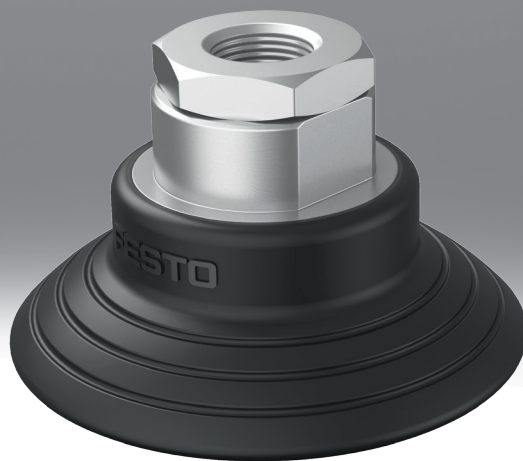


Suction cup with connection OGVM

FESTO



Characteristics

At a glance



The suction cups with connection are used for handling components in the metal industry. Examples include the automotive industry and large household appliances. The suction cups with connection enable sheet metal and components to be handled highly dynamically. The suction cup geometry ensures minimum suction times, high inherent stability in the suctioned state and for absorbing holding and transverse forces, even on oiled surfaces. This is made possible by the special structure of the inside of the suction cup.

Engineering tools

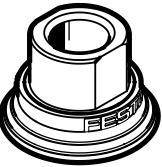
[Link](#) [smart-vacuum](#)



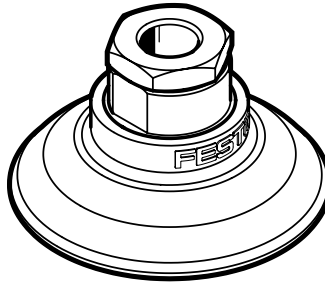
Save time with engineering tools Smart Engineering for the optimal solution. Our goal is to increase your productivity. Our engineering tools play an integral part in this. They help you size your system correctly, tap into unimagined productivity reserves and generate additional productivity along the entire value chain. In every phase of your project, from the initial contact to the modernisation of your machine, you will come across a number of different tools which will be of use to you.

Suction cup shape

[S] Round, standard



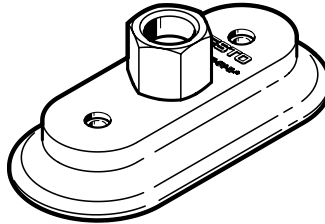
[G] Round, bell shape



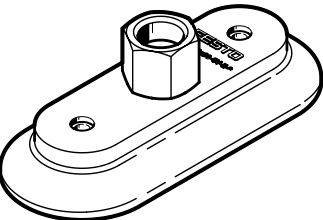
[A] Round, bellows, 1.5 convolutions



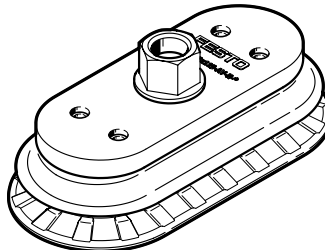
[SV] Oval, standard



[GV] Oval, bell-shaped



[AV] Oval, bellows, 1.5 convolutions



Type code

001	Series
OGVM	Suction cup complete

002	Suction cup size
20	20 mm diameter
30	30 mm diameter
40	40 mm diameter
45	45 mm diameter
50	50 mm diameter
60	60 mm diameter
80	80 mm diameter
100	100 mm diameter
125	125 mm diameter
16x55	16x55 mm
20x60	20x60 mm
20x65	20x65 mm
30x65	30x65 mm
30x80	30x80 mm
30x95	30x95 mm
40x85	40x85 mm
40x90	40x90 mm
50x105	50x105 mm
55x115	55x115 mm
60x125	60x125 mm
70x145	70x145 mm

003	Suction cup shape
S	Round, standard
AV	Oval, bellows, 1.5 convolutions
G	Round, bell shape
GV	Oval, bell-shaped
A	Round, bellows, 1.5 convolutions
SV	Oval, standard

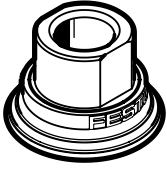
004	Material
N	Nitrile rubber

005	Vacuum port
G14	G1/4

006	Thread type
F	Female thread

Datasheet

Technical data – OGVM, round, flat

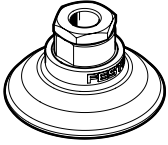


Suction cup diameter	30 mm	40 mm	50 mm	60 mm	80 mm	100 mm	125 mm
Vacuum connection	Female thread G1/4						
Nominal size	4 mm		7 mm	8 mm			
Suction cup shape	Round, flat						
Type of mounting	Via vacuum port						
Position of connection	Top						
Mounting position	optional						
Min. workpiece radius	35 mm	37.5 mm	45 mm	70 mm		100 mm	135 mm
Suction cup volume	1.8 cm ³	4.4 cm ³	8.4 cm ³	15 cm ³	35 cm ³	68 cm ³	132 cm ³
Holding force at nominal operating pressure	36 N	53 N	90 N	120 N	225 N	351 N	606 N
Vertical lateral force at nominal operating pressure	–						
Operating pressure	-95 ... 0 kPa						
Operating pressure	-0.95 ... 0 bar						
Operating pressure	-13.775 ... 0 psi						
Nominal operating pressure	-60 kPa						
Nominal operating pressure	-0.6 bar						
Operating medium	Atmospheric air based on ISO 8573-1:2010 [7:-:-]						
Ambient temperature	-20 ... 80°C						
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress						
Material suction cup	NBR						
Material screwed plug	Wrought aluminium alloy						
Colour	Black						
Shore hardness	60 +/- 5						
Note on materials	RoHS-compliant						
LABS (PWIS) conformity	VDMA24364-A1-L						

1) More information: www.festo.com/x/topic/crc

Datasheet

Technical data – OGVM, round, bell-shaped



Suction cup diameter	20 mm	30 mm	45 mm	60 mm	80 mm
Vacuum connection	Female thread G1/4				
Nominal size	3 mm		4 mm	6 mm	7 mm
Suction cup shape	Round bell-shaped				
Type of mounting	Via vacuum port				
Position of connection	Top				
Mounting position	optional				
Min. workpiece radius	12.5 mm	17.5 mm	25 mm	27.5 mm	45 mm
Suction cup volume	1.2 cm ³	2.6 cm ³	9.4 cm ³	22 cm ³	48 cm ³
Holding force at nominal operating pressure	18 N	32 N	77 N	143 N	220 N
Vertical lateral force at nominal operating pressure	–				
Operating pressure	-95 ... 0 kPa				
Operating pressure	-0.95 ... 0 bar				
Operating pressure	-13.775 ... 0 psi				
Nominal operating pressure	-60 kPa				
Nominal operating pressure	-0.6 bar				
Operating medium	Atmospheric air based on ISO 8573-1:2010 [7:::]				
Ambient temperature	-20 ... 80°C				
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress				
Material suction cup	NBR				
Material screwed plug	Wrought aluminium alloy				
Colour	Black				
Shore hardness	60 +/- 5				
Note on materials	RoHS-compliant				
LABS (PWIS) conformity	VDMA24364-A1-L				

1) More information: www.festo.com/x/topic/crc

Datasheet

Technical data – OGVM, round, protective bellows 1.5-fold

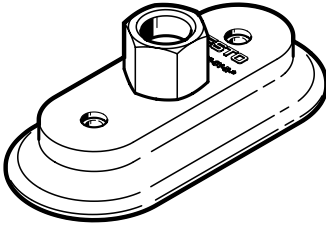


Suction cup diameter	20 mm	30 mm	40 mm	50 mm	60 mm	80 mm	100 mm	125 mm
Vacuum connection	Female thread G1/4							
Nominal size	4 mm			7 mm	8 mm			
Suction cup shape	Round bellows 1.5 convolutions							
Type of mounting	Via vacuum port							
Position of connection	Top							
Mounting position	optional							
Min. workpiece radius	12.5 mm	25 mm	30 mm	35 mm	40 mm	75 mm	90 mm	140 mm
Suction cup volume	2 cm ³	5.5 cm ³	7.8 cm ³	15 cm ³	28 cm ³	64 cm ³	115 cm ³	241 cm ³
Holding force at nominal operating pressure	15 N	37 N	60 N	90 N	140 N	246 N	379 N	587 N
Vertical lateral force at nominal operating pressure	–							
Operating pressure	-95 ... 0 kPa							
Operating pressure	-0.95 ... 0 bar							
Operating pressure	-13.775 ... 0 psi							
Nominal operating pressure	-60 kPa							
Nominal operating pressure	-0.6 bar							
Operating medium	Atmospheric air based on ISO 8573-1:2010 [7:-:-]							
Ambient temperature	-20 ... 80°C							
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress							
Material suction cup	NBR							
Material screwed plug	Wrought aluminium alloy							
Colour	Black							
Shore hardness	60 +/- 5							
Note on materials	RoHS-compliant							
LABS (PWIS) conformity	VDMA24364-A1-L							

1) More information: www.festo.com/x/topic/crc

Datasheet

Technical data – OGVM, oval, flat

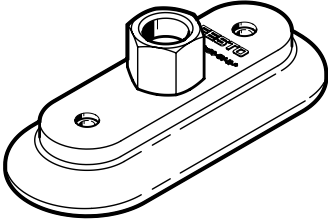


Suction cup size	16x55 mm	20x65 mm	30x95 mm	40x85 mm	50x105 mm	60x125 mm	70x145 mm
Vacuum connection	Female thread G1/4						
Nominal size	3 mm	6 mm			8 mm		
Suction cup shape	Oval, flat						
Type of mounting	Via vacuum port						
Position of connection	Top						
Mounting position	optional						
Min. workpiece radius	10 mm	20 mm	40 mm	50 mm	75 mm		90 mm
Suction cup volume	2 cm ³	3.6 cm ³	9.6 cm ³	13 cm ³	25 cm ³	44 cm ³	70 cm ³
Holding force at nominal operating pressure	36 N	66 N	146 N	150 N	240 N	345 N	630 N
Vertical lateral force at nominal operating pressure	40 N	76 N	114 N	92 N	174 N	324 N	455 N
Operating pressure	-95 ... 0 kPa						
Operating pressure	-0.95 ... 0 bar						
Operating pressure	-13.775 ... 0 psi						
Nominal operating pressure	-60 kPa						
Nominal operating pressure	-0.6 bar						
Operating medium	Atmospheric air based on ISO 8573-1:2010 [7::-]						
Ambient temperature	-20 ... 80°C						
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress						
Material suction cup	NBR						
Material screwed plug	Wrought aluminium alloy						
Colour	Black						
Shore hardness	60 +/- 5						
Note on materials	RoHS-compliant						
LABS (PWIS) conformity	VDMA24364-A1-L						

1) More information: www.festo.com/x/topic/crc

Datasheet

Technical data – OGVM, oval, bell-shaped

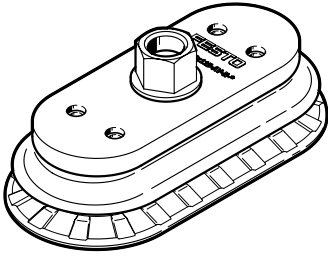


Suction cup size	20x60 mm	30x80 mm	40x90 mm
Vacuum connection	Female thread G1/4		
Nominal size	6 mm		
Suction cup shape	Oval, bell-shaped		
Type of mounting	Via vacuum port		
Position of connection	Top		
Mounting position	optional		
Min. workpiece radius	12.5 mm	20 mm	35 mm
Suction cup volume	5 cm ³	10 cm ³	15.8 cm ³
Holding force at nominal operating pressure	81 N	120 N	311 N
Vertical lateral force at nominal operating pressure	103 N	201 N	192 N
Operating pressure	-95 ... 0 kPa		
Operating pressure	-0.95 ... 0 bar		
Operating pressure	-13.775 ... 0 psi		
Nominal operating pressure	-60 kPa		
Nominal operating pressure	-0.6 bar		
Operating medium	Atmospheric air based on ISO 8573-1:2010 [7:-:]		
Ambient temperature	-20 ... 80°C		
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress		
Material suction cup	NBR		
Material screwed plug	Wrought aluminium alloy		
Colour	Black		
Shore hardness	60 +/- 5		
Note on materials	RoHS-compliant		
LABS (PWS) conformity	VDMA24364-A1-L		

1) More information: www.festo.com/x/topic/crc

Datasheet

Technical data – OGVM, oval, protective bellows 1.5-fold



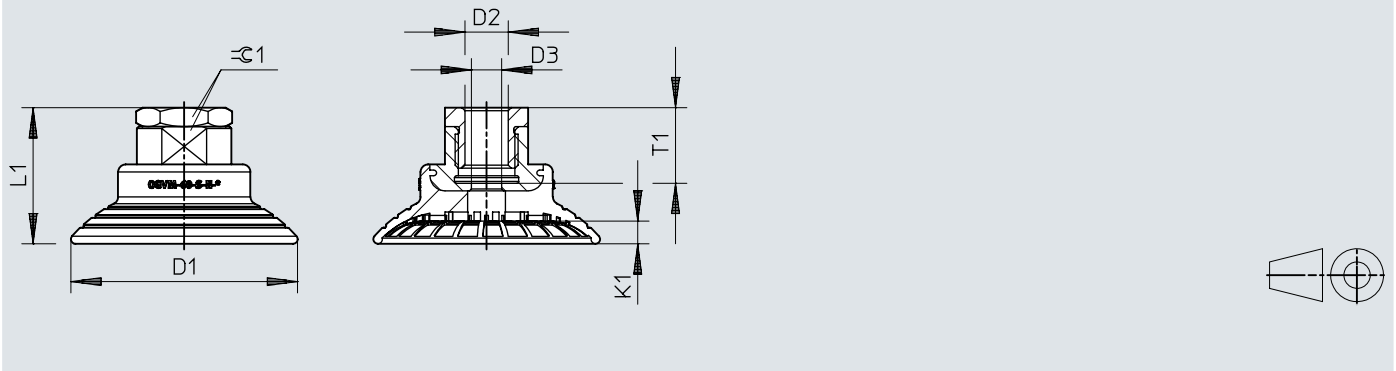
Suction cup size	30x65 mm	40x85 mm	55x115 mm	70x145 mm
Vacuum connection	Female thread G1/4			
Nominal size	6 mm		8 mm	
Suction cup shape	Oval, bellows, 1.5 convolutions			
Type of mounting	Via vacuum port			
Position of connection	Top			
Mounting position	optional			
Min. workpiece radius	15 mm	30 mm	50 mm	70 mm
Suction cup volume	11.5 cm ³	23.5 cm ³	52 cm ³	111 cm ³
Holding force at nominal operating pressure	66 N	126 N	200 N	446 N
Vertical lateral force at nominal operating pressure	104 N	173 N	234 N	317 N
Operating pressure	-95 ... 0 kPa			
Operating pressure	-0.95 ... 0 bar			
Operating pressure	-13.775 ... 0 psi			
Nominal operating pressure	-60 kPa			
Nominal operating pressure	-0.6 bar			
Operating medium	Atmospheric air based on ISO 8573-1:2010 [7:-:-]			
Ambient temperature	-20 ... 80°C			
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress			
Material suction cup	NBR			
Material screwed plug	Wrought aluminium alloy			
Colour	Black			
Shore hardness	60 +/- 5			
Note on materials	RoHS-compliant			
LABS (PWIS) conformity	VDMA24364-A1-L			

1) More information: www.festo.com/x/topic/crc

Dimensions

Dimensions – OGVM, round, flat

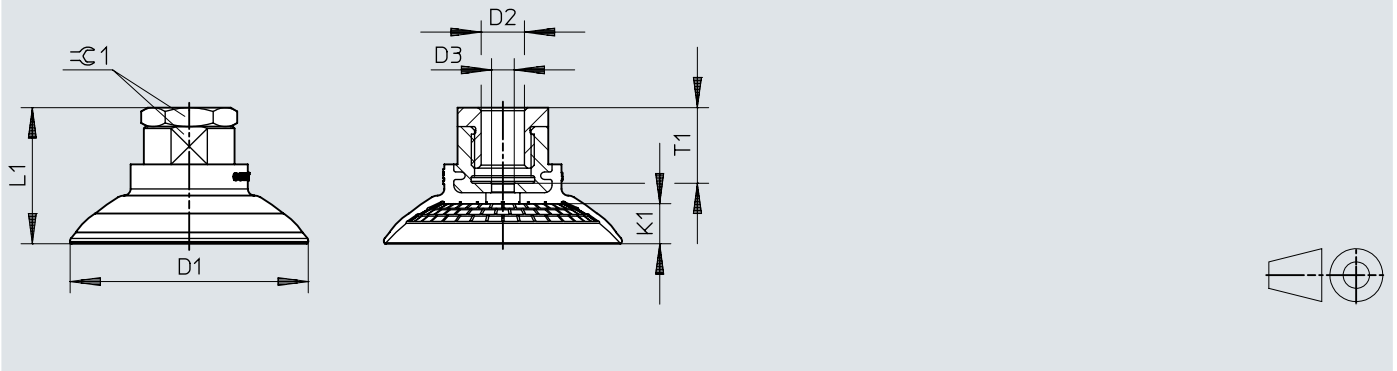
Download CAD data www.festo.com



	D1 ∅	D2	D3 ∅	K1	L1	T1	≈ 1
OGVM-30	30	G1/4	4	3	20	12	17
OGVM-40	40	G1/4	4	4	22	12	17
OGVM-50	50	G1/4	7	5	33	20	22
OGVM-60	60	G1/4	8	6	36	20	22
OGVM-80	80	G1/4	8	7,6	40	20	22
OGVM-100	100	G1/4	8	9,5	41	20	22
OGVM-125	125	G1/4	8	12,5	48	20	22

Dimensions

Dimensions – OGVM, round, bell-shaped

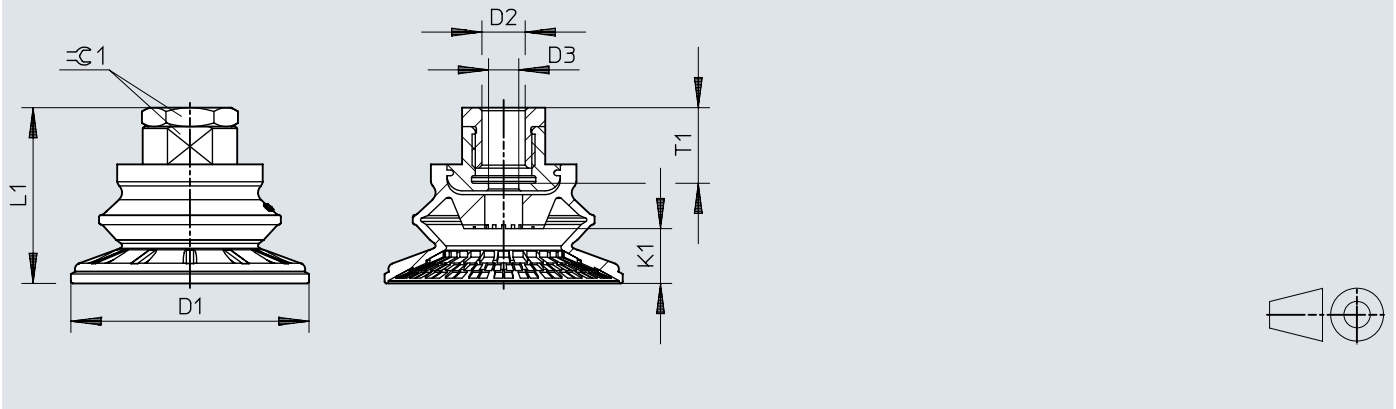
Download CAD data www.festo.com

	D1 ∅	D2	D3 ∅	K1	L1	T1	∅ 1
OGVM-20	22	G1/4	3	4	22	12	15
OGVM-30	30	G1/4	3	5	22	12	15
OGVM-45	47	G1/4	4	7,8	24,5	12	17
OGVM-60	63	G1/4	6	10,6	36	20	22
OGVM-80	83	G1/4	7	12,8	40	20	22

Dimensions

Dimensions – OGVM, round, protective bellows with 1.5 convolutions

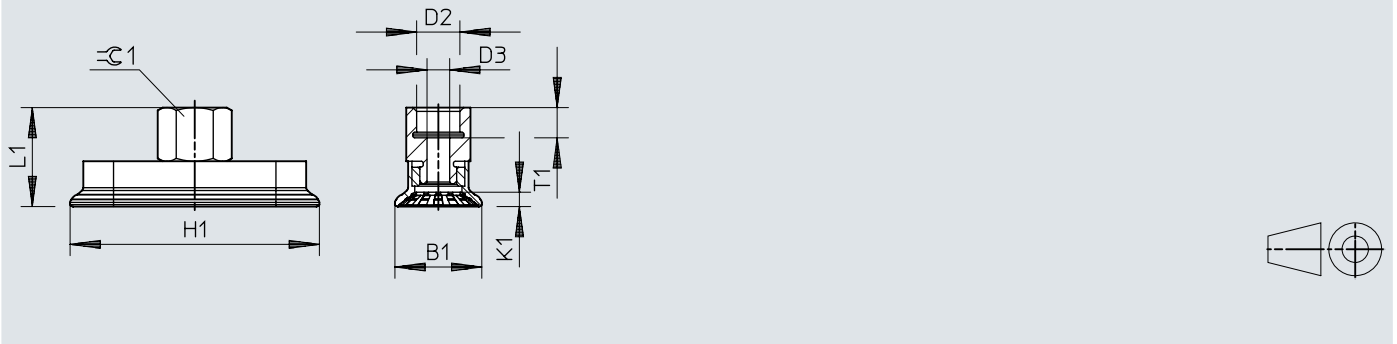
Download CAD data www.festo.com



	D1 ∅	D2	D3 ∅	K1	L1	T1	$\sqrt{Ra} 1$
OGVM-20	22	G1/4	4	5,8	25	12	17
OGVM-30	32	G1/4	4	9	28	12	17
OGVM-40	42	G1/4	4	10	29	12	17
OGVM-50	52	G1/4	7	11,5	42	20	22
OGVM-60	63	G1/4	8	14,5	46,5	20	22
OGVM-80	83	G1/4	8	22	55	20	22
OGVM-100	103	G1/4	8	26	62	20	22
OGVM-125	128	G1/4	8	32	73	20	22

Dimensions

Dimensions – OGVM, oval, flat

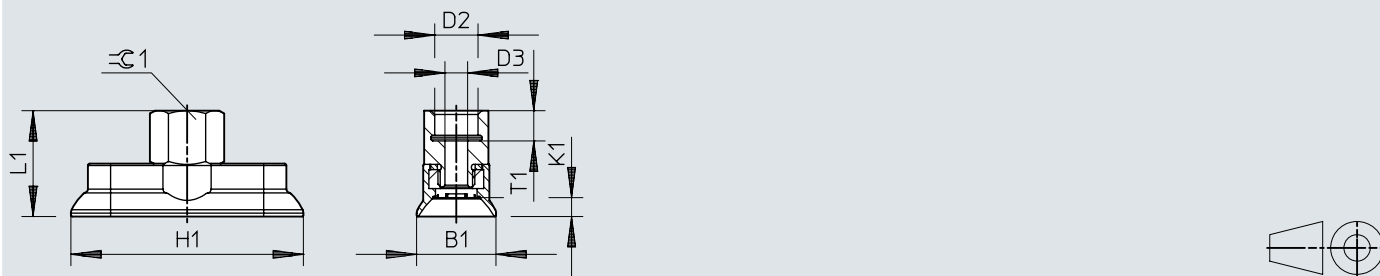
Download CAD data www.festo.com

	B1	D2	D3 Ø	H1	K1	L1	T1	$\approx \text{C}1$
OGVM-16X55	16	G1/4	3	56	3	34	8	17
OGVM-20X65	23	G1/4	6	66	3	26	8	17
OGVM-30X95	32	G1/4	6	97	3	27	8	17
OGVM-40X85	40	G1/4	6	86	4	28	8	17
OGVM-50X105	50	G1/4	8	106	5	30	8	17
OGVM-60X125	60	G1/4	8	127	6	32	8	17
OGVM-70X145	70	G1/4	8	146	7	33	8	17

Dimensions

Dimensions – OGVM, oval, bell-shaped

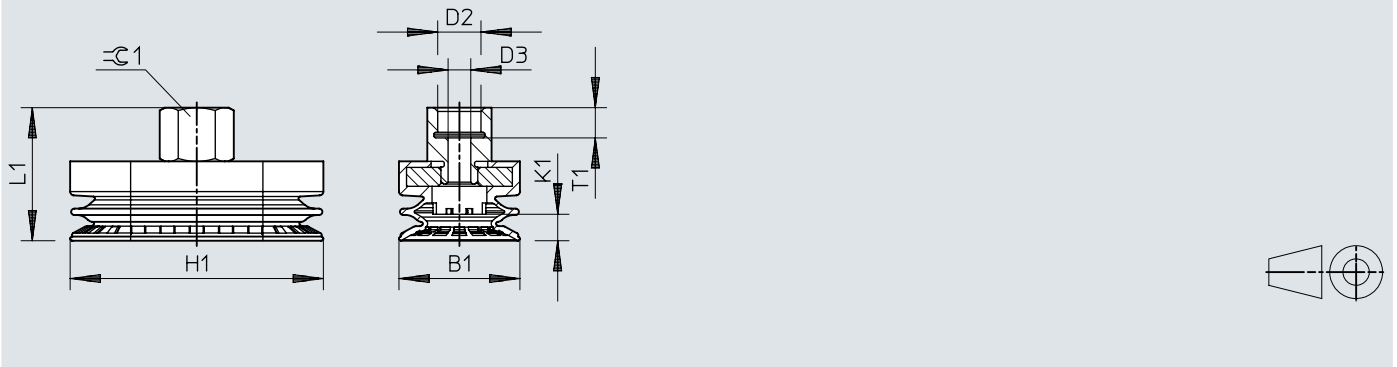
Download CAD data www.festo.com



	B1	D2	D3 ø	H1	K1	L1	T1	≡C 1
OGVM-20X60	21	G1/4	6	61,5	5	28	8	17
OGVM-30X80	31	G1/4	6	81	6	29	8	17
OGVM-40X90	40,5	G1/4	6	95,5	6	29	8	17


Dimensions


Dimensions – OGVM, oval, protective bellows, 1.5 convolutions


Download CAD data www.festo.com


	B1	D2	D3 ∅	H1	K1	L1	T1	⊖ 1
OGVM-30X65	32	G1/4	6	67	7	35	8	17
OGVM-40X85	42	G1/4	6	87	9	38	8	17
OGVM-55X115	56	G1/4	8	118	13	43	8	17
OGVM-70X145	72	G1/4	8	148	16,5	47	8	17


Ordering data

OGVM, round, flat						
	Suction cup diameter	Height compensator for suction cup	Suction cup volume	Product weight	Part no.	Type
	30 mm	3 mm	1.8 cm ³	8 g	8073816	OGVM-30-S-N-G14F
	40 mm	4 mm	4.4 cm ³	10 g	8073817	OGVM-40-S-N-G14F
	50 mm	5 mm	8.4 cm ³	30 g	8073818	OGVM-50-S-N-G14F
	60 mm	6 mm	15 cm ³	40 g	8073819	OGVM-60-S-N-G14F
	80 mm	7.6 mm	35 cm ³	65 g	8073820	OGVM-80-S-N-G14F
	100 mm	9.5 mm	68 cm ³	100 g	8073821	OGVM-100-S-N-G14F
	125 mm	12.5 mm	132 cm ³	151 g	8073822	OGVM-125-S-N-G14F


OGVM, round, bell-shaped						
	Suction cup diameter	Height compensator for suction cup	Suction cup volume	Product weight	Part no.	Type
	20 mm	4 mm	1.2 cm ³	6 g	8073847	OGVM-20-G-N-G14F
	30 mm	5 mm	2.6 cm ³	7 g	8073848	OGVM-30-G-N-G14F
	45 mm	7.8 mm	9.4 cm ³	13 g	8073831	OGVM-45-G-N-G14F
	60 mm	10.6 mm	22 cm ³	29 g	8073832	OGVM-60-G-N-G14F
	80 mm	12.8 mm	48 cm ³	51 g	8073833	OGVM-80-G-N-G14F


OGVM, round, protective bellows with 1.5 convolutions						
	Suction cup diameter	Height compensator for suction cup	Suction cup volume	Product weight	Part no.	Type
	20 mm	5.8 mm	2 cm ³	12 g	8073834	OGVM-20-A-N-G14F
	30 mm	9 mm	5.5 cm ³	15 g	8073835	OGVM-30-A-N-G14F
	40 mm	10 mm	7.8 cm ³	17 g	8073836	OGVM-40-A-N-G14F
	50 mm	11.5 mm	15 cm ³	41 g	8073837	OGVM-50-A-N-G14F
	60 mm	14.5 mm	28 cm ³	50 g	8073838	OGVM-60-A-N-G14F
	80 mm	22 mm	64 cm ³	75 g	8073839	OGVM-80-A-N-G14F
	100 mm	26 mm	115 cm ³	109 g	8073840	OGVM-100-A-N-G14F
125 mm	32 mm	241 cm ³	188 g	8073841	OGVM-125-A-N-G14F	

OGVM, oval, flat						
	Suction cup size	Height compensator for suction cup	Suction cup volume	Product weight	Part no.	Type
	16x55 mm	3 mm	2 cm ³	29 g	8073852	OGVM-16X55-SV-N-G14F
	20x65 mm		3.6 cm ³	21 g	8073853	OGVM-20X65-SV-N-G14F
	30x95 mm		9.6 cm ³	44 g	8073854	OGVM-30X95-SV-N-G14F
	40x85 mm	4 mm	13 cm ³	38 g	8073855	OGVM-40X85-SV-N-G14F
	50x105 mm	5 mm	25 cm ³	67 g	8073856	OGVM-50X105-SV-N-G14F
	60x125 mm	6 mm	44 cm ³	86 g	8073857	OGVM-60X125-SV-N-G14F
	70x145 mm	7 mm	70 cm ³	124 g	8073858	OGVM-70X145-SV-N-G14F

OGVM, oval, bell-shaped						
	Suction cup size	Height compensator for suction cup	Suction cup volume	Product weight	Part no.	Type
	20x60 mm	5 mm	5 cm ³	16 g	8073862	OGVM-20X60-GV-N-G14F

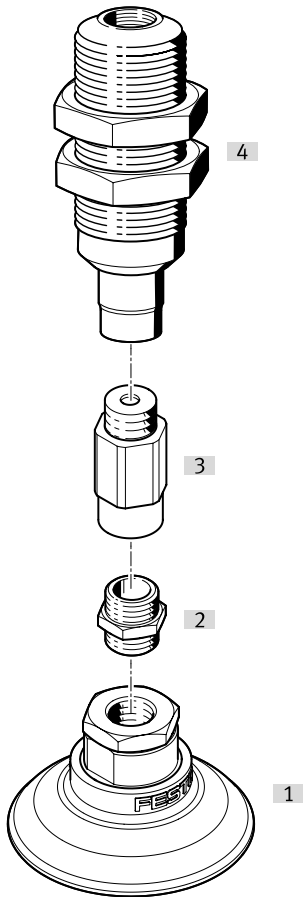
Ordering data

OGVM, oval, bell-shaped						
	Suction cup size	Height compensator for suction cup	Suction cup volume	Product weight	Part no.	Type
	30x80 mm	6 mm	10 cm ³	26 g	8073863	OGVM-30X80-GV-N-G14F
	40x90 mm		15.8 cm ³	40 g	8073864	OGVM-40X90-GV-N-G14F

OGVM, oval, protective bellows, 1.5 convolutions						
	Suction cup size	Height compensator for suction cup	Suction cup volume	Product weight	Part no.	Type
	30x65 mm	7 mm	11.5 cm ³	48 g	8073865	OGVM-30X65-AV-N-G14F
	40x85 mm	9 mm	23.5 cm ³	57 g	8073866	OGVM-40X85-AV-N-G14F
	55x115 mm	13 mm	52 cm ³	76 g	8073867	OGVM-55X115-AV-N-G14F
	70x145 mm	16.5 mm	111 cm ³	156 g	8073868	OGVM-70X145-AV-N-G14F


Peripherals

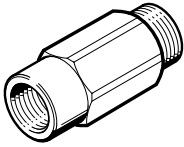
Peripherals overview

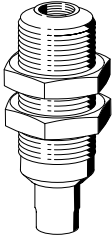


Accessories		→ Link
Type/order code	Description	
[1] Suction cup with connector OGVM		ogvm
[2] Double nipple NPFC-D		19
[3] Vacuum security valve ISV	The vacuum security valves are designed to maintain the vacuum in applications where several suction cups are used and one or more suction cups fail.	19
[4] Length compensator VAL	Workpieces are handled gently thanks to compensation for a possible overstroke of the handling device or for compensating for tolerance differences in the workpiece thickness.	19

Accessories

Double nipple NPFC-D						
	Pneumatic connection, port 1	Pneumatic connection, port 2	Size of pack	Product weight	Part no.	Type
	G1/4	G1/4	10	17.2 g	8030272	NPFC-D-2G14-M

Vacuum security valve ISV					
	Pneumatic connection, port 1	Pneumatic connection, port 2	Product weight	Part no.	Type
	G1/4	G1/4	16 g	33970	ISV-1/4

Length compensator VAL						
	Suction cup mounting	Vacuum connection	Height compensator for suction-cup holder	Product weight	Part no.	Type
	G1/4	G1/4	20 mm	118 g	★ 151211	VAL-1/4-20