1.0 to 4.5	74
VSP-D20-40P*-6TC		4							
VSP-D20-50P*-4TC		2.5	106.4		94.3	79.5	50	0.9 to 4.5	80
VSP-D20-50P*-6TC		4							

Dimensions (direct mounting fixed VSP-E)

●VSP-E8, 10P*



●VSP-E15, 20P*

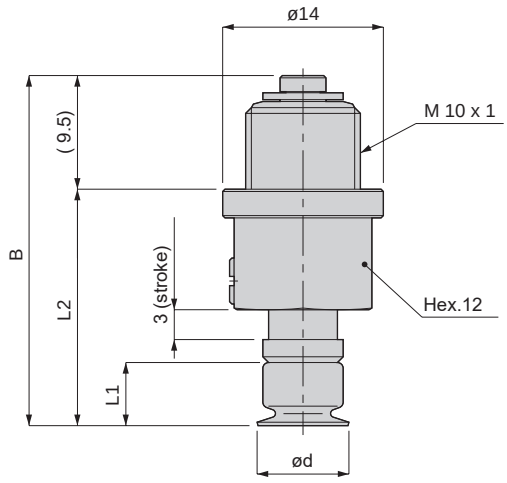


Unit: mm

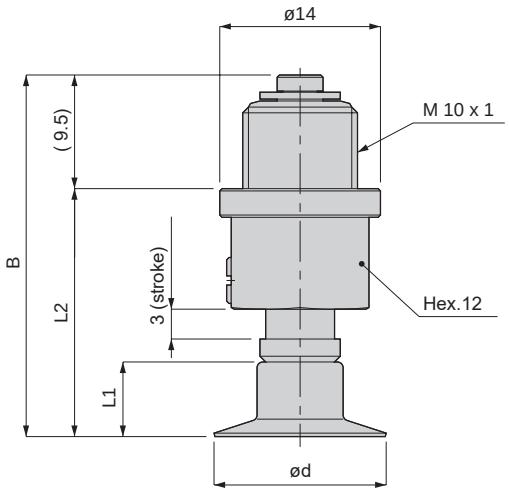
Model No.	Pad diameter ød	B	L1	L2	Weight (g)
VSP-E8P*	8	13.5	5.5	10.5	2.7
VSP-E10P*	10	13.8	5.8	10.8	2.8
VSP-E15P*	15	14.5	6.5	11.5	2.9
VSP-E20P*	20	15.3	7.3	12.3	3

Dimensions (direct mounting buffer, VSP-F)

●VSP-F8, 10P*



●VSP-F15, 20P*

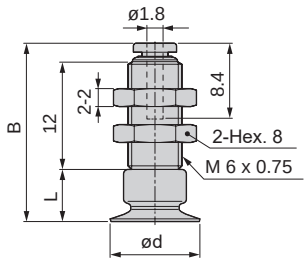


Unit: mm

Model No.	Pad diameter ød	B	L1	L2	Spring force (N)	Weight (g)
VSP-F8P*	8	30.5	5.5	21	2.3 to 3.9	14.2
VSP-F10P*	10	30.8	5.8	21.3	2.3 to 3.9	14.3
VSP-F15P*	15	31.5	6.5	22	2.3 to 3.9	14.4
VSP-F20P*	20	32.3	7.3	22.8	2.3 to 3.9	14.5

Dimensions (compact fixed, vacuum outlet top VSP-MA, push-in fitting)

●VSP-MA8 to 20P*-2

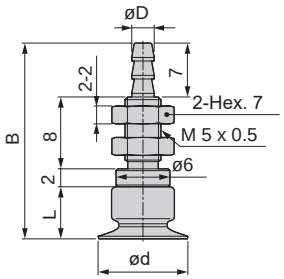


Unit: mm

Model No.	Pad diameter ød	B	L	Weight (g)
VSP-MA8P*-2	8	19.6	5.5	2.1
VSP-MA10P*-2	10	19.9	5.8	2.1
VSP-MA15P*-2	15	20.6	6.5	2.2
VSP-MA20P*-2	20	21.4	7.3	2.2

Dimensions (compact fixed, vacuum outlet top VSP-MA, barbed fitting)

●VSP-MA8 to 20P*-4T

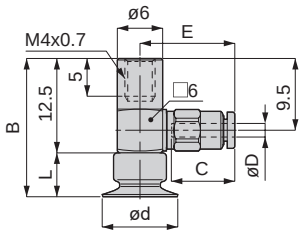


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-MA8P*-4T	8	2.5	22.5	5.5	1.6
VSP-MA10P*-4T	10	2.5	22.8	5.8	1.6
VSP-MA15P*-4T	15	2.5	23.5	6.5	1.7
VSP-MA20P*-4T	20	2.5	24.3	7.3	1.7

Dimensions (compact fixed, vacuum outlet side VSP-MB, push-in fitting)

●VSP-MB8 to 20P*-2/4

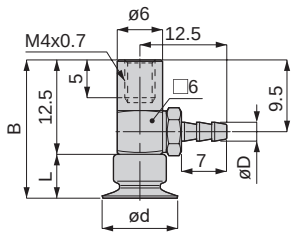


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-MB8W*-2	8	1.8	18	5.5	8.4	12.5	2.1
VSP-MB8W*-4		4			11.2	15.8	3
VSP-MB10W*-2	10	1.8	18.3	5.8	8.4	12.5	2.1
VSP-MB10W*-4		4			11.2	15.8	3
VSP-MB15W*-2	15	1.8	19	6.5	8.4	12.5	2.2
VSP-MB15W*-4		4			11.2	15.8	3
VSP-MB20W*-2	20	1.8	19.8	7.3	8.4	12.5	2.2
VSP-MB20W*-4		4			11.2	15.8	3

Dimensions (compact fixed, vacuum outlet side VSP-MB, barbed fitting)

●VSP-MB8 to 20P*-4T/6T

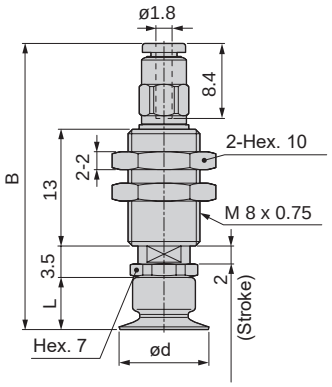


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-MB8W*-4T	8	2.5	18	5.5	2
VSP-MB8W*-6T		4			
VSP-MB10W*-4T	10	2.5	18.3	5.8	2
VSP-MB10W*-6T		4			
VSP-MB15W*-4T	15	2.5	19	6.5	2
VSP-MB15W*-6T		4			
VSP-MB20W*-4T	20	2.5	19.8	7.3	2
VSP-MB20W*-6T		4			

Dimensions (compact buffer, vacuum outlet top VSP-MC, push-in fitting)

●VSP-MC8 to 20P*-2

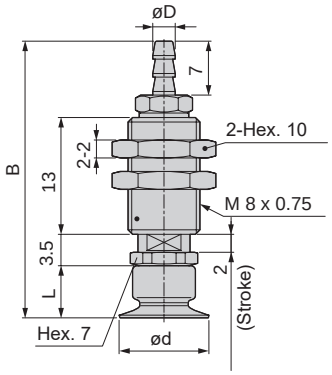


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Spring force (N)	Weight (g)
VSP-MC8P*-2	8	1.8	31.7	5.5	0.5 to 0.6	1.8
VSP-MC10P*-2	10	1.8	32	5.8	0.5 to 0.6	1.8
VSP-MC15P*-2	15	1.8	32.7	6.5	0.5 to 0.6	1.8
VSP-MC20P*-2	20	1.8	33.5	7.3	0.5 to 0.6	1.8

Dimensions (compact buffer, vacuum outlet top VSP-MC, barbed fitting)

●VSP-MC8 to 20P*-4T/6T

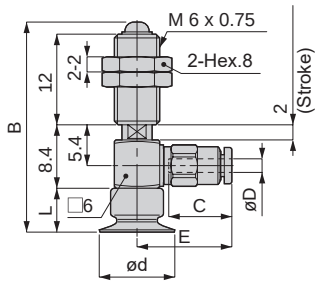


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Spring force (N)	Weight (g)
VSP-MC8P*-4T	8	2.5	31.6	5.5	0.5 to 0.6	1.6
VSP-MC8P*-6T		4				
VSP-MC10P*-4T	10	2.5	31.9	5.8	0.5 to 0.6	1.6
VSP-MC10P*-6T		4				
VSP-MC15P*-4T	15	2.5	32.6	6.5	0.5 to 0.6	1.6
VSP-MC15P*-6T		4				
VSP-MC20P*-4T	20	2.5	33.4	7.3	0.5 to 0.6	1.6
VSP-MC20P*-6T		4				

Dimensions (compact buffer, vacuum outlet side VSP-MD, push-in fitting)

●VSP-MD8 to 20P*-2/4

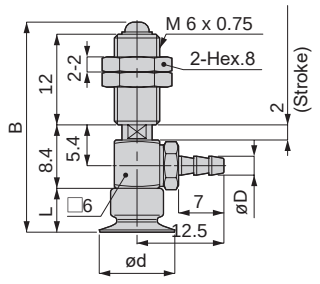


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Spring force (N)	Weight (g)
VSP-MD8P*-2	8	1.8	27.5	5.5	8.4	12.6	0.5 to 0.6	6.1
VSP-MD8P*-4		4			11.2	15.9		7
VSP-MD10P*-2	10	1.8	27.8	5.8	8.4	12.6	0.5 to 0.6	6.2
VSP-MD10P*-4		4			11.2	15.9		7
VSP-MD15P*-2	15	1.8	28.5	6.5	8.4	12.6	0.5 to 0.6	6.2
VSP-MD15P*-4		4			11.2	15.9		7
VSP-MD20P*-2	20	1.8	29.3	7.3	8.4	12.6	0.5 to 0.6	6.3
VSP-MD20P*-4		4			11.2	15.9		7

Dimensions (compact buffer, vacuum outlet side VSP-MD, barbed fitting)

●VSP-MD8 to 20P*-4T/6T

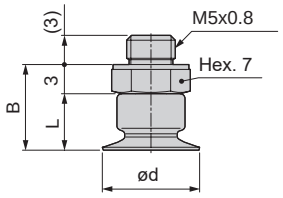


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Spring force (N)	Weight (g)
VSP-MD8P*-4T	8	2.5	27.5	5.5	0.5 to 0.6	6
VSP-MD8P*-6T		4				
VSP-MD10P*-4T	10	2.5	27.8	5.8	0.5 to 0.6	6
VSP-MD10P*-6T		4				
VSP-MD15P*-4T	15	2.5	28.5	6.5	0.5 to 0.6	6.1
VSP-MD15P*-6T		4				
VSP-MD20P*-4T	20	2.5	29.3	7.3	0.5 to 0.6	6.1
VSP-MD20P*-6T		4				

Dimensions (compact direct mounting fixed VSP-ME)

●VSP-ME8 to 20P*-M5

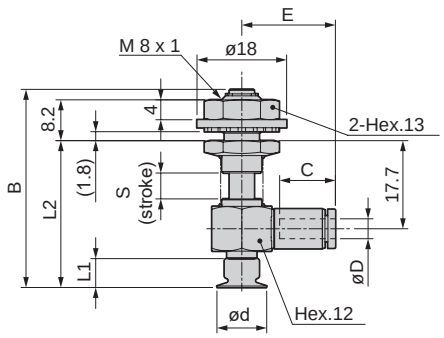


Unit: mm

Model No.	Pad diameter ød	B	L	Weight (g)
VSP-ME8P*-M5	8	8.5	5.5	8
VSP-ME10P*-M5	10	8.8	5.8	10
VSP-ME15P*-M5	15	9.5	6.5	15
VSP-ME20P*-M5	20	10.3	7.3	20

Dimensions (lightweight buffer, vacuum outlet side VSP-HD, push-in fitting)

●VSP-HD8 to 20P*-2/4/6

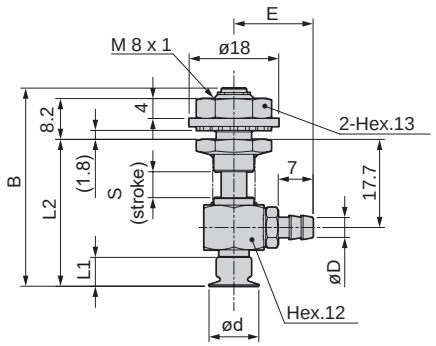


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD8P*-2	8	1.8	39.5	5.5	29.2	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HD8P*-4		4				11.2	18.8			30
VSP-HD8P*-6		6				11.9	20.6			31
VSP-HD10P*-2	10	1.8	39.8	5.8	29.5	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HD10P*-4		4				11.2	18.8			30
VSP-HD10P*-6		6				11.9	20.6			31
VSP-HD15P*-2	15	1.8	40.5	6.5	30.2	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HD15P*-4		4				11.2	18.8			30
VSP-HD15P*-6		6				11.9	20.6			31
VSP-HD20P*-2	20	1.8	41.3	7.3	31	8.4	14.7	5.2	1.6 to 2.9	29
VSP-HD20P*-4		4				11.2	18.8			30
VSP-HD20P*-6		6				11.9	20.6			31

Dimensions (lightweight buffer, vacuum outlet side VSP-HD, barbed fitting)

●VSP-HD8 to 20P*-4T/6T

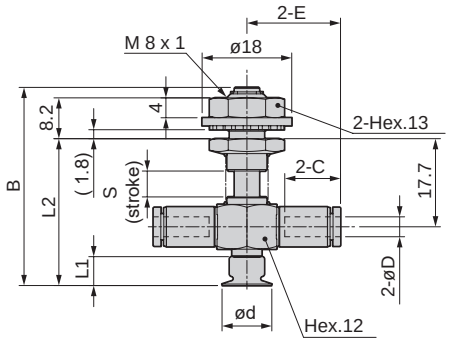


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD8P*-4T	8	2.5	39.5	5.5	29.2	15.9	5.2	1.6 to 2.9	28
VSP-HD8P*-6T		4							
VSP-HD10P*-4T	10	2.5	39.8	5.8	29.5	15.9	5.2	1.6 to 2.9	28
VSP-HD10P*-6T		4							
VSP-HD15P*-4T	15	2.5	40.5	6.5	30.2	15.9	5.2	1.6 to 2.9	28
VSP-HD15P*-6T		4							
VSP-HD20P*-4T	20	2.5	41.3	7.3	31	15.9	5.2	1.6 to 2.9	28
VSP-HD20P*-6T		4							

Dimensions (lightweight buffer, vacuum outlet on both sides VSP-HDW, push-in fitting)

●VSP-HDW8 to 20P*-2/4/6

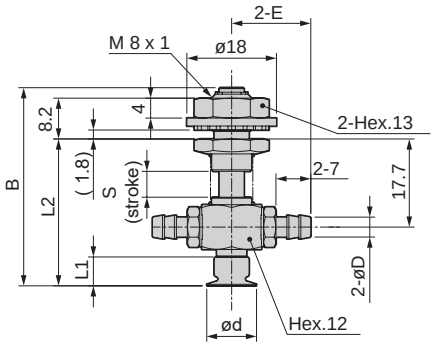


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW8P*-2	8	1.8	39.5	5.5	29.2	8.4	14.7	5.2	1.6 to 2.9	31
VSP-HDW8P*-4		4				11.2	18.8			33
VSP-HDW8P*-6		6				11.9	20.6			35
VSP-HDW10P*-2	10	1.8	39.8	5.8	29.5	8.4	14.7	5.2	1.6 to 2.9	31
VSP-HDW10P*-4		4				11.2	18.8			33
VSP-HDW10P*-6		6				11.9	20.6			35
VSP-HDW15P*-2	15	1.8	40.5	6.5	30.2	8.4	14.7	5.2	1.6 to 2.9	31
VSP-HDW15P*-4		4				11.2	18.8			33
VSP-HDW15P*-6		6				11.9	20.6			35
VSP-HDW20P*-2	20	1.8	41.3	7.3	31	8.4	14.7	5.2	1.6 to 2.9	31
VSP-HDW20P*-4		4				11.2	18.8			33
VSP-HDW20P*-6		6				11.9	20.6			35

Dimensions (lightweight buffer, vacuum outlet on both sides VSP-HDW, barbed fitting)

●VSP-HDW8 to 20P*-4T/6T

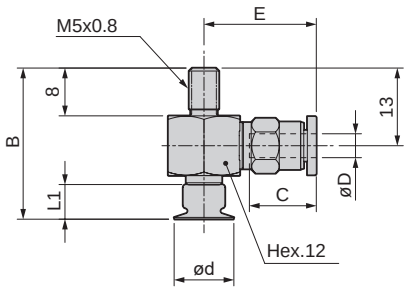


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW8P*-4T	8	2.5	39.5	5.5	29.2	15.9	5.2	1.6 to 2.9	29
VSP-HDW8P*-6T		4							
VSP-HDW10P*-4T	10	2.5	39.8	5.8	29.5	15.9	5.2	1.6 to 2.9	29
VSP-HDW10P*-6T		4							
VSP-HDW15P*-4T	15	2.5	40.5	6.5	30.2	15.9	5.2	1.6 to 2.9	29
VSP-HDW15P*-6T		4							
VSP-HDW20P*-4T	20	2.5	41.3	7.3	31	15.9	5.2	1.6 to 2.9	29
VSP-HDW20P*-6T		4							

Dimensions (low back fixed, vacuum outlet side VSP-HE, push-in fitting)

●VSP-HE8 to 20P*-2/4/6

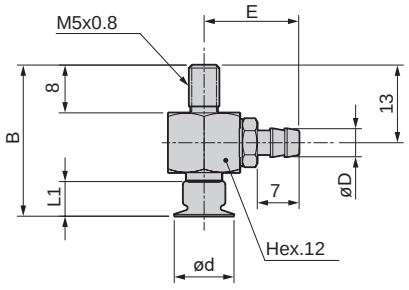


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HE8P*-2	8	1.8	25	5.5	8.4	14.7	15
VSP-HE8P*-4		4			11.2	18.8	16
VSP-HE8P*-6		6			11.9	20.6	17
VSP-HE10P*-2	10	1.8	25.3	5.8	8.4	14.7	15
VSP-HE10P*-4		4			11.2	18.8	16
VSP-HE10P*-6		6			11.9	20.6	17
VSP-HE15P*-2	15	1.8	26	6.5	8.4	14.7	15
VSP-HE15P*-4		4			11.2	18.8	16
VSP-HE15P*-6		6			11.9	20.6	17
VSP-HE20P*-2	20	1.8	26.8	7.3	8.4	14.7	15
VSP-HE20P*-4		4			11.2	18.8	16
VSP-HE20P*-6		6			11.9	20.6	17

Dimensions (low back fixed, vacuum outlet side VSP-HE, barbed fitting)

●VSP-HE8 to 20P*-4T/6T

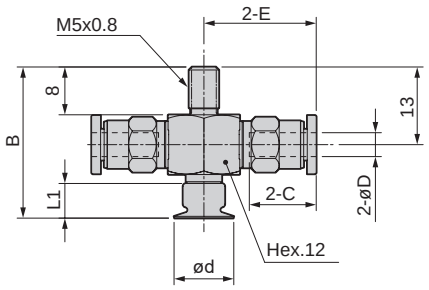


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	E	Weight (g)
VSP-HE8P*-4T	8	2.5	25	5.5	15.9	14
VSP-HE8P*-6T		4				
VSP-HE10P*-4T	10	2.5	25.3	5.8	15.9	14
VSP-HE10P*-6T		4				
VSP-HE15P*-4T	15	2.5	26	6.5	15.9	14
VSP-HE15P*-6T		4				
VSP-HE20P*-4T	20	2.5	26.8	7.3	15.9	14
VSP-HE20P*-6T		4				

Dimensions (low back fixed, vacuum outlet on both sides VSP-HEW, push-in fitting)

●VSP-HEW8 to 20P*-2/4/6

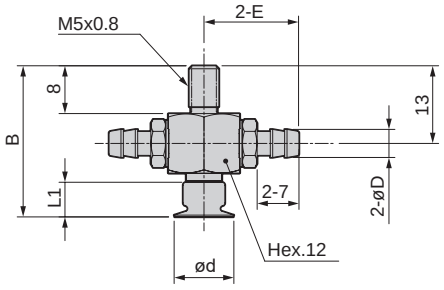


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HEW8P*-2	8	1.8	25	5.5	8.4	14.7	16
VSP-HEW8P*-4		4			11.2	18.8	18
VSP-HEW8P*-6		6			11.9	20.6	20
VSP-HEW10P*-2	10	1.8	25.3	5.8	8.4	14.7	16
VSP-HEW10P*-4		4			11.2	18.8	18
VSP-HEW10P*-6		6			11.9	20.6	20
VSP-HEW15P*-2	15	1.8	26	6.5	8.4	14.7	16
VSP-HEW15P*-4		4			11.2	18.8	18
VSP-HEW15P*-6		6			11.9	20.6	20
VSP-HEW20P*-2	20	1.8	26.8	7.3	8.4	14.7	16
VSP-HEW20P*-4		4			11.2	18.8	18
VSP-HEW20P*-6		6			11.9	20.6	20

Dimensions (low back fixed, vacuum outlet on both sides VSP-HEW, barbed fitting)

●VSP-HEW8 to 20P*-4T/6T

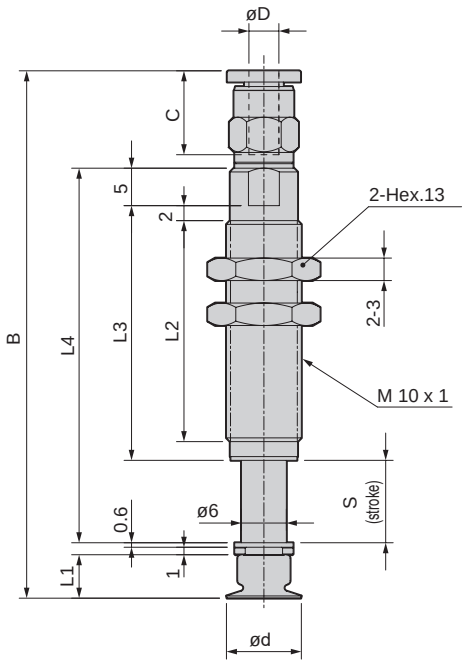


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	E	Weight (g)
VSP-HEW8P*-4T	8	2.5	25	5.5	15.9	15
VSP-HEW8P*-6T		4				
VSP-HEW10P*-4T	10	2.5	25.3	5.8	15.9	15
VSP-HEW10P*-6T		4				
VSP-HEW15P*-4T	15	2.5	26	6.5	15.9	15
VSP-HEW15P*-6T		4				
VSP-HEW20P*-4T	20	2.5	26.8	7.3	15.9	15
VSP-HEW20P*-6T		4				

Dimensions (low dust generation buffer, vacuum outlet top VSP-LFC, push-in fitting)

●VSP-LFC8 to 20-□P*-4



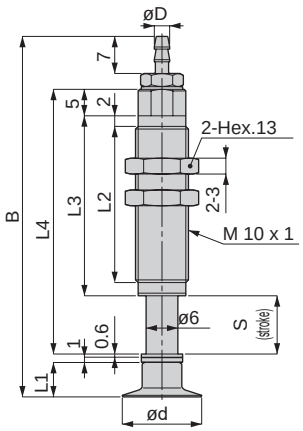
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-LFC8-2P*-4	8	4	54.1	5.5	21.5	26	34	11.2	2	1.3 to 1.8	25
VSP-LFC8-5P*-4			60.1		24.5	29	40		5	1.3 to 2.4[0.33 to 0.6]	27
VSP-LFC8-10P*-4			70.1		29.5	34	50		10	1.3 to 3.3[0.33 to 0.83]	29
VSP-LFC8-15P*-4			80.1		34.5	39	60		15	1.3 to 4.2[0.33 to 1.05]	31
VSP-LFC8-20P*-4			90.1		39.5	44	70		20	1.3 to 5.1[0.33 to 1.28]	33
VSP-LFC10-2P*-4	10	4	54.4	5.8	21.5	26	34	11.2	2	1.3 to 1.8	25
VSP-LFC10-5P*-4			60.4		24.5	29	40		5	1.3 to 2.4[0.33 to 0.6]	27
VSP-LFC10-10P*-4			70.4		29.5	34	50		10	1.3 to 3.3[0.33 to 0.83]	29
VSP-LFC10-15P*-4			80.4		34.5	39	60		15	1.3 to 4.2[0.33 to 1.05]	31
VSP-LFC10-20P*-4			90.4		39.5	44	70		20	1.3 to 5.1[0.33 to 1.28]	33
VSP-LFC15-2P*-4	15	4	55.1	6.5	21.5	26	34	11.2	2	1.3 to 1.8	26
VSP-LFC15-5P*-4			61.1		24.5	29	40		5	1.3 to 2.4[0.33 to 0.6]	28
VSP-LFC15-10P*-4			71.1		29.5	34	50		10	1.3 to 3.3[0.33 to 0.83]	30
VSP-LFC15-15P*-4			81.1		34.5	39	60		15	1.3 to 4.2[0.33 to 1.05]	32
VSP-LFC15-20P*-4			91.1		39.5	44	70		20	1.3 to 5.1[0.33 to 1.28]	34
VSP-LFC20-2P*-4	20	4	55.9	7.3	21.5	26	34	11.2	2	1.3 to 1.8	26
VSP-LFC20-5P*-4			61.9		24.5	29	40		5	1.3 to 2.4[0.33 to 0.6]	28
VSP-LFC20-10P*-4			71.9		29.5	34	50		10	1.3 to 3.3[0.33 to 0.83]	30
VSP-LFC20-15P*-4			81.9		34.5	39	60		15	1.3 to 4.2[0.33 to 1.05]	32
VSP-LFC20-20P*-4			91.9		39.5	44	70		20	1.3 to 5.1[0.33 to 1.28]	34

*1: Values in [ ] are for low load.

Dimensions (low dust generation buffer, vacuum outlet top VSP-LFC, barbed fitting)

●VSP-LFC8 to 20-□P*-4T/6T



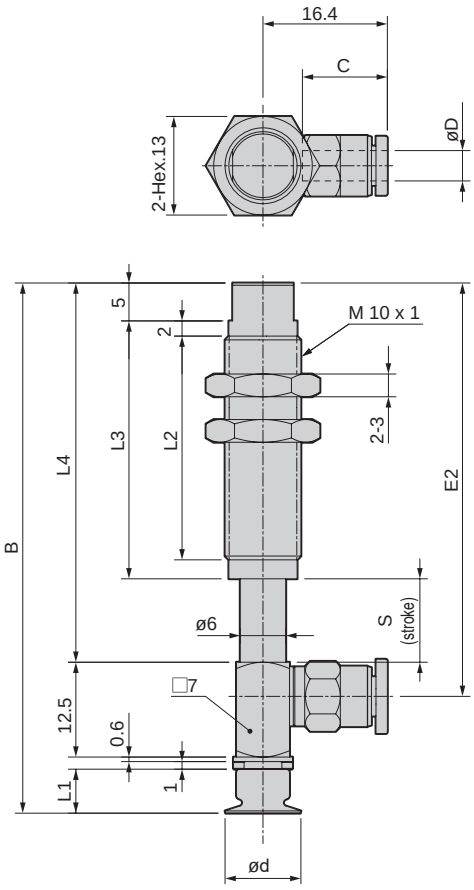
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
VSP-LFC8-2P*-4T	8	2.5	51.2	5.5	21.5	26	34	2	1.3 to 1.8	24
VSP-LFC8-2P*-6T		4								
VSP-LFC8-5P*-4T		2.5	57.2		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	26
VSP-LFC8-5P*-6T		4								
VSP-LFC8-10P*-4T		2.5	67.2		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	28
VSP-LFC8-10P*-6T		4								
VSP-LFC8-15P*-4T		2.5	77.2		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	30
VSP-LFC8-15P*-6T		4								
VSP-LFC8-20P*-4T		2.5	87.2		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	31
VSP-LFC8-20P*-6T		4								
VSP-LFC10-2P*-4T	10	2.5	51.5	5.8	21.5	26	34	2	1.3 to 1.8	24
VSP-LFC10-2P*-6T		4								
VSP-LFC10-5P*-4T		2.5	57.5		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	26
VSP-LFC10-5P*-6T		4								
VSP-LFC10-10P*-4T		2.5	67.5		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	28
VSP-LFC10-10P*-6T		4								
VSP-LFC10-15P*-4T		2.5	77.5		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	30
VSP-LFC10-15P*-6T		4								
VSP-LFC10-20P*-4T		2.5	87.5		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	31
VSP-LFC10-20P*-6T		4								
VSP-LFC15-2P*-4T	15	2.5	52.2	6.5	21.5	26	34	2	1.3 to 1.8	25
VSP-LFC15-2P*-6T		4								
VSP-LFC15-5P*-4T		2.5	58.2		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	27
VSP-LFC15-5P*-6T		4								
VSP-LFC15-10P*-4T		2.5	68.2		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	29
VSP-LFC15-10P*-6T		4								
VSP-LFC15-15P*-4T		2.5	78.2		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	31
VSP-LFC15-15P*-6T		4								
VSP-LFC15-20P*-4T		2.5	88.2		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	32
VSP-LFC15-20P*-6T		4								
VSP-LFC20-2P*-4T	20	2.5	53	7.3	21.5	26	34	2	1.3 to 1.8	25
VSP-LFC20-2P*-6T		4								
VSP-LFC20-5P*-4T		2.5	59		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	27
VSP-LFC20-5P*-6T		4								
VSP-LFC20-10P*-4T		2.5	69		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	29
VSP-LFC20-10P*-6T		4								
VSP-LFC20-15P*-4T		2.5	79		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	31
VSP-LFC20-15P*-6T		4								
VSP-LFC20-20P*-4T		2.5	89		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	32
VSP-LFC20-20P*-6T		4								

*1: Values in [ ] are for low load.

Dimensions (low dust generation buffer, vacuum outlet side VSP-LFD, push-in fitting)

●VSP-LFD8 to 20-□P*-4

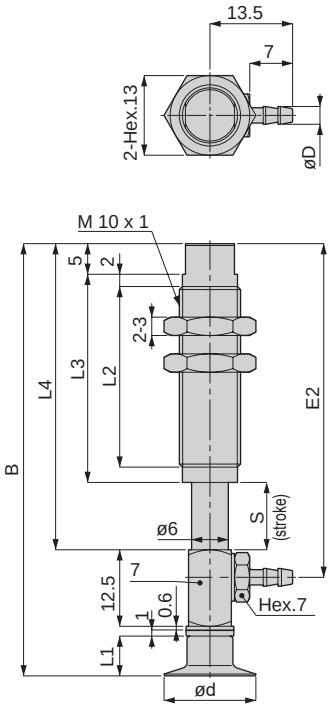


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	E2	Stroke S	Spring force (N)	Weight (g)
VSP-LFD8-5P*-4	8	4	59.6	5.5	24.5	29	40	11.2	44.5	5	1.3 to 2.4	30
VSP-LFD8-10P*-4			69.6		29.5	34	50		54.5	10	1.3 to 3.3	33
VSP-LFD8-15P*-4			79.6		34.5	39	60		64.5	15	1.3 to 4.2	35
VSP-LFD8-20P*-4			89.6		39.5	44	70		74.5	20	1.3 to 5.1	37
VSP-LFD10-5P*-4	10	4	59.9	5.8	24.5	29	40	11.2	44.5	5	1.3 to 2.4	30
VSP-LFD10-10P*-4			69.9		29.5	34	50		54.5	10	1.3 to 3.3	33
VSP-LFD10-15P*-4			79.9		34.5	39	60		64.5	15	1.3 to 4.2	35
VSP-LFD10-20P*-4			89.9		39.5	44	70		74.5	20	1.3 to 5.1	37
VSP-LFD15-5P*-4	15	4	60.6	6.5	24.5	29	40	11.2	44.5	5	1.3 to 2.4	31
VSP-LFD15-10P*-4			70.6		29.5	34	50		54.5	10	1.3 to 3.3	34
VSP-LFD15-15P*-4			80.6		34.5	39	60		64.5	15	1.3 to 4.2	36
VSP-LFD15-20P*-4			90.6		39.5	44	70		74.5	20	1.3 to 5.1	38
VSP-LFD20-5P*-4	20	4	61.4	7.3	24.5	29	40	11.2	44.5	5	1.3 to 2.4	31
VSP-LFD20-10P*-4			71.4		29.5	34	50		54.5	10	1.3 to 3.3	34
VSP-LFD20-15P*-4			81.4		34.5	39	60		64.5	15	1.3 to 4.2	36
VSP-LFD20-20P*-4			91.4		39.5	44	70		74.5	20	1.3 to 5.1	38

Dimensions (low dust generation buffer, vacuum outlet side VSP-LFD, barbed fitting)

●VSP-LFD8 to 20-□P*-4T/6T

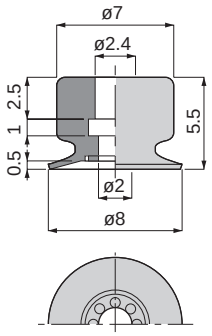


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	E2	Stroke S	Spring force (N)	Weight (g)
VSP-LFD8-5P*-4T	8	2.5	59.6	5.5	24.5	29	40	44.5	5	1.3 to 2.4	29
VSP-LFD8-5P*-6T		4									
VSP-LFD8-10P*-4T		2.5	69.6		29.5	34	50	54.5	10	1.3 to 3.3	31
VSP-LFD8-10P*-6T		4									
VSP-LFD8-15P*-4T		2.5	79.6		34.5	39	60	64.5	15	1.3 to 4.2	33
VSP-LFD8-15P*-6T		4									
VSP-LFD8-20P*-4T		2.5	89.6		39.5	44	70	74.5	20	1.3 to 5.1	35
VSP-LFD8-20P*-6T		4									
VSP-LFD10-5P*-4T	10	2.5	59.9	5.8	24.5	29	40	44.5	5	1.3 to 2.4	29
VSP-LFD10-5P*-6T		4									
VSP-LFD10-10P*-4T		2.5	69.9		29.5	34	50	54.5	10	1.3 to 3.3	31
VSP-LFD10-10P*-6T		4									
VSP-LFD10-15P*-4T		2.5	79.9		34.5	39	60	64.5	15	1.3 to 4.2	33
VSP-LFD10-15P*-6T		4									
VSP-LFD10-20P*-4T		2.5	89.9		39.5	44	70	74.5	20	1.3 to 5.1	35
VSP-LFD10-20P*-6T		4									
VSP-LFD15-5P*-4T	15	2.5	60.6	6.5	24.5	29	40	44.5	5	1.3 to 2.4	30
VSP-LFD15-5P*-6T		4									
VSP-LFD15-10P*-4T		2.5	70.6		29.5	34	50	54.5	10	1.3 to 3.3	32
VSP-LFD15-10P*-6T		4									
VSP-LFD15-15P*-4T		2.5	80.6		34.5	39	60	64.5	15	1.3 to 4.2	34
VSP-LFD15-15P*-6T		4									
VSP-LFD15-20P*-4T		2.5	90.6		39.5	44	70	74.5	20	1.3 to 5.1	36
VSP-LFD15-20P*-6T		4									
VSP-LFD20-5P*-4T	20	2.5	61.4	7.3	24.5	29	40	44.5	5	1.3 to 2.4	30
VSP-LFD20-5P*-6T		4									
VSP-LFD20-10P*-4T		2.5	71.4		29.5	34	50	54.5	10	1.3 to 3.3	32
VSP-LFD20-10P*-6T		4									
VSP-LFD20-15P*-4T		2.5	81.4		34.5	39	60	64.5	15	1.3 to 4.2	34
VSP-LFD20-15P*-6T		4									
VSP-LFD20-20P*-4T		2.5	91.4		39.5	44	70	74.5	20	1.3 to 5.1	36
VSP-LFD20-20P*-6T		4									

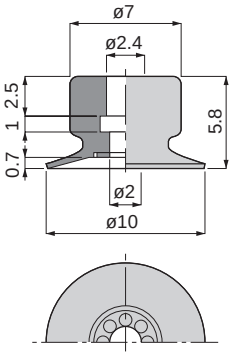
Dimensions: pad only

●VSPG-8P*



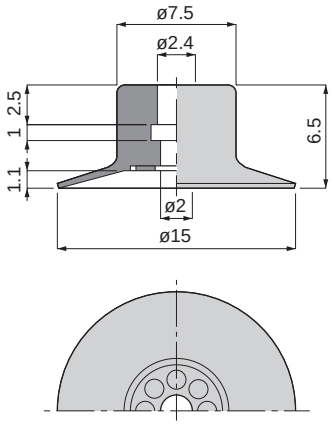
Weight: 0.2g [0.4g]

●VSPG-10P*



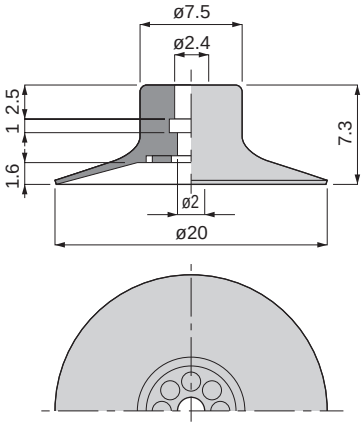
Weight: 0.3g [0.5g]

●VSPG-15P*



Weight: 0.4g [0.6g]

●VSPG-20P*

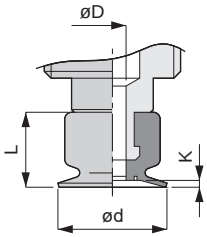


Weight: 0.5g [0.8g]

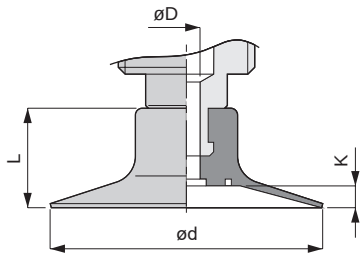
Note: Values in [ ] for fluoro rubber only.

Detailed view of pad and holder connection

●VSPG-8, 10P* A



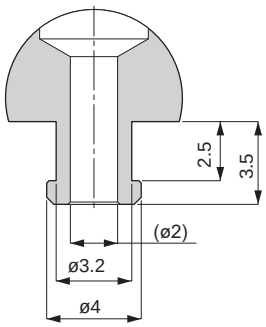
●VSPG-15, 20P* A



Unit: mm

Model No.	Pad diameter ød	L	Lip internal height K	øD
VSPG-8P*	8	5.5	0.5	2
VSPG-10P*	10	5.8	0.7	2
VSPG-15P*	15	6.5	1.1	2
VSPG-20P*	20	7.3	1.6	2

Pad fitting part dimensions



Safety precautions

WARNING

Since thin pads may stick to the workpiece due to the characteristics of the material depending on the working conditions, please check with an actual device.



Suction pad, flat type/flat suction flow rate increase type

VSP-*F*, *FH* Series

Suction pad with flat suction surface that prevents thin workpieces from deforming/wrinkling

RoHS

Grooves are formed on a flat suction surface to suppress changes in the workpiece during suction and reduce creases

A wide range of holder variations

Shape 16types

- Standard: 5 types
- Compact: 4 types
- Low dust generation: 2 types
- Lightweight: 3 types
- Low height: 2 types

Piping 5types

- Push-in fitting(ø1.8 to ø6): 3 types
- Barbed fitting(ø4, ø6): 2 types

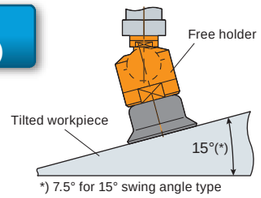
Stroke 11types

2 mm to 50 mm
(Depends on pad diameter and holder)

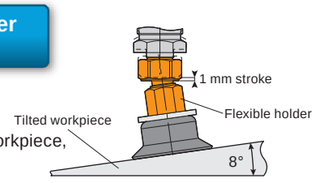
Low dust generation holders (LFC, LFD) are available, with minimal friction powder and low noise caused by sliding.

Supports assembly options of track swinging (free holder, flexible holder) on a workpiece surface with an angle.

Free holder (F1:30°, F2:15°)

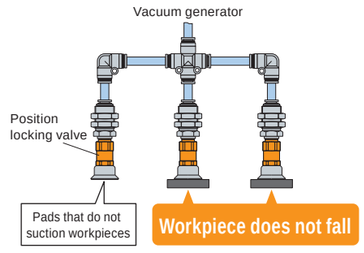


Flexible holder (CF)



After removing the workpiece, returns to the normal position (vertical)

Supports assembly option of position locking valve (V) that reduces vacuum drop in another circuit even without a workpiece



Pad surface treatment (option) is available for special treatment to reduce suction marks

	-DL	-ER	-FG
	Anti-sticking	Reduced suction marks	Fluorine coating
Surface-treated			
Compatible materials	silicone Fluorine Conductive silicone	Nitriles Nitrile conductive NBR	silicone Conductive silicone
Features	Special coating with good slip. Effective for preventing adhesion of lightweight and thin workpieces.	Reduces suction marks by modifying the surface with an environmentally friendly chemical liquid.	Surface modification for special treatment to prevent adhesion to workpieces. Improved pad durability and wear resistance.

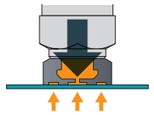
Pad shape



Flat shape

Standard (F)

The flat suction surface pushes down the workpiece to suppress its deformation. On the other hand, since the suction area is limited to the groove part, the suction force is not so large.



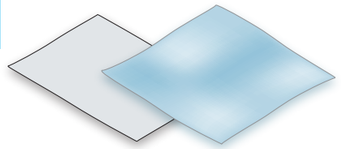
Increased intake flow rate (FH)

Increased flow path holes dramatically improve the suction flow rate and suction force.



Recommended workpiece

Thin workpieces such as sheets and vinyl



Pad diameter

5 types | 10 | 15 | 20 | 25 | 30

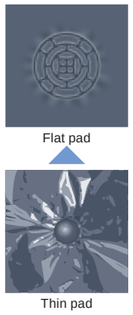
Pad material

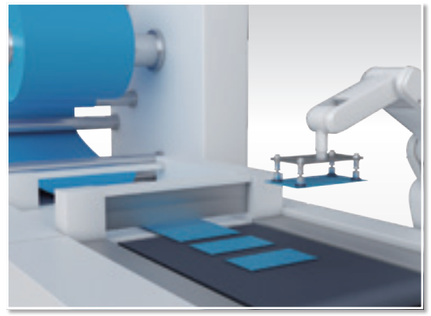
6 types | NitoriK | silicone | Urethane | Fluorine | Conductive silicone | Conductive NBR (low resistance)

* Urethane is not available for intake flow rate (FH). Silicone (S) is compatible with the Food Sanitation Act. (holder is not supported/suction pad is compatible only with workpiece contact part)

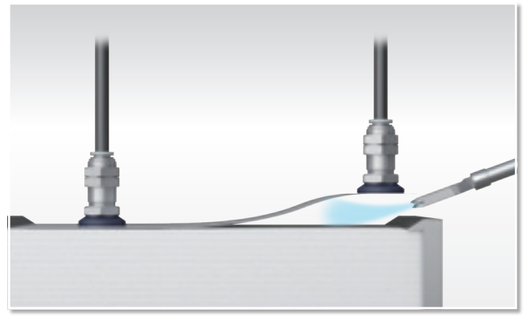
Solution examples

Conveying thin and easily deformed workpieces





Suction-transport thin film-shaped workpieces one at a time



How to order

●Flat type/intake flow rate increase type

Suction pad

VSP – C – 30 – -20 – F – N – -ER – 6 – [ ] – F1 – V

Model No.	❶ Holder Shape	❷ Pad diameter	❸ Stroke option	❹ Pad shape	❺ Pad material	❻ Surface Treatment	❼ Port size/ Shape	❽ Buffer Load	❾ Pad Swinging	❿ Drop Prevention valve
VSP	C	30	-20	F	N	-ER	6		F1	V

Pad rubber only

VSPG – 30 F N -ER

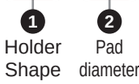
Model No.	❷ Pad diameter	❹ Pad shape	❺ Pad material	❻ Surface Treatment
VSPG	30	F	N	-ER

Pad rubber + Set with fixing screw

VSPG – 30 F N -ER A

Model No.	❷ Pad diameter	❹ Pad shape	❺ Pad material	❻ Surface Treatment
VSPG	30	F	N	-ER

❶ Holder type

With/without buffer	Type	Vacuum outlet	Code	
Fixed	Standard	Upward direction	A	
	Compact		MA	
	Standard	Lateral direction	B	
	Compact		MB	
	Low height		HE	
		Both lateral directions	HEW	
Buffer type	Standard	Upward direction	C	
	Compact		MC	
	Low dust generation		LFC	
	Lightweight		HC	
	Standard	Lateral direction	D	
	Compact		MD	
	Low dust generation		LFD	
	Lightweight		HD	
		Both lateral directions	HDW	
	Standard	Direct mounting	F	

❷ Pad diameter

Code	Description
10	ø10
15	φ15
20	φ20
25	φ25
30	φ30

❸ Stroke option

Description	Holder type C	D	HC	LFC	LFD	Code	
Specified stroke or without buffer	●	●				Blank	*1, *2
Stroke 2 mm				●		–2	*3
Stroke 5 mm				●	●	– 5	
Stroke 10 mm	●	●	●	●	●	– 10	
Stroke 15 mm	●	●	●	●	●	– 15	
Stroke 20 mm	●	●	●	●	●	– 20	
Stroke 25 mm			●			– 25	
Stroke 30 mm	●	●	●			– 30	
Stroke 40 mm	●	●	●			– 40	
Stroke 50 mm	●	●	●			– 50	

*1:❶Other than C, D, HC, LFC, LFD,❸is blank.
*2:❸For blank designated strokes, check the stroke dimensions with the O.D. dimensions.
*3:❷For 10 and 15,❸-2 can be selected.

❹ Pad shape

Code	Description	
F	Flat	
FH	Flat intake flow rate Growth type	

❺ Pad material

Code	Description
N	Nitrile rubber
S	Silicone rubber
U	Urethane rubber
F	Fluoro rubber
SE	Conductive silicone rubber
NE	Conductive NBR (low resistance)

*1:❹For FH,❺U cannot be selected.

❻ Surface-treated

Description	Compatible pad material N	S	F	SE	NE	Supported pad diameter Flat (F/FH)	Code	
No surface treatment	All pads material, all pad diameters						Blank	
Anti-stick special coating		●	●	●		All sizes	–DL	
Suction mark reduction surface modification	●				●	All sizes	–ER	*1
Fluorine coating		●		●		All sizes	–FG	

Specifications for rechargeable battery (Catalog No.CC-1226A)

●Design compatible with rechargeable battery manufacturing process

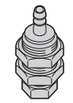
VSP – ..... – P4*

Specifications for food manufacturing processes (Catalog No.CC-1271A)

●Food-grade lubricants that can be used in food manufacturing processes, and resin/rubber materials that are compatible with the Food Sanitation Act are used

VSP – ..... – FP*

❼ Port size/shape

Description	Holder type A	B	C	D	MA	MB	MC	MD	LFC	LFD	HC	HD	HDW	HE	HEW	Code	
(❶:When F)																Blank	
ø1.8 push-in fitting						●	●	●			●	●	●	●	●	2	
ø4 push-in fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	
ø6 push-in fitting	●	●	●	●		●		●	●	●	●	●	●	●	●	6	
ø4 Push-in fitting, without spring cover			●	●												4C	
ø6 Push-in fitting, without spring cover			●	●												6C	
ø4 barbed fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4T	
ø6 barbed fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	6T	
ø4 barbed fitting, without spring cover			●	●												4TC	
ø6 Barbed fitting, without spring cover			●	●												6TC	

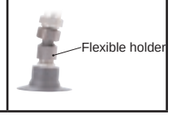
*1:❶C, D❸–20 up–For 50, ❼4C, 6C, 4TC, 6TC can be selected.
*2:❷The port size and shape that can be selected differ depending on the pad diameter. Check with the combination table below.

❽ Buffer load

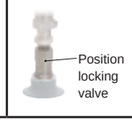
Code	Description	
Blank	Standard load or without buffer	*1 *2
L	Low load (1/4 of standard load)	

*1:❶Blank for ❽ except for LFC.
*2:When ❸-2, ❽ is blank.

❾ Swiveling pad

Code	Description	
Blank	None	
F1	With free holder swing angle 30°	 Free holder
F2	With free holder swing angle 15°	
CF	With flexible holder angle 8°	 Flexible holder

❿ Position locking valve

Code	Description	
Blank	None	
V	With position locking valve	 Position locking valve

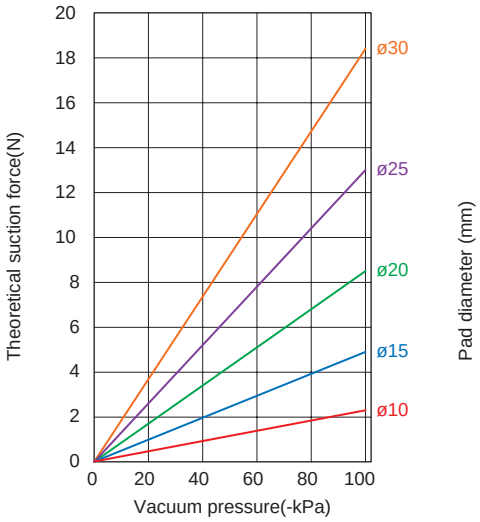
Holder shape - pad diameter - pad shape - port size/shape combinations

Holder type	Pad diameter	Push-in fitting ø4 4	ø4 4C	ø6 6	ø6 6C	Barbed fitting ø4 4T	ø4 4TC	ø6 6T	ø6 6TC
A	ø10, ø15			●				●	
	ø20 to ø30	●		●		●		●	
B	All sizes	●		●		●		●	
C	All sizes	●	●	●	●	●	●	●	●
D	All sizes	●	●	●	●	●	●	●	●

Holder type	Pad diameter	Thread M14	Thread Blank
F	All sizes		●

Holder type	Pad diameter	Push-in fitting ø1.8 2	ø4 4	ø6 6	Barbed fitting ø4 4T	ø6 6T
MA	ø10, ø15		●		●	
	ø20 to ø30		●		●	●
MB	All sizes	●	●	●	●	●
MC	All sizes	●	●		●	●
MD	All sizes	●	●	●	●	●
LFC	ø10, ø15		●		●	●
	ø20 to ø30		●	●	●	●
LFD	ø10, ø15		●		●	●
	ø20 to ø30		●	●	●	●
HC	All sizes	●	●	●	●	●
HD	All sizes	●	●	●	●	●
HDW	All sizes	●	●	●	●	●
HE	All sizes	●	●	●	●	●
HEW	All sizes	●	●	●	●	●

Theoretical suction force

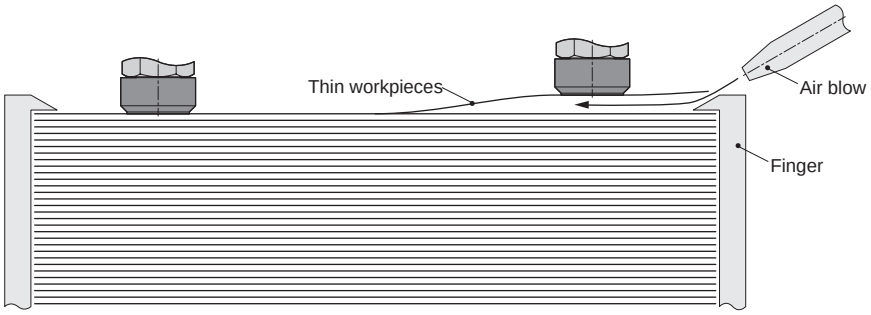


*1: Because the theoretical suction force is the value at static conditions, adopt a safety factor of 1/4 for horizontal lifting and 1/8 for vertical lifting in actual use.

Reference materials for use

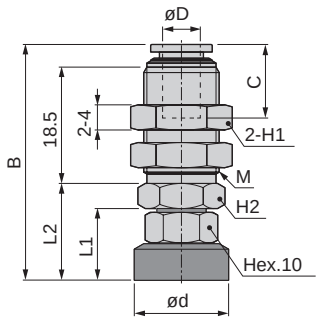
When suctioning multiple thin stacked workpieces

Since multiple workpieces may be suctioned at once, it is necessary to use a small-diameter pad and further lower the vacuum pressure. Moreover, one way to prevent suction of multiple workpieces is to use air blow and claw as shown in the figure below.

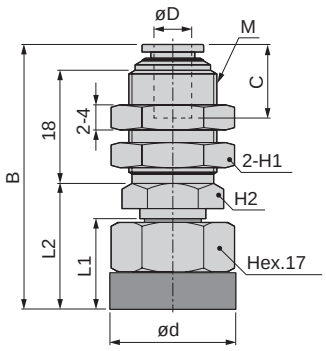


Dimensions (fixed, vacuum outlet top VSP-A, push-in fitting)

●VSP-A10, 15F(FH)*-6



●VSP-A20 to 30F(FH)*-4/6



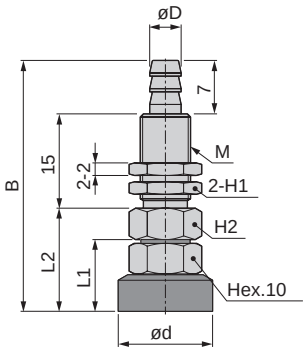
Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	Tube end C	Hexagon H1	Hexagon H2	Weight (g)
VSP-A10F (FH)*-6	10	6	M 12 x 1	37.7 (35.9)	11.4 (9.6)	15.4 (13.6)	11.9	14	12	25 (24)
VSP-A15F (FH)*-6	15	6	M 12 x 1	37.7 (35.9)	11.4 (9.6)	15.4 (13.6)	11.9	14	12	25 (24)
VSP-A20F (FH)*-4	20	4	M 12 x 1	51.2 (46.4)	14.3 (9.5)	20.3 (15.5)	11.2	14	12	48 (38)
VSP-A20F (FH)*-6		6	M 14 x 1	42.2 (37.4)		19.9 (15.1)	11.9	17	14	54 (44)
VSP-A25F (FH)*-4	25	4	M 12 x 1	51.2 (46.4)	14.3 (9.5)	20.3 (15.5)	11.2	14	12	49 (39)
VSP-A25F (FH)*-6		6	M 14 x 1	42.2 (37.4)		19.9 (15.1)	11.9	17	14	55 (45)
VSP-A30F (FH)*-4	30	4	M 12 x 1	51.2 (46.4)	14.3 (9.5)	20.3 (15.5)	11.2	14	12	49 (39)
VSP-A30F (FH)*-6		6	M 14 x 1	42.2 (37.4)		19.9 (15.1)	11.9	17	14	55 (45)

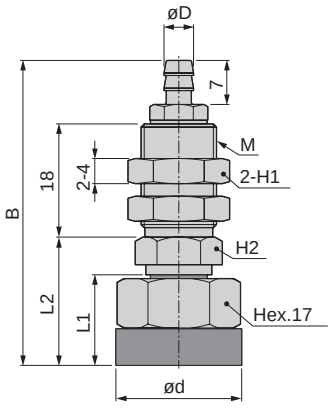
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (fixed, vacuum outlet top VSP-A, barbed fitting)

●VSP-A10, 15F(FH)*-6T



●VSP-A20 to 30F(FH)*-4T/6T



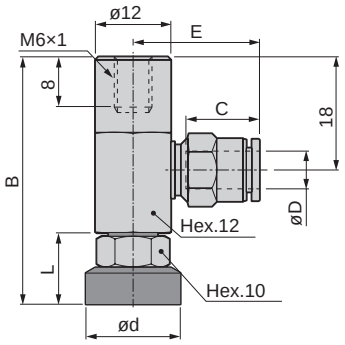
Unit: mm

Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	Hexagon H1	Hexagon H2	Weight (g)
VSP-A10F (FH)*-6T	10	6	M 8 x 0.75	38.4 (36.6)	11.4 (9.6)	16.4 (14.6)	10	10	15 (14)
VSP-A15F (FH)*-6T	15	6	M 8 x 0.75	38.4 (36.6)	11.4 (9.6)	16.4 (14.6)	10	10	16 (15)
VSP-A20F (FH)*-4T	20	4	M 12 x 1	48.3 (43.5)	14.3 (9.5)	20.3 (15.5)	14	12	47 (37)
VSP-A20F (FH)*-6T		6							
VSP-A25F (FH)*-4T	25	4	M 12 x 1	48.3 (43.5)	14.3 (9.5)	20.3 (15.5)	14	12	48 (38)
VSP-A25F (FH)*-6T		6							
VSP-A30F (FH)*-4T	30	4	M 12 x 1	48.3 (43.5)	14.3 (9.5)	20.3 (15.5)	14	12	49 (39)
VSP-A30F (FH)*-6T		6							

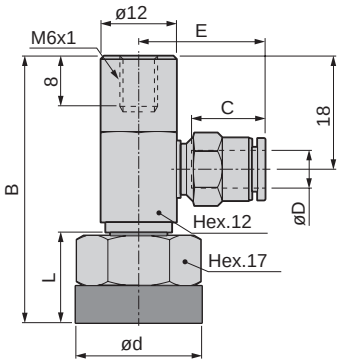
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (fixed, vacuum outlet side VSP-B, push-in fitting)

●VSP-B10, 15F(FH)*-4/6



●VSP-B20 to 30F(FH)*-4/6



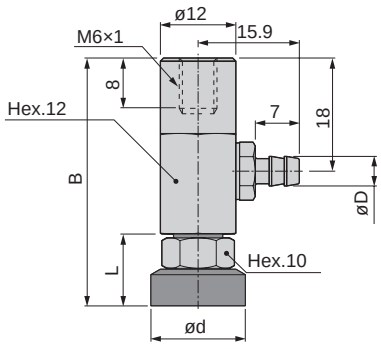
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-B10F (FH)*-4	10	4	39.4 (37.6)	11.4 (9.6)	11.2	18.8	33 (32)
VSP-B10F (FH)*-6		6			11.9	20.1	34 (33)
VSP-B15F (FH)*-4	15	4	39.4 (37.6)	11.4 (9.6)	11.2	18.8	33 (32)
VSP-B15F (FH)*-6		6			11.9	20.1	34 (33)
VSP-B20F (FH)*-4	20	4	42.3 (37.5)	14.3 (9.5)	11.2	18.8	50 (40)
VSP-B20F (FH)*-6		6			11.9	20.1	51 (41)
VSP-B25F (FH)*-4	25	4	42.3 (37.5)	14.3 (9.5)	11.2	18.8	51 (41)
VSP-B25F (FH)*-6		6			11.9	20.1	52 (42)
VSP-B30F (FH)*-4	30	4	42.3 (37.5)	14.3 (9.5)	11.2	18.8	52 (42)
VSP-B30F (FH)*-6		6			11.9	20.1	53 (43)

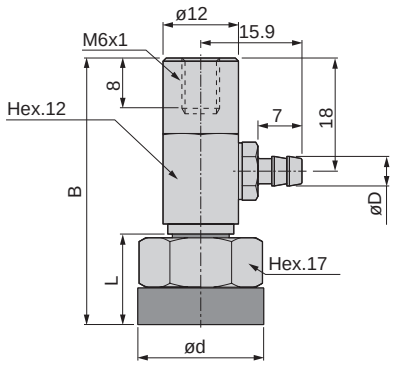
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (fixed, vacuum outlet side VSP-B, barbed fitting)

●VSP-B10, 15F(FH)*-4T/6T



●VSP-B20 to 30F(FH)*-4T/6T



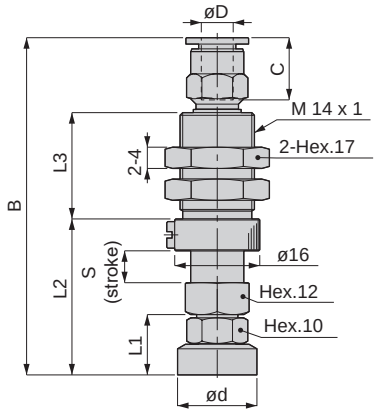
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-B10F (FH)*-4T	10	2.5	39.4 (37.6)	11.4 (9.6)	32 (31)
VSP-B10F (FH)*-6T		4			
VSP-B15F (FH)*-4T	15	2.5	39.4 (37.6)	11.4 (9.6)	33 (32)
VSP-B15F (FH)*-6T		4			
VSP-B20F (FH)*-4T	20	2.5	42.3 (37.5)	14.3 (9.5)	49 (39)
VSP-B20F (FH)*-6T		4			
VSP-B25F (FH)*-4T	25	2.5	42.3 (37.5)	14.3 (9.5)	50 (40)
VSP-B25F (FH)*-6T		4			
VSP-B30F (FH)*-4T	30	2.5	42.3 (37.5)	14.3 (9.5)	51 (41)
VSP-B30F (FH)*-6T		4			

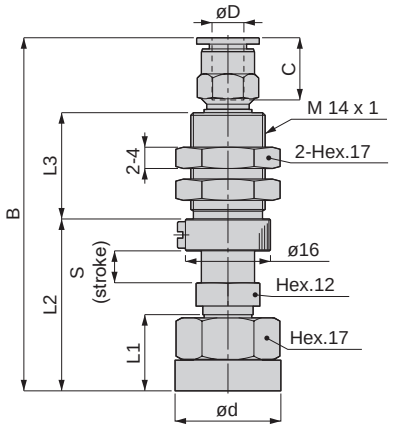
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (buffer, vacuum outlet top VSP-C, push-in fitting)

●VSP-C10, 15F(FH)*-4/6
●VSP-C10, 15-□F(F)*-4/6



●VSP-C20 to 30F(FH)*-4/6
●VSP-C20 to 30-□F(FH)*-4/6



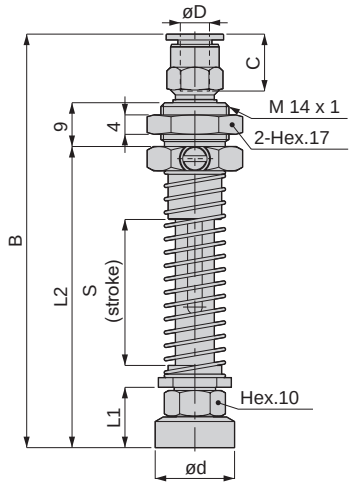
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C10F (FH)*-4	10	4	62.4 (60.6)	11.4 (9.6)	29.4 (27.6)	20	11.2	6	4.0 to 7.1	38 (37)
VSP-C10F (FH)*-6		6	63.7 (61.9)				11.9			39 (38)
VSP-C10-10F (FH)*-4		4	66.9 (65.1)		33.9 (32.1)		11.2	10	2.0 to 5.2	40 (39)
VSP-C10-10F (FH)*-6		6	68.2 (66.4)				11.9			41 (40)
VSP-C10-15F (FH)*-4		4	76.9 (75.1)		38.9 (37.1)	25	11.2	15	2.0 to 5.9	45 (44)
VSP-C10-15F (FH)*-6		6	78.2 (76.4)				11.9			46 (45)
VSP-C10-20F (FH)*-4		4	92.9 (91.1)		45.9 (44.1)	34	11.2	20	1.1 to 4.8	52 (51)
VSP-C10-20F (FH)*-6		6	94.2 (92.4)				11.9			53 (52)
VSP-C15F (FH)*-4	15	4	62.4 (60.6)	11.4 (9.6)	29.4 (27.6)	20	11.2	6	4.0 to 7.1	39 (38)
VSP-C15F (FH)*-6		6	63.7 (61.9)				11.9			40 (39)
VSP-C15-10F (FH)*-4		4	66.9 (65.1)		33.9 (32.1)		11.2	10	2.0 to 5.2	40 (39)
VSP-C15-10F (FH)*-6		6	68.2 (66.4)				11.9			41 (40)
VSP-C15-15F (FH)*-4		4	76.9 (75.1)		38.9 (37.1)	25	11.2	15	2.0 to 5.9	45 (44)
VSP-C15-15F (FH)*-6		6	78.2 (76.4)				11.9			46 (45)
VSP-C15-20F (FH)*-4		4	92.9 (91.1)		45.9 (44.1)	34	11.2	20	1.1 to 4.8	52 (51)
VSP-C15-20F (FH)*-6		6	94.2 (92.4)				11.9			53 (52)
VSP-C20F (FH)*-4	20	4	65.3 (60.5)	14.3 (9.5)	32.3 (27.5)	20	11.2	6	7.0 to 12.6	56 (46)
VSP-C20F (FH)*-6		6	66.6 (61.8)				11.9			57 (47)
VSP-C20-10F (FH)*-4		4	71.3 (66.5)		38.3 (33.5)		11.2	10	3.3 to 10.0	59 (49)
VSP-C20-10F (FH)*-6		6	72.6 (67.8)				11.9			60 (50)
VSP-C20-15F (FH)*-4		4	81.3 (76.5)		43.3 (38.5)	25	11.2	15	3.3 to 10.4	64 (54)
VSP-C20-15F (FH)*-6		6	82.6 (77.8)				11.9			65 (55)
VSP-C20-20F (FH)*-4		4	97.3 (92.5)		50.3 (45.5)	34	11.2	20	2.0 to 8.7	70 (60)
VSP-C20-20F (FH)*-6		6	98.6 (93.8)				11.9			71 (61)
VSP-C25F (FH)*-4	25	4	65.3 (60.5)	14.3 (9.5)	32.3 (27.5)	20	11.2	6	7.0 to 12.6	57 (47)
VSP-C25F (FH)*-6		6	66.6 (61.8)				11.9			58 (48)
VSP-C25-10F (FH)*-4		4	71.3 (66.5)		38.3 (33.5)		11.2	10	3.3 to 10.0	60 (50)
VSP-C25-10F (FH)*-6		6	72.6 (67.8)				11.9			61 (51)
VSP-C25-15F (FH)*-4		4	81.3 (76.5)		43.3 (38.5)	25	11.2	15	3.3 to 10.4	65 (55)
VSP-C25-15F (FH)*-6		6	82.6 (77.8)				11.9			66 (56)
VSP-C25-20F (FH)*-4		4	97.3 (92.5)		50.3 (45.5)	34	11.2	20	2.0 to 8.7	71 (61)
VSP-C25-20F (FH)*-6		6	98.6 (93.8)				11.9			72 (62)
VSP-C30F (FH)*-4	30	4	65.3 (60.5)	14.3 (9.5)	32.3 (27.5)	20	11.2	6	7.0 to 12.6	58 (48)
VSP-C30F (FH)*-6		6	66.6 (61.8)				11.9			59 (49)
VSP-C30-10F (FH)*-4		4	71.3 (66.5)		38.3 (33.5)		11.2	10	3.3 to 10.0	60 (50)
VSP-C30-10F (FH)*-6		6	72.6 (67.8)				11.9			61 (51)
VSP-C30-15F (FH)*-4		4	81.3 (76.5)		43.3 (38.5)	25	11.2	15	3.3 to 10.4	65 (55)
VSP-C30-15F (FH)*-6		6	82.6 (77.8)				11.9			66 (56)
VSP-C30-20F (FH)*-4		4	97.3 (92.5)		50.3 (45.5)	34	11.2	20	2.0 to 8.7	71 (61)
VSP-C30-20F (FH)*-6		6	98.6 (93.8)				11.9			72 (62)

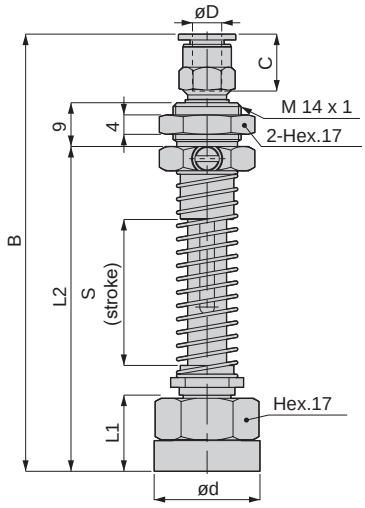
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (buffer, vacuum outlet top VSP-C, push-in fitting without spring cover)

●VSP-C10, 15-□F(FH)*-4C/6C



●VSP-C20 to 30-□F(FH)*-4C/6C



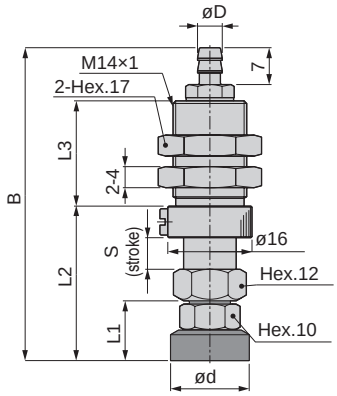
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C10-20F (FH)*-4C	10	4	69.9 (68.1)	11.4 (9.6)	47.9 (46.1)	11.2	20	1.5 to 4.9	47 (46)
VSP-C10-20F (FH)*-6C		6	71.2 (69.4)			11.9			48 (47)
VSP-C10-30F (FH)*-4C		4	82.9 (81.1)		60.9 (59.1)	11.2	30	1.1 to 4.8	53 (52)
VSP-C10-30F (FH)*-6C		6	84.2 (82.4)			11.9			54 (53)
VSP-C10-40F (FH)*-4C		4	95.9 (94.1)		73.9 (72.1)	11.2	40	1.0 to 4.5	58 (57)
VSP-C10-40F (FH)*-6C		6	97.2 (95.4)			11.9			59 (58)
VSP-C10-50F (FH)*-4C		4	108.9 (107.1)		86.9 (85.1)	11.2	50	0.9 to 4.5	63 (62)
VSP-C10-50F (FH)*-6C		6	110.2 (108.4)			11.9			64 (63)
VSP-C15-20F (FH)*-4C	15	4	69.9 (68.1)	11.4 (9.6)	47.9 (46.1)	11.2	20	1.5 to 4.9	49 (48)
VSP-C15-20F (FH)*-6C		6	71.2 (69.4)			11.9			50 (49)
VSP-C15-30F (FH)*-4C		4	82.9 (81.1)		60.9 (59.1)	11.2	30	1.1 to 4.8	55 (54)
VSP-C15-30F (FH)*-6C		6	84.2 (82.4)			11.9			56 (55)
VSP-C15-40F (FH)*-4C		4	95.9 (94.1)		73.9 (72.1)	11.2	40	1.0 to 4.5	60 (59)
VSP-C15-40F (FH)*-6C		6	97.2 (95.4)			11.9			61 (60)
VSP-C15-50F (FH)*-4C		4	108.9 (107.1)		86.9 (85.1)	11.2	50	0.9 to 4.5	65 (64)
VSP-C15-50F (FH)*-6C		6	110.2 (108.4)			11.9			66 (65)
VSP-C20-20F (FH)*-4C	20	4	74.3 (69.5)	14.3 (9.5)	52.3 (47.5)	11.2	20	1.5 to 4.9	66 (56)
VSP-C20-20F (FH)*-6C		6	75.6 (70.8)			11.9			67 (57)
VSP-C20-30F (FH)*-4C		4	87.3 (82.5)		65.3 (60.5)	11.2	30	1.1 to 4.8	71 (61)
VSP-C20-30F (FH)*-6C		6	88.6 (83.8)			11.9			72 (62)
VSP-C20-40F (FH)*-4C		4	100.3 (95.5)		78.3 (73.5)	11.2	40	1.0 to 4.5	77 (67)
VSP-C20-40F (FH)*-6C		6	101.6 (96.8)			11.9			78 (77)
VSP-C20-50F (FH)*-4C		4	113.3 (108.5)		91.3 (86.5)	11.2	50	0.9 to 4.5	82 (72)
VSP-C20-50F (FH)*-6C		6	114.6 (109.8)			11.9			83 (73)
VSP-C25-20F (FH)*-4C	25	4	74.3 (69.5)	14.3 (9.5)	52.3 (47.5)	11.2	20	1.5 to 4.9	67 (57)
VSP-C25-20F (FH)*-6C		6	75.6 (70.8)			11.9			68 (58)
VSP-C25-30F (FH)*-4C		4	87.3 (82.5)		65.3 (60.5)	11.2	30	1.1 to 4.8	72 (62)
VSP-C25-30F (FH)*-6C		6	88.6 (83.8)			11.9			73 (63)
VSP-C25-40F (FH)*-4C		4	100.3 (95.5)		78.3 (73.5)	11.2	40	1.0 to 4.5	78 (68)
VSP-C25-40F (FH)*-6C		6	101.6 (96.8)			11.9			79 (69)
VSP-C25-50F (FH)*-4C		4	113.3 (108.5)		91.3 (86.5)	11.2	50	0.9 to 4.5	83 (73)
VSP-C25-50F (FH)*-6C		6	114.6 (109.8)			11.9			84 (74)
VSP-C30-20F (FH)*-4C	30	4	74.3 (69.5)	14.3 (9.5)	52.3 (47.5)	11.2	20	1.5 to 4.9	67 (57)
VSP-C30-20F (FH)*-6C		6	75.6 (70.8)			11.9			68 (58)
VSP-C30-30F (FH)*-4C		4	87.3 (82.5)		65.3 (60.5)	11.2	30	1.1 to 4.8	72 (62)
VSP-C30-30F (FH)*-6C		6	88.6 (83.8)			11.9			73 (63)
VSP-C30-40F (FH)*-4C		4	100.3 (95.5)		78.3 (73.5)	11.2	40	1.0 to 4.5	78 (68)
VSP-C30-40F (FH)*-6C		6	101.6 (96.8)			11.9			79 (69)
VSP-C30-50F (FH)*-4C		4	113.3 (108.5)		91.3 (86.5)	11.2	50	0.9 to 4.5	83 (73)
VSP-C30-50F (FH)*-6C		6	114.6 (109.8)			11.9			84 (74)

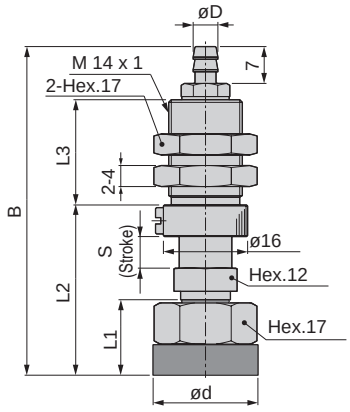
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (buffer, vacuum outlet top VSP-C, barbed fitting)

●VSP-C10, 15F(FH)*-4T/6T
●VSP-C10, 15-□F(FH)*-4T/6T



●VSP-C20 to 30F(FH)*-4T/6T
●VSP-C20 to 30-□F(FH)*-4T/6T



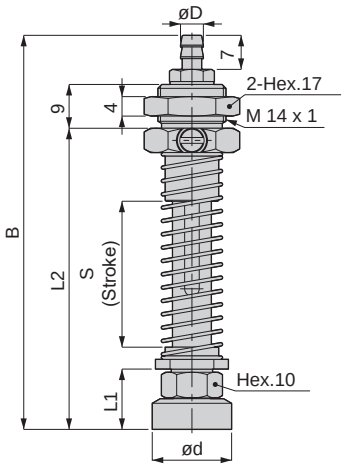
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-C10F (FH)*-4T	10	4	59.5 (57.7)	11.4 (9.6)	29.4 (27.6)	20	6	4.0 to 7.1	34 (33)
VSP-C10F (FH)*-6T		6							
VSP-C10-10F (FH)*-4T		4	64 (62.2)		33.9 (32.1)		10	2.0 to 5.2	35 (34)
VSP-C10-10F (FH)*-6T		6							
VSP-C10-15F (FH)*-4T		4	74 (72.2)		38.9 (37.1)	25	15	2.0 to 5.9	41 (40)
VSP-C10-15F (FH)*-6T		6							
VSP-C10-20F (FH)*-4T		4	90 (88.2)		45.9 (44.1)	34	20	1.1 to 4.8	48 (47)
VSP-C10-20F (FH)*-6T		6							
VSP-C15F (FH)*-4T	15	4	59.5 (57.7)	11.4 (9.6)	29.4 (27.6)	20	6	7.0 to 12.6	38 (37)
VSP-C15F (FH)*-6T		6							
VSP-C15-10F (FH)*-4T		4	64 (62.2)		33.9 (32.1)		10	3.3 to 10.0	40 (39)
VSP-C15-10F (FH)*-6T		6							
VSP-C15-15F (FH)*-4T		4	74 (72.2)		38.9 (37.1)	25	15	3.3 to 10.4	45 (44)
VSP-C15-15F (FH)*-6T		6							
VSP-C15-20F (FH)*-4T		4	90 (88.2)		45.9 (44.1)	34	20	2.0 to 8.7	52 (51)
VSP-C15-20F (FH)*-6T		6							
VSP-C20F (FH)*-4T	20	4	62.4 (57.6)	14.3 (9.5)	32.3 (27.5)	20	6	7.0 to 12.6	42 (32)
VSP-C20F (FH)*-6T		6							
VSP-C20-10F (FH)*-4T		4	68.4 (63.6)		38.3 (33.5)		10	3.3 to 10.0	44 (34)
VSP-C20-10F (FH)*-6T		6							
VSP-C20-15F (FH)*-4T		4	78.4 (73.6)		43.3 (38.5)	25	15	3.3 to 10.4	49 (39)
VSP-C20-15F (FH)*-6T		6							
VSP-C20-20F (FH)*-4T		4	94.4 (89.6)		50.3 (45.5)	34	20	2.0 to 8.7	56 (46)
VSP-C20-20F (FH)*-6T		6							
VSP-C25F (FH)*-4T	25	4	62.4 (57.6)	14.3 (9.5)	32.3 (27.5)	20	6	7.0 to 12.6	50 (40)
VSP-C25F (FH)*-6T		6							
VSP-C25-10F (FH)*-4T		4	68.4 (63.6)		38.3 (33.5)		10	3.3 to 10.0	53 (43)
VSP-C25-10F (FH)*-6T		6							
VSP-C25-15F (FH)*-4T		4	78.4 (73.6)		43.3 (38.5)	25	15	3.3 to 10.4	58 (48)
VSP-C25-15F (FH)*-6T		6							
VSP-C25-20F (FH)*-4T		4	94.4 (89.6)		50.3 (45.5)	34	20	2.0 to 8.7	64 (54)
VSP-C25-20F (FH)*-6T		6							
VSP-C30F (FH)*-4T	30	4	62.4 (57.6)	14.3 (9.5)	32.3 (27.5)	20	6	7.0 to 12.6	57 (47)
VSP-C30F (FH)*-6T		6							
VSP-C30-10F (FH)*-4T		4	68.4 (63.6)		38.3 (33.5)		10	3.3 to 10.0	59 (49)
VSP-C30-10F (FH)*-6T		6							
VSP-C30-15F (FH)*-4T		4	78.4 (73.6)		43.3 (38.5)	25	15	3.3 to 10.4	64 (54)
VSP-C30-15F (FH)*-6T		6							
VSP-C30-20F (FH)*-4T		4	94.4 (89.6)		50.3 (45.5)	34	20	2.0 to 8.7	71 (61)
VSP-C30-20F (FH)*-6T		6							

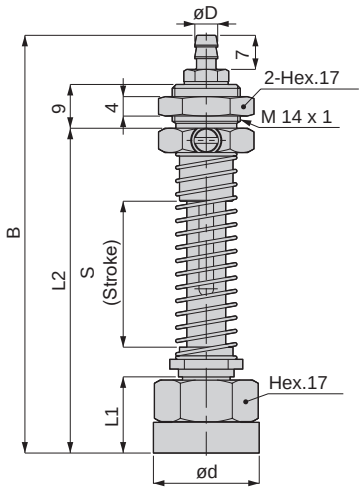
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (buffer, vacuum outlet top VSP-C, barbed fitting without spring cover)

●VSP-C10, 15-□F(FH)*-4TC/6TC



●VSP-C20 to 30-□F(FH)*-4TC/6TC



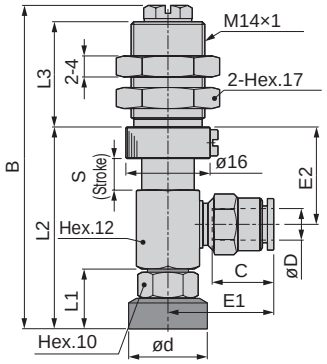
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-C10-20F (FH)*-4TC	10	4	67 (65.2)	11.4 (9.6)	47.9 (46.1)	20	1.5 to 4.9	45 (44)
VSP-C10-20F (FH)*-6TC		6						
VSP-C10-30F (FH)*-4TC		4	80 (78.2)		60.9 (59.1)	30	1.1 to 4.8	51 (50)
VSP-C10-30F (FH)*-6TC		6						
VSP-C10-40F (FH)*-4TC		4	93 (91.2)		73.9 (72.1)	40	1.0 to 4.5	56 (55)
VSP-C10-40F (FH)*-6TC		6						
VSP-C10-50F (FH)*-4TC		4	106 (104.2)		86.9 (85.1)	50	0.9 to 4.5	61 (60)
VSP-C10-50F (FH)*-6TC		6						
VSP-C15-20F (FH)*-4TC	15	4	67 (65.2)	11.4 (9.6)	47.9 (46.1)	20	1.5 to 4.9	47 (46)
VSP-C15-20F (FH)*-6TC		6						
VSP-C15-30F (FH)*-4TC		4	80 (78.2)		60.9 (59.1)	30	1.1 to 4.8	53 (52)
VSP-C15-30F (FH)*-6TC		6						
VSP-C15-40F (FH)*-4TC		4	93 (91.2)		73.9 (72.1)	40	1.0 to 4.5	58 (57)
VSP-C15-40F (FH)*-6TC		6						
VSP-C15-50F (FH)*-4TC		4	106 (104.2)		86.9 (85.1)	50	0.9 to 4.5	63 (62)
VSP-C15-50F (FH)*-6TC		6						
VSP-C20-20F (FH)*-4TC	20	4	71.4 (66.6)	14.3 (9.5)	52.3 (48.5)	20	1.5 to 4.9	65 (55)
VSP-C20-20F (FH)*-6TC		6						
VSP-C20-30F (FH)*-4TC		4	84.4 (79.6)		65.3 (61.5)	30	1.1 to 4.8	70 (60)
VSP-C20-30F (FH)*-6TC		6						
VSP-C20-40F (FH)*-4TC		4	97.4 (92.6)		78.3 (74.5)	40	1.0 to 4.5	75 (65)
VSP-C20-40F (FH)*-6TC		6						
VSP-C20-50F (FH)*-4TC		4	110.4 (105.6)		91.3 (87.5)	50	0.9 to 4.5	81 (71)
VSP-C20-50F (FH)*-6TC		6						
VSP-C25-20F (FH)*-4TC	25	4	71.4 (66.6)	14.3 (9.5)	52.3 (48.5)	20	1.5 to 4.9	66 (56)
VSP-C25-20F (FH)*-6TC		6						
VSP-C25-30F (FH)*-4TC		4	84.4 (79.6)		65.3 (61.5)	30	1.1 to 4.8	71 (61)
VSP-C25-30F (FH)*-6TC		6						
VSP-C25-40F (FH)*-4TC		4	97.4 (92.6)		78.3 (74.5)	40	1.0 to 4.5	76 (66)
VSP-C25-40F (FH)*-6TC		6						
VSP-C25-50F (FH)*-4TC		4	110.4 (105.6)		91.3 (87.5)	50	0.9 to 4.5	82 (72)
VSP-C25-50F (FH)*-6TC		6						
VSP-C30-20F (FH)*-4TC	30	4	71.4 (66.6)	14.3 (9.5)	52.3 (48.5)	20	1.5 to 4.9	66 (56)
VSP-C30-20F (FH)*-6TC		6						
VSP-C30-30F (FH)*-4TC		4	84.4 (79.6)		65.3 (61.5)	30	1.1 to 4.8	71 (61)
VSP-C30-30F (FH)*-6TC		6						
VSP-C30-40F (FH)*-4TC		4	97.4 (92.6)		78.3 (74.5)	40	1.0 to 4.5	76 (66)
VSP-C30-40F (FH)*-6TC		6						
VSP-C30-50F (FH)*-4TC		4	110.4 (105.6)		91.3 (87.5)	50	0.9 to 4.5	82 (72)
VSP-C30-50F (FH)*-6TC		6						

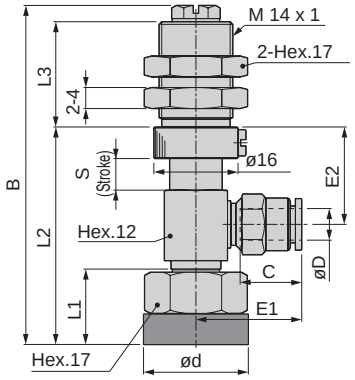
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (buffer, vacuum outlet side VSP-D, push-in fitting)

●VSP-D10, 15F(FH)*-4/6
●VSP-D10, 15-□F(FH)*-4/6



●VSP-D20 to 30F(FH)*-4/6
●VSP-D20 to 30-□F(FH)*-4/6



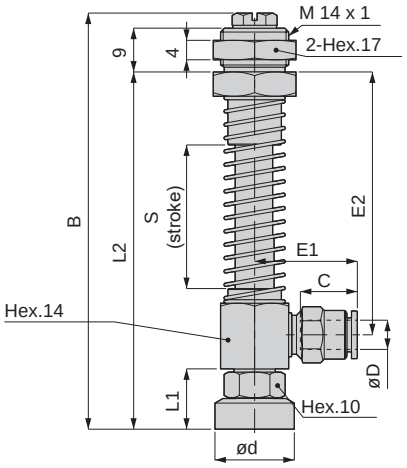
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D10F (FH)*-4	10	4	61.5 (59.7)	11.4 (9.6)	38.4 (36.6)	20	11.2	18.8	18.5	6	4.0 to 7.1	50 (49)
VSP-D10F (FH)*-6		6					11.9	20.1				51 (50)
VSP-D10-10F (FH)*-4		4	66.5 (64.7)		43.4 (41.6)		11.2	18.8	25	10	2.0 to 5.2	53 (52)
VSP-D10-10F (FH)*-6		6					11.9	20.1				54 (53)
VSP-D10-15F (FH)*-4		4	76.5 (74.7)		48.4 (46.6)	25	11.2	18.8	30	15	2.0 to 5.9	59 (58)
VSP-D10-15F (FH)*-6		6					11.9	20.1				60 (59)
VSP-D10-20F (FH)*-4		4	92.5 (90.7)		55.4 (53.6)	34	11.2	18.8	37	20	1.1 to 4.8	69 (68)
VSP-D10-20F (FH)*-6		6					11.9	20.1				70 (69)
VSP-D15F (FH)*-4	15	4	61.5 (59.7)	11.4 (9.6)	38.4 (36.6)	20	11.2	18.8	18.5	6	4.0 to 7.1	51 (50)
VSP-D15F (FH)*-6		6					11.9	20.1				52 (51)
VSP-D15-10F (FH)*-4		4	66.5 (64.7)		43.4 (41.6)		11.2	18.8	25	10	2.0 to 5.2	54 (53)
VSP-D15-10F (FH)*-6		6					11.9	20.1				55 (54)
VSP-D15-15F (FH)*-4		4	76.5 (74.7)		48.4 (46.6)	25	11.2	18.8	30	15	2.0 to 5.9	60 (59)
VSP-D15-15F (FH)*-6		6					11.9	20.1				61 (60)
VSP-D15-20F (FH)*-4		4	92.5 (90.7)		55.4 (53.6)	34	11.2	18.8	37	20	1.1 to 4.8	70 (69)
VSP-D15-20F (FH)*-6		6					11.9	20.1				71 (70)
VSP-D20F (FH)*-4	20	4	64.4 (59.6)	14.3 (9.5)	41.3 (36.5)	20	11.2	18.8	18.5	6	7.0 to 12.6	68 (58)
VSP-D20F (FH)*-6		6					11.9	20.1				69 (59)
VSP-D20-10F (FH)*-4		4	70.4 (65.6)		47.3 (42.5)		11.2	18.8	24.5	10	3.3 to 10.0	71 (61)
VSP-D20-10F (FH)*-6		6					11.9	20.1				72 (62)
VSP-D20-15F (FH)*-4		4	80.4 (75.6)		52.3 (47.5)	25	11.2	18.8	29.5	15	3.3 to 10.4	78 (68)
VSP-D20-15F (FH)*-6		6					11.9	20.1				79 (69)
VSP-D20-20F (FH)*-4		4	96.4 (91.6)		59.3 (54.5)	34	11.2	18.8	36.5	20	2.0 to 8.7	88 (78)
VSP-D20-20F (FH)*-6		6					11.9	20.1				89 (79)
VSP-D25F (FH)*-4	25	4	64.4 (59.6)	14.3 (9.5)	41.3 (36.5)	20	11.2	18.8	18.5	6	7.0 to 12.6	69 (59)
VSP-D25F (FH)*-6		6					11.9	20.1				70 (60)
VSP-D25-10F (FH)*-4		4	70.4 (65.6)		47.3 (42.5)		11.2	18.8	24.5	10	3.3 to 10.0	72 (62)
VSP-D25-10F (FH)*-6		6					11.9	20.1				73 (63)
VSP-D25-15F (FH)*-4		4	80.4 (75.6)		52.3 (47.5)	25	11.2	18.8	29.5	15	3.3 to 10.4	79 (69)
VSP-D25-15F (FH)*-6		6					11.9	20.1				80 (70)
VSP-D25-20F (FH)*-4		4	96.4 (91.6)		59.3 (54.5)	34	11.2	18.8	36.5	20	2.0 to 8.7	89 (79)
VSP-D25-20F (FH)*-6		6					11.9	20.1				90 (80)
VSP-D30F (FH)*-4	30	4	64.4 (59.6)	14.3 (9.5)	41.3 (36.5)	20	11.2	18.8	18.5	6	7.0 to 12.6	69 (59)
VSP-D30F (FH)*-6		6					11.9	20.1				70 (60)
VSP-D30-10F (FH)*-4		4	70.4 (65.6)		47.3 (42.5)		11.2	18.8	24.5	10	3.3 to 10.0	72 (82)
VSP-D30-10F (FH)*-6		6					11.9	20.1				73 (63)
VSP-D30-15F (FH)*-4		4	80.4 (75.6)		52.3 (47.5)	25	11.2	18.8	29.5	15	3.3 to 10.4	79 (69)
VSP-D30-15F (FH)*-6		6					11.9	20.1				80 (70)
VSP-D30-20F (FH)*-4		4	96.4 (91.6)		59.3 (54.5)	34	11.2	18.8	36.5	20	2.0 to 8.7	89 (79)
VSP-D30-20F (FH)*-6		6					11.9	20.1				90 (80)

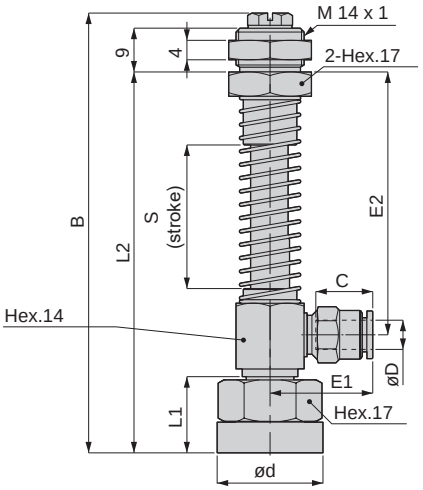
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (buffer, vacuum outlet side VSP-D, push-in fitting without spring cover)

●VSP-D10, 15-□F(FH)*-4C/6C



●VSP-D20 to 30-□F(FH)*-4C/6C



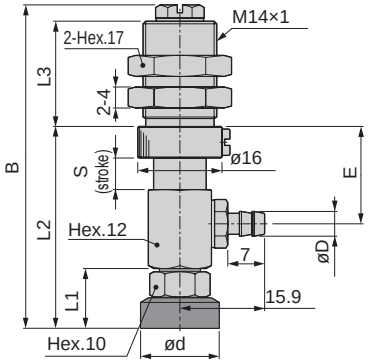
Unit: mm

Model No.	Pad diameter Ød	Bore size ØD	B	L1	L2	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D10-20F (FH)*-4C	10	4	71.5 (69.7)	11.4 (9.6)	59.4 (57.6)	11.2	19.8	40.5	20	1.5 to 4.9	71 (70)
VSP-D10-20F (FH)*-6C		6				11.9	21.1				72 (71)
VSP-D10-30F (FH)*-4C		4	84.5 (82.7)		72.4 (70.6)	11.2	19.8	53.5	30	1.1 to 4.8	78 (77)
VSP-D10-30F (FH)*-6C		6				11.9	21.1				79 (78)
VSP-D10-40F (FH)*-4C		4	97.5 (95.7)		85.4 (83.6)	11.2	19.8	66.5	40	1.0 to 4.5	84 (83)
VSP-D10-40F (FH)*-6C		6				11.9	21.1				85 (84)
VSP-D10-50F (FH)*-4C		4	110.5 (108.7)		98.4 (96.6)	11.2	19.8	79.5	50	0.9 to 4.5	91 (90)
VSP-D10-50F (FH)*-6C		6				11.9	21.1				92 (91)
VSP-D15-20F (FH)*-4C	15	4	71.5 (69.7)	11.4 (9.6)	59.4 (57.6)	11.2	19.8	40.5	20	1.5 to 4.9	72 (71)
VSP-D15-20F (FH)*-6C		6				11.9	21.1				73 (72)
VSP-D15-30F (FH)*-4C		4	84.5 (82.7)		72.4 (70.6)	11.2	19.8	53.5	30	1.1 to 4.8	79 (78)
VSP-D15-30F (FH)*-6C		6				11.9	21.1				80 (79)
VSP-D15-40F (FH)*-4C		4	97.5 (95.7)		85.4 (83.6)	11.2	19.8	66.5	40	1.0 to 4.5	85 (84)
VSP-D15-40F (FH)*-6C		6				11.9	21.1				86 (85)
VSP-D15-50F (FH)*-4C		4	110.5 (108.7)		98.4 (96.6)	11.2	19.8	79.5	50	0.9 to 4.5	92 (91)
VSP-D15-50F (FH)*-6C		6				11.9	21.1				93 (92)
VSP-D20-20F (FH)*-4C	20	4	75.9 (71.1)	14.3 (9.5)	63.8 (59)	11.2	19.8	41	20	1.5 to 4.9	76 (66)
VSP-D20-20F (FH)*-6C		6				11.9	21.1				77 (67)
VSP-D20-30F (FH)*-4C		4	88.9 (84.1)		76.8 (72)	11.2	19.8	54	30	1.1 to 4.8	83 (73)
VSP-D20-30F (FH)*-6C		6				11.9	21.1				84 (74)
VSP-D20-40F (FH)*-4C		4	101.9 (97.1)		89.8 (85)	11.2	19.8	67	40	1.0 to 4.5	100 (90)
VSP-D20-40F (FH)*-6C		6				11.9	21.1				101 (91)
VSP-D20-50F (FH)*-4C		4	114.9 (110.1)		102.8 (98)	11.2	19.8	80	50	0.9 to 4.5	107 (97)
VSP-D20-50F (FH)*-6C		6				11.9	21.1				108 (98)
VSP-D25-20F (FH)*-4C	25	4	75.9 (71.1)	14.3 (9.5)	63.8 (59)	11.2	19.8	41	20	1.5 to 4.9	77 (67)
VSP-D25-20F (FH)*-6C		6				11.9	21.1				78 (68)
VSP-D25-30F (FH)*-4C		4	88.9 (84.1)		76.8 (72)	11.2	19.8	54	30	1.1 to 4.8	84 (74)
VSP-D25-30F (FH)*-6C		6				11.9	21.1				85 (75)
VSP-D25-40F (FH)*-4C		4	101.9 (97.1)		89.8 (85)	11.2	19.8	67	40	1.0 to 4.5	101 (91)
VSP-D25-40F (FH)*-6C		6				11.9	21.1				102 (92)
VSP-D25-50F (FH)*-4C		4	114.9 (110.1)		102.8 (98)	11.2	19.8	80	50	0.9 to 4.5	108 (98)
VSP-D25-50F (FH)*-6C		6				11.9	21.1				109 (99)
VSP-D30-20F (FH)*-4C	30	4	75.9 (71.1)	14.3 (9.5)	63.8 (59)	11.2	19.8	41	20	1.5 to 4.9	77 (67)
VSP-D30-20F (FH)*-6C		6				11.9	21.1				78 (68)
VSP-D30-30F (FH)*-4C		4	88.9 (84.1)		76.8 (72)	11.2	19.8	54	30	1.1 to 4.8	84 (74)
VSP-D30-30F (FH)*-6C		6				11.9	21.1				85 (75)
VSP-D30-40F (FH)*-4C		4	101.9 (97.1)		89.8 (85)	11.2	19.8	67	40	1.0 to 4.5	101 (91)
VSP-D30-40F (FH)*-6C		6				11.9	21.1				102 (92)
VSP-D30-50F (FH)*-4C		4	114.9 (110.1)		102.8 (98)	11.2	19.8	80	50	0.9 to 4.5	108 (98)
VSP-D30-50F (FH)*-6C		6				11.9	21.1				109 (99)

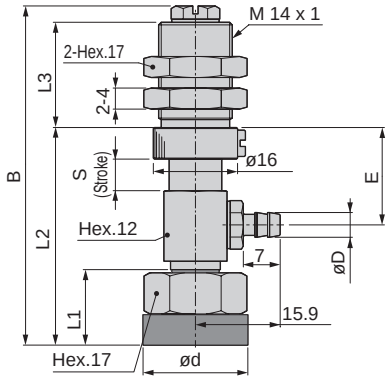
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (buffer, vacuum outlet side VSP-D, barbed fitting)

●VSP-D10, 15F(FH)*-4T/6T
●VSP-D10, 15-□F(FH)*-4T/6T



●VSP-D20 to 30F(FH)*-4T/6T
●VSP-D20 to 30-□F(FH)*-4T/6T



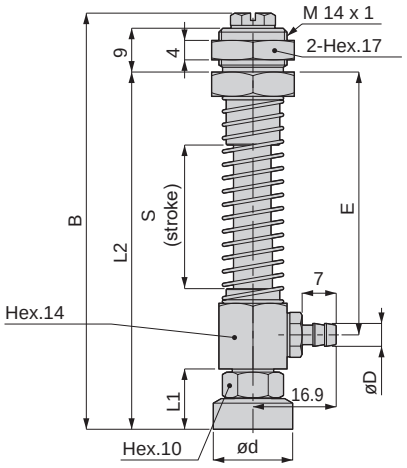
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	E	Stroke S	Spring force (N)	Weight (g)
VSP-D10F (FH)*-4T	10	2.5	61.5 (59.7)	11.4 (9.6)	38.4 (36.6)	20	18.5	6	4.0 to 7.1	49 (48)
VSP-D10F (FH)*-6T		4								
VSP-D10-10F (FH)*-4T		2.5	66.5 (64.7)		43.4 (41.6)		25	10	2.0 to 5.2	53 (52)
VSP-D10-10F (FH)*-6T		4								
VSP-D10-15F (FH)*-4T		2.5	76.5 (74.7)		48.4 (46.6)	25	30	15	2.0 to 5.9	58 (57)
VSP-D10-15F (FH)*-6T		4								
VSP-D10-20F (FH)*-4T		2.5	92.5 (90.7)		55.4 (53.6)	34	37	20	1.1 to 4.8	69 (68)
VSP-D10-20F (FH)*-6T		4								
VSP-D15F (FH)*-4T	15	2.5	61.5 (59.7)	11.4 (9.6)	38.4 (36.6)	20	18.5	6	4.0 to 7.1	50 (49)
VSP-D15F (FH)*-6T		4								
VSP-D15-10F (FH)*-4T		2.5	66.5 (64.7)		43.4 (41.6)		25	10	2.0 to 5.2	53 (52)
VSP-D15-10F (FH)*-6T		4								
VSP-D15-15F (FH)*-4T		2.5	76.5 (74.7)		48.4 (46.6)	25	30	15	2.0 to 5.9	58 (57)
VSP-D15-15F (FH)*-6T		4								
VSP-D15-20F (FH)*-4T		2.5	92.5 (90.7)		55.4 (53.6)	34	37	20	1.1 to 4.8	69 (68)
VSP-D15-20F (FH)*-6T		4								
VSP-D20F (FH)*-4T	20	2.5	64.4 (59.6)	14.3 (9.5)	41.3 (36.5)	20	18.5	6	7.0 to 12.6	66 (56)
VSP-D20F (FH)*-6T		4								
VSP-D20-10F (FH)*-4T		2.5	70.4 (65.6)		47.3 (42.5)		24.5	10	3.3 to 10.0	71 (61)
VSP-D20-10F (FH)*-6T		4								
VSP-D20-15F (FH)*-4T		2.5	80.4 (75.6)		52.3 (47.5)	25	29.5	15	3.3 to 10.4	77 (67)
VSP-D20-15F (FH)*-6T		4								
VSP-D20-20F (FH)*-4T		2.5	96.4 (91.6)		59.3 (54.5)	34	36.5	20	2.0 to 8.7	87 (77)
VSP-D20-20F (FH)*-6T		4								
VSP-D25F (FH)*-4T	25	2.5	64.4 (59.6)	14.3 (9.5)	41.3 (36.5)	20	18.5	6	7.0 to 12.6	67 (57)
VSP-D25F (FH)*-6T		4								
VSP-D25-10F (FH)*-4T		2.5	70.4 (65.6)		47.3 (42.5)		24.5	10	3.3 to 10.0	72 (62)
VSP-D25-10F (FH)*-6T		4								
VSP-D25-15F (FH)*-4T		2.5	80.4 (75.6)		52.3 (47.5)	25	29.5	15	3.3 to 10.4	78 (68)
VSP-D25-15F (FH)*-6T		4								
VSP-D25-20F (FH)*-4T		2.5	96.4 (91.6)		59.3 (54.5)	34	36.5	20	2.0 to 8.7	88 (78)
VSP-D25-20F (FH)*-6T		4								
VSP-D30F (FH)*-4T	30	2.5	64.4 (59.6)	14.3 (9.5)	41.3 (36.5)	20	18.5	6	7.0 to 12.6	68 (58)
VSP-D30F (FH)*-6T		4								
VSP-D30-10F (FH)*-4T		2.5	70.4 (65.6)		47.3 (42.5)		24.5	10	3.3 to 10.0	72 (62)
VSP-D30-10F (FH)*-6T		4								
VSP-D30-15F (FH)*-4T		2.5	80.4 (75.6)		52.3 (47.5)	25	29.5	15	3.3 to 10.4	78 (68)
VSP-D30-15F (FH)*-6T		4								
VSP-D30-20F (FH)*-4T		2.5	96.4 (91.6)		59.3 (54.5)	34	36.5	20	2.0 to 8.7	88 (78)
VSP-D30-20F (FH)*-6T		4								

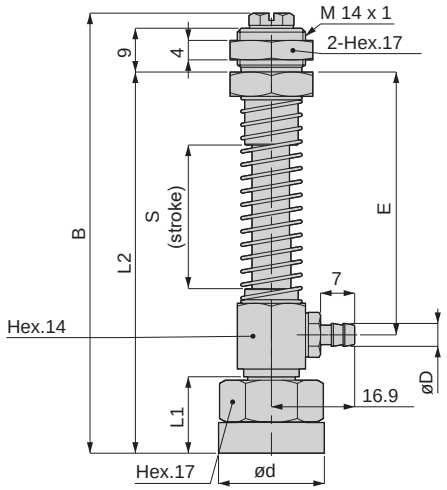
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (buffer, vacuum outlet side VSP-D, barbed fitting without spring cover)

●VSP-D10, 15-□F(FH)*-4TC/6TC



●VSP-D20 to 30-□F(FH)*-4TC/6TC



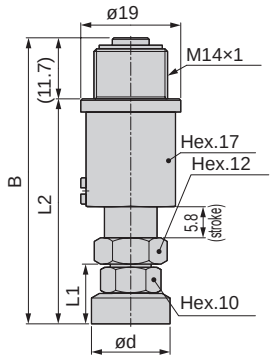
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-D10-20F (FH)*-4TC	10	2.5	71.5 (69.7)	11.4 (9.6)	59.4 (57.6)	40.5	20	1.5 to 4.9	68 (67)
VSP-D10-20F (FH)*-6TC		4							
VSP-D10-30F (FH)*-4TC		2.5	84.5 (82.7)		72.4 (70.6)	53.5	30	1.1 to 4.8	75 (74)
VSP-D10-30F (FH)*-6TC		4							
VSP-D10-40F (FH)*-4TC		2.5	97.5 (95.7)		85.4 (83.6)	66.5	40	1.0 to 4.5	81 (80)
VSP-D10-40F (FH)*-6TC		4							
VSP-D10-50F (FH)*-4TC		2.5	110.5 (108.7)		98.4 (96.6)	79.5	50	0.9 to 4.5	88 (87)
VSP-D10-50F (FH)*-6TC		4							
VSP-D15-20F (FH)*-4TC	15	4	71.5(69.7	11.4 (9.6)	59.4 (57.6)	41	20	1.5 to 4.9	69 (68)
VSP-D15-20F (FH)*-6TC		6							
VSP-D15-30F (FH)*-4TC		4	84.5 (82.7)		72.4 (70.6)	54	30	1.1 to 4.8	76 (75)
VSP-D15-30F (FH)*-6TC		6							
VSP-D15-40F (FH)*-4TC		4	97.5 (95.7)		85.4 (83.6)	67	40	1.0 to 4.5	82 (81)
VSP-D15-40F (FH)*-6TC		6							
VSP-D15-50F (FH)*-4TC		4	110.5 (108.7)		98.4 (96.6)	80	50	0.9 to 4.5	89 (88)
VSP-D15-50F (FH)*-6TC		6							
VSP-D20-20F (FH)*-4TC	20	4	75.9 (71.1)	14.3 (9.5)	63.8 (59)	41	20	1.5 to 4.9	85 (75)
VSP-D20-20F (FH)*-6TC		6							
VSP-D20-30F (FH)*-4TC		4	88.9 (84.1)		76.8 (72)	54	30	1.1 to 4.8	92 (82)
VSP-D20-30F (FH)*-6TC		6							
VSP-D20-40F (FH)*-4TC		4	101.9 (97.1)		89.8 (85)	67	40	1.0 to 4.5	99 (89)
VSP-D20-40F (FH)*-6TC		6							
VSP-D20-50F (FH)*-4TC		4	114.9 (110.1)		102.8 (98)	80	50	0.9 to 4.5	106 (96)
VSP-D20-50F (FH)*-6TC		6							
VSP-D25-20F (FH)*-4TC	25	4	75.9 (71.1)	14.3 (9.5)	63.8 (59)	41	20	1.5 to 4.9	86 (76)
VSP-D25-20F (FH)*-6TC		6							
VSP-D25-30F (FH)*-4TC		4	88.9 (84.1)		76.8 (72)	54	30	1.1 to 4.8	93 (83)
VSP-D25-30F (FH)*-6TC		6							
VSP-D25-40F (FH)*-4TC		4	101.9 (97.1)		89.8 (85)	67	40	1.0 to 4.5	100 (90)
VSP-D25-40F (FH)*-6TC		6							
VSP-D25-50F (FH)*-4TC		4	114.9 (110.1)		102.8 (98)	80	50	0.9 to 4.5	107 (97)
VSP-D25-50F (FH)*-6TC		6							
VSP-D30-20F (FH)*-4TC	30	4	75.9 (71.1)	14.3 (9.5)	63.8 (59)	41	20	1.5 to 4.9	86 (76)
VSP-D30-20F (FH)*-6TC		6							
VSP-D30-30F (FH)*-4TC		4	88.9 (84.1)		76.8 (72)	54	30	1.1 to 4.8	93 (92)
VSP-D30-30F (FH)*-6TC		6							
VSP-D30-40F (FH)*-4TC		4	101.9 (97.1)		89.8 (85)	67	40	1.0 to 4.5	100 (90)
VSP-D30-40F (FH)*-6TC		6							
VSP-D30-50F (FH)*-4TC		4	114.9 (110.1)		102.8 (98)	80	50	0.9 to 4.5	107 (97)
VSP-D30-50F (FH)*-6TC		6							

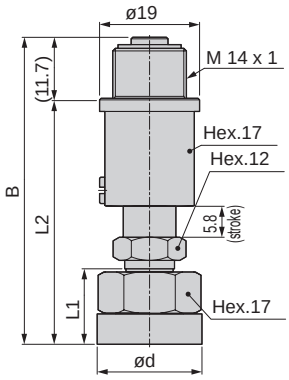
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (buffer direct mounting VSP-F, male thread)

●VSP-F10, 15F(FH)*



●VSP-F20 to 30F(FH)*



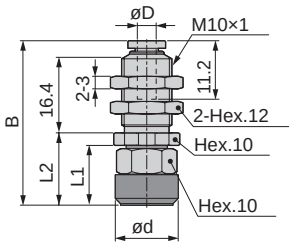
Unit: mm

Model No.	Pad diameter ød	B	L1	L2	Spring force (N)	Weight (g)
VSP-F10F (FH)*	10	54.4 (52.6)	11.4 (9.6)	42.7 (40.9)	7.9 to 15	59 (58)
VSP-F15F (FH)*	15	54.4 (52.6)	11.4 (9.6)	42.7 (40.9)	7.9 to 15	60 (59)
VSP-F20F (FH)*	20	58.4 (53.6)	14.3 (9.5)	46.7 (41.9)	7.9 to 15	76 (60)
VSP-F25F (FH)*	25	58.4 (53.6)	14.3 (9.5)	46.7 (41.9)	7.9 to 15	77 (67)
VSP-F30F (FH)*	30	58.4 (53.6)	14.3 (9.5)	46.7 (41.9)	7.9 to 15	77 (67)

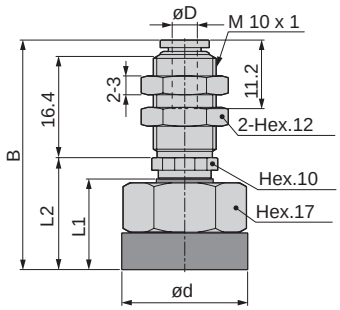
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (compact fixed, vacuum outlet top VSP-MA, push-in fitting)

●VSP-MA10, 15F(FH)*-4



●VSP-MA20 to 30F(FH)*-4



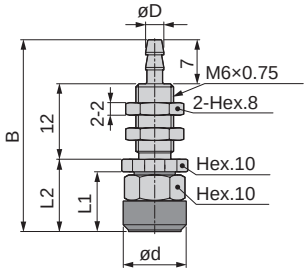
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Weight (g)
VSP-MA10F (FH)*-4	10	4	32.4 (30.6)	11.4 (9.6)	13.4 (11.6)	10 (9)
VSP-MA15F (FH)*-4	15	4	32.4 (30.6)	11.4 (9.6)	13.4 (11.6)	10 (9)
VSP-MA20F (FH)*-4	20	4	36.9 (32.1)	14.3 (9.5)	17.9 (13.1)	29 (19)
VSP-MA25F (FH)*-4	25	4	36.9 (32.1)	14.3 (9.5)	17.9 (13.1)	31 (21)
VSP-MA30F (FH)*-4	30	4	36.9 (32.1)	14.3 (9.5)	17.9 (13.1)	31 (21)

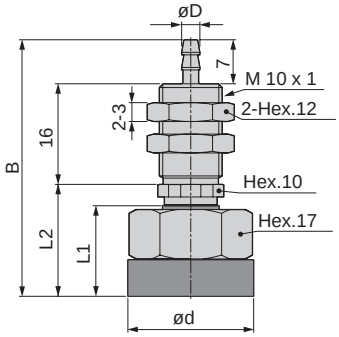
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (compact fixed, vacuum outlet side VSP-MA, barbed fitting)

●VSP-MA10, 15F(FH)*-4T



●VSP-MA20 to 30F(FH)*-4T/6T



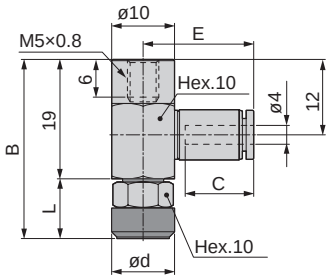
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Weight (g)
VSP-MA10F (FH)*-4T	10	2.5	32.4 (30.6)	11.4 (9.6)	13.4 (11.6)	7 (6)
VSP-MA15F (FH)*-4T	15	2.5	32.4 (30.6)	11.4 (9.6)	13.4 (11.6)	8 (7)
VSP-MA20F (FH)*-4T	20	2.5	40.9 (36.1)	14.3 (9.5)	17.9 (13.1)	29 (19)
VSP-MA20F (FH)*-6T		4				
VSP-MA25F (FH)*-4T	25	2.5	40.9 (36.1)	14.3 (9.5)	17.9 (13.1)	31 (21)
VSP-MA25F (FH)*-6T		4				
VSP-MA30F (FH)*-4T	30	2.5	40.9 (36.1)	14.3 (9.5)	17.9 (13.1)	31 (21)
VSP-MA30F (FH)*-6T		4				

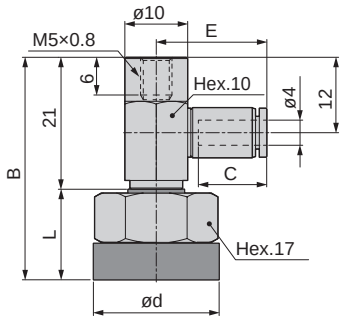
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (compact fixed, vacuum outlet side VSP-MB, push-in fitting)

●VSP-MB10, 15F(FH)*-2/4/6



●VSP-MB20 to 30F(FH)*-2/4/6



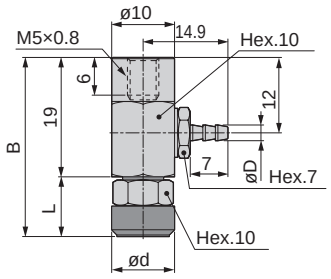
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-MB10F (FH)*-2	10	1.8	30.4 (28.6)	11.4 (9.6)	8.4	13.7	11 (10)
VSP-MB10F (FH)*-4		4			11.2	17.8	12 (11)
VSP-MB10F (FH)*-6		6			11.9	19.6	13 (12)
VSP-MB15F (FH)*-2	15	1.8	30.4 (28.6)	11.4 (9.6)	8.4	13.7	11 (10)
VSP-MB15F (FH)*-4		4			11.2	17.8	12 (11)
VSP-MB15F (FH)*-6		6			11.9	19.6	13 (12)
VSP-MB20F (FH)*-2	20	1.8	35.5 (30.7)	14.3 (9.5)	8.4	13.7	29 (19)
VSP-MB20F (FH)*-4		4			11.2	17.8	30 (20)
VSP-MB20F (FH)*-6		6			11.9	19.6	31 (21)
VSP-MB25F (FH)*-2	25	1.8	35.5 (30.7)	14.3 (9.5)	8.4	13.7	31 (21)
VSP-MB25F (FH)*-4		4			11.2	17.8	32 (22)
VSP-MB25F (FH)*-6		6			11.9	19.6	33 (23)
VSP-MB30F (FH)*-2	30	1.8	35.5 (30.7)	14.3 (9.5)	8.4	13.7	32 (22)
VSP-MB30F (FH)*-4		4			11.2	17.8	33 (23)
VSP-MB30F (FH)*-6		6			11.9	19.6	34 (24)

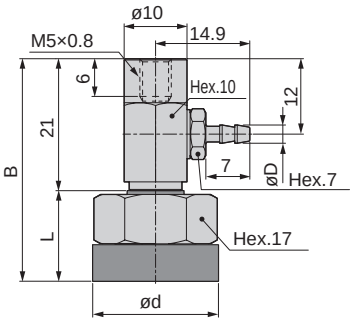
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (compact fixed, vacuum outlet side VSP-MB, barbed fitting)

●VSP-MB10, 15F(FH)*-4T/6T



●VSP-MB20 to 30F(FH)*-4T/6T



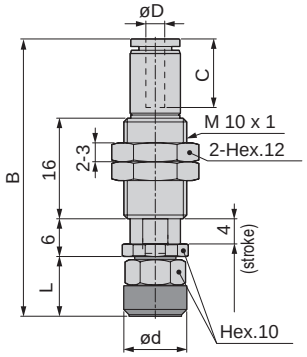
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-MB10F (FH)*-4T	10	2.5	30.4 (28.6)	11.4 (9.6)	10 (9)
VSP-MB10F (FH)*-6T		4			
VSP-MB15F (FH)*-4T	15	2.5	30.4 (28.6)	11.4 (9.6)	11 (10)
VSP-MB15F (FH)*-6T		4			
VSP-MB20F (FH)*-4T	20	2.5	35.5 (30.7)	14.3 (9.5)	29 (19)
VSP-MB20F (FH)*-6T		4			
VSP-MB25F (FH)*-4T	25	2.5	35.5 (30.7)	14.3 (9.5)	31 (30)
VSP-MB25F (FH)*-6T		4			
VSP-MB30F (FH)*-4T	30	2.5	35.5 (30.7)	14.3 (9.5)	31 (30)
VSP-MB30F (FH)*-6T		4			

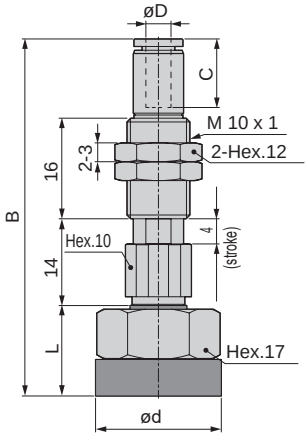
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (compact buffer, vacuum outlet top VSP-MC, push-in fitting)

●VSP-MC10, 15F(FH)*-2/4



●VSP-MC20 to 30F(FH)*-2/4



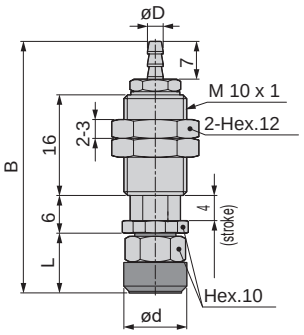
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	Spring force (N)	Weight (g)
VSP-MC10F (FH)*-2	10	1.8	42.3 (40.5)	11.4 (9.6)	8.4	1 to 1.3	19 (18)
VSP-MC10F (FH)*-4		4	46.4 (44.6)		11.2		20 (19)
VSP-MC15F (FH)*-2	15	1.8	42.3 (40.5)	11.4 (9.6)	8.4	1 to 1.3	19 (18)
VSP-MC15F (FH)*-4		4	46.4 (44.6)		11.2		20 (19)
VSP-MC20F (FH)*-2	20	1.8	53.2 (49.4)	14.3 (9.5)	8.4	1 to 1.3	40 (30)
VSP-MC20F (FH)*-4		4	57.3 (52.5)		11.2		41 (31)
VSP-MC25F (FH)*-2	25	1.8	53.2 (49.4)	14.3 (9.5)	8.4	1 to 1.3	42 (32)
VSP-MC25F (FH)*-4		4	57.3 (52.5)		11.2		43 (33)
VSP-MC30F (FH)*-2	30	1.8	53.2 (49.4)	14.3 (9.5)	8.4	1 to 1.3	42 (32)
VSP-MC30F (FH)*-4		4	57.3 (52.5)		11.2		43 (33)

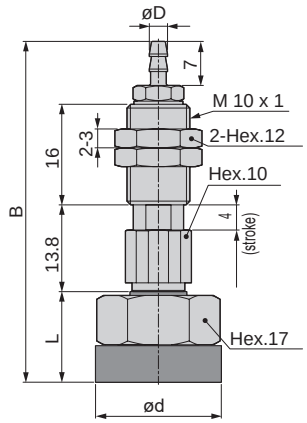
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (compact buffer, vacuum outlet top VSP-MC, barbed fitting)

●VSP-MC10, 15F(FH)*-4T/6T



●VSP-MC20 to 30F(FH)*-4T/6T



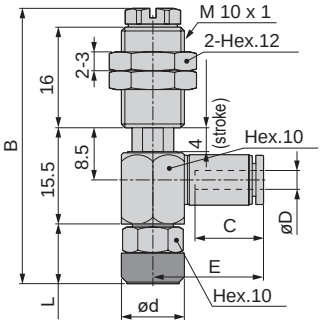
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Spring force (N)	Weight (g)
VSP-MC10F (FH)*-4T	10	2.5	43.5 (41.7)	11.4 (9.6)	0.5 to 0.6	18 (17)
VSP-MC10F (FH)*-6T		4				
VSP-MC15F (FH)*-4T	15	2.5	43.5 (41.7)	11.4 (9.6)	0.5 to 0.6	19 (18)
VSP-MC15F (FH)*-6T		4				
VSP-MC20F (FH)*-4T	20	2.5	54.4 (49.6)	14.3 (9.5)	1 to 1.3	40 (30)
VSP-MC20F (FH)*-6T		4				
VSP-MC25F (FH)*-4T	25	2.5	54.4 (49.6)	14.3 (9.5)	1 to 1.3	42 (32)
VSP-MC25F (FH)*-6T		4				
VSP-MC30F (FH)*-4T	30	2.5	54.4 (49.6)	14.3 (9.5)	1 to 1.3	42 (32)
VSP-MC30F (FH)*-6T		4				

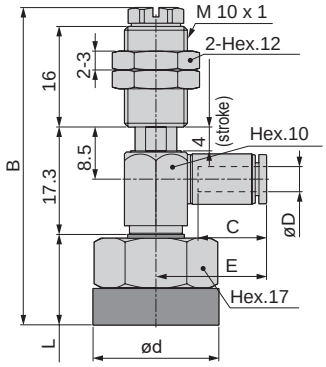
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (compact buffer, vacuum outlet side VSP-MD, push-in fitting)

●VSP-MD10, 15F(FH)*-2/4/6



●VSP-MD20 to 30F(FH)*-2/4/6



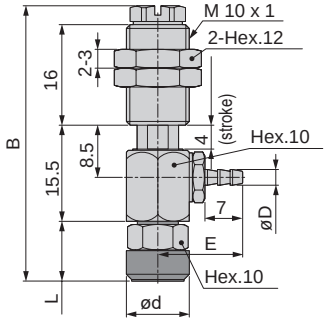
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Spring force (N)	Weight (g)
VSP-MD10F (FH)*-2	10	1.8	45.9 (44.1)	11.4 (9.6)	8.4	13.6	1 to 1.3	26 (25)
VSP-MD10F (FH)*-4		4			11.2	17.7		27 (26)
VSP-MD10F (FH)*-6		6			11.9	19.5		28 (27)
VSP-MD15F (FH)*-2	15	1.8	45.9 (44.1)	11.4 (9.6)	8.4	13.6	1 to 1.3	27 (26)
VSP-MD15F (FH)*-4		4			11.2	17.7		28 (27)
VSP-MD15F (FH)*-6		6			11.9	19.5		29 (28)
VSP-MD20F (FH)*-2	20	1.8	50.6 (45.8)	14.3 (9.5)	8.4	13.6	1 to 1.3	44 (34)
VSP-MD20F (FH)*-4		4			11.2	17.7		45 (35)
VSP-MD20F (FH)*-6		6			11.9	19.5		46 (36)
VSP-MD25F (FH)*-2	25	1.8	50.6 (45.8)	14.3 (9.5)	8.4	13.6	1 to 1.3	45 (35)
VSP-MD25F (FH)*-4		4			11.2	17.7		46 (36)
VSP-MD25F (FH)*-6		6			11.9	19.5		47 (37)
VSP-MD30F (FH)*-2	30	1.8	50.6 (45.8)	14.3 (9.5)	8.4	13.6	1 to 1.3	45 (35)
VSP-MD30F (FH)*-4		4			11.2	17.7		46 (36)
VSP-MD30F (FH)*-6		6			11.9	19.5		47 (37)

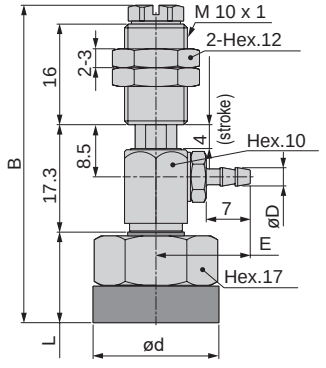
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (compact buffer, vacuum outlet side VSP-MD, barbed fitting)

●VSP-MD10, 15F(FH)*-4T/6T



●VSP-MD20 to 30F(FH)*-4T/6T



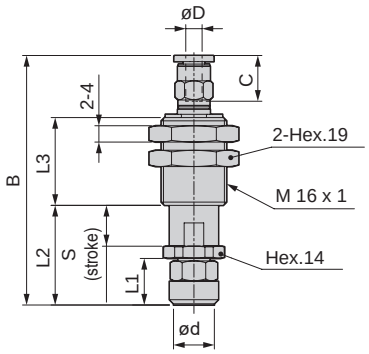
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	E	Spring force (N)	Weight (g)
VSP-MD10F (FH)*-4T	10	2.5	45.9 (44.1)	11.4 (9.6)	14.8	1 to 1.3	26 (25)
VSP-MD10F (FH)*-6T		4					
VSP-MD15F (FH)*-4T	15	2.5	45.9 (44.1)	11.4 (9.6)	14.8	1 to 1.3	26 (25)
VSP-MD15F (FH)*-6T		4					
VSP-MD20F (FH)*-4T	20	2.5	50.6 (45.8)	14.3 (9.5)	14.8	1 to 1.3	43 (33)
VSP-MD20F (FH)*-6T		4					
VSP-MD25F (FH)*-4T	25	2.5	50.6 (45.8)	14.3 (9.5)	14.8	1 to 1.3	45 (35)
VSP-MD25F (FH)*-6T		4					
VSP-MD30F (FH)*-4T	30	2.5	50.6 (45.8)	14.3 (9.5)	14.8	1 to 1.3	45 (35)
VSP-MD30F (FH)*-6T		4					

*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (low back buffer, vacuum outlet top VSP-HC, push-in fitting)

●VSP-HC10, 15-□F(FH)*-2/4/6



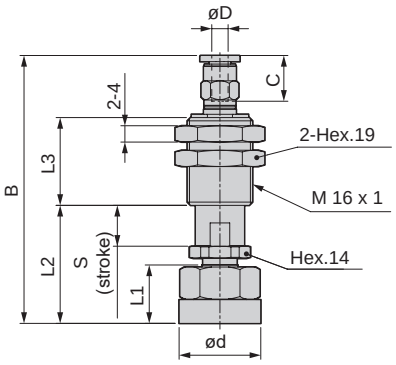
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC10-10F (FH)*-2	10	1.8	57 (55.2)	11.4 (9.6)	24.4 (22.6)	21.5	8.4	10	1.0 to 2.4	26 (25)
VSP-HC10-10F (FH)*-4		4	61.1 (59.3)				11.2			27 (26)
VSP-HC10-10F (FH)*-6		6	62.4 (60.6)				11.9			28 (27)
VSP-HC10-15F (FH)*-2		1.8	67 (65.2)		29.4 (27.6)	26.5	8.4	15	1.0 to 2.7	28 (27)
VSP-HC10-15F (FH)*-4		4	71.1 (96.3)				11.2			29 (28)
VSP-HC10-15F (FH)*-6		6	72.4 (70.6)				11.9			30 (29)
VSP-HC10-20F (FH)*-2		1.8	77 (75.2)		34.4 (32.6)	31.5	8.4	20	1.0 to 3.0	30 (29)
VSP-HC10-20F (FH)*-4		4	81.1 (79.3)				11.2			31 (30)
VSP-HC10-20F (FH)*-6		6	82.4 (80.6)				11.9			32 (31)
VSP-HC10-25F (FH)*-2		1.8	87.5 (85.7)		39.4 (37.6)	37	8.4	25	1.0 to 3.0	32 (31)
VSP-HC10-25F (FH)*-4		4	91.6 (89.8)				11.2			33 (32)
VSP-HC10-25F (FH)*-6		6	92.9 (91.1)				11.9			34 (33)
VSP-HC10-30F (FH)*-2		1.8	98.5 (96.7)		44.4 (42.6)	43	8.4	30	1.0 to 3.0	34 (33)
VSP-HC10-30F (FH)*-4		4	102.6 (100.8)				11.2			35 (34)
VSP-HC10-30F (FH)*-6		6	103.9 (102.1)				11.9			36 (35)
VSP-HC10-40F (FH)*-2		1.8	120.5 (118.7)		54.4 (52.6)	55	8.4	40	1.0 to 3.0	38 (37)
VSP-HC10-40F (FH)*-4		4	124.6 (122.8)				11.2			39 (38)
VSP-HC10-40F (FH)*-6		6	125.9 (124.1)				11.9			40 (39)
VSP-HC10-50F (FH)*-2		1.8	142 (140.2)		64.4 (62.6)	66.5	8.4	50	1.0 to 3.1	43 (42)
VSP-HC10-50F (FH)*-4		4	146.1 (144.3)				11.2			44 (43)
VSP-HC10-50F (FH)*-6		6	147.4 (145.6)				11.9			45 (44)
VSP-HC15-10F (FH)*-2	15	1.8	57 (55.2)	11.4 (9.6)	24.4 (22.6)	21.5	8.4	10	1.0 to 2.4	27 (26)
VSP-HC15-10F (FH)*-4		4	61.1 (59.3)				11.2			28 (27)
VSP-HC15-10F (FH)*-6		6	62.4 (60.6)				11.9			29 (28)
VSP-HC15-15F (FH)*-2		1.8	67 (65.2)		29.4 (27.6)	26.5	8.4	15	1.0 to 2.7	29 (28)
VSP-HC15-15F (FH)*-4		4	71.1 (96.3)				11.2			30 (29)
VSP-HC15-15F (FH)*-6		6	72.4 (70.6)				11.9			31 (30)
VSP-HC15-20F (FH)*-2		1.8	77 (75.2)		34.4 (32.6)	31.5	8.4	20	1.0 to 3.0	31 (30)
VSP-HC15-20F (FH)*-4		4	81.1 (79.3)				11.2			32 (31)
VSP-HC15-20F (FH)*-6		6	82.4 (80.6)				11.9			33 (32)
VSP-HC15-25F (FH)*-2		1.8	87.5 (85.7)		39.4 (37.6)	37	8.4	25	1.0 to 3.0	33 (32)
VSP-HC15-25F (FH)*-4		4	91.6 (89.8)				11.2			34 (33)
VSP-HC15-25F (FH)*-6		6	92.9 (91.1)				11.9			35 (34)
VSP-HC15-30F (FH)*-2		1.8	98.5 (96.7)		44.4 (42.6)	43	8.4	30	1.0 to 3.0	35 (34)
VSP-HC15-30F (FH)*-4		4	102.6 (100.8)				11.2			36 (35)
VSP-HC15-30F (FH)*-6		6	103.9 (102.1)				11.9			37 (36)
VSP-HC15-40F (FH)*-2		1.8	120.5 (118.7)		54.4 (52.6)	55	8.4	40	1.0 to 3.0	39 (38)
VSP-HC15-40F (FH)*-4		4	124.6 (122.8)				11.2			40 (39)
VSP-HC15-40F (FH)*-6		6	125.9 (124.1)				11.9			41 (40)
VSP-HC15-50F (FH)*-2		1.8	142 (140.2)		64.4 (62.6)	66.5	8.4	50	1.0 to 3.1	44 (43)
VSP-HC15-50F (FH)*-4		4	146.1 (144.3)				11.2			45 (44)
VSP-HC15-50F (FH)*-6		6	147.4 (145.6)				11.9			46 (45)

*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (low back buffer, vacuum outlet top VSP-HC, push-in fitting)

●VSP-HC20, 25-□F(FH)*-2/4/6



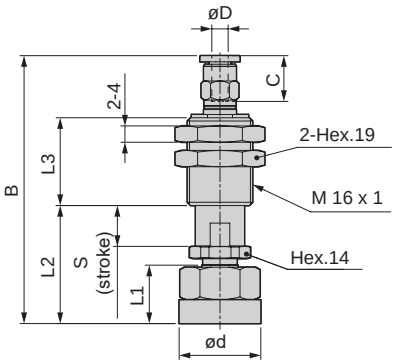
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC20-10F (FH)*-2	20	1.8	61.5 (56.7)	14.3 (9.5)	28.9 (24.1)	21.5	8.4	10	1.0 to 2.4	44 (34)
VSP-HC20-10F (FH)*-4		4	65.6 (60.8)				11.2			45 (35)
VSP-HC20-10F (FH)*-6		6	66.9 (62.1)				11.9			46 (36)
VSP-HC20-15F (FH)*-2		1.8	71.5 (66.7)		33.9 (29.1)	26.5	8.4	15	1.0 to 2.7	46 (36)
VSP-HC20-15F (FH)*-4		4	75.6 (70.8)				11.2			47 (37)
VSP-HC20-15F (FH)*-6		6	76.9 (72.1)				11.9			48 (38)
VSP-HC20-20F (FH)*-2		1.8	81.5(76.7)		38.9 (34.1)	31.5	8.4	20	1.0 to 3.0	48 (38)
VSP-HC20-20F (FH)*-4		4	85.6 (80.8)				11.2			49 (39)
VSP-HC20-20F (FH)*-6		6	86.9 (82.1)				11.9			50 (40)
VSP-HC20-25F (FH)*-2		1.8	92 (87.2)		43.9 (39.1)	37	8.4	25	1.0 to 3.0	50 (40)
VSP-HC20-25F (FH)*-4		4	96.1 (91.3)				11.2			51 (41)
VSP-HC20-25F (FH)*-6		6	97.4 (92.6)				11.9			52 (42)
VSP-HC20-30F (FH)*-2		1.8	103 (98.2)		48.9 (44.1)	43	8.4	30	1.0 to 3.0	52 (42)
VSP-HC20-30F (FH)*-4		4	107.1 (102.3)				11.2			53 (43)
VSP-HC20-30F (FH)*-6		6	108.4 (103.6)				11.9			54 (44)
VSP-HC20-40F (FH)*-2		1.8	125 (120.2)		58.9 (54.1)	55	8.4	40	1.0 to 3.0	56 (46)
VSP-HC20-40F (FH)*-4		4	129.1 (124.3)				11.2			57 (47)
VSP-HC20-40F (FH)*-6		6	130.4 (125.6)				11.9			58 (48)
VSP-HC20-50F (FH)*-2		1.8	146.5 (141.7)		68.9 (64.1)	66.5	8.4	50	1.0 to 3.1	60 (50)
VSP-HC20-50F (FH)*-4		4	150.6 (145.8)				11.2			61 (51)
VSP-HC20-50F (FH)*-6		6	151.9 (147.1)				11.9			62 (52)
VSP-HC25-10F (FH)*-2	25	1.8	61.5 (56.7)	14.3 (9.5)	28.9 (24.1)	21.5	8.4	10	1.0 to 2.4	45 (35)
VSP-HC25-10F (FH)*-4		4	65.6 (60.8)				11.2			46 (36)
VSP-HC25-10F (FH)*-6		6	66.9 (62.1)				11.9			47 (37)
VSP-HC25-15F (FH)*-2		1.8	71.5 (66.7)		33.9 (29.1)	26.5	8.4	15	1.0 to 2.7	47 (37)
VSP-HC25-15F (FH)*-4		4	75.6 (70.8)				11.2			48 (38)
VSP-HC25-15F (FH)*-6		6	76.9 (72.1)				11.9			49 (39)
VSP-HC25-20F (FH)*-2		1.8	81.5 (76.7)		38.9 (34.1)	31.5	8.4	20	1.0 to 3.0	49 (39)
VSP-HC25-20F (FH)*-4		4	85.6 (80.8)				11.2			50 (40)
VSP-HC25-20F (FH)*-6		6	86.9 (82.1)				11.9			51 (41)
VSP-HC25-25F (FH)*-2		1.8	92 (87.2)		43.9 (39.1)	37	8.4	25	1.0 to 3.0	51 (41)
VSP-HC25-25F (FH)*-4		4	96.1 (91.3)				11.2			52 (42)
VSP-HC25-25F (FH)*-6		6	97.4 (92.6)				11.9			53 (43)
VSP-HC25-30F (FH)*-2		1.8	103 (98.2)		48.9 (44.1)	43	8.4	30	1.0 to 3.0	53 (43)
VSP-HC25-30F (FH)*-4		4	107.1 (102.3)				11.2			54 (44)
VSP-HC25-30F (FH)*-6		6	108.4 (103.6)				11.9			55 (45)
VSP-HC25-40F (FH)*-2		1.8	125 (120.2)		58.9 (54.1)	55	8.4	40	1.0 to 3.0	57 (47)
VSP-HC25-40F (FH)*-4		4	129.1 (124.3)				11.2			58 (48)
VSP-HC25-40F (FH)*-6		6	130.4 (125.6)				11.9			59 (49)
VSP-HC25-50F (FH)*-2		1.8	146.5 (141.7)		68.9 (64.1)	66.5	8.4	50	1.0 to 3.1	61 (51)
VSP-HC25-50F (FH)*-4		4	150.6 (145.8)				11.2			62 (52)
VSP-HC25-50F (FH)*-6		6	151.9 (147.1)				11.9			63 (53)

*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (low back buffer, vacuum outlet top VSP-HC, push-in fitting)

●VSP-HC30-□F(FH)*-2/4/6



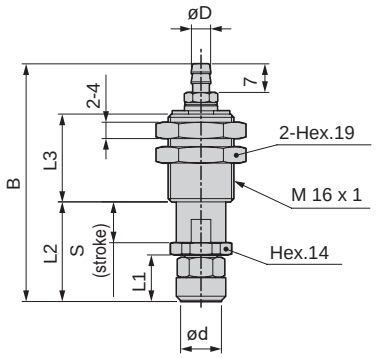
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC30-10F (FH)*-2	30	1.8	61.5 (56.7)	14.3 (9.5)	28.9 (24.1)	21.5	8.4	10	1.0 to 2.4	46 (36)
VSP-HC30-10F (FH)*-4		4	65.6 (60.8)				11.2			47 (37)
VSP-HC30-10F (FH)*-6		6	66.9 (62.1)				11.9			48 (38)
VSP-HC30-15F (FH)*-2		1.8	71.5 (66.7)		33.9 (29.1)	26.5	8.4	15	1.0 to 2.7	48 (38)
VSP-HC30-15F (FH)*-4		4	75.6 (70.8)				11.2			49 (39)
VSP-HC30-15F (FH)*-6		6	76.9 (72.1)				11.9			50 (40)
VSP-HC30-20F (FH)*-2		1.8	81.5 (76.7)		38.9 (34.1)	31.5	8.4	20	1.0 to 3.0	50 (40)
VSP-HC30-20F (FH)*-4		4	85.6 (80.8)				11.2			51 (41)
VSP-HC30-20F (FH)*-6		6	86.9 (82.1)				11.9			52 (42)
VSP-HC30-25F (FH)*-2		1.8	92 (87.2)		43.9 (39.1)	37	8.4	25	1.0 to 3.0	52 (42)
VSP-HC30-25F (FH)*-4		4	96.1 (91.3)				11.2			53 (43)
VSP-HC30-25F (FH)*-6		6	97.4 (92.6)				11.9			54 (44)
VSP-HC30-30F (FH)*-2		1.8	103 (98.2)		48.9 (44.1)	43	8.4	30	1.0 to 3.0	54 (44)
VSP-HC30-30F (FH)*-4		4	107.1 (102.3)				11.2			55 (45)
VSP-HC30-30F (FH)*-6		6	108.4 (103.6)				11.9			56 (46)
VSP-HC30-40F (FH)*-2		1.8	125 (120.2)		58.9 (54.1)	55	8.4	40	1.0 to 3.0	58 (48)
VSP-HC30-40F (FH)*-4		4	129.1 (124.3)				11.2			59 (49)
VSP-HC30-40F (FH)*-6		6	130.4 (125.6)				11.9			60 (50)
VSP-HC30-50F (FH)*-2		1.8	146.5 (141.7)		68.9 (64.1)	66.5	8.4	50	1.0 to 3.1	62 (52)
VSP-HC30-50F (FH)*-4		4	150.6 (145.8)				11.2			63 (53)
VSP-HC30-50F (FH)*-6		6	151.9 (147.1)				11.9			64 (54)

*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (low back buffer, vacuum outlet top VSP-HC, barbed fitting)

●VSP-HC10, 15-□F(FH)*-4T/6T



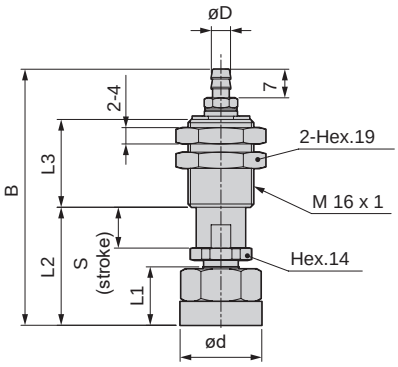
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC10-10F (FH)*-4T	10	2.5	58.2 (56.4)	11.4 (9.6)	24.4 (22.6)	21.5	10	1.0 to 2.4	25 (24)
VSP-HC10-10F (FH)*-6T		4							
VSP-HC10-15F (FH)*-4T		2.5	68.2 (66.4)		29.4 (27.6)	26.5	15	1.0 to 2.7	27 (26)
VSP-HC10-15F (FH)*-6T		4							
VSP-HC10-20F (FH)*-4T		2.5	78.2 (76.4)		34.4 (32.6)	31.5	20	1.0 to 3.0	29 (28)
VSP-HC10-20F (FH)*-6T		4							
VSP-HC10-25F (FH)*-4T		2.5	88.7 (86.9)		39.4 (37.6)	37	25	1.0 to 3.0	32 (31)
VSP-HC10-25F (FH)*-6T		4							
VSP-HC10-30F (FH)*-4T		2.5	99.7 (97.9)		44.4 (42.6)	43	30	1.0 to 3.0	34 (33)
VSP-HC10-30F (FH)*-6T		4							
VSP-HC10-40F (FH)*-4T		2.5	121.7 (119.9)		54.4 (52.6)	55	40	1.0 to 3.0	38 (37)
VSP-HC10-40F (FH)*-6T		4							
VSP-HC10-50F (FH)*-4T		2.5	143.2 (141.4)		64.4 (62.6)	66.5	50	1.0 to 3.1	42 (41)
VSP-HC10-50F (FH)*-6T		4							
VSP-HC15-10F (FH)*-4T	15	2.5	58.2 (56.4)	11.4 (9.6)	24.4 (22.6)	21.5	10	1.0 to 2.4	26 (25)
VSP-HC15-10F (FH)*-6T		4							
VSP-HC15-15F (FH)*-4T		2.5	68.2 (66.4)		29.4 (27.6)	26.5	15	1.0 to 2.7	28 (27)
VSP-HC15-15F (FH)*-6T		4							
VSP-HC15-20F (FH)*-4T		2.5	78.2 (76.4)		34.4 (32.6)	31.5	20	1.0 to 3.0	30 (29)
VSP-HC15-20F (FH)*-6T		4							
VSP-HC15-25F (FH)*-4T		2.5	88.7 (86.9)		39.4 (37.6)	37	25	1.0 to 3.0	33 (32)
VSP-HC15-25F (FH)*-6T		4							
VSP-HC15-30F (FH)*-4T		2.5	99.7 (97.9)		44.4 (42.6)	43	30	1.0 to 3.0	35 (34)
VSP-HC15-30F (FH)*-6T		4							
VSP-HC15-40F (FH)*-4T		2.5	121.7 (119.9)		54.4 (52.6)	55	40	1.0 to 3.0	39 (38)
VSP-HC15-40F (FH)*-6T		4							
VSP-HC15-50F (FH)*-4T		2.5	143.2 (141.4)		64.4 (62.6)	66.5	50	1.0 to 3.1	43 (42)
VSP-HC15-50F (FH)*-6T		4							

*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (low back buffer, vacuum outlet top VSP-HC, barbed fitting)

●VSP-HC20 to 30-□F(FH)*-4T/6T



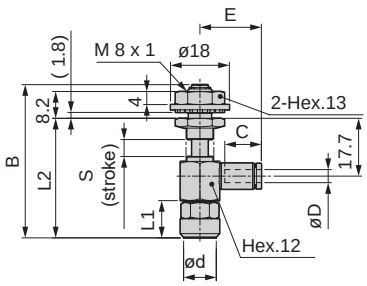
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC20-10F (FH)*-4T	20	2.5	62.7 (57.9)	14.3 (9.5)	28.9 (24.1)	21.5	10	1.0 to 2.4	43 (33)
VSP-HC20-10F (FH)*-6T		4							
VSP-HC20-15F (FH)*-4T		2.5	72.7 (67.9)		33.9 (29.1)	26.5	15	1.0 to 2.7	44 (35)
VSP-HC20-15F (FH)*-6T		4							
VSP-HC20-20F (FH)*-4T		2.5	82.7 (77.9)		38.9 (34.1)	31.5	20	1.0 to 3.0	47 (37)
VSP-HC20-20F (FH)*-6T		4							
VSP-HC20-25F (FH)*-4T		2.5	93.2 (89.4)		43.9 (39.1)	37	25	1.0 to 3.0	49 (39)
VSP-HC20-25F (FH)*-6T		4							
VSP-HC20-30F (FH)*-4T		2.5	104.2 (99.4)		48.9 (44.1)	43	30	1.0 to 3.0	52 (42)
VSP-HC20-30F (FH)*-6T		4							
VSP-HC20-40F (FH)*-4T		2.5	126.2 (121.4)		58.9 (54.1)	55	40	1.0 to 3.0	56 (46)
VSP-HC20-40F (FH)*-6T		4							
VSP-HC20-50F (FH)*-4T		2.5	147.7 (142.9)		68.9 (64.1)	66.5	50	1.0 to 3.1	60 (50)
VSP-HC20-50F (FH)*-6T		4							
VSP-HC25-10F (FH)*-4T	25	2.5	62.7 (57.9)	14.3 (9.5)	28.9 (24.1)	21.5	10	1.0 to 2.4	44 (34)
VSP-HC25-10F (FH)*-6T		4							
VSP-HC25-15F (FH)*-4T		2.5	72.7 (67.9)		33.9 (29.1)	26.5	15	1.0 to 2.7	46 (36)
VSP-HC25-15F (FH)*-6T		4							
VSP-HC25-20F (FH)*-4T		2.5	82.7 (77.9)		38.9 (34.1)	31.5	20	1.0 to 3.0	48 (38)
VSP-HC25-20F (FH)*-6T		4							
VSP-HC25-25F (FH)*-4T		2.5	93.2 (89.4)		43.9 (39.1)	37	25	1.0 to 3.0	50 (40)
VSP-HC25-25F (FH)*-6T		4							
VSP-HC25-30F (FH)*-4T		2.5	104.2 (99.4)		48.9 (44.1)	43	30	1.0 to 3.0	53 (43)
VSP-HC25-30F (FH)*-6T		4							
VSP-HC25-40F (FH)*-4T		2.5	126.2 (121.4)		58.9 (54.1)	55	40	1.0 to 3.0	57 (47)
VSP-HC25-40F (FH)*-6T		4							
VSP-HC25-50F (FH)*-4T		2.5	147.7 (142.9)		68.9 (64.1)	66.5	50	1.0 to 3.1	61 (51)
VSP-HC25-50F (FH)*-6T		4							
VSP-HC30-10F (FH)*-4T	30	2.5	62.7 (57.9)	14.3 (9.5)	28.9 (24.1)	21.5	10	1.0 to 2.4	45 (35)
VSP-HC30-10F (FH)*-6T		4							
VSP-HC30-15F (FH)*-4T		2.5	72.7 (67.9)		33.9 (29.1)	26.5	15	1.0 to 2.7	47 (37)
VSP-HC30-15F (FH)*-6T		4							
VSP-HC30-20F (FH)*-4T		2.5	82.7 (77.9)		38.9 (34.1)	31.5	20	1.0 to 3.0	49 (39)
VSP-HC30-20F (FH)*-6T		4							
VSP-HC30-25F (FH)*-4T		2.5	93.2 (89.4)		43.9 (39.1)	37	25	1.0 to 3.0	51 (41)
VSP-HC30-25F (FH)*-6T		4							
VSP-HC30-30F (FH)*-4T		2.5	104.2 (99.4)		48.9 (44.1)	43	30	1.0 to 3.0	54 (44)
VSP-HC30-30F (FH)*-6T		4							
VSP-HC30-40F (FH)*-4T		2.5	126.2 (121.4)		58.9 (54.1)	55	40	1.0 to 3.0	58 (48)
VSP-HC30-40F (FH)*-6T		4							
VSP-HC30-50F (FH)*-4T		2.5	147.7 (142.9)		68.9 (64.1)	66.5	50	1.0 to 3.1	62 (52)
VSP-HC30-50F (FH)*-6T		4							

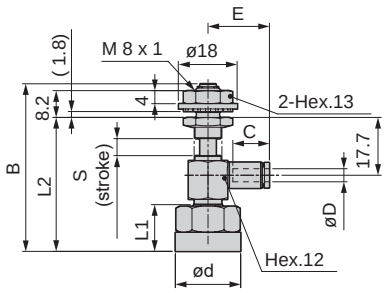
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (lightweight buffer, vacuum outlet side VSP-HD, push-in fitting)

●VSP-HD10, 15F(FH)*-2/4/6



●VSP-HD20 to 30F(FH)*-2/4/6



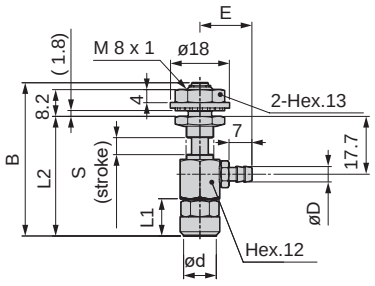
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD10F (FH)*-2	10	1.8	46.9 (45.1)	11.4 (9.6)	36.6 (34.8)	8.4	14.7	5.2	1.6 to 2.9	36 (35)
VSP-HD10F (FH)*-4		4				11.2	18.8			37 (36)
VSP-HD10F (FH)*-6		6				11.9	20.6			38 (37)
VSP-HD15F (FH)*-2	15	1.8	46.9 (45.1)	11.4 (9.6)	36.6 (34.8)	8.4	14.7	5.2	1.6 to 2.9	37 (36)
VSP-HD15F (FH)*-4		4				11.2	18.8			38 (37)
VSP-HD15F (FH)*-6		6				11.9	20.6			39 (38)
VSP-HD20F (FH)*-2	20	1.8	51.3 (46.5)	14.3 (9.5)	41 (36.2)	8.4	14.7	5.2	1.6 to 2.9	49 (39)
VSP-HD20F (FH)*-4		4				11.2	18.8			50 (40)
VSP-HD20F (FH)*-6		6				11.9	20.6			51 (41)
VSP-HD25F (FH)*-2	25	1.8	51.3 (46.5)	14.3 (9.5)	41 (36.2)	8.4	14.7	5.2	1.6 to 2.9	50 (40)
VSP-HD25F (FH)*-4		4				11.2	18.8			51 (41)
VSP-HD25F (FH)*-6		6				11.9	20.6			52 (42)
VSP-HD30F (FH)*-2	30	1.8	51.3 (46.5)	14.3 (9.5)	41 (36.2)	8.4	14.7	5.2	1.6 to 2.9	51 (41)
VSP-HD30F (FH)*-4		4				11.2	18.8			52 (42)
VSP-HD30F (FH)*-6		6				11.9	20.6			53 (43)

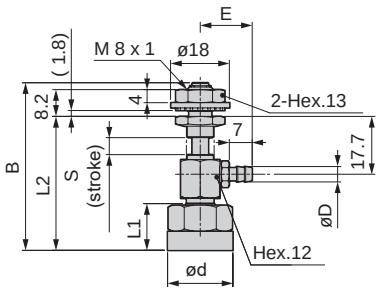
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (lightweight buffer, vacuum outlet side VSP-HD, barbed fitting)

●VSP-HD10, 15F(FH)*-4T/6T



●VSP-HD20 to 30F(FH)*-4T/6T



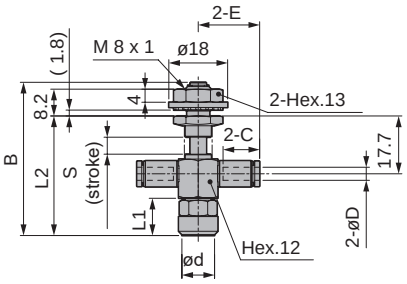
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD10F (FH)*-4T	10	2.5	46.9 (45.1)	11.4 (9.6)	36.6 (34.8)	15.9	5.2	1.6 to 2.9	35 (34)
VSP-HD10F (FH)*-6T		4							
VSP-HD15F (FH)*-4T	15	2.5	46.9 (45.1)	11.4 (9.6)	36.6 (34.8)	15.9	5.2	1.6 to 2.9	36 (35)
VSP-HD15F (FH)*-6T		4							
VSP-HD20F (FH)*-4T	20	2.5	51.3 (46.5)	14.3 (9.5)	41 (36.2)	15.9	5.2	1.6 to 2.9	53 (52)
VSP-HD20F (FH)*-6T		4							
VSP-HD25F (FH)*-4T	25	2.5	51.3 (46.5)	14.3 (9.5)	41 (36.2)	15.9	5.2	1.6 to 2.9	54 (53)
VSP-HD25F (FH)*-6T		4							
VSP-HD30F (FH)*-4T	30	2.5	51.3 (46.5)	14.3 (9.5)	41 (36.2)	15.9	5.2	1.6 to 2.9	55 (54)
VSP-HD30F (FH)*-6T		4							

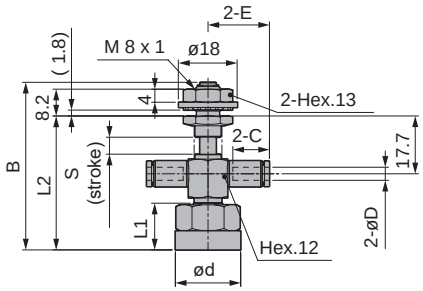
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (lightweight buffer, vacuum outlet on both sides VSP-HDW, push-in fitting)

●VSP-HDW10, 15F(FH)*-2/4/6



●VSP-HDW20 to 30F(FH)*-2/4/6



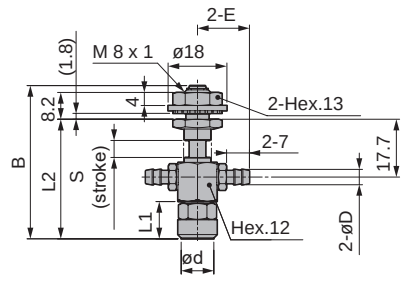
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW10F (FH)*-2	10	1.8	46.9 (45.1)	11.4 (9.6)	36.6 (34.8)	8.4	14.7	5.2	1.6 to 2.9	37 (36)
VSP-HDW10F (FH)*-4		4				11.2	18.8			39 (38)
VSP-HDW10F (FH)*-6		6				11.9	20.6			41 (40)
VSP-HDW15F (FH)*-2	15	1.8	46.9 (45.1)	11.4 (9.6)	36.6 (34.8)	8.4	14.7	5.2	1.6 to 2.9	38 (37)
VSP-HDW15F (FH)*-4		4				11.2	18.8			40 (39)
VSP-HDW15F (FH)*-6		6				11.9	20.6			42 (41)
VSP-HDW20F (FH)*-2	20	1.8	51.3 (46.5)	14.3 (9.5)	41 (36.2)	8.4	14.7	5.2	1.6 to 2.9	55 (45)
VSP-HDW20F (FH)*-4		4				11.2	18.8			57 (47)
VSP-HDW20F (FH)*-6		6				11.9	20.6			59 (49)
VSP-HDW25F (FH)*-2	25	1.8	51.3 (46.5)	14.3 (9.5)	41 (36.2)	8.4	14.7	5.2	1.6 to 2.9	56 (46)
VSP-HDW25F (FH)*-4		4				11.2	18.8			58 (48)
VSP-HDW25F (FH)*-6		6				11.9	20.6			60 (50)
VSP-HDW30F (FH)*-2	30	1.8	51.3 (46.5)	14.3 (9.5)	41 (36.2)	8.4	14.7	5.2	1.6 to 2.9	57 (47)
VSP-HDW30F (FH)*-4		4				11.2	18.8			59 (49)
VSP-HDW30F (FH)*-6		6				11.9	20.6			61 (51)

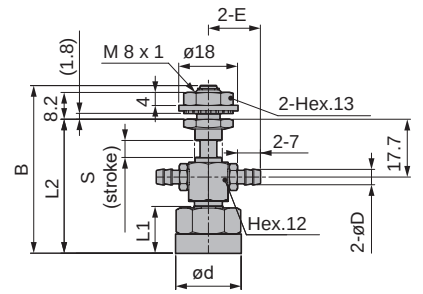
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (lightweight buffer, vacuum outlet on both sides VSP-HDW, barbed fitting)

●VSP-HDW10, 15F(FH)*-4T/6T



●VSP-HDW20 to 30F(FH)*-4T/6T



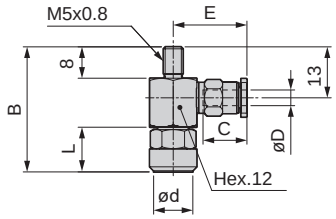
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW10F (FH)*-4T	10	2.5	46.9 (45.1)	11.4 (9.6)	36.6 (34.8)	15.9	5.2	1.6 to 2.9	36 (35)
VSP-HDW10F (FH)*-6T		4							
VSP-HDW15F (FH)*-4T	15	2.5	46.9 (45.1)	11.4 (9.6)	36.6 (34.8)	15.9	5.2	1.6 to 2.9	37 (36)
VSP-HDW15F (FH)*-6T		4							
VSP-HDW20F (FH)*-4T	20	2.5	51.3 (46.5)	14.3 (9.5)	41 (36.2)	15.9	5.2	1.6 to 2.9	54 (44)
VSP-HDW20F (FH)*-6T		4							
VSP-HDW25F (FH)*-4T	25	2.5	51.3 (46.5)	14.3 (9.5)	41 (36.2)	15.9	5.2	1.6 to 2.9	55 (45)
VSP-HDW25F (FH)*-6T		4							
VSP-HDW30F (FH)*-4T	30	2.5	51.3 (46.5)	14.3 (9.5)	41 (36.2)	15.9	5.2	1.6 to 2.9	56 (46)
VSP-HDW30F (FH)*-6T		4							

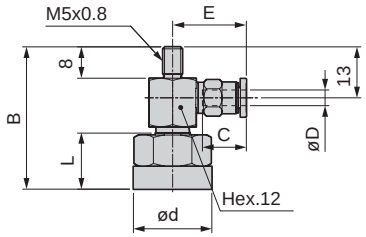
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (low back fixed, vacuum outlet side VSP-HE, push-in fitting)

●VSP-HE10, 15F(FH)*-2/4/6



●VSP-HE20 to 30F(FH)*-2/4/6



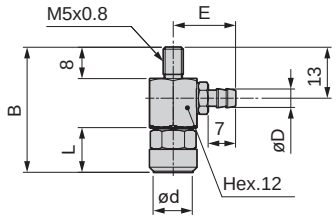
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HE10F (FH)*-2	10	1.8	31.9 (30.1)	11.4 (9.6)	8.4	14.7	22 (21)
VSP-HE10F (FH)*-4		4			11.2	18.8	23 (22)
VSP-HE10F (FH)*-6		6			11.9	20.6	24 (23)
VSP-HE15F (FH)*-2	15	1.8	31.9 (30.1)	11.4 (9.6)	8.4	14.7	23 (22)
VSP-HE15F (FH)*-4		4			11.2	18.8	24 (23)
VSP-HE15F (FH)*-6		6			11.9	20.6	25 (24)
VSP-HE20F (FH)*-2	20	1.8	36.3 (31.5)	14.3 (9.5)	8.4	14.7	38 (28)
VSP-HE20F (FH)*-4		4			11.2	18.8	39 (29)
VSP-HE20F (FH)*-6		6			11.9	20.6	40 (30)
VSP-HE25F (FH)*-2	25	1.8	36.3 (31.5)	14.3 (9.5)	8.4	14.7	39 (29)
VSP-HE25F (FH)*-4		4			11.2	18.8	40 (30)
VSP-HE25F (FH)*-6		6			11.9	20.6	41 (31)
VSP-HE30F (FH)*-2	30	1.8	36.3 (31.5)	14.3 (9.5)	8.4	14.7	40 (30)
VSP-HE30F (FH)*-4		4			11.2	18.8	41 (31)
VSP-HE30F (FH)*-6		6			11.9	20.6	42 (32)

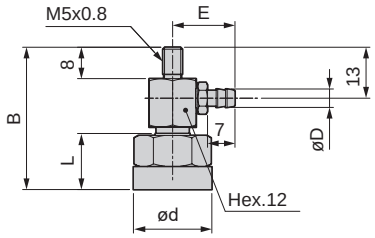
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (low back fixed, vacuum outlet side VSP-HE, barbed fitting)

●VSP-HE10, 15F(FH)*-4T/6T



●VSP-HE20 to 30F(FH)*-4T/6T



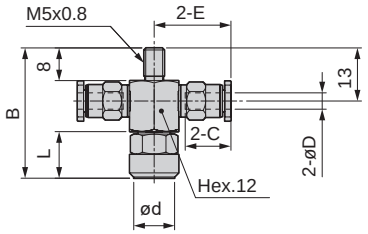
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	E	Weight (g)
VSP-HE10F (FH)*-4T	10	2.5	31.9 (30.1)	11.4 (9.6)	15.9	21 (20)
VSP-HE10F (FH)*-6T		4				
VSP-HE15F (FH)*-4T	15	2.5	31.9 (30.1)	11.4 (9.6)	15.9	22 (21)
VSP-HE15F (FH)*-6T		4				
VSP-HE20F (FH)*-4T	20	2.5	36.3 (31.5)	14.3 (9.5)	15.9	38 (28)
VSP-HE20F (FH)*-6T		4				
VSP-HE25F (FH)*-4T	25	2.5	36.3 (31.5)	14.3 (9.5)	15.9	39 (29)
VSP-HE25F (FH)*-6T		4				
VSP-HE30F (FH)*-4T	30	2.5	36.3 (31.5)	14.3 (9.5)	15.9	40 (30)
VSP-HE30F (FH)*-6T		4				

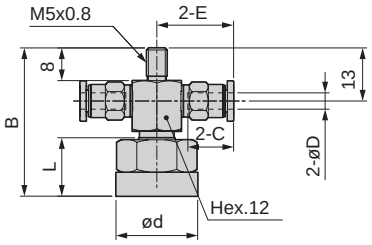
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (low back fixed, vacuum outlet on both sides VSP-HEW, push-in fitting)

●VSP-HEW10, 15F(FH)*-2/4/6



●VSP-HEW20 to 30F(FH)*-2/4/6



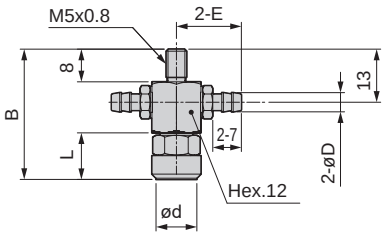
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HEW10F (FH)*-2	10	1.8	31.9 (30.1)	11.4 (9.6)	8.4	14.7	23 (22)
VSP-HEW10F (FH)*-4		4			11.2	18.8	25 (24)
VSP-HEW10F (FH)*-6		6			11.9	20.6	27 (26)
VSP-HEW15F (FH)*-2	15	1.8	31.9 (30.1)	11.4 (9.6)	8.4	14.7	24 (23)
VSP-HEW15F (FH)*-4		4			11.2	18.8	26 (25)
VSP-HEW15F (FH)*-6		6			11.9	20.6	28 (27)
VSP-HEW20F (FH)*-2	20	1.8	36.3 (31.5)	14.3 (9.5)	8.4	14.7	40 (30)
VSP-HEW20F (FH)*-4		4			11.2	18.8	42 (32)
VSP-HEW20F (FH)*-6		6			11.9	20.6	44 (34)
VSP-HEW25F (FH)*-2	25	1.8	36.3 (31.5)	14.3 (9.5)	8.4	14.7	41 (31)
VSP-HEW25F (FH)*-4		4			11.2	18.8	43 (33)
VSP-HEW25F (FH)*-6		6			11.9	20.6	45 (35)
VSP-HEW30F (FH)*-2	30	1.8	36.3 (31.5)	14.3 (9.5)	8.4	14.7	42 (32)
VSP-HEW30F (FH)*-4		4			11.2	18.8	44 (34)
VSP-HEW30F (FH)*-6		6			11.9	20.6	46 (36)

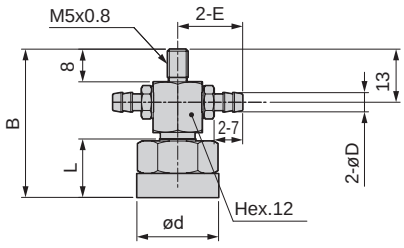
*1: Values in ( ) are for flat intake flow rate.IncreaseThe dimensions of the type.

Dimensions (low back fixed, vacuum outlet on both sides VSP-HEW, barbed fitting)

●VSP-HEW10, 15F(FH)*-4T/6T



●VSP-HEW20 to 30F(FH)*-4T/6T



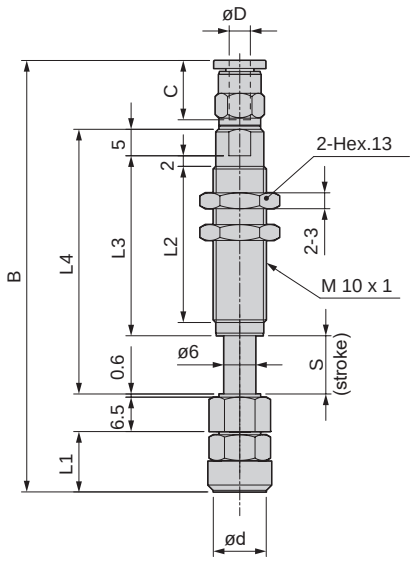
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	E	Weight (g)
VSP-HEW10F (FH)*-4T	10	2.5	31.9 (30.1)	11.4 (9.6)	15.9	22 (21)
VSP-HEW10F (FH)*-6T		4				
VSP-HEW15F (FH)*-4T	15	2.5	31.9 (30.1)	11.4 (9.6)	15.9	23 (22)
VSP-HEW15F (FH)*-6T		4				
VSP-HEW20F (FH)*-4T	20	2.5	36.3 (32.5)	14.3 (10.5)	15.9	39 (29)
VSP-HEW20F (FH)*-6T		4				
VSP-HEW25F (FH)*-4T	25	2.5	36.3 (32.5)	14.3 (10.5)	15.9	40 (30)
VSP-HEW25F (FH)*-6T		4				
VSP-HEW30F (FH)*-4T	30	2.5	36.3 (32.5)	14.3 (10.5)	15.9	41 (31)
VSP-HEW30F (FH)*-6T		4				

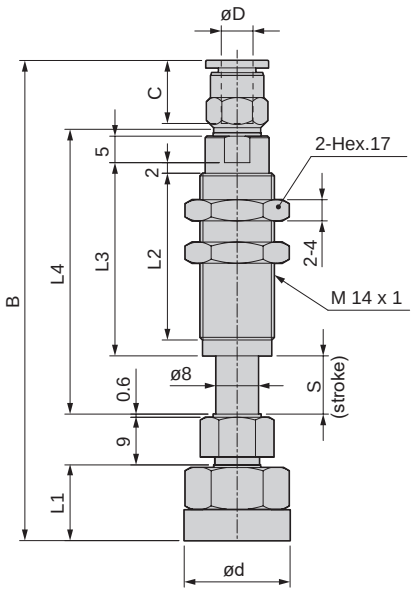
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (low dust generation buffer, vacuum outlet top VSP-LFC, push-in fitting)

●VSP-LFC10, 15-□F(FH)*-4



●VSP-LFC20 to 30-□F(FH)*-4/6



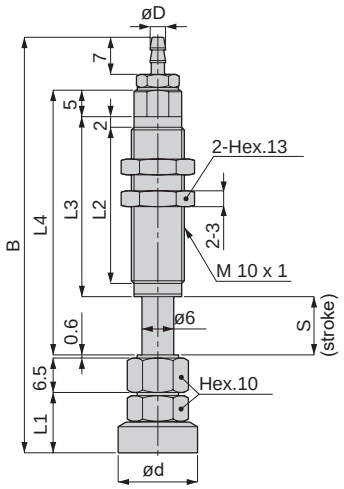
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-LFC10-2F (FH)*-4	10	4	65.5 (63.7)	11.4 (9.6)	21.5	26	34	11.2	2	1.3 to 1.8	32 (31)
VSP-LFC10-5F (FH)*-4			71.5 (69.7)		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	34 (33)
VSP-LFC10-10F (FH)*-4			81.5 (79.7)		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	36 (35)
VSP-LFC10-15F (FH)*-4			91.5 (89.7)		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	38 (37)
VSP-LFC10-20F (FH)*-4			101.5 (99.7)		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	40 (39)
VSP-LFC15-2F (FH)*-4	15	4	65.5 (63.7)	11.4 (9.6)	21.5	26	34	11.2	2	1.3 to 1.8	33 (32)
VSP-LFC15-5F (FH)*-4			71.5 (69.7)		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	35 (34)
VSP-LFC15-10F (FH)*-4			81.5 (79.7)		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	37 (36)
VSP-LFC15-15F (FH)*-4			91.5 (89.7)		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	39 (38)
VSP-LFC15-20F (FH)*-4			101.5 (99.7)		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	41 (40)
VSP-LFC20-5F (FH)*-4	20	4	79.4 (74.6)	14.3 (9.5)	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	75 (65)
VSP-LFC20-5F (FH)*-6		6	80.7 (75.9)					11.9			76 (66)
VSP-LFC20-10F (FH)*-4		4	89.4 (84.6)		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	77 (67)
VSP-LFC20-10F (FH)*-6		6	90.7 (85.9)					11.9			78 (68)
VSP-LFC20-15F (FH)*-4		4	99.4 (94.6)		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	80 (70)
VSP-LFC20-15F (FH)*-6		6	100.7 (95.9)					11.9			81 (71)
VSP-LFC20-20F (FH)*-4		4	109.4 (104.6)		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	83 (73)
VSP-LFC20-20F (FH)*-6		6	110.7 (105.9)					11.9			84 (74)
VSP-LFC25-5F (FH)*-4	25	4	79.4 (74.6)	14.3 (9.5)	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	76 (66)
VSP-LFC25-5F (FH)*-6		6	80.7 (75.9)					11.9			77 (67)
VSP-LFC25-10F (FH)*-4		4	89.4 (84.6)		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	78 (68)
VSP-LFC25-10F (FH)*-6		6	90.7 (85.9)					11.9			79 (69)
VSP-LFC25-15F (FH)*-4		4	99.4 (94.6)		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	81 (71)
VSP-LFC25-15F (FH)*-6		6	100.7 (95.9)					11.9			82 (72)
VSP-LFC25-20F (FH)*-4		4	109.4 (104.6)		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	84 (74)
VSP-LFC25-20F (FH)*-6		6	110.7 (105.9)					11.9			85 (75)
VSP-LFC30-5F (FH)*-4	30	4	79.4 (74.6)	14.3 (9.5)	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	78 (67)
VSP-LFC30-5F (FH)*-6		6	80.7 (75.9)					11.9			79 (68)
VSP-LFC30-10F (FH)*-4		4	89.4 (84.6)		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	80 (69)
VSP-LFC30-10F (FH)*-6		6	90.7 (85.9)					11.9			81 (70)
VSP-LFC30-15F (FH)*-4		4	99.4 (94.6)		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	83 (72)
VSP-LFC30-15F (FH)*-6		6	100.7 (95.9)					11.9			84 (73)
VSP-LFC30-20F (FH)*-4		4	109.4 (104.6)		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	86 (75)
VSP-LFC30-20F (FH)*-6		6	110.7 (105.9)					11.9			87 (76)

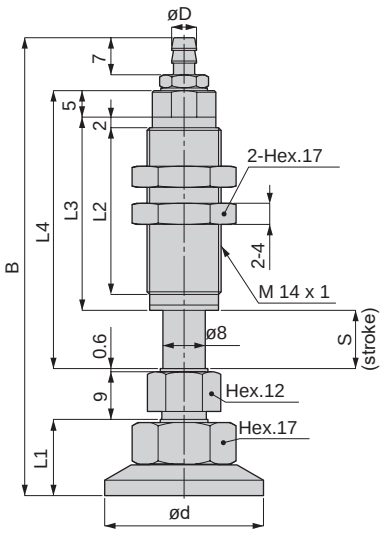
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.
*2: Values in [ ] are for low load.

Dimensions (low dust generation buffer, vacuum outlet top VSP-LFC, barbed fitting)

●VSP-LFC10, 15-□F(FH)*-4T/6T



●VSP-LFC20 to 30-□F(FH)*-4T/6T



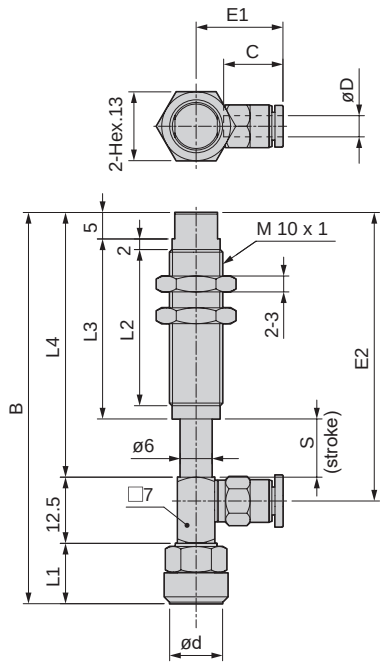
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
VSP-LFC10-2F (FH)*-4T	10	2.5	62.6 (60.8)	11.4 (9.6)	21.5	26	34	2	1.3 to 1.8	30 (29)
VSP-LFC10-2F (FH)*-6T		4								
VSP-LFC10-5F (FH)*-4T		2.5	68.6 (66.8)		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	32 (31)
VSP-LFC10-5F (FH)*-6T		4								
VSP-LFC10-10F (FH)*-4T		2.5	78.6 (76.8)		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	34 (33)
VSP-LFC10-10F (FH)*-6T		4								
VSP-LFC10-15F (FH)*-4T		2.5	88.6 (86.8)		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	36 (35)
VSP-LFC10-15F (FH)*-6T		4								
VSP-LFC10-20F (FH)*-4T		2.5	98.6 (96.8)		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	38 (37)
VSP-LFC10-20F (FH)*-6T		4								
VSP-LFC15-2F (FH)*-4T	15	2.5	62.6 (60.8)	11.4 (9.6)	21.5	26	34	2	1.3 to 1.8	31 (30)
VSP-LFC15-2F (FH)*-6T		4								
VSP-LFC15-5F (FH)*-4T		2.5	68.6 (66.8)		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	33 (32)
VSP-LFC15-5F (FH)*-6T		4								
VSP-LFC15-10F (FH)*-4T		2.5	78.6 (76.8)		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	35 (34)
VSP-LFC15-10F (FH)*-6T		4								
VSP-LFC15-15F (FH)*-4T		2.5	88.6 (86.8)		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	37 (36)
VSP-LFC15-15F (FH)*-6T		4								
VSP-LFC15-20F (FH)*-4T		2.5	98.6 (96.8)		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	39 (38)
VSP-LFC15-20F (FH)*-6T		4								
VSP-LFC20-5F (FH)*-4T	20	2.5	76.5 (71.7)	14.3 (9.5)	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	70 (60)
VSP-LFC20-5F (FH)*-6T		4								
VSP-LFC20-10F (FH)*-4T		2.5	86.5 (81.7)		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	72 (62)
VSP-LFC20-10F (FH)*-6T		4								
VSP-LFC20-15F (FH)*-4T		2.5	96.5 (91.7)		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	75 (65)
VSP-LFC20-15F (FH)*-6T		4								
VSP-LFC20-20F (FH)*-4T		2.5	106.5 (101.7)		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	78 (68)
VSP-LFC20-20F (FH)*-6T		4								
VSP-LFC25-5F (FH)*-4T	25	2.5	76.5 (71.7)	14.3 (9.5)	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	71 (61)
VSP-LFC25-5F (FH)*-6T		4								
VSP-LFC25-10F (FH)*-4T		2.5	86.5 (81.7)		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	73 (63)
VSP-LFC25-10F (FH)*-6T		4								
VSP-LFC25-15F (FH)*-4T		2.5	96.5 (91.7)		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	76 (76)
VSP-LFC25-15F (FH)*-6T		4								
VSP-LFC25-20F (FH)*-4T		2.5	106.5 (101.7)		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	79 (69)
VSP-LFC25-20F (FH)*-6T		4								
VSP-LFC30-5F (FH)*-4T	30	2.5	76.5 (71.7)	14.3 (9.5)	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	73 (62)
VSP-LFC30-5F (FH)*-6T		4								
VSP-LFC30-10F (FH)*-4T		2.5	86.5 (81.7)		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	75 (64)
VSP-LFC30-10F (FH)*-6T		4								
VSP-LFC30-15F (FH)*-4T		2.5	96.5 (91.7)		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	78 (67)
VSP-LFC30-15F (FH)*-6T		4								
VSP-LFC30-20F (FH)*-4T		2.5	106.5 (101.7)		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	81 (70)
VSP-LFC30-20F (FH)*-6T		4								

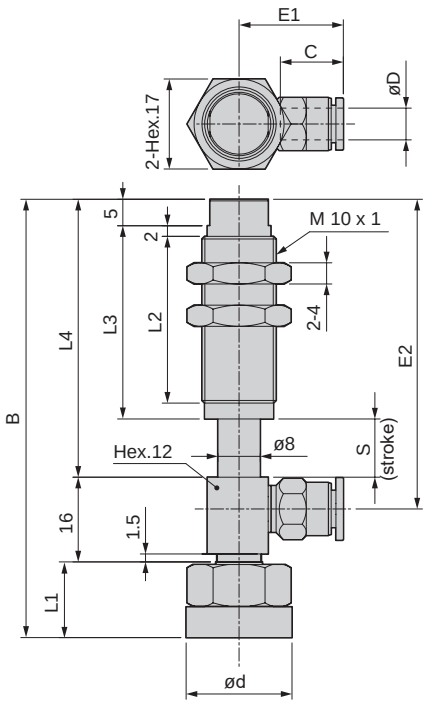
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.
*2: Values in [ ] are for low load.

Dimensions (low dust generation buffer, vacuum outlet side VSP-LFD, push-in fitting)

●VSP-LFD10, 15-□F(FH)*-4



●VSP-LFD20 to 30-□F(FH)*-4/6



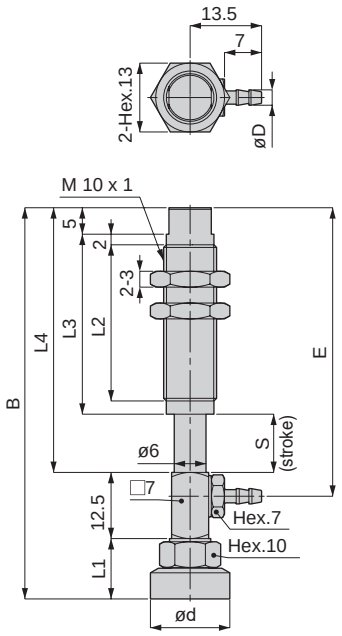
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-LFD10-5F (FH)*-4	10	4	63.9 (62.1)	11.4 (9.6)	24.5	29	40	11.2	16.4	44.5	5	1.3 to 2.4	30 (29)
VSP-LFD10-10F (FH)*-4			73.9 (72.1)		29.5	34	50			54.5	10	1.3 to 3.3	32 (31)
VSP-LFD10-15F (FH)*-4			83.9 (82.1)		34.5	39	60			64.5	15	1.3 to 4.2	34 (33)
VSP-LFD10-20F (FH)*-4			93.9 (92.1)		39.5	44	70			74.5	20	1.3 to 5.1	36 (35)
VSP-LFD15-5F (FH)*-4	15	4	63.9 (62.1)	11.4 (9.6)	24.5	29	40	11.2	16.4	44.5	5	1.3 to 2.4	31 (30)
VSP-LFD15-10F (FH)*-4			73.9 (72.1)		29.5	34	50			54.5	10	1.3 to 3.3	33 (32)
VSP-LFD15-15F (FH)*-4			83.9 (82.1)		34.5	39	60			64.5	15	1.3 to 4.2	35 (34)
VSP-LFD15-20F (FH)*-4			93.9 (92.1)		39.5	44	70			74.5	20	1.3 to 5.1	37 (36)
VSP-LFD20-5F (FH)*-4	20	4	72.8 (68)	14.3 (9.5)	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	76 (66)
VSP-LFD20-5F (FH)*-6		6						11.9	19.7				77 (67)
VSP-LFD20-10F (FH)*-4		4	82.8 (78)		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	80 (70)
VSP-LFD20-10F (FH)*-6		6						11.9	19.7				81 (71)
VSP-LFD20-15F (FH)*-4		4	92.8 (88)		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	84 (74)
VSP-LFD20-15F (FH)*-6		6						11.9	19.7				85 (75)
VSP-LFD20-20F (FH)*-4		4	102.8 (98)		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	88 (78)
VSP-LFD20-20F (FH)*-6		6						11.9	19.7				89 (79)
VSP-LFD25-5F (FH)*-4	25	4	72.8 (68)	14.3 (9.5)	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	77 (67)
VSP-LFD25-5F (FH)*-6		6						11.9	19.7				78 (68)
VSP-LFD25-10F (FH)*-4		4	82.8 (78)		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	81 (71)
VSP-LFD25-10F (FH)*-6		6						11.9	19.7				82 (72)
VSP-LFD25-15F (FH)*-4		4	92.8 (88)		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	85 (75)
VSP-LFD25-15F (FH)*-6		6						11.9	19.7				86 (76)
VSP-LFD25-20F (FH)*-4		4	102.8 (98)		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	89 (79)
VSP-LFD25-20F (FH)*-6		6						11.9	19.7				90 (80)
VSP-LFD30-5F (FH)*-4	30	4	72.8 (68)	14.3 (9.5)	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	79 (68)
VSP-LFD30-5F (FH)*-6		6						11.9	19.7				80 (69)
VSP-LFD30-10F (FH)*-4		4	82.8 (78)		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	83 (72)
VSP-LFD30-10F (FH)*-6		6						11.9	19.7				84 (73)
VSP-LFD30-15F (FH)*-4		4	92.8 (88)		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	87 (76)
VSP-LFD30-15F (FH)*-6		6						11.9	19.7				88 (77)
VSP-LFD30-20F (FH)*-4		4	102.8 (98)		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	91 (80)
VSP-LFD30-20F (FH)*-6		6						11.9	19.7				92 (81)

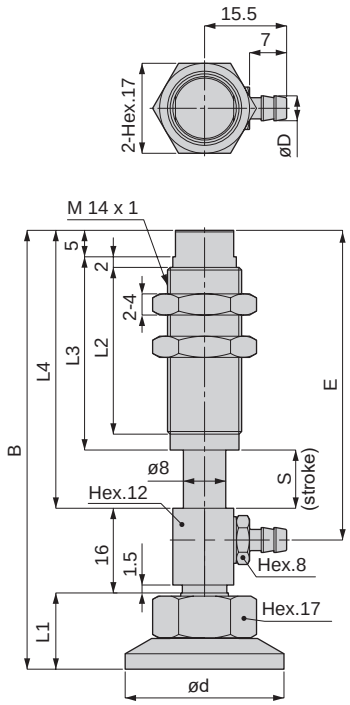
*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

Dimensions (low dust generation buffer, vacuum outlet side VSP-LFD, barbed fitting)

●VSP-LFD10, 15-□F(FH)*-4T/6T



●VSP-LFD20 to 30-□F(FH)*-4T/6T



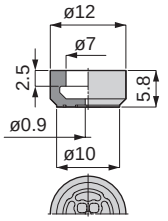
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD10-5F (FH)*-4T	10	2.5	63.9 (62.1)	11.4 (9.6)	24.5	29	40	44.5	5	1.3 to 2.4	29 (28)
VSP-LFD10-5F (FH)*-6T		4									
VSP-LFD10-10F (FH)*-4T		2.5	73.9 (72.1)		29.5	34	50	54.5	10	1.3 to 3.3	31 (30)
VSP-LFD10-10F (FH)*-6T		4									
VSP-LFD10-15F (FH)*-4T		2.5	83.9 (82.1)		34.5	39	60	64.5	15	1.3 to 4.2	33 (32)
VSP-LFD10-15F (FH)*-6T		4									
VSP-LFD10-20F (FH)*-4T		2.5	93.9 (92.1)		39.5	44	70	74.5	20	1.3 to 5.1	35 (34)
VSP-LFD10-20F (FH)*-6T		4									
VSP-LFD15-5F (FH)*-4T	15	2.5	63.9 (62.1)	11.4 (9.6)	24.5	29	40	44.5	5	1.3 to 2.4	30 (29)
VSP-LFD15-5F (FH)*-6T		4									
VSP-LFD15-10F (FH)*-4T		2.5	73.9 (72.1)		29.5	34	50	54.5	10	1.3 to 3.3	32 (31)
VSP-LFD15-10F (FH)*-6T		4									
VSP-LFD15-15F (FH)*-4T		2.5	83.9 (82.1)		34.5	39	60	64.5	15	1.3 to 4.2	34 (33)
VSP-LFD15-15F (FH)*-6T		4									
VSP-LFD15-20F (FH)*-4T		2.5	93.9 (92.1)		39.5	44	70	74.5	20	1.3 to 5.1	36 (35)
VSP-LFD15-20F (FH)*-6T		4									
VSP-LFD20-5F (FH)*-4T	20	2.5	72.8 (68)	14.3 (9.5)	26.5	31.5	42.5	48.5	5	4.5 to 6.5	72 (62)
VSP-LFD20-5F (FH)*-6T		4									
VSP-LFD20-10F (FH)*-4T		2.5	82.8 (78)		31.5	36.5	52.5	58.5	10	4.5 to 8.2	75 (65)
VSP-LFD20-10F (FH)*-6T		4									
VSP-LFD20-15F (FH)*-4T		2.5	92.8 (88)		36.5	41.5	62.5	68.5	15	4.5 to 9.9	79 (69)
VSP-LFD20-15F (FH)*-6T		4									
VSP-LFD20-20F (FH)*-4T		2.5	102.8 (98)		41.5	46.5	72.5	78.5	20	4.5 to 14.9	83 (73)
VSP-LFD20-20F (FH)*-6T		4									
VSP-LFD25-5F (FH)*-4T	25	2.5	72.8 (68)	14.3 (9.5)	26.5	31.5	42.5	48.5	5	4.5 to 6.5	73 (63)
VSP-LFD25-5F (FH)*-6T		4									
VSP-LFD25-10F (FH)*-4T		2.5	82.8 (78)		31.5	36.5	52.5	58.5	10	4.5 to 8.2	76 (66)
VSP-LFD25-10F (FH)*-6T		4									
VSP-LFD25-15F (FH)*-4T		2.5	92.8 (88)		36.5	41.5	62.5	68.5	15	4.5 to 9.9	80 (70)
VSP-LFD25-15F (FH)*-6T		4									
VSP-LFD25-20F (FH)*-4T		2.5	102.8 (98)		41.5	46.5	72.5	78.5	20	4.5 to 14.9	84 (74)
VSP-LFD25-20F (FH)*-6T		4									
VSP-LFD30-5F (FH)*-4T	30	2.5	72.8 (68)	14.3 (9.5)	26.5	31.5	42.5	48.5	5	4.5 to 6.5	75 (64)
VSP-LFD30-5F (FH)*-6T		4									
VSP-LFD30-10F (FH)*-4T		2.5	82.8 (78)		31.5	36.5	52.5	58.5	10	4.5 to 8.2	78 (67)
VSP-LFD30-10F (FH)*-6T		4									
VSP-LFD30-15F (FH)*-4T		2.5	92.8 (88)		36.5	41.5	62.5	68.5	15	4.5 to 9.9	82 (71)
VSP-LFD30-15F (FH)*-6T		4									
VSP-LFD30-20F (FH)*-4T		2.5	102.8 (98)		41.5	46.5	72.5	78.5	20	4.5 to 14.9	86 (75)
VSP-LFD30-20F (FH)*-6T		4									

*1: Values in ( ) are dimensions of the flat intake flow rate increase type.

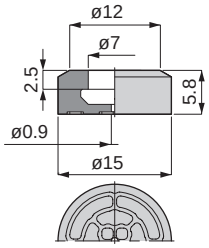
Pad rubber only Dimensions (flat)

●VSPG-10F*



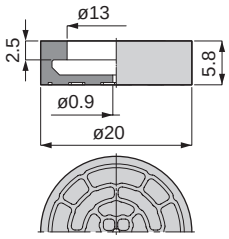
Weight: 0.6g [0.9g]

●VSPG-15F*



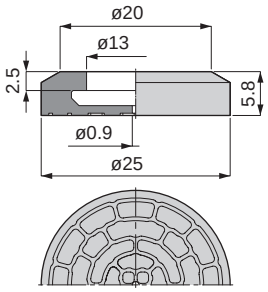
Weight: 1.1g [1.7g]

●VSPG-20F*



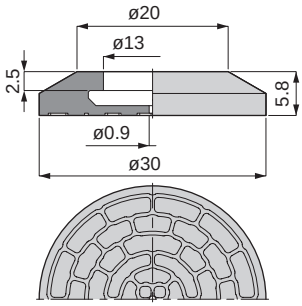
Weight: 1.4g [2.3g]

●VSPG-25F*



Weight: 2.6g [4.1g]

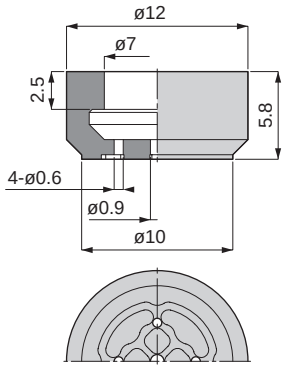
●VSPG-30F*



Weight: 3.5g [5.1g]

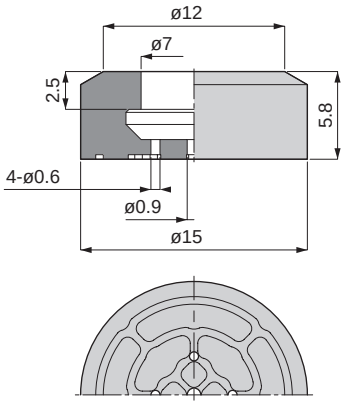
Pad rubber only Dimensions (flat suction flow rate increase type)

●VSPG-10FH*



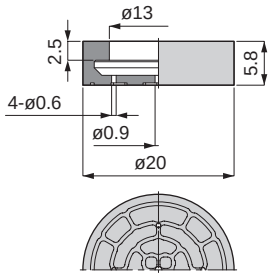
Weight: 0.5g [0.8g]

●VSPG-15FH*



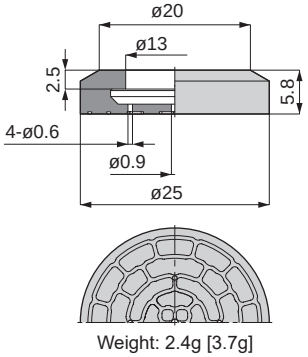
Weight: 1 g [1.5g]

●VSPG-20FH*



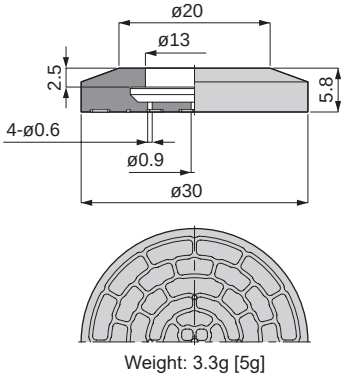
Weight: 1.3g [2g]

●VSPG-25FH*



Weight: 2.4g [3.7g]

●VSPG-30FH*

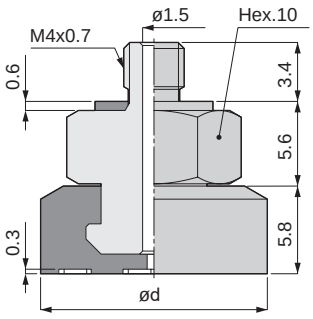


Weight: 3.3g [5g]

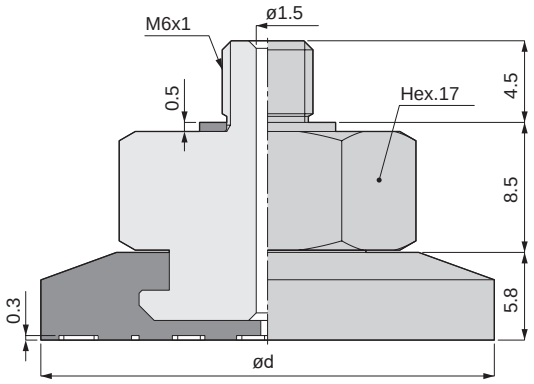
Note: Values in [ ] for fluoro rubber only.

Detailed view of pad and holder fixing part (flat type)

●VSPG-10, 15F*



●VSPG-20 to 30F*

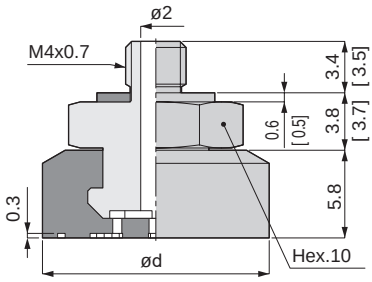


Unit: mm

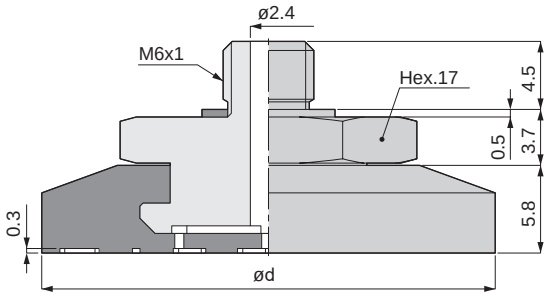
Model No.	Pad diameter ød	Weight (g)
VSPG-10F*	10	5.6 [5.9]
VSPG-15F*	15	6.1 [6.7]
VSPG-20F*	20	23.4 [24.3]
VSPG-25F*	25	24.6 [26.1]
VSPG-30F*	30	25.5 [27.1]

Pad rubber only Dimensions (flat suction flow rate increase type)

●VSPG-10, 15FH*



●VSPG-20 to 30FH*



Unit: mm

Model No.	Pad diameter ød	Weight (g)
VSPG-10FH*	10	4.3 [4.6]
VSPG-15FH*	15	4.8 [5.3]
VSPG-20FH*	20	13.3 [14]
VSPG-25FH*	25	14.4 [15.7]
VSPG-30FH*	30	15.3 [17]

Note: Values in [ ] for fluoro rubber only.

Safety precautions

CAUTION

With the flat type, suction may be difficult for ventilated workpieces or workpieces that are prone to deformation with their own weight when suctioned. Be sure to conduct actual testing of suction on workpieces when making a selection.

MEMO



Suction pad/suction mark prevention type

VSP-*Q* Series

Suction pad made of resin material for pad material that is resistant to suction marks

RoHS

Ideal for liquid crystal glass, painting process and semiconductor manufacturing equipment transport

A wide range of holder variations

Shape	16types

- Standard: 5 types
- Compact: 4 types
- Low dust generation: 2 types
- Lightweight: 3 types
- Low height: 2 types

Piping	5types

- Push-in fitting(ø1.8 to ø6): 3 types
- Barbed fitting(M3, M5): 2 types

Stroke	11types

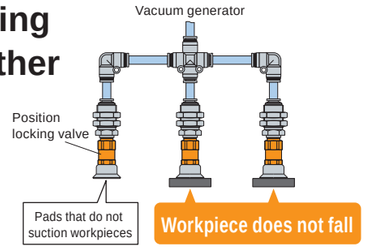
2 mm to 50 mm
(Depends on pad diameter and holder)

Low dust generation holders (LFC, LFD) are available, with minimal friction powder and low noise caused by sliding.

Flexible holder and resin pad can also suction tilted workpieces

Workpiece releasability during vacuum burst is also good.

Supports assembly option of position locking valve (V) that reduces vacuum drop in another circuit even without a workpiece



Resin pad used to prevent rubber material transfer that causes suction marks

Three types of resin materials are available for the pad section. Using a wrench and Allen wrench, the switch can be easily replaced without removing the body.

	K	M	KE
Material	PEEK	POM	Conductive PEEK
			
Features	It has excellent chemical resistance, heat resistance and mechanical strength. Ideal for liquid crystal and semiconductor manufacturing equipment.	The present invention has good wear resistance, self-lubrication properties, and excellent cost balance. Applicable to various manufacturing lines such as food-related and packaging machines.	In addition to the material characteristics of PEEK, it has conductivity to eliminate static electricity. Also applicable to electronic part manufacturing equipment.

Pad shape



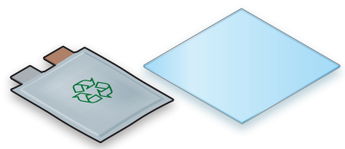




Flexible holder is provided as standard to enable suction of tilted workpieces.

Recommended workpiece

Ideal for liquid crystal glass, painting process and semiconductor manufacturing equipment, etc.



Pad diameter

3 types | 10 | 20 | 30

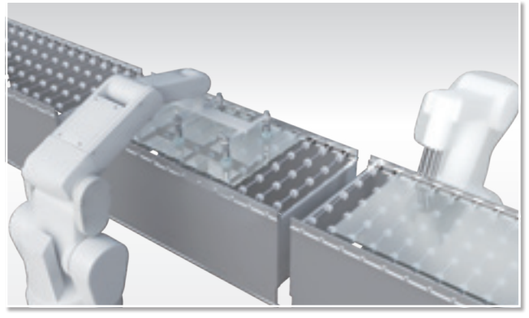
Pad material

3 types | PEEK | POM | Conductive POM

Solution examples

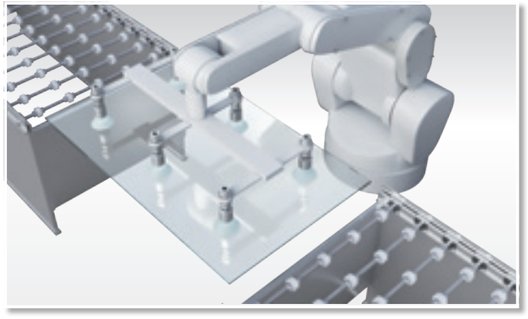
Workpieces that must not have suction marks

It is a hard pad that uses resin instead of rubber, allowing handling of glass substrates and solar cells without suction marks.



Transport of glass substrates and solar cells

FPD, solar cell, etc.



How to order

●Suction mark prevention

Suction pad

VSP – C – 10 – -20 – Q – K – 4 – [ ] – V

VSP	C	10	-20	Q	K	4	[ ]	V
Model No.	❶ Holder type	❷ Pad diameter	❸ Stroke option	❹ Pad shape	❺ Pad material	❼ Port size/shape	❽ Buffer load	❾ Position locking valve

Resin pad only

VSPG — 10 — Q – K – RP

VSPG	10	Q	K	RP
Model No.	❷ Pad diameter	❹ Pad shape	❺ Pad material	❻ Flexible holder

❶ Holder type

With/without buffer	Type	Vacuum outlet	Code	
Fixed	Standard	Upward direction	A	
	Compact		MA	
	Standard	Lateral direction	B	
	Compact		MB	
	Low height		HE	
		Both lateral directions	HEW	
Buffer type	Standard	Upward direction	C	
	Compact		MC	
	Low dust generation		LFC	
	Lightweight		HC	
	Standard	Lateral direction	D	
	Compact		MD	
	Low dust generation		LFD	
			HD	
	Lightweight	Both lateral directions	HDW	
	Standard	Direct mounting	F	

❷ Pad diameter

Code	Description
10	ø10
20	ø20
30	ø30

❸ Stroke option

Description	Holder type C	D	HC	LFC	LFD	Code	
Specified stroke or without buffer	●	●				Blank	*1, *2
Stroke 2 mm				●		-2	*3
Stroke 5 mm				●	●	- 5	
Stroke 10 mm	●	●	●	●	●	- 10	
Stroke 15 mm	●	●	●	●	●	- 15	
Stroke 20 mm	●	●	●	●	●	- 20	
Stroke 25 mm			●			- 25	
Stroke 30 mm	●	●	●			- 30	
Stroke 40 mm	●	●	●			- 40	
Stroke 50 mm	●	●	●			- 50	

*1:❶Other than C, D, HC, LFC, LFD,❸ is blank.
*2:❸For blank designated strokes, check the stroke dimensions with the O.D. dimensions.
*3:❷For 10, ❸-2 can be selected.

❹ Pad shape

Code	Description	
Q	Suction mark prevention	

❺ Pad material

Code	Description	
K	PEEK	
M	POM	
KE	Conductive PEEK	

❻ Flexible holder

Code	Description
Blank	Resin pad + flexible holder
RP	Resin pad only

Specifications for rechargeable battery (Catalog No.CC-1226A)

●Design compatible with rechargeable battery manufacturing process

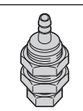
VSP – ..... – P4*

Specifications for food manufacturing processes (Catalog No.CC-1271A)

●Food-grade lubricants that can be used in food manufacturing processes, and resin/rubber materials that are compatible with the Food Sanitation Act are used

VSP – ..... – FP*

❼ Port size/shape

Description	Holder type A	B	C	D	MA	MB	MC	MD	LFC	LFD	HC	HD	HDW	HE	HEW	Code	
(❶:When F)																Blank	
ø1.8 push-in fitting						●	●	●			●	●	●	●	●	2	
ø4 push-in fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4	
ø6 push-in fitting	●	●	●	●		●		●	●	●	●	●	●	●	●	6	
ø4 Push-in fitting, without spring cover			●	●												4C	
ø6 Push-in fitting, without spring cover			●	●												6C	
ø4 barbed fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	4T	
ø6 barbed fitting	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	6T	
ø4 barbed fitting, without spring cover			●	●												4TC	
ø6 Barbed fitting, without spring cover			●	●												6TC	

*1:❶C, D❸-20 up-For 50, ❼4C, 6C, 4TC, 6TC can be selected.
*2:❷The port size and shape that can be selected differ depending on the pad diameter. Check with the combination table below.

❽ Buffer load

Code	Description	
Blank	Standard load or without buffer	*1 *2
L	Low load (1/4 of standard load)	

*1:❶Except for LFC, ❽ is Blank.
*2:For ❸-2, ❽ is Blank.

❾ Position locking valve

Code	Description	
Blank	None	
V	With position locking valve	

Holder shape - pad diameter - pad shape - port size/shape combinations

Holder type	Pad diameter	Push-in fitting ø4 4	ø4 4C	ø6 6	ø6 6C	Barbed fitting ø4 4T	ø4 4TC	ø6 6T	ø6 6TC
A	ø10			●				●	
	ø20, ø30	●		●		●		●	
B	All sizes	●		●		●		●	
C	All sizes	●	●	●	●	●	●	●	●
D	All sizes	●	●	●	●	●	●	●	●

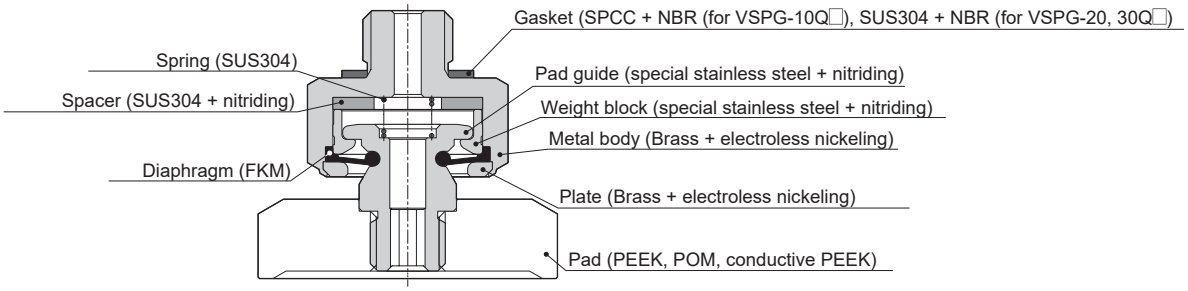
Holder type	Pad diameter	Thread M14	Blank
F	All sizes		●

Holder type	Pad diameter	Push-in fitting ø1.8 2	ø4 4	ø6 6	Barbed fitting ø4 4T	ø6 6T
MA	ø10		●		●	
	ø20, ø30		●		●	●
MB	All sizes	●	●	●	●	●
MC	All sizes	●	●		●	●
MD	All sizes	●	●	●	●	●
LFC	ø10		●		●	●
	ø20, ø30		●	●	●	●
LFD	ø10		●		●	●
	ø20, ø30		●	●	●	●
HC	All sizes	●	●	●	●	●
HD	All sizes	●	●	●	●	●
HDW	All sizes	●	●	●	●	●
HE	All sizes	●	●	●	●	●
HEW	All sizes	●	●	●	●	●

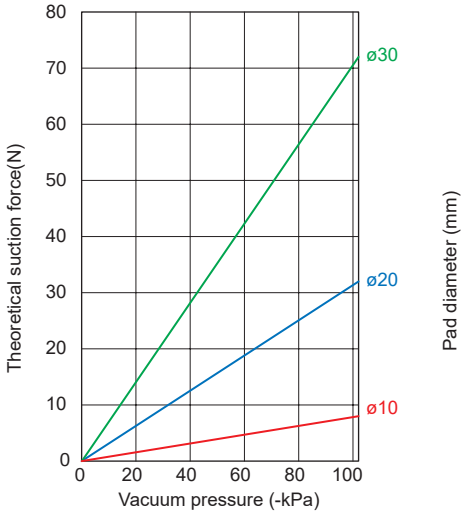
Specifications of flexible holder

Working fluid	Air
Operating vacuum pressure	0 to -100 kPa
Operating ambient temperature range	0 to 60°C (no freezing)

Structure drawing



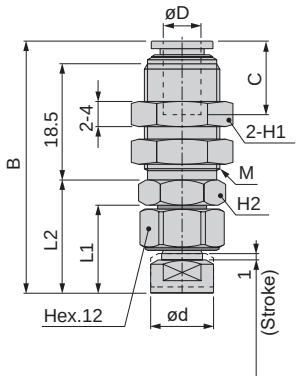
Theoretical suction force



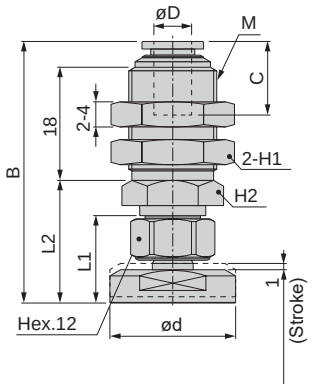
*1: Because the theoretical suction force is the value at static conditions, adopt a safety factor of 1/4 for horizontal lifting and 1/8 for vertical lifting in actual use.

Dimensions (fixed, vacuum outlet top VSP-A, push-in fitting)

●VSP-A10Q*-6



●VSP-A20, 30Q*-4/6

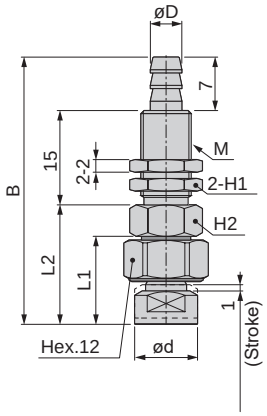


Unit: mm

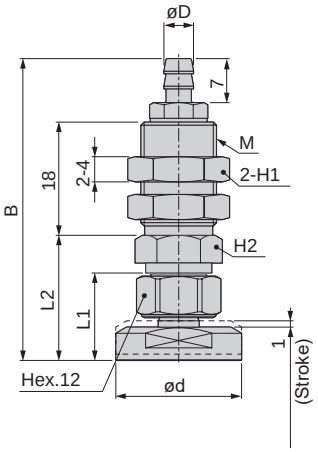
Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	Tube end C	Hexagon H1	Hexagon H2	Weight (g)
VSP-A10Q*-6	10	6	M 12 x 1	40.3	14	18	11.9	14	12	27
VSP-A20Q*-4	20	4	M 12 x 1	50.8	13.9	19.9	11.2	14	12	35
VSP-A20Q*-6		6	M 14 x 1	41.8		19.5	11.9	17	14	41
VSP-A30Q*-4	30	4	M 12 x 1	50.8	13.9	19.9	11.2	14	12	39
VSP-A30Q*-6		6	M 14 x 1	41.8		19.5	11.9	17	14	45

Dimensions (fixed, vacuum outlet top VSP-A, barbed fitting)

●VSP-A10Q*-6T



●VSP-A20, 30Q*-4T/6T

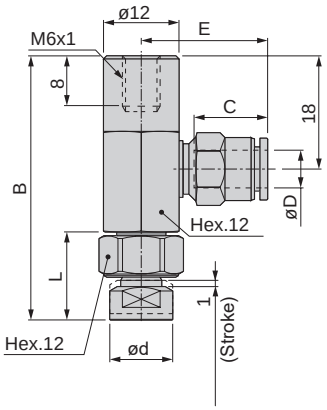


Unit: mm

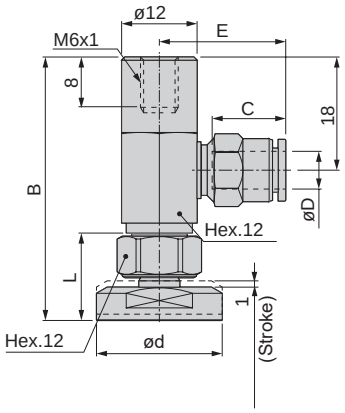
Model No.	Pad diameter ød	Bore size øD	Mounting screw M	B	L1	L2	Hexagon H1	Hexagon H2	Weight (g)
VSP-A10Q*-6T	10	6	M 8 x 0.75	41	14	19	10	10	17
VSP-A20Q*-4T	20	4	M 12 x 1	47.9	13.9	19.9	14	12	34
VSP-A20Q*-6T		6							
VSP-A30Q*-4T	30	4	M 12 x 1	47.9	13.9	19.9	14	12	36
VSP-A30Q*-6T		6							

Dimensions (fixed, vacuum outlet side VSP-B, push-in fitting)

●VSP-B10Q*-4/6



●VSP-B20, 30Q*-4/6

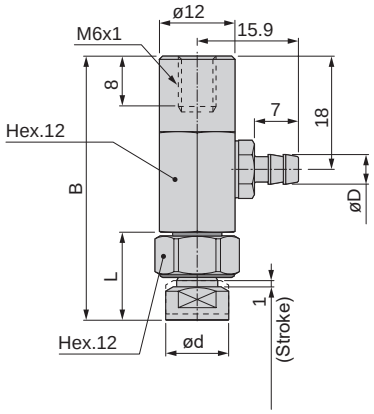


Unit: mm

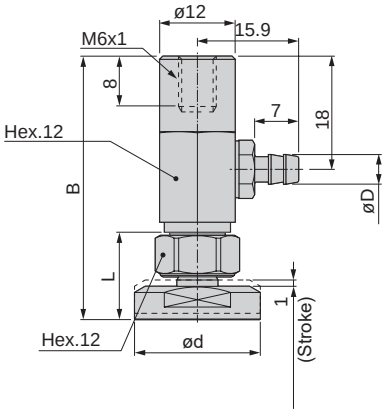
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-B10Q*-4	10	4	42	14	11.2	18.8	35
VSP-B10Q*-6		6			11.9	20.1	36
VSP-B20Q*-4	20	4	41.9	13.9	11.2	18.8	37
VSP-B20Q*-6		6			11.9	20.1	38
VSP-B30Q*-4	30	4	41.9	13.9	11.2	18.8	41
VSP-B30Q*-6		6			11.9	20.1	42

Dimensions (fixed, vacuum outlet side VSP-B, barbed fitting)

●VSP-B10Q*-4T/6T



●VSP-B20, 30Q*-4T/6T

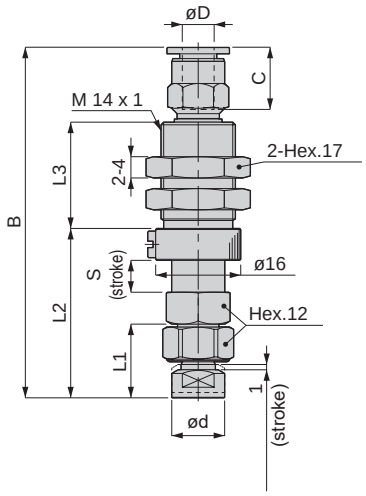


Unit: mm

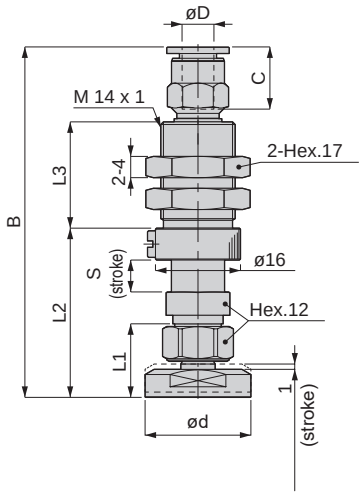
Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-B10Q*-4T	10	2.5	42	14	34
VSP-B10Q*-6T		4			
VSP-B20Q*-4T	20	2.5	41.9	13.9	36
VSP-B20Q*-6T		4			
VSP-B30Q*-4T	30	2.5	41.9	13.9	38
VSP-B30Q*-6T		4			

Dimensions (buffer, vacuum outlet top VSP-C, push-in fitting)

●VSP-C10Q*-4/6
●VSP-C10-□Q*-4/6



●VSP-C20, 30Q*-4/6
●VSP-C20, 30-□Q*-4/6

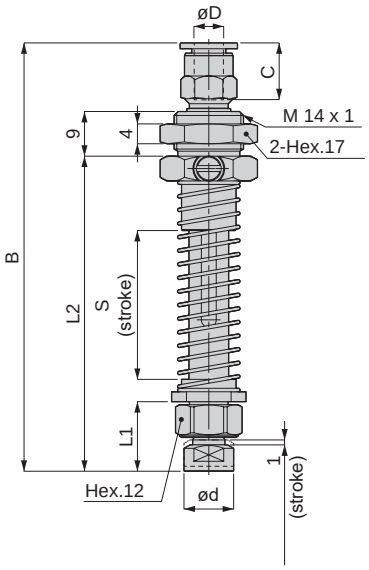


Unit: mm

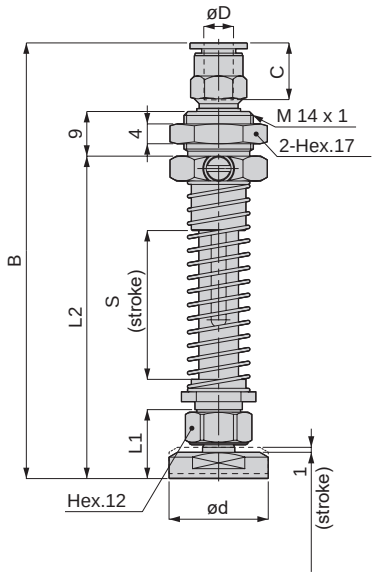
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C10Q*-4	10	4	65	14	32	20	11.2	6	4.0 to 7.1	40
VSP-C10Q*-6		6	66.3				11.9			41
VSP-C10-10Q*-4		4	69.5		36.5		11.2	10	2.0 to 5.2	41
VSP-C10-10Q*-6		6	70.8				11.9			42
VSP-C10-15Q*-4		4	79.5		41.5	25	11.2	15	2.0 to 5.9	46
VSP-C10-15Q*-6		6	80.8				11.9			47
VSP-C10-20Q*-4		4	95.5		48.5	34	11.2	20	1.1 to 4.8	54
VSP-C10-20Q*-6		6	96.8				11.9			55
VSP-C20Q*-4	20	4	64.9	13.9	31.9	20	11.2	6	7.0 to 12.6	43
VSP-C20Q*-6		6	66.2				11.9			44
VSP-C20-10Q*-4		4	70.9		37.9		11.2	10	3.3 to 10.0	45
VSP-C20-10Q*-6		6	72.2				11.9			46
VSP-C20-15Q*-4		4	80.9		42.9	25	11.2	15	3.3 to 10.4	50
VSP-C20-15Q*-6		6	82.2				11.9			51
VSP-C20-20Q*-4		4	96.9		49.9	34	11.2	20	2.0 to 8.7	57
VSP-C20-20Q*-6		6	98.2				11.9			58
VSP-C30Q*-4	30	4	64.9	13.9	31.9	20	11.2	6	7.0 to 12.6	47
VSP-C30Q*-6		6	66.2				11.9			48
VSP-C30-10Q*-4		4	70.9		37.9		11.2	10	3.3 to 10.0	49
VSP-C30-10Q*-6		6	72.2				11.9			50
VSP-C30-15Q*-4		4	80.9		42.9	25	11.2	15	3.3 to 10.4	54
VSP-C30-15Q*-6		6	82.2				11.9			55
VSP-C30-20Q*-4		4	96.9		49.9	34	11.2	20	2.0 to 8.7	61
VSP-C30-20Q*-6		6	98.2				11.9			62

Dimensions (buffer, vacuum outlet top VSP-C, push-in fitting without spring cover)

●VSP-C10-□Q*-4C/6C



●VSP-C20, 30-□Q*-4C/6C



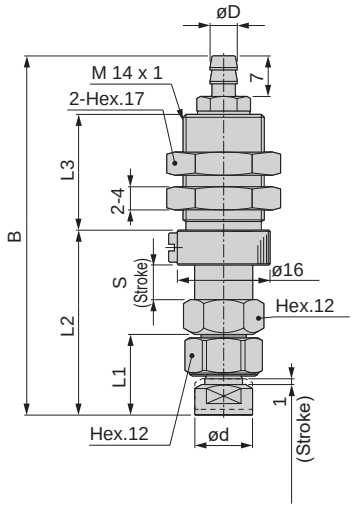
Unit: mm

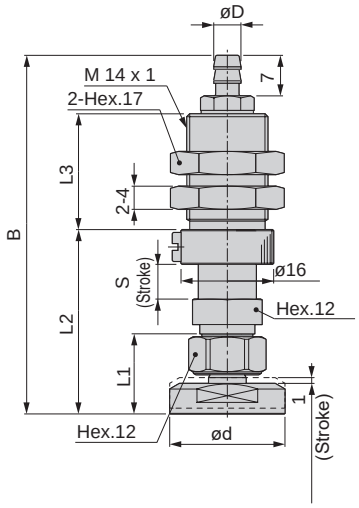
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-C10-20Q*-4C	10	4	72.5	14	50.5	11.2	20	1.5 to 4.9	49
VSP-C10-20Q*-6C		6	73.8			11.9			50
VSP-C10-30Q*-4C		4	85.5		63.5	11.2	30	1.1 to 4.8	54
VSP-C10-30Q*-6C		6	86.8			11.9			55
VSP-C10-40Q*-4C		4	98.5		76.5	11.2	40	1.0 to 4.5	59
VSP-C10-40Q*-6C		6	99.8			11.9			60
VSP-C10-50Q*-4C		4	111.5		89.5	11.2	50	0.9 to 4.5	64
VSP-C10-50Q*-6C		6	112.8			11.9			65
VSP-C20-20Q*-4C	20	4	73.9	13.9	51.9	11.2	20	1.5 to 4.9	53
VSP-C20-20Q*-6C		6	75.2			11.9			54
VSP-C20-30Q*-4C		4	86.9		64.9	11.2	30	1.1 to 4.8	58
VSP-C20-30Q*-6C		6	88.2			11.9			59
VSP-C20-40Q*-4C		4	99.9		77.9	11.2	40	1.0 to 4.5	63
VSP-C20-40Q*-6C		6	101.2			11.9			64
VSP-C20-50Q*-4C		4	112.9		90.9	11.2	50	0.9 to 4.5	68
VSP-C20-50Q*-6C		6	114.2			11.9			69
VSP-C30-20Q*-4C	30	4	73.9	13.9	51.9	11.2	20	1.5 to 4.9	57
VSP-C30-20Q*-6C		6	75.2			11.9			58
VSP-C30-30Q*-4C		4	86.9		64.9	11.2	30	1.1 to 4.8	62
VSP-C30-30Q*-6C		6	88.2			11.9			63
VSP-C30-40Q*-4C		4	99.9		77.9	11.2	40	1.0 to 4.5	67
VSP-C30-40Q*-6C		6	101.2			11.9			68
VSP-C30-50Q*-4C		4	112.9		90.9	11.2	50	0.9 to 4.5	72
VSP-C30-50Q*-6C		6	114.2			11.9			73

Dimensions (buffer, vacuum outlet top VSP-C, barbed fitting)

●VSP-C10Q*-4T/6T
●VSP-C10-□Q*-4T/6T

●VSP-C20, 30Q*-4T/6T
●VSP-C20, 30-□Q*-4T/6T



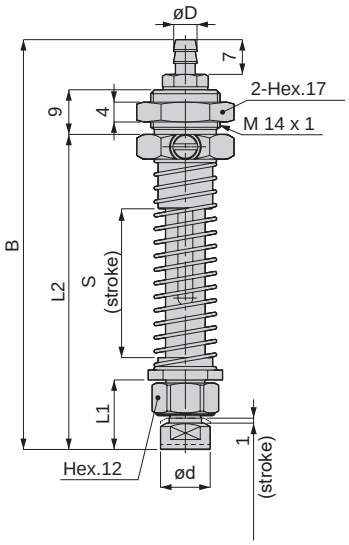


Unit: mm

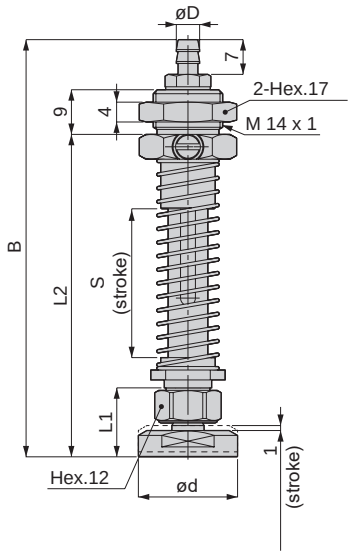
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-C10Q*-4T	10	4	62.1	14	32	20	6	4.0 to 7.1	39
VSP-C10Q*-6T		6							
VSP-C10-10Q*-4T		4	66.6		36.5		10	2.0 to 5.2	40
VSP-C10-10Q*-6T		6							
VSP-C10-15Q*-4T		4	76.6		41.5	25	15	2.0 to 5.9	45
VSP-C10-15Q*-6T		6							
VSP-C10-20Q*-4T		4	92.6		48.5	34	20	1.1 to 4.8	53
VSP-C10-20Q*-6T		6							
VSP-C20Q*-4T	20	4	62	13.9	31.9	20	6	7.0 to 12.6	43
VSP-C20Q*-6T		6							
VSP-C20-10Q*-4T		4	68		37.9		10	3.3 to 10.0	44
VSP-C20-10Q*-6T		6							
VSP-C20-15Q*-4T		4	78		42.9	25	15	3.3 to 10.4	49
VSP-C20-15Q*-6T		6							
VSP-C20-20Q*-4T		4	94		49.9	34	20	2.0 to 8.7	56
VSP-C20-20Q*-6T		6							
VSP-C30Q*-4T	30	4	62	13.9	31.9	20	6	7.0 to 12.6	46
VSP-C30Q*-6T		6							
VSP-C30-10Q*-4T		4	68		37.9		10	3.3 to 10.0	48
VSP-C30-10Q*-6T		6							
VSP-C30-15Q*-4T		4	78		42.9	25	15	3.3 to 10.4	53
VSP-C30-15Q*-6T		6							
VSP-C30-20Q*-4T		4	94		49.9	34	20	1.1 to 4.8	60
VSP-C30-20Q*-6T		6							

Dimensions (buffer, vacuum outlet top VSP-C, barbed fitting without spring cover)

●VSP-C10-□Q*-4TC/6TC



●VSP-C20, 30-□Q*-4TC/6TC

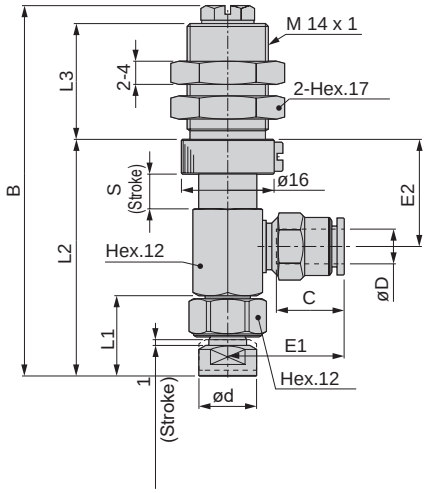


Unit: mm

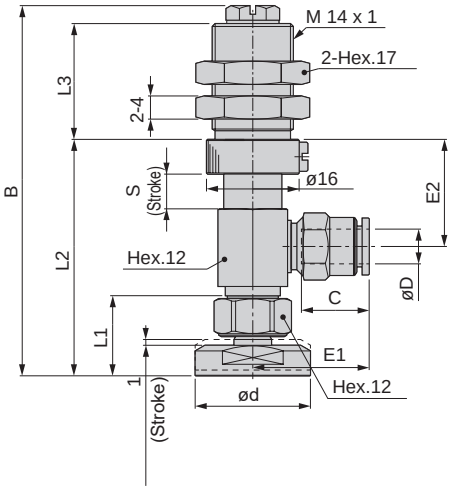
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Stroke S	Spring force (N)	Weight (g)
VSP-C10-20Q*-4TC	10	4	69.6	14	50.5	20	1.5 to 4.9	47
VSP-C10-20Q*-6TC		6						
VSP-C10-30Q*-4TC		4	82.6		63.5	30	1.1 to 4.8	53
VSP-C10-30Q*-6TC		6						
VSP-C10-40Q*-4TC		4	95.6		76.5	40	1.0 to 4.5	58
VSP-C10-40Q*-6TC		6						
VSP-C10-50Q*-4TC		4	108.6		89.5	50	0.9 to 4.5	63
VSP-C10-50Q*-6TC		6						
VSP-C20-20Q*-4TC	20	4	71	13.9	51.9	20	1.5 to 4.9	52
VSP-C20-20Q*-6TC		6						
VSP-C20-30Q*-4TC		4	84		64.9	30	1.1 to 4.8	57
VSP-C20-30Q*-6TC		6						
VSP-C20-40Q*-4TC		4	97		77.9	40	1.0 to 4.5	62
VSP-C20-40Q*-6TC		6						
VSP-C20-50Q*-4TC		4	110		90.9	50	0.9 to 4.5	67
VSP-C20-50Q*-6TC		6						
VSP-C30-20Q*-4TC	30	4	71	13.9	51.9	20	1.5 to 4.9	56
VSP-C30-20Q*-6TC		6						
VSP-C30-30Q*-4TC		4	84		64.9	30	1.1 to 4.8	61
VSP-C30-30Q*-6TC		6						
VSP-C30-40Q*-4TC		4	97		77.9	40	1.0 to 4.5	66
VSP-C30-40Q*-6TC		6						
VSP-C30-50Q*-4TC		4	110		90.9	50	0.9 to 4.5	71
VSP-C30-50Q*-6TC		6						

Dimensions (buffer, vacuum outlet side VSP-D, push-in fitting)

●VSP-D10Q*-4/6
●VSP-D10-□Q*-4/6



●VSP-D20, 30Q*-4/6
●VSP-D20, 30-□Q*-4/6

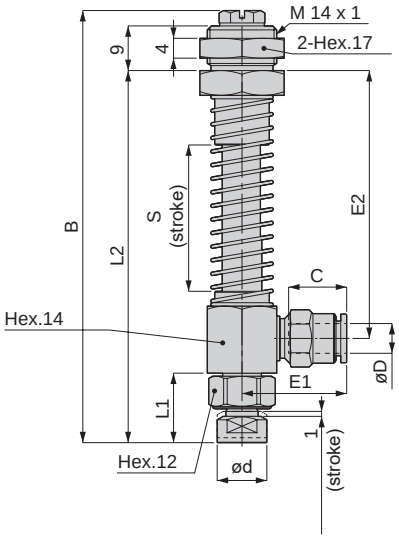


Unit: mm

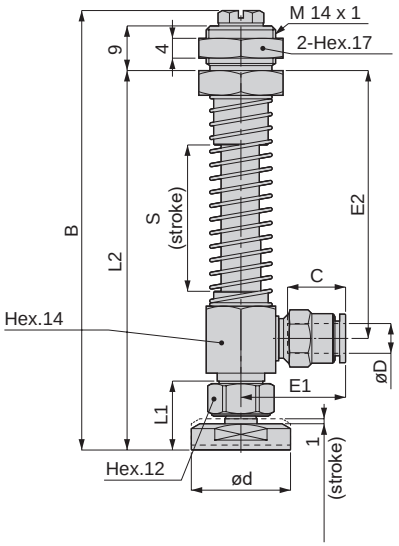
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D10Q*-4	10	4	64.1	14	41	20	11.2	18.8	18.5	6	4.0 to 7.1	52
VSP-D10Q*-6		6					11.9	20.1				53
VSP-D10-10Q*-4		4	69.1		46		11.2	18.8	25	10	2.0 to 5.2	55
VSP-D10-10Q*-6		6					11.9	20.1				56
VSP-D10-15Q*-4		4	79.1		51	25	11.2	18.8	30	15	2.0 to 5.9	61
VSP-D10-15Q*-6		6					11.9	20.1				62
VSP-D10-20Q*-4		4	95.1		58	34	11.2	18.8	37	20	1.1 to 4.8	71
VSP-D10-20Q*-6		6					11.9	20.1				72
VSP-D20Q*-4	20	4	64	13.9	40.9	20	11.2	18.8	18.5	6	7.0 to 12.6	55
VSP-D20Q*-6		6					11.9	20.1				56
VSP-D20-10Q*-4		4	70		46.9		11.2	18.8	24.5	10	3.3 to 10.0	58
VSP-D20-10Q*-6		6					11.9	20.1				59
VSP-D20-15Q*-4		4	80		51.9	25	11.2	18.8	29.5	15	3.3 to 10.4	65
VSP-D20-15Q*-6		6					11.9	20.1				66
VSP-D20-20Q*-4		4	96		58.9	34	11.2	18.8	36.5	20	2.0 to 8.7	75
VSP-D20-20Q*-6		6					11.9	20.1				76
VSP-D30Q*-4	30	4	64	13.9	40.9	20	11.2	18.8	18.5	6	7.0 to 12.6	59
VSP-D30Q*-6		6					11.9	20.1				60
VSP-D30-10Q*-4		4	70		46.9		11.2	18.8	24.5	10	3.3 to 10.0	62
VSP-D30-10Q*-6		6					11.9	20.1				63
VSP-D30-15Q*-4		4	80		51.9	25	11.2	18.8	29.5	15	3.3 to 10.4	69
VSP-D30-15Q*-6		6					11.9	20.1				70
VSP-D30-20Q*-4		4	96		58.9	34	11.2	18.8	36.5	20	2.0 to 8.7	79
VSP-D30-20Q*-6		6					11.9	20.1				80

Dimensions (buffer, vacuum outlet side VSP-D, push-in fitting without spring cover)

●VSP-D10-□Q*-4C/6C



●VSP-D20, 30-□Q*-4C/6C

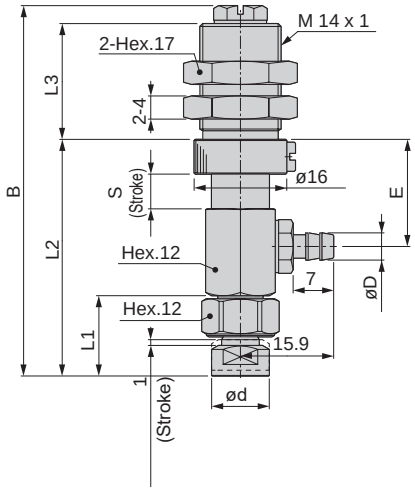


Unit: mm

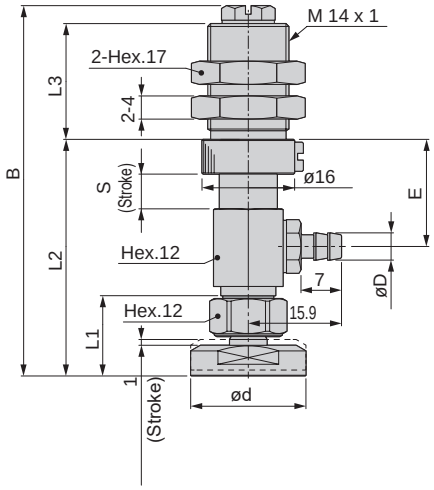
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-D10-20Q*-4C	10	4	74.1	14	62	11.2	19.8	40.5	20	1.5 to 4.9	70
VSP-D10-20Q*-6C		6				11.9	21.1				71
VSP-D10-30Q*-4C		4	87.1		75	11.2	19.8	53.5	30	1.1 to 4.8	77
VSP-D10-30Q*-6C		6				11.9	21.1				78
VSP-D10-40Q*-4C		4	100.1		88	11.2	19.8	66.5	40	1.0 to 4.5	83
VSP-D10-40Q*-6C		6				11.9	21.1				84
VSP-D10-50Q*-4C		4	113.1		101	11.2	19.8	79.5	50	0.9 to 4.5	90
VSP-D10-50Q*-6C		6				11.9	21.1				91
VSP-D20-20Q*-4C	20	4	75.5	13.9	63.4	11.2	19.8	41	20	1.5 to 4.9	73
VSP-D20-20Q*-6C		6				11.9	21.1				74
VSP-D20-30Q*-4C		4	88.5		76.4	11.2	19.8	54	30	1.1 to 4.8	80
VSP-D20-30Q*-6C		6				11.9	21.1				81
VSP-D20-40Q*-4C		4	101.5		89.4	11.2	19.8	67	40	1.0 to 4.5	86
VSP-D20-40Q*-6C		6				11.9	21.1				87
VSP-D20-50Q*-4C		4	114.5		102.4	11.2	19.8	80	50	0.9 to 4.5	93
VSP-D20-50Q*-6C		6				11.9	21.1				94
VSP-D30-20Q*-4C	30	4	75.5	13.9	63.4	11.2	19.8	41	20	1.5 to 4.9	77
VSP-D30-20Q*-6C		6				11.9	21.1				78
VSP-D30-30Q*-4C		4	88.5		76.4	11.2	19.8	54	30	1.1 to 4.8	84
VSP-D30-30Q*-6C		6				11.9	21.1				85
VSP-D30-40Q*-4C		4	101.5		89.4	11.2	19.8	67	40	1.0 to 4.5	90
VSP-D30-40Q*-6C		6				11.9	21.1				91
VSP-D30-50Q*-4C		4	114.5		102.4	11.2	19.8	80	50	0.9 to 4.5	97
VSP-D30-50Q*-6C		6				11.9	21.1				98

Dimensions (buffer, vacuum outlet side VSP-D, barbed fitting)

●VSP-D10Q*-4T/6T
●VSP-D10-□Q*-4T/-6T



●VSP-D20, 30Q*-4T/6T
●VSP-D20, 30-□Q*-4T/-6T

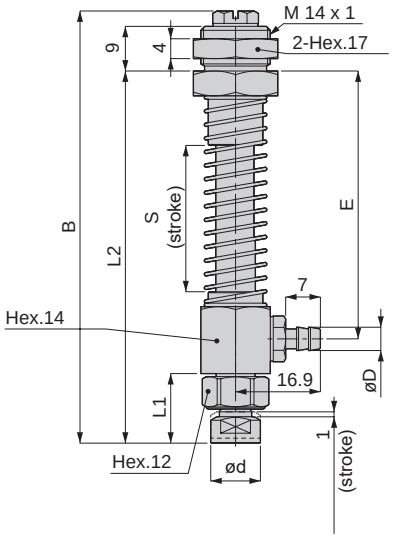


Unit: mm

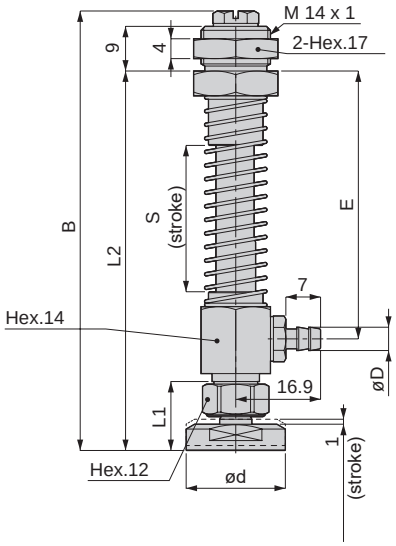
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	E	Stroke S	Spring force (N)	Weight (g)
VSP-D10Q*-4T	10	2.5	64.1	14	41	20	18.5	6	4.0 to 7.1	51
VSP-D10Q*-6T		4								
VSP-D10-10Q*-4T		2.5	69.1		46		25	10	2.0 to 5.2	56
VSP-D10-10Q*-6T		4								
VSP-D10-15Q*-4T		2.5	79.1		51	25	30	15	2.0 to 5.9	62
VSP-D10-15Q*-6T		4								
VSP-D10-20Q*-4T		2.5	95.1		58	34	37	20	1.1 to 4.8	72
VSP-D10-20Q*-6T		4								
VSP-D20Q*-4T	20	2.5	64	13.9	40.9	20	18.5	6	7.0 to 12.6	53
VSP-D20Q*-6T		4								
VSP-D20-10Q*-4T		2.5	70		46.9		24.5	10	3.3 to 10.0	59
VSP-D20-10Q*-6T		4								
VSP-D20-15Q*-4T		2.5	80		51.9	25	29.5	15	3.3 to 10.4	66
VSP-D20-15Q*-6T		4								
VSP-D20-20Q*-4T		2.5	96		58.9	34	36.5	20	2.0 to 8.7	76
VSP-D20-20Q*-6T		4								
VSP-D30Q*-4T	30	2.5	64	13.9	40.9	20	18.5	6	7.0 to 12.6	57
VSP-D30Q*-6T		4								
VSP-D30-10Q*-4T		2.5	70		46.9		24.5	10	3.3 to 10.0	63
VSP-D30-10Q*-6T		4								
VSP-D30-15Q*-4T		2.5	80		51.9	25	29.5	15	3.3 to 10.4	70
VSP-D30-15Q*-6T		4								
VSP-D30-20Q*-4T		2.5	96		58.9	34	36.5	20	2.0 to 8.7	80
VSP-D30-20Q*-6T		4								

Dimensions (buffer, vacuum outlet side VSP-D, barbed fitting without spring cover)

●VSP-D10-□Q*-4TC/6TC



●VSP-D20, 30-□Q*-4TC/6TC

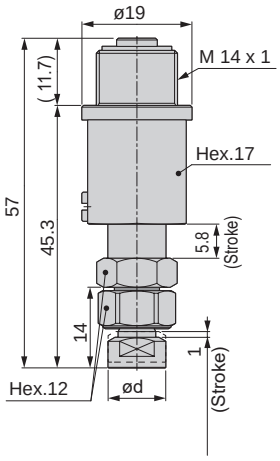


Unit: mm

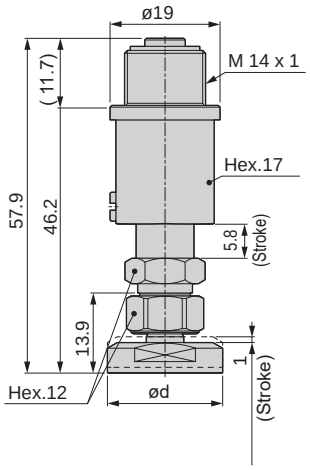
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-D10-20Q*-4TC	10	2.5	74.1	14	62	40.5	20	1.5 to 4.9	69
VSP-D10-20Q*-6TC		4							
VSP-D10-30Q*-4TC		2.5	87.1		75	53.5	30	1.1 to 4.8	76
VSP-D10-30Q*-6TC		4							
VSP-D10-40Q*-4TC		2.5	100.1		88	66.5	40	1.0 to 4.5	82
VSP-D10-40Q*-6TC		4							
VSP-D10-50Q*-4TC		2.5	113.1		101	79.5	50	0.9 to 4.5	89
VSP-D10-50Q*-6TC		4							
VSP-D20-20Q*-4TC	20	4	75.5	13.9	63.4	41	20	1.5 to 4.9	72
VSP-D20-20Q*-6TC		6							
VSP-D20-30Q*-4TC		4	88.5		76.4	54	30	1.1 to 4.8	79
VSP-D20-30Q*-6TC		6							
VSP-D20-40Q*-4TC		4	101.5		89.4	67	40	1.0 to 4.5	85
VSP-D20-40Q*-6TC		6							
VSP-D20-50Q*-4TC		4	114.5		102.4	80	50	0.9 to 4.5	92
VSP-D20-50Q*-6TC		6							
VSP-D30-20Q*-4TC	30	4	75.5	13.9	63.4	41	20	1.5 to 4.9	76
VSP-D30-20Q*-6TC		6							
VSP-D30-30Q*-4TC		4	88.5		76.4	54	30	1.1 to 4.8	83
VSP-D30-30Q*-6TC		6							
VSP-D30-40Q*-4TC		4	101.5		89.4	67	40	1.0 to 4.5	89
VSP-D30-40Q*-6TC		6							
VSP-D30-50Q*-4TC		4	114.5		102.4	80	50	0.9 to 4.5	96
VSP-D30-50Q*-6TC		6							

Dimensions (direct mounting fixed VSP-F male thread)

●VSP-F10Q*



●VSP-F20, 30Q*

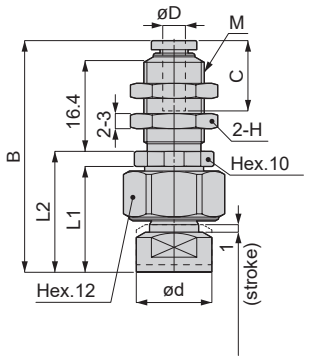


Unit: mm

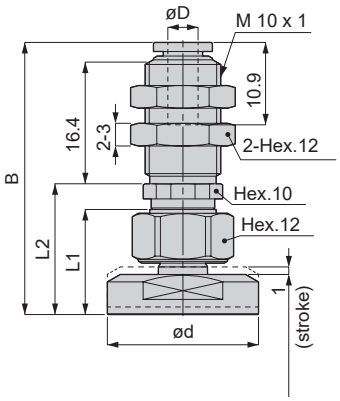
Model No.	Pad diameter ød	Spring force (N)	Weight (g)
VSP-F10Q*	10	7.9 to 15	61
VSP-F20Q*	20	7.9 to 15	63
VSP-F30Q*	30	7.9 to 15	67

Dimensions (compact fixed, vacuum outlet top VSP-MA, push-in fitting)

●VSP-MA10Q*-4



●VSP-MA20, 30Q*-4

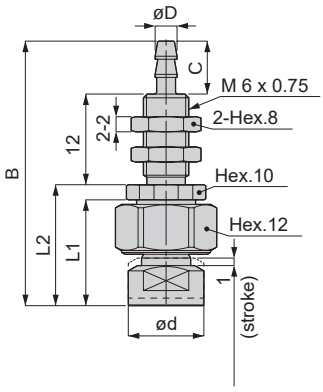


Unit: mm

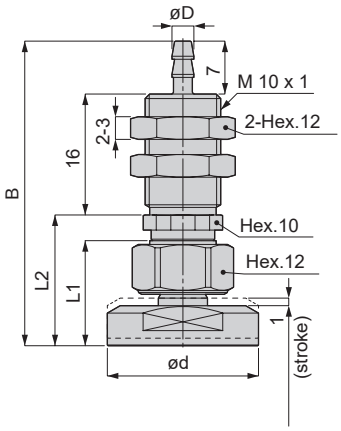
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Weight (g)
VSP-MA10Q*-4	10	4	35	14	16	12
VSP-MA20Q*-4	20	4	36.5	13.9	17.5	16
VSP-MA30Q*-4	30	4	36.5	13.9	17.5	20

Dimensions (compact fixed, vacuum outlet side VSP-MA, barbed fitting)

●VSP-MA10Q*-4T



●VSP-MA20, 30Q*-4T/6T

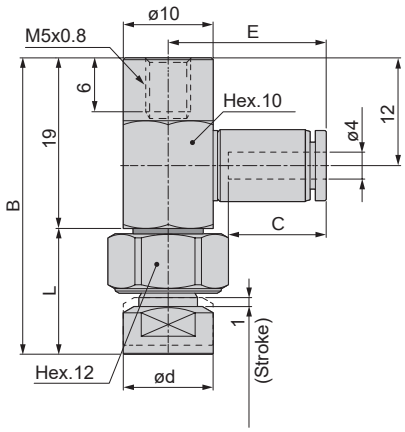


Unit: mm

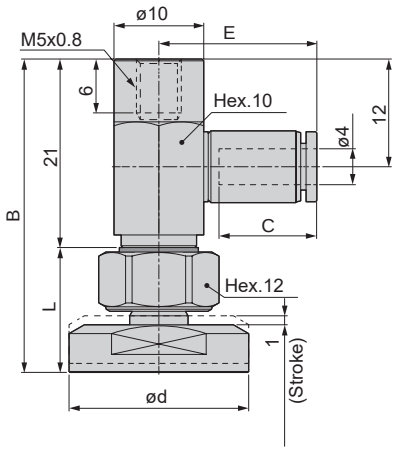
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Weight (g)
VSP-MA10Q*-4T	10	2.5	35	14	16	9.1
VSP-MA20Q*-4T	20	2.5	40.5	13.9	17.5	16
VSP-MA20Q*-6T		4				
VSP-MA30Q*-4T	30	2.5	40.5	13.9	17.5	20
VSP-MA30Q*-6T		4				

Dimensions (compact fixed, vacuum outlet side VSP-MB, push-in fitting)

●VSP-MB10Q*-2/4/6



●VSP-MB20, 30Q*-2/4/6

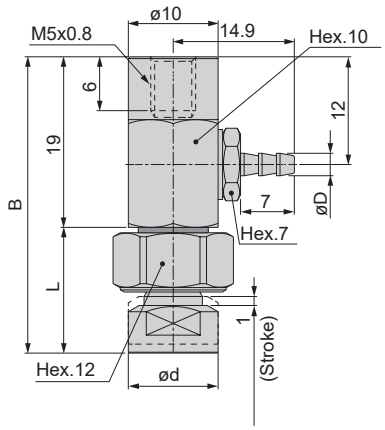


Unit: mm

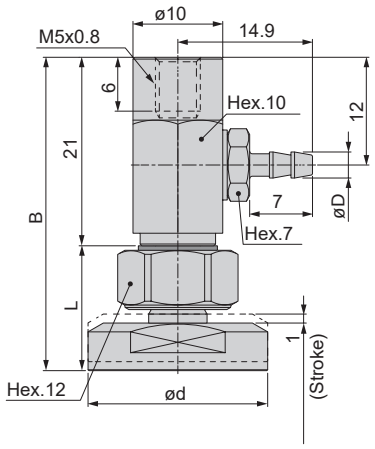
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-MB10Q*-2	10	1.8	33	14	8.4	13.7	13
VSP-MB10Q*-4		4			11.2	17.8	14
VSP-MB10Q*-6		6			11.9	19.6	15
VSP-MB20Q*-2	20	1.8	35.1	13.9	8.4	13.7	16
VSP-MB20Q*-4		4			11.2	17.8	17
VSP-MB20Q*-6		6			11.9	19.6	18
VSP-MB30Q*-2	30	1.8	35.1	13.9	8.4	13.7	20
VSP-MB30Q*-4		4			11.2	17.8	21
VSP-MB30Q*-6		6			11.9	19.6	22

Dimensions (compact fixed, vacuum outlet side VSP-MB, barbed fitting)

●VSP-MB10Q*-4T/6T



●VSP-MB20, 30Q*-4T/6T

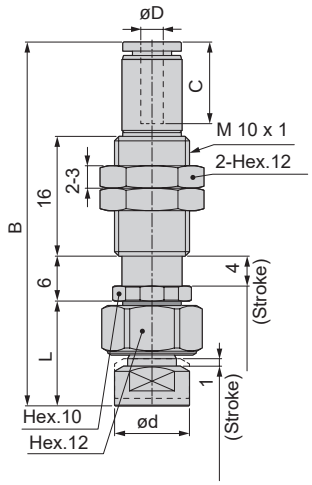


Unit: mm

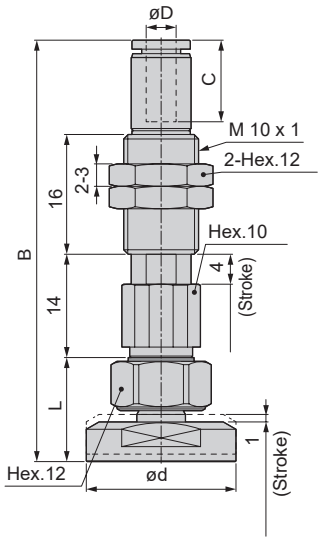
Model No.	Pad diameter ød	Bore size øD	B	L	Weight (g)
VSP-MB10Q*-4T	10	2.5	33	14	13
VSP-MB10Q*-6T		4			
VSP-MB20Q*-4T	20	2.5	35.1	13.9	16
VSP-MB20Q*-6T		4			
VSP-MB30Q*-4T	30	2.5	35.1	13.9	20
VSP-MB30Q*-6T		4			

Dimensions (compact buffer, vacuum outlet top VSP-MC, push-in fitting)

●VSP-MC10Q*-2/4



●VSP-MC20, 30Q*-2/4

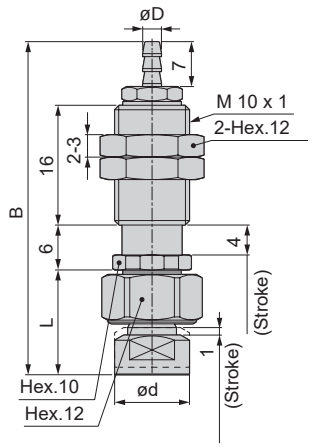


Unit: mm

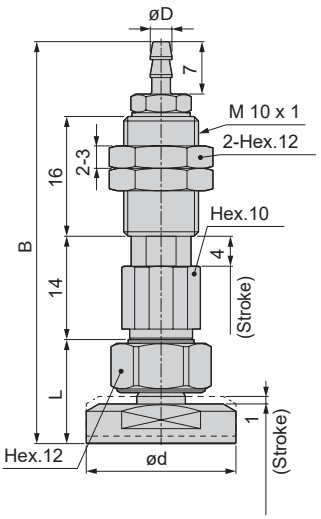
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	Spring force (N)	Weight (g)
VSP-MC10Q*-2	10	1.8	44.9	14	8.4	1 to 1.3	21
VSP-MC10Q*-4		4	49		11.2		22
VSP-MC20Q*-2	20	1.8	52.8	13.9	8.4	1 to 1.3	27
VSP-MC20Q*-4		4	56.9		11.2		28
VSP-MC30Q*-2	30	1.8	52.8	13.9	8.4	1 to 1.3	31
VSP-MC30Q*-4		4	56.9		11.2		32

Dimensions (compact buffer, vacuum outlet top VSP-MC, barbed fitting)

●VSP-MC10Q*-4T/6T



●VSP-MC20, 30Q*-4T/6T

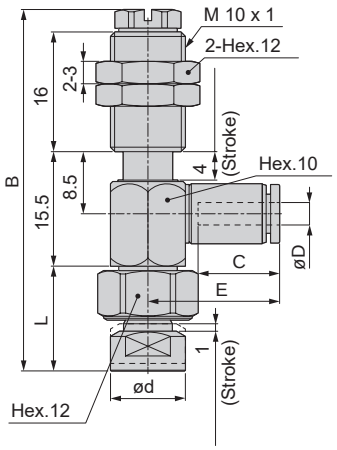


Unit: mm

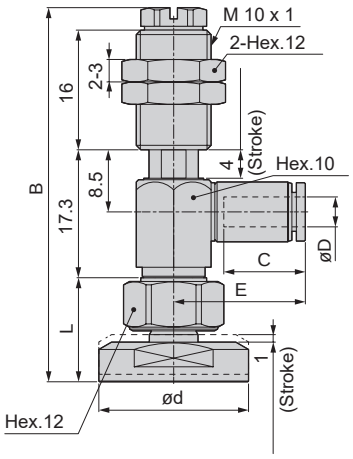
Model No.	Pad diameter ød	Bore size øD	B	L1	Spring force (N)	Weight (g)
VSP-MC10Q*-4T	10	2.5	46.1	14	0.5 to 0.6	20
VSP-MC10Q*-6T		4				
VSP-MC20Q*-4T	20	2.5	53.8	13.9	1 to 1.3	27
VSP-MC20Q*-6T		4				
VSP-MC30Q*-4T	30	2.5	53.8	13.9	1 to 1.3	31
VSP-MC30Q*-6T		4				

Dimensions (compact buffer, vacuum outlet side VSP-MD, push-in fitting)

●VSP-MD10Q*-2/4/6



●VSP-MD20, 30Q*-2/4/6

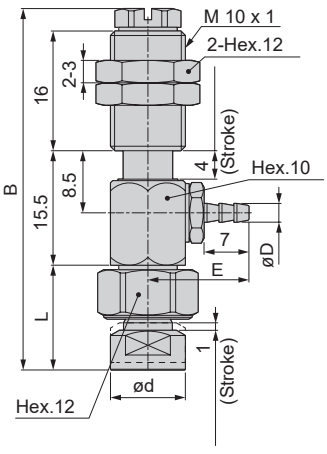


Unit: mm

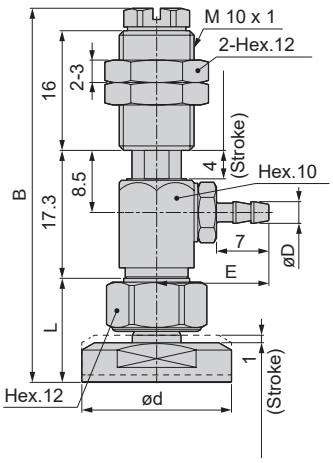
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Spring force (N)	Weight (g)
VSP-MD10Q*-2	10	1.8	48.5	14	8.4	13.6	1 to 1.3	28
VSP-MD10Q*-4		4			11.2	17.7		29
VSP-MD10Q*-6		6			11.9	19.5		30
VSP-MD20Q*-2	20	1.8	50.2	13.9	8.4	13.6	1 to 1.3	31
VSP-MD20Q*-4		4			11.2	17.7		32
VSP-MD20Q*-6		6			11.9	19.5		33
VSP-MD30Q*-2	30	1.8	50.2	13.9	8.4	13.6	1 to 1.3	35
VSP-MD30Q*-4		4			11.2	17.7		36
VSP-MD30Q*-6		6			11.9	19.5		37

Dimensions (compact buffer, vacuum outlet side VSP-MD, barbed fitting)

●VSP-MD10Q*-4T/6T



●VSP-MD20, 30Q*-4T/6T

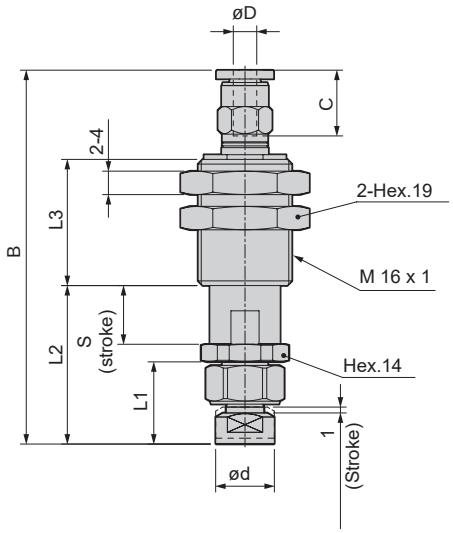


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L	E	Spring force (N)	Weight (g)
VSP-MD10Q*-4T	10	2.5	48.5	14	14.8	1 to 1.3	28
VSP-MD10Q*-6T		4					
VSP-MD20Q*-4T	20	2.5	50.2	13.9	14.8	1 to 1.3	30
VSP-MD20Q*-6T		4					
VSP-MD30Q*-4T	30	2.5	50.2	13.9	14.8	1 to 1.3	34
VSP-MD30Q*-6T		4					

Dimensions (low back buffer, vacuum outlet top VSP-HC, push-in fitting)

●VSP-HC10-□Q*-2/4/6

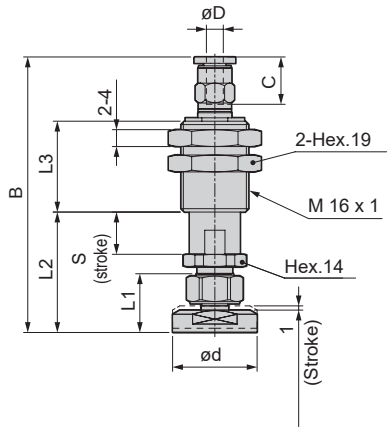


Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC10-10Q*-2	10	1.8	59.6	14	27	21.5	8.4	10	1.0 to 2.4	28
VSP-HC10-10Q*-4		4	63.7				11.2			29
VSP-HC10-10Q*-6		6	65				11.9			30
VSP-HC10-15Q*-2		1.8	69.6		32	26.5	8.4	15	1.0 to 2.7	30
VSP-HC10-15Q*-4		4	73.7				11.2			31
VSP-HC10-15Q*-6		6	75				11.9			32
VSP-HC10-20Q*-2		1.8	79.6		37	31.5	8.4	20	1.0 to 3.0	32
VSP-HC10-20Q*-4		4	83.7				11.2			33
VSP-HC10-20Q*-6		6	85				11.9			34
VSP-HC10-25Q*-2		1.8	90.1		42	37	8.4	25		34
VSP-HC10-25Q*-4		4	94.2				11.2			35
VSP-HC10-25Q*-6		6	95.5				11.9			36
VSP-HC10-30Q*-2		1.8	101.1		47	43	8.4	30		36
VSP-HC10-30Q*-4		4	105.2				11.2			37
VSP-HC10-30Q*-6		6	106.5				11.9			38
VSP-HC10-40Q*-2		1.8	123.1		57	55	8.4	40		40
VSP-HC10-40Q*-4		4	127.2				11.2			41
VSP-HC10-40Q*-6		6	128.5				11.9			42
VSP-HC10-50Q*-2		1.8	144.6		67	66.5	8.4	50	1.0 to 3.1	45
VSP-HC10-50Q*-4		4	148.7				11.2			46
VSP-HC10-50Q*-6		6	150				11.9			47

Dimensions (low back buffer, vacuum outlet top VSP-HC, push-in fitting)

●VSP-HC20, 30-□Q*-2/4/6

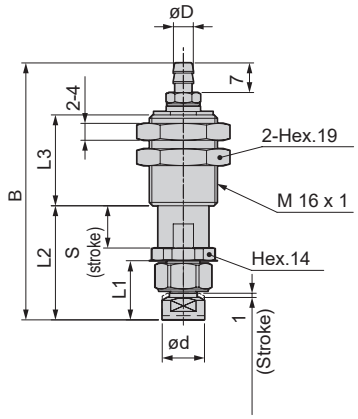


Unit: mm

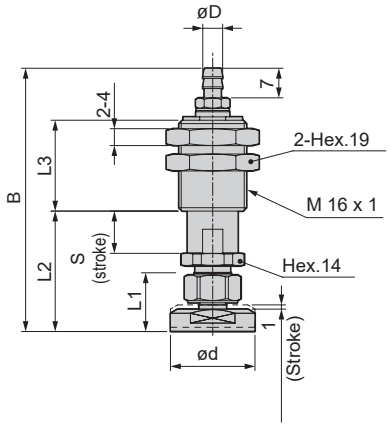
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-HC20-10Q*-2	20	1.8	61.1	13.9	28.5	21.5	8.4	10	1.0 to 2.4	37
VSP-HC20-10Q*-4		4	65.2				11.2			38
VSP-HC20-10Q*-6		6	66.5				11.9			39
VSP-HC20-15Q*-2		1.8	71.1		33.5	26.5	8.4	15	1.0 to 2.7	39
VSP-HC20-15Q*-4		4	75.2				11.2			40
VSP-HC20-15Q*-6		6	76.5				11.9			41
VSP-HC20-20Q*-2		1.8	81.1		38.5	31.5	8.4	20	1.0 to 3.0	41
VSP-HC20-20Q*-4		4	85.2				11.2			42
VSP-HC20-20Q*-6		6	86.5				11.9			43
VSP-HC20-25Q*-2		1.8	91.6		43.5	37	8.4	25		43
VSP-HC20-25Q*-4		4	95.7				11.2			44
VSP-HC20-25Q*-6		6	97				11.9			45
VSP-HC20-30Q*-2		1.8	102.6		48.5	43	8.4	30		45
VSP-HC20-30Q*-4		4	106.7				11.2			46
VSP-HC20-30Q*-6		6	108				11.9			47
VSP-HC20-40Q*-2		1.8	124.6		58.5	55	8.4	40		49
VSP-HC20-40Q*-4		4	128.7				11.2			50
VSP-HC20-40Q*-6		6	130				11.9			51
VSP-HC20-50Q*-2		1.8	146.1		68.5	66.5	8.4	50	1.0 to 3.1	53
VSP-HC20-50Q*-4		4	150.2				11.2			54
VSP-HC20-50Q*-6		6	151.5				11.9			55
VSP-HC30-10Q*-2	30	1.8	61.1	13.9	28.5	21.5	8.4	10	1.0 to 2.4	47
VSP-HC30-10Q*-4		4	65.2				11.2			48
VSP-HC30-10Q*-6		6	66.5				11.9			49
VSP-HC30-15Q*-2		1.8	71.1		33.5	26.5	8.4	15	1.0 to 2.7	49
VSP-HC30-15Q*-4		4	75.2				11.2			50
VSP-HC30-15Q*-6		6	76.5				11.9			51
VSP-HC30-20Q*-2		1.8	81.1		38.5	31.5	8.4	20	1.0 to 3.0	51
VSP-HC30-20Q*-4		4	85.2				11.2			52
VSP-HC30-20Q*-6		6	86.5				11.9			53
VSP-HC30-25Q*-2		1.8	91.6		43.5	37	8.4	25		53
VSP-HC30-25Q*-4		4	95.7				11.2			54
VSP-HC30-25Q*-6		6	97				11.9			55
VSP-HC30-30Q*-2		1.8	102.6		48.5	43	8.4	30		55
VSP-HC30-30Q*-4		4	106.7				11.2			56
VSP-HC30-30Q*-6		6	108				11.9			57
VSP-HC30-40Q*-2		1.8	124.6		58.5	55	8.4	40		59
VSP-HC30-40Q*-4		4	128.7				11.2			60
VSP-HC30-40Q*-6		6	130				11.9			61
VSP-HC30-50Q*-2		1.8	146.1		68.5	66.5	8.4	50	1.0 to 3.1	63
VSP-HC30-50Q*-4		4	150.2				11.2			64
VSP-HC30-50Q*-6		6	151.5				11.9			65

Dimensions (low back buffer, vacuum outlet top VSP-HC, barbed fitting)

●VSP-HC10-□Q*-4T/6T



●VSP-HC20, 30-□Q*-4T/6T

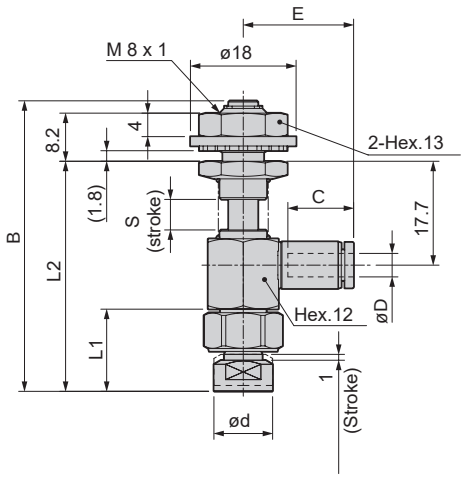


Unit: mm

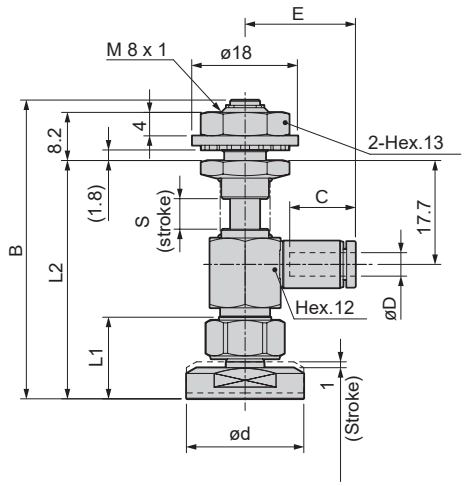
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	Stroke S	Spring force (N)	Weight (g)
VSP-HC10-10Q*-4T	10	2.5	60.8	14	27	21.5	10	1.0 to 2.4	27
VSP-HC10-10Q*-6T		4							
VSP-HC10-15Q*-4T		2.5	70.8		32	26.5	15	1.0 to 2.7	29
VSP-HC10-15Q*-6T		4							
VSP-HC10-20Q*-4T		2.5	80.8		37	31.5	20	1.0 to 3.0	31
VSP-HC10-20Q*-6T		4							
VSP-HC10-25Q*-4T		2.5	91.3		42	37	25		34
VSP-HC10-25Q*-6T		4							
VSP-HC10-30Q*-4T		2.5	102.3		47	43	30		36
VSP-HC10-30Q*-6T		4							
VSP-HC10-40Q*-4T		2.5	124.3		57	55	40		40
VSP-HC10-40Q*-6T		4							
VSP-HC10-50Q*-4T		2.5	145.8		67	66.5	50	1.0 to 3.1	44
VSP-HC10-50Q*-6T		4							
VSP-HC20-10Q*-4T	20	2.5	62.3	13.9	28.5	21.5	10	1.0 to 2.4	36
VSP-HC20-10Q*-6T		4							
VSP-HC20-15Q*-4T		2.5	72.3		33.5	26.5	15	1.0 to 2.7	38
VSP-HC20-15Q*-6T		4							
VSP-HC20-20Q*-4T		2.5	82.3		38.5	31.5	20	1.0 to 3.0	48
VSP-HC20-20Q*-6T		4							
VSP-HC20-25Q*-4T		2.5	92.8		43.5	37	25		51
VSP-HC20-25Q*-6T		4							
VSP-HC20-30Q*-4T		2.5	103.8		48.5	43	30		53
VSP-HC20-30Q*-6T		4							
VSP-HC20-40Q*-4T		2.5	125.8		58.5	55	40		57
VSP-HC20-40Q*-6T		4							
VSP-HC20-50Q*-4T		2.5	147.3		68.5	66.5	50	1.0 to 3.1	61
VSP-HC20-50Q*-6T		4							
VSP-HC30-10Q*-4T	30	2.5	62.3	13.9	28.5	21.5	10	1.0 to 2.4	46
VSP-HC30-10Q*-6T		4							
VSP-HC30-15Q*-4T		2.5	72.3		33.5	26.5	15	1.0 to 2.7	48
VSP-HC30-15Q*-6T		4							
VSP-HC30-20Q*-4T		2.5	82.3		38.5	31.5	20	1.0 to 3.0	58
VSP-HC30-20Q*-6T		4							
VSP-HC30-25Q*-4T		2.5	92.8		43.5	37	25		61
VSP-HC30-25Q*-6T		4							
VSP-HC30-30Q*-4T		2.5	103.8		48.5	43	30		63
VSP-HC30-30Q*-6T		4							
VSP-HC30-40Q*-4T		2.5	125.8		58.5	55	40		67
VSP-HC30-40Q*-6T		4							
VSP-HC30-50Q*-4T		2.5	147.3		68.5	66.5	50	1.0 to 3.1	71
VSP-HC30-50Q*-6T		4							

Dimensions (lightweight buffer, vacuum outlet side VSP-HD, push-in fitting)

●VSP-HD10Q*-2/4/6



●VSP-HD20, 30Q*-2/4/6

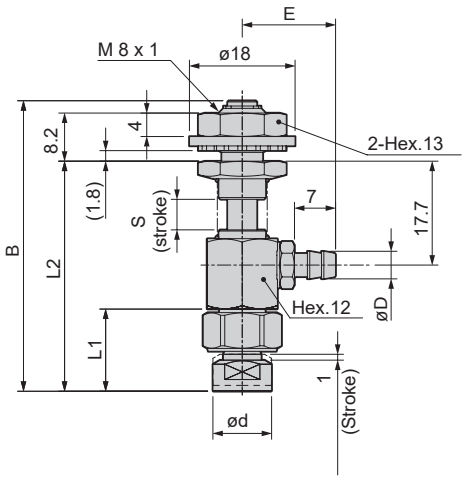


Unit: mm

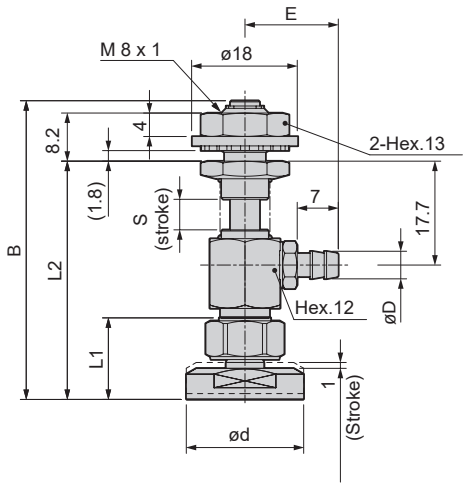
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD10Q*-2	10	1.8	49.5	14	39.2	8.4	14.7	5.2	1.6 to 2.9	36
VSP-HD10Q*-4		4				11.2	18.8			37
VSP-HD10Q*-6		6				11.9	20.6			38
VSP-HD20Q*-2	20	1.8	50.9	13.9	40.6	8.4	14.7	5.2	1.6 to 2.9	47
VSP-HD20Q*-4		4				11.2	18.8			48
VSP-HD20Q*-6		6				11.9	20.6			49
VSP-HD30Q*-2	30	1.8	50.9	13.9	40.6	8.4	14.7	5.2	1.6 to 2.9	56
VSP-HD30Q*-4		4				11.2	18.8			57
VSP-HD30Q*-6		6				11.9	20.6			58

Dimensions (lightweight buffer, vacuum outlet side VSP-HD, barbed fitting)

●VSP-HD10Q*-4T/6T



●VSP-HD20, 30Q*-4T/6T

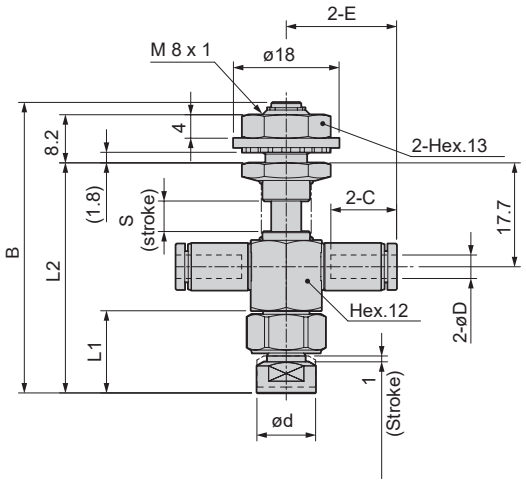


Unit: mm

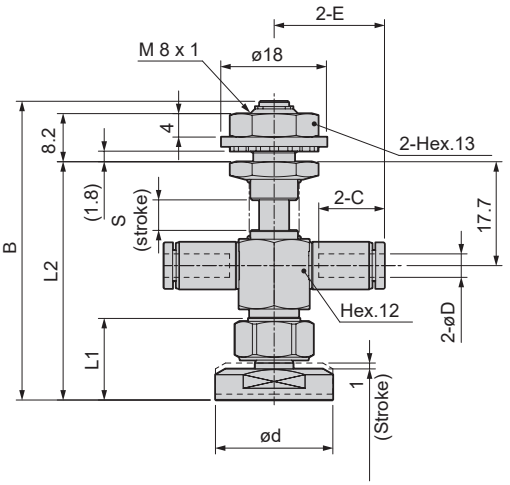
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-HD10Q*-4T	10	2.5	49.5	14	39.2	15.9	5.2	1.6 to 2.9	37
VSP-HD10Q*-6T		4							
VSP-HD20Q*-4T	20	2.5	50.9	13.9	40.6	15.9	5.2	1.6 to 2.9	46
VSP-HD20Q*-6T		4							
VSP-HD30Q*-4T	30	2.5	50.9	13.9	40.6	15.9	5.2	1.6 to 2.9	56
VSP-HD30Q*-6T		4							

Dimensions (lightweight buffer, vacuum outlet on both sides VSP-HDW, push-in fitting)

●VSP-HDW10Q*-2/4/6



●VSP-HDW20, 30Q*-2/4/6

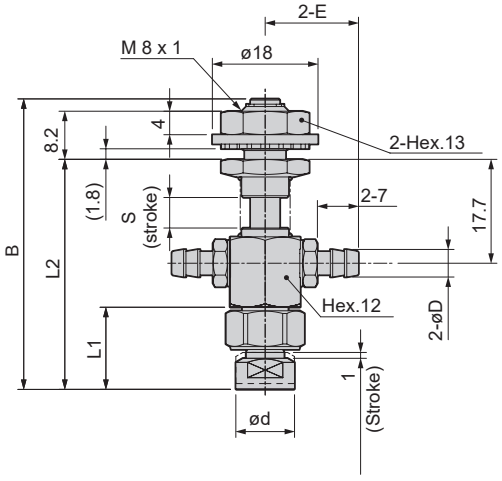


Unit: mm

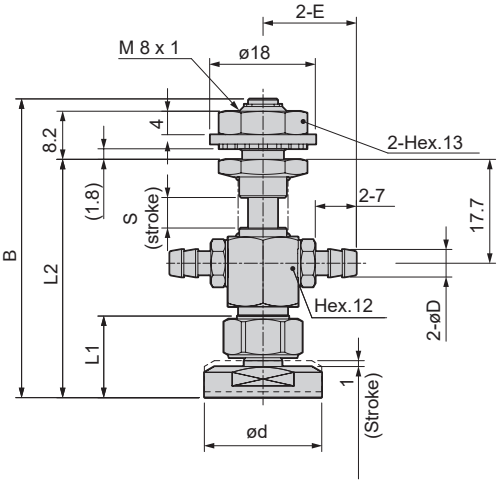
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	Tube end C	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW10Q*-2	10	1.8	49.5	14	39.2	8.4	14.7	5.2	1.6 to 2.9	39
VSP-HDW10Q*-4		4				11.2	18.8			41
VSP-HDW10Q*-6		6				11.9	20.6			43
VSP-HDW20Q*-2	20	1.8	50.9	13.9	40.6	8.4	14.7	5.2	1.6 to 2.9	48
VSP-HDW20Q*-4		4				11.2	18.8			50
VSP-HDW20Q*-6		6				11.9	20.6			52
VSP-HDW30Q*-2	30	1.8	50.9	13.9	40.6	8.4	14.7	5.2	1.6 to 2.9	58
VSP-HDW30Q*-4		4				11.2	18.8			60
VSP-HDW30Q*-6		6				11.9	20.6			62

Dimensions (lightweight buffer, vacuum outlet on both sides VSP-HDW, barbed fitting)

●VSP-HDW10Q*-4T/6T



●VSP-HDW20, 30Q*-4T/6T

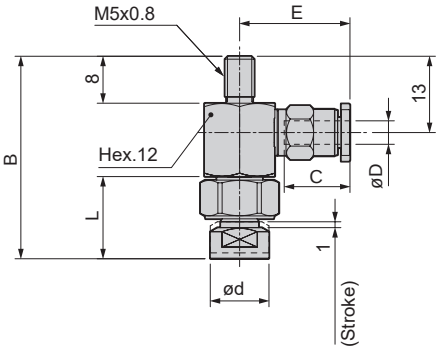


Unit: mm

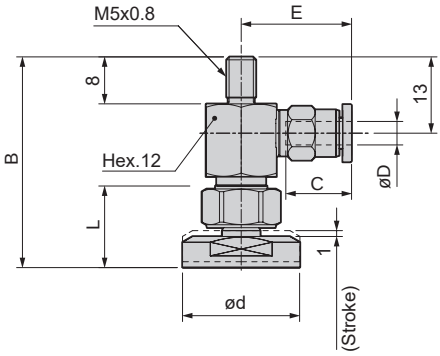
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	E	Stroke S	Spring force (N)	Weight (g)
VSP-HDW10Q*-4T	10	2.5	49.5	14	39.2	15.9	5.2	1.6 to 2.9	38
VSP-HDW10Q*-6T		4							
VSP-HDW20Q*-4T	20	2.5	50.9	13.9	40.6	15.9	5.2	1.6 to 2.9	47
VSP-HDW20Q*-6T		4							
VSP-HDW30Q*-4T	30	2.5	50.9	13.9	40.6	15.9	5.2	1.6 to 2.9	57
VSP-HDW30Q*-6T		4							

Dimensions (low back fixed, vacuum outlet side VSP-HE, push-in fitting)

●VSP-HE10Q*-2/4/6



●VSP-HE20, 30Q*-2/4/6

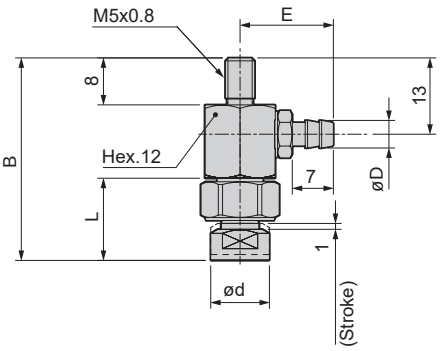


Unit: mm

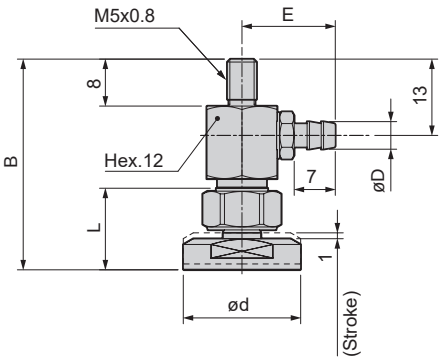
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HE10Q*-2	10	1.8	34.5	14	8.4	14.7	23
VSP-HE10Q*-4		4			11.2	18.8	24
VSP-HE10Q*-6		6			11.9	20.6	25
VSP-HE20Q*-2	20	1.8	35.9	13.9	8.4	14.7	31
VSP-HE20Q*-4		4			11.2	18.8	32
VSP-HE20Q*-6		6			11.9	20.6	33
VSP-HE30Q*-2	30	1.8	35.9	13.9	8.4	14.7	41
VSP-HE30Q*-4		4			11.2	18.8	42
VSP-HE30Q*-6		6			11.9	20.6	43

Dimensions (low back fixed, vacuum outlet side VSP-HE, barbed fitting)

●VSP-HE10Q*-4T/6T



●VSP-HE20, 30Q*-4T/6T

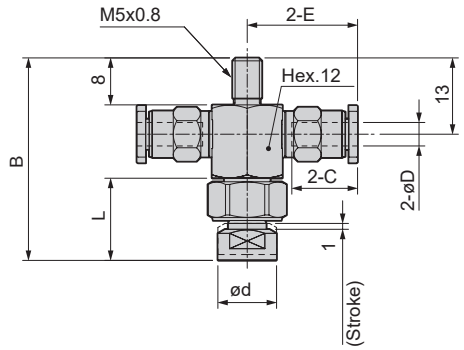


Unit: mm

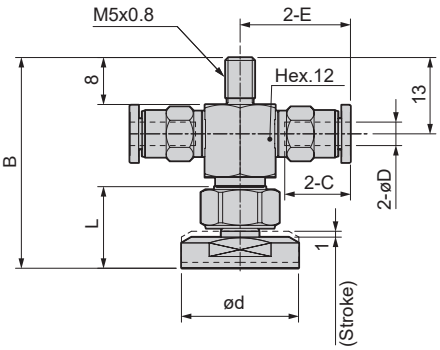
Model No.	Pad diameter ød	Bore size øD	B	L	E	Weight (g)
VSP-HE10Q*-4T	10	2.5	34.5	14	15.9	23
VSP-HE10Q*-6T		4				
VSP-HE20Q*-4T	20	2.5	35.9	13.9	15.9	31
VSP-HE20Q*-6T		4				
VSP-HE30Q*-4T	30	2.5	35.9	13.9	15.9	41
VSP-HE30Q*-6T		4				

Dimensions (low back fixed, vacuum outlet on both sides VSP-HEW, push-in fitting)

●VSP-HEW10Q*-2/4/6



●VSP-HEW20, 30Q*-2/4/6

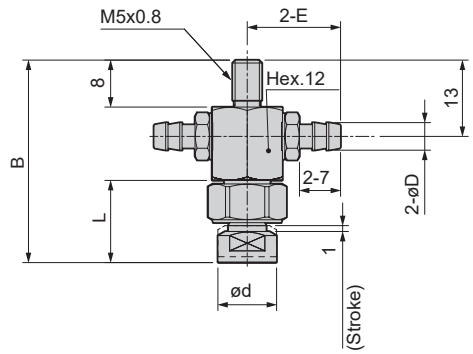


Unit: mm

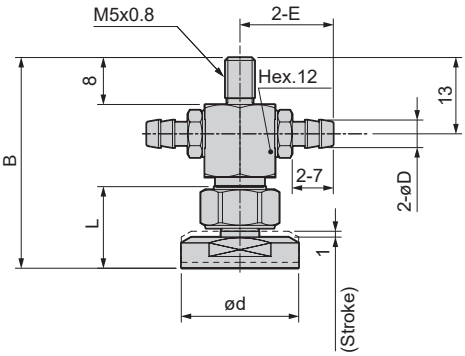
Model No.	Pad diameter ød	Bore size øD	B	L	Tube end C	E	Weight (g)
VSP-HEW10Q*-2	10	1.8	34.5	14	8.4	14.7	25
VSP-HEW10Q*-4		4			11.2	18.8	27
VSP-HEW10Q*-6		6			11.9	20.6	29
VSP-HEW20Q*-2	20	1.8	35.9	13.9	8.4	14.7	33
VSP-HEW20Q*-4		4			11.2	18.8	35
VSP-HEW20Q*-6		6			11.9	20.6	37
VSP-HEW30Q*-2	30	1.8	35.9	13.9	8.4	14.7	43
VSP-HEW30Q*-4		4			11.2	18.8	45
VSP-HEW30Q*-6		6			11.9	20.6	47

Dimensions (low back fixed, vacuum outlet on both sides VSP-HEW, barbed fitting)

●VSP-HEW10Q*-4T/6T



●VSP-HEW20, 30Q*-4T/6T

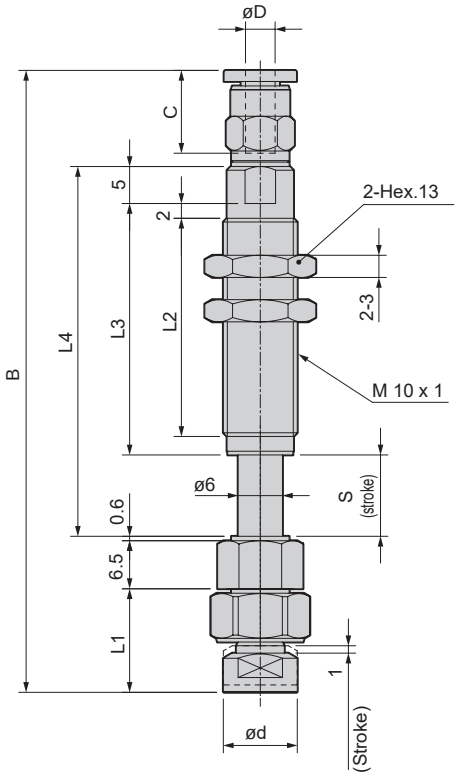


Unit: mm

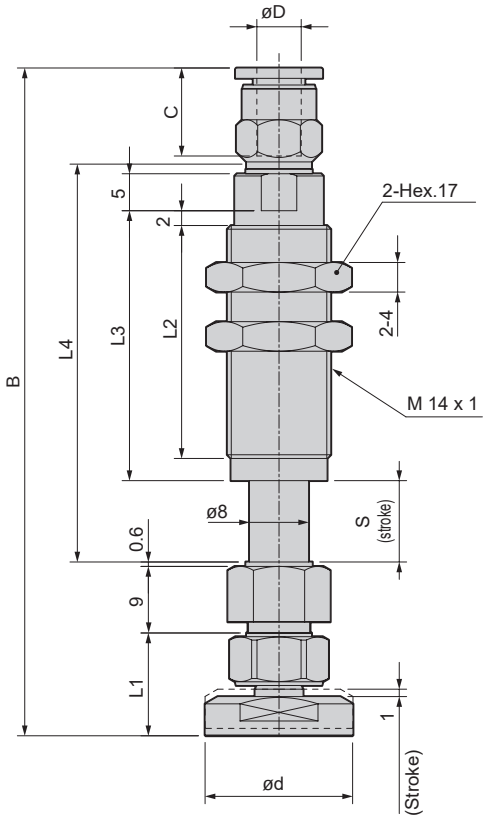
Model No.	Pad diameter ød	Bore size øD	B	L	E	Weight (g)
VSP-HEW10Q*-4T	10	2.5	34.5	14	15.9	24
VSP-HEW10Q*-6T		4				
VSP-HEW20Q*-4T	20	2.5	35.9	13.9	15.9	32
VSP-HEW20Q*-6T		4				
VSP-HEW30Q*-4T	30	2.5	35.9	13.9	15.9	42
VSP-HEW30Q*-6T		4				

Dimensions (low dust generation buffer, vacuum outlet top VSP-LFC, push-in fitting)

●VSP-LFC10-□Q*-4



●VSP-LFC20, 30-□Q*-4/6



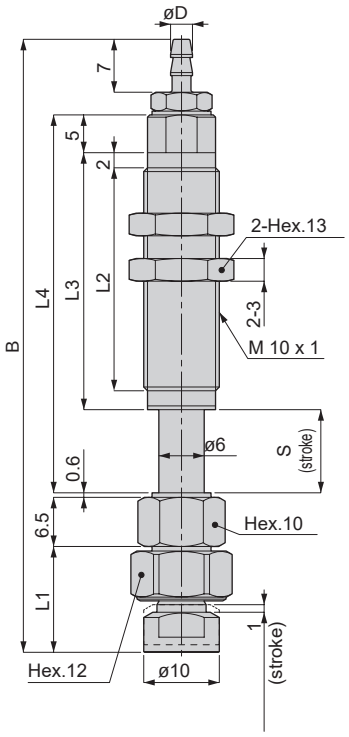
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	Stroke S	Spring force (N)	Weight (g)
VSP-LFC10-2Q*-4	10	4	68.1	14	21.5	26	34	11.2	2	1.3 to 1.8	33
VSP-LFC10-5Q*-4			74.1		24.5	29	40		5	1.3 to 2.4 [0.33 to 0.6]	35
VSP-LFC10-10Q*-4			84.1		29.5	34	50		10	1.3 to 3.3 [0.33 to 0.83]	37
VSP-LFC10-15Q*-4			94.1		34.5	39	60		15	1.3 to 4.2 [0.33 to 1.05]	39
VSP-LFC10-20Q*-4			104.1		39.5	44	70		20	1.3 to 5.1 [0.33 to 1.28]	41
VSP-LFC20-5Q*-4	20	4	79	13.9	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	61
VSP-LFC20-5Q*-6		6	80.3					11.9			62
VSP-LFC20-10Q*-4		4	89		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	63
VSP-LFC20-10Q*-6		6	90.3					11.9			64
VSP-LFC20-15Q*-4		4	99		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	66
VSP-LFC20-15Q*-6		6	100.3					11.9			67
VSP-LFC20-20Q*-4		4	109		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	69
VSP-LFC20-20Q*-6		6	110.3					11.9			70
VSP-LFC30-5Q*-4	30	4	79	13.9	26.5	31.5	42.5	11.2	5	4.5 to 6.5 [1.13 to 1.63]	65
VSP-LFC30-5Q*-6		6	80.3					11.9			66
VSP-LFC30-10Q*-4		4	89		31.5	36.5	52.5	11.2	10	4.5 to 8.2 [1.13 to 2.05]	67
VSP-LFC30-10Q*-6		6	90.3					11.9			68
VSP-LFC30-15Q*-4		4	99		36.5	41.5	62.5	11.2	15	4.5 to 9.9 [1.13 to 2.48]	70
VSP-LFC30-15Q*-6		6	100.3					11.9			71
VSP-LFC30-20Q*-4		4	109		41.5	46.5	72.5	11.2	20	4.5 to 14.9 [1.13 to 3.73]	73
VSP-LFC30-20Q*-6		6	110.3					11.9			74

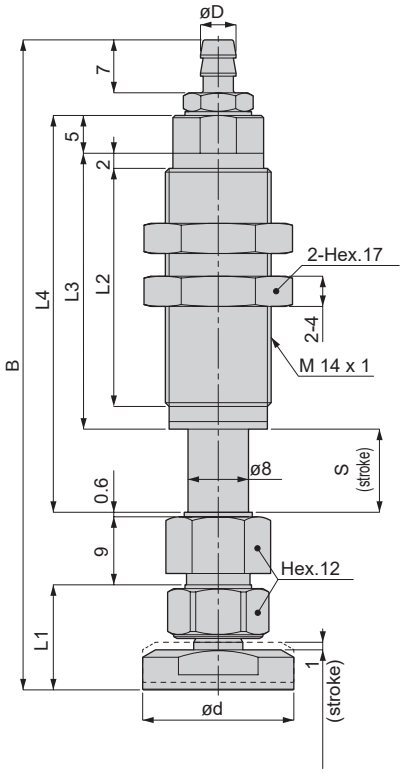
*1: Values in [ ] are for low load.

Dimensions (low dust generation buffer, vacuum outlet top VSP-LFC, barbed fitting)

●VSP-LFC10-□Q*-4T/6T



●VSP-LFC20, 30-□Q*-4T/6T



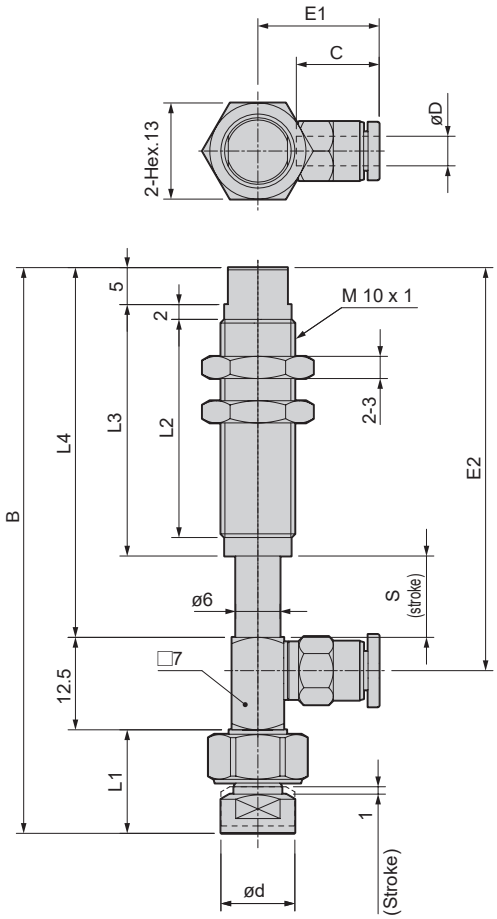
Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Stroke S	Spring force (N)	Weight (g)
VSP-LFC10-2Q*-4T	10	2.5	65.2	14	21.5	26	34	2	1.3 to 1.8	31
VSP-LFC10-2Q*-6T		4								
VSP-LFC10-5Q*-4T		2.5	71.2		24.5	29	40	5	1.3 to 2.4 [0.33 to 0.6]	33
VSP-LFC10-5Q*-6T		4								
VSP-LFC10-10Q*-4T		2.5	81.2		29.5	34	50	10	1.3 to 3.3 [0.33 to 0.83]	35
VSP-LFC10-10Q*-6T		4								
VSP-LFC10-15Q*-4T		2.5	91.2		34.5	39	60	15	1.3 to 4.2 [0.33 to 1.05]	37
VSP-LFC10-15Q*-6T		4								
VSP-LFC10-20Q*-4T		2.5	101.2		39.5	44	70	20	1.3 to 5.1 [0.33 to 1.28]	39
VSP-LFC10-20Q*-6T		4								
VSP-LFC20-5Q*-4T	20	2.5	76.1	13.9	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	56
VSP-LFC20-5Q*-6T		4								
VSP-LFC20-10Q*-4T		2.5	86.1		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	58
VSP-LFC20-10Q*-6T		4								
VSP-LFC20-15Q*-4T		2.5	96.1		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	61
VSP-LFC20-15Q*-6T		4								
VSP-LFC20-20Q*-4T		2.5	106.1		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	64
VSP-LFC20-20Q*-6T		4								
VSP-LFC30-5Q*-4T	30	2.5	76.1	13.9	26.5	31.5	42.5	5	4.5 to 6.5 [1.13 to 1.63]	60
VSP-LFC30-5Q*-6T		4								
VSP-LFC30-10Q*-4T		2.5	86.1		31.5	36.5	52.5	10	4.5 to 8.2 [1.13 to 2.05]	62
VSP-LFC30-10Q*-6T		4								
VSP-LFC30-15Q*-4T		2.5	96.1		36.5	41.5	62.5	15	4.5 to 9.9 [1.13 to 2.48]	65
VSP-LFC30-15Q*-6T		4								
VSP-LFC30-20Q*-4T		2.5	106.1		41.5	46.5	72.5	20	4.5 to 14.9 [1.13 to 3.73]	68
VSP-LFC30-20Q*-6T		4								

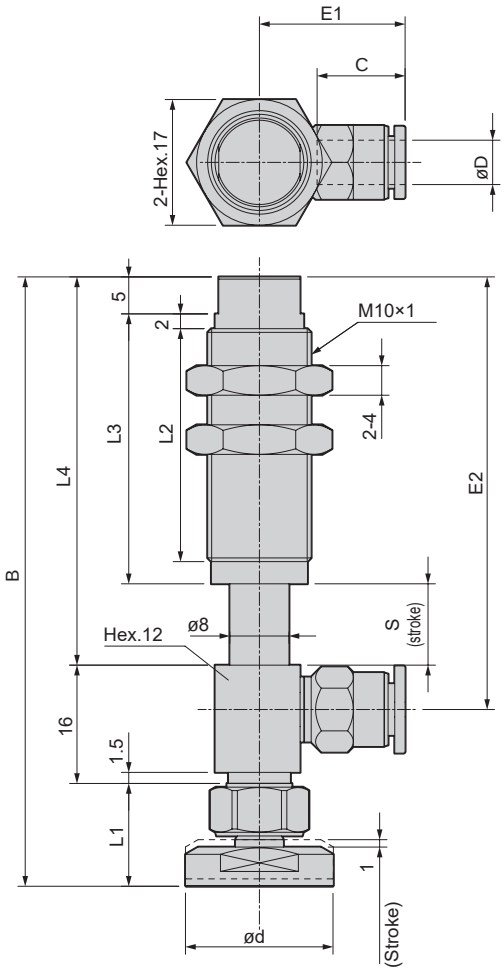
*1: Values in [ ] are for low load.

Dimensions (low dust generation buffer, vacuum outlet side VSP-LFD, push-in fitting)

●VSP-LFD10-□Q*-4T



●VSP-LFD20, 30-□Q*-4/6

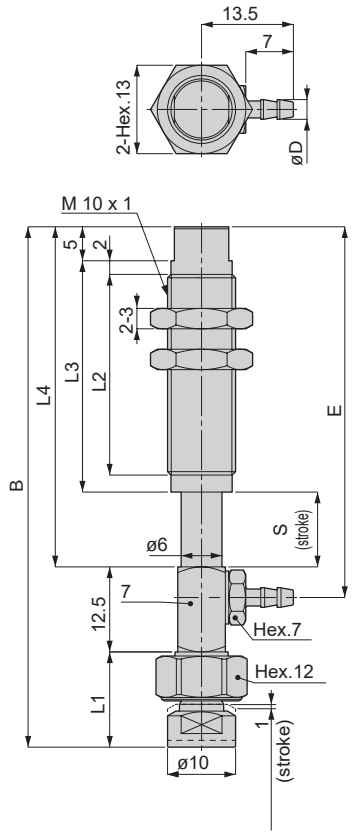


Unit: mm

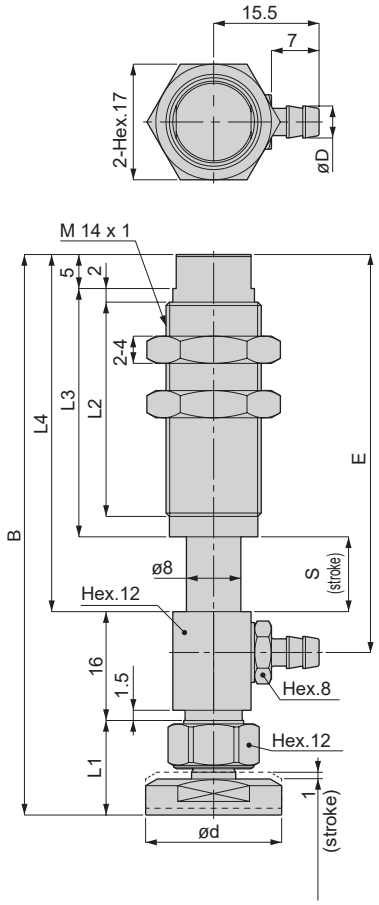
Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	Tube end C	E1	E2	Stroke S	Spring force (N)	Weight (g)
VSP-LFD10-5Q*-4	10	4	66.5	14	24.5	29	40	11.2	16.4	44.5	5	1.3 to 2.4	31
VSP-LFD10-10Q*-4			76.5		29.5	34	50			54.5	10	1.3 to 3.3	33
VSP-LFD10-15Q*-4			86.5		34.5	39	60			64.5	15	1.3 to 4.2	36
VSP-LFD10-20Q*-4			96.5		39.5	44	70			74.5	20	1.3 to 5.1	39
VSP-LFD20-5Q*-4	20	4	72.4	13.9	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	62
VSP-LFD20-5Q*-6		6						11.9	19.7				63
VSP-LFD20-10Q*-4		4	82.4		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	66
VSP-LFD20-10Q*-6		6						11.9	19.7				67
VSP-LFD20-15Q*-4		4	92.4		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	70
VSP-LFD20-15Q*-6		6						11.9	19.7				71
VSP-LFD20-20Q*-4		4	102.4		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	74
VSP-LFD20-20Q*-6		6						11.9	19.7				75
VSP-LFD30-5Q*-4	30	4	72.4	13.9	26.5	31.5	42.5	11.2	18.4	48.5	5	4.5 to 6.5	66
VSP-LFD30-5Q*-6		6						11.9	19.7				67
VSP-LFD30-10Q*-4		4	82.4		31.5	36.5	52.5	11.2	18.4	58.5	10	4.5 to 8.2	70
VSP-LFD30-10Q*-6		6						11.9	19.7				71
VSP-LFD30-15Q*-4		4	92.4		36.5	41.5	62.5	11.2	18.4	68.5	15	4.5 to 9.9	74
VSP-LFD30-15Q*-6		6						11.9	19.7				75
VSP-LFD30-20Q*-4		4	102.4		41.5	46.5	72.5	11.2	18.4	78.5	20	4.5 to 14.9	78
VSP-LFD30-20Q*-6		6						11.9	19.7				79

Dimensions (low dust generation buffer, vacuum outlet side VSP-LFD, barbed fitting)

●VSP-LFD10-□Q*-4T/6T



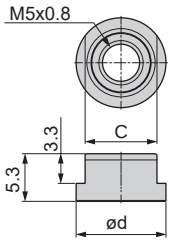
●VSP-LFD20, 30-□Q*-4T/6T



Unit: mm

Model No.	Pad diameter ød	Bore size øD	B	L1	L2	L3	L4	E	Stroke S	Spring force (N)	Weight (g)
VSP-LFD10-5Q*-4T	10	2.5	66.5	14	24.5	29	40	44.5	5	1.3 to 2.4	30
VSP-LFD10-5Q*-6T		4									
VSP-LFD10-10Q*-4T		2.5	76.5		29.5	34	50	54.5	10	1.3 to 3.3	32
VSP-LFD10-10Q*-6T		4									
VSP-LFD10-15Q*-4T		2.5	86.5		34.5	39	60	64.5	15	1.3 to 4.2	34
VSP-LFD10-15Q*-6T		4									
VSP-LFD10-20Q*-4T		2.5	96.5		39.5	44	70	74.5	20	1.3 to 5.1	36
VSP-LFD10-20Q*-6T		4									
VSP-LFD20-5Q*-4T	20	2.5	72.4	13.9	26.5	31.5	42.5	48.5	5	4.5 to 6.5	58
VSP-LFD20-5Q*-6T		4									
VSP-LFD20-10Q*-4T		2.5	82.4		31.5	36.5	52.5	58.5	10	4.5 to 8.2	61
VSP-LFD20-10Q*-6T		4									
VSP-LFD20-15Q*-4T		2.5	92.4		36.5	41.5	62.5	68.5	15	4.5 to 9.9	65
VSP-LFD20-15Q*-6T		4									
VSP-LFD20-20Q*-4T		2.5	102.4		41.5	46.5	72.5	78.5	20	4.5 to 14.9	69
VSP-LFD20-20Q*-6T		4									
VSP-LFD30-5Q*-4T	30	2.5	72.4	13.9	26.5	31.5	42.5	48.5	5	4.5 to 6.5	62
VSP-LFD30-5Q*-6T		4									
VSP-LFD30-10Q*-4T		2.5	82.4		31.5	36.5	52.5	58.5	10	4.5 to 8.2	64
VSP-LFD30-10Q*-6T		4									
VSP-LFD30-15Q*-4T		2.5	92.4		36.5	41.5	62.5	68.5	15	4.5 to 9.9	69
VSP-LFD30-15Q*-6T		4									
VSP-LFD30-20Q*-4T		2.5	102.4		41.5	46.5	72.5	78.5	20	4.5 to 14.9	73
VSP-LFD30-20Q*-6T		4									

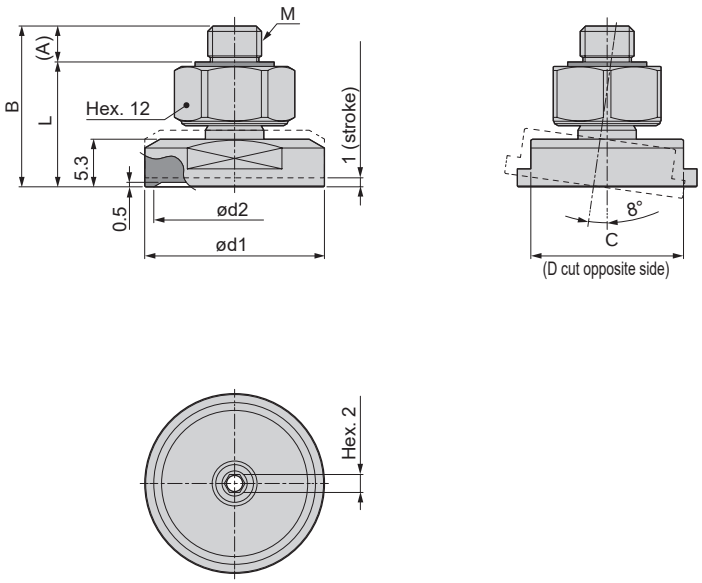
Dimensions: Resin pad only



Unit: mm

Resin pad single unit Model No.	Pad diameter ød	C	Weight (g)	Applicable pad model No.
VSPG-10Q*-RP	10	8	0.4	VSP-*10Q*
VSPG-20Q*-RP	20	17	2	VSP-*20Q*
VSPG-30Q*-RP	30	27	4.6	VSP-*30Q*

Dimensions: pad with flexible holder



Unit: mm

Model No.	Pad diameter ød1	Effective diameter ød2	M	A	B	L	C	Weight (g)
VSPG-10Q*	10	8	M4x0.7	2.9	16.9	14	8	7
VSPG-20Q*	20	18	M6x1	4	17.9	13.9	17	10
VSPG-30Q*	30	28	M6x1	4	17.9	13.9	27	14

Safety precautions

CAUTION

■Compared to conventional rubber suction pads, the suction mark prevention resin attachment for the lip portion reduces suction marks; however, confirm with an actual device the effects to the suction marks on the workpieces are acceptable.

■Keep the flow rate of the vacuum source as large as possible. In addition, vacuum retention is not available.

■Select a sensor suitable for the working conditions.

■The interior of the flexible holder for the suction mark prevention suction pad may wear depending on its structure and usage. Before use, check that there is no effect of dust generation due to wear when using in clean environments.

■This productA 1 mm stroke is provided on the flexible holder, allowing for fine workpiece inclinations to be track. If buffer function is required, use together with a spring type holder. When using a spring type holder, minimize the lateral force applied to the sliding part. It may lead to malfunction and dust generation due to holder wear.

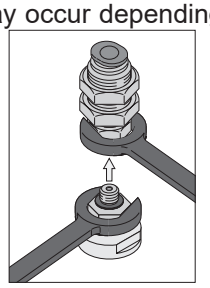
■There is no rotation-stop structure between the suction mark prevention suction pad flexible holder and the resin pad. Note that it is not suitable for rotary transport.

■Suction mark prevention suction pads generate more vacuum pressure leakage from the lip than rubber pads. Note that vacuum hold is not possible. Also, minimize pressure drop due to leakage by keeping the vacuum flow rate as large as possible.

■Clean the suction surface of the suction pad before use. Deposits may remain as suction marks. Be careful not to scratch the suction surface while cleaning, and do not use organic solvents.

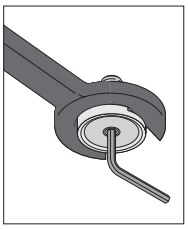
■Special stainless steel is used for this product, but it is not intended to prevent rust. Rust may occur depending on the working environment.

■When attaching the flexible holder to the actual device or the pad holder, tighten using an appropriate tool with reference to the following tightening torque and confirm that there is no looseness.



Thread size	Tightening torque
M4 x 0.7	0.7 to 0.8 N·m
M6 x 1	1.5 to 2.0 N·m

■The resin pad mounting screws on the flexible holder may loosen due to creep. Regularly check for loosening and if found, refer to the following tightening torque and periodically tighten or replace the suction pad when necessary.



Vacuum pad material	Thread size	Tightening torque
PEEK	M5 x 0.8	1.4 to 2.1 N·m
Conductive PEEK	M5 x 0.8	2.0 to 2.3 N·m
POM	M5 x 0.8	0.6 to 0.7 N·m

Product-specific cautions: Rubber surface treatment_suction mark countermeasures series (option)

Design/Selection

CAUTION

■ Common precautions for rubber surface treatment_suction mark countermeasures series
- The degree of suction mark reduction differs depending on the environment and workpiece. Be sure to select a model by performing suction test with an actual device.
- The pad rubber itself has become slippery due to suction mark reduction treatment, and this may lead to suction failure.
- This will not completely prevent suction marks. The degree of suction mark reduction differs depending on the environment and the workpiece.

■ Fiber raised type (nylon fiber: -NF, silk fiber: -SF)
- This product tolerates the leakage of fiber raised hair.
- Keep the flow rate of the vacuum source as large as possible. In addition, vacuum retention is not available.
- Select a sensor suitable for the working conditions.
- Since the suction force is much lower than a normal pad, take measures such as increasing the pad diameter or increasing the number of pads used.
- Dirt may adhere to the fibers. Periodically clean with water or a thin neutral detergent.
- The fibers are standing when delivered and the degree of vacuum is not high. Before use, perform suction operation five or more times to stabilize the suction force. After that, check suction with the actual device.
- The fibers on the pad surface may come off depending on the workpiece or working environment. Since the lost fiber may adhere to the workpiece, take measures such as air blowing as necessary.

■ Anti-sticking (-DL)
- Pad material: Conductive silicone rubber (SE) has lower suction mark suppression effects than other materials.
- The pad rubber itself has become slippery due to suction mark reduction treatment, and this may lead to suction failure.
- Although the pad may become discolored depending on the processing, there is no performance problem.

■ Suction mark reduction (-ER)
- The surface hardness of the suction mark reduction treatment is higher than that of normal pads, and this may lead to suction failure due to the workpiece.

Product-specific cautions: Super soft silicone rubber (YS2, YS4) [bellows, multi-stage bellows]

Design/Selection

CAUTION

■ Since the pad rubber of this product is soft, check suction with an actual device, in consideration of the following when making a selection.
- Depending on the weight of the workpiece, the orientation of the workpiece cannot be maintained and the pad may deform.
- The durability will be lower than that of the normal pad.
- Due to the characteristics of the material, bellows may stick to each other and deform depending on the working conditions.
- Start suction with the bellows pressed against the workpiece. If the pad rubber is soft and is not pressed down, it may lead to poor suction or deterioration of durability.
- Be careful about the storage condition because the material is easily deformed due to its characteristics. If it is deformed, it will return to its original shape after a short period of time.

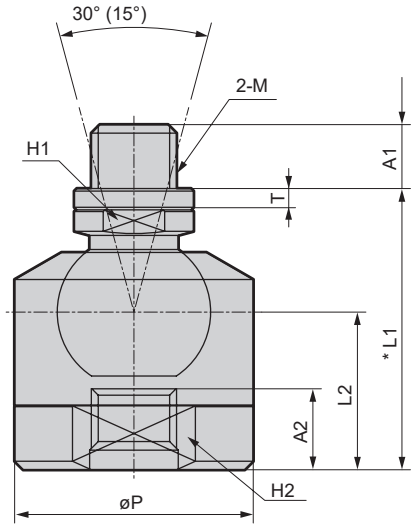
Suction pad option/free holder (swinging) [Code; F1, F2]

Applicable pad list

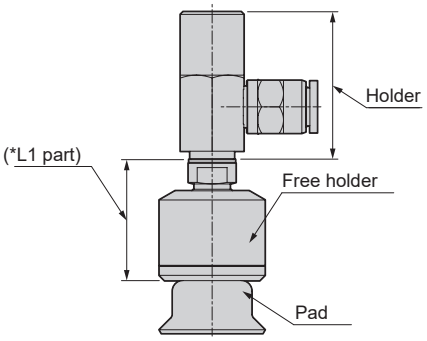
Pad shape	Free holder part model No. (Custom-made product)*1		
	VSP-FH10-F*	VSP-FH20-F*	VSP-FH60-F*
Standard general: R	ø10, ø15	ø20 to ø50	ø60 to ø100
Standard deep: A	ø15	ø20 to ø50	ø60 to ø100
Sponge-type: S	-	ø10 to ø50	ø70, ø100
Bellows: B	ø10, ø15	ø20 to ø50	ø60, ø80, ø100
Multi-stage bellows: W	ø10	ø20 to ø50	-
Oval: E	-	All sizes	-
Soft: L	ø4 to ø15	ø20 to ø40	-
Soft bellows: LB	ø6 to ø15	ø20	-
Anti-slip type: K	ø10	ø20 to ø50	-
Flat type: F, FH	ø10, ø15	ø20 to ø30	-

*1: For more information on *, select the following code.
1: Swing angle 30° type
2: Swing angle 15° type

Dimensions



Free holder mounting example



Note: When free holder option is selected in the suction pad product model No. , the total length of the pad is the size obtained by adding * L1 in the following dimensional table.

Part model No.	M	A1	A2	*L1	L2	øP	Opposite side H1	Opposite side H2	T	Weight (g)
VSP-FH10-F*	M4x0.7	3.4	7	19.7	11.1	15	4	-	0.6	10
VSP-FH20-F*	M6x1	5.5	6.6	22.9	12.4	20	7	-	0.5	20
VSP-FH60-F*	M10x1.5	7.5	9.5	33	18.5	28	12	24	2.5	60

Safety precautions

WARNING

- Do not use the free holder in combination with other than CKD suction pads or for other than the intended use. Since it is designed for CKD suction pads, the body may be damaged depending on the use.
- When transporting via the free holder, consider the acceleration, impact and wind pressure. The suctioned object may detach during transportation and damage the product.
- Do not apply excessive force to the free holder. It could damage the body of the product.

CAUTION

- Note the orientation of the free holder during suction. The orientation changes according to the weight after suction, the acceleration or shock during transport.
- When mounting or replacing the free holder, refer to the tightening torque in the table on the right, and use an appropriate tool to tighten the holder using the outer-diameter dihedral cut section.

Tightening torque

Thread size	Tightening torque
M4x0.7	0.6 to 0.7N·m
M6x1	1.5 to 2N·m
M10x1.5	5 to 7N·m

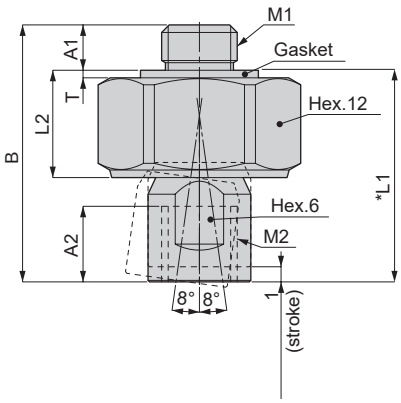
Suction pad option/flexible holder (swinging) [About Code; CF]

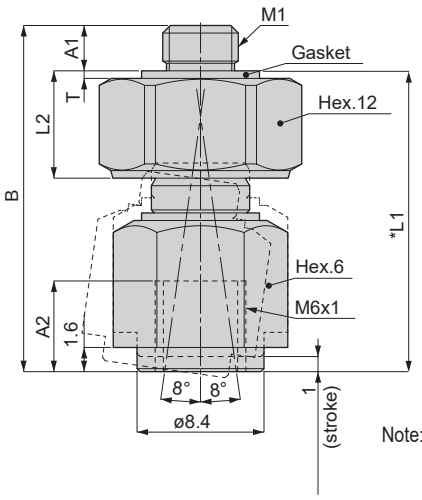
Applicable pad list

Pad shape	Flexible holder part model No. (Custom-made product)		
	VSP-CF4-M4	VSP-CF6-M6	VSP-CF5-M5 *1
Standard general: R	ø10, ø15	ø20 to ø50	ø1 to ø8
Standard general: A	ø15	ø20 to ø50	-
Standard compact: RM	-	-	ø0.7 to ø4
Sponge-type: S	-	ø10 to ø50	-
Bellows: B	ø10, ø15	ø20 to ø50	ø2 to ø8
Multi-stage bellows: W	ø10	ø20 to ø50	ø6, ø8
Oval: E	-	All sizes	-
Soft: L	ø4 to ø15	ø20 to ø40	-
Soft bellows: LB	ø6 to ø15	ø20	-
Anti-slip type: K	ø10	ø20 to ø50	-
Thin object type: P	-	-	ø8 to ø20
Flat type: F, FH	ø10, ø15	ø20 to ø30	-

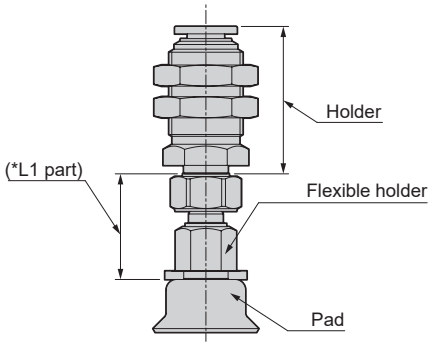
*1) Holder shape: Limited to M5 connection of ME, E.

Dimensions





Flexible holder mounting example



Note:When flexible holder option is selected in the suction pad product model No. , the total length of the pad is the size obtained by adding * L1 in the following dimensional table.

Part model No.	M1	M2	A1	A2	B	*L1	L2	T	Weight (g)
VSP-CF4-M4	M4X0.7	M4X0.7	2.9	4	16	13.1	7.2	0.6	6.1
VSP-CF5-M5	M5X0.8	M5X0.8	3	5	17	14	7.1	0.5	6.1
VSP-CF6-M6	M6X1	M6X1	4	6	24	20	7.1	0.5	12

Safety precautions

CAUTION

- The interior of the flexible holder may wear depending on its structure and usage. When using this product in a clean environment, check that there is no effect of dust generation due to wear.
- There is no rotation-stop structure between the flexible holder and the vacuum pad. Note that it is not suitable for rotary transport.
- Special stainless steel is used for this product, but it is not intended to prevent rust.Rust may occur depending on the working environment.
- When attaching the flexible holder to the actual device or the pad holder, tighten using an appropriate tool with reference to the tightening torque in the table on the right and confirm that there is no looseness.

Tightening torque

Thread size	Tightening torque
M4x0.7	0.7 to 0.8N·m
M5x0.8	1.0 to 1.5N·m
M6x1	1.5 to 2.0N·m