

Suction Pad

# VSP-FP2 Series

Pad diameter: ø1 to ø200



## Model No. Notation Method

VSP - **A** **40** **R** **S** **-FG** - **6T** - **○** - FP2

**A** Holder Shape

**B** Pad Diameter

**C** Pad Shape

**D** Pad Material

**E** Surface Treatment

**F** Connection Port Size

**G** Suction Prevention Adapter

Code	Content
<b>A Holder Shape</b>	
<b>MA</b>	Compact Fixed, Vacuum outlet top
<b>MB</b>	Compact Fixed, Vacuum outlet side
<b>ME</b>	Compact, Direct mounting, Fixed
<b>A</b>	Fixed Type Vacuum Outlet Top
<b>B</b>	Fixed Type Vacuum Outlet Side
<b>E</b>	Direct Mount Type Fixed
<b>B Pad diameter *1, *2</b>	
Refer to "◆Pad diameter - pad shape combinations" in Appendix 1 for pad diameter.	
<b>C Pad Shape</b>	
<b>R</b>	Standard Type General Type
<b>A</b>	Standard Type Deep Type
<b>S</b>	Sponge Type
<b>B</b>	Bellows Type
<b>W</b>	Multi-stage Bellows Type
<b>L</b>	Soft Type
<b>LB</b>	Soft Bellows Type
<b>P</b>	Thin Material Type
<b>F</b>	Flat Type
<b>FH</b>	Flat Increased Suction Flow Type
<b>PB</b>	Packaging Bag Type
<b>BE</b>	For metal detector, type with bellows projection rib
<b>BD</b>	For metal detector With bellows Without projection Rib
<b>D Pad Material</b>	
<b>S</b>	Silicone Rubber
<b>S23</b>	Silicone rubber for packaging bags (hardness 20° bellows height difference 3)
<b>S25</b>	Silicone rubber for packaging bags (hardness 20° bellows height difference 5)
<b>S43</b>	Silicone rubber for packaging bags (hardness 40° bellows height difference 3)
<b>S45</b>	Silicone rubber for packaging bags (hardness 40° bellows height difference 5)
<b>YS2</b>	Super soft silicone rubber (hardness 20°)
<b>YS4</b>	Super soft silicone rubber (hardness 40°)
<b>SF3</b>	Metal detection silicone iron powder specification Hardness 30°
<b>SF5</b>	Metal detection silicone iron powder specification Hardness 50°
<b>SS3</b>	Metal detection silicone SUS specification Hardness 30°
<b>SS5</b>	Metal detection silicone SUS specification Hardness 50°
<b>E Surface Treatment</b>	
<b>Blank</b>	No surface treatment
<b>-FG</b>	Fluorine Coating
<b>F Connection Port Size</b>	
<b>Blank</b>	M5 x 0.8
<b>M5</b>	M5 x 0.8
<b>2</b>	ø1.8 Push-in fitting
<b>4</b>	ø4 Push-in fitting
<b>4T</b>	ø4 Barb fitting
<b>6</b>	ø6 Push-in fitting
<b>6T</b>	ø6 Barb fitting
<b>6A</b>	Rp1/8
<b>8A</b>	Rp1/4
<b>G Suction Prevention Adapter</b>	
<b>Blank</b>	None
<b>-FS</b>	Spherical - Without stainless steel mesh
<b>-MS</b>	Spherical surface - with stainless steel mesh
<b>-FF</b>	Flat - Without stainless steel mesh
<b>-MF</b>	Flat - with stainless steel mesh

## Notes for model No. Selection

- \*1: For **C** BE, BD and S, **E** only Blank is available.
- \*2: For **C** R and B **B** 1 to 4, **E** only Blank is available.
- \*3: **C** 10 **D** YS2, YS4, and **B** 15 **D** YS2 can be selected only when **E** -FG is selected.
- \*4: For **C** PB, options other than **E** Blank are available. For other than **C** PB, only **E** Blank can be selected.

For details,



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CKD components Products website (<https://www.ckd.co.jp/kiki/en/>) → Refer to "Model No."

### Appendix 1 - Pad diameter - pad shape combinations

Pad Shape	R	A	S	B	W	L	LB	P	F/FH	PB	BE/BD
1 ø1	●										
2 ø2	●			●							
3 ø3	●										
4 ø4	●			●		●					
6 ø6	●			●	●	●	●				
8 ø8	●			●	●	●	●	●			
10 ø10				●	●	●	●	●	●		●
15 ø15		●		●		●	●	●	●	●	●
20 ø20		●		●	●	●	●	●	●	●	●
25 ø25		●		●		●		●	●	●	●
30 ø30		●		●	●	●			●	●	
35 ø35			●								
40 ø40		●		●	●	●				●	
50 ø50		●	●	●	●						
60 ø60		●		●							
70 ø70			●								
80 ø80	●	●		●							
100 ø100	●	●	●	●							
150 ø150	●										
200 ø200	●										

### Pad material - pad shape combinations

Pad Shape	R	A	S	B	W	L	LB	P	F/FH	PB	BE/BD
S	●	●	●	●	●	●	●	●	●		
S23											●
S25											●
S43											●
S45											●
YS2				●	●						
YS4				●	●						
SF3											●
SF5											●
SS3											●
SS5											●

### Pad material characteristics

Item	Pad Material	Silicone Rubber	Silicone Sponge rubber	Ultra-soft Silicone Rubber		Silicone rubber for packaging bags		Metal Detection Silicone Rubber			
		S	S	YS2	YS4	S2□	S4□	SF3	SF5	SS3	SF5
Application		Semiconductor / Removal of molded products / Thin Workpieces / Food Related	uneven on the surface / Certain workpieces / Food Related	Food Related				Food manufacturing lines, etc. For processes that prohibit the entry of foreign matter			
Pad Color		Natural	Salmon pink	Pink	Blue	Pink	Blue	Reddish brown	Dark brown	Brown	Green
Characteristics	Surface hardness by pad shape (Shore A)	Standard Type	50°	-	-	-	-	-	-	-	-
		Bellows Type	50°	-	20°	40°	-	-	-	-	-
		Multi-stage Bellows Type	50°	-	20°	40°	-	-	-	-	-
		Oval Type	40° to 50°	-	-	-	-	-	-	-	-
		Soft Type	40°	-	-	-	-	-	-	-	-
		Soft Bellows Type	40°	-	-	-	-	-	-	-	-
		Thin Material Type	40°	-	-	-	-	-	-	-	-
		Flat Type	40°	-	-	-	-	-	-	-	-
		Flat Increased Suction Flow Type	40°	-	-	-	-	-	-	-	-
		Packaging Bag Type	-	-	-	-	-	20°	40°	-	-
Metal Detector Type	-	-	-	-	-	-	-	30°	50°	30°	50°
High Temp. Operating Limit		180°C									
Low Temp. Operating Limit		-40°C									
Weather Resistance		◎									
Ozone Resistance		◎									
Acid Resistance		○									
Alkali Resistance		◎									
Oil Resistance	(Gasoline/Diesel)	△									
	(Benzene/Toluene)	△									

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

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

\*2: The values for the high and low 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.

### Precautions for Use

\*Use after confirming the usage conditions, structure and material of each components carefully yourself.

\*Wear powder, etc., may be generated when the pad is replaced. Before use, clean the equipment with air blow, etc.

### Pad shape - by pad diameter - holder shape - port size/shape combinations

Pad Shape	Applicable Pad Diameter	Selectable codes (holder shape/port size/shape)						
		A	B	E	MA	MB	ME	
R	ø1 to ø4	4/4T	4/4T	Blank				
	ø6, ø8	6/6T	6/6T	Blank	2/4T	2/4T	M5	
	ø80, ø100	6A	6A					
	ø150, ø200	8A	8A					
A	ø15	6/6T	6/6T		4/4T	4/4T		
	ø20 to ø30	6/6T	6/6T		4/4T/6T	4/4T/6T		
	ø40, ø50	6/6T	6/6T					
	ø60 to ø100	6A	6A					
S	ø35, ø50	6/6T	6/6T					
	ø60 to ø100	6A	6A					
B	ø2, ø4	4/4T	4/4T	Blank				
	ø6, ø8	6/6T	6/6T		2/4T	2/4T		
	ø10, ø15	6/6T	6/6T		4/4T	4/4T		
	ø20 to ø30	6/6T	6/6T		4/4T/6T	4/4T/6T		
	ø40, ø50	6/6T	6/6T					
	ø60 to ø100	6A	6A					
W	ø6, ø8	6/6T	6/6T		2/4T	2/4T		
	ø10	6/6T	6/6T		4/4T	4/4T		
	ø20, ø30	6/6T	6/6T		4/4T/6T	4/4T/6T		
	ø40, ø50	6/6T	6/6T					
L	ø4 to ø15	6/6T	6/6T		4/4T	4/4T		
	ø20, ø30	6/6T	6/6T		4/4T/6T	4/4T/6T		
	ø40	6/6T	6/6T					
LB	ø6 to ø15	6/6T	6/6T		4/4T	4/4T		
	ø20	6/6T	6/6T		4/4T/6T	4/4T/6T		
P	All sizes	4/4T	4/4T	Blank	2/4T	2/4T	M5	
F/FH	ø10, ø15	6/6T	6/6T		4/4T	4/4T		
	ø20 to ø30	6/6T	6/6T		4/4T/6T	4/4T/6T		
PB	ø20, ø25	4/6		Blank				
	ø30, ø40	6		Blank				
BE/BD	ø10, ø15	6/6T	6/6T		4/4T	4/4T		
	ø20	6/6T	6/6T		4/4T/6T	4/4T/6T		

FP1  
FP2  
Electric actuator  
Pneumatic cylinders  
Assistive device  
Pneumatic valves  
FRL/Auxiliary Components  
Electronic Component  
Vacuum components  
Main line components  
Fluid control valves  
Main line components  
Anti-bacterial/bacteria-removing filter  
Vacuum components  
Fluid control valves