

# SUCTION CUPS / Bellows & Universal

## VBU35



### Features and Strengths

Widely cover for increased degree of height compensation  
Excellent for curved products and separating thin sheet in stocks

### Examples of use

Convex surface, Plastic bag, Metal sheets, Plywood,  
Carton box, Cement sack



### Recommended Lifting Force (Max.)

Model	Volume (cm <sup>3</sup> )	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
VBU35	6.20	2.26	4.28	5.75

※ 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
Polyurethane	60	Translucent Orange	0~60

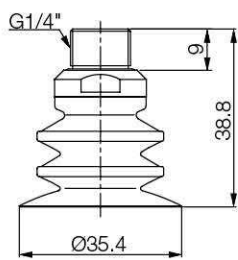
※ For additional material, see page 32~33

### Material Resistance

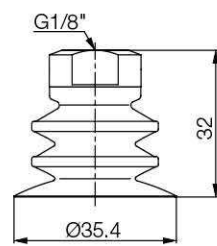
Description	NBR	Silicone	White Silicone	Polyurethane
Wear Resistance	Excellent	Good	Good	Excellent
Oil	Excellent	Poor	Poor	Excellent
Weather / Ozone	Fair	Excellent	Excellent	Excellent
Alcohol	Good	Good	Good	Fair
Acid	Fair	Poor	Poor	Fair

### Dimension

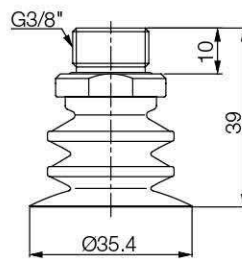
[ Unit : mm ]



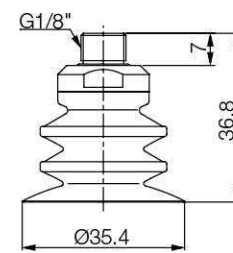
[ With 14M fitting ]



[ With 18F fitting ]

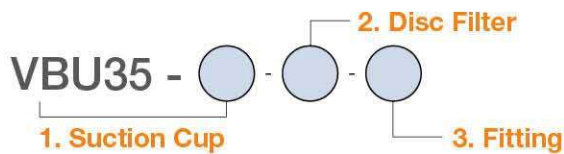


[ With 38M fitting ]



[ With 18M fitting ]

## I Build an Ordering No.



1. Suction cup	Description	Symbol
	Double bellows – universal suction cup, 35mm diameter, Nitrile (NBR)	VBU35-N
	Double bellows – universal suction cup, 35mm diameter, Silicone	VBU35-S
	Double bellows – universal suction cup, 35mm diameter, White silicone	VBU35-WS
	Double bellows – universal suction cup, 35mm diameter, White silicone (FDA)	VBU35-WS (FDA)
	Double bellows – universal suction cup, 35mm diameter, Polyurethane	VBU35-PU
2. Disc filter	Description	Symbol
	No disc filter	Blank
	Disc filter, Polyethylene	F
3. Fitting	Description	Symbol
	Fitting, G1/8 female	18F
	Fitting, G1/8 female, Mesh filter	M-18F
	Efficiency valve, Fitting, G1/8 female	18F-EV
	Fitting, G1/8 female, For silicone material	18FB*
	Fitting, G1/8 female, Old profile	18FO
	Fitting, G1/8 female, Old profile, Mesh filter	M-18FO
	Fitting, G1/8 male	18M
	Fitting, G1/8 male, Mesh filter	M-18M
	Efficiency valve, Fitting, G1/8 male	18M-EV
	Fitting, G1/4 male	14M
	Fitting, G1/4 male, Mesh filter	M-14M
	Efficiency valve, Fitting, G1/4 male	14M-EV
	Fitting, G3/8 male	38M
	Fitting, G3/8 male, Mesh filter	M-38M
	Efficiency valve, Fitting, G3/8 male	38M-EV
	Fitting, G1/8 female, For silicone material	18FB2
	Fitting, G1/8 female, Mesh filter, For silicone material	M-18FB2
	Efficiency valve, Fitting, G1/8 female, For silicone material	18FB2-EV
	Fitting, G1/8 male, For silicone material	18MB2
	Fitting, G1/8 male, Mesh filter, For silicone material	M-18MB2
	Efficiency valve, Fitting, G1/8 male, For silicone material	18MB2-EV
	Fitting, G1/4 male, For silicone material	14MB2
	Fitting, G1/4 male, Mesh filter, For silicone material	M-14MB2
	Efficiency valve, Fitting, G1/4 male, For silicone material	14MB2-EV
	Fitting, G3/8 male, For silicone material	38MB2
	Fitting, G3/8 male, Mesh filter, For silicone material	M-38MB2
	Efficiency valve, Fitting, G3/8 male, For silicone material	38MB2-EV

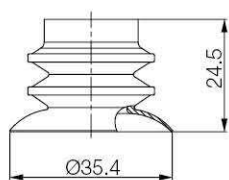
\* 18FB is available only for Silicone material.

# SUCTION CUPS / Bellows & Universal

## I Spare Parts – Rubber Parts

Part No.	Description	Weight (g)	Color
VBU35-N	Double bellow – universal suction cup, 35mm diameter, Nitrile (NBR)	4.48	Black
VBU35-S	Double bellow – universal suction cup, 35mm diameter, Silicone	3.99	Red
VBU35-WS	Double bellow – universal suction cup, 35mm diameter, White silicone	3.99	Translucent White
VBU35-WS (FDA)	Double bellow – universal suction cup, 35mm diameter, White silicone (FDA)	3.99	Translucent White
VBU35-PU	Double bellow – universal suction cup, 35mm diameter, Polyurethane	5.05	Translucent Orange

[ Unit : mm ]



[ Rubber part ]

## I Spare Parts – Disc Filter

Part No.	Description	Weight (g)
VTFE-BU35	Disc filter, Polyethylene	0.36

## I Spare Parts – Fittings

Part No. (Code No.)	Fitting size	Description	Weight (g)
350 000 3311	18F	G1/8 female	5.68
350 000 4311	18F-F	G1/8 female, Mesh filter	5.73
350 010 3311	18F-EV	Efficiency valve, G1/8 female	5.63
350 000 3331	18FB	G1/8 female, For silicone material	3.7
350 000 2311	18FO	G1/8 female, Old profile	8.24
350 000 4811	18FO-F	G1/8 female, Old profile, Mesh filter	8.41
350 000 2304	18M	G1/8 male	4.93
350 000 4304	18M-F	G1/8 male, Mesh filter	5.04
350 010 2304	18M-EV	Efficiency valve, G1/8 male	5.08
350 000 3404	14M	G1/4 male	5.88
350 000 3804	14M-F	G1/4 male, Mesh filter	5.92
350 010 3404	14M-EV	Efficiency valve, G1/4 male	6.03
350 000 3505	38M	G3/8 male	9.16
350 000 3905	M-38M	G3/8 male, Mesh filter	9.56
350 010 3505	38M-EV	Efficiency valve, G3/8 male	9.72
350 000 3342	18FB2	G1/8 female, For silicone material	5.4
350 000 4342	18FB2-F	G1/8 female, Mesh filter, For silicone material	5.5
350 010 3342	18FB2-EV	Efficiency valve, G1/8 female, For silicone material	5.64
350 000 3341	18MB2	G1/8 male, For silicone material	5.44
350 000 4341	18MB2-F	G1/8 male, Mesh filter, For silicone material	5.33
350 010 3341	18MB2-EV	Efficiency valve, G1/8 male, For silicone material	5.47
350 000 3441	14MB2	G1/4 male, For silicone material	5.88
350 000 3841	14MB2-F	G1/4 male, Mesh filter, For silicone material	6
350 010 3441	14MB2-EV	Efficiency valve, G1/4 male, For silicone material	6.14
350 000 3543	38MB2	G3/8 male, For silicone material	9.16
350 000 3943	M-38MB2	G3/8 male, Mesh filter, For silicone material	9.56
350 010 3543	38MB2-EV	Efficiency valve, G3/8 male, For silicone material	9.44



# SUCTION CUPS / Bellows & Universal

## VBU45



### Features and Strengths

Widely cover for increased degree of height compensation  
Excellent for curved products and separating thin sheet in stocks

### Examples of use

Convex surface, Plastic bag, Metal sheets, Plywood,  
Carton box, Cement sack



### Recommended Lifting Force (Max.)

Model	Volume (cm <sup>3</sup> )	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
VBU45	12.50	4.08	7.30	10.00

※ 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
Polyurethane	60	Translucent Orange	0~60

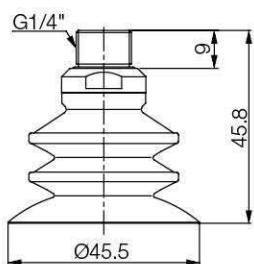
※ For additional material, see page 32~33

### Material Resistance

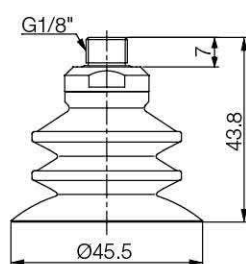
Description	NBR	Silicone	White Silicone	Polyurethane
Wear Resistance	Excellent	Good	Good	Excellent
Oil	Excellent	Poor	Poor	Excellent
Weather / Ozone	Fair	Excellent	Excellent	Excellent
Alcohol	Good	Good	Good	Fair
Acid	Fair	Poor	Poor	Fair

### Dimension

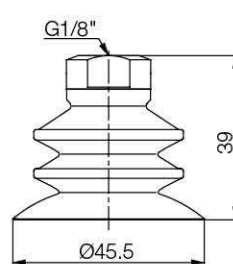
[ Unit : mm ]



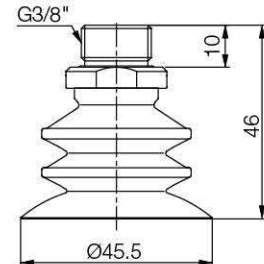
[ With 14M fitting ]



[ With 18M fitting ]

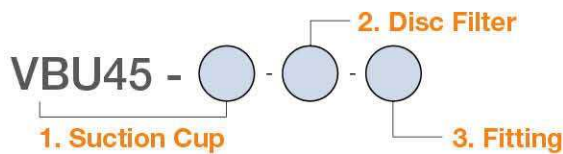


[ With 18F fitting ]



[ With 38M fitting ]

## I Build an Ordering No.



1. Suction cup	Description	Symbol
	Double bellows – universal suction cup, 45mm diameter, Nitrile (NBR)	VBU45-N
	Double bellows – universal suction cup, 45mm diameter, Silicone	VBU45-S
	Double bellows – universal suction cup, 45mm diameter, White silicone	VBU45-WS
	Double bellows – universal suction cup, 45mm diameter, White silicone (FDA)	VBU45-WS (FDA)
	Double bellows – universal suction cup, 45mm diameter, Polyurethane	VBU45-PU
2. Disc filter	Description	Symbol
	No disc filter	Blank
	Disc filter, Polyethylene	F
3. Fitting	Description	Symbol
	Fitting, G1/8 female	18F
	Fitting, G1/8 female, Mesh filter	M-18F
	Efficiency valve, Fitting, G1/8 female	18F-EV
	Fitting, G1/8 female, For silicone material	18FB*
	Fitting, G1/8 female, Old profile	18FO
	Fitting, G1/8 female, Old profile, Mesh filter	M-18FO
	Fitting, G1/8 male	18M
	Fitting, G1/8 male, Mesh filter	M-18M
	Efficiency valve, Fitting, G1/8 male	18M-EV
	Fitting, G1/4 male	14M
	Fitting, G1/4 male, Mesh filter	M-14M
	Efficiency valve, Fitting, G1/4 male	14M-EV
	Fitting, G3/8 male	38M
	Fitting, G3/8 male, Mesh filter	M-38M
	Efficiency valve, Fitting, G3/8 male	38M-EV
	Fitting, G1/8 female, For silicone material	18FB2
	Fitting, G1/8 female, Mesh filter, For silicone material	M-18FB2
	Efficiency valve, Fitting, G1/8 female, For silicone material	18FB2-EV
	Fitting, G1/8 male, For silicone material	18MB2
	Fitting, G1/8 male, Mesh filter, For silicone material	M-18MB2
	Efficiency valve, Fitting, G1/8 male, For silicone material	18MB2-EV
	Fitting, G1/4 male, For silicone material	14MB2
	Fitting, G1/4 male, Mesh filter, For silicone material	M-14MB2
	Efficiency valve, Fitting, G1/4 male, For silicone material	14MB2-EV
	Fitting, G3/8 male, For silicone material	38MB2
	Fitting, G3/8 male, Mesh filter, For silicone material	M-38MB2
	Efficiency valve, Fitting, G3/8 male, For silicone material	38MB2-EV

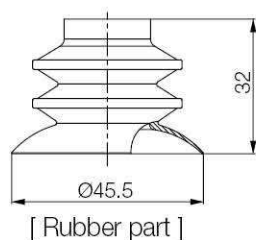
\* 18FB is available only for Silicone material.

# SUCTION CUPS / Bellows & Universal

## I Spare Parts – Rubber Parts

Part No.	Description	Weight (g)	Color
VBU45-N	Double bellows – universal suction cup, 45mm diameter, Nitrile (NBR)	7.76	Black
VBU45-S	Double bellows – universal suction cup, 45mm diameter, Silicone	7.17	Red
VBU45-WS	Double bellows – universal suction cup, 45mm diameter, White silicone	7.17	Translucent White
VBU45-WS (FDA)	Double bellows – universal suction cup, 45mm diameter, White silicone (FDA)	7.17	Translucent White
VBU45-PU	Double bellows – universal suction cup, 45mm diameter, Polyurethane	10.39	Translucent Orange

[ Unit : mm ]



## I Spare Parts – Disc Filter

Part No.	Description	Weight (g)
VTFE-BU45	Disc filter, Polyethylene	0.63

## I Spare Parts – Fittings

Part No. (Code No.)	Fitting size	Description	Weight (g)
350 000 3311	18F	G1/8 female	5.68
350 000 4311	18F-F	G1/8 female, Mesh filter	5.73
350 010 3311	18F-EV	Efficiency valve, G1/8 female	5.63
350 000 3331	18FB	G1/8 female, For silicone material	3.7
350 000 2311	18FO	G1/8 female, Old profile	8.24
350 000 4811	18FO-F	G1/8 female, Old profile, Mesh filter	8.41
350 000 2304	18M	G1/8 male	4.93
350 000 4304	18M-F	G1/8 male, Mesh filter	5.04
350 010 2304	18M-EV	Efficiency valve, G1/8 male	5.08
350 000 3404	14M	G1/4 male	5.88
350 000 3804	14M-F	G1/4 male, Mesh filter	5.92
350 010 3404	14M-EV	Efficiency valve, G1/4 male	6.03
350 000 3505	38M	G3/8 male	9.16
350 000 3905	M-38M	G3/8 male, Mesh filter	9.56
350 010 3505	38M-EV	Efficiency valve, G3/8 male	9.72
350 000 3342	18FB2	G1/8 female, For silicone material	5.4
350 000 4342	18FB2-F	G1/8 female, Mesh filter, For silicone material	5.5
350 010 3342	18FB2-EV	Efficiency valve, G1/8 female, For silicone material	5.64
350 000 3341	18MB2	G1/8 male, For silicone material	5.44
350 000 4341	18MB2-F	G1/8 male, Mesh filter, For silicone material	5.33
350 010 3341	18MB2-EV	Efficiency valve, G1/8 male, For silicone material	5.47
350 000 3441	14MB2	G1/4 male, For silicone material	5.88
350 000 3841	14MB2-F	G1/4 male, Mesh filter, For silicone material	6
350 010 3441	14MB2-EV	Efficiency valve, G1/4 male, For silicone material	6.14
350 000 3543	38MB2	G3/8 male, For silicone material	9.16
350 000 3943	M-38MB2	G3/8 male, Mesh filter, For silicone material	9.56
350 010 3543	38MB2-EV	Efficiency valve, G3/8 male, For silicone material	9.44



# SUCTION CUPS / Bellows & Universal

## VBU55



### Features and Strengths

Widely cover for increased degree of height compensation  
Excellent for curved products and separating thin sheet in stocks

### Examples of use

Convex surface, Plastic bag, Metal sheets, Plywood,  
Carton box, Cement sack



### Recommended Lifting Force (Max.)

Model	Volume (cm <sup>3</sup> )	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
VBU55	28.00	7.50	9.80	12.05

※ 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
Polyurethane	60	Translucent Orange	0~60

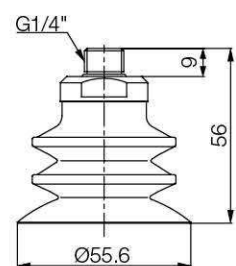
※ For additional material, see page 32~33

### Material Resistance

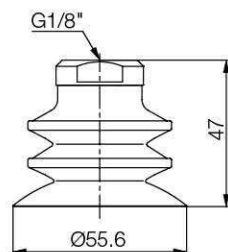
Description	NBR	Silicone	White Silicone	Polyurethane
Wear Resistance	Excellent	Good	Good	Excellent
Oil	Excellent	Poor	Poor	Excellent
Weather / Ozone	Fair	Excellent	Excellent	Excellent
Alcohol	Good	Good	Good	Fair
Acid	Fair	Poor	Poor	Fair

### Dimension

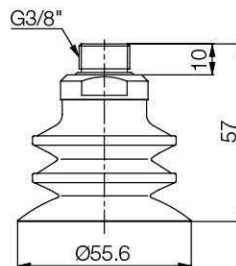
[ Unit : mm ]



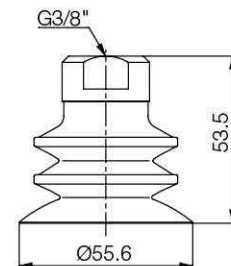
[ With 14M fitting ]



[ With 18F fitting ]

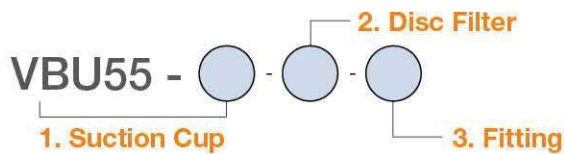


[ With 38M fitting ]



[ With 38F fitting ]

## I Build an Ordering No.



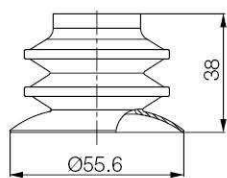
1. Suction cup	Description	Symbol
	Double bellows – universal suction cup, 55mm diameter, Nitrile (NBR)	VBU55-N
	Double bellows – universal suction cup, 55mm diameter, Silicone	VBU55-S
	Double bellows – universal suction cup, 55mm diameter, White silicone	VBU55-WS
	Double bellows – universal suction cup, 55mm diameter, White silicone (FDA)	VBU55-WS (FDA)
	Double bellows – universal suction cup, 55mm diameter, Polyurethane	VBU55-PU
2. Disc filter	Description	Symbol
	No disc filter	Blank
	Disc filter, Polyethylene	F
3. Fitting	Description	Symbol
	Fitting, G1/8 female	18F
	Fitting, G1/8 female, Mesh filter	M-18F
	Efficiency valve, Fitting, G1/8 female	18F-EV
	Fitting, G1/8 female, Old profile	18FO
	Fitting, G1/8 female, Old profile, Mesh filter	M-18FO
	Efficiency valve, Fitting, G1/8 female, Old profile	18FO-EV
	Fitting, G1/4 male	14M
	Fitting, G1/4 male, Mesh filter	M-14M
	Efficiency valve, Fitting, G1/4 male	14M-EV
	Fitting, G3/8 male	38M
	Fitting, G3/8 male, Mesh filter	M-38M
	Efficiency valve, Fitting, G3/8 male	38M-EV
	Fitting, G1/8 female, For silicone material	18FB2
	Fitting, G1/8 female, Mesh filter, For silicone material	M-18FB2
	Efficiency valve, Fitting, G1/8 female, For silicone material	18FB2-EV
	Fitting, G1/4 male, For silicone material	14MB2
	Fitting, G1/4 male, Mesh filter, For silicone material	M-14MB2
	Efficiency valve, Fitting, G1/4 male, For silicone material	14MB2-EV
	Fitting, G3/8 male, For silicone material	38MB2
	Fitting, G3/8 male, Mesh filter, For silicone material	M-38MB2
	Efficiency valve, Fitting, G3/8 male, For silicone material	38MB2-EV

# SUCTION CUPS / Bellows & Universal

## I Spare Parts – Rubber Parts

Part No.	Description	Weight (g)	Color
VBU55-N	Double bellows – universal suction cup, 55mm diameter, Nitrile (NBR)	17.83	Black
VBU55-S	Double bellows – universal suction cup, 55mm diameter, Silicone	15.25	Red
VBU55-WS	Double bellows – universal suction cup, 55mm diameter, White silicone	15.32	Translucent White
VBU55-WS (FDA)	Double bellows – universal suction cup, 55mm diameter, White silicone (FDA)	15.32	Translucent White
VBU55-PU	Double bellows – universal suction cup, 55mm diameter, Polyurethane	19.14	Translucent Orange

[ Unit : mm ]



[ Rubber part ]

## I Spare Parts – Disc Filter

Part No.	Description	Weight (g)
VTFE-BU55	Disc filter, Polyethylene	1.06

## I Spare Parts – Fittings

Part No. (Code No.)	Fitting size	Description	Weight (g)
350 000 3312	18F	G1/8 female	5.68
350 000 4312	18F-F	G1/8 female, Mesh filter	5.73
350 010 3312	18F-EV	Efficiency valve, G1/8 female	5.63
350 000 1312	18FO	G1/8 female, Old profile	10.12
350 000 4912	18FO-F	G1/8 female, Old profile, Mesh filter	10.2
350 010 1312	18FO-EV	Efficiency valve, G1/8 female, Old profile	10.37
350 000 3405	14M	G1/4 male	5.88
350 000 3805	14M-F	G1/4 male, Mesh filter	5.92
350 010 3405	14M-EV	Efficiency valve, G1/4 male	6.03
350 000 3505	38M	G3/8 male	9.16
350 000 3905	38M-F	G3/8 male, Mesh filter	9.56
350 010 3505	38M-EV	Efficiency valve, G3/8 male	9.46
350 000 3344	18FB2	G1/8 female, For silicone material	15.33
350 000 4344	18FB2-F	G1/8 female, Mesh filter, For silicone material	15.81
350 010 3344	18FB2-EV	Efficiency valve, G1/8 female, For silicone material	15.95
350 000 3443	14MB2	G1/4 male, For silicone material	16.69
350 000 3843	14MB2-F	G1/4 male, Mesh filter, For silicone material	17.22
350 010 3443	14MB2-EV	Efficiency valve, G1/4 male, For silicone material	17.26
350 000 3543	38MB2	G3/8 male, For silicone material	16.77
350 000 3943	38MB2-F	G3/8 male, Mesh filter, For silicone material	17.28
350 010 3543	38MB2-EV	Efficiency valve, G3/8 male, For silicone material	17.06

