

Suction cups VAS/VASB



# Suction cups VAS/VASB

Key features

## Product overview

Festo suction grippers offer outstanding functionality and quality.

An extensive, modular range of suction cups with connection attachments, in different shapes, materials and sizes, plus a wide selection of

suction cup holders, angle and height compensators and vacuum filters within the modular suction gripper

system, provide users with a huge range of possible combinations for a wide variety of applications.

## Suction grippers ESG

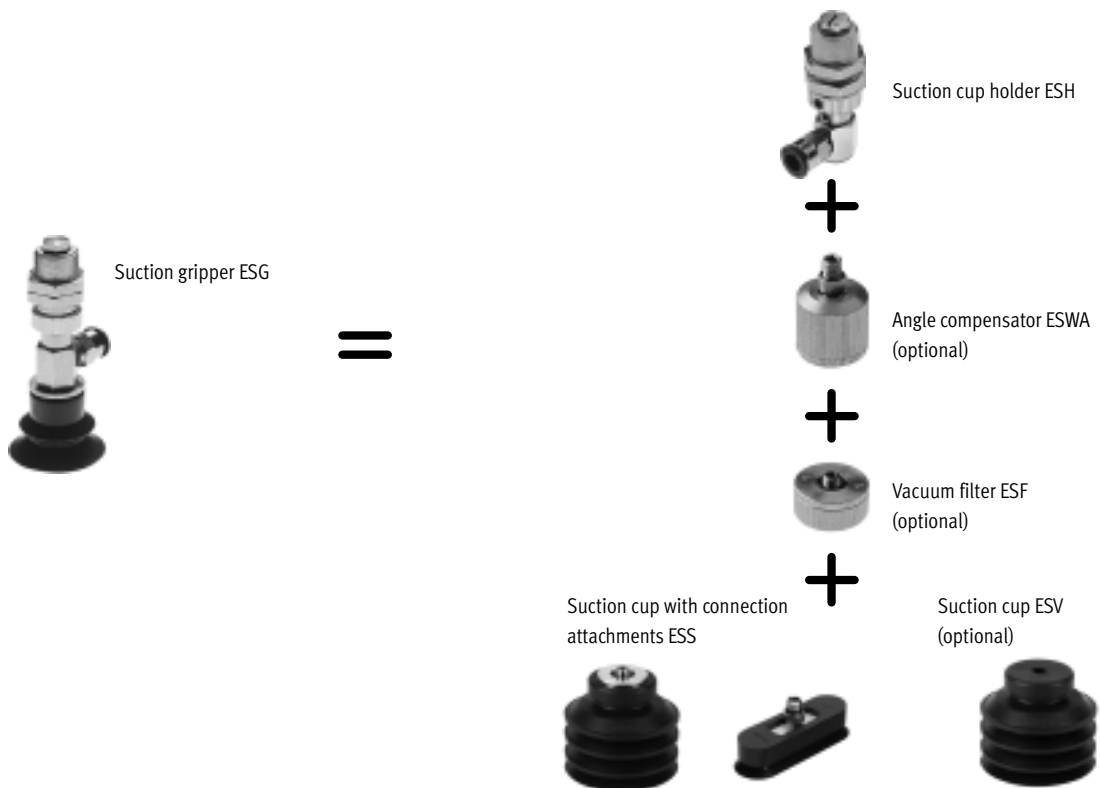
Modular products with over 2000 variants

Technical data → Internet: [esg](#)

- The ideal solution for the transport of workpieces of different weights, surfaces and shapes
- Choose from:
  - 15 suction cup diameters
  - 6 different materials – including antistatic types
  - 6 suction cup shapes
  - Numerous suction cup holders
  - Optional accessories (vacuum filters and angle compensators)
- Wide range of variants
- A suitable solution for every task
- Wide range to suit applications with various temperature ranges and workpiece surfaces
- Suction cups made from silicone are approved for use in the food industry

## Suction gripper as a complete solution

## Suction gripper made of individual components



# Suction cups VAS/VASB

Key features

FESTO

## Suction cups VAS/VASB

Sturdy and reliable

- The ideal solution for the transport of workpieces of different weights, surfaces and shapes
- Choose from:
  - 11 suction cup diameters
  - 2 suction cup shapes: round and bellows design
  - 3 materials: nitrile rubber, polyurethane and silicone for use in a wide variety of applications
- Wide range to suit applications with various temperature ranges and workpiece surfaces
- Suction cups made from silicone are approved for use in the food industry
- All tubing connector sizes correspond to a holder size



# Suction cups VAS/VASB

Features

## Suction cups with fixed connecting thread

- VAS: 2 ... 125 mm diameter
- VASB: 8 ... 125 mm diameter
- Suction retention of workpieces with smooth, impervious surfaces
- Bellows suction cups can adapt to suit uneven, curved and inclined surfaces

### Nitrile rubber (NBR)

- Can be used universally

### Polyurethane (PUR)

- Long service life
- Gentle handling with soft suction cup material

### Silicone (SI)

- Excellent thermal resistance
- Approved for use in the food industry



## Accessories

### Vacuum security valve ISV

Technical data → Internet: [isv](#)

- Vacuum does not dissipate when any of several suction cups arranged in parallel fail to maintain contact
- Saves compressed air and energy



### Height compensator VAL

Technical data → Internet: [val](#)

- Gentle handling of the workpieces by compensating for tolerance differences in the workpiece thickness.



### Elbow fitting LJK

Technical data → Internet: [ljk](#)

- Redirection of air connection
- Swivel joint rotatable 360°



### Adapter AD

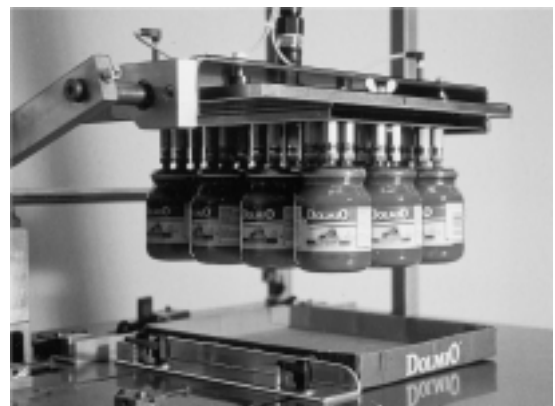
Technical data → Internet: [ad](#)

- For connection of suction cup with piston rod thread, for example



## Vacuum technology can be used in a wide range of applications

- Lifting
- Placing
- Moving
- Insertion
- Conveying
- Gripping
- Holding
- Loading
- Clamping
- Transporting
- Repositioning
- Turning




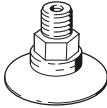
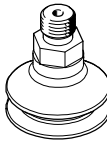
Flexible automation technology is an important field of application for vacuum technology:

- Small, mid-sized and large series manufacturing
- Assembly
- Conveyor and packaging technology



# Suction cups VAS/VASB

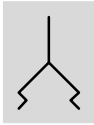
Product range overview



| Design                           | Version   | Type                            | Suction cup diameter                      | Type of mounting         | Vacuum port              | Suction cup materials | → Page/<br>Internet |
|----------------------------------|---|---------------------------------|---|--------------------------|--------------------------|-----------------------|---------------------|
| Round, flat                      | <b>Vacuum port on side</b>  |                                 |   |                          |                          |                       |                     |
|                                  |  | VAS                             | 8   | M5                       | PK-3                     | TPE-U(PU)             | 6                   |
|                                  | <b>Vacuum port on top</b>   |                                 |   |                          |                          |                       |                     |
|                                  |  | VAS                             | 2, 5, 8, 10, 15, 30, 40, 55, 75, 100, 125 | M3, M5, G1/8, G1/4, G3/8 | M3, M5, G1/8, G1/4, G3/8 | NBR                   | 8                   |
|                                  |   |                                 | 8, 10, 15, 30, 40, 55, 75, 100, 125       | M5, G1/8, G1/4, G3/8     | M5, G1/8, G1/4, G3/8     | VMQ (silicone)        | 12                  |
|                                  |   |                                 | 8, 10, 15, 30, 40, 55, 75, 100, 125       | M5, G1/8, G1/4, G3/8     | M5, G1/8, G1/4, G3/8     | PUR                   | 12                  |
| Round, bellows, 1.5 convolutions | <b>Vacuum port on top</b>   |                                 |   |                          |                          |                       |                     |
|                                  |  | VASB                            | 8, 15, 30, 40, 55, 75, 100, 125           | M5, G1/8, G1/4, G3/8     | M5, G1/8, G1/4, G3/8     | NBR                   | 16                  |
|                                  |   |                                 | 8, 15, 30, 40, 55, 75, 100, 125           | M5, G1/8, G1/4, G3/8     | M5, G1/8, G1/4, G3/8     | VMQ (silicone)        | 20                  |
|                                  |   | 8, 15, 30, 40, 55, 75, 100, 125 | M5, G1/8, G1/4, G3/8                      | M5, G1/8, G1/4, G3/8     | PUR                      | 20                    |                     |

# Suction cups VAS-...-S-PUR-B, vacuum port on side

Technical data

Function



-  - Diameter  
8 mm
-  - Temperature range  
-20 ... +60 °C



| General technical data                               |                    |             |
|--|--------------------|-------------|
| Suction cup diameter                                 | [mm]               | 8           |
| Vacuum connection                                    |                    | PK-3        |
| Connection position                                  |                    | On side     |
| Nominal size   | [mm]               | 2           |
| Design   |                    | Round, flat |
| Type of mounting                                     |                    | M5          |
| Mounting position                                    |                    | Any         |
| Nominal operating pressure                           | [bar]              | -0.7        |
| Holding force at nominal operating pressure -0.7 bar | [N]                | 2.8         |
| Effective suction cup diameter                       | [mm]               | 7.1         |
| Suction cup volume                                   | [cm <sup>3</sup> ] | 0.095       |

| Operating and environmental conditions       |       |  |
|--|-------|--|
| Operating pressure                           | [bar] | -0.95 ... 0                                      |
| Operating medium                             |       | Atmospheric air based on ISO 8573-1:2010 [7:-:-] |
| Ambient temperature                          | [°C]  | -20 ... +60                                      |
| Corrosion resistance class CRC <sup>1)</sup> |       | 2  |

1) CRC2: Corrosion resistance class to Festo standard 940 070  
Components with medium corrosion exposure. Externally visible components with significant decorative function in direct contact with normal industrial atmosphere or media such as coolants and lubricants.

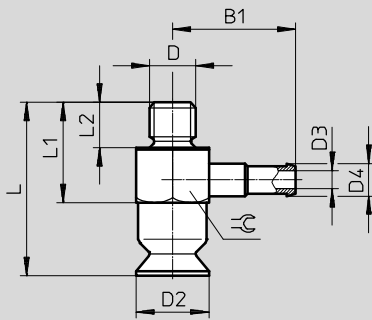
| Materials         |                           |
|-------------------|---------------------------|
| Shore hardness    | 60 ±5                     |
| Suction cup       | TPE-U(PU)<br>Colour: blue |
| Threaded plug     | Brass                     |
| Note on materials | RoHS-compliant            |

# Suction cups VAS-...-S-PUR-B, vacuum port on side

Technical data

**Dimensions**

Download CAD data → [www.festo.com](http://www.festo.com)



| Type              | B1   | D  | D2 | D3 | D4  | L  | L1   | L2 | ☉ |
|-------------------|------|----|----|----|-----|----|------|----|---|
| VAS-8-...-S-PUR-B | 13.5 | M5 | 8  | 2  | 3.6 | 19 | 11.5 | 5  | 8 |

**Ordering data**

| Suction cup diameter [mm] | Vacuum port | Weight [g] | Part No. | Type             |
|---------------------------|-------------|------------|----------|------------------|
| 8                         | PK-3        | 4          | 8025969  | VAS-8-M5-S-PUR-B |

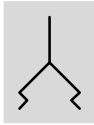






# Suction cups VAS-...-NBR

Technical data

Function



-  Diameter  
2 ... 125 mm
-  Temperature range  
-20 ... +80 °C



| General technical data                                   |                       |      |       |      |                 |                 |                 |                 |                 |                 |                 |                 |
|--|-----------------------|------|-------|------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Suction cup diameter [mm]                                | 2                     | 5    | 8     | 10   | 15              | 30              | 40              | 55              | 75              | 100             | 125             |                 |
| Vacuum connection  | M3                    | M5   | M5    | M5   | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{4}$ | G $\frac{1}{4}$ | G $\frac{1}{4}$ | G $\frac{1}{4}$ | G $\frac{1}{4}$ | G $\frac{3}{8}$ |
| Connection position                                      | On top                |      |       |      |                 |                 |                 |                 |                 |                 |                 |                 |
| Nominal size [mm]  | 1                     | 1.5  | 2     | 2    | 3               | 3               | 4               | 4               | 4               | 4               | 4               | 7               |
| Design   | Round, flat           |      |       |      |                 |                 |                 |                 |                 |                 |                 |                 |
| Type of mounting   | Via vacuum connection |      |       |      |                 |                 |                 |                 |                 |                 |                 |                 |
| Mounting position  | Any                   |      |       |      |                 |                 |                 |                 |                 |                 |                 |                 |
| Nominal operating pressure [bar]                         | -0.7                  |      |       |      |                 |                 |                 |                 |                 |                 |                 |                 |
| Holding force at nominal operating pressure -0.7 bar [N] | 0.14                  | 0.9  | 1.6   | 4.5  | 7.9             | 34              | 56              | 106             | 197             | 397             | 606             |                 |
| Effective suction cup diameter [mm]                      | 1.6                   | 4    | 5.5   | 8    | 12              | 25              | 32              | 44              | 60              | 85              | 105             |                 |
| Suction cup volume [cm <sup>3</sup> ]                    | 0.03                  | 0.03 | 0.095 | 0.12 | 0.328           | 1.29            | 3.47            | 8.01            | 18.3            | 33.5            | 79.1            |                 |
| Height compensation [mm]                                 | 0.5                   | 0.5  | 0.9   | 1.1  | 1.2             | 1.9             | 3               | 3.5             | 3.5             | 3.5             | 6               |                 |

| Operating and environmental conditions       |  |
|--|--|
| Type   | VAS-...-NBR                                      |
| Operating pressure [bar]                     | -0.95 ... 0                                      |
| Operating medium                             | Atmospheric air based on ISO 8573-1:2010 [7:-:-] |
| Ambient temperature [°C]                     | -20 ... +80                                      |
| Corrosion resistance class CRC <sup>1)</sup> | 2  |

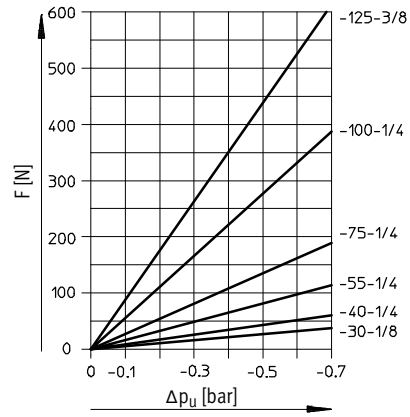
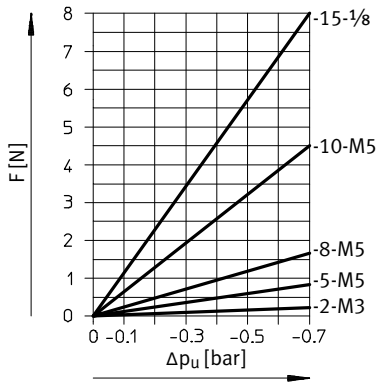
1) CRC2: Corrosion resistance class to Festo standard 940 070  
Components with medium corrosion exposure. Externally visible components with significant decorative function in direct contact with normal industrial atmosphere or media such as coolants and lubricants.

| Materials         |  |
|-------------------|--|
| Type              | VAS-...-NBR  |
| Shore hardness    | 55 ±5 (suction cup diameter 2 ... 5 mm)                    |
|                   | 60 ±5 (suction cup diameter 8 ... 15 mm)                   |
|                   | 70 ±5 (suction cup diameter 30 ... 125 mm)                 |
| Suction cup       | NBR<br>Colour: black                                       |
| Threaded plug     | High-alloy steel (suction cup diameter 2 mm)               |
|                   | Wrought aluminium alloy (suction cup diameter 5 and 10 mm) |
|                   | Brass (suction cup diameter 8, 15 and 30 mm)               |
|                   | Die-cast zinc (suction cup diameter 40 ... 125 mm)         |
| Note on materials | RoHS-compliant   |

# Suction cups VAS-...-NBR

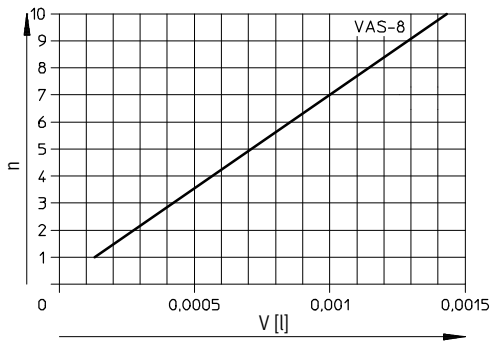
Technical data

## Theoretical suction force F as a function of vacuum $p_u$

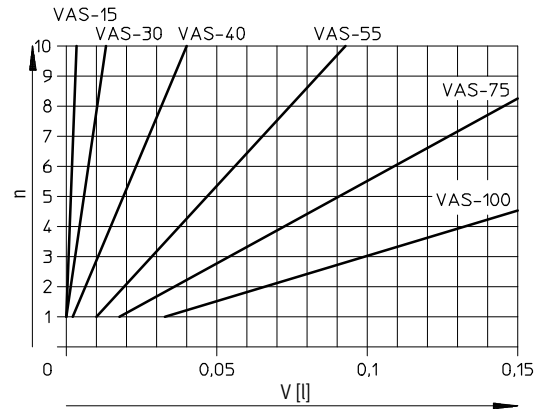


## Suction cup volume

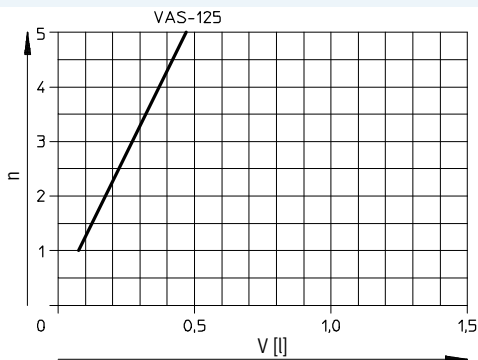
VAS-8



VAS-15 ... 100



VAS-125



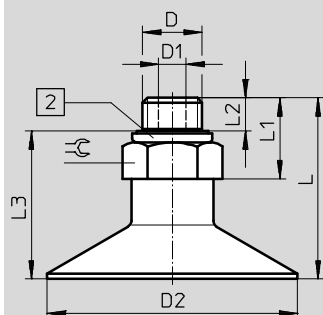
# Suction cups VAS-...-NBR

Technical data

## Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

VAS-...-NBR



2 VAS-5/10:  
Sealing ring OK  
VAS-8/15 ... 125:  
Sealing ring OL

| Type                        | Connection<br>D | D1<br>∅ | D2<br>∅ | L    | L1   | L2   | L3    | ≈   |
|-----------------------------|-----------------|---------|---------|------|------|------|-------|-----|
| VAS-2-...-NBR <sup>1)</sup> | M3              | 1       | 2       | 9.4  | 5.8  | 4    | 5.8   | 4.5 |
| VAS-5-...-NBR               | M5              | 1.5     | 5       | 16.5 | 10   | 4.5  | 12    | 8   |
| VAS-8-...-NBR               | M5              | 2       | 8       | 19   | 11.3 | 2.85 | 16.15 | 8   |
| VAS-10-...-NBR              | M5              | 2       | 10      | 19.2 | 11.5 | 4.5  | 14.7  | 8   |
| VAS-15-...-NBR              | G1/8            | 3       | 15      | 20.2 | 12   | 4.7  | 15.5  | 13  |
| VAS-30-...-NBR              | G1/8            | 3       | 30      | 21.5 | 12   | 4.7  | 16.8  | 13  |
| VAS-40-...-NBR              | G1/4            | 4       | 40      | 30.9 | 17.4 | 5.8  | 25.1  | 17  |
| VAS-55-...-NBR              | G1/4            | 4       | 55      | 33.9 | 17.4 | 5.8  | 28.1  | 17  |
| VAS-75-...-NBR              | G1/4            | 4       | 75      | 28   | 17   | 5.8  | 22.2  | 17  |
| VAS-100-...-NBR             | G1/4            | 4       | 100     | 28   | 17   | 5.8  | 22.2  | 17  |
| VAS-125-...-NBR             | G3/8            | 7       | 125     | 36   | 20   | 6.05 | 29.95 | 19  |

1) Sealing ring is not included in the scope of delivery.

## Ordering data

| Suction cup<br>diameter<br>[mm] | Vacuum port | Weight<br>[g] | Part No. | Type            |
|---------------------------------|-------------|---------------|----------|-----------------|
| 2                               | M3          | 1             | 173438   | VAS-2-M3-NBR    |
| 5                               | M5          | 2             | 173439   | VAS-5-M5-NBR    |
| 8                               | M5          | 4             | 34588    | VAS-8-M5-NBR    |
| 10                              | M5          | 3             | 173440   | VAS-10-M5-NBR   |
| 15                              | G1/8        | 11            | 36142    | VAS-15-1/8-NBR  |
| 30                              | G1/8        | 13            | 34587    | VAS-30-1/8-NBR  |
| 40                              | G1/4        | 26            | 36143    | VAS-40-1/4-NBR  |
| 55                              | G1/4        | 32            | 36144    | VAS-55-1/4-NBR  |
| 75                              | G1/4        | 76            | 36145    | VAS-75-1/4-NBR  |
| 100                             | G1/4        | 138           | 34586    | VAS-100-1/4-NBR |
| 125                             | G3/8        | 152           | 152605   | VAS-125-3/8-NBR |

# Suction cups VAS-...-SI-B/PUR-B

Type codes

FESTO

VAS – 30 – 1/8 – PUR – B


| Type |             |
|------|-------------|
| VAS  | Suction cup |

| Suction cup diameter [mm] |     |
|---------------------------|-----|
| 8                         | 8   |
| 10                        | 10  |
| 15                        | 15  |
| 30                        | 30  |
| 40                        | 40  |
| 55                        | 55  |
| 75                        | 75  |
| 100                       | 100 |
| 125                       | 125 |

| Vacuum port |             |
|-------------|-------------|
| M5          | Thread M5   |
| 1/8         | Thread G1/8 |
| 1/4         | Thread G1/4 |
| 3/8         | Thread G3/8 |

| Materials |                |
|-----------|----------------|
| SI        | VMQ (silicone) |
| PUR       | Polyurethane   |

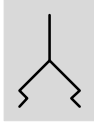
| Generation |          |
|------------|----------|
| B          | B series |



 - Note  
Possible combinations can be found in the ordering data.

# Suction cups VAS-...-SI-B/PUR-B

Technical data

Function



-  Diameter  
8 ... 125 mm
-  Temperature range  
-40 ... +200 °C



| General technical data                               |                    |                       |                   |       |                   |                   |      |                     |                     |                     |
|--|--------------------|-----------------------|-------------------|-------|-------------------|-------------------|------|---------------------|---------------------|---------------------|
| Suction cup diameter                                 | [mm]               | 8                     | 10                | 15    | 30                | 40                | 55   | 75                  | 100                 | 125                 |
| Vacuum connection                                    |                    | M5                    | M5                | G1/8  | G1/8              | G1/4              | G1/4 | G1/4                | G1/4                | G3/8                |
| Connection position                                  |                    | On top                |                   |       |                   |                   |      |                     |                     |                     |
| Nominal size   | [mm]               | 2                     | 2                 | 3     | 3                 | 4                 | 4    | 4                   | 4                   | 7                   |
| Design   |                    | Round, flat           |                   |       |                   |                   |      |                     |                     |                     |
| Type of mounting                                     |                    | Via vacuum connection |                   |       |                   |                   |      |                     |                     |                     |
| Mounting position                                    |                    | Any                   |                   |       |                   |                   |      |                     |                     |                     |
| Nominal operating pressure                           | [bar]              | -0.7                  |                   |       |                   |                   |      |                     |                     |                     |
| Holding force at nominal operating pressure -0.7 bar | [N]                | SI: 2.6<br>PUR: 2.8   | SI: 3.7<br>PUR: 4 | 8.5   | SI: 31<br>PUR: 34 | SI: 58<br>PUR: 60 | 110  | SI: 245<br>PUR: 250 | SI: 464<br>PUR: 450 | SI: 700<br>PUR: 570 |
| Suction cup volume                                   | [cm <sup>3</sup> ] | 0.095                 | 0.12              | 0.328 | 1.29              | 3.47              | 8.01 | 18.3                | 33.5                | 79.1                |
| Height compensation                                  | [mm]               | 0.9                   | 1.1               | 1.2   | 1.9               | 3                 | 3.5  | 3.5                 | 3.5                 | 6                   |

| Operating and environmental conditions       |              |  |
|--|--------------|--|
| Type   | VAS-...-SI-B | VAS-...-PUR-B                                    |
| Operating pressure                           | [bar]        | -0.95 ... 0                                      |
| Operating medium                             |              | Atmospheric air based on ISO 8573-1:2010 [7:-:-] |
| Ambient temperature                          | [°C]         | -40 ... +200                                     |
| Corrosion resistance class CRC <sup>1)</sup> |              | 2  |
| Suitability for use in the food industry     |              | As per manufacturer's declaration                |

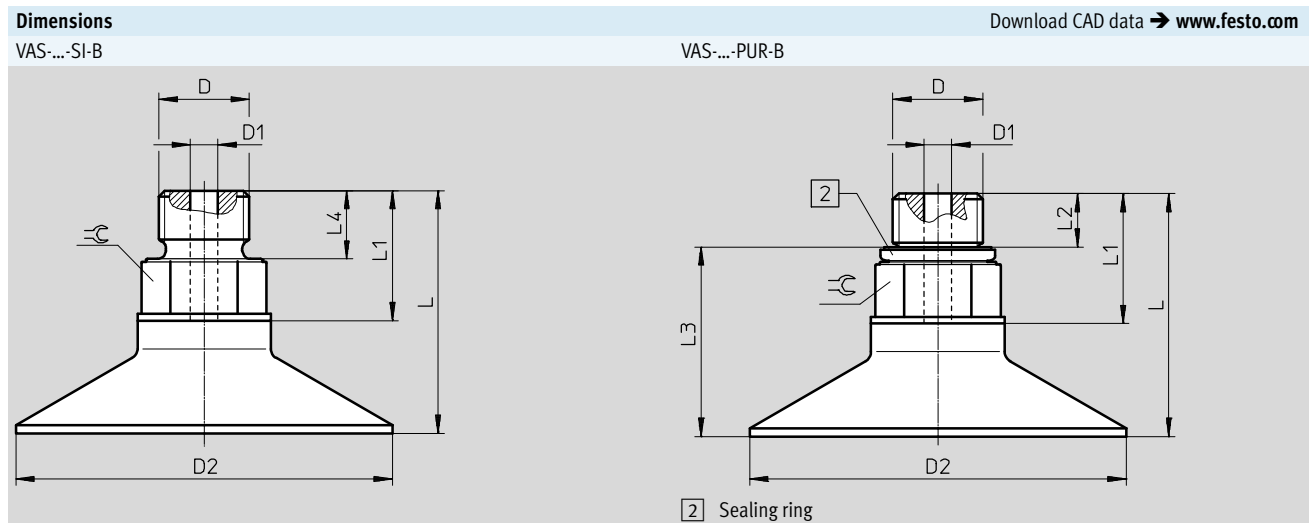
1) CRC2: Corrosion resistance class to Festo standard 940 070  
Components with medium corrosion exposure. Externally visible components with significant decorative function in direct contact with normal industrial atmosphere or media such as coolants and lubricants.

| Materials         |   |  |
|-------------------|---|--|
| Type              | VAS-...-SI-B  | VAS-...-PUR-B  |
| Shore hardness    |   | 60 ±5  |
| Suction cup       | VMQ (silicone)<br>Colour: transparent                                 | PUR<br>Colour: blue  |
| Threaded plug     | Wrought aluminium alloy   | Brass (suction cup diameter 8 ... 30 mm)<br>Die-cast zinc (suction cup diameter 40 ... 125 mm) |
| Note on materials | RoHS-compliant<br>Contains PWIS (paint wetting impairment substances) | -  |

# Suction cups VAS-...-SI-B/PUR-B

Technical data

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| Type              | Connection<br>D | D1<br>Ø | D2<br>Ø | L    | L1   | L2   | L3    | L4  | ⌀  |
|-------------------|-----------------|---------|---------|------|------|------|-------|-----|----|
| VAS-8-...-SI-B    | M5              | 2       | 8       | 19.2 | 11.5 | -    | -     | 4.3 | 8  |
| VAS-10-...-SI-B   | M5              | 2       | 10      | 19.2 | 11.5 | -    | -     | 4.3 | 8  |
| VAS-15-...-SI-B   | G1/8            | 3       | 15      | 20   | 12   | -    | -     | 6.5 | 13 |
| VAS-30-...-SI-B   | G1/8            | 3       | 30      | 21.5 | 12   | -    | -     | 6.5 | 13 |
| VAS-40-...-SI-B   | G1/4            | 4       | 40      | 30.5 | 17   | -    | -     | 8   | 17 |
| VAS-55-...-SI-B   | G1/4            | 4       | 55      | 33.5 | 17   | -    | -     | 8   | 17 |
| VAS-75-...-SI-B   | G1/4            | 4       | 75      | 28.2 | 17   | -    | -     | 8   | 17 |
| VAS-100-...-SI-B  | G1/4            | 4       | 100     | 28   | 17   | -    | -     | 8   | 17 |
| VAS-125-...-SI-B  | G3/8            | 7       | 125     | 36   | 20   | -    | -     | 12  | 19 |
| VAS-8-...-PUR-B   | M5              | 2       | 8       | 19   | 11.3 | 2.85 | 16.15 | -   | 8  |
| VAS-10-...-PUR-B  | M5              | 2       | 10      | 19.2 | 11.5 | 2.85 | 16.35 | -   | 8  |
| VAS-15-...-PUR-B  | G1/8            | 3       | 15      | 20   | 12   | 4.7  | 15.3  | -   | 13 |
| VAS-30-...-PUR-B  | G1/8            | 3       | 30      | 21.5 | 12   | 4.7  | 16.8  | -   | 13 |
| VAS-40-...-PUR-B  | G1/4            | 4       | 40      | 29.5 | 17   | 5.8  | 23.7  | -   | 17 |
| VAS-55-...-PUR-B  | G1/4            | 4       | 55      | 32.5 | 17   | 5.8  | 26.7  | -   | 17 |
| VAS-75-...-PUR-B  | G1/4            | 4       | 75      | 28   | 17   | 5.8  | 22.2  | -   | 17 |
| VAS-100-...-PUR-B | G1/4            | 4       | 100     | 28   | 17   | 5.8  | 22.2  | -   | 17 |
| VAS-125-...-PUR-B | G3/8            | 7       | 125     | 36   | 20   | 6.45 | 29.55 | -   | 19 |

# Suction cups VAS-...-SI-B/PUR-B

Technical data

| Ordering data             |                 |            |          |                               |
|---------------------------|-----------------|------------|----------|-------------------------------|
| Suction cup diameter [mm] | Vacuum port     | Weight [g] | Part No. | Type                          |
| VMQ (silicone)            |                 |            |          |                               |
| 8                         | M5              | 2          | 1377781  | VAS-8-M5-SI-B                 |
| 10                        | M5              | 2          | 1385610  | VAS-10-M5-SI-B                |
| 15                        | G $\frac{1}{8}$ | 4          | 1376604  | VAS-15- $\frac{1}{8}$ -SI-B   |
| 30                        | G $\frac{1}{8}$ | 5          | 1377752  | VAS-30- $\frac{1}{8}$ -SI-B   |
| 40                        | G $\frac{1}{4}$ | 14         | 1379454  | VAS-40- $\frac{1}{4}$ -SI-B   |
| 55                        | G $\frac{1}{4}$ | 19         | 1379348  | VAS-55- $\frac{1}{4}$ -SI-B   |
| 75                        | G $\frac{1}{4}$ | 62         | 1382165  | VAS-75- $\frac{1}{4}$ -SI-B   |
| 100                       | G $\frac{1}{4}$ | 116        | 1386376  | VAS-100- $\frac{1}{4}$ -SI-B  |
| 125                       | G $\frac{3}{8}$ | 214        | 1415120  | VAS-125- $\frac{3}{8}$ -SI-B  |
| Polyurethane              |                 |            |          |                               |
| 8                         | M5              | 4          | 1396086  | VAS-8-M5-PUR-B                |
| 10                        | M5              | 4          | 1469698  | VAS-10-M5-PUR-B               |
| 15                        | G $\frac{1}{8}$ | 11         | 1396087  | VAS-15- $\frac{1}{8}$ -PUR-B  |
| 30                        | G $\frac{1}{8}$ | 12         | 1396090  | VAS-30- $\frac{1}{8}$ -PUR-B  |
| 40                        | G $\frac{1}{4}$ | 26         | 1396092  | VAS-40- $\frac{1}{4}$ -PUR-B  |
| 55                        | G $\frac{1}{4}$ | 30         | 1396095  | VAS-55- $\frac{1}{4}$ -PUR-B  |
| 75                        | G $\frac{1}{4}$ | 77         | 1396096  | VAS-75- $\frac{1}{4}$ -PUR-B  |
| 100                       | G $\frac{1}{4}$ | 140        | 1396098  | VAS-100- $\frac{1}{4}$ -PUR-B |
| 125                       | G $\frac{3}{8}$ | 249        | 1396108  | VAS-125- $\frac{3}{8}$ -PUR-B |

# Suction cups VASB-...-NBR, bellows

Type codes




VASB – 30 – 1/8 – NBR

| Type |             |
|------|-------------|
| VASB | Suction cup |

| Suction cup diameter [mm] |     |
|---------------------------|-----|
| 8                         | 8   |
| 15                        | 15  |
| 30                        | 30  |
| 40                        | 40  |
| 55                        | 55  |
| 75                        | 75  |
| 100                       | 100 |
| 125                       | 125 |

| Vacuum port |             |
|-------------|-------------|
| M5          | Thread M5   |
| 1/8         | Thread G1/8 |
| 1/4         | Thread G1/4 |
| 3/8         | Thread G3/8 |

| Materials |                |
|-----------|----------------|
| NBR       | Nitrile rubber |

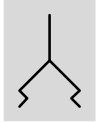
-  - Note  
Possible combinations can be found in the ordering data.





# Suction cups VASB-...-NBR, bellows

Technical data

Function



-  Diameter  
8 ... 125 mm
-  Temperature range  
-20 ... +80 °C



| General technical data                               |                    |                                  |      |      |       |      |      |      |      |
|--|--------------------|----------------------------------|------|------|-------|------|------|------|------|
| Suction cup diameter                                 | [mm]               | 8                                | 15   | 30   | 40    | 55   | 75   | 100  | 125  |
| Vacuum connection                                    |                    | M5                               | G1/8 | G1/8 | G1/4  | G1/4 | G1/4 | G1/4 | G3/8 |
| Connection position                                  |                    | On top                           |      |      |       |      |      |      |      |
| Nominal size   | [mm]               | 2                                | 3    | 3    | 4     | 4    | 4    | 4    | 7    |
| Design   |                    | Round, bellows, 1.5 convolutions |      |      |       |      |      |      |      |
| Type of mounting                                     |                    | Via vacuum connection            |      |      |       |      |      |      |      |
| Mounting position                                    |                    | Any                              |      |      |       |      |      |      |      |
| Nominal operating pressure                           | [bar]              | -0.7                             |      |      |       |      |      |      |      |
| Holding force at nominal operating pressure -0.7 bar | [N]                | 1.6                              | 7.9  | 34   | 56    | 106  | 197  | 397  | 606  |
| Effective suction cup diameter                       | [mm]               | 5.5                              | 12   | 25   | 32    | 44   | 60   | 85   | 105  |
| Suction cup volume                                   | [cm <sup>3</sup> ] | 0.163                            | 0.83 | 6.18 | 11.11 | 30.4 | 65.5 | 128  | 307  |
| Height compensation                                  | [mm]               | 3.3                              | 5.6  | 13.9 | 13.7  | 20   | 15.5 | 15.5 | 25   |

| Operating and environmental conditions       |  |
|--|--|
| Type   | VASB-...-NBR                                     |
| Operating pressure                           | [bar] -0.95 ... 0                                |
| Operating medium                             | Atmospheric air based on ISO 8573-1:2010 [7:-:-] |
| Ambient temperature                          | [°C] -20 ... +80                                 |
| Corrosion resistance class CRC <sup>1)</sup> | 2  |

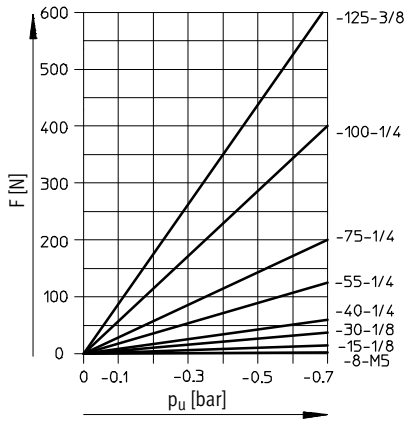
1) CRC2: Corrosion resistance class to Festo standard 940 070  
Components with medium corrosion exposure. Externally visible components with significant decorative function in direct contact with normal industrial atmosphere or media such as coolants and lubricants.

| Materials         |  |
|-------------------|--|
| Type              | VASB-...-NBR   |
| Shore hardness    | 60 ±5  |
| Suction cup       | NBR<br>Colour: black   |
| Threaded plug     | Brass (suction cup diameter 8 ... 30 mm)<br>Die-cast zinc (suction cup diameter 40 ... 125 mm) |
| Note on materials | RoHS-compliant   |

# Suction cups VASB-...-NBR, bellows

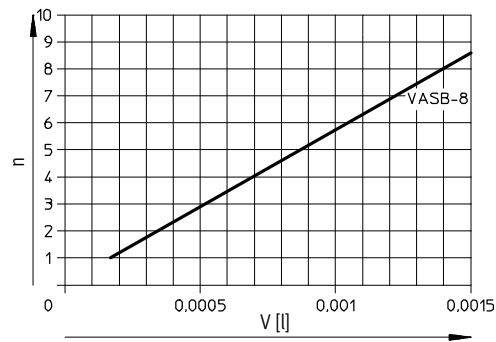
Technical data

## Theoretical suction force F as a function of vacuum $p_u$

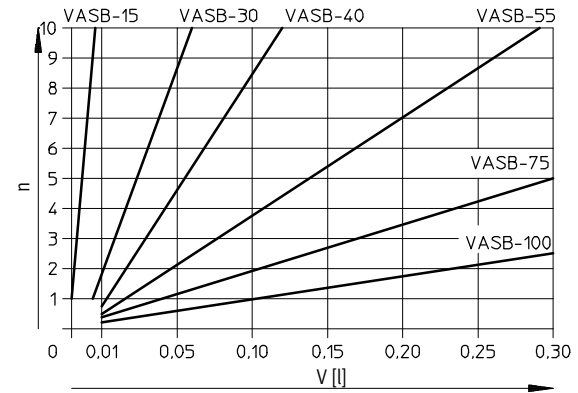


## Suction cup volume

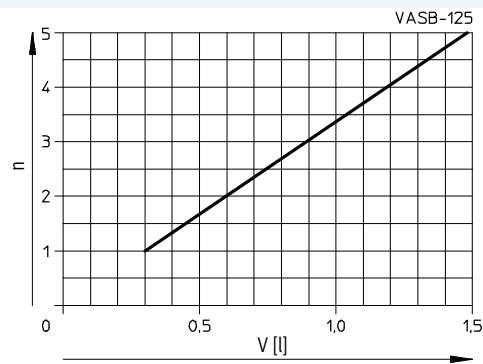
VASB-8



VASB-15 ... 100



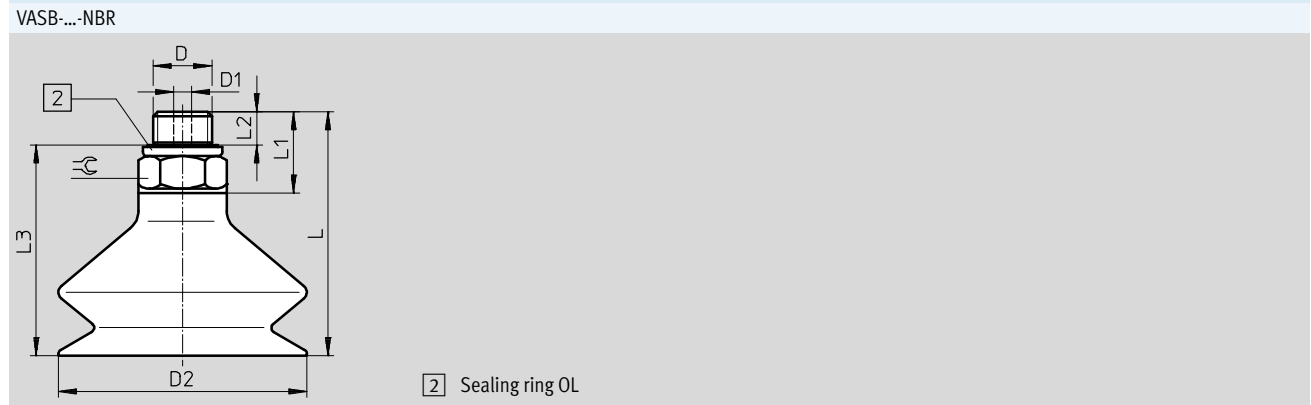
VASB-125



# Suction cups VASB-...-NBR, bellows

Technical data

Dimensions Download CAD data → [www.festo.com](http://www.festo.com)



| Type             | Connection<br>D | D1<br>∅ | D2<br>∅ | L    | L1   | L2   | L3    | ⌀  |
|------------------|-----------------|---------|---------|------|------|------|-------|----|
| VASB-8-...-NBR   | M5              | 2       | 8       | 22.5 | 11.3 | 2.85 | 19.65 | 8  |
| VASB-15-...-NBR  | G1/8            | 3       | 15      | 25.2 | 12   | 4.7  | 20.5  | 13 |
| VASB-30-...-NBR  | G1/8            | 3       | 30      | 34.3 | 12   | 4.7  | 29.6  | 13 |
| VASB-40-...-NBR  | G1/4            | 4       | 40      | 43.4 | 17.4 | 5.8  | 37.6  | 17 |
| VASB-55-...-NBR  | G1/4            | 4       | 55      | 52.4 | 17.4 | 5.8  | 46.6  | 17 |
| VASB-75-...-NBR  | G1/4            | 4       | 75      | 43.5 | 17   | 5.8  | 37.7  | 17 |
| VASB-100-...-NBR | G1/4            | 4       | 100     | 44   | 17   | 5.8  | 38.2  | 17 |
| VASB-125-...-NBR | G3/8            | 7       | 125     | 60   | 20   | 6    | 54    | 19 |

**Ordering data**

| Suction cup<br>diameter<br>[mm] | Vacuum port | Weight<br>[g] | Part No. | Type             |
|---------------------------------|-------------|---------------|----------|------------------|
| 8                               | M5          | 4             | 35410    | VASB-8-M5-NBR    |
| 15                              | G1/8        | 11            | 35411    | VASB-15-1/8-NBR  |
| 30                              | G1/8        | 15            | 35412    | VASB-30-1/8-NBR  |
| 40                              | G1/4        | 30            | 35413    | VASB-40-1/4-NBR  |
| 55                              | G1/4        | 42            | 35414    | VASB-55-1/4-NBR  |
| 75                              | G1/4        | 95            | 35415    | VASB-75-1/4-NBR  |
| 100                             | G1/4        | 170           | 35416    | VASB-100-1/4-NBR |
| 125                             | G3/8        | 207           | 152609   | VASB-125-3/8-NBR |

# Suction cups VASB-...-SI-B/PUR-B, bellows

Type codes

FESTO

VASB – 30 – 1/8 – PUR – B


| Type |             |
|------|-------------|
| VASB | Suction cup |

| Suction cup diameter [mm] |     |
|---------------------------|-----|
| 8                         | 8   |
| 15                        | 15  |
| 30                        | 30  |
| 40                        | 40  |
| 55                        | 55  |
| 75                        | 75  |
| 100                       | 100 |
| 125                       | 125 |

| Vacuum port |             |
|-------------|-------------|
| M5          | Thread M5   |
| 1/8         | Thread G1/8 |
| 1/4         | Thread G1/4 |
| 3/8         | Thread G3/8 |

| Materials |                |
|-----------|----------------|
| SI        | VMQ (silicone) |
| PUR       | Polyurethane   |

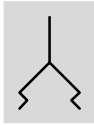
| Generation |          |
|------------|----------|
| B          | B series |



-  - Note  
Possible combinations can be found in the ordering data.

# Suction cups VASB-...-SI-B/PUR-B, bellows

Technical data

Function



-  Diameter  
8 ... 125 mm
-  Temperature range  
-40 ... +200 °C



| General technical data                               |                    |                                  |                 |                   |                   |                 |                     |                     |                     |
|--|--------------------|----------------------------------|-----------------|-------------------|-------------------|-----------------|---------------------|---------------------|---------------------|
| Suction cup diameter                                 | [mm]               | 8                                | 15              | 30                | 40                | 55              | 75                  | 100                 | 125                 |
| Vacuum connection                                    |                    | M5                               | G $\frac{1}{8}$ | G $\frac{1}{8}$   | G $\frac{1}{4}$   | G $\frac{1}{4}$ | G $\frac{1}{4}$     | G $\frac{1}{4}$     | G $\frac{3}{8}$     |
| Connection position                                  |                    | On top                           |                 |                   |                   |                 |                     |                     |                     |
| Nominal size   | [mm]               | 2                                | 3               | 3                 | 4                 | 4               | 4                   | 4                   | 7                   |
| Design   |                    | Round, bellows, 1.5 convolutions |                 |                   |                   |                 |                     |                     |                     |
| Type of mounting                                     |                    | Via vacuum connection            |                 |                   |                   |                 |                     |                     |                     |
| Mounting position                                    |                    | Any                              |                 |                   |                   |                 |                     |                     |                     |
| Nominal operating pressure                           | [bar]              | -0.7                             |                 |                   |                   |                 |                     |                     |                     |
| Holding force at nominal operating pressure -0.7 bar | [N]                | SI: 2.6<br>PUR: 2.8              | 8.5             | SI: 25<br>PUR: 34 | SI: 58<br>PUR: 60 | 110             | SI: 228<br>PUR: 250 | SI: 395<br>PUR: 450 | SI: 610<br>PUR: 570 |
| Suction cup volume                                   | [cm <sup>3</sup> ] | 0.163                            | 0.83            | 6.18              | 11.11             | 30.4            | 65.5                | 128                 | 307                 |
| Height compensation                                  | [mm]               | 3.3                              | 5.6             | 13.9              | 13.7              | 20              | 15.5                | 15.5                | 25                  |

| Operating and environmental conditions       |               |  |
|--|---------------|--|
| Type   | VASB-...-SI-B | VASB-...-PUR-B                                   |
| Operating pressure                           | [bar]         | -0.95 ... 0                                      |
| Operating medium                             |               | Atmospheric air based on ISO 8573-1:2010 [7:-:-] |
| Ambient temperature                          | [°C]          | -40 ... +200                                     |
| Corrosion resistance class CRC <sup>1)</sup> |               | 2  |
| Suitability for use in the food industry     |               | As per manufacturer's declaration                |

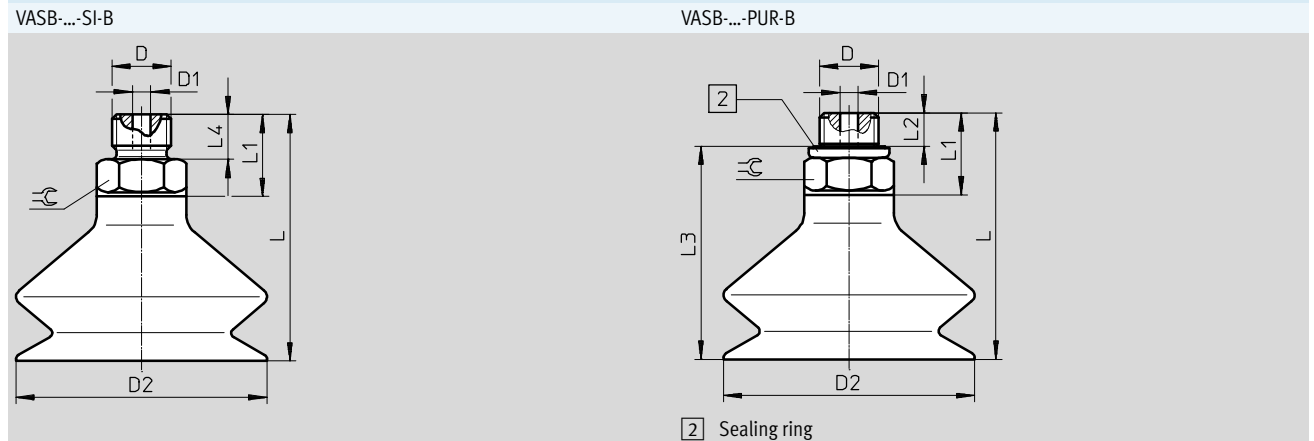
1) CRC2: Corrosion resistance class to Festo standard 940 070  
Components with medium corrosion exposure. Externally visible components with significant decorative function in direct contact with normal industrial atmosphere or media such as coolants and lubricants.

| Materials         |   |  |
|-------------------|---|--|
| Type              | VASB-...-SI-B   | VASB-...-PUR-B   |
| Shore hardness    |   | 60 ±5  |
| Suction cup       | VMQ (silicone)<br>Colour: transparent                                 | PUR<br>Colour: blue  |
| Threaded plug     | Wrought aluminium alloy   | Brass (suction cup diameter 8 ... 30 mm)<br>Die-cast zinc (suction cup diameter 40 ... 125 mm) |
| Note on materials | RoHS-compliant<br>Contains PWIS (paint wetting impairment substances) | -  |

# Suction cups VASB-...-SI-B/PUR-B, bellows

Technical data

Dimensions Download CAD data → [www.festo.com](http://www.festo.com)



| Type               | Connection<br>D | D1<br>Ø | D2<br>Ø | L    | L1   | L2   | L3    | L4  | ⌀  |
|--------------------|-----------------|---------|---------|------|------|------|-------|-----|----|
| VASB-8-...-SI-B    | M5              | 2       | 8       | 22.5 | 11.5 | -    | -     | 4.3 | 8  |
| VASB-15-...-SI-B   | G1/8            | 3       | 15      | 25.5 | 12   | -    | -     | 6.5 | 13 |
| VASB-30-...-SI-B   | G1/8            | 3       | 30      | 34   | 12   | -    | -     | 6.5 | 13 |
| VASB-40-...-SI-B   | G1/4            | 4       | 40      | 43   | 17   | -    | -     | 8   | 17 |
| VASB-55-...-SI-B   | G1/4            | 4       | 55      | 52   | 17   | -    | -     | 8   | 17 |
| VASB-75-...-SI-B   | G1/4            | 4       | 75      | 43.7 | 14.2 | -    | -     | 8   | 17 |
| VASB-100-...-SI-B  | G1/4            | 4       | 100     | 43.7 | 14.2 | -    | -     | 8   | 17 |
| VASB-125-...-SI-B  | G3/8            | 7       | 125     | 60   | 16.4 | -    | -     | 9   | 19 |
|                    |                 |         |         |      |      |      |       |     |    |
| VASB-8-...-PUR-B   | M5              | 2       | 8       | 22.5 | 11.5 | 3.55 | 18.95 | -   | 8  |
| VASB-15-...-PUR-B  | G1/8            | 3       | 15      | 25.5 | 12   | 4.7  | 20.8  | -   | 13 |
| VASB-30-...-PUR-B  | G1/8            | 3       | 30      | 34   | 12   | 4.7  | 29.3  | -   | 13 |
| VASB-40-...-PUR-B  | G1/4            | 4       | 40      | 43   | 17   | 5.8  | 37.2  | -   | 17 |
| VASB-55-...-PUR-B  | G1/4            | 4       | 55      | 52   | 17   | 5.8  | 46.2  | -   | 17 |
| VASB-75-...-PUR-B  | G1/4            | 4       | 75      | 43.5 | 17   | 5.8  | 37.7  | -   | 17 |
| VASB-100-...-PUR-B | G1/4            | 4       | 100     | 43.5 | 17   | 5.8  | 37.7  | -   | 17 |
| VASB-125-...-PUR-B | G3/8            | 7       | 125     | 60   | 20   | 6    | 54    | -   | 19 |

## Suction cups VASB-...-SI-B/PUR-B, bellows

Technical data

| Ordering data                |                 |               |          |                                |
|------------------------------|-----------------|---------------|----------|--------------------------------|
| Suction cup diameter<br>[mm] | Vacuum port     | Weight<br>[g] | Part No. | Type                           |
| VMQ (silicone)               |                 |               |          |                                |
| 8                            | M5              | 2             | 1394696  | VASB-8-M5-SI-B                 |
| 15                           | G $\frac{1}{8}$ | 4             | 1377689  | VASB-15- $\frac{1}{8}$ -SI-B   |
| 30                           | G $\frac{1}{8}$ | 7             | 1377637  | VASB-30- $\frac{1}{8}$ -SI-B   |
| 40                           | G $\frac{1}{4}$ | 18            | 1372910  | VASB-40- $\frac{1}{4}$ -SI-B   |
| 55                           | G $\frac{1}{4}$ | 29            | 1373812  | VASB-55- $\frac{1}{4}$ -SI-B   |
| 75                           | G $\frac{1}{4}$ | 78            | 1378427  | VASB-75- $\frac{1}{4}$ -SI-B   |
| 100                          | G $\frac{1}{4}$ | 132           | 1382277  | VASB-100- $\frac{1}{4}$ -SI-B  |
| 125                          | G $\frac{3}{8}$ | 247           | 1387375  | VASB-125- $\frac{3}{8}$ -SI-B  |
| Polyurethane                 |                 |               |          |                                |
| 8                            | M5              | 4             | 1395637  | VASB-8-M5-PUR-B                |
| 15                           | G $\frac{1}{8}$ | 11            | 1395671  | VASB-15- $\frac{1}{8}$ -PUR-B  |
| 30                           | G $\frac{1}{8}$ | 14            | 1395690  | VASB-30- $\frac{1}{8}$ -PUR-B  |
| 40                           | G $\frac{1}{4}$ | 30            | 1395691  | VASB-40- $\frac{1}{4}$ -PUR-B  |
| 55                           | G $\frac{1}{4}$ | 39            | 1396063  | VASB-55- $\frac{1}{4}$ -PUR-B  |
| 75                           | G $\frac{1}{4}$ | 90            | 1396064  | VASB-75- $\frac{1}{4}$ -PUR-B  |
| 100                          | G $\frac{1}{4}$ | 155           | 1396066  | VASB-100- $\frac{1}{4}$ -PUR-B |
| 125                          | G $\frac{3}{8}$ | 294           | 1396067  | VASB-125- $\frac{3}{8}$ -PUR-B |