

# SUCTION CUPS / Flat

## VF110



### Features and Strengths

Specifically designed for flat and curved surface  
Available to handle multiple objects with the same suction cup

### Examples of use

Metal sheet, Veneer sheets, Glass, Electronic components



### Recommended Lifting Force (Max.)

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
VF110	70.00	14.28	42.58	57.14	14.28	25.51	30.61

※ The lifting force above does not include safety factor

### Material Specifications

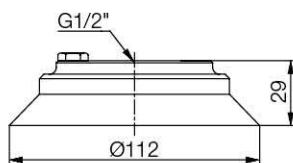
Material	Hardness Shore (°)	Color	Temperature (°C)
NBR	60	Black	-20~110
Silicone	55	Red	-70~200
White Silicone	55	Translucent White	-70~200
White Silicone (FDA)	55	Translucent White	-70~200
High temp. Silicone	50	Blue	-70~280
Conductive Silicone	70	Smoky Black	-45~90
Urethane	60	Dark Green	0~100
Mark Free	75	Black	-10~100

### Material Resistance

Description	NBR	Silicone	White Silicone	High temp. Silicone	Conductive Silicone	Urethane	Mark Free
Wear Resistance	Excellent	Good	Good	Good	Good	Excellent	Good
Oil	Excellent	Poor	Poor	Poor	Poor	Excellent	Excellent
Weather / Ozone	Fair	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Alcohol	Good	Good	Good	Good	Good	Fair	Good
Acid	Fair	Poor	Poor	Poor	Poor	Poor	Excellent

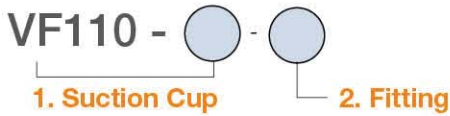
### Dimension

[ Unit : mm ]



[With 12F fitting]

## I Build an Ordering No.



1. Suction cup	Description	Symbol
	Flat suction cup, 110mm diameter, Nitrile (NBR)	VF110-N
	Flat suction cup, 110mm diameter, Silicone	VF110-S
	Flat suction cup, 110mm diameter, White silicone	VF110-WS
	Flat suction cup, 110mm diameter, White silicone (FDA)	VF110-WS (FDA)
	Flat suction cup, 110mm diameter, High temperature silicone	VF110-HS
	Flat suction cup, 110mm diameter, Conductive silicone	VF110-CS
	Flat suction cup, 110mm diameter, Urethane	VF110-U
	Flat suction cup, 110mm diameter, Mark free	VF110-A

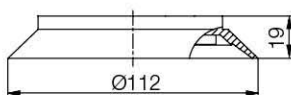
2. Fitting	Description	Symbol
	Fitting, G1/2 female	12F
	Fitting, G1/2 female, Mesh filter	M-12F
	Fitting, G1/2 female, Button valve	12F-BV

## I Spare Parts – Rubber Parts

Part No.	Description	Weight (g)	Color
VF110-N	Flat suction cup, 110mm diameter, Nitrile (NBR)	126.8	Black
VF110-S	Flat suction cup, 110mm diameter, Silicone	123.04	Red
VF110-WS	Flat suction cup, 110mm diameter, White silicone	121.27	Translucent White
VF110-WS (FDA)	Flat suction cup, 110mm diameter, White silicone (FDA)	121.27	Translucent White
VF110-HS	Flat suction cup, 110mm diameter, High temperature silicone	131.12	Blue
VF110-CS	Flat suction cup, 110mm diameter, Conductive silicone	125.57	Smoky Black
VF110-U	Flat suction cup, 110mm diameter, Urethane	127.6	Dark Green
VF110-A	Flat suction cup, 110mm diameter, Mark free	139.96	Black

## I Dimension

[Unit : mm]



[Rubber Part]

## I Spare Parts – Fittings

Part No. (Code No.)	Fitting size	Description	Weight (g)
350 000 3614	12F	G1/2 female	103.70
350 000 4014	12F-F	G1/2 female, Mesh filter	104.50
350 020 3614	12F-BV	G1/2 female, Button valve	115.54