

# SUCTION CUPS / Sponge

## VS Series

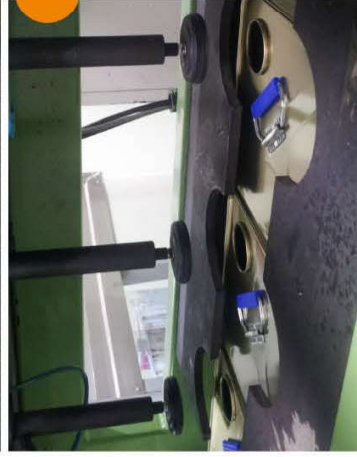
### Features and Strengths

Excellent performance for rough and uneven surfaces

### Advantages

Used for handling rough surfaces and when used with ball joint option and level compensator surfaces

### Application



### Examples of use

Marbles, Paving Slabs, Bricks, Rough Wood, Masonry

### Available size option

Model	Description	Model	Description
VS30x80	Sponge suction cup, 30x80	VS150	Sponge suction cup, Ø150
VS35	Sponge suction cup, Ø35	VS200	Sponge suction cup, Ø200
VS60	Sponge suction cup, Ø60	VS300	Sponge suction cup, Ø300
VS100	Sponge suction cup, Ø100	VS400	Sponge suction cup, Ø400

### Recommended Lifting Force (Max.)

Model	Volume(cm <sup>3</sup> )	Lifting Force (Kg) - Perpendicular			Page
		- 20 kPa	- 60 kPa	- 90 kPa	
VS30x80	43.00	2.70	9.10	14.00	
VS35	6.00	2.04	5.10	7.14	
VS60	20.00	6.12	15.30	22.44	
VS100	55.00	18.36	45.90	67.34	
VS150	125.00	38.00	97.00	138.00	
VS200	543.00	76.53	193.87	275.51	
VS300	1285.00	163.26	438.77	653.06	
VS400	2288.00	326.00	876.00	1300.00	

※ The lifting force above does not include safety factor



## VS30x80

### Features and Strengths

Excellent performance for rough and uneven surfaces

### Examples of use

Marbles, Paving Slabs, Bricks, Rough Wood, Masonry



### Recommended Lifting Force (Max.)

Model	Volume(cm <sup>3</sup> )	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
VS30x80	43.00	2.70	9.10	14.00

※ The lifting force above does not include safety factor

### Material Specifications

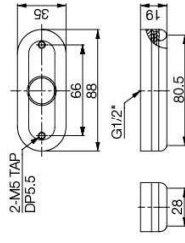
Material	Hardness Shore (°)	Color	Temperature (°C)
EPDM	40°	Black	0~150

### Material Resistance

Description	EPDM
Wear Resistance	Fair
Oil	Poor
Weather / Ozone	Excellent
Alcohol	Excellent
Acid	Poor

### Dimension

[Unit: mm]



[With 12F fitting]

### Build an Ordering No.



VS30x80 -

1. Suction cup	Description	Symbol
	Sponge suction cup, 30x80mm diameter, EPDM	VS30x80-E

2. Fitting	Description	Symbol
	Fitting, G1/2 female	12F

### Spare Parts – Rubber Part

Part No.	Description	Weight (g)	Color
VS30x80-E	EPDM Perimeter Seal	9.2	Black

### Spare Parts – Fittings

Part No. (Code No.)	Fitting size	Description	Weight (g)
350 001 3611	12F	G1/2 female	63.1

## VS35

### Features and Strengths

Excellent performance for rough and uneven surfaces

### Examples of use

Marbles, Paving Slabs, Bricks, Rough Wood, Masonry



### Recommended Lifting Force (Max.)

Model	Volume(cm <sup>3</sup> )	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
VS35	6.00	2.04	5.10	7.14

※ The lifting force above does not include safety factor

### Material Specifications

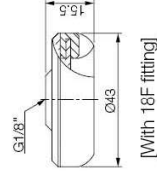
Material	Hardness Shore (°)	Color	Temperature (°C)
EPDM	40°	Black	0-150

### Material Resistance

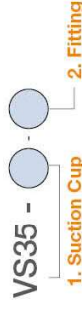
Description	EPDM
Wear Resistance	Fair
Oil	Poor
Weather / Ozone	Excellent
Alcohol	Excellent
Acid	Poor

### Dimension

[Unit : mm]



### Build an Ordering No.



1. Suction cup	Description	Symbol
	Sponge suction cup, 35mm diameter, EPDM	VS35-E

2. Fitting	Description	Symbol
	Fitting, G1/8 female	18F
	Button valve, Fitting, G1/8 female	18F-BV

### Spare Parts – Rubber Part

Part No.	Description	Weight (g)	Color
VS35-E	EPDM Perimeter Seal	5.39	Black

### Spare Parts – Fittings

Part No. (Code No.)	Fitting size	Description	Weight (g)
350 001 3311	18F	G1/8 female	17.81
350 021 3311	18F-BV	Button valve, G1/8 female	41.17

## VS60

### Features and Strengths

Excellent performance for rough and uneven surfaces

### Examples of use

Marbles, Paving Slabs, Bricks, Rough Wood, Masonry



### Recommended Lifting Force (Max.)

Model	Volume(cm <sup>3</sup> )	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
VS60	20.00	6.12	15.30	22.44

※ The lifting force above does not include safety factor

### Material Specifications

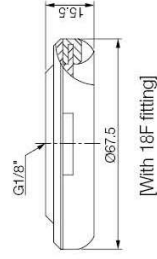
Material	Hardness Shore (°)	Color	Temperature (°C)
EPDM	40°	Black	0-150

### Material Resistance

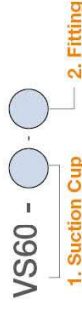
Description	EPDM
Wear Resistance	Fair
Oil	Poor
Weather / Ozone	Excellent
Alcohol	Excellent
Acid	Poor

### Dimension

[Unit : mm]



### Build an Ordering No.



1. Suction cup	Description	Symbol
	Sponge suction cup, 60mm diameter, EPDM	VS60-E

2. Fitting	Description	Symbol
	Fitting, G1/8 female	18F
	Button valve, Fitting, G1/8 female	18F-BV

### Spare Parts – Rubber Part

Part No.	Description	Weight (g)	Color
VS60-E	EPDM Perimeter Seal	9.4	Black

### Spare Parts – Fittings

Part No. (Code No.)	Fitting size	Description	Weight (g)
350 001 3312	18F	G1/8 female	47.57
350 021 3312	18F-BV	Button valve, G1/8 female	70.92

## VS100

### Features and Strengths

Excellent performance for rough and uneven surfaces

### Examples of use

Marbles, Paving Slabs, Bricks, Rough Wood, Masonry



### Recommended Lifting Force (Max.)

Model	Volume(cm <sup>3</sup> )	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
VS100	55.00	18.36	45.90	67.34

※ The lifting force above does not include safety factor

### Material Specifications

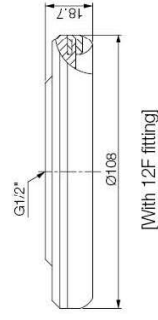
Material	Hardness Shore (°)	Color	Temperature (°C)
EPDM	40°	Black	0-150

### Material Resistance

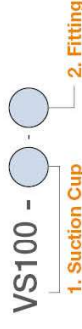
Description	EPDM
Wear Resistance	Fair
Oil	Poor
Weather / Ozone	Excellent
Alcohol	Excellent
Acid	Poor

### Dimension

[Unit : mm]



### Build an Ordering No.



1. Suction cup	Description	Symbol
	Sponge suction cup, 100mm diameter, EPDM	VS100-E

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

### Spare Parts – Rubber Part

Part No.	Description	Weight (g)	Color
VS100-E	EPDM Perimeter Seal	16.43	Black

### Spare Parts – Fittings

Part No. (Code No.)	Fitting size	Description	Weight (g)
350 001 3623	12F	G1/2 female	222.99
350 021 3623	12F-BV	Button valve, G1/2 female	338.53

## VS150

### Features and Strengths

Excellent performance for rough and uneven surfaces

### Examples of use

Marbles, Paving Slabs, Bricks, Rough Wood, Masonry



### Recommended Lifting Force (Max.)

Model	Volume(cm <sup>3</sup> )	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
VS150	125.00	38.00	97.00	138.00

※ The lifting force above does not include safety factor

### Material Specifications

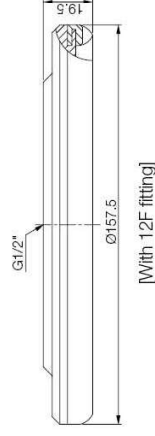
Material	Hardness Shore (°)	Color	Temperature (°C)
EPDM	40°	Black	0-150

### Material Resistance

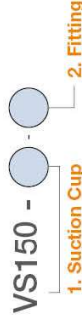
Description	EPDM
Wear Resistance	Fair
Oil	Poor
Weather / Ozone	Excellent
Alcohol	Excellent
Acid	Poor

### Dimension

[Unit : mm]



### Build an Ordering No.



1. Suction cup	Description	Symbol
	Sponge suction cup, 150mm diameter, EPDM,	VS150-E

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

### Spare Parts – Rubber Part

Part No.	Description	Weight (g)	Color
VS150-E	EPDM Perimeter Seal	25	Black

### Spare Parts – Fittings

Part No. (Code No.)	Fitting size	Description	Weight (g)
350 001 3615	12F	G1/2 female	525
350 021 3615	12F-BV	Button valve, G1/2 female	640.54

## VS200

### Features and Strengths

Excellent performance for rough and uneven surfaces

### Examples of use

Marbles, Paving Slabs, Bricks, Rough Wood, Masonry



### Recommended Lifting Force (Max.)

Model	Volume(cm <sup>3</sup> )	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
VS200	543.00	76.53	193.87	275.51

※ The lifting force above does not include safety factor

### Material Specifications

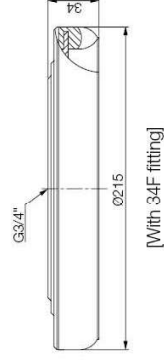
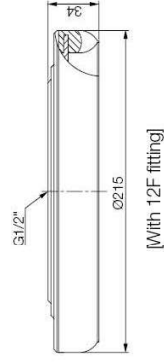
Material	Hardness Shore (°)	Color	Temperature (°C)
EPDM	40°	Black	0~150

### Material Resistance

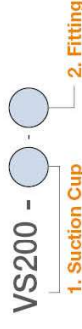
Description	EPDM
Wear Resistance	Fair
Oil	Poor
Weather / Ozone	Excellent
Alcohol	Excellent
Acid	Poor

### Dimension

[Unit : mm]



### Build an Ordering No.



1. Suction cup	Description	Symbol
	Sponge suction cup, 200mm diameter, EPDM	VS200-E

2. Fitting	Description	Symbol
	Fitting, G1/2 female	12F
	Fitting, G3/4 female	34F

### Spare Parts – Rubber Part

Part No.	Description	Weight (g)	Color
VS200-E	EPDM Perimeter Seal	176.66	Black

### Spare Parts – Fittings

Part No. (Code No.)	Fitting size	Description	Weight (g)
350 001 3616	12F	G1/2 female	1015
350 001 3716	34F	G3/4 female	1015

## VS300

### Features and Strengths

Excellent performance for rough and uneven surfaces

### Examples of use

Marbles, Paving Slabs, Bricks, Rough Wood, Masonry



### Recommended Lifting Force (Max.)

Model	Volume(cm <sup>3</sup> )	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
VS300	1285.00	163.26	438.77	653.06

※ The lifting force above does not include safety factor

### Material Specifications

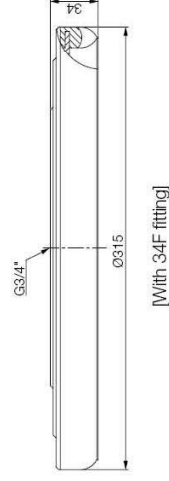
Material	Hardness Shore (°)	Color	Temperature (°C)
EPDM	40°	Black	0~150

### Material Resistance

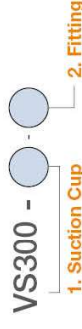
Description	EPDM
Wear Resistance	Fair
Oil	Poor
Weather / Ozone	Excellent
Alcohol	Excellent
Acid	Poor

### Dimension

[Unit : mm]



### Build an Ordering No.



1. Suction cup	Description	Symbol
	Sponge suction cup, 300mm diameter, EPDM	VS300-E

2. Fitting	Description	Symbol
	Fitting, G3/4 female	34F

### Spare Parts – Rubber Part

Part No.	Description	Weight (g)	Color
VS300-E	EPDM Perimeter Seal	265	Black

### Spare Parts – Fittings

Part No. (Code No.)	Fitting size	Description	Weight (g)
350 001 3717	34F	G3/4 female	2303



## VS400

### Features and Strengths

Excellent performance for rough and uneven surfaces

### Examples of use

Marbles, Paving Slabs, Bricks, Rough Wood, Masonry



### Recommended Lifting Force (Max.)

Model	Volume(cm <sup>3</sup> )	Lifting Force (Kg) - Perpendicular		
		- 20 kPa	- 60 kPa	- 90 kPa
VS400	2288.00	326.00	876.00	1300.00

※ The lifting force above does not include safety factor

### Material Specifications

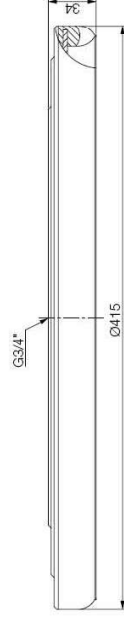
Material	Hardness Shore (°)	Color	Temperature (°C)
EPDM	40°	Black	0~150

### Material Resistance

Description	EPDM
Wear Resistance	Fair
Oil	Poor
Weather / Ozone	Excellent
Alcohol	Excellent
Acid	Poor

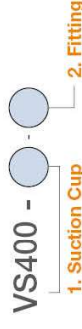
### Dimension

[Unit : mm]



[With 34F fitting]

### Build an Ordering No.



1. Suction cup	Description	Symbol
	Sponge suction cup, 400mm diameter, EPDM	VS400-E

2. Fitting	Description	Symbol
	Fitting, G3/4 female	34F

### Spare Parts – Rubber Part

Part No.	Description	Weight (g)	Color
VS400-E	EPDM Perimeter Seal	350	Black

### Spare Parts – Fittings

Part No. (Code No.)	Fitting size	Description	Weight (g)
350 001 3718	34F	G3/4 female	3016