

# SUCTION CUPS / Oval Flat Bellow

## VOBF30x60

### Features and Strengths

Over bellows shaped for handling long, narrow, curved and oily workpieces  
The feet inside the cup provide an anti-slide

### Examples of use

Automotive panels and doors, Metal sheets, Press line  
Carton box, Wood panel, Furniture



### Recommended Lifting Force (Max.)

| Model     | Volume (cm <sup>3</sup> ) | Min. Curvature Radius R(mm) | Lifting Force (Kg) - Perpendicular |          |          | Lifting Force (Kg) - Parallel |          |          |
|-----------|---------------------------|-----------------------------|------------------------------------|----------|----------|-------------------------------|----------|----------|
|           |                           |                             | - 20 kPa                           | - 60 kPa | - 90 kPa | - 20 kPa                      | - 60 kPa | - 90 kPa |
| VOBF30x60 | 11.00                     | 30.00                       | 2.7                                | 7.6      | 11.2     | 2.8                           | 7.8      | 14.5     |

※ The lifting force above does not include safety factor

### Material Specifications

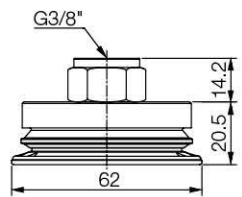
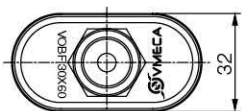
| Material     | Hardness Shore (°) | Color              | Temperature (°C) |
|--------------|--------------------|--------------------|------------------|
| Polyurethane | 60                 | Translucent Orange | 0~60             |

### Material Resistance

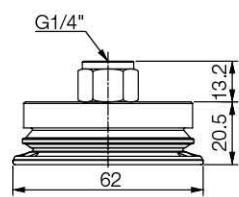
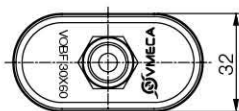
| Description     | Polyurethane |
|-----------------|--------------|
| Wear Resistance | Excellent    |
| Oil             | Excellent    |
| Weather / Ozone | Excellent    |
| Alcohol         | Fair         |
| Acid            | Fair         |

### Dimension

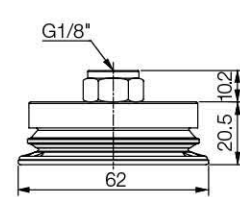
[ Unit : mm ]



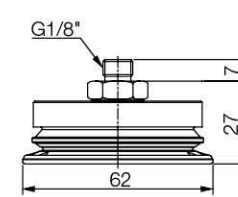
[With 38F fitting]



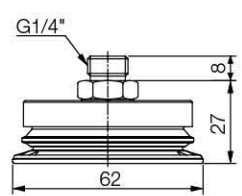
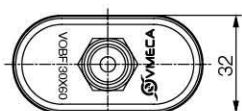
[With 14F fitting]



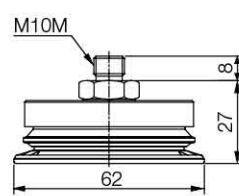
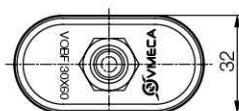
[With 18F fitting]



[With 18M fitting]

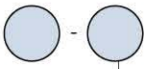


[With 14M fitting]



[With M10M fitting]

## Build an Ordering No.

VOBF30x60 -  : Pre-mounted fitting

**1. Suction Cup**

| 1. Suction cup | Description   | Weight (g) | Symbol            |
|----------------|---|------------|-------------------|
|                | Oval flat bellow suction cup, 30x60mm diameter, Polyurethane, M10xP1.5 male Fitting | 30.57      | VOBF30x60-PU-M10M |
|                | Oval flat bellow suction cup, 30x60mm diameter, Polyurethane, G1/8 female Fitting   | 32.9       | VOBF30x60-PU-18F  |
|                | Oval flat bellow suction cup, 30x60mm diameter, Polyurethane, G1/8 male Fitting     | 30.96      | VOBF30x60-PU-18M  |
|                | Oval flat bellow suction cup, 30x60mm diameter, Polyurethane, G1/4 female Fitting   | 28.51      | VOBF30x60-PU-14F  |
|                | Oval flat bellow suction cup, 30x60mm diameter, Polyurethane, G1/4 male Fitting     | 32.15      | VOBF30x60-PU-14M  |
|                | Oval flat bellow suction cup, 30x60mm diameter, Polyurethane, G3/8 female Fitting   | 31.83      | VOBF30x60-PU-38F  |

# SUCTION CUPS / Oval Flat Bellow

## VOBF40x80

### Features and Strengths

Over bellows shaped for handling long, narrow, curved and oily workpieces  
The feet inside the cup provide an anti-slide

### Examples of use

Automotive panels and doors, Metal sheets, Press line  
Carton box, Wood panel, Furniture



### Recommended Lifting Force (Max.)

| Model     | Volume (cm <sup>3</sup> ) | Min. Curvature Radius R(mm) | Lifting Force (Kg) - Perpendicular |          |          | Lifting Force (Kg) - Parallel |          |          |
|-----------|---------------------------|-----------------------------|------------------------------------|----------|----------|-------------------------------|----------|----------|
|           |                           |                             | - 20 kPa                           | - 60 kPa | - 90 kPa | - 20 kPa                      | - 60 kPa | - 90 kPa |
| VOBF40x80 | 22.50                     | 40.00                       | 4.8                                | 12.8     | 18.2     | 5.3                           | 15.6     | 22.9     |

※ The lifting force above does not include safety factor

### Material Specifications

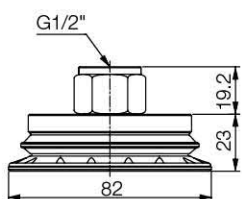
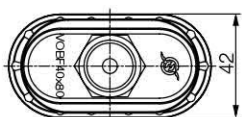
| Material     | Hardness Shore (°) | Color              | Temperature (°C) |
|--------------|--------------------|--------------------|------------------|
| Polyurethane | 60                 | Translucent Orange | 0~60             |

### Material Resistance

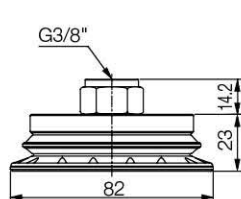
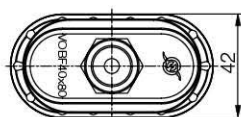
| Description     | Polyurethane |
|-----------------|--------------|
| Wear Resistance | Excellent    |
| Oil             | Excellent    |
| Weather / Ozone | Excellent    |
| Alcohol         | Fair         |
| Acid            | Fair         |

### Dimension

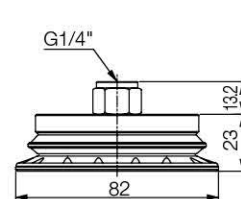
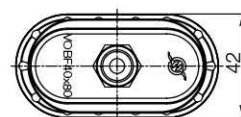
[ Unit : mm ]



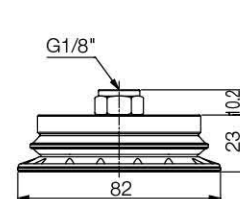
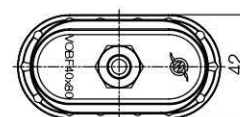
[With 12F fitting]



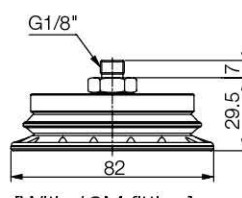
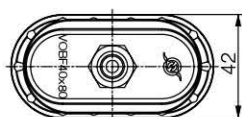
[With 38F fitting]



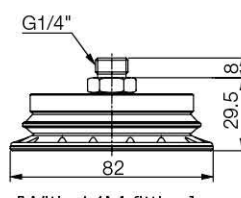
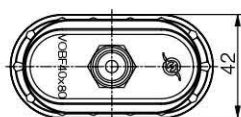
[With 14F fitting]



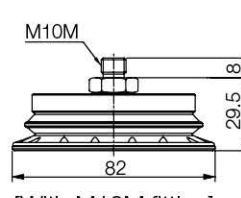
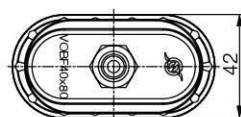
[With 18F fitting]



[With 18M fitting]

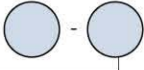


[With 14M fitting]



[With M10M fitting]

## Build an Ordering No.

VOBF40x80 -  : Pre-mounted fitting

**1. Suction Cup**

| 1. Suction cup | Description   | Weight (g) | Symbol            |
|----------------|---|------------|-------------------|
|                | Oval flat bellow suction cup, 40x80mm diameter, Polyurethane, M10xP1.5 male Fitting | 39.44      | VOBF40x80-PU-M10M |
|                | Oval flat bellow suction cup, 40x80mm diameter, Polyurethane, G1/8 female Fitting   | 41.77      | VOBF40x80-PU-18F  |
|                | Oval flat bellow suction cup, 40x80mm diameter, Polyurethane, G1/8 male Fitting     | 39.83      | VOBF40x80-PU-18M  |
|                | Oval flat bellow suction cup, 40x80mm diameter, Polyurethane, G1/4 female Fitting   | 37.38      | VOBF40x80-PU-14F  |
|                | Oval flat bellow suction cup, 40x80mm diameter, Polyurethane, G1/4 male Fitting     | 41.02      | VOBF40x80-PU-14M  |
|                | Oval flat bellow suction cup, 40x80mm diameter, Polyurethane, G3/8 female Fitting   | 40.7       | VOBF40x80-PU-38F  |



# SUCTION CUPS / Oval Flat Bellow

## VOBF55x110



### Features and Strengths

Over bellows shaped for handling long, narrow, curved and oily workpieces  
The feet inside the cup provide an anti-slide

### Examples of use

Automotive panels and doors, Metal sheets, Press line



### Recommended Lifting Force (Max.)

| Model      | Volume (cm <sup>3</sup> ) | Min. Curvature Radius R(mm) | Lifting Force (Kg) - Perpendicular |          |          | Lifting Force (Kg) - Parallel |          |          |
|------------|---------------------------|-----------------------------|------------------------------------|----------|----------|-------------------------------|----------|----------|
|            |                           |                             | - 20 kPa                           | - 60 kPa | - 90 kPa | - 20 kPa                      | - 60 kPa | - 90 kPa |
| VOBF55x110 | 66.50                     | 50.00                       | 8.8                                | 22.3     | 33.0     | 13.3                          | 29.1     | 44.0     |

※ The lifting force above does not include safety factor

### Material Specifications

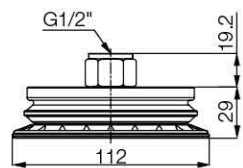
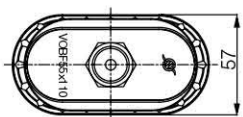
| Material     | Hardness Shore (°) | Color              | Temperature (°C) |
|--------------|--------------------|--------------------|------------------|
| Polyurethane | 60                 | Translucent Orange | 0~60             |

### Material Resistance

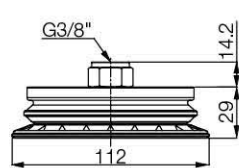
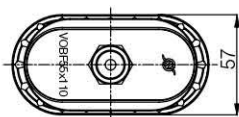
| Description     | Polyurethane |
|-----------------|--------------|
| Wear Resistance | Excellent    |
| Oil             | Excellent    |
| Weather / Ozone | Excellent    |
| Alcohol         | Fair         |
| Acid            | Fair         |

### Dimension

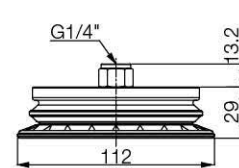
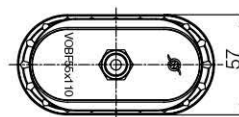
[ Unit : mm ]



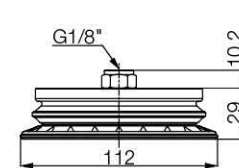
[With 12F fitting]



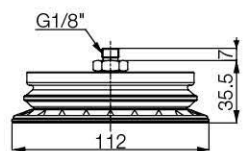
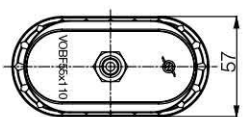
[With 38F fitting]



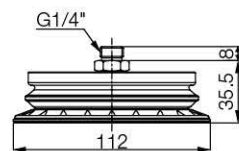
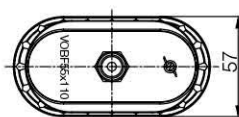
[With 14F fitting]



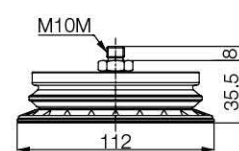
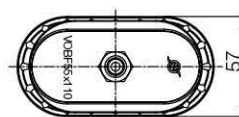
[With 18F fitting]



[With 18M fitting]

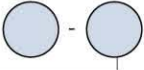


[With 14M fitting]



[With M10M fitting]

## Build an Ordering No.

VOBF55x110 -  : Pre-mounted fitting

**1. Suction Cup**

| 1. Suction cup | Description  | Weight (g) | Symbol             |
|----------------|--|------------|--------------------|
|                | Oval flat bellow suction cup, 55x110mm diameter, Polyurethane, M10xP1.5 male Fitting | 84.8       | VOBF55x110-PU-M10M |
|                | Oval flat bellow suction cup, 55x110mm diameter, Polyurethane, G1/8 female Fitting   | 87.13      | VOBF55x110-PU-18F  |
|                | Oval flat bellow suction cup, 55x110mm diameter, Polyurethane, G1/8 male Fitting     | 85.19      | VOBF55x110-PU-18M  |
|                | Oval flat bellow suction cup, 55x110mm diameter, Polyurethane, G1/4 female Fitting   | 82.74      | VOBF55x110-PU-14F  |
|                | Oval flat bellow suction cup, 55x110mm diameter, Polyurethane, G1/4 male Fitting     | 86.38      | VOBF55x110-PU-14M  |
|                | Oval flat bellow suction cup, 55x110mm diameter, Polyurethane, G3/8 female Fitting   | 86.06      | VOBF55x110-PU-38F  |