

## FCF Series (Flat Curve)

### Feature

- ✓ Excellent for flat and curved material in vertical and horizontal application
- ✓ Great designed pattern for anti-sliding
- ✓ Excellent for transfer without slipperiness
- ✓ Available transferring without vibration



### Suitable for handling

- . Metal sheet . Car panel . Press metal sheet
- . Panel . Electrical goods . Curved glass

### Order No.

**FCF60 - BJ - PU - 18F**  
 |                      |                      |                      |  
 ①                      ②                      ③                      ④

#### ① Size

FCF30 - ø30

FCF40 - ø40

FCF50 - ø50

● FCF60 - ø60

FCF70 - ø70

FCF80 - ø80

FCF100 - ø100

FCF125 - ø125

#### ② Ball Joint

● BJ - Ball Joint

SM - Without  
Ball Joint

#### ③ Material

● PU - Poly Urethane

N - NBR

S - Silicon

#### ④ Thread size

● 18F - G1/8" female (FCF30,40,50,60)

14F - G1/4" female (ALL)

38F - G3/8" female (FCF50,60,70,80,100,125)

12F - G1/2" female (FCF70,80,100,125)

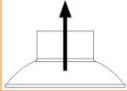
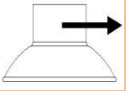
N18F - NPSF1/8" female (FCF30,40,50,60)

N14F - NPSF1/4" female (ALL)

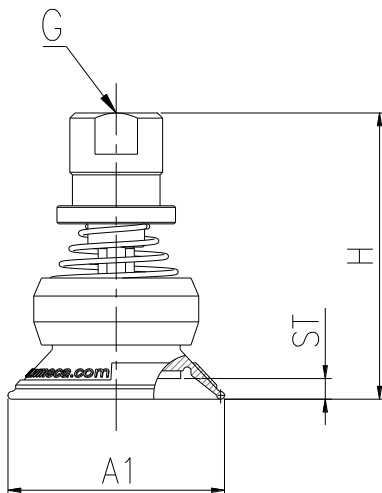
N38F - NPSF3/8" female (FCF50,60,80,100,125)

N12F - NPSF1/2" female (FCF70,80,100,125)

## Recommended (max.) lifting forces

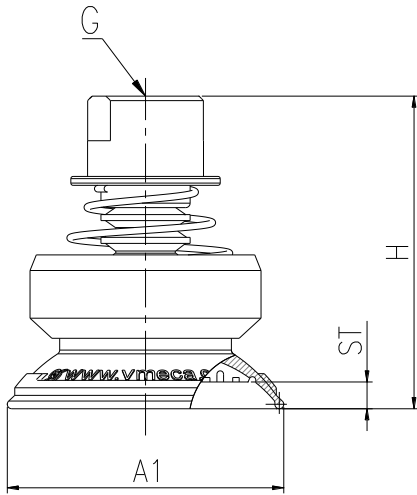
Model	Volume ( m <sup>3</sup> )	Lifting Force (kg) - Perpendicular 			Lifting Force (kg) - Parallel 		
		-20 kPa	-60 kPa	-90 kPa	-20 kPa	-60 kPa	-90 kPa
FCF 30	2.0	2	4.6	6.4	0.8	2.0	2.9
FCF 40	4.4	2.9	6.9	9.9	2.1	5.0	7.2
FCF 50	8	4.2	10.8	15.4	3.7	6.7	8.9
FCF 60	14.6	5.6	15.2	22.3	5.5	13.3	16.7
FCF 70	20.7	7.6	19.6	28.2	6.3	15.8	20.1
FCF 80	36.0	10.3	25.9	34.4	6.7	17.7	23.8
FCF 100	58.0	14.7	37.1	50.6	13.6	35.4	43.7
FCF 125	115.0	19.4	44.5	57.9	19.1	42.5	64.9

## Dimension (Only Ball joint)

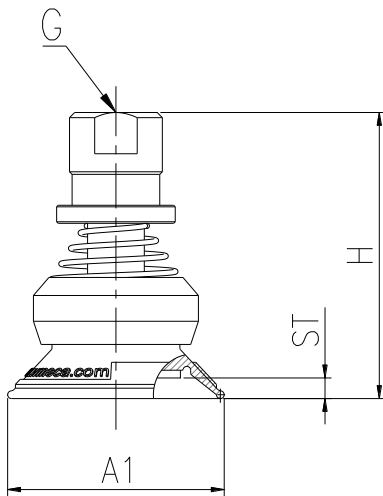


Model	A1	ST	H	G
FCF30...	32	3	53.8	ALL
FCF40...	42	4	55.5	

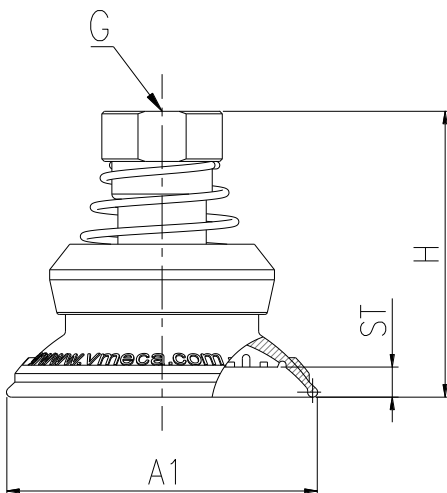
## Dimension (Only Ball joint)



Model	A1	ST	H	G
FCF50...	52	5	67.1	ALL
FCF60...	62	6	70.1	
FCF70...	72	6.5	70.1	
FCF80...	82.5	7.6	73.6	
FCF100...	104	9.5	73.6	
FCF125...	128	13	80.1	



Model	A1	ST	H	G
FCF30...	32	3	53.8	ALL
FCF40...	42	4	55.5	



Model	A1	ST	H	G
FCF50...	52	5	54	ALL
FCF60...	62	6	57	
FCF70...	72	6.5	57	
FCF80...	82.5	7.6	60.5	
FCF100...	104	9.5	60.5	
FCF125...	128	13	67	

## VBF Series

### Feature

- ✓ Strong adsorption and great wear resistance
- ✓ Excellent stability for vertical and horizontal transfer
- ✓ Available transferring thin metal plate without transformation



### Suitable for handling

- . Metal sheet . Car panel . Press metal sheet
- . Glass, panel, paper box . Electrical goods

## Order No.

**VBF80 - BJ - PU - 18F**  
 |                      |                      |                      |  
 ①                      ②                      ③                      ④

### ① Size

- VBF25 - ø25
- VBF30 - ø30
- VBF40 - ø40
- VBF50 - ø50
- VBF60 - ø60
- VBF80 - ø80
- VBF100 - ø100

### ② Ball Joint

- BJ - Ball Joint
- SM - Without Ball Joint

### ③ Material

- PU - Poly Urethane
- N - NBR
- S - Silicon

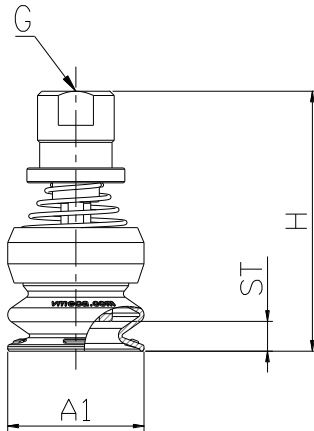
### ④ Thread size

- 18F - G1/8" female (VBF25,30,40,50,60)
- 14F - G1/4" female (ALL)
- 38F - G3/8" female (VBF50,60,80,100)
- 12F - G1/2" female (VBF80,100)
- N18F - NPSF1/8" female (VBF25,30,40,50,60)
- N14F - NPSF1/4" female (ALL)
- N38F - NPSF3/8" female (VBF50,60,80,100)
- N12F - NPSF1/2" female (VBF80,100)

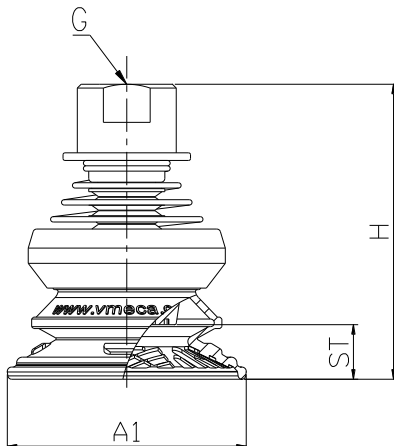
## Recommended (max.) lifting forces

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
VBF 25	2.6	1.1	3.2	3.8	0.61	1.37	1.89
VBF 30	6	1.77	6.26	9.48	0.86	3.09	7.75
VBF 40	7.2	2.5	9.66	12.8	1.18	6.5	11.3
VBF 50	11	4.18	13.2	16.28	2.09	9.6	14.7
VBF 60	22	8.94	16.26	18.54	6.84	12.84	16.92
VBF 80	59.5	11.92	21.68	24.72	9.12	17.12	22.56
VBF 100	103.5	14.9	27.1	30.9	11.4	21.4	28.2

## Dimension (Only Ball joint)

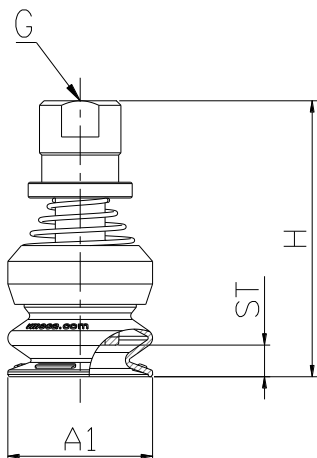


Model	A1	ST	H	G
VBF25...18M	26.5	6	59.5	ALL
VBF30...18M	32	7	61	
VBF40...18M	42	9.6	63.6	

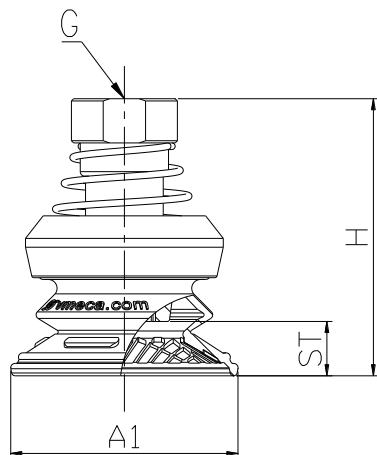


Model	A1	ST	H	G
VBF50...18M	51.5	12.3	75.7	ALL
VBF60...18M	63	14.3	77.5	
VBF80...18M	83	24.5	89	
VBF100...18M	102	26	97.8	

## Dimension (without Ball Joint)



Model	A1	ST	H	G
VBF25...18M	26.5	6	59.5	ALL
VBF30...18M	32	7	61	
VBF40...18M	42	9.6	63.6	



Model	A1	ST	H	G
VBF50...18M	51.5	12.3	62.7	ALL
VBF60...18M	63	14.3	64.5	
VBF80...18M	83	24.5	76	
VBF100...18M	102	26	84.8	

## VDF Series (Deep Flat Curve)

### Feature

- ✓ Great designed pattern for anti-sliding
- ✓ Good for flat, curved and convex surface
- ✓ Especially on oily sheet metal handling
- ✓ Highly wear-resistant PU material
- ✓ Excellent for high speed application due to strong lifting force
- ✓ Available transferring thin metal sheet without transformation



### Suitable for handling

- . Metal sheet . Car panel . Press metal sheet
- . Panel . Electrical goods

### Order No.

**VDF60 - BJ - PU - 18F**  
 |                      |                      |                      |  
 ①                      ②                      ③                      ④

#### ① Size

- VDF25 - ø25
- VDF30 - ø30
- VDF40 - ø40
- VDF50 - ø50
- VDF60 - ø60
- VDF80 - ø80
- VDF100 - ø100

#### ② Ball Joint

- BJ - Ball Joint
- SM - Without Ball Joint

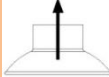
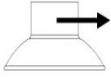
#### ③ Material

- PU - Poly Urethane

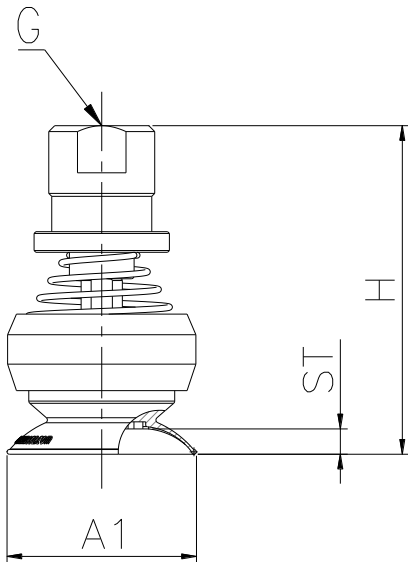
#### ④ Thread size

- 18F - G1/8" female (VDF25,30,40,50,60)
- 14F - G1/4" female (ALL)
- 38F - G3/8" female (VDF50,60,80,100)
- 12F - G1/2" female (VDF80,100)
- N18F - NPSF1/8" female (VDF25,30,40,50,60)
- N14F - NPSF1/4" female (ALL)
- N38F - NPSF3/8" female (VDF50,60,80,100)
- N12F - NPSF1/2" female (VDF80,100)

## Recommended (max.) lifting forces

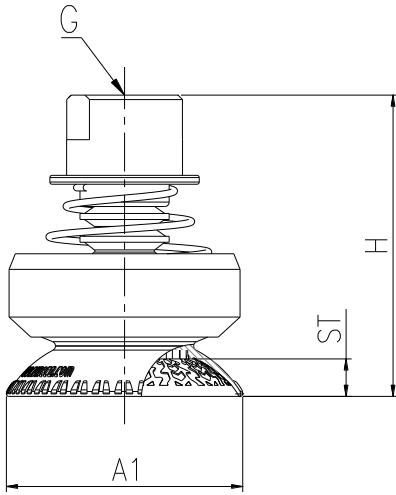
Model	Volume (cm <sup>3</sup> )	Lifting Force (kg) - Perpendicular 			Lifting Force (kg) - Parallel 		
		-20 kPa	-60 kPa	-90 kPa	-20 kPa	-60 kPa	-90 kPa
VDF25	1.5	1.4	3.0	4.1	0.7	1.9	2.9
VDF30	2.7	1.8	4.4	5.7	1	2.8	3.8
VDF40	7	2.7	6.2	8.3	2.4	4.7	7.1
VDF50	14	4.1	10.1	14	3.5	9.2	18.5
VDF60	24	5.6	13.7	19	4.3	13.8	24.5
VDF80	50.5	8.6	21.2	29.3	7.2	18.5	27
VDF100	94	12.6	30.8	41.7	12.3	28.2	39.6

## Dimension (Only Ball joint)

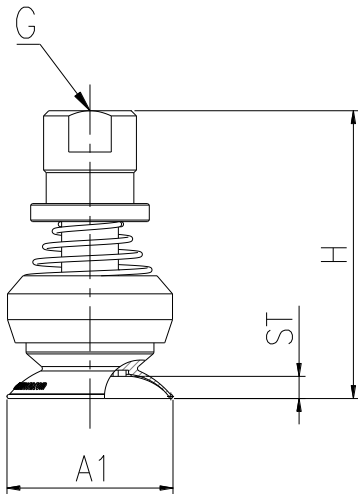


Model	A1	ST	H1	G
VDF25...	26	4	56.7	ALL
VDF30...	32.2	4.3	55.8	
VDF40...	42.5	6.9	57.6	

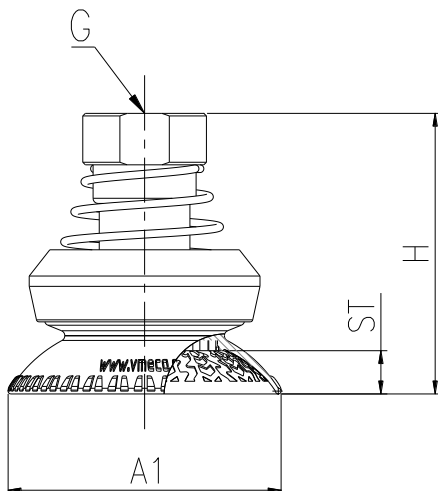
## Dimension (Only Ball joint)



Model	A1	ST	H	G
VDF50...	53	8.4	67.6	ALL
VDF60...	63.5	10.9	70.9	
VDF80...	83.5	13.9	74.4	
VDF100...	104.2	17.3	77.1	



Model	A1	ST	H1	G
VDF25...	26	4	56.7	ALL
VDF30...	32.2	4.3	55.8	
VDF40...	42.5	6.9	57.6	



Model	A1	ST	H	G
VDF50...	53	8.4	54.5	ALL
VDF60...	63.5	10.9	57.8	
VDF80...	83.5	13.9	61.3	
VDF100...	104.2	17.3	64	