

Stainless Steel Vacuum Saving Valve

ZP2VS Series



- The overall material is 304 stainless steel, which can be used in situations where zinc and copper are prohibited.
- Can restrict the reduction of vacuum pressure even when there is no workpiece.
- A switching operation is not required when changing workpieces.
- Built-in filter (40 μm).

How to Order

ZP2V **S** — ① **A5** — ② **03**

Stainless Steel 304

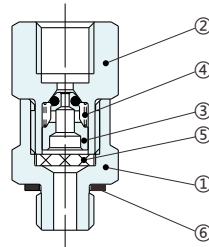
① Connection Thread			
Symbol	Thread	Vacuum Generator Side	Pad Side
A5	M5×0.8	Female thread	Male thread
A5A5		Male thread	Male thread
B5		Male thread	Female thread
B5B5		Female thread	Female thread

② Fixed Orifice Size (mm)	
03	ø0.3
05	ø0.5
07	ø0.7

Specifications

Fixed orifice size (mm)	0.3	0.5	0.7
Fluid	Air		
Max. operating pressure range (MPa)	0 ~ 0.7		
Max. operating vacuum pressure range (kPa)	0 ~ -100		
Ambient and fluid temperatures (°C)	5 ~ 60 (No freezing)		
Element nominal filtration rating (μm)	40		
Min. operating flow rate (L/min)	3	5	8
Applicable pad diameter (mm)	≤25		

Construction

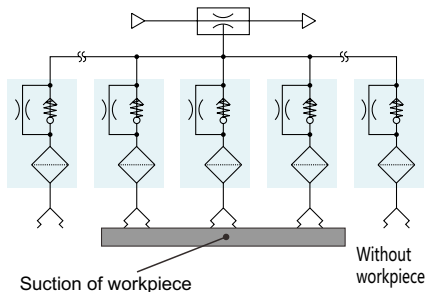


Component Parts

No.	Description	Material
1	Body A	SUS304
2	Body B	SUS304
3	Valve	Resin
4	Spring	SUS304
5	Element	SUS304
6	Gasket	Resin

Working Principle

Can restrict the reduction of vacuum pressure even when there is no workpiece.



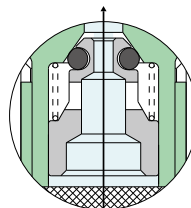
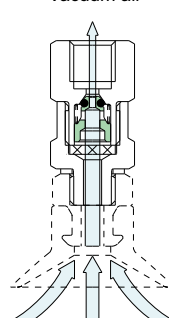
When the workpiece is separated from the vacuum pad, the valve is closed by the air flow, and the suction air can only flow through the fixed orifice. At this time, an amount of air corresponding to the fixed orifice size is sucked.

When the workpiece is adsorbed by the vacuum pad, the suction flow reduces, and the valve is open by the spring force, which opens the path between the valve and the body for suction.

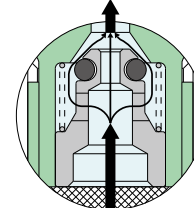
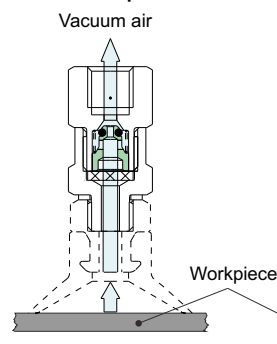
When the workpiece is released, the valve is open by the vacuum release air, and the path between the valve and the body will open.

When a workpiece is adsorbed

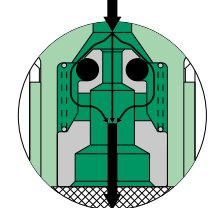
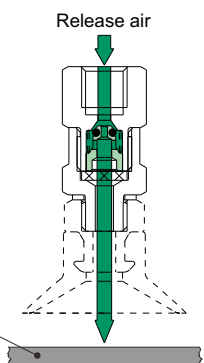
Without workpiece



With workpiece



When a workpiece is released

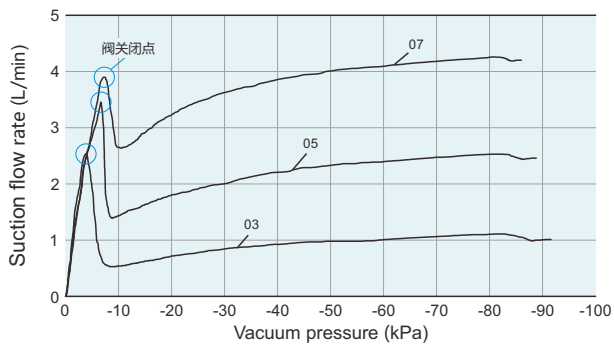


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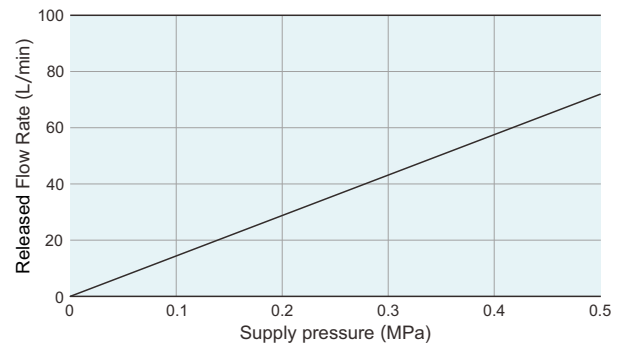
Flow Rate Characteristics

Suction Flow Rate Characteristics

Vacuum source flow rate: 50 L/min

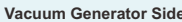


Released Flow Rate Characteristics

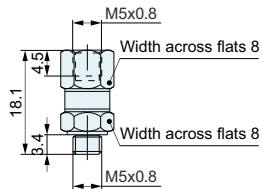
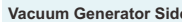


Dimensions

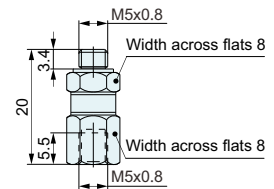
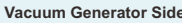
(mm)

ZP2VS-A5- ☐

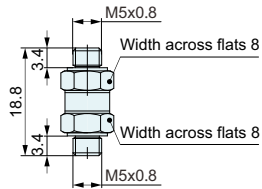
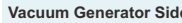
Pad Side

ZP2VS-B5- ☐

Pad Side

ZP2VS-A5A5-☐

Pad Side

ZP2VS-B5B5-

Pad Side

