

Suction Cups / Suction Cups (Direct-Mount)

Fixed Type / Spring Type / Screw Type

Suction Cups – Fixed Type
Up: One-Touch Type (Shape K)

Type	Accessories	Color	Pad Material
MVPKN	VPNT	Standard	Nitrile Rubber
MVPKE	VPUE		Conductive Silicon Rubber
MVPKF	VPUE	Deep	Fluoro Rubber
MVPKJ	VPUE		Nitrile Rubber
MVPKN	VPFT	Deep	Nitrile Rubber
MVPKF	VPFF		Fluoro Rubber

Standard & Deep No. 2-8 No. 10-40

Dimensions in () are for Ø2-4.
Material: Brass Surface Treatment: Electroless Nickel Plating

Part Number		Shape K										Spring Max. Load (N)
Type	Pad Material	No.	D	d	L ₁	B	L ₂	L ₃	Wrench Flats H ₁	T	M	Mass g
MVPK Standard	N E F	2	4	2	4	28.3	6	10	8	2	M6 x 0.75	6
		3	4	3	4	28.3	6	10	8	2	M6 x 0.75	6
		4	4	4	4	28.3	6	10	8	2	M6 x 0.75	6
		6	6	6	7	32.6	9.5	12	12	3	M10 x 1.0	12.5
		8	6	8	5.5	31.1	8	12	12	3	M10 x 1.0	12.5
		10	6	10	8	34.1	12	18.5	14	4	M12 x 1.0	21
15	6	15	9	35.1	13	18.5	14	4	M12 x 1.0	21.5		
20	6	20	10	37.5	18	17	4	M14 x 1.0	36.5			

Part Number		Shape K										Spring Max. Load (N)
Type	Pad Material	No.	D	d	L ₁	B	L ₂	L ₃	Wrench Flats H ₁	T	M	Mass g
MVFK Deep	N F	20	6	20	11	38.7	16.6	18	17	4	M14 x 1.0	36.5
		25	6	25	12	39.7	17.6	18	17	4	M14 x 1.0	37
		30	6	30	14	41.7	19.6	18	17	4	M14 x 1.0	39
		40	6	40	17.5	45.2	23.1	18	17	4	M14 x 1.0	47

Suction Cups – Spring Type
Up: One-Touch Type (Shape L)

Type	Accessories	Color	Pad Material
MVPLN	VPNT	Standard	Nitrile Rubber
MVPLE	VPUE		Conductive Silicon Rubber
MVPLF	VPUE	Deep	Fluoro Rubber
MVPLJ	VPUE		Nitrile Rubber
MVPLN	VPFT	Deep	Nitrile Rubber
MVPLF	VPFF		Fluoro Rubber

Standard & Deep No. 2-8 No. 10-40

Dimensions in () are for Ø2-4.
Fitting Material: Brass Surface Treatment: Electroless Nickel Plating

Part Number		Shape L										Spring Max. Load (N)
Type	Pad Material	No.	D	d	L ₁	B	L ₂	E ₁	E ₂	Mass g	Spring Max. Load (N)	
MVPL Standard	N E F	2	4	2	4	40	24	16.7	12.5	13.5	0.9-1.9	
		3	4	3	4	40	24	16.7	12.5	13.5	0.9-1.9	
		4	4	4	4	40	24	16.7	12.5	13.5	0.9-1.9	
		6	6	6	7	41	25	18.1	13	15.5	2.3-3.9	
		8	6	8	5.5	39.5	23.5	18.1	13	15.5	2.3-3.9	
		10	6	10	8	58.1	35	20.1	18.5	47.5	7.9-15.0	
15	6	15	9	59.1	36	20.1	18.5	48	7.9-15.0			
20	6	20	10	60.1	37	20.1	18.5	51.5	7.9-15.0			

Part Number		Shape L										Spring Max. Load (N)
Type	Pad Material	No.	D	d	L ₁	B	L ₂	E ₁	E ₂	Mass g	Spring Max. Load (N)	
MVFL Deep	N F	20	6	20	11	61.1	38	20.1	18.5	51.5	7.9-15.0	
		25	6	25	12	62.1	39	20.1	18.5	52	7.9-15.0	
		30	6	30	14	64.1	41	20.1	18.5	54	7.9-15.0	
		40	6	40	17.5	67.6	44.5	20.1	18.5	62	7.9-15.0	

Suction Cups – Spring Type / Long Stroke Type (Shape R)

Type	Accessories	Color	Pad Material
MVPRN	VPNT	Standard	Nitrile Rubber
MVPRE	VPUE		Conductive Silicon Rubber
MVPRF	VPUE	Deep	Fluoro Rubber
MVPRJ	VPUE		Nitrile Rubber
MVFRN	VPFT	Deep	Nitrile Rubber
MVFRF	VPFF		Fluoro Rubber

Standard & Deep No. 2-8 No. 10-40

Dimensions in () are for Ø2-4.
Fitting Material: Brass Surface Treatment: Electroless Nickel Plating

Suction Cups – Spring Type
Up: One-Touch Type (Shape T)

Type	Accessories	Color	Pad Material
MVPTN	VPNT	Standard	Nitrile Rubber
MVPTJ	VPUE		Conductive Silicon Rubber
MVPTF	VPUE	Deep	Fluoro Rubber
MVPTJ	VPUE		Nitrile Rubber
MVPTN	VPFT	Deep	Nitrile Rubber
MVPTF	VPFF		Fluoro Rubber

Standard & Deep No. 2-8 No. 10-40

Dimensions in () are for Ø2-4.
Fitting Material: Brass Surface Treatment: Electroless Nickel Plating

Part Number		Shape T										Spring Max. Load (N)
Type	Pad Material	No.	D	d	L ₁	B	L ₂	L ₃	Wrench Flats H ₁	T	M	Mass g
MVPT Standard	N E F	2	4	2	4	43.2	17.5	17	0.9-1.9			
		3	4	3	4	43.2	17.5	17	0.9-1.9			
		4	4	4	4	43.2	17.5	17	0.9-1.9			
		6	6	6	7	43.2	19.5	18.5	4.0-7.1			
		8	6	8	5.5	45.6	18	18.5	4.0-7.1			
		10	6	10	8	60	26	35.5	7.0-12.6			
15	6	15	9	61	27	36	7.0-12.6					
20	6	20	10	62	28	39.5	7.0-12.6					

Part Number		Shape T										Spring Max. Load (N)
Type	Pad Material	No.	D	d	L ₁	B	L ₂	L ₃	Wrench Flats H ₁	T	M	Mass g
MVFT Deep	N F	20	6	20	11	63.1	29	39.5	7.0-12.6			
		25	6	25	12	64.1	30	40	7.0-12.6			
		30	6	30	14	66.1	32	42.5	7.0-12.6			
		40	6	40	17.5	69.6	35.5	50.5	7.0-12.6			

Suction Cups (Direct-Mount) – Spring Type / Screw Type (Shape S)

Type	Accessories	Color	Pad Material
MVPSN	VPNT	Standard	Nitrile Rubber
MVPSJ	VPUE		Conductive Silicon Rubber
MVPSF	VPUE	Deep	Fluoro Rubber
MVPSJ	VPUE		Nitrile Rubber
MVPSN	VPFT	Deep	Nitrile Rubber
MVPSF	VPFF		Fluoro Rubber

Standard & Deep No. 2-8 No. 10-40

Dimensions in () are for Ø2-4.
Fitting Material: Brass Surface Treatment: Electroless Nickel Plating

Part Number		Shape S										Spring Max. Load (N)
Type	Pad Material	No.	D	d	L ₁	M	(A)	B	L ₂	Mass g	Spring Max. Load (N)	
MVPS Standard	N E F	2	2	2	4	M10 x 1	9.5	32	22.5	14.5	2.3-3.9	
		3	3	3	4	M10 x 1	9.5	32	22.5	14.5	2.3-3.9	
		4	4	4	4	M10 x 1	9.5	32	22.5	14.5	2.3-3.9	
		6	6	6	7	M10 x 1	9.5	32	22.5	14.5	2.3-3.9	
		8	6	8	5.5	M10 x 1	9.5	30.5	21.0	14.5	2.3-3.9	
		10	6	10	8	M14 x 1	11.7	52	39.3	55.5	7.9-15.0	
15	6	15	9	M14 x 1	11.7	54	40.3	56	7.9-15.0			
20	6	20	10	M14 x 1	11.7	55	42.3	58.5	7.9-15.0			

Part Number		Shape S										Spring Max. Load (N)
Type	Pad Material	No.	D	d	L ₁	M	(A)	B	L ₂	Mass g	Spring Max. Load (N)	
MVFS Deep	N F	20	20	11	M14 x 1	11.7	55	43.3	58.5	7.9-15.0		
		25	25	12	M14 x 1	11.7	56	44.3	59	7.9-15.0		
		30	30	14	M14 x 1	11.7	58	46.3	61	7.9-15.0		
		40	40	17.5	M14 x 1	11.7	61.5	49.8	69	7.9-15.0		

Part Number		Shape R										Spring Max. Load (N)
Type	Pad Material	No.	D	d	L ₁	B	L ₂	L ₃	Mass g	Spring Max. Load (N)		
MVPR Standard	N E F	4	4	4	4	57.2	27	17.5	20.5	0.6-1.7		
		6	4	6	7	56.7	26.5	17.5	20	0.8-2.7		
		8	4	8	5.5	55.2	25	17.5	20	0.8-2.7		
		10	6	10	8	64.6	30.5	20	36.5	2.0-5.2		
		15	6	15	9	65.6	31.5	20	37	2.0-5.2		
		20	6	20	10	68.1	34	20	42	3.3-10.0		

Part Number		Shape R										Spring Max. Load (N)
Type	Pad Material	No.	D	d	L ₁	B	L ₂	L ₃	Mass g	Spring Max. Load (N)		
MVFR Deep	N F	20	6	20	10	69.1	35	20	42	2.0-5.2		
		25	6	25	11	70.1	36	20	42.5	3.3-10.0		
		30	6	30	12	72.1	38	20	44.5	3.3-10.0		
		40	6	40	14	75.6	41.5	20	53	3.3-10.0		

Part Number Example
MVPKN4 VPF30

Cautions for installation of Suction Cup Fittings
For Spring Type, mount fittings without tightening the shaft parts with spanner, etc. Otherwise, the shaft key groove may be deformed, and may cause malfunction.

Suction Cups (Direct-Mount) / Suction Cups

Small Type (Shape J) / Standard / Deep / Deep

Suction Cups (Direct-Mount) – Small Type (Shape J)

Type	Accessories	Color	Pad Material
MVPJN	VPJN	Small	Nitrile Rubber
MVPJS	VPJS		Conductive Silicon Rubber
MVPJF	VPJF	Small	Fluoro Rubber
MVPJF	VPJF		Nitrile Rubber

Material: Brass Surface Treatment: Electroless Nickel Plating

Application Example

Standard Type is suitable for adsorption on flat work.
Deep Type is suitable for adsorption on round objects.

Suction Cups – Standard

Type	Material	Pad Shape	Hardness	Color
VPNT	Nitrile Rubber	Standard	Shore A55	Black
VPUE	Conductive Silicon Rubber		Shore A60	Black
VPUE	Fluoro Rubber	Deep	Shore A55	Gray
VPUE	Nitrile Rubber		Shore A55	Black
VPUE	Fluoro Rubber	Small	Shore A55	Gray
VPJN	Nitrile Rubber		Shore A60	Black
VPJS	Conductive Silicon Rubber	Small	Shore A60	Black
VPJF	Fluoro Rubber		Shore A55	Gray

Part Number	Applicable Vacuum Fitting No.	Mounting
2	2	Insertion Type
3	3	
4	4	
6	6	Recessed Type
8	8	
10	10	Attachment Type (With pad screw)
15	15	
20	20	

Part Number	Applicable Vacuum Fitting MVF	Mounting
20	20	Attachment Type (With pad screw)
25	25	
30	30	
40	40	

Part Number Example
MVPKN4 VPF30

Not usable in combination with vacuum fittings (SRK, SRKN, SRKNS) on P.3543.

Type	Part Number	No.	d
MVPJ Small	N S F	0.7	0.7
		1	1
		1.5	1.5
		2	2
		3	3
		4	4

Structure Diagram

Only Deep Type No. 40 uses pad holder.

Suction Cups – Standard

Part Number	Applicable Vacuum Fitting No.	Mounting
2	2	Insertion Type
3	3	
4	4	
6	6	Recessed Type
8	8	
10	10	Attachment Type (With pad screw)
15	15	
20	20	

Part Number	Applicable Vacuum Fitting MVPJ	Mounting
0.7	0.7	Attachment Type (With pad screw)
1	1	
1.5	1.5	
2	2	
3	3	Attachment Type (With pad screw)
4	4	