

## Suction cups with connector VAS/VASB

**FESTO**



Festo Core Range  
Solves the majority of your automation tasks

With the Festo Core Range, we have selected the most important products and functions from our broad product catalogue, and added the quickest delivery.

The Core Range offers you the best value for your automation tasks.

Worldwide: Quickest delivery – wherever, whenever  
Simply good: Expected high Festo quality  
Fast: Easy and fast to select

Just look  
for the  
star!

### Key features

#### Product overview

Suction grippers from Festo offer outstanding functionality and quality. An extensive, modular range of suction cups with connection attachments, in different shapes, materials and sizes, as well as plus a selection of suction cup holders, angle and height compensators and vacuum filters within the modular suction gripper system, provide users with a huge choice of possible combinations for a wide variety of applications.

#### Vacuum suction grippers ESG

Datasheets → Internet: [esg](#)

Modular products with over 2000 variants



- The ideal solution for transporting workpieces with different weights, surfaces and shapes
- Choose from:
  - 15 suction cup diameters
  - 6 different materials – including anti-static ones
  - 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 food-safe

#### Suction cups with connector VAS/VASB

Sturdy and reliable



- The ideal solution for transporting workpieces with different weights, surfaces and shapes
- Choose from:
  - 11 suction cup diameters
  - 2 suction cup shapes: round and protective-bellows design with 1.5 convolutions
  - 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 food-safe
- All tubing connection sizes correspond to a holder size

## Key features

### Suction cups with fixed connecting thread

- VAS:  $\varnothing$  2 ... 125 mm  
VASB:  $\varnothing$  8 ... 125 mm
- Picking up workpieces with smooth, impermeable surfaces
- Bellows-type 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 owing to soft material

#### Silicone (SI)

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



### Accessories

#### Vacuum security valve ISV

Datasheets → Internet: [isv](#)

- Vacuum doesn't break down when multiple suction cups are arranged in parallel
- Saves compressed air and energy



#### Length compensator VAL

Datasheets → Internet: [val](#)

- Workpieces are handled gently thanks to compensation for tolerance differences in the workpiece thickness.



#### Elbow fitting LJK

Datasheets → Internet: [ljk](#)

- Rerouting the air connection
- Swivel joint can be rotated 360°



#### Adapter AD

Datasheets → Internet: [ad](#)

- For connecting suction cup and piston rod thread, for example



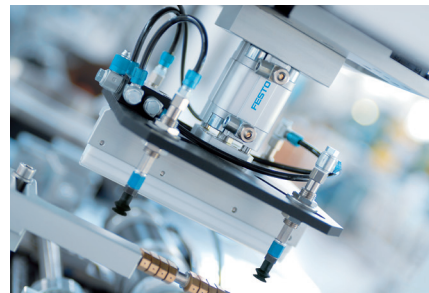
### Vacuum technology can be used in a wide range of applications

- Lifting
- Equipping
- Moving
- Inserting
- Conveying
- Gripping
- Holding
- Stacking
- Clamping
- Transporting
- Repositioning
- Turning

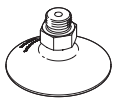
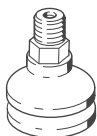


A large area of application for vacuum technology is flexible automation:

- Producing small, medium and large batches
- Mounting
- Conveyor and packaging technology



## Product range overview

| Suction cup shape                               | Version                                                                           | Type | Suction cup ∅                             | Type of mounting         | Vacuum connection        | Suction cup materials | → Page/<br>Internet |
|-------------------------------------------------|-----------------------------------------------------------------------------------|------|-------------------------------------------|--------------------------|--------------------------|-----------------------|---------------------|
| Round, flat                                     | Vacuum connection on the side                                                     |      |                                           |                          |                          |                       |                     |
|                                                 |  | VAS  | 8                                         | M5                       | PK-3                     | TPE-U(PU)             | 6                   |
|                                                 | Vacuum connection on top                                                          |      |                                           |                          |                          |                       |                     |
|                                                 |  | 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)        | 11                  |
|                                                 |                                                                                   |      | 8, 10, 15, 30, 40, 55, 75, 100, 125       | M5, G1/8, G1/4, G3/8     | M5, G1/8, G1/4, G3/8     | PUR                   | 11                  |
| Round, protective bellows with 1.5 convolutions | Vacuum connection on top                                                          |      |                                           |                          |                          |                       |                     |
|                                                 |  | VASB | 8, 15, 30, 40, 55, 75, 100, 125           | M5, G1/8, G1/4, G3/8     | M5, G1/8, G1/4, G3/8     | NBR                   | 14                  |
|                                                 |                                                                                   |      | 8, 15, 30, 40, 55, 75, 100, 125           | M5, G1/8, G1/4, G3/8     | M5, G1/8, G1/4, G3/8     | VMQ (silicone)        | 17                  |
|                                                 |                                                                                   |      | 8, 15, 30, 40, 55, 75, 100, 125           | M5, G1/8, G1/4, G3/8     | M5, G1/8, G1/4, G3/8     | PUR                   | 17                  |

## Type codes

| 001  | Series               |  |
|------|----------------------|--|
| VASB | Suction cup complete |  |
| VAS  | Suction cup complete |  |

| 002 | Suction cup size |  |
|-----|------------------|--|
| 2   | 2 mm diameter    |  |
| 5   | 5 mm diameter    |  |
| 8   | 8 mm diameter    |  |
| 10  | 10 mm diameter   |  |
| 15  | 15 mm diameter   |  |
| 30  | 30 mm diameter   |  |
| 40  | 40 mm diameter   |  |
| 55  | 55 mm diameter   |  |
| 75  | 75 mm diameter   |  |
| 100 | 100 mm diameter  |  |
| 125 | 125 mm diameter  |  |

| 003 | Vacuum connection |  |
|-----|-------------------|--|
| M3  | M3                |  |
| M5  | M5                |  |
| G18 | G1/8              |  |
| G14 | G1/4              |  |
| G38 | G3/8              |  |

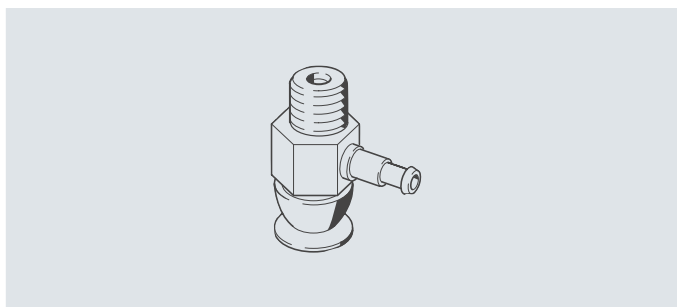
| 004 | Connection position |  |
|-----|---------------------|--|
| S   | On the side         |  |
|     | Top                 |  |

| 005 | Material       |  |
|-----|----------------|--|
| NBR | Nitrile rubber |  |
| PUR | Polyurethane   |  |
| SI  | Silicone       |  |

## Datasheet

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

**General technical data**

|                                                      |       |             |
|------------------------------------------------------|-------|-------------|
| Suction cup Ø                                        | [mm]  | 8           |
| Vacuum connection                                    |       | PK-3        |
| Connection position                                  |       | On the side |
| Nominal width                                        | [mm]  | 2           |
| Suction cup shape                                    |       | Round, flat |
| Type of mounting                                     |       | M5          |
| Mounting position                                    |       | Any         |
| Nominal operating pressure                           | [MPa] | -0.07       |
|                                                      | [bar] | -0.7        |
|                                                      | [psi] | -10.15      |
| Holding force at nominal operating pressure -0.7 bar | [N]   | 2.8         |
| Effective suction cup diameter                       | [mm]  | 7.1         |
| Suction cup volume                                   | [cm³] | 0.095       |

**Operating and environmental conditions**

|                                              |       |                                                  |
|----------------------------------------------|-------|--------------------------------------------------|
| Operating pressure                           | [MPa] | -0.095 ... 0                                     |
|                                              | [bar] | -0.95 ... 0                                      |
|                                              | [psi] | -13.775 ... 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 - Moderate corrosion stress                    |

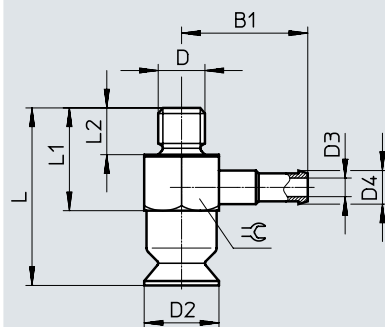
1) More information: [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

**Materials**

|                            |  |                           |
|----------------------------|--|---------------------------|
| Shore hardness             |  | 60 ±5                     |
| Suction cup with connector |  | TPE-U(PU)<br>Colour: blue |
| Screwed trunnion           |  | Brass                     |
| Note on materials          |  | RoHS-compliant            |
| LABS (PWIS) conformity     |  | VDMA24364-A1-L            |

## Datasheet

## Dimensions

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

| Type              | B1   | D  | D2<br>Ø | D3<br>Ø | D4<br>Ø | L  | L1   | L2<br>-0.1 | ☐ |
|-------------------|------|----|---------|---------|---------|----|------|------------|---|
| VAS-8-...-S-PUR-B | 13.5 | M5 | 8       | 2       | 3.6     | 19 | 11.5 | 5          | 8 |

## Ordering data

| Suction cup Ø<br>[mm] | Vacuum connection | Weight<br>[g] | Part no. | Type             |
|-----------------------|-------------------|---------------|----------|------------------|
| 8                     | PK-3              | 4             | 8025969  | VAS-8-M5-S-PUR-B |

## Datasheet

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



| General technical data                               |                    |                       |      |       |      |       |      |      |      |      |      |      |
|------------------------------------------------------|--------------------|-----------------------|------|-------|------|-------|------|------|------|------|------|------|
| Suction cup ø                                        | [mm]               | 2                     | 5    | 8     | 10   | 15    | 30   | 40   | 55   | 75   | 100  | 125  |
| Vacuum connection                                    |                    | M3                    | M5   | M5    | M5   | G1/8  | G1/8 | G1/4 | G1/4 | G1/4 | G1/4 | G3/8 |
| Connection position                                  |                    | On top                |      |       |      |       |      |      |      |      |      |      |
| Nominal width                                        | [mm]               | 1                     | 1.5  | 2     | 2    | 3     | 3    | 4    | 4    | 4    | 4    | 7    |
| Suction cup shape                                    |                    | Round, flat           |      |       |      |       |      |      |      |      |      |      |
| Type of mounting                                     |                    | Via vacuum connection |      |       |      |       |      |      |      |      |      |      |
| Mounting position                                    |                    | Any                   |      |       |      |       |      |      |      |      |      |      |
| Nominal operating pressure                           | [MPa]              | -0.07                 |      |       |      |       |      |      |      |      |      |      |
|                                                      | [bar]              | -0.7                  |      |       |      |       |      |      |      |      |      |      |
|                                                      | [psi]              | -10.15                |      |       |      |       |      |      |      |      |      |      |
| 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 |
| Suction cup height compensator                       | [mm]               | 0.5                   | 0.5  | 0.9   | 1.1  | 1.2   | 1.9  | 3    | 3.5  | 3.5  | 3.5  | 6    |

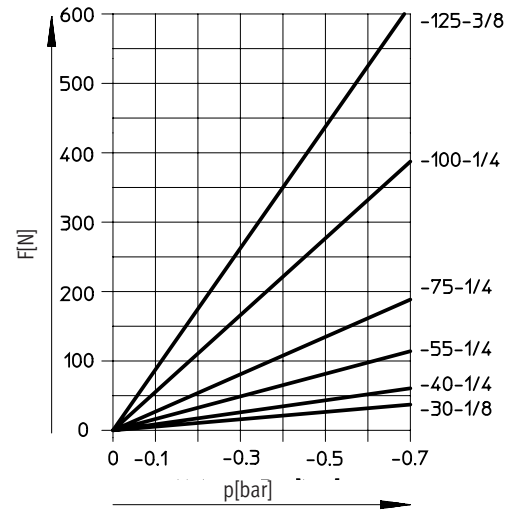
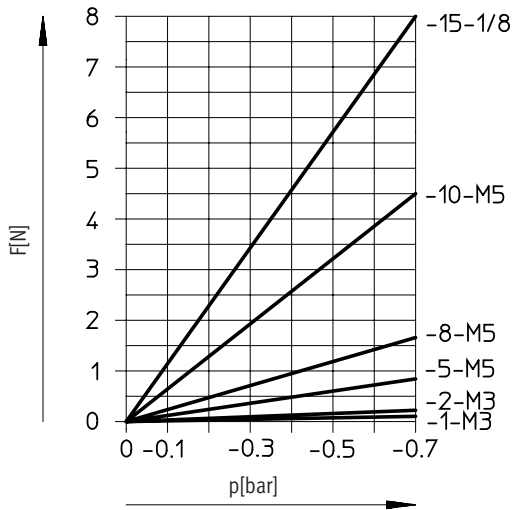
| Operating and environmental conditions       |                                                  |               |
|----------------------------------------------|--------------------------------------------------|---------------|
| Type                                         | VAS-...-NBR                                      |               |
| Operating pressure                           | [MPa]                                            | -0.095 ... 0  |
|                                              | [bar]                                            | -0.95 ... 0   |
|                                              | [psi]                                            | -13.775 ... 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 - Moderate corrosion stress                    |               |

1) More information: [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

| Materials                  |                                                     |
|----------------------------|-----------------------------------------------------|
| Type                       | VAS-...-NBR                                         |
| Shore hardness             | 55 ±5 (suction cup ø 2 ... 5 mm)                    |
|                            | 60 ±5 (suction cup ø 8 ... 15 mm)                   |
|                            | 70 ±5 (suction cup ø 30 ... 125 mm)                 |
| Suction cup with connector | NBR<br>Colour: black                                |
| Screwed trunnion           | High alloy steel (suction cup ø 2 mm)               |
|                            | Wrought aluminium alloy (suction cup ø 5 and 10 mm) |
|                            | Brass (suction cup ø 8, 15 and 30 mm)               |
|                            | Die-cast zinc (suction cup ø 40 ... 125 mm)         |
| Note on materials          | RoHS-compliant                                      |
| LABS (PWIS) conformity     | VDMA24364-A1-L                                      |

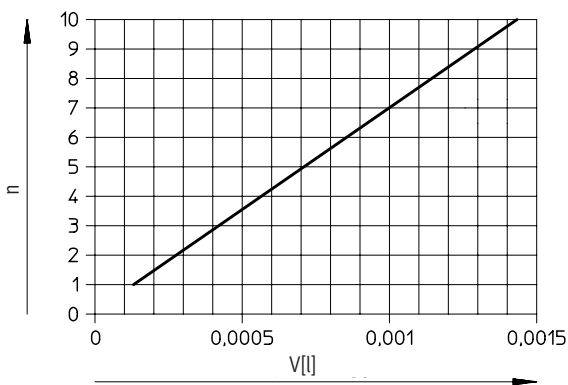


## Datasheet

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

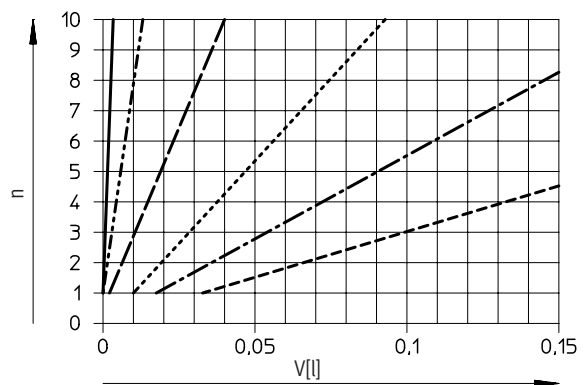
## Suction cup volume

## VAS-8



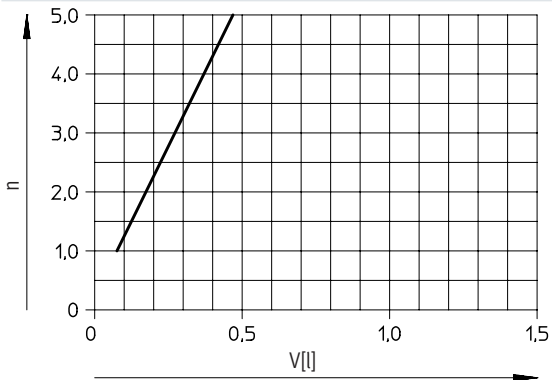
VAS-8

## VAS-15 ... 100



VAS-15  
 VAS-30  
 VAS-40  
 VAS-55  
 VAS-75  
 VAS-100

## VAS-125



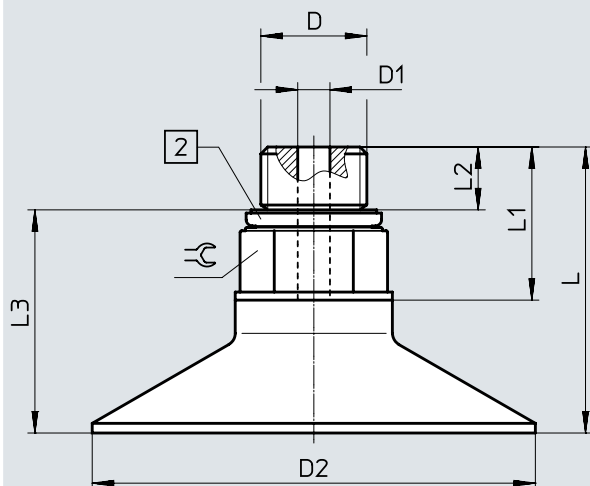
VAS-125

## Datasheet

## 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>ø | D2<br>ø | L    | L1   | L2   | L3    | ≙   |
|-----------------------------|-----------------|---------|---------|------|------|------|-------|-----|
| VAS-2-...-NBR <sup>1)</sup> | M3              | 1       | 2       | 9.4  | 5.4  | 3.3  | 6.1   | 4.5 |
| VAS-5-...-NBR               | M5              | 2       | 5       | 16.5 | 10   | 3.8  | 12.7  | 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 | 3.8  | 15.4  | 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.

## ★ Core Range

## Ordering data

| Suction cup ø<br>[mm] | Vacuum connection | Weight<br>[g] | Part no. | Type           |
|-----------------------|-------------------|---------------|----------|----------------|
| 30                    | G1/8              | 13            | ★ 34587  | VAS-30-1/8-NBR |

## Ordering data

| Suction cup ø<br>[mm] | Vacuum connection | 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  |
| 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 |

## Datasheet

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



## General technical data

| Suction cup ø                                        | [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 width                                        | [mm]               | 2                     | 2                 | 3     | 3                 | 4                 | 4    | 4                   | 4                   | 7                   |
| Suction cup shape                                    |                    | Round, flat           |                   |       |                   |                   |      |                     |                     |                     |
| Type of mounting                                     |                    | Via vacuum connection |                   |       |                   |                   |      |                     |                     |                     |
| Mounting position                                    |                    | Any                   |                   |       |                   |                   |      |                     |                     |                     |
| Nominal operating pressure                           | [MPa]              | -0.07                 |                   |       |                   |                   |      |                     |                     |                     |
|                                                      | [bar]              | -0.7                  |                   |       |                   |                   |      |                     |                     |                     |
|                                                      | [psi]              | -10.5                 |                   |       |                   |                   |      |                     |                     |                     |
| 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                |
| Suction cup height compensator                       | [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                           | [MPa] | -0.095 ... 0                                     |               |
|                                              | [bar] | -0.95 ... 0                                      |               |
|                                              | [psi] | -13.775 ... 0                                    |               |
| Operating medium                             |       | Atmospheric air based on ISO 8573-1:2010 [7:-:-] |               |
| Ambient temperature                          | [°C]  | -40 ... +200                                     | -20 ... +60   |
| Corrosion resistance class CRC <sup>1)</sup> |       | 2 - Moderate corrosion stress                    |               |
| Food-safe <sup>2)</sup>                      |       | See supplementary material information           | -             |

1) More information: [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)2) More information: [www.festo.com/catalogue/vas](http://www.festo.com/catalogue/vas) → Support/Downloads.

## Materials

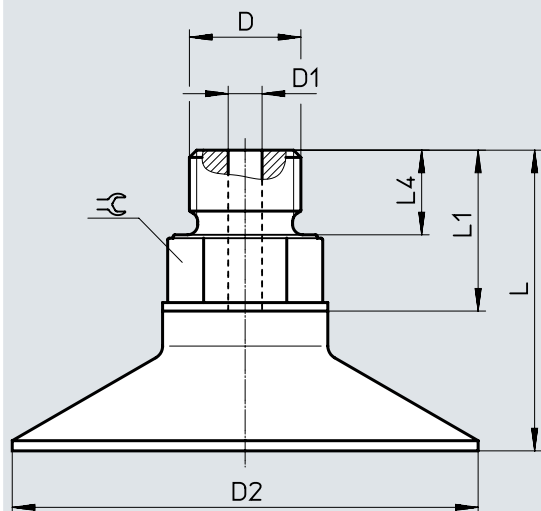
| Type                       |         | VAS-...-SI-B            | VAS-...-PUR-B                               |
|----------------------------|---------|-------------------------|---------------------------------------------|
| Shore hardness             |         | 60 ±5                   |                                             |
| Suction cup with connector |         | VMQ (silicone)          | PUR                                         |
|                            | Colour: | transparent             | blue                                        |
| Screwed trunnion           |         | Wrought aluminium alloy | Brass (suction cup ø 8 ... 30 mm)           |
|                            |         |                         | Die-cast zinc (suction cup ø 40 ... 125 mm) |
| Note on materials          |         | RoHS-compliant          |                                             |
| LABS (PWIS) conformity     |         | VDMA24364 zone III      |                                             |

## Datasheet

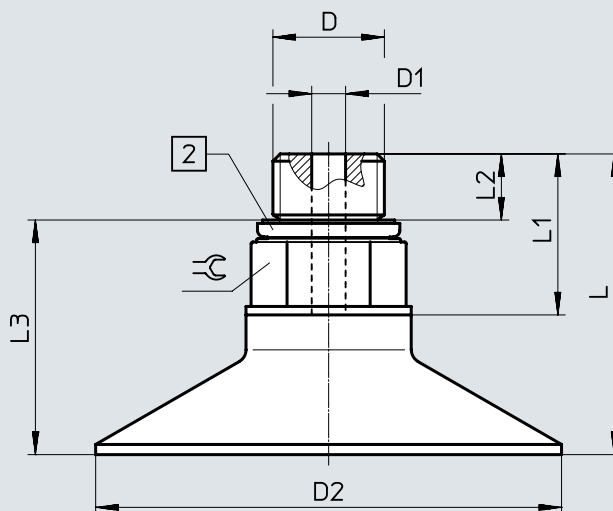
## Dimensions

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

VAS-...-SI-B



VAS-...-PUR-B



[2] Sealing ring

| 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 |

## Datasheet

## ★ Core Range

| Ordering data         |                   |               |           |                  |
|-----------------------|-------------------|---------------|-----------|------------------|
| Suction cup ø<br>[mm] | Vacuum connection | Weight<br>[g] | Part no.  | Type             |
| <b>VMQ (silicone)</b> |                   |               |           |                  |
| 15                    | G1/8              | 4             | ★ 1376604 | VAS-15-1/8-SI-B  |
| 30                    | G1/8              | 5             | ★ 1377752 | VAS-30-1/8-SI-B  |
| <b>Polyurethane</b>   |                   |               |           |                  |
| 40                    | G1/4              | 26            | ★ 1396092 | VAS-40-1/4-PUR-B |

| Ordering data         |                   |               |          |                   |
|-----------------------|-------------------|---------------|----------|-------------------|
| Suction cup ø<br>[mm] | Vacuum connection | Weight<br>[g] | Part no. | Type              |
| <b>VMQ (silicone)</b> |                   |               |          |                   |
| 8                     | M5                | 2             | 1377781  | VAS-8-M5-SI-B     |
| 10                    | M5                | 2             | 1385610  | VAS-10-M5-SI-B    |
| 40                    | G1/4              | 14            | 1379454  | VAS-40-1/4-SI-B   |
| 55                    | G1/4              | 19            | 1379348  | VAS-55-1/4-SI-B   |
| 75                    | G1/4              | 62            | 1382165  | VAS-75-1/4-SI-B   |
| 100                   | G1/4              | 116           | 1386376  | VAS-100-1/4-SI-B  |
| 125                   | G3/8              | 214           | 1415120  | VAS-125-3/8-SI-B  |
| <b>Polyurethane</b>   |                   |               |          |                   |
| 8                     | M5                | 4             | 1396086  | VAS-8-M5-PUR-B    |
| 10                    | M5                | 4             | 1469698  | VAS-10-M5-PUR-B   |
| 15                    | G1/8              | 11            | 1396087  | VAS-15-1/8-PUR-B  |
| 30                    | G1/8              | 12            | 1396090  | VAS-30-1/8-PUR-B  |
| 55                    | G1/4              | 30            | 1396095  | VAS-55-1/4-PUR-B  |
| 75                    | G1/4              | 77            | 1396096  | VAS-75-1/4-PUR-B  |
| 100                   | G1/4              | 140           | 1396098  | VAS-100-1/4-PUR-B |
| 125                   | G3/8              | 249           | 1396108  | VAS-125-3/8-PUR-B |

## Suction cups with connector VASB-...-NBR, protective bellows

### Datasheet

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



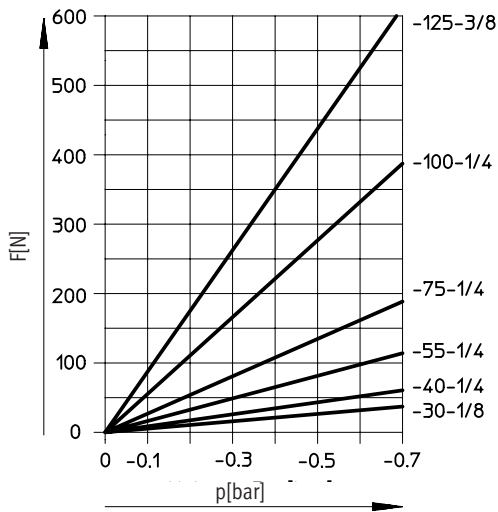
| General technical data                               |       |                                                 |      |      |       |      |      |      |      |
|------------------------------------------------------|-------|-------------------------------------------------|------|------|-------|------|------|------|------|
| Suction cup ø                                        | [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 width                                        | [mm]  | 2                                               | 3    | 3    | 4     | 4    | 4    | 4    | 7    |
| Suction cup shape                                    |       | Round, protective bellows with 1.5 convolutions |      |      |       |      |      |      |      |
| Type of mounting                                     |       | Via vacuum connection                           |      |      |       |      |      |      |      |
| Mounting position                                    |       | Any                                             |      |      |       |      |      |      |      |
| Nominal operating pressure                           | [MPa] | -0.07                                           |      |      |       |      |      |      |      |
|                                                      | [bar] | -0.7                                            |      |      |       |      |      |      |      |
|                                                      | [psi] | -10.15                                          |      |      |       |      |      |      |      |
| 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                                   | [cm³] | 0.163                                           | 0.83 | 6.18 | 11.11 | 30.4 | 65.5 | 128  | 307  |
| Suction cup height compensator                       | [mm]  | 3.3                                             | 5.6  | 13.9 | 13.7  | 20   | 15.5 | 15.5 | 25   |

| Operating and environmental conditions       |                                                  |               |
|----------------------------------------------|--------------------------------------------------|---------------|
| Type                                         | VASB-...-NBR                                     |               |
| Operating pressure                           | [MPa]                                            | -0.095 ... 0  |
|                                              | [bar]                                            | -0.95 ... 0   |
|                                              | [psi]                                            | -13.775 ... 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 - Moderate corrosion stress                    |               |

1) More information: [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

| Materials                  |                                                      |
|----------------------------|------------------------------------------------------|
| Type                       | VASB-...-NBR                                         |
| Shore hardness             | 60 ±5                                                |
| Suction cup with connector | NBR<br>Colour: black                                 |
| Screwed trunnion           | Brass (suction cup ø 8 ... 15 mm)                    |
|                            | Die-cast zinc (suction cup ø 30 ... 125 mm)          |
| Note on materials          | RoHS-compliant                                       |
| LABS (PWIS) conformity     | VDMA24364-A1-L (VASB-100-1/4-NBR: VDMA24364-B1/B2-L) |

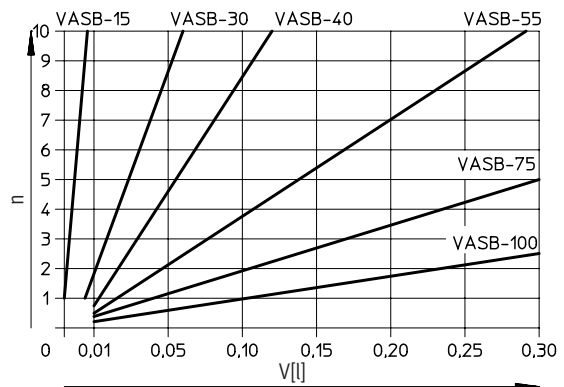
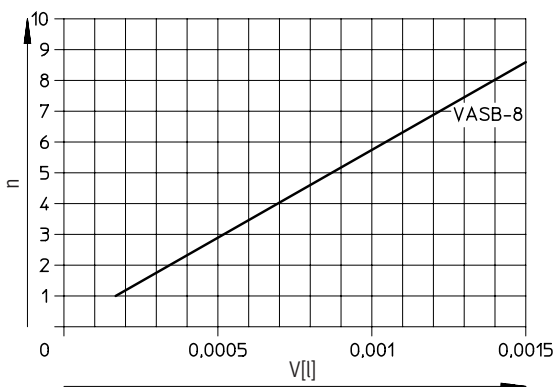
## Datasheet

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

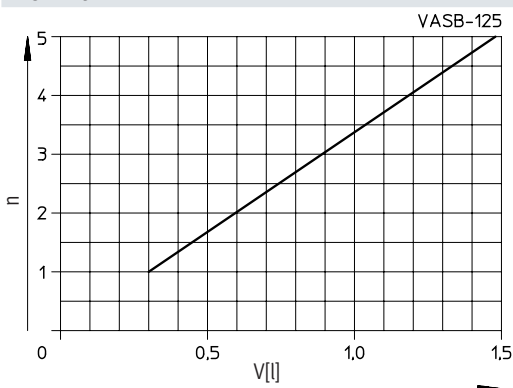
## Suction cup volume

VASB-8

VASB-15 ... 100



VASB-125

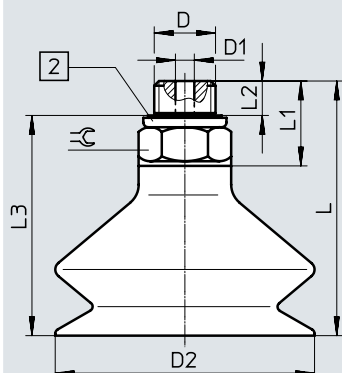


## Datasheet

## Dimensions

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

VASB-...-NBR



[2] Sealing ring OL

| Type             | Connection<br>D | D1<br>Ø | D2<br>Ø | 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 |

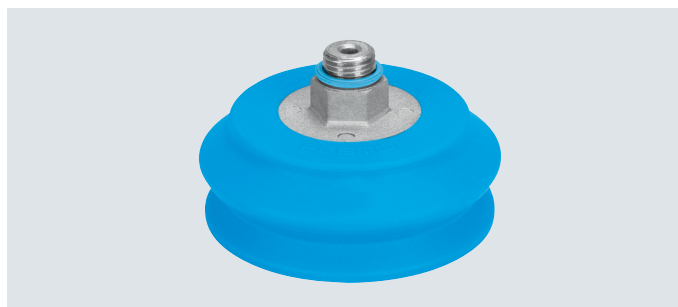
## Ordering data

| Suction cup Ø<br>[mm] | Vacuum connection | 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-B |
| 40                    | G1/4              | 30            | 35413    | VASB-40-1/4-NBR-B |
| 55                    | G1/4              | 42            | 35414    | VASB-55-1/4-NBR-B |
| 75                    | G1/4              | 95            | 35415    | VASB-75-1/4-NBR-B |
| 100                   | G1/4              | 170           | 35416    | VASB-100-1/4-NBR  |
| 125                   | G3/8              | 207           | 152609   | VASB-125-3/8-NBR  |



## Datasheet

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



| General technical data                               |                    |                                                 |      |                   |                   |      |                     |                     |                     |
|------------------------------------------------------|--------------------|-------------------------------------------------|------|-------------------|-------------------|------|---------------------|---------------------|---------------------|
| Suction cup ø                                        | [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 width                                        | [mm]               | 2                                               | 3    | 3                 | 4                 | 4    | 4                   | 4                   | 7                   |
| Suction cup shape                                    |                    | Round, protective bellows with 1.5 convolutions |      |                   |                   |      |                     |                     |                     |
| Type of mounting                                     |                    | Via vacuum connection                           |      |                   |                   |      |                     |                     |                     |
| Mounting position                                    |                    | Any                                             |      |                   |                   |      |                     |                     |                     |
| Nominal operating pressure                           | [MPa]              | -0.07                                           |      |                   |                   |      |                     |                     |                     |
|                                                      | [bar]              | -0.7                                            |      |                   |                   |      |                     |                     |                     |
|                                                      | [psi]              | -10.15                                          |      |                   |                   |      |                     |                     |                     |
| 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                 |
| Suction cup height compensator                       | [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                           | [MPa]                                            | -0.095 ... 0                  |
|                                              | [bar]                                            | -0.95 ... 0                   |
|                                              | [psi]                                            | -13.775 ... 0                 |
| Operating medium                             | Atmospheric air based on ISO 8573-1:2010 [7:-:-] |                               |
| Ambient temperature                          | [°C]                                             | -40 ... +200      -20 ... +60 |
| Corrosion resistance class CRC <sup>1)</sup> | 2 - Moderate corrosion stress                    |                               |
| Food-safe <sup>2)</sup>                      | See supplementary material information           |                               |

1) More information: [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)2) More information: [www.festo.com/catalogue/vasb](http://www.festo.com/catalogue/vasb) → Support/Downloads.

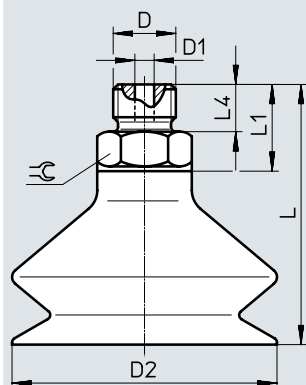
| Materials                  |                                       |                                                                                  |
|----------------------------|---------------------------------------|----------------------------------------------------------------------------------|
| Type                       | VASB-...-SI-B                         | VASB-...-PUR-B                                                                   |
| Shore hardness             | 60 ±5                                 |                                                                                  |
| Suction cup with connector | VMQ (silicone)<br>Colour: transparent | PUR<br>Colour: blue                                                              |
| Screwed trunnion           | Wrought aluminium alloy               | Brass (suction cup ø 8 ... 30 mm)<br>Die-cast zinc (suction cup ø 40 ... 125 mm) |
| Note on materials          | RoHS-compliant                        |                                                                                  |
| LABS (PWIS) conformity     | VDMA24364 zone III                    | VDMA24364-A1-L                                                                   |

## Datasheet

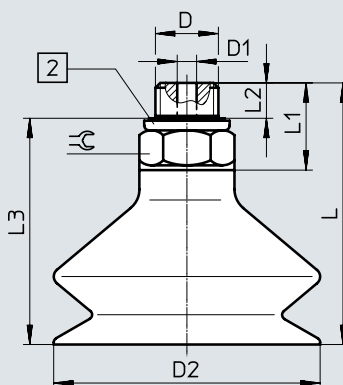
### Dimensions

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VASB-...-SI-B



VASB-...-PUR-B



[2] Sealing ring

| 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 |

## Datasheet

## ★ Core Range

| Ordering data         |                   |               |           |                   |
|-----------------------|-------------------|---------------|-----------|-------------------|
| Suction cup ø<br>[mm] | Vacuum connection | Weight<br>[g] | Part no.  | Type              |
| <b>VMQ (silicone)</b> |                   |               |           |                   |
| 15                    | G1/8              | 4             | ★ 1377689 | VASB-15-1/8-SI-B  |
| <b>Polyurethane</b>   |                   |               |           |                   |
| 55                    | G1/4              | 39            | ★ 1396063 | VASB-55-1/4-PUR-B |

| Ordering data         |                   |               |           |                    |
|-----------------------|-------------------|---------------|-----------|--------------------|
| Suction cup ø<br>[mm] | Vacuum connection | Weight<br>[g] | Part no.  | Type               |
| <b>VMQ (silicone)</b> |                   |               |           |                    |
| 8                     | M5                | 2             | 1394696   | VASB-8-M5-SI-B     |
| 30                    | G1/8              | 7             | 1377637   | VASB-30-1/8-SI-B   |
| 40                    | G1/4              | 18            | 1372910   | VASB-40-1/4-SI-B   |
| 55                    | G1/4              | 29            | 1373812   | VASB-55-1/4-SI-B   |
| 75                    | G1/4              | 78            | 1378427   | VASB-75-1/4-SI-B   |
| 100                   | G1/4              | 132           | 1382277   | VASB-100-1/4-SI-B  |
| 125                   | G3/8              | 247           | 1387375   | VASB-125-3/8-SI-B  |
| <b>Polyurethane</b>   |                   |               |           |                    |
| 8                     | M5                | 4             | 1395637   | VASB-8-M5-PUR-B    |
| 15                    | G1/8              | 11            | ★ 1395671 | VASB-15-1/8-PUR-B  |
| 30                    | G1/8              | 14            | 1395690   | VASB-30-1/8-PUR-B  |
| 40                    | G1/4              | 30            | 1395691   | VASB-40-1/4-PUR-B  |
| 75                    | G1/4              | 90            | 1396064   | VASB-75-1/4-PUR-B  |
| 100                   | G1/4              | 155           | 1396066   | VASB-100-1/4-PUR-B |
| 125                   | G3/8              | 294           | 1396067   | VASB-125-3/8-PUR-B |