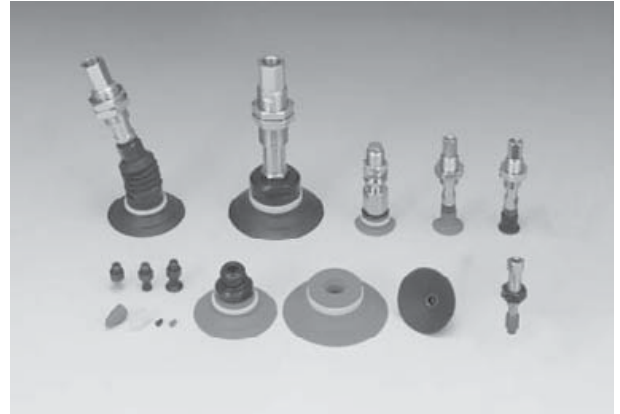


## VU Model (Universal)

### Features and Strengths

Good lifting forces can be achieved with this cup, is best suited to flat stable surfaces, but can cope with a small degree of curvature.

Very small pads are available down to just 1.5mm diameter.



### Suitable for Handling

- Small components
- Semiconductor Chips
- Packaging Materials
- Heat Metal
- Printing Industry
- Paper Box

## Order no.

**VU40**    **N 18F - EV - L1820T**    **BJ18**

①                    ②                    ③                    ④                    ⑤                    ⑥

▶ See pages 45, 76-80.

### ① Vacuum pad Ø

VU1.5X	– Ø1,5
VU2	– Ø2
VU2X	– Ø2
VU3	– Ø3
VU3K	– Ø3,5
VU4	– Ø4
VU4X	– Ø4
VU6	– Ø6
VU8	– Ø8
VU10	– Ø10
VU15	– Ø15
VU20	– Ø20
VU25	– Ø25
VU30	– Ø30
• VU40	– Ø40
VU50	– Ø50
VU80	– Ø80

### ② Material

• N	– NBR
S	– Silicon
CS	– C. Silicon
U	– Urethane

### ③ Thread size

M25M	– M2,5 male (VU2,VU3)
M5M	– M5 male (VU2, VU3, VU4, VU6, VU8, VU10, VU15)
18M	– G1/8" male (VU40)
14M	– G1/4" male (VU40, VU50)
38M	– G3/8" male (VU50)
M518MF	– M5 female and G1/8" male (VU20, VU25, VU30)
M518MFX *	– M5 female and G1/8" male (VU20, VU25, VU30)
• 18F	– G1/8" female (VU40, VU50, VU80)
18FX *	– G1/8" female (VU40)
M5X5F	– M5X5 female (VU20, VU25, VU30)
18X5F	– G1/8"X5 female (VU40, VU50)
8	– Ø8 Hall (VU80)

\* Only for silicon material

### ④ Valves

no mark	– standard
• EV	– Vacuum efficiency valve (See page :26) (VU20, VU25, VU30, VU40, VU50)

### Accessories order no.

### L1820T    BJ18

⑤                      ⑥

⑤ Level spring		⑥ Ball joint model	
Model	Stroke		
L506TX, L506TS	6	-	
L510LTX, L510LTS	10		
L507T, L507TN	7		
L515T	15		
L510, L510T	10		
L520, L520T	20		
L1805F	5		
L525TXN, L525TSN	25		
L1805M	5		• BJ18
L1810T, L1810TS	10		
L1815T	15		
• L1820T	20		
L1820TN*	20		
L1830, L1830T	30		
L1850, L1850T	50		

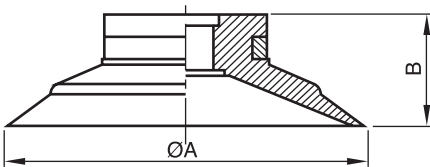
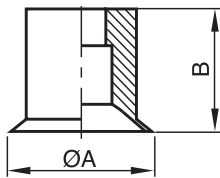
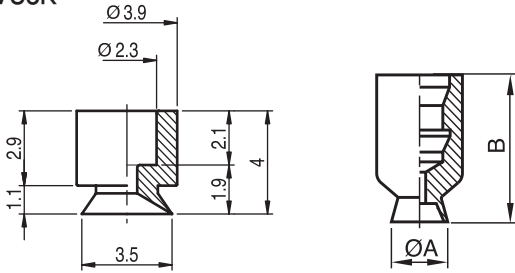
\* Not available with Ball Joint(BJ)..

### Recommended (max.) lifting forces when using level springs

Model	Volume (cm <sup>3</sup> )	Lifting Force (kg)			Lifting Force (kg)			Level spring model
		-20kPa	-60kPa	-90kPa	-20kPa	-60kPa	-90kPa	
VU1.5X	0.0015	0.0008	0.003	0.004				L506TX, L510LTX, L525TXN
VU2	0.0025	0.003	0.01	0.015				L506TM, L510LTM, L507T(TN), L515T, L525TMN
VU2X	0.0025	0.003	0.01	0.015				L506TX, L510LTX, L525TXN
VU3	0.005	0.009	0.04	0.06				L506TM, L510LTM, L507T(TN), L515T, L525TMN
VU3K	0.018	0.014	0.06	0.09				L507T, L506TN, L515T
VU4	0.03	0.02	0.09	0.13	0.02	0.08	0.10	L506TU, L510LTU, L507T(TN), L515T, L525TUN
VU4X	0.03	0.02	0.09	0.13	0.02	0.08	0.10	L506TX, L510LTX, L525TXN
VU6	0.05	0.05	0.17	0.25	0.03	0.15	0.20	L506TU, L510LTU, L507T(TN), L515T, L525TUN
VU8	0.1	0.1	0.29	0.39	0.1	0.29	0.34	L506TU, L510LTU, L507T(TN), L515T, L525TUN
VU10	0.18	0.15	0.44	0.7	0.15	0.44	0.50	L506TS, L510LTS, L507T(TN), L515T, L525TSN
VU15	0.5	0.35	0.85	1.12	0.35	0.55	0.60	L506TS, L510LTS, L507T(TN), L515T, L525TSN
VU20	1.0	0.6	1.22	1.63	0.6	0.89	1.00	L1805F, L510, L510T, L520, L520T
VU25	1.5	0.91	1.98	2.5	0.7	0.95	1.05	L1805F, L510, L510T, L520, L520T
VU30	2.0	1.22	2.55	3.06	0.79	1.00	1.12	L1805F, L510, L510T, L520, L520T
VU40	5.5	2.04	3.97	5	1.42	2.24	2.8	L1805M, L1810T(TS), L1815T, L1820T(TN), L1830(T), L1850(T)
VU50	12.0	3.57	7.44	9.38	2.04	3.77	4.48	L1805M, L1810T(TS), L1815T, L1820T(TN), L1830(T), L1850(T)
VU80	32	7.77	19.8	25.21	4.53	12.7	16.94	L1805M, L1810T(TS), L1815T, L1820T(TN), L1830(T), L1850(T)

### Dimensional Information

VU3K



◀ Ø1.5 Ø2 Ø4

Model	ØA	B
VU1.5X	1.9	12
VU2X	2.6	12
VU4X	4.6	12

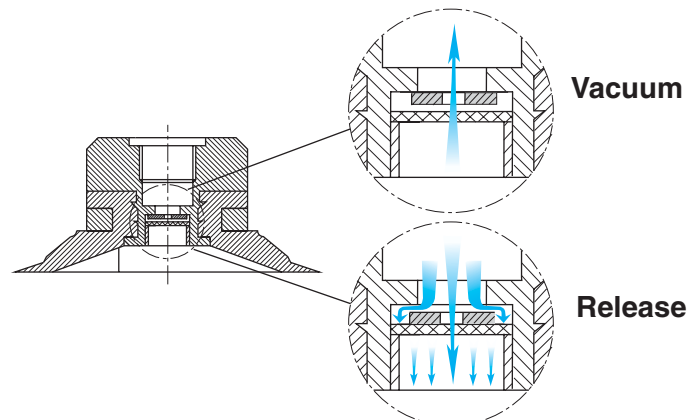
◀ Ø2 Ø3 Ø4 Ø6 Ø8 Ø10 Ø15

Model	ØA	B
VU2	2.6	3.5
VU3	3.8	4.5
VU4	5	6.1
VU6	7	6.5
VU8	9	7
VU10	11	10.5
VU15	16.5	11

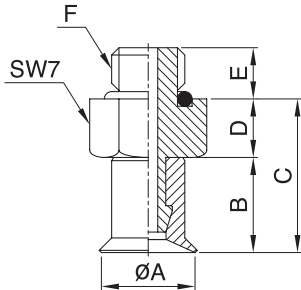
◀ Ø20 Ø30 Ø40 Ø50

Model	ØA	B
VU20	22	8
VU25	27	9
VU30	32	9.5
VU40	42	13
VU50	53	17.5

### Vacuum Efficiency Valve



### Dimensional Information



#### ◀ Male thread

Model	ØA	B	C	D	E	F
VU2-M2.5M or M5M	2,6	3,5	6/8,1	2,5/4,6	3/4,2	M2,5 or M5
VU3-M2.5M or M5M	3,8	4,5	7/9,1	2,5/4,6	3/4,2	M2,5 or M5
VU4-M5M	5	6,1	10,1	4	3,5	M5
VU6-M5M	7	6,5	10,5	4	3,5	M5
VU8-M5M	9	7	11	4	3,5	M5
VU10-M5M	11	10,5	15,5	5	3,5	M5
VU15-M5M	16,5	11,5	16	5	3,5	M5

#### ◀ Male thread

Model	ØA	C	D	E	F	G	I
VU20-M518MF	22	9,5	1,5	6	M5	G1/8"	SW12
VU20-M518MFX *	22	11	3	7	M5	G1/8"	SW16
VU25-M518MF	27	10,5	1,5	6	M5	G1/8"	SW12
VU25-M518MFX *	27	12	3	7	M5	G1/8"	SW16
VU30-M518MF	32	11	1,5	6	M5	G1/8"	SW12
VU30-M518MFX *	32	12,5	3	7	M5	G1/8"	SW16
VU40-18M	42	18	5	7	-	G1/8"	SW17
VU40-14M	42	19	6	9	-	G1/4"	SW17
VU50-14M	53	23,5	6	9	-	G1/4"	SW24
VU50-38M	53	23,5	6	10	-	G3/8"	SW24

\* For silicone material

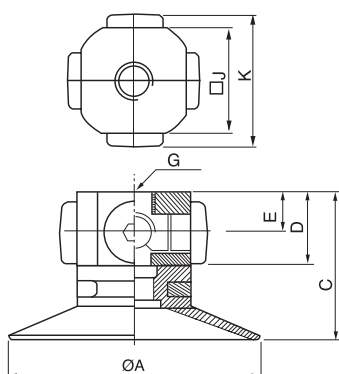
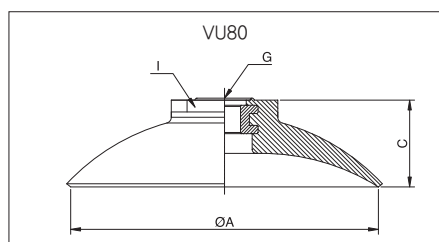
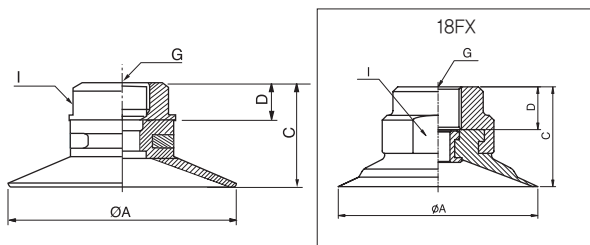
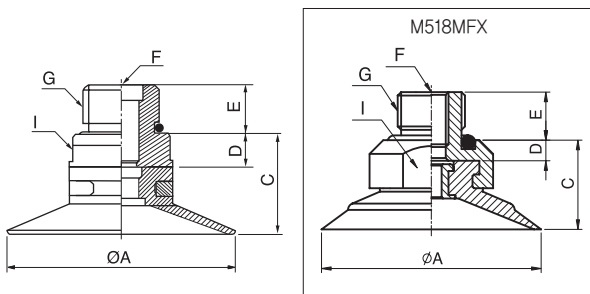
#### ◀ Female thread

Model	ØA	C	D	G	I
VU20-18F	22	16	8	G1/8"	SW15
VU25-18F	27	17	8	G1/8"	SW15
VU30-18F	32	17,5	8	G1/8"	SW15
VU40-18F	42	21	8	G1/8"	SW17
VU40-18FX *	42	22	9	G1/8"	SW21
VU50-18F	53	26,5	9	G1/8"	SW24
VU80-18F	78	21,5	-	G1/8"	SW19
VU80-8	78	21,5	-	Ø8	SW19

\* For silicone material

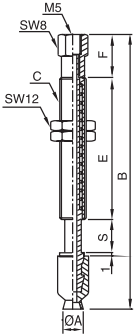
#### ◀ Female thread X5

Model	ØA	C	D	E	G	□J	K
VU20-M5X5F	22	17	9	5	M5X5	15	22
VU25-M5X5F	27	18	9	5	M5X5	15	22
VU30-M5X5F	32	18,5	9	5	M5X5	15	22
VU40-18X5F	42	31	18	10	G1/8"X5	22	30
VU50-18X5F	53	35,5	18	10	G1/8"X5	28	36

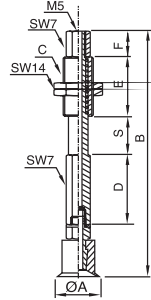


### Dimensional Information including level spring

**L506TX  
L510LTX**

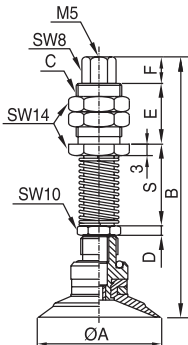


**L507T  
L515T**

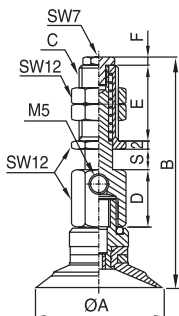


Vacuum pad	Level spring Model	ØA	B	C	D	E	F	S (stroke)
VU1.5X	L506TX	1,9	46	M8XP1,0	-	15	12	0-6 (6)
VU2X		2,6	46					
VU4X		4,6	46					
VU1.5X	L510LTX	1,9	78	M8XP1,0	-	43	12	0-10 (10)
VU2X		2,6	78					
VU4X		4,6	78					
VU6	L507T	7	53,5	G1/8	7	19	10	0-7 (7)
VU8		9	54					
VU10		11	58,5					
VU15		16,5	59					
VU6	L515T	7	85,5	M10XP1,0	27	23	10	0-15 (15)
VU8		9	86					
VU10		11	90,5					
VU15		16,5	91					

**L510T  
L520T**



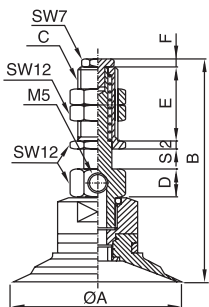
**L1805F**



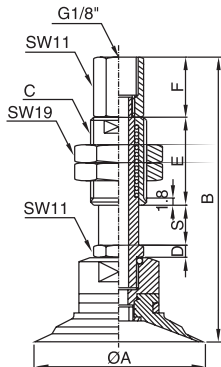
Vacuum pad	Level spring Model	ØA	B	C	D	E	F	S (stroke)
VU20	L510T	22	62[64,5]	M12XP1,0	2,5	16	7	8-18 (10)
VU25		27	63[65,5]					
VU30		32	63,5[66]					
VU20	L520T	22	72[74,5]	M12XP1,0	2,5	16	7	8-28 (20)
VU25		27	73[75,5]					
VU30		32	73,5[76]					
VU20	L1805F	22	51[52,5]	M10XP1,0	14	18,5	2	0-5 (5)
VU25		27	52[53,5]					
VU30		32	52,5[54]					

[ ] Pads material silicon

**L1805M**



**L1810T  
L1815T  
L1820T**

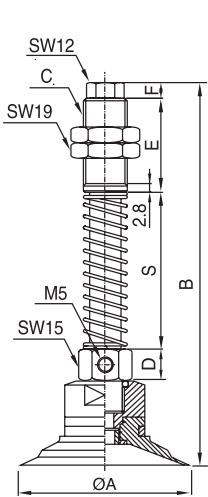


Vacuum pad	Level spring Model	ØA	B	C	D	E	F	S (stroke)
VU40	L1805M	42	57,5[58,5]	M10XP1,0	7	18,5	2	0-5 (5)
VU50		53	63					
VU40	L1810T	42	71[72]	M14XP1,5	3	22	15	0-10 (10)
VU40	L1815T	42	81[82]	M14XP1,5	3	27	15	0-15 (15)
VU50		53	86,5					
VU40	L1820T	42	94,6[95,6]	M16XP1,0	3	35	15	0-20 (20)
VU50		53	100,1					

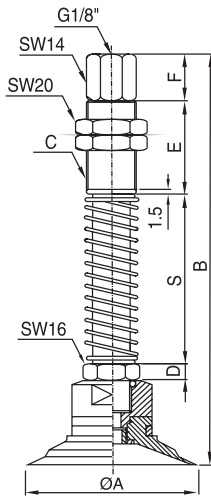
[ ] Pads material silicon

### Dimensional Information including level spring

L1830 / L1850



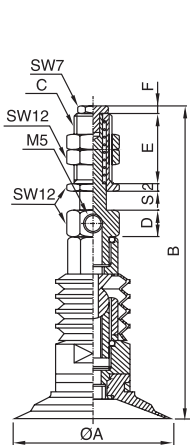
L1850T



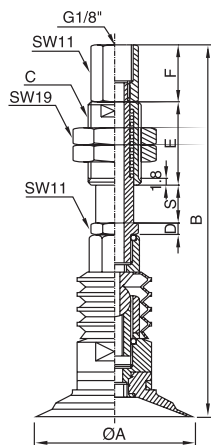
Vacuum pad	Level spring Model	ØA	B	C	D	E	F	S (stroke)
VU40	L1830	42	117[118]	M14XP1,5	11	30	5	20-50 (30)
VU50		53	122,5					
VU40	L1850	42	137[138]	M14XP1,5	11	30	5	20-70 (50)
VU50		53	142,5					
VU40	L1850T	42	141[142]	M16XP1,0	5	30	15	20-70 (50)
VU50		53	146,5					

[ ] Pads material silicon

L1805M-BJ18



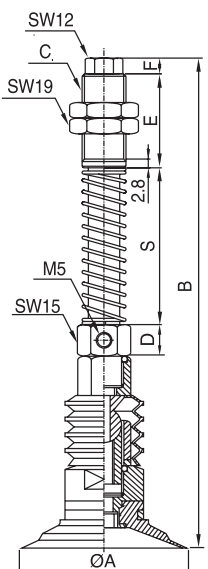
L1810T-BJ18  
L1815T-BJ18  
L1820T-BJ18



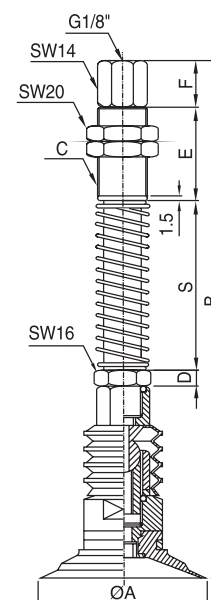
Vacuum pad	Level spring Model	ØA	B	C	D	E	F	S (stroke)
VU40	L1805M-BJ18	42	85,5[86,5]	M10XP1,0	9	18,5	2	0-5 (5)
VU50		53	91					
VU40	L1810T-BJ18	42	99[100]	M14XP1,5	3	22	15	0-10 (10)
VU50		53	104,5					
VU40	L1815T-BJ18	42	109[110]	M14XP1,5	3	27	15	0-15 (15)
VU50		53	114,5					
VU40	L1820T-BJ18	42	122,6[123,6]	M16XP1,0	3	35	15	0-20 (20)
VU50		53	128,1					

[ ] Pads material silicon

L1830-BJ18  
L1850-BJ18



L1850T-BJ18



Vacuum pad	Level spring Model	ØA	B	C	D	E	F	S (stroke)
VU40	L1830-BJ18	42	145[146]	M14XP1,5	10	30	5	20-50 (30)
VU50		53	150,5					
VU40	L1850-BJ18	42	165[166]	M14XP1,5	10	30	5	20-70 (50)
VU50		53	170,5					
VU40	L1850T-BJ18	42	169[170]	M16XP1,0	5	30	15	20-70 (50)
VU50		53	174,5					

[ ] Pads material silicon