

VACUUM SUCTION CUP WITH NIPPLE

Series VS1RB2

Cat No VS1RB2 - 01 - 01 - B

VACUUM SUCTION CUP WITH NIPPLE (Bellow type - 2.5 Folds) - Size: (Ø7 to Ø52 mm)

Features

- ❑ Wide range of diameters and materials for the most varied workpieces
- ❑ 2.5 folds ensure high suction force and effective damping of sensitive workpieces
- ❑ Very high suction cup stroke due to soft, flexible folds
- ❑ The Soft, tapered sealing lip adapts optimally to curved surfaces or uneven surfaces



Applications

- ❑ Round bellows suction cup with 2.5 folds for the handling of extremely sensitive workpieces (optimum damping effect due to folds)
- ❑ Handling of workpieces with uneven surfaces, such as pipes (optimal adaptation to concave and convex surfaces)
- ❑ The special design of the folds permits use in systems with very short cycle times

Technical Specifications

Model		VS1RB2 - 7		VS1RB2 - 9		VS1RB2 - 12		VS1RB2 - 14		VS1RB2 - 18	
Nipple size		M5	G1/8	M5	G1/8	M5	G1/8	M5	G1/8	M5	G1/8
Suction force * (N)		0.2		0.8		1.2		1.4		3.1	
Pull-off force ** (N)		0.9		2.3		3.5		5.7		8.5	
Volume (cm³)		0.043		0.15		0.6		0.975		1.35	
Workpiece radius minimum (convex) (mm)		8		10		13		15		20	
Tube diameter (OD) # (mm)		6		6		6		6		6	
Weight (g)	NBR - Male thread	1.6	4.3	1.8	4.5	2.2	4.9	2.6	5.3	2.9	5.6
	Silicone - Male thread										
	NBR - Female thread	-	4.7	-	4.9	-	5.3	-	5.7	-	6
	Silicone - Female thread										
Material of construction		Aluminium, Silicone, NBR									
Ambient temperature (°C)		NBR: -10 to +70									
		Silicone: -20 to +180									

Model		VS1RB2 - 20		VS1RB2 - 25	VS1RB2 - 32	VS1RB2 - 42	VS1RB2 - 52
Nipple size		M5	G1/8	G1/8	G1/4		
Suction force * (N)		5.2		4.8	12.1	15	28.6
Pull-off force ** (N)		12.1		19	36.9	44	96
Volume (cm³)		2.298		5.4	10	19.786	37.587
Workpiece radius minimum (convex) (mm)		30		30	35	75	75
Tube diameter (OD) # (mm)		6		6	10	10	10
Weight (g)	NBR - Male thread	3.3	6	8	17	27	32
	Silicone - Male thread						
	NBR - Female thread	-	6.4	9	18	27	32
	Silicone - Female thread						
Material of construction		Aluminium, Silicone, NBR					
Ambient temperature (°C)		NBR: -10 to +70					
		Silicone: -20 to +180					

* - Specified suction forces are theoretical values at a vacuum of -0.6 bar and with a smooth, dry workpiece surface (Do not include a safety factor)

** - The pull-off force of the versions made of natural rubber is reduced by about 40 %

- Recommended tube diameter is based on a tube length of approx. 2 m

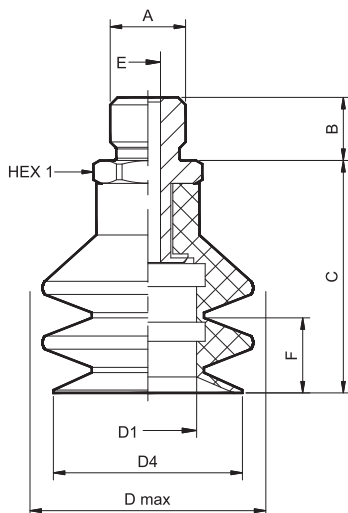
VACUUM SUCTION CUP WITH NIPPLE

Series VS1RB2

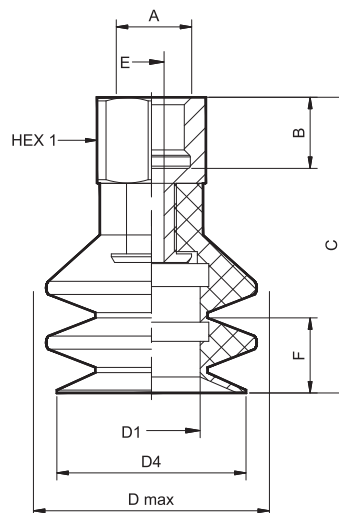
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Basic dimensions

Male threaded nipple



Female threaded nipple



Male thread - Size: Ø7 to 52 mm

Size Ø	D1	E	D max*	D4	Nipple size A	C	B	HEX 1	F
7	1.8	2.5	7	5.9	M5-M	19	5	7	3
7	1.8	3.5	7	5.9	G1/8-M	20	7.5	14	3
9	4.1	2.5	9.5	9	M5-M	20	5	7	3
9	4.1	3.5	9.5	9	G1/8-M	21	7.5	14	3
12	5	2.5	13	12	M5-M	26	5	7	7
12	5	3.5	13	12	G1/8-M	27	7.5	14	7
14	5.4	2.5	15.5	14.5	M5-M	27.8	5	7	9
14	5.4	3.5	15.5	14.5	G1/8-M	28.8	7.5	14	9
18	8	2.5	19	17.2	M5-M	27.6	5	7	9
18	8	3.5	19	17.2	G1/8-M	28.6	7.5	14	9
20	10.5	2.5	21	20	M5-M	27.1	5	7	9
20	10.5	3.5	21	20	G1/8-M	28.1	7.5	14	9
25	10	3.5	26	23	G1/8-M	40	7.5	14	18
32	16	4.4	33.5	32	G1/4-M	41.5	11	17	15
42	17.8	4.4	45	42.6	G1/4-M	50	11	17	20
52	24.6	4.4	55	52.5	G1/4-M	52.7	11	17	25

Female thread - Size: Ø7 to 52 mm

Size Ø	D1	E	D max*	D4	Nipple size A	C	B	HEX 1	F
7	1.8	3.5	7	5.9	G1/8-F	26	8.5	14	3
9	4.1	3.5	9.5	9	G1/8-F	27	8.5	14	3
12	5	3.5	13	12	G1/8-F	33	8.5	14	7
14	5.4	3.5	15.5	14.5	G1/8-F	34.8	8.5	14	9
18	8	3.5	19	17.2	G1/8-F	34.6	8.5	14	9
20	10.5	3.5	21	20	G1/8-F	34.1	8.5	14	9
25	10	3.5	26	23	G1/8-F	46	8.5	14	18
32	16	4.4	33.5	32	G1/4-F	52.5	12	17	15
42	17.8	4.4	45	42.6	G1/4-F	61	12	17	20
52	24.6	4.4	55	52.5	G1/4-F	63.7	12	17	25

* External dimensions of the suction cup when it is pressed against the workpiece by the vacuum

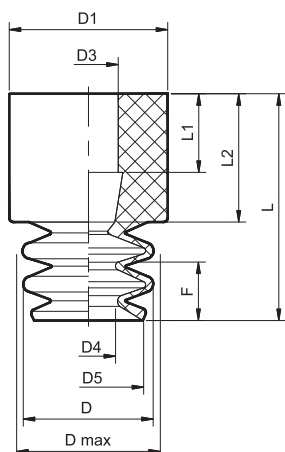
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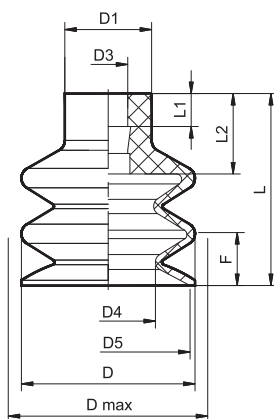
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ACCESSORIES - Suction Cup

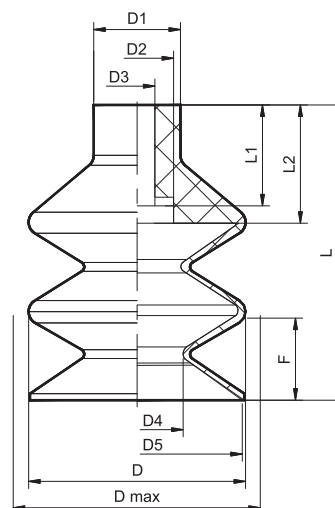
Ø7, Ø9 mm



Ø12 to 25 mm



Ø32 to 52 mm



Size: Ø7 to 52 mm													
Size Ø	D max*	D	D1	D2	D3	D4	D5	F	L	L1	L2	Ordering No.	
												NBR	SILICONE
7	7	6.5	9	-	4.5	1.8	5.9	3	14	3.8	6.5	VS1RB2-7-N1	VS1RB2-7-S1
9	9.5	8.9	9	-	4.5	4.1	9	3	15	3.8	8.2	VS1RB2-9-N1	VS1RB2-9-S1
12	13	12	10	-	4.5	5	12	7	21	3.8	9	VS1RB2-12-N1	VS1RB2-12-S1
14	15.5	13.9	10	-	4.5	5.4	14.5	9	22.8	3.8	9	VS1RB2-14-N1	VS1RB2-14-S1
18	19	17.8	10	-	4.5	8	17.2	9	22.6	3.8	9	VS1RB2-18-N1	VS1RB2-18-S1
20	21	20	10	-	4.5	10.5	20	9	22.1	3.8	9	VS1RB2-20-N1	VS1RB2-20-S1
25	26	25	10	-	4.5	10	23	18	34	3.8	9	VS1RB2-25-N1	VS1RB2-25-S1
32	33.5	32.4	18	15	8	16	32	15	37.5	13	17	VS1RB2-32-N1	VS1RB2-32-S1
42	45	43.5	18	15	8	17.8	42.6	20	46	13	17	VS1RB2-42-N1	VS1RB2-42-S1
52	55	52	18	-	8	24.6	52.5	25	48.7	13	-	VS1RB2-52-N1	VS1RB2-52-S1

* External dimensions of the suction cup when it is pressed against the workpiece by the vacuum

How to order

VS1RB2

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18

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S1

—

70

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M

Size Ø	
7	7 mm
9	9 mm
12	12 mm
14	14 mm
18	18 mm
20	20 mm
25	25 mm
32	32 mm
42	42 mm
52	52 mm

Suction cup material	
N1	NBR
S1	Silicone

Nipple size	
70	M5
60	G1/8
61	G1/4

Thread	
M	Male thread
F	Female thread

Note:

Available size and their corresponding Nipple / Thread variants

Ø7, Ø9, Ø12, Ø14, Ø18, Ø20 - M5 (Male)

Ø7, Ø9, Ø12, Ø14, Ø18, Ø20, Ø25 - G1/8 (Male & Female)

Ø32, Ø42, Ø52 - G1/4 (Male & Female)

Note:
Available size and their corresponding Nipple / Thread variants
 Ø7, Ø9, Ø12, Ø14, Ø18, Ø20 - M5 (Male)
 Ø7, Ø9, Ø12, Ø14, Ø18, Ø20, Ø25 - G1/8 (Male & Female)
 Ø32, Ø42, Ø52 - G1/4 (Male & Female)

Ordering example:

Ordering no. for Vacuum suction cup with nipple (Bellow type - 2.5 Folds) Size - Ø18 mm, Silicone material, M5 Nipple with Male thread : **VS1RB2-18-S1-70M**

Subject to change