

## VF Series (Flat)

### Features and Strengths

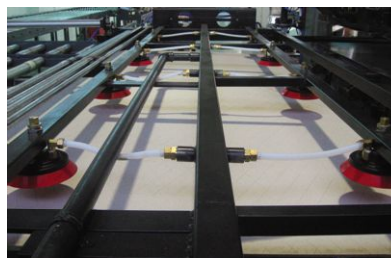
Good lifting forces can be achieved with this cup in the horizontal plane, but is also good in the vertical plane.

The feet inside the cup provide a good register as well as enhancing the adhesion to the surface.



### Suitable for Handling

- Sheet metal
- Plastic
- Veneer Sheets
- Electronic components



### Order No.

VF40
PU - 18F
BV - L 1820T
BJ 18

①
②
③
④
⑤
⑥

▶ See pages 39, 60-67.

#### ① Diameter

VF15	- Ø15
VF20	- Ø20
VF25	- Ø25
VF30	- Ø30
• VF40	- Ø40
VF50	- Ø50
VF50X2	- Ø50
VF75	- Ø75
VF90	- Ø90*
VF110	- Ø110
VF150	- Ø150
VF200	- Ø200
VF300	- Ø300

\*Only PU Material

#### ② Material

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

\*Only for VF30, VF40, VF50, VF75, VF90

#### ③ Thread size

M5M	- M5 male (VF15)
18M	- G1/8" male (VF40)
14M	- G1/4" male (VF40, VF50)
38M	- G3/8" male (VF50)
M16M	- M16XP1,0 male (VF50X2)
M518MF	- M5 female and G1/8" male (VF20, VF25, VF30)
M518MFX*	- M5 female and G1/8" male (VF20, VF25, VF30)
• 18F(A)	- G1/8" female (VF20, VF25, VF30, VF40, VF50, VF75, VF90)
18FX*	- G1/8" female (VF40)
14F(A)	- G1/4" female (VF75, VF90)
38F(A)	- G3/8" female (VF75, VF90)
12F(A)	- G1/2" female (VF75, VF90, VF110, VF150, VF200)
M5X5F	- M5X5 female (VF20, VF25, VF30)
18X5F	- G1/8X5 female (VF40, VF50)
34F	- G3/4" female (VF300)

Remark : VF40~200 fittings are including mesh filter.

\* Only for silicon material (A) : AL-Material (Only VF75, VF90)

#### ④ Valves

no mark	- Standard
EV	- Vacuum Efficiency Valve (See page : 16) (VF20, VF25, VF30, VF40, VF50)
• BV	- Button Valve (See page : 16) (VF20, VF25, VF30, VF40, VF50, VF75, VF90, VF110, VF150)

## Accessories order No.

**L 1820T**      **BJ 18**  
 ↓                      ↓  
 ⑤                      ⑥

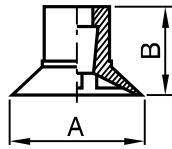
⑤ Level compensator		⑥ Ball joint model	
Model	Stroke (mm)		
L506TX, L506TS	6	-	
L510LTX, L510LTS	10		
L507T, L507TN	7		
L515T	15		
L510, L510T	10		
L520, L520T, L520TF	20		
L1805F	5		
L525TSN	25		
L1805M	5		● BJ 18
L1810T, L1810TS, L1810TSE	10		
L1815, L1815T	15		
● L1820T, L1820TS	20		
L1820TN*	20		
L1830, L1830T, L1830TS	30		
L1850, L1850T	50	BJ 12	
L1230, L1230T	30		
L1250, L1250T	50		

Remark : When apply level compensator into VF300, Use 1/2" level compensator 2pcs or 4pcs  
 \*Not available with ball joint(BJ).

## Recommended (max.) lifting forces

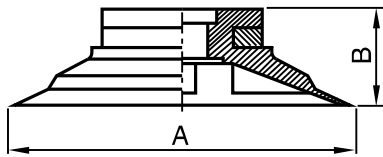
Model	Volume (cm <sup>3</sup> )	Lifting Force (kg) - Perpendicular			Lifting Force (kg) - Parallel		
		-20 kPa	-60 kPa	-90 kPa	-20 kPa	-60 kPa	-90 kPa
VF15	0,037	0,35	0,86	1,12	0,35	0,66	0,76
VF20	1,0	0,61	1,47	1,93	0,51	0,81	0,86
VF25	1,1	0,91	1,98	2,55	0,81	0,91	1,02
VF30	2,0	1,22	2,55	3,16	1,12	1,63	2,04
VF40	4,8	2,04	4,08	5,10	1,53	2,55	3,06
VF50	10	3,67	7,55	9,79	2,44	4,08	5,10
VF50x2	10	3,67	7,55	9,79	2,44	4,08	5,10
VF75	20	8,16	20,40	27,55	6,12	11,22	14,28
VF90	50	10,2	27,83	37,41	8,84	15,98	19,72
VF110	70	14,28	42,58	57,14	14,28	25,51	30,61
VF150	160	30,61	86,73	112,24	25,51	61,22	81,63
VF200	460	76,53	193,87	275,51	38,3	96,9	137,5
VF300	820	163	438	653	135	307	476

## Dimensional Information including



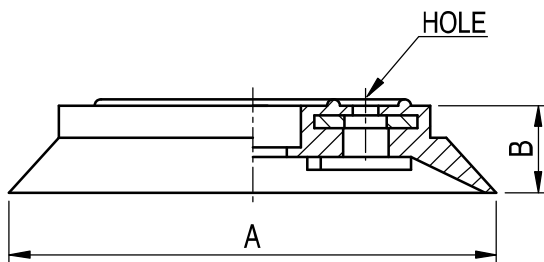
◀ VF15 [mm]

Model	A	B
VF15	16,5	11



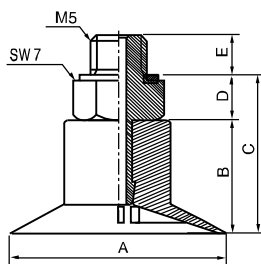
◀ VF20, 25, 30, 40, 50 [mm]

Model	A	B
VF20	22	8
VF25	27	9
VF30	32	10
VF40	42	13
VF50	53	17,5



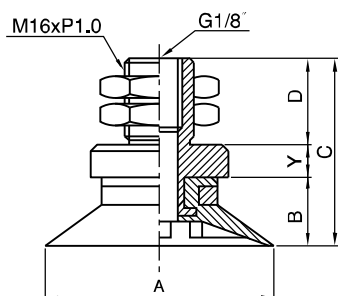
◀ VF75, 90, 110, 150, 200 [mm]

Model	A	B	HOLE
VF75	77	13	4- $\varnothing$ 6.5 P.C.D $\varnothing$ 35
VF90	92	12,5	4- $\varnothing$ 6.5 P.C.D $\varnothing$ 35
VF110	112	20	8- $\varnothing$ 6 P.C.D $\varnothing$ 55
VF150	152	26	8- $\varnothing$ 6 P.C.D $\varnothing$ 70,5
VF200	200	41	-



◀ Male thread [mm]

Model	A	B	C	D	E
VF15-M5-M	16,5	11	16	5	3,5



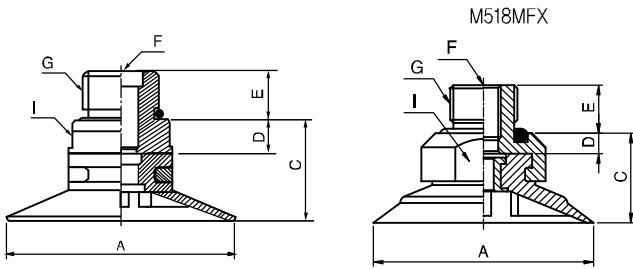
◀ Male / Female thread [mm]

Model	A	Y	B	C	D
VF50x2	53	7,5	17,5	43,5	20

## Dimensional Information

### ◀ Male/Female thread

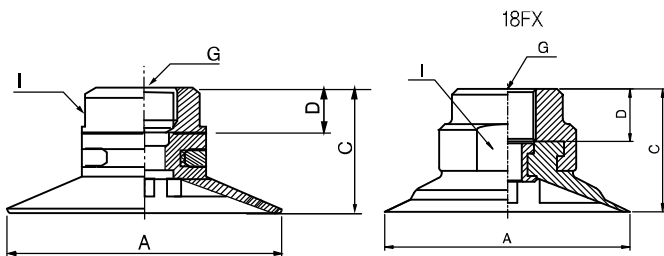
[mm]



Model	A	C	D	E	F	G	I
VF20-M518MF	22	9,5	1,5	6	M5	G1/8"	SW12
VF20-M518MFX*	22	11	3	7	M5	G1/8"	SW16
VF25-M518MF	27	10,5	1,5	6	M5	G1/8"	SW12
VF25-M518MFX*	27	12	3	7	M5	G1/8"	SW16
VF30-M518MF	32	11,5	1,5	6	M5	G1/8"	SW12
VF30-M518MFX*	32	13	3	7	M5	G1/8"	SW16
VF40-18M	42	18	5	7	-	G1/8"	SW17
VF40-14M	42	19	6	9	-	G1/4"	SW17
VF50-14M	53	22,5	6	10	-	G1/4"	SW24
VF50-38M	53	23,5	6	10	-	G3/8"	SW24

\*For silicone material

SUCTION CUPS

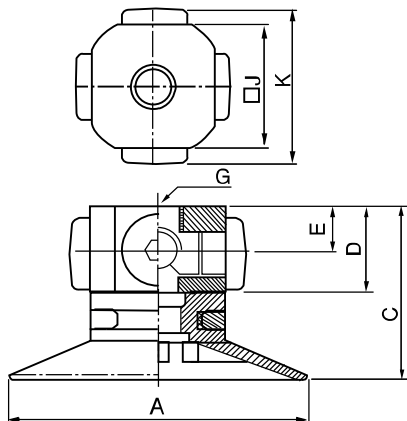


### ◀ Female thread

[mm]

Model	A	C	D	G	I
VF20-18F	22	16	8	G1/8"	SW15
VF25-18F	27	17	8	G1/8"	SW15
VF30-18F	32	18	8	G1/8"	SW15
VF40-18F	42	21	8	G1/8"	SW17
VF40-18FX*	42	22	9	G1/8"	SW21
VF50-18F	53	26,5	9	G1/8"	SW21

\* For silicone material

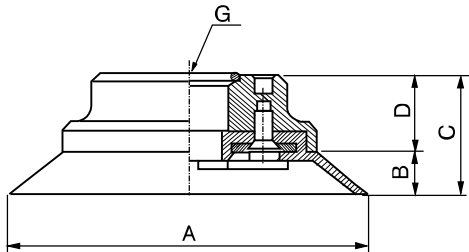


### ◀ Female thread

[mm]

Model	A	C	D	E	G	□J	K
VF20-M5X5F	22	17	9	5	M5x5	15	22
VF25-M5X5F	27	18	9	5	M5x5	15	22
VF30-M5X5F	32	19	9	5	M5x5	15	22
VF40-18X5F	42	31	18	10	G1/8"x5	22	30
VF50-18X5F	53	35,5	18	10	G1/8"x5	28	36

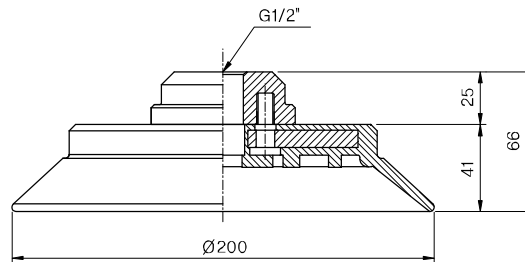
## Dimensional Information



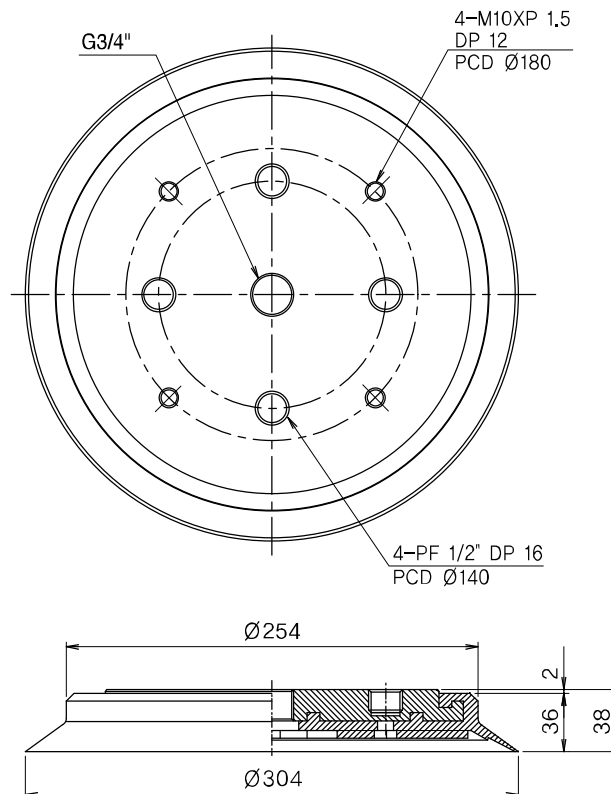
### ◀ Female thread

Model	A	B	C	D	G
VF75-18F	77	8	26	18	G1/8"
VF75-14F	77	8	26	18	G1/4"
VF75-38F	77	8	26	18	G3/8"
VF75-12F	77	8	26	18	G1/2"
VF90-18F	92	7,5	25,5	18	G1/8"
VF90-14F	92	7,5	25,5	18	G1/4"
VF90-38F	92	7,5	25,5	18	G3/8"
VF90-12F	92	7,5	25,5	18	G1/2"
VF110-12F	112	14	29	15	G1/2"
VF150-12F	152	19	33	14	G1/2"

VF200-12F

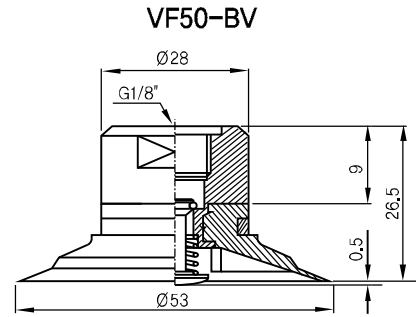
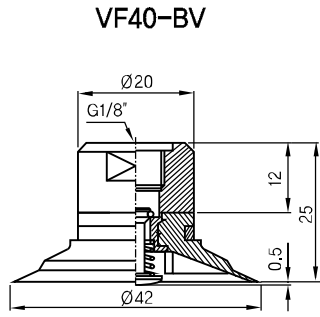
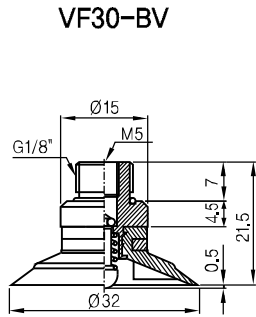


VF300-34F

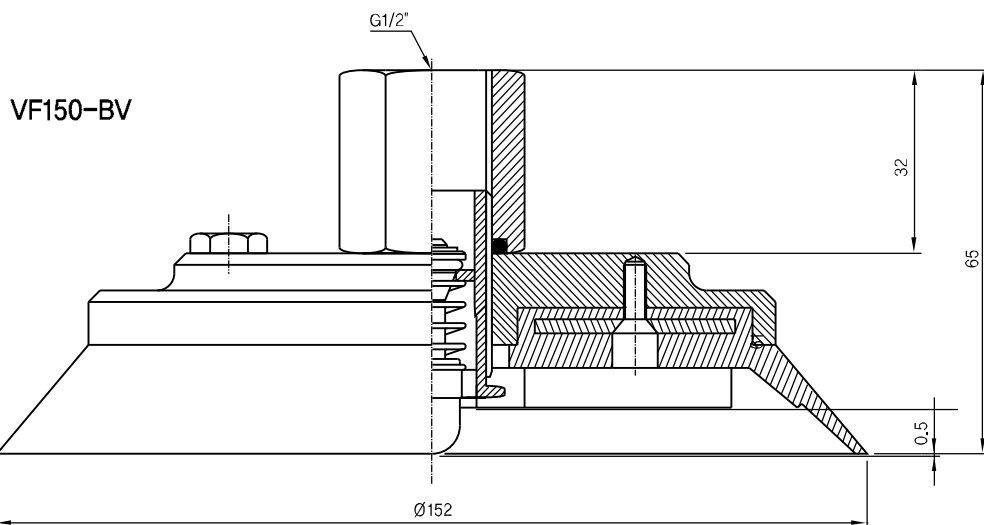
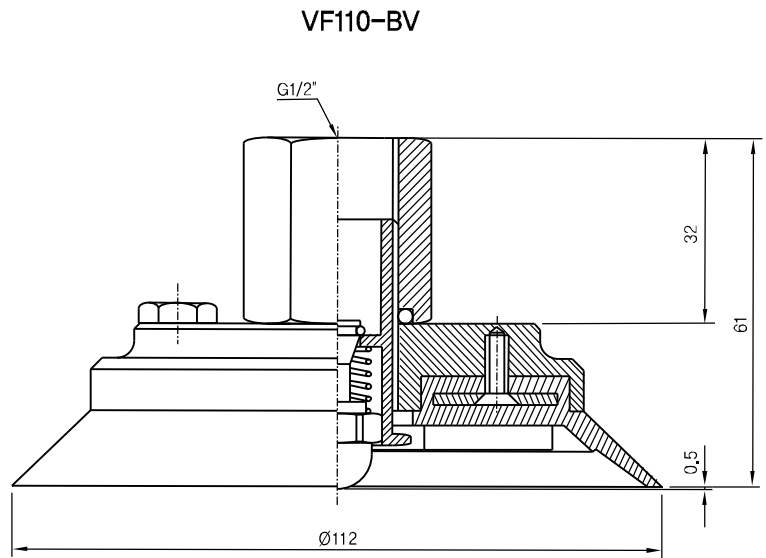
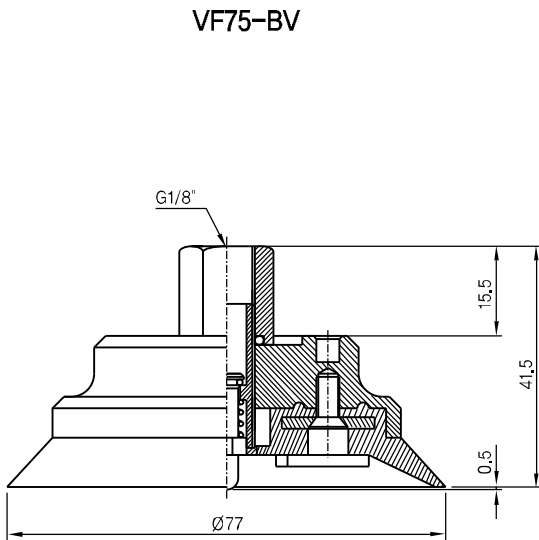


[ Measure unit : mm ]

## Dimensional Information including button valve



[ Measure unit : mm ]



[ Measure unit : mm ]