

# SUCTION CUPS / Long Multi Bellows

## VBL20

### Features and Strengths

Widely cover for increased degree of height compensation  
Excellent for fragile products

### Examples of use

Fragile objects, General food products  
Glass, Eggs, Bread



### Recommended Lifting Force (Max.)

| Model | Volume (cm <sup>3</sup> ) | Lifting Force (Kg) - Perpendicular |          |
|-------|---------------------------|------------------------------------|----------|
|       |                           | - 20 kPa                           | - 60 kPa |
| VBL20 | 4.00                      | 0.40                               | 0.90     |

※ 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          |

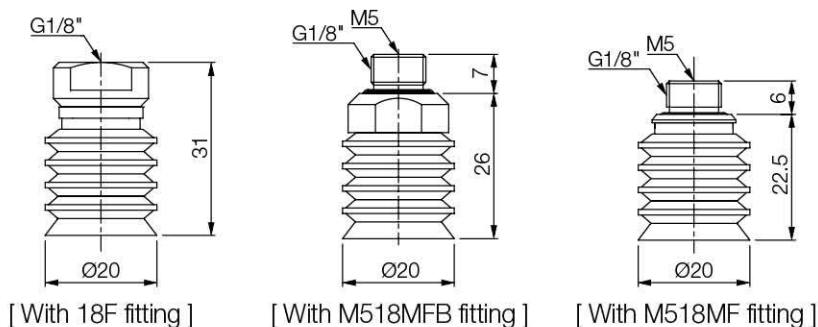
※ For additional material, see page 32~33

### Material Resistance

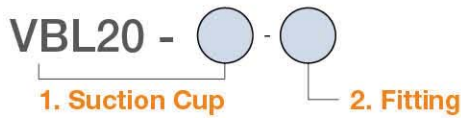
| Description     | NBR       | Silicone  | White Silicone | High temp. Silicone | Conductive Silicone | Urethane  | Mark Free |
|-----------------|-----------|-----------|----------------|---------------------|---------------------|-----------|-----------|
| Wear Resistance | Excellent | Good      | 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 ]



## Build an Ordering No.



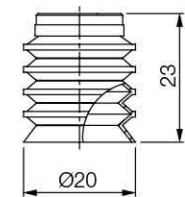
| 1. Suction cup | Description  | Symbol        |
|----------------|--|---------------|
|                | Long multi-bellows suction cup, 20mm diameter, Nitrile (NBR)             | VBL20-N       |
|                | Long multi-bellows suction cup, 20mm diameter, Silicone                  | VBL20-S       |
|                | Long multi-bellows suction cup, 20mm diameter, White silicone            | VBL20-WS      |
|                | Long multi-bellows suction cup, 20mm diameter, White silicone (FDA)      | VBL20-WS(FDA) |
|                | Long multi-bellows suction cup, 20mm diameter, High temperature silicone | VBL20-HS      |
|                | Long multi-bellows suction cup, 20mm diameter, Conductive silicone       | VBL20-CS      |
|                | Long multi-bellows suction cup, 20mm diameter, Urethane                  | VBL20-U       |
|                | Long multi-bellows suction cup, 20mm diameter, Mark free                 | VBL20-A       |
| 2. Fitting     | Description  | Symbol        |
|                | Fitting, G1/8 male - M5 female   | M518MF        |
|                | Fitting, G1/8 male - M5 female, Mesh filter                              | M-M518MF      |
|                | Efficiency valve, Fitting, G1/8 male - M5 female                         | M518MF-EV     |
|                | Fitting, G1/8 male - M5 female, Old profile                              | M518MFO       |
|                | Fitting, G1/8 male - M5 female, Old profile, Mesh filter                 | M-M518MFO     |
|                | Efficiency valve, Fitting, G1/8 male - M5 female, Old profile            | M518MFO-EV    |
|                | Fitting, G1/8 male - M5 female, For silicone material                    | M518MFB*      |
|                | Fitting, G1/8 female   | 18F           |
|                | Fitting, G1/8 female, Mesh filter  | M-18F         |
|                | Efficiency valve, Fitting, G1/8 Female                                   | 18F-EV        |

\* M518MFB is available only for Silicone material.

## Spare Parts – Rubber Parts

| Part No.      | Description  | Weight (g) | Color             |
|---------------|--|------------|-------------------|
| VBL20-N       | Long multi-bellows suction cup, 20mm diameter, Nitrile (NBR)             | 2.22       | Black             |
| VBL20-S       | Long multi-bellows suction cup, 20mm diameter, Silicone                  | 2.00       | Red               |
| VBL20-WS      | Long multi-bellows suction cup, 20mm diameter, White silicone            | 2.00       | Translucent White |
| VBL20-WS(FDA) | Long multi-bellows suction cup, 20mm diameter, White silicone (FDA)      | 2.00       | Translucent White |
| VBL20-HS      | Long multi-bellows suction cup, 20mm diameter, High temperature silicone | 2.11       | Blue              |
| VBL20-CS      | Long multi-bellows suction cup, 20mm diameter, Conductive silicone       | 2.08       | Smoky Black       |
| VBL20-U       | Long multi-bellows suction cup, 20mm diameter, Urethane                  | 1.98       | Dark Green        |
| VBL20-A       | Long multi-bellows suction cup, 20mm diameter, Mark free                 | 2.52       | Black             |

[ Unit : mm ]



[ Rubber part ]

## Spare Parts – Fittings

| Part No. (Code No.) | Fitting size | Description  | Weight (g) |
|---------------------|--------------|--|------------|
| 350 000 3209        | M518MF       | G1/8 male - M5 female                                | 1.82       |
| 350 000 5209        | M518MF-F     | G1/8 male - M5 female, Mesh filter                   | 1.92       |
| 350 010 4209        | M518MF-EV    | Efficiency valve, G1/8 male - M5 female              | 1.94       |
| 350 000 1209        | M518MFO      | G1/8 male - M5 female, Old profile                   | 2.88       |
| 350 000 1109        | M518MFO-F    | G1/8 male - M5 female, Old profile, Mesh filter      | 2.94       |
| 350 010 1209        | M518MFO-EV   | Efficiency valve, G1/8 male - M5 female, Old profile | 2.87       |
| 350 000 3239        | M518MFB      | G1/8 male - M5 female, For silicone material         | 3.56       |
| 350 000 3310        | 18F          | G1/8 female  | 3.20       |
| 350 000 4310        | 18F-F        | G1/8 female, Mesh filter                             | 3.26       |
| 350 010 3310        | 18F-EV       | Efficiency valve, G1/8 Female                        | 3.31       |