

VB Series (Bellows)

Features and Strengths

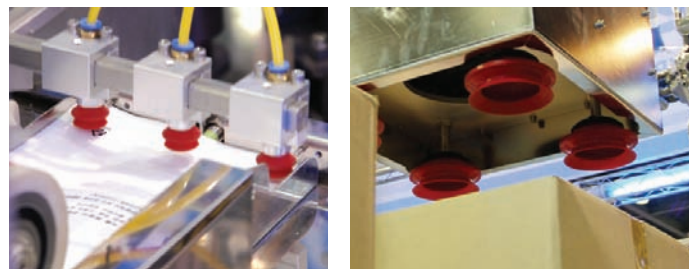
Particularly good for use on curved surfaces and for separating thin sheets of materials in stacks.

The bellows cup is very good at compensating for a degree of difference in level and curvature of the work piece, more angular and level compensation can be achieved by using other **Vtec** cup accessories.



Suitable for Handling

- Sheet Veneer
- Plastic Sheets
- Paper Box handling
- Thin Film Sheets
- Cardboard Boxes and Electronic Components



Order No.

VB30 **PU** **F** - **NF18F** **EV** - **LN1820T** - **BJ N18**

① ② ③ ④ ⑤ ⑥ ⑦

► See pages 21, 60-65.

① Diameter

VB5	- 0.22"
VB6X	- 0.27"
VB8	- 8.8"
VB10	- 0.34"
VB12	- 0.47"
VB15	- 0.61"
VB17	- 0.72"
VB20	- 0.86"
• VB30	- 1.33"
VB40	- 1.69"
VB50	- 2.08"
VB75	- 3.07"
VB75B	- 3.07"
VB110	- 4.52"
VB110B	- 4.52"
VB150	- 6.1"

② Material

N	- NBR
S	- Silicon
WS	- White Silicon
CS	- Conductive (Special mat'l)
U	- Urethane
A	- Mark Free
• PU	- Poly Urethane*
WPU	- Poly Urethane* (Minimal mark)

*Only for VB15, VB20, VB30, VB40, VB50, VB75

③ Filter

no mark	- Standard
• F	- With filter (PE)

VB30, VB40, VB50, VB75, VB110

④ Thread size

M5M	- M5 male (VB5, VB8, VB10, VB12, VB15)
18M	- G1/8" male (VB30, VB40)
N14M	- 1/4" NPT male (VB30, VB40, VB50)
N38M	- 3/8" NPT male (VB50)
M518MF	- M5 female and G1/8" male (VB17, VB20)
M518MFB*	- M5 female and G1/8" male (VB20)
• NF18F(A)	- 1/8" NPSF female (VB17, VB20, VB30, VB40, VB50, VB75, VB75B)
NF18FB*	- 1/8" NPSF female (VB30, VB40)
NF14F(A)	- 1/4" NPSF female (VB75, VB75B)
NF38F(A)	- 3/8" NPSF female (VB75, VB75B)
12F(A)	- G1/2" female (VB75, VB75B, VB110, VB110B, VB150)
M5X5F	- M5X5 female (VB17, VB20)
NF18X5F	- 1/8" NPSF X5 female (VB30, VB40, VB50)

Remark : VB30~150 fittings are including mesh filter.

* Only for silicon material

(A) : AL-Material (Only VB75, VB75B)

⑤ Valves Efficiency valve : EV

no mark	- standard
• EV	- Vacuum efficiency valve (See page : 16)

VB17, VB20, VB30, VB40, VB50

Accessories order No.

LN1820T BJ N18


⑥

⑦

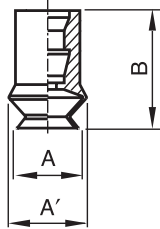
⑥ Level compensator		⑦ Ball joint model
Model	Stroke (In)	
L506TX, L506TS, L506TM, L506TU	0.24	● BJ N18
L510LTX, L510LTS, L510LTM, L510LTU	0.39	
L507T, L507TN	0.27	
L515T	0.59	
L510, L510T	0.39	
L520, L520T, L520TF	0.78	
LN1805F	0.19	
L525TXN, L525TSN, L525TMN, L525TUN	0.98	
L1805M, LN1805F	0.19	
LN1810T, LN1810TS, LN1810TSE	0.39	
LN1815T, LN1815	0.59	
● LN1820T, LN1820TS	0.78	
LN1820TN*	0.78	
LN1830, LN1830T, LN1830TS	1.18	
LN1850, LN1850T	1.97	
LN1230, LN1230T	1.18	BJ12
LN1250, LN1250T	1.97	

*Not available with Ball Joint (BJ)..

Recommended (max.) lifting forces

Model	Volume (inch ³)	Lifting Force (lb.f) – Perpendicular 		
		-6 inHg	-18 inHg	-27 inHg
VB5	0.003	0.066	0.176	0.22
VB6X	0.005	0.11	0.242	0.308
VB8	0.009	0.176	0.352	0.551
VB10	0.029	0.33	0.75	1.1
VB12	0.036	0.44	0.9	1.36
VB15	0.067	0.639	1.32	1.98
VB17	0.091	0.881	1.76	2.2
VB20	0.165	1.32	2.2	3.13
VB30	0.61	2.68	4.93	6.06
VB40	0.915	4.93	8.75	11
VB50	1.95	7.4	14.61	18.4
VB75(B)	6.71	16.86	37.56	50.8
VB110(B)	18.9	30.8	77.16	103.7
VB150	39.66	66.1	154.3	198.6

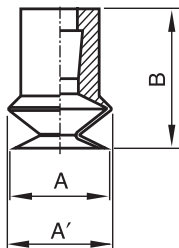
Dimensional information



◀ VB6X

[inch]

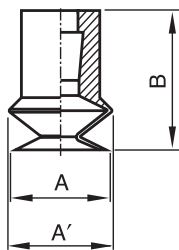
Model	A	A'	B
VB6X	0.27	0.35	0.53



◀ VB5 VB8 VB10 VB12 VB15

[inch]

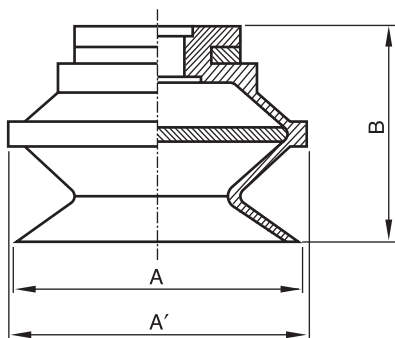
Model	A	A'	B
VB5	0.22	0.23	0.37
VB8	0.34	0.38	0.49
VB10	0.43	0.47	0.62
VB12	0.47	0.55	0.64
VB15	0.61	0.68	0.76



◀ VB17

[inch]

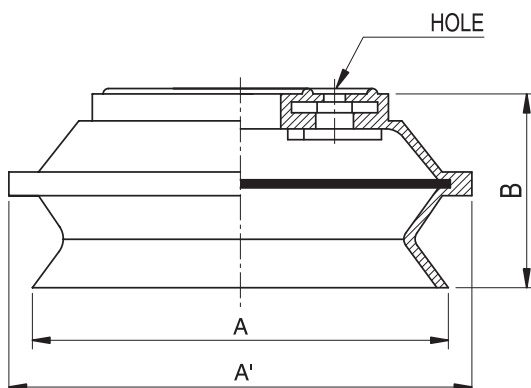
Model	A	A'	B
VB17	0.72	0.65	0.61



◀ VB20 VB30 VB40 VB50

[inch]

Model	A	A'	B
VB20	0.86	0.94	0.74
VB30	1.33	1.41	1
VB40	1.69	1.81	1.1
VB50	2	2.28	1.37

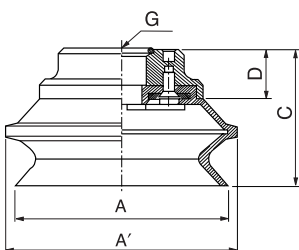
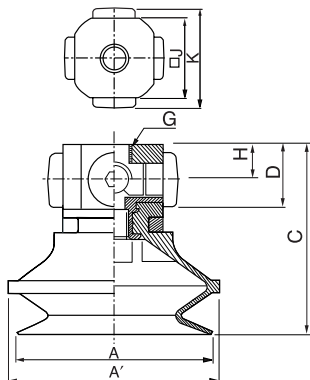
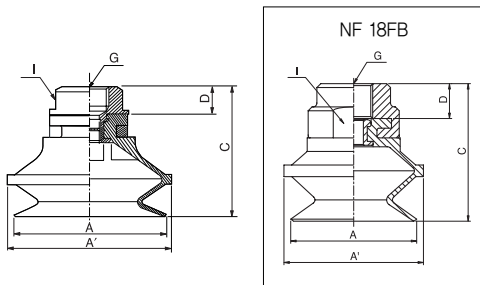
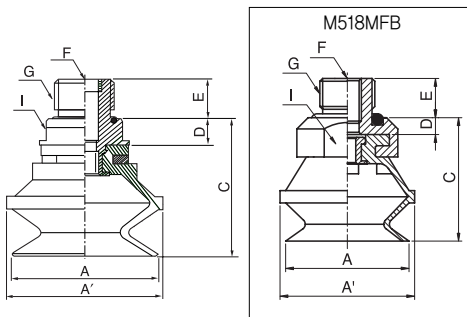
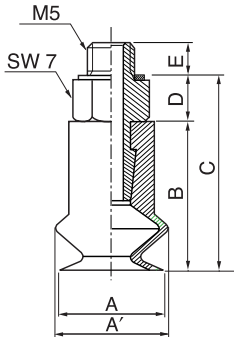


◀ VB75 VB110 VB150

[inch]

Model	A	A'	B	HOLE
VB75(B)	3	3.26	1.45	4-Ø6.5 P.C.D Ø35
VB110(B)	4.52	4.88	2.12	8-Ø6 P.C.D Ø55
VB150	6.1	6.53	2.79	8-Ø6 P.C.D Ø70.5

Dimensional information



Male thread [inch]

Model	A	A'	B	C	D	E
VB5-M5M	0,22	0,23	0,37	0,51	0,15	0,13
VB8-M5M	0,34	0,38	0,49	0,62	0,15	0,13
VB10-M5M	0,43	0,47	0,62	0,82	0,19	0,15
VB12-M5M	0,47	0,55	0,64	0,84	0,19	0,15
VB15-M5M	0,61	0,68	0,76	0,96	0,19	0,15

Male thread [inch]

Model	A	A'	C	D	E	F	G	I
VB17-M518MF	0,72	0,65	0,67	0,05	0,23	M5	G1/8"	SW0,47
VB20-M518MF	0,86	0,94	0,8	0,05	0,23	M5	G1/8"	SW0,47
VB20-M518MFB*	0,86	0,94	0,86	0,11	0,27	M5	G1/8"	SW0,62
VB30-18M	1,33	1,41	1,22	0,19	0,27	-	G1/8"	SW0,66
VB30-N14M	1,33	1,41	1,25	0,23	0,35	-	1/4" NPT	SW0,66
VB40-18M	1,69	1,81	1,29	0,19	0,27	-	G1/8"	SW0,66
VB40-N14M	1,69	1,81	1,33	0,23	0,35	-	1/4" NPT	SW0,66
VB50-N14M	2,08	2,28	1,61	0,23	0,35	-	1/4" NPT	SW0,94
VB50-N38M	2,08	2,28	1,61	0,23	0,39	-	3/8" NPT	SW0,94

*Only for silicon material

Female thread [inch]

Model	A	A'	C	D	G	I
VB17-NF18F	0,72	0,65	0,92	0,31	1/8" NPSF	SW0,59
VB20-NF18F	0,86	0,94	1,06	0,31	1/8" NPSF	SW0,59
VB30-NF18F	1,33	1,41	1,33	0,31	1/8" NPSF	SW0,66
VB30-NF18F*	1,33	1,41	1,37	0,35	1/8" NPSF	SW0,82
VB40-NF18F	1,69	1,81	1,41	0,31	1/8" NPSF	SW0,66
VB40-NF18F*	1,69	1,81	1,45	0,35	1/8" NPSF	SW0,82
VB50-NF18F	2,08	2,28	1,73	0,35	1/8" NPSF	SW0,94

*Only for silicon material

Female threadx5 [inch]

Model	A	A'	C	D	G	H	□J	K
VB17-M5X5F	0,72	0,65	0,96	0,35	M5X5	0,19	0,59	0,86
VB20-M5X5F	0,86	0,94	1,1	0,35	M5X5	0,19	0,59	0,86
VB30-NF18X5F	1,33	1,41	1,73	0,7	5X1/8" NPSF	0,39	0,86	1,18
VB40-NF18X5F	1,69	1,81	1,81	0,7	5X1/8" NPSF	0,39	0,86	1,18
VB50-NF18X5F	2,08	2,28	2,08	0,7	5X1/8" NPSF	0,39	1,1	1,41

Female thread [inch]

Model	A	A'	C	D	G
VB75(B)-NF18F	3,07	3,26	1,96	0,7	1/8" NPSF
VB75(B)-NF14F	3,07	3,26	1,96	0,7	1/4" NPSF
VB75(B)-NF38F	3,07	3,26	1,96	0,7	3/8" NPSF
VB75(B)-12F	3,07	3,26	1,96	0,7	G1/2"
VB110(B)-12F	4,52	4,88	2,48	0,59	G1/2"
VB150-12F	6,1	6,53	3,07	0,55	G1/2"