

Suction cups VAS/VASB

FESTO



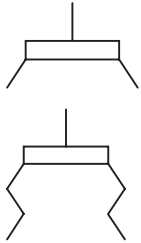
Suction cups

Key features

FESTO

Product overview

Suction gripper and suction cup



Festo vacuum suction grippers offer outstanding functionality and quality.

An extensive range of modular suction cups in different shapes, materials and sizes, plus a wide selection of suction cup holders, angle and height compensators and 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

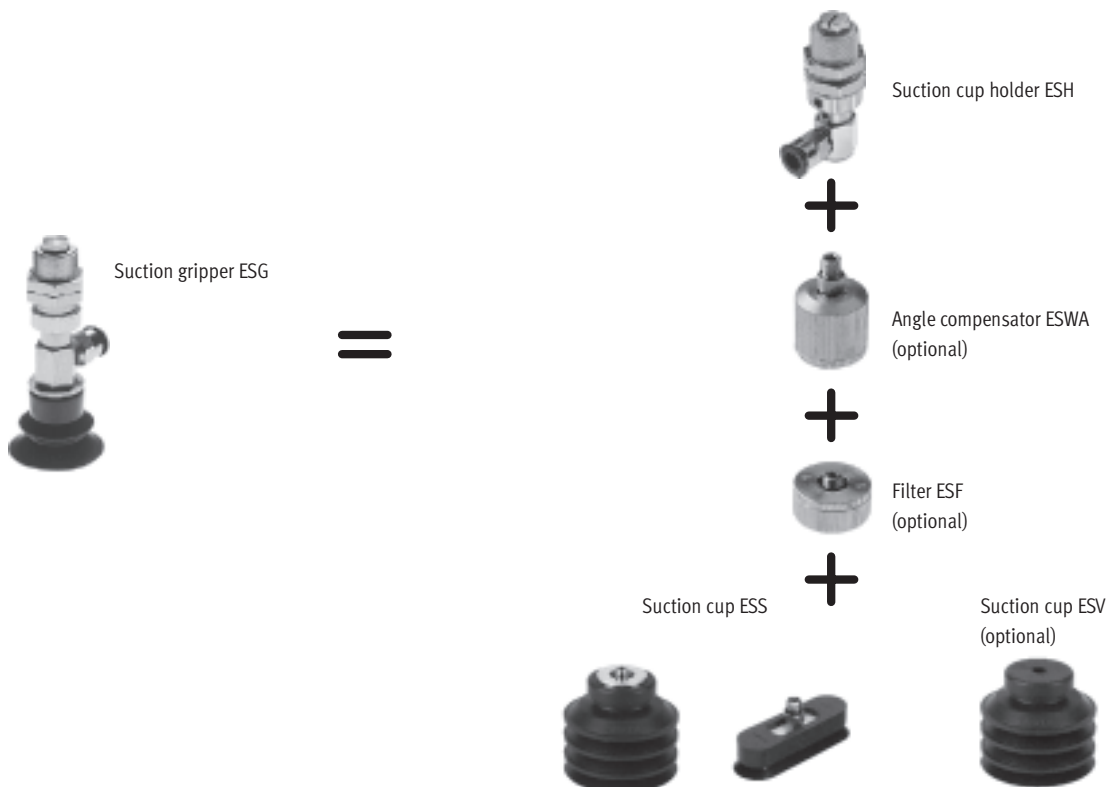
Technical data → Internet: [esg](#)

Modular products with over 2000 variants

- The ideal solution for the transport of workpieces of different weights, surfaces and shapes
- Choose from:
 - 15 suction cup diameters
 - 5 different materials – including antistatic types
 - 5 suction cup shapes
 - Various suction cup holders
 - Optional accessories (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 grippers as a complete solution

Suction grippers made from individual components



Suction cups

Key features

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Suction cups VAS/VASB

→ 6

Sturdy and reliable

- The ideal solution for the transport of workpieces of different weights, surfaces and shapes
- Choose from:
 - 12 suction cup diameters
 - 2 suction cup shapes: round and bellows design
 - 3 suction cup 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

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Suction cups with fixed connecting thread

- VAS: 1 ... 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)

- Minimal markings left on shiny surfaces

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

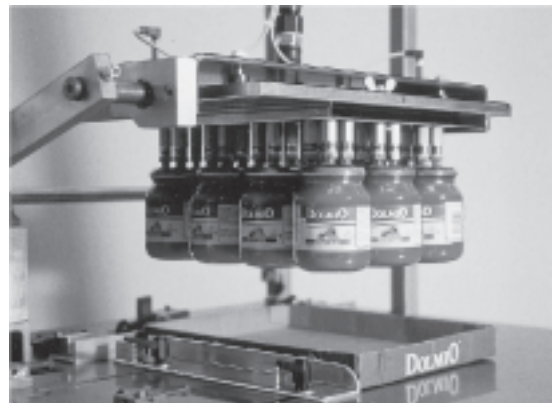
Technical data → Internet: [ad](#)

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



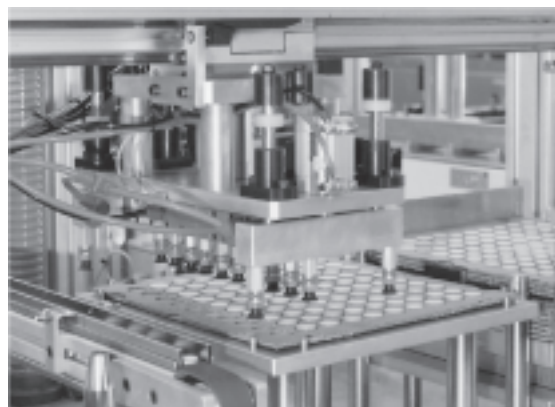
Vacuum technology can be used in a wide range of applications

- 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

Type code

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		VAS	–	30	–	1/8	–	NBR
Type								
VAS	Suction cup							
Suction cup Ø [mm]								
1	1							
2	2							
5	5							
8	8							
10	10							
15	15							
30	30							
40	40							
55	55							
75	75							
100	100							
125	125							
Connection sizes								
M3	M3 thread							
M5	M5 thread							
1/8	G1/8 thread							
1/4	G1/4 thread							
3/8	G3/8 thread							
Materials								
NBR	Nitrile rubber							
PUR	Polyurethane							
SI	Silicone							



Possible combinations can be found in the ordering data.

Suction cups VAS

Technical data

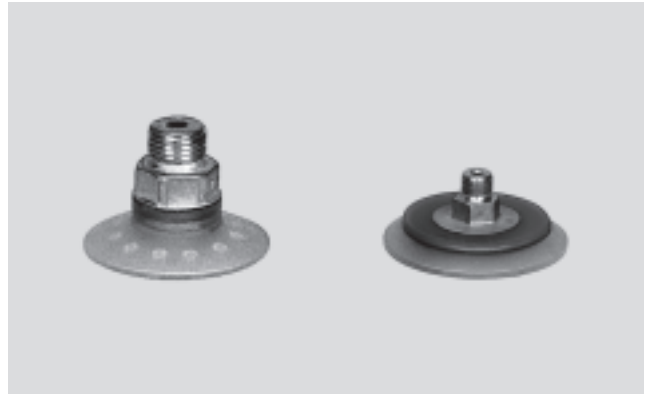
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Function



Temperature range
-20 ... +200 °C

- Ø - Diameter
1 ... 125 mm



General technical data										
Suction cup Ø [mm]	Design	Vacuum port	Type of mounting	Nominal size [mm]	Effective suction cup Ø [mm]	Shore hardness	Breakaway force at 70% vacuum [N]	Weight		
								NBR [g]	PUR [g]	SI [g]
1	Vacuum port on top, round, standard	M3	Screw-in thread	0.4	0.8	55±5	0.035	1	–	–
2		M3		1	1.6	55±5	0.14	11	–	–
5		M5		1.5	4	55±5	0.9	2	–	–
8		M5 ¹⁾		2	5.5	73	1.6	4	4	2
10		M5		2	8	73	4.5	3	3	3
15		G1/8		3	12	73	7.9	11	11	6
30		G1/8		3	25	73	34	13	13	7
40		G1/4		4	32	73	56	26	27	13
55		G1/4		4	44	73	106	32	32	16
75		G1/4		4	60	73	197	76	78	36
100		G1/4		4	85	73	397	138	142	67
125		G3/8		7	105	73	606	152	148	148

1) VAS-8-M5-S: Barbed fittings for 3 mm plastic tubing, lateral connection

Ambient conditions			
Variant	VAS-...-NBR	VAS-...-PUR	VAS-...-SI
Operating medium	Atmospheric air		
Ambient temperature [°C]	-20 ... +80	-20 ... +60	-40 ... +200
Corrosion resistance CRC ¹⁾	2		

1) Corrosion resistance class 2 according to Festo standard 940 070

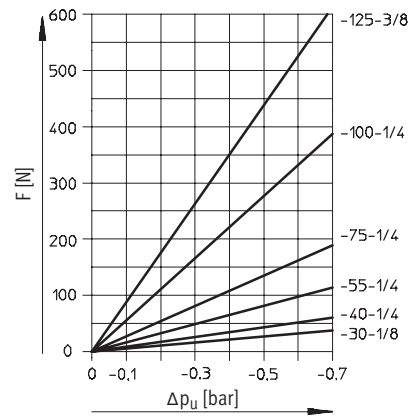
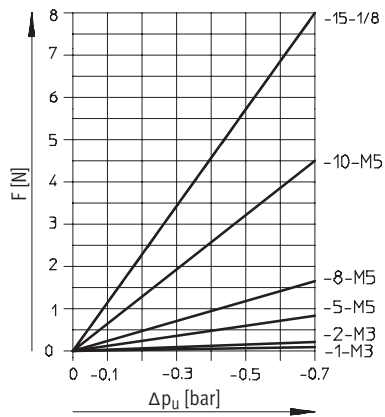
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

Suction cups VAS

Technical data

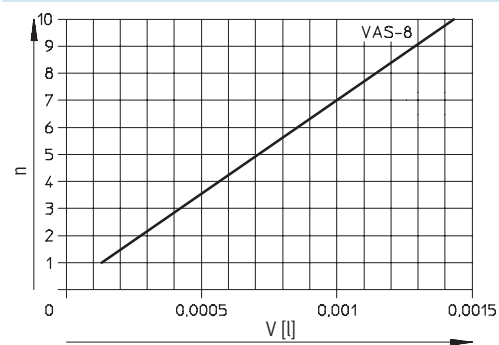
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Theoretical suction force F as a function of vacuum p_u

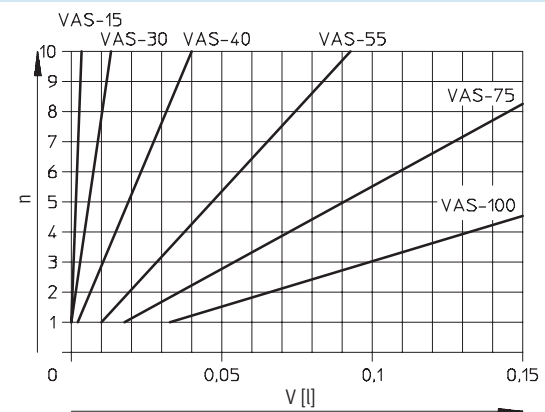


Suction cup volume

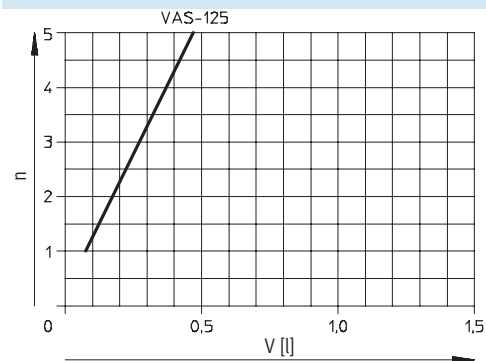
VAS-8



VAS-15 ... 100



VAS-125



Technical data

Type	D	D1 Ø	D2 Ø	L	L1	L2	L3	≡
VAS-...-NBR								
VAS-1-M3-NBR ¹⁾	M3	0.9	1	7.4	5.8	4	3.4	4.5
VAS-2-M3-NBR ¹⁾	M3	1	2	9.8	5.8	4	5.8	4.5
VAS-5-M5-NBR	M5	1.5	5	16.5	10	3.5	13	8
VAS-8-M5-NBR	M5	2	8	19	11.3	3.5	15.5	8
VAS-10-M5-NBR	M5	2	10	19.2	11.5	3.5	15.7	8
VAS-15-1/8-NBR	G1/8	3	15	20.2	12	4.7	15.5	13
VAS-30-1/8-NBR	G1/8	3	30	21.5	12	4.7	16.8	13
VAS-40-1/4-NBR	G1/4	4	40	30.5	17	5.8	24.7	17
VAS-55-1/4-NBR	G1/4	4	55	28	17	6.2	21.8	17
VAS-75-1/4-NBR	G1/4	4	75	28	17	6.2	21.8	17
VAS-100-1/4-NBR	G1/4	4	100	28	17	6.2	21.8	17
VAS-125-3/8-NBR	G3/8	7	125	36	20	6.5	30	19
VAS-...-PUR								
VAS-8-M5-PUR	M5	2	8	19.7	12	4.3	15.5	8
VAS-10-M5-PUR	M5	2	10	19.2	11.5	3.5	15.7	8
VAS-15-1/8-PUR	G1/8	3	15	20	12	4.7	15.3	13
VAS-30-1/8-PUR	G1/8	3	30	21.5	12	4.7	16.8	13
VAS-40-1/4-PUR	G1/4	4	40	29.5	17	6.2	23.3	17
VAS-55-1/4-PUR	G1/4	4	55	32.5	17	6.2	26.3	17
VAS-75-1/4-PUR	G1/4	4	75	28	17	6.2	21.8	17
VAS-100-1/4-PUR	G1/4	4	100	28	17	6.2	21.8	17
VAS-125-3/8-PUR	G3/8	7	125	36	20	8.2	27.8	19
VAS-...-SI								
VAS-8-M5-SI	M5	2	8	19.2	11.5	5	14.2	8
VAS-10-M5-SI	M5	2	10	19.2	11.5	5	14.2	8
VAS-15-1/8-SI	G1/8	3	15	20	12	6.5	13.5	13
VAS-30-1/8-SI	G1/8	3	30	21.5	12	6.5	15	13
VAS-40-1/4-SI	G1/4	4	40	30.5	17	8	22.5	17
VAS-55-1/4-SI	G1/4	4	55	33.5	17	8	25.5	17
VAS-75-1/4-SI	G1/4	4	75	28	14	8	20	17
VAS-100-1/4-SI	G1/4	4	100	28.5	14.5	8	20.5	17
VAS-125-3/8-SI	G3/8	7	125	36	16.5	9	27	19

1) Sealing rings are not included in the scope of delivery.

Suction cups VAS

Technical data

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Ordering data							
Suction cup Ø [mm]	Screw-in thread	Nitrile rubber		Polyurethane		Silicone	
		Part No.	Type	Part No.	Type	Part No.	Type
1	M3	173437	VAS-1-M3-NBR	—		—	
2	M3	173438	VAS-2-M3-NBR	—		—	
5	M5	173439	VAS-5-M5-NBR	—		—	
8	M5	34588	VAS-8-M5-NBR	36135	VAS-8-M5-PUR	160988	VAS-8-M5-SI
10	M5	173440	VAS-10-M5-NBR	173441	VAS-10-M5-PUR	173442	VAS-10-M5-SI
15	G1/8	36142	VAS-15-1/8-NBR	36136	VAS-15-1/8-PUR	158973	VAS-15-1/8-SI
30	G1/8	34587	VAS-30-1/8-NBR	36137	VAS-30-1/8-PUR	158974	VAS-30-1/8-SI
40	G1/4	36143	VAS-40-1/4-NBR	36138	VAS-40-1/4-PUR	158975	VAS-40-1/4-SI
55	G1/4	36144	VAS-55-1/4-NBR	36139	VAS-55-1/4-PUR	158976	VAS-55-1/4-SI
75	G1/4	36145	VAS-75-1/4-NBR	36140	VAS-75-1/4-PUR	160989	VAS-75-1/4-SI
100	G1/4	34586	VAS-100-1/4-NBR	36141	VAS-100-1/4-PUR	160990	VAS-100-1/4-SI
125	G3/8	152605	VAS-125-3/8-NBR	152606	VAS-125-3/8-PUR	160991	VAS-125-3/8-SI
Lateral outlet							
8	M5	—		12612	VAS-8-M5-S	—	

Bellows suction cups VASB

Type code

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		VASB	–	30	–	1/8	–	NBR
Type								
VASB	Bellows suction cup							
Suction cup Ø [mm]								
8	8							
15	15							
30	30							
40	40							
55	55							
75	75							
100	100							
125	125							
Connection sizes								
M5	M5 thread							
1/8	G1/8 thread							
1/4	G1/4 thread							
3/8	G3/8 thread							
Materials								
NBR	Nitrile rubber							
PUR	Polyurethane							
SI	Silicone							



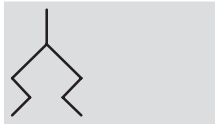
Possible combinations can be found in the ordering data.

Bellows suction cups VASB

Technical data

FESTO

Function



Temperature range
-20 ... +200 °C

- Ø - Diameter
8 ... 125 mm



General technical data										
Suction cup Ø [mm]	Design	Vacuum port	Type of mounting	Nominal size [mm]	Effective suction cup Ø [mm]	Shore hardness	Breakaway force at 70% vacuum [N]	Weight		
								NBR [g]	PUR [g]	SI [g]
8	Vacuum port on top, round, bellows, 1.5 convolutions	M5	Screw-in thread	2	5.5	73	1.6	4	4	2
15		G1/8		3	12	73	7.9	11	11	6
30		G1/8		3	25	73	34	15	15	9
40		G1/4		4	32	73	56	30	30	16
55		G1/4		4	44	73	106	42	42	26
75		G1/4		4	60	73	197	95	95	53
100		G1/4		4	85	73	397	170	170	95
125		G3/8		7	105	73	606	207	194	194

Ambient conditions			
Variant	VAS-...-NBR	VAS-...-PUR	VAS-...-SI
Operating medium	Atmospheric air		
Ambient temperature [°C]	-20 ... +80	-20 ... +60	-40 ... +200
Corrosion resistance CRC ¹⁾	2		

1) Corrosion resistance class 2 according to Festo standard 940 070

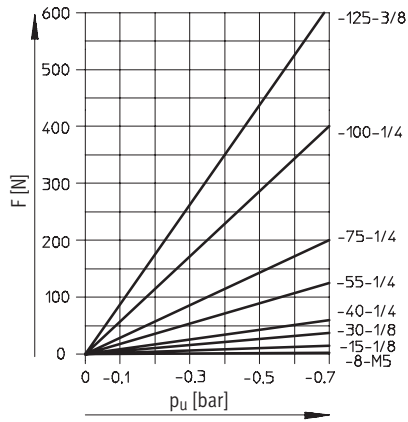
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

Bellows suction cups VASB

Technical data

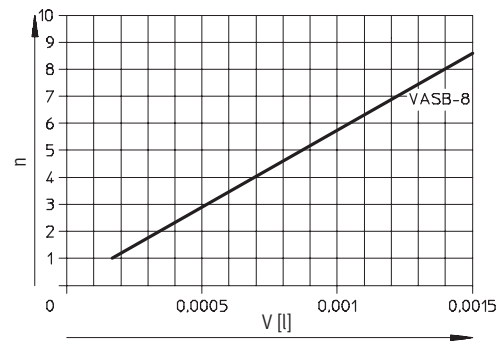
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Theoretical suction force F as a function of vacuum p_u

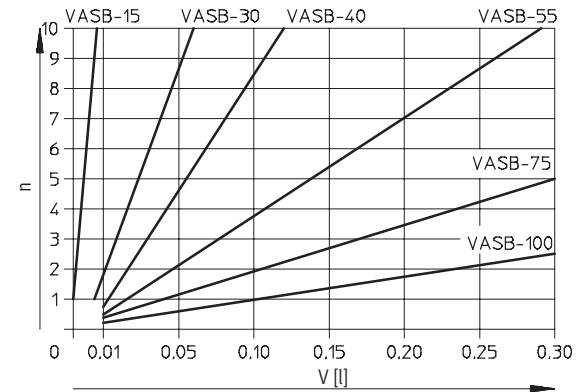


Suction cup volume

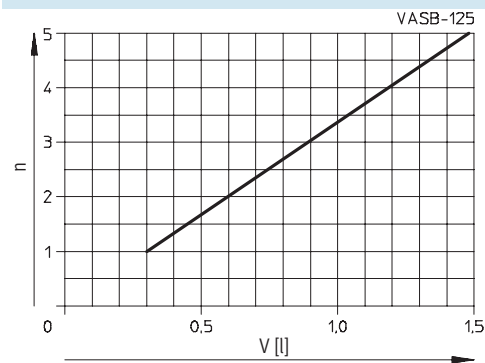
VASB-8



VASB-15 ... 100



VASB-125



Bellows suction cups VASB

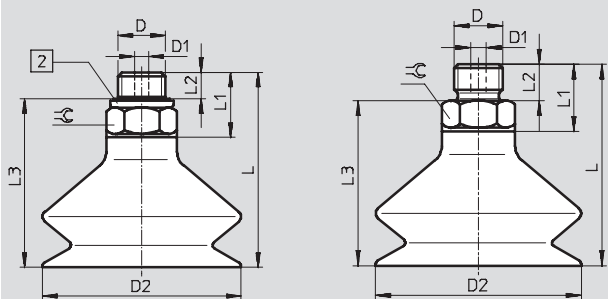
Technical data

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Dimensions

VASB-...-NBR/VASB-...-PUR

VASB-...-SI



2 Sealing ring

Type	D	D1 Ø	D2 Ø	L	L1	L2	L3	⌀
VASB-...-NBR								
VASB-8-M5-NBR	M5	0.5	8	22.5	11.5	3.5	19	8
VASB-15-1/8-NBR	G1/8	3	15	25.5	12	4.7	20.8	13
VASB-30-1/8-NBR	G1/8	3	30	34	12	4.7	29.3	13
VASB-40-1/4-NBR	G1/4	4	40	43	17	5.8	37.2	17
VASB-55-1/4-NBR	G1/4	4	55	52	17	5.8	46.2	17
VASB-75-1/4-NBR	G1/4	4	75	43.5	17	5.8	37.7	17
VASB-100-1/4-NBR	G1/4	4	100	43.5	17	5.8	37.7	17
VASB-125-3/8-NBR	G3/8	7	125	60	20	6	54	19
VASB-...-PUR								
VASB-8-M5-PUR	M5	0.5	8	22.5	11.5	3.5	19	8
VASB-15-1/8-PUR	G1/8	3	15	25.5	12	4.7	20.8	13
VASB-30-1/8-PUR	G1/8	3	30	34	12	4.7	29.3	13
VASB-40-1/4-PUR	G1/4	4	40	43	17	5.8	37.2	17
VASB-55-1/4-PUR	G1/4	4	55	52	17	5.8	46.2	17
VASB-75-1/4-PUR	G1/4	4	75	43.5	17	5.8	37.7	17
VASB-100-1/4-PUR	G1/4	4	100	43.5	17	5.8	37.7	17
VASB-125-3/8-PUR	G3/8	7	125	60	20	6	54	19
VASB-...-SI								
VASB-8-M5-SI	M5	2	8	22.5	11.5	5	17.5	8
VASB-15-1/8-SI	G1/8	3	15	25.5	12	6.5	19	13
VASB-30-1/8-SI	G1/8	3	30	34	12	6.5	27.5	13
VASB-40-1/4-SI	G1/4	4	40	43	17	8	35	17
VASB-55-1/4-SI	G1/4	4	55	52	17	8	44	17
VASB-75-1/4-SI	G1/4	4	75	43.5	14	8	35.5	17
VASB-100-1/4-SI	G1/4	4	100	43.5	14	8	35.5	17
VASB-125-3/8-SI	G3/8	7	125	60	16.5	9	51	19

1) Sealing rings are not included in the scope of delivery.

Bellows suction cups VASB

Technical data

FESTO

Ordering data							
Suction cup Ø [mm]	Screw-in thread	Nitrile rubber		Polyurethane		Silicone	
		Part No.	Type	Part No.	Type	Part No.	Type
8	M5	35410	VASB-8-M5-NBR	35417	VASB-8-M5-PUR	160992	VASB-8-M5-SI
15	G $\frac{1}{8}$	35411	VASB-15- $\frac{1}{8}$ -NBR	35418	VASB-15- $\frac{1}{8}$ -PUR	158977	VASB-15- $\frac{1}{8}$ -SI
30	G $\frac{1}{8}$	35412	VASB-30- $\frac{1}{8}$ -NBR	35419	VASB-30- $\frac{1}{8}$ -PUR	158978	VASB-30- $\frac{1}{8}$ -SI
40	G $\frac{1}{4}$	35413	VASB-40- $\frac{1}{4}$ -NBR	35420	VASB-40- $\frac{1}{4}$ -PUR	158979	VASB-40- $\frac{1}{4}$ -SI
55	G $\frac{1}{4}$	35414	VASB-55- $\frac{1}{4}$ -NBR	35421	VASB-55- $\frac{1}{4}$ -PUR	158980	VASB-55- $\frac{1}{4}$ -SI
75	G $\frac{1}{4}$	35415	VASB-75- $\frac{1}{4}$ -NBR	35422	VASB-75- $\frac{1}{4}$ -PUR	160993	VASB-75- $\frac{1}{4}$ -SI
100	G $\frac{1}{4}$	35416	VASB-100- $\frac{1}{4}$ -NBR	35423	VASB-100- $\frac{1}{4}$ -PUR	160994	VASB-100- $\frac{1}{4}$ -SI
125	G $\frac{3}{8}$	152609	VASB-125- $\frac{3}{8}$ -NBR	152610	VASB-125- $\frac{3}{8}$ -PUR	160995	VASB-125- $\frac{3}{8}$ -SI

Product Range and Company Overview

A Complete Suite of Automation Services

Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



Custom Automation Components
Complete custom engineered solutions



Custom Control Cabinets
Comprehensive engineering support and on-site services



Complete Systems
Shipment, stocking and storage services

The Broadest Range of Automation Components

With a comprehensive line of more than 30,000 automation components, Festo is capable of solving the most complex automation requirements.



Electromechanical
Electromechanical actuators, motors, controllers & drives



Pneumatics
Pneumatic linear and rotary actuators, valves, and air supply



PLCs and I/O Devices
PLC's, operator interfaces, sensors and I/O devices

Supporting Advanced Automation... As No One Else Can!

Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 12,000 employees in 56 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

Quality Assurance, ISO 9001 and ISO 14001 Certifications

Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.



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