

VB Model (Bellows)

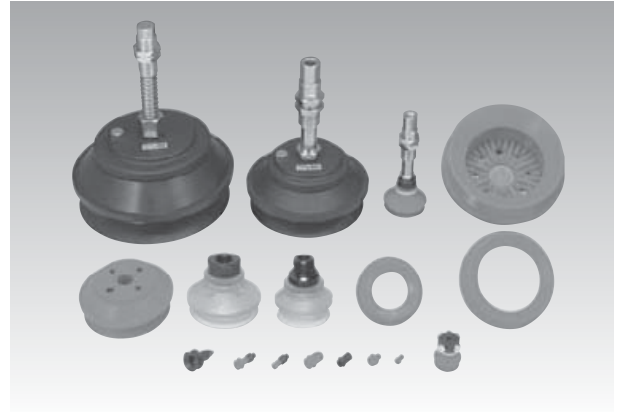
Features and Strengths

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** pad accessories.

Suitable for Handling

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



Order no.

VB30 **PU** **F** - **18F EV** - **L1820T** **BJ18**

① ② ③ ④ ⑤ ⑥ ⑦

▶ See pages 31, 76-80.

① Vacuum pad Ø

VB5	- Ø5
VB6X	- Ø6
VB8	- Ø8
VB10	- Ø10
VB15	- Ø15
VB17	- Ø17
VB20	- Ø20
• VB30	- Ø30
VB40	- Ø40
VB50	- Ø50
VB75	- Ø75
VB75B	- Ø75
VB110	- Ø110
VB110B	- Ø110
VB150	- Ø150

② Material

N	- NBR
S	- Silicon
CS	- C. Silicon
U	- Urethane
• PU	- Poly Urethane *

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

③ Filter

no mark	- Standard
• F	- With filter VB30, VB40, VB50, VB75, VB110

④ Thread size

M5M	- M5 male (VB5, VB8, VB10, VB15)
18M	- G1/8" male (VB30, VB40)
14M	- G1/4" male (VB30, VB40, VB50)
38M	- G3/8" male (VB50)
M518MF	- M5 female and G1/8" male (VB17, VB20)
M518MFB *	- M5 female and G1/8" male (VB20)
• 18F(A)	- G1/8" female (VB17, VB20, VB30, VB40, VB50, VB75, VB75B)
18FB *	- G1/8" female (VB30, VB40)
14F(A)	- G1/4" female (VB75, VB75B)
38F(A)	- G3/8" female (VB75, VB75B)
12F(A)	- G1/2" female (VB75, VB75B, VB110, VB110B, VB150)
M5X5F	- M5X5 female (VB17, VB20)
18X5F	- G1/8" X5 female (VB30, VB40, VB50)

* Only for silicon material

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

⑤ Valves Efficiency valve : EV

no mark	- standard
• EV	- Vacuum efficiency valve (See page : 26) (VB17, VB20, VB30, VB40, VB50)

Accessories order no.

L1820T **BJ18**
 ↓ ↓
 ⑥ ⑦

⑥ Level spring		⑦ Ball joint model
Model	Stroke	
L506TX, L506TS, L506TM, L506TU	6	
L510LTX, L510LTS, L510LTM, L510LTU	10	
L507T, L507TN	7	
L515T	15	
L510, L510T	10	
L520, L520T	20	
L1805F	5	
L525TXN, L525TSN, L525TMN, L525TUN	25	
L1805M, L1805F	5	
L1810T, L1810TS	10	
L1815T	15	
● L1820T	20	
L1820TN*	20	
L1830, L1830T	30	
L1850, L1850T	50	
L1230, L1230T	30	BJ12
L1250, L1250T	50	

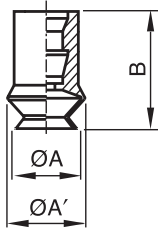
● BJ18

* Not available with Ball Joint(BJ).

Recommended (max.) lifting forces when using level springs

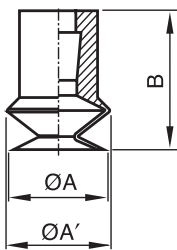
Model	Volume (cm ³)	Lifting Force (kg) -Perpendicular			Level spring model
		-20kPa	-60kPa	-90kPa	
VB5	0.05	0.03	0.08	0.10	L506TU, L510LTU, L507T, L515T, L525TUN, L507TN
VB6X	0.09	0.05	0.11	0.14	L506TX, L510LTX, L525TXN
VB8	0.15	0.08	0.16	0.25	L506TU, L510LTU, L507T, L515T, L525TUN, L507TN
VB10	0.48	0.15	0.34	0.5	L506TS, L510LTS, L507T, L515T, L525TSN, L507TN
VB15	1.1	0.29	0.6	0.9	L506TS, L510LTS, L507T, L515T, L525TSN, L507TN
VB17	1.5	0.4	0.8	1	L1805M, L1805F, L510, L510T, L520, L520T
VB20	2.7	0.6	1	1.42	L1805M, L1805F, L510, L510T, L520, L520T
VB30	10	1.22	2.24	2.75	L1805M, L1810T(TS), L1815T, L1820T, L1830(T), L1850(T), L1820TN
VB40	15	2.24	3.97	5	L1805M, L1810T(TS), L1815T, L1820T, L1830(T), L1850(T), L1820TN
VB50	32	3.36	6.63	8.36	L1805M, L1810T(TS), L1815T, L1820T, L1830(T), L1850(T), L1820TN
VB75(B)	110	7.65	17.04	23.06	L1805M, L1810T(TS), L1815T, L1820T, L1830(T), L1850(T), L1820TN, L1230(T), L1250(T)
VB110(B)	310	13.97	35	47.04	L1230, L1230T, L1250, L1250T
VB150	650	30	70	90.1	L1230, L1230T, L1250, L1250T

Dimensional information



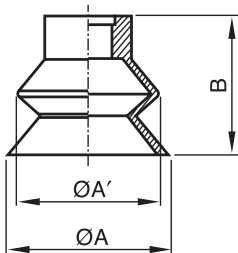
◀ Ø6

Model	ØA	ØA'	B
VB6X	7	9	13.5



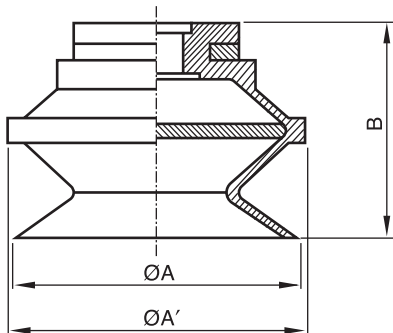
◀ Ø5 Ø8 Ø10 Ø15

Model	ØA	ØA'	B
VB5	5.6	6.2	9.2
VB8	8.8	9.6	11.9
VB10	11	12	16
VB15	15.5	17.5	19.5



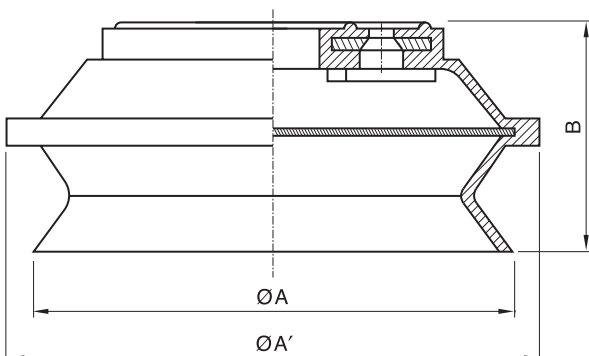
◀ Ø17

Model	ØA	ØA'	B
VB17	18.5	16.6	15.6



◀ Ø20 Ø30 Ø40 Ø50

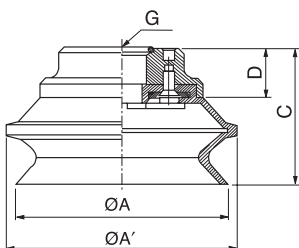
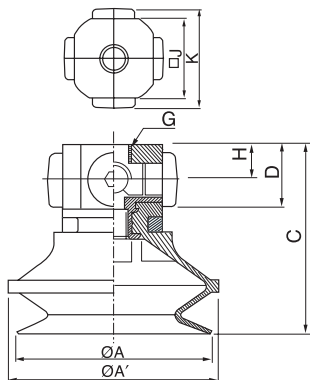
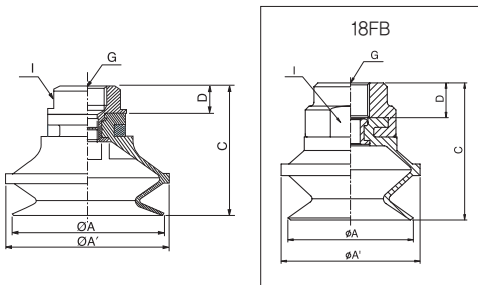
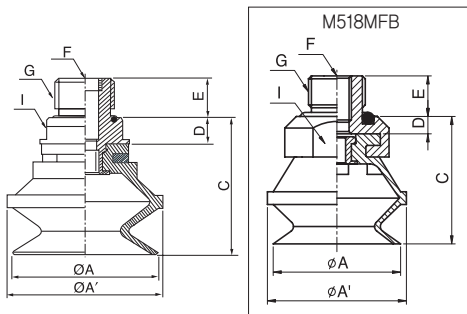
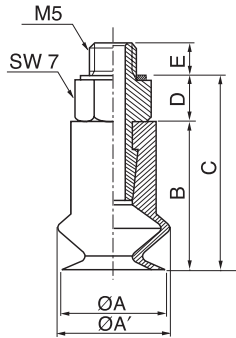
Model	ØA	ØA'	B
VB20	22	24	19
VB30	34	36	26
VB40	43	46	28
VB50	53	58	35



◀ Ø75 Ø110 Ø150

Model	ØA	ØA'	B
VB75(B)	78	83	37
VB110(B)	115	124	54
VB150	155	166	71

Dimensional information



◀ Male thread

Model	ØA	ØA'	B	C	D	E
VB5-M5M	5.6	6.2	9.2	13.2	4	3.5
VB8-M5M	8.8	9.6	11.9	15.9	4	3.5
VB10-M5M	11	12	16	21	5	4
VB15-M5M	15.5	17.5	19.5	24.5	5	4

◀ Male thread

Model	ØA	ØA'	C	D	E	F	G	I
VB17-M518MF	18.5	16.6	17.1	1.5	6	M5	G1/8"	SW12
VB20-M518MF	22	24	20.5	1.5	6	M5	G1/8"	SW12
VB20-M518MFB*	22	24	22	3	7	M5	G1/8"	SW16
VB30-18M	34	36	31	5	7	-	G1/8"	SW17
VB30-14M	34	36	32	6	9	-	G1/4"	SW17
VB40-18M	43	46	33	5	7	-	G1/8"	SW17
VB40-14M	43	46	34	6	9	-	G1/4"	SW17
VB50-14M	53	58	41	6	9	-	G1/4"	SW24
VB50-38M	53	58	41	6	10	-	G3/8"	SW24

* Only for silicon material

◀ Female thread

Model	ØA	ØA'	C	D	G	I
VB17-18F	18.5	16.6	23.6	8	G1/8"	SW15
VB20-18F	22	24	27	8	G1/8"	SW15
VB30-18F	34	36	34	8	G1/8"	SW17
VB30-18FB*	34	36	35	9	G1/8"	SW21
VB40-18F	43	46	36	8	G1/8"	SW17
VB40-18FB*	43	46	37	9	G1/8"	SW21
VB50-18F	53	58	44	9	G1/8"	SW24

* Only for silicon material

◀ Female threadX5

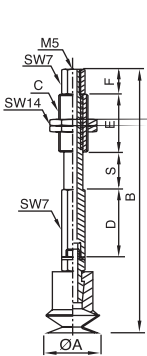
Model	ØA	ØA'	C	D	G	H	□J	K
VB17-M5X5F	18.5	16.6	24.6	9	M5X5	5	15	22
VB20-M5X5F	22	24	28	9	M5X5	5	15	22
VB30-18X5F	34	36	44	18	G1/8"X5	10	22	30
VB40-18X5F	43	46	46	18	G1/8"X5	10	22	30
VB50-18X5F	53	58	53	18	G1/8"X5	10	28	36

◀ Female thread

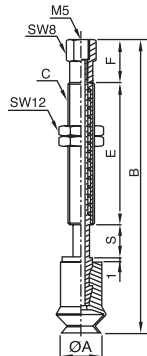
Model	ØA	ØA'	C	D	G
VB75(B)-18F	78	83	50	18	G1/8"
VB75(B)-14F	78	83	50	18	G1/4"
VB75(B)-38F	78	83	50	18	G3/8"
VB75(B)-12F	78	83	50	18	G1/2"
VB110(B)-12F	115	124	63	15	G1/2"
VB150-12F	155	166	78	14	G1/2"

Dimensional information including level spring

L507T
L515T

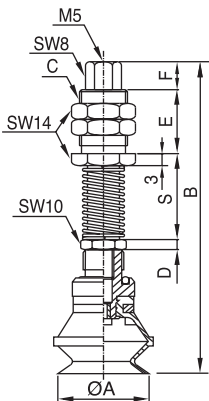


L506TX
L510LTX

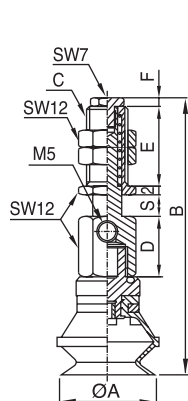


Vacuum pad	Level spring Model	ØA	B	C	D	E	F	S (stroke)
VB5	L507T	5,6	56,2	G1/8	7	19	10	0-7(7)
VB8		8,8	58,9					
VB10		11	64					
VB5	L515T	5,6	88,2	M10XP1,0	27	23	10	0-15(15)
VB8		8,8	90,9					
VB10		11	96					
VB6X	L506TX	7	47,5	M8XP1,25	-	15	12	0-6(6)
VB6X	L510LTX	7	80,5	M8XP1,0	-	43	12	0-10(10)

L510T
L520T



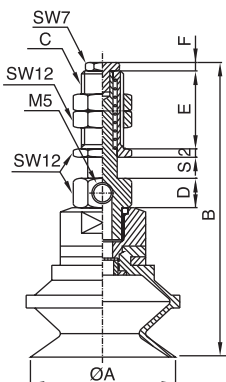
L1805F



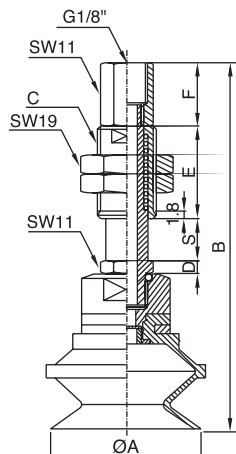
Vacuum pad	Level spring Model	ØA	B	C	D	E	F	S (stroke)
VB17	L510T	18,5	69,6	M12XP1,0	2,5	16	7	8-18(10)
VB20		22	73[75,5]					
VB17	L520T	18,5	79,6	M12XP1,0	2,5	16	7	8-28(20)
VB20		22	83[85,5]					
VB17	L1805F	18,5	58,6	M10XP1,0	14	18,5	2	0-5(5)
VB20		22	62[63,5]					
VB17	L1805M	18,5	60,1	M10XP1,0	8	18,5	2	0-5(5)
VB20	L1805M	22	63,5	M10XP1,0	8	18,5	2	0-5(5)

[] Pads material silicon

L1805M



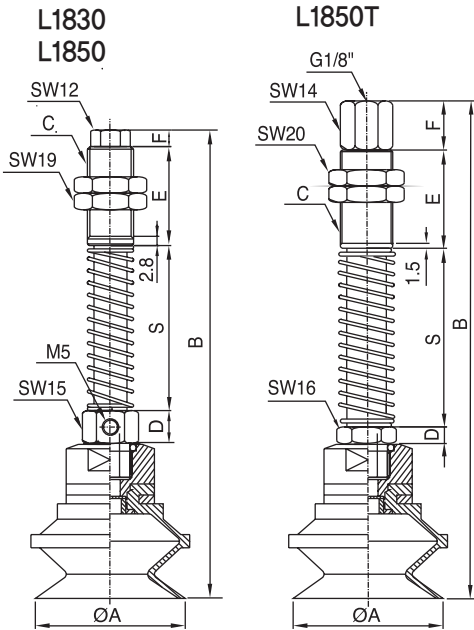
L1810T
L1815T
L1820T



Vacuum pad	Level spring Model	ØA	B	C	D	E	F	S (stroke)
VB30	L1805M	34	70,5[71,5]	M10XP1,0	9	18,5	2	0-5(5)
VB40		43	72,5[73,5]					
VB50		53	80,5					
VB75(B)		78	86,5					
VB30	L1810T	34	84[85]	M14XP1,5	3	22	15	0-10(10)
VB40		43	86[87]					
VB50		53	94					
VB75(B)		78	100					
VB30	L1815T	34	94[95]	M14XP1,5	3	27	15	0-15(15)
VB40		43	96[97]					
VB50		53	104					
VB75(B)		78	110					
VB30	L1820T	34	107[108]	M16XP1,0	3	35	15	0-20(20)
VB40		43	109[110]					
VB50		53	117					
VB75(B)		78	123					

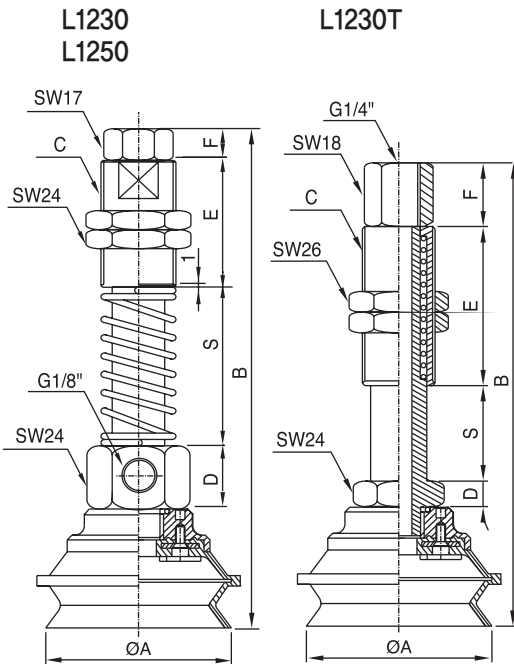
[] Pads material silicon

Dimensional information including level spring



Vacuum pad	Level spring Model	ØA	B	C	D	E	F	S (stroke)
VB30	L1830	34	130[131]	M14XP1,5	11	30	5	20-50 (30)
VB40		43	132[133]					
VB50		53	140					
VB75(B)		78	146					
VB30	L1850	34	150[151]	M14XP1,5	11	30	5	20-70 (50)
VB40		43	152[153]					
VB50		53	160					
VB75(B)		78	166					
VB30	L1850T	34	154[155]	M16XP1,0	5	30	15	20-70 (50)
VB40		43	156[157]					
VB50		53	164					
VB75(B)		78	170					

* [] Pads material silicon



Vacuum pad	Level spring Model	ØA	B	C	D	E	F	S (stroke)
VB75(B)	L1230	78	170	M20XP1,5	20	40	10	20-50 (30)
VB110(B)		115	183					
VB150		155	198					
VB75(B)	L1250	78	210	M20XP1,5	20	40	10	40-90 (50)
VB110(B)		115	223					
VB150		155	238					
VB75(B)	L1230T	78	158	M22XP1,5	8	50	20	0-30 (30)
VB110(B)		115	171					
VB150		155	186					

► VB75(B), VB110(B), VB150

