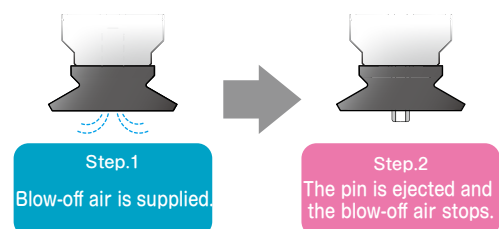


Vacuum Pad with Mechanical Release Function



- Ensuring the stable release of workpieces by the two-step structure of blow-off air supply and internal pin ejection.

If the supplied blow-off air fails to release the workpiece, then the ejected pin will.



- Preventing workpieces from being blown askew.

Immediately after the workpiece is released, blow-off air stops and prevents the workpiece from being blown askew.

- Ideal for countering workpiece adhesion to Vacuum Pad.

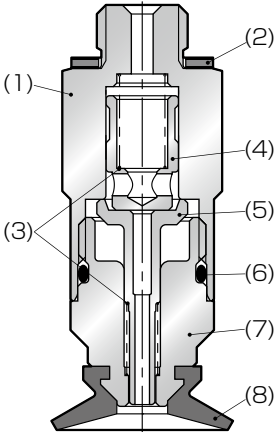
Minor downtime caused by workpiece release failure due to statics and such can be prevented.

Specifications

Fluid medium		Air
Operating pressure range	Positive pressure	30 kPa to 0.5 MPa
	Negative pressure	-100 kPa to -30 kPa
Operating temperature range		0 to 60°C (No freezing)
Suction flow rate		4 ℓ /min*
Operating pressure of vacuum release valve to move the pin		30 kPa
Operating pressure of valve to supply suction air		-30 kPa

*When vacuum pressure is -80 kPa or less

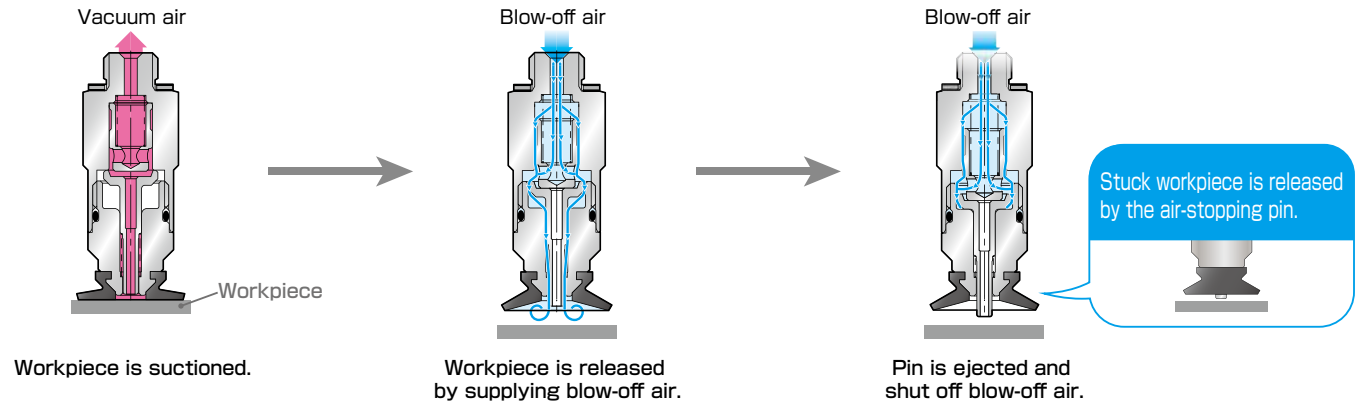
Sectional Drawing



No.	Parts	Material
(1)	Metallic body	Special stainless steel (*)
(2)	Gasket	SUS304+NBR or SPCC+NBR
(3)	Spring	Stainless steel
(4)	Suction air valve	Special stainless steel (*)
(5)	Vacuum release valve (Pin)	Special stainless steel (*)
(6)	O-ring	NBR
(7)	Holder	Special stainless steel (*)
(8)	Designated vacuum pad	Nitrile
		Silicone
		Fluoro
		Conductive silicone

*Anti-corrosivity is equivalent to SUS303. Austenite or ferritic.

Mechanism



Remark

As the pin extends 0.6 mm outward from Vacuum Pad at the time of workpiece release, the following is recommended: Set the pad halt position to 1 mm + the thickness of the workpiece, at which point blow-off air should be supplied.

△ Safety instructions for Products Listed

- △ **Warning** Suctioning foreign objects may significantly reduce performance of the products. Please keep the workpiece and operating environment clean.
- △ **Caution**
1. The pin ejection load is 1 N or less (when using 0.2 MPa). If there is any concern that the workpiece may be damaged or scratched due to contact, lower the blow-off (vacuum breaking) pressure and check with the actual operating condition before use.
 2. When installing the products, please refer to the tightening torque in the following chart. Failure to tighten with the proper torque may result in faulty operation, reduced life and loosening.

Thread size	*Tightening torque
M3×0.5	0.7
M4×0.7	0.9 to 1.1
M5×0.8	1.0 to 1.5

Model Designation of Vacuum Pad Only (Example)



(1). Vacuum Pad

(2). Vacuum Pad size

Code	2	3	4	6	8	10
Size (mm)	ø2.5	ø3	ø4	ø6	ø8	ø10

(3). Pad type

Code	Y
Type	For Holder with Mechanical Release Function

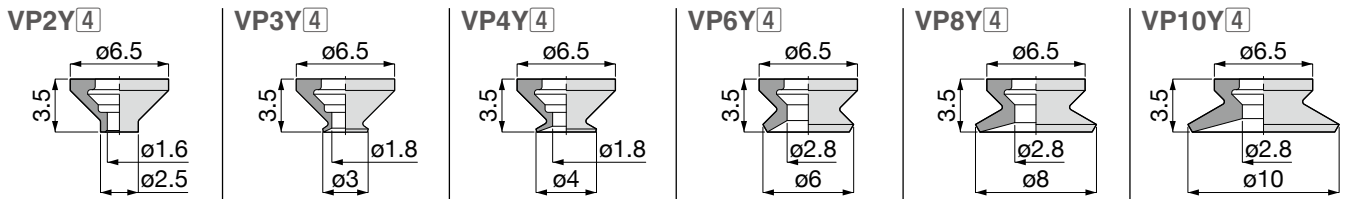
*This pad type is solely for Holder with Mechanical Release Function. It is not installable to a regular type Pad Holder.

(4). Pad material

Code	N	S	F	SE(*)
Rubber material	Nitrile	Silicone	Fluoro	Conductive silicone

*Volume resistance of conductive silicone rubber (SE) is $10^5 \Omega \cdot \text{cm}$ or less.

Outline Dimensional Drawing of Vacuum Pad only



Unit: mm



Model code	[4] : N	[4] : S	[4] : F	[4] : SE
	Weight (g)	Weight (g)	Weight (g)	Weight (g)
VP2Y[4]	0.1	0.1	0.1	0.1
VP3Y[4]	0.1	0.1	0.1	0.1
VP4Y[4]	0.1	0.1	0.1	0.1
VP6Y[4]	0.1	0.1	0.1	0.1
VP8Y[4]	0.1	0.1	0.2	0.1
VP10Y[4]	0.2	0.2	0.2	0.2

Model Designation of Vacuum Pad Holder Only (Example)



(1). Vacuum Pad

(2). Holder type

Code	KE
Type	Direct mounting type with mechanical release function

(3). Connection configuration code

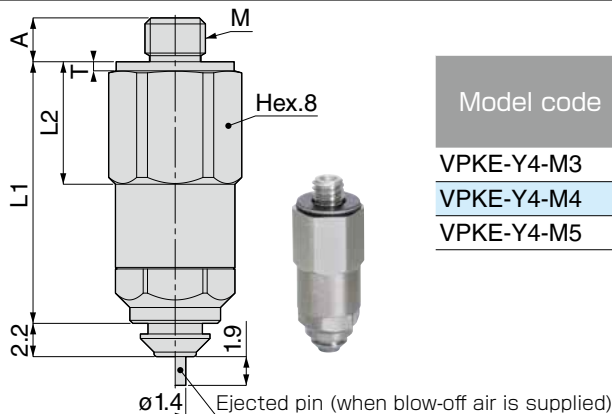
Code	Y4
Conn. code	Mount type (Direct connection)

(4). Mounting screw size

Code	M3	M4	M5
Size	M3x0.5	M4x0.7	M5x0.8

Outline Dimensional Drawing of Vacuum Pad Holder Only

Unit: mm



Model code	Mounting screw M	A	L1	L2	T	Weight (g)	Connection config. code
VPKE-Y4-M3	M3x0.5	2.5	17.2	8	0.5	5.2	Y4
VPKE-Y4-M4	M4x0.7	2.9	17.3	8.1	0.6	5.6	
VPKE-Y4-M5	M5x0.8	3	16.9	7.7	0.5	5.7	

Model Designation of Vacuum Pad with Mechanical Release Function (Example)



(1). Vacuum Pad

(2). Holder type

Code	KE
Type	Direct mounting type with mechanical release function

(3). Vacuum Pad size

Code	2	3	4	6	8	10
Size (mm)	ø2.5	ø3	ø4	ø6	ø8	ø10

(4). Pad type

Code	Y
Type	For Holder with mechanical release function

(5). Pad material

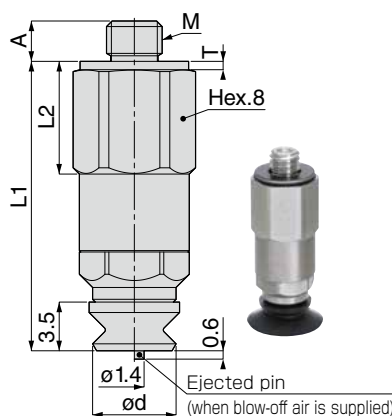
Code	N	S	F	SE(*)
Rubber material	Nitrile	Silicone	Fluoro	Conductive silicone

*Volume resistance of conductive silicone rubber (SE) is $10^5 \Omega \cdot \text{cm}$ or less.

(6). Mounting screw size

Code	M3	M4	M5
Size	M3x0.5	M4x0.7	M5x0.8

Outline Dimensional Drawing of Vacuum Pad with Mechanical Release Function



Unit: mm

Model code	Pad dia. ød	Mounting screw M	A	L1	L2	T	Connection config. code
VPKE2Y[5]-M3	2.5	M3x0.5	2.5	20.7	8	0.5	Y4
VPKE2Y[5]-M4		M4x0.7	2.9	20.8	8.1	0.6	
VPKE2Y[5]-M5		M5x0.8	3	20.4	7.7	0.5	
VPKE3Y[5]-M3	3	M3x0.5	2.5	20.7	8	0.5	
VPKE3Y[5]-M4		M4x0.7	2.9	20.8	8.1	0.6	
VPKE3Y[5]-M5		M5x0.8	3	20.4	7.7	0.5	
VPKE4Y[5]-M3	4	M3x0.5	2.5	20.7	8	0.5	
VPKE4Y[5]-M4		M4x0.7	2.9	20.8	8.1	0.6	
VPKE4Y[5]-M5		M5x0.8	3	20.4	7.7	0.5	
VPKE6Y[5]-M3	6	M3x0.5	2.5	20.7	8	0.5	
VPKE6Y[5]-M4		M4x0.7	2.9	20.8	8.1	0.6	
VPKE6Y[5]-M5		M5x0.8	3	20.4	7.7	0.5	
VPKE8Y[5]-M3	8	M3x0.5	2.5	20.7	8	0.5	
VPKE8Y[5]-M4		M4x0.7	2.9	20.8	8.1	0.6	
VPKE8Y[5]-M5		M5x0.8	3	20.4	7.7	0.5	
VPKE10Y[5]-M3	10	M3x0.5	2.5	20.7	8	0.5	
VPKE10Y[5]-M4		M4x0.7	2.9	20.8	8.1	0.6	
VPKE10Y[5]-M5		M5x0.8	3	20.4	7.7	0.5	

Please see PISCO website for weight (g).

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