

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	Standard	Conductive Silicon Rubber
MVPKF	VPUE	Standard	Fluoro Rubber
MVPKN	VPFT	Deep	Nitrile Rubber
MVPKF	VPFF	Deep	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									
Type	Pad Material	No.	D	d	L ₁	B	L ₂	L ₃	Wrench Flats H ₁	T	Mass g
MVPK Standard	N E F	2	4	2	4	28.3	6	10	8	2	M6 x 0.75
		3	4	3	4	28.3	6	10	8	2	M6 x 0.75
		4	4	4	4	28.3	6	10	8	2	M6 x 0.75
		6	6	6	7	32.6	9.5	12	12	3	M10 x 1.0
		8	6	8	5.5	31.1	8	12	12	3	M10 x 1.0
		10	6	10	8	34.1	12	18.5	14	4	M12 x 1.0
		15	6	15	9	35.1	13	18.5	14	4	M12 x 1.0
		20	6	20	10	37.5	17	18	17	4	M14 x 1.0
		20	6	20	10	37.5	17	18	17	4	M14 x 1.0
		20	6	20	10	37.5	17	18	17	4	M14 x 1.0

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

Suction Cups – Spring Type

Up: One-Touch Type (Shape L)

Type	Accessories	Color	Pad Material
MVPLN	VPNT	Standard	Nitrile Rubber
MVPLE	VPUE	Standard	Conductive Silicon Rubber
MVPLF	VPUE	Standard	Fluoro Rubber
MVFLN	VPFT	Deep	Nitrile Rubber
MVFLF	VPFF	Deep	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									
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	
		4	4	4	4	40	24	16.7	12.5	13.5	
		6	6	6	7	41	25	18.1	13	15.5	
		8	6	8	5.5	39.5	23.5	18.1	13	15.5	
		10	6	10	8	58.1	35	20.1	18.5	47.5	4.0-7.1
		15	6	15	9	59.1	36	20.1	18.5	48	
		20	6	20	10	60.1	37	20.1	18.5	51.5	
		20	6	20	10	60.1	37	20.1	18.5	51.5	
		20	6	20	10	60.1	37	20.1	18.5	51.5	

Part Number		Shape L									
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	7.0-12.6
		25	6	25	12	62.1	39	20.1	18.5	52	
		30	6	30	14	64.1	41	20.1	18.5	54	
		40	6	40	17.5	67.6	44.5	20.1	18.5	62	

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

Type	Accessories	Color	Pad Material
MVPRN	VPNT	Standard	Nitrile Rubber
MVPRE	VPUE	Standard	Conductive Silicon Rubber
MVPRF	VPUE	Standard	Fluoro Rubber
MVFRN	VPFT	Deep	Nitrile Rubber
MVFRF	VPFF	Deep	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
MVPTN	VPUE	Standard	Conductive Silicon Rubber
MVPTF	VPUE	Standard	Fluoro Rubber
MVFTN	VPFT	Deep	Nitrile Rubber
MVFTF	VPFF	Deep	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							
Type	Pad Material	No.	D	d	L ₁	B	L ₂	Mass g	Spring Max. Load (N)	
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		
		4	4	4	4	43.2	17.5	17		
		6	6	6	7	43.2	19.5	18.5		
		8	6	8	5.5	45.6	18	18.5		
		10	6	10	8	60	26	35.5	4.0-7.1	
		15	6	15	9	61	27	36		
		20	6	20	10	62	28	39.5		
		20	6	20	10	62	28	39.5		
		20	6	20	10	62	28	39.5		

Part Number			D	d	L ₁	Shape T			
Type	Pad Material	No.				B	L ₂	Mass g	Spring Max. Load (N)
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	
		30	6	30	14	66.1	32	42.5	
		40	6	40	17.5	69.6	35.5	50.5	

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

Type	Accessories	Color	Pad Material
MVPSN	VPNT	Standard	Nitrile Rubber
MVPSN	VPUE	Standard	Conductive Silicon Rubber
MVPSF	VPUE	Standard	Fluoro Rubber
MVFSN	VPFT	Deep	Nitrile Rubber
MVFSF	VPFF	Deep	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									
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	
		4	4	4	4	M10 x 1	9.5	32	22.5	14.5	
		6	6	7	7	M10 x 1	9.5	32	22.5	14.5	
		8	8	5.5	5.5	M10 x 1	9.5	30.5	21.0	14.5	
		10	10	8	8	M14 x 1	11.7	52	39.3	55.5	7.9-15.0
		15	15	9	9	M14 x 1	11.7	54	40.3	56	
		20	20	10	10	M14 x 1	11.7	55	42.3	58.5	
		20	20	10	10	M14 x 1	11.7	55	42.3	58.5	
		20	20	10	10	M14 x 1	11.7	55	42.3	58.5	

Part Number		Shape S									
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	11	M14 x 1	11.7	55	43.3	58.5	7.9-15.0
		25	25	12	12	M14 x 1	11.7	56	44.3	59	
		30	30	14	14	M14 x 1	11.7	58	46.3	61	
		40	40	17.5	17.5	M14 x 1	11.7	61.5	49.8	69	

Part Number			D	d	L ₁	Shape R				
Type	Pad Material	No.				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			D	d	L ₁	Shape R				
Type	Pad Material	No.				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

Part Number

Example

MVPKN4

VPFF30

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	Small	Conductive Silicon Rubber
MVPJF	VPJF	Small	Fluoro 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	Standard	Shore A60	Black
VPUE	Fluoro Rubber	Standard	Shore A55</	