






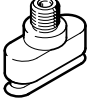


## Suction cups with connector ESS/Suction cups without connector ESV

**FESTO**









Product range overview

Suction cup shape	Design of suction cup with connector	Suction cup $\varnothing$ or size  [mm]	Vacuum connection	Allocation of suction cup holders $\rightarrow$ ESH	Materials						$\rightarrow$ Page/ Internet		
					Fluoro rubber	Nitrile rubber	Butadiene rubber, anti-static	Silicone <sup>1)</sup>	Polyurethane	Vulkollan®			
Round	<b>Flat</b>												
		ESS-...-S...	2, 4	O.D. 3 mm <sup>2)</sup>	Size 1	■	■	■	■	■	-	5	
			6, 8	I.D. 4 mm <sup>2)</sup>	Size 2	■	■	■	■	■	-		
			10, 15	M4	Size 3	■	■	■	■	■	-		
			20, 30, 40, 50	M6	Size 4	■	■	■	■	■	-		
			60, 80, 100	M10	Size 5	■	■	-	■	■	-		
			150, 200	M20x2	Size 6	■	■	-	■	■	-		
	<b>Extra deep</b>												
		ESS-...-E...	15	M4	Size 3	■	■	-	■	■	-	10	
			20, 30, 40, 50	M6	Size 4	■	■	-	■	■	-		
			60, 80, 100	M10	Size 5	■	■	-	■	■	-		
	<b>Bellows, 1.5 convolutions</b>												
		ESS-...-B...	10	M4	Size 3	-	■	-	■	■	-	13	
			20, 30, 40, 50	M6	Size 4	-	■	-	■	■	-		
			80	M10	Size 5	-	■	-	■	■	-		
		ESS-...-BT	40, 50	M6	Size 4	-	-	-	-	-	■	16	
				M10	Size 5	-	-	-	-	-	■		
			80	M10	Size 5	-	-	-	-	-	-		■
				G1/4	-	-	-	-	-	-	-		■
	<b>Bellows, 3.5 convolutions</b>												
		ESS-...-C...	10	M4	Size 3	-	■	-	■	-	-	19	
			20, 30, 40, 50	M6	Size 4	-	■	-	■	-	-		
<b>Deep</b>													
	ESS-...-GT	30	M6	Size 4	-	-	-	-	-	■	22		
			M10	Size 5	-	-	-	-	-	■			
			G1/8	-	-	-	-	-	-	■			
		40, 50	M6	Size 4	-	-	-	-	-	■			
			M10	Size 5	-	-	-	-	-	■			
			G1/4	-	-	-	-	-	-	■			
		60, 80, 100	M10	Size 5	-	-	-	-	-	■			
G1/4	-		-	-	-	-	-	■					
Oval	<b>Flat</b>												
		ESS-...-ON	4x10, 4x20, 6x10, 6x20, 8x20, 8x30, 10x30	M6	Size 4	-	■	-	-	-	-	25	
			15x45, 20x60, 25x75, 30x90	M10	Size 5	-	■	-	-	-	-		

1) Suitable for use in the food industry as per the manufacturer's declaration  
 2) Is plugged onto or into the suction cup holder.

## Product range overview

Suction cup shape	Design of suction cup without connector	Suction cup ø [mm]	Materials						→ Page/ Internet	
			Fluoro rubber	Nitrile rubber	Butadiene rubber, anti-static	Silicone <sup>1)</sup>	Polyurethane	Vulkolan®		
Round	<b>Flat</b>									
		ESV-...S...	20, 30, 40, 50	■	■	■	■	■	-	5
			60, 80, 100, 150, 200	■	■	-	■	■	-	
	<b>Extra deep</b>									
		ESV-...E...	20, 30, 40, 50, 60, 80, 100	■	■	-	■	■	-	10
	<b>Bellows, 1.5 convolutions</b>									
		ESV-...B...	20, 30, 40, 50, 80	-	■	-	■	■	-	13
		ESV-...BT	40, 50, 80	-	-	-	-	-	■	16
	<b>Bellows, 3.5 convolutions</b>									
		ESV-...C...	20, 30, 40, 50	-	■	-	■	-	-	19
<b>Deep</b>										
	ESV-...GT	30, 40, 50, 60, 80, 100	-	-	-	-	-	■	22	

1) Suitable for use in the food industry as per the manufacturer's declaration

## Type codes

001	Series
ESS	Suction cup complete

002	Suction cup size
2	2 mm diameter
4	4 mm diameter
6	6 mm diameter
8	8 mm diameter
10	10 mm diameter
15	15 mm diameter
20	20 mm diameter
30	30 mm diameter
40	40 mm diameter
50	50 mm diameter
60	60 mm diameter
80	80 mm diameter
100	100 mm diameter
150	150 mm diameter
200	200 mm diameter
4x10	4x10 mm
4x20	4x20 mm
6x10	6x10 mm
6x20	6x20 mm
8x20	8x20 mm
8x30	8x30 mm
10x30	10x30 mm
15x45	15x45 mm
20x60	20x60 mm
25x75	25x75 mm
30x90	30x90 mm

003	Suction cup shape
S	Round, standard
G	Round, bell shape
E	Round, extra-deep
B	Round, bellows, 1.5 convolutions
C	Round, bellows, 3.5 convolutions
O	Oval, flat

004	Material
F	Fluoro rubber
N	Nitrile rubber
S	Silicone
U	Polyurethane
T	Polyurethane high-performance elastomer

005	Additional features
	None
A	Antistatic

006	Vacuum connection
M6	Threaded connection M6
M10	Threaded connection M10
G1/8	Threaded connection G1/8
G1/4	Threaded connection G1/4

007	Thread type
I	Female thread
	Male thread

001	Series
ESV	Vacuum suction cup

002	Suction cup size
20	20 mm diameter
30	30 mm diameter
40	40 mm diameter
50	50 mm diameter
60	60 mm diameter
80	80 mm diameter
100	100 mm diameter
150	150 mm diameter
200	200 mm diameter



003	Suction cup shape
S	Round, standard
G	Round, bell shape
E	Round, extra-deep
B	Round, bellows, 1.5 convolutions
C	Round, bellows, 3.5 convolutions

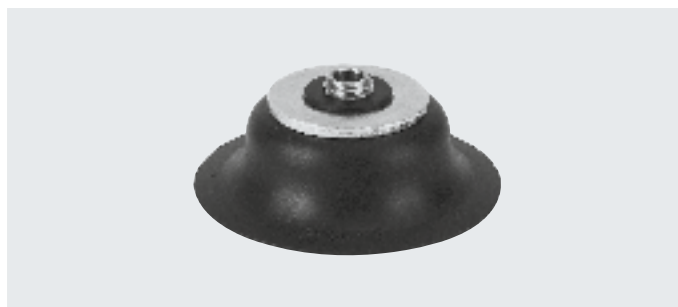
004	Material
F	Fluoro rubber
N	Nitrile rubber
S	Silicone
U	Polyurethane
T	Polyurethane high-performance elastomer

005	Additional features
	None
A	Antistatic

Data sheet

ESS-...-S  
ESV-...-S

-  - Diameter  
2 ... 200 mm
-  - Temperature range  
-30 ... +200°C



**General technical data**

Suction cup ø	[mm]	2	4	6	8	10	15	20	30	40	50	60	80	100	150	200	
Vacuum connection		O.D. 3 mm <sup>1)</sup>		I.D. 4 mm <sup>1)</sup>		M4		M6				M10			M20x2		
Nominal width	[mm]	0.6	1.2	2				3				6			10		
Suction cup shape		Round, flat															
Type of mounting		Via vacuum connection															
Connection position		On top															
Mounting position		Any															
Ejector pulse suitability	[bar]	≤ 4				-											

1) Is pushed into/onto the suction cup holder

**Technical data**

Suction cup ø	Allocation of suction cup holders → ESH	Holding force at nominal operating pressure -0.7 bar	Suction cup volume	Min. workpiece radius	Weight	
					ESS	ESV
[mm]		[N]	[cm <sup>3</sup> ]	[mm]	[g]	[g]
2	Size 1	0.1	0.002	10	0.1	-
4		0.46	0.008	10	0.1	-
6	Size 2	1.1	0.015	15	0.2	-
8		2.3	0.030	20	0.2	-
10	Size 3	3.9	0.050	30	1.5	-
15		8.5	0.208	35	1.9	-
20	Size 4	16.3	0.318	60	6.4	1.6
30		40.8	0.867	110	9	2.7
40		69.6	1.566	230	16.3	7.4
50		105.8	2.387	330	22	11.2
60	Size 5	166.1	3.953	350	49	22
80		309.7	19.312	400	133	33
100		503.6	29.779	460	222	59
150	Size 6	900	173.826	480	719	361
200		1610	245.454	680	1198	840

## Data sheet

Lateral force [N] at nominal operating pressure –0.7 bar					
Suction cup ø [mm]	ESS-...SF	ESS-...SN	ESS-...SNA	ESS-...SS	ESS-...SU
2	0.5	0.5	0.5	0.5	0.5
4	0.5	0.5	0.5	0.5	0.5
6	1.5	3.5	2	2.5	3
8	3.5	9.5	4	3.5	5
10	4.5	3.5	7.5	4	7
15	10.5	10.5	13.5	6.5	9
20	15.5	11.5	14.5	10.5	23
30	22	19.5	20	23.5	19
40	25	60	49	25	83
50	69.5	135	81.5	84	130
60	117.5	136	–	85	151
80	139.5	315	–	104	295
100	299	600	–	130	482.5
150	480	675	–	400	1000
200	500	850	–	425	1000

Operating and environmental conditions					
Type	ESS/ESV-...SF	ESS/ESV-...SN	ESS/ESV-...SNA	ESS/ESV-...SS	ESS/ESV-...SU
Operating pressure [bar]	–0.95 ... 0				
Operating medium	Atmospheric air based on ISO 8573-1:2010 [7:--:--]				
Ambient temperature [°C]	–10 ... +200	–10 ... +70	–10 ... +70	–30 ... +180	–20 ... +60
Corrosion resistance class CRC <sup>1)</sup>	1				
Special characteristics	–	–	Anti-static	–	–
Food-safe <sup>2)</sup>	See supplementary material information				

1) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

2) Additional information is available at [www.festo.com/sp](http://www.festo.com/sp) → Certificates.

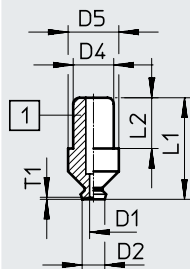
Materials						
Type	ESS/ESV-...SF	ESS/ESV-...SN	ESS/ESV-...SNA	ESS/ESV-...SS	ESS/ESV-...SU	
Shore hardness	60 ±5	50 ±5 (60 ±5) <sup>1)</sup>	50 ±5	50 ±5	60 ±5	
Suction cup	FPM	NBR	BR	VMQ (silicone)	PUR	
	Colour: grey	Colour: black	Colour: black/white dot	Colour: transparent	Colour: blue	
Screwed trunnion for suction cup ø [mm]	2 ... 15					
	Nickel-plated brass					
	20, 30					
	Nickel-plated brass					
	Galvanised and chrome-plated steel					
	40, 50					
	Nickel-plated brass					
	Nickel-plated wrought aluminium alloy					
	Galvanised and chrome-plated steel					
	60					
	Nickel-plated steel		–		Nickel-plated steel	
	Nickel-plated wrought aluminium alloy		–		Nickel-plated wrought aluminium alloy	
	Galvanised and chrome-plated steel		–		Galvanised and chrome-plated steel	
	80, 100					
Nickel-plated steel		–		Nickel-plated steel		
POM		–		POM		
Galvanised and chrome-plated steel		–		Galvanised and chrome-plated steel		
150, 200						
Nickel-plated steel		–		Nickel-plated steel		
NBR		–		NBR		
Galvanised and chrome-plated steel		–		Galvanised and chrome-plated steel		
Note on materials	RoHS-compliant					
	Free of copper and PTFE					
	–			Contains paint-wetting impairment substances		

1) Value in brackets applies to suction cup ø 10 ... 100 mm

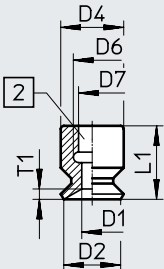
Data sheet

Dimensions

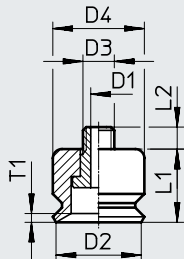
ESS-2/4-S



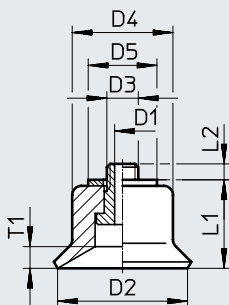
ESS-6/8-S



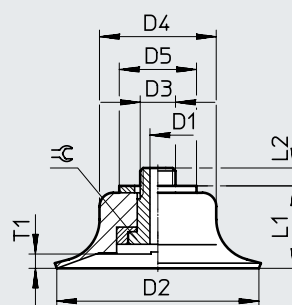
ESS-10/15-S



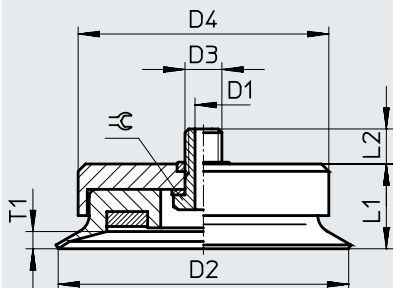
ESS-20/30-S



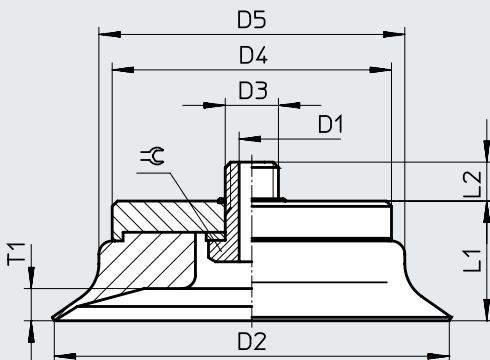
ESS-40/50/60-S



ESS-80/100-S



ESS-150/200-S



[1] Trunnion for insertion into holder

[2] Hole for pushing onto holder

Type Suction cup	For Suction gripper	D1 NS	D2 ø	D3	D4 ø	D5 ø	L1	L2	T1	☞
ESS-2-S...	ESG-2-S...	ø 0.6	2	-	3.2	4	8	4	0.2	-
ESS-4-S...	ESG-4-S...	ø 1.2	4	-	3.2	4	8	4	0.6	-
ESS-6-S...	ESG-6-S...	ø 2	6	-	6	-	7	-	1	-
ESS-8-S...	ESG-8-S...	ø 2	8	-	6	-	5.5	-	1.1	-
ESS-10-S...	ESG-10-S...	☞ 2	10	M4x0.7	10	-	8	3	1	-
ESS-15-S...	ESG-15-S...	☞ 2	15	M4x0.7	11	-	9	3	2.4	-
ESS-20-S...	ESG-20-S...	☞ 3	20	M6x1	15	15.5	11.6	2.4	1.8	-
ESS-30-S...	ESG-30-S...	☞ 3	30	M6x1	17	15.5	12.6	3.4	2	-
ESS-40-S...	ESG-40-S...	☞ 3	40	M6x1	25	22	15.6	2.7	1.9	-
ESS-50-S...	ESG-50-S...	☞ 3	50	M6x1	30	22	16.6	3.4	1.9	-
ESS-60-S...	ESG-60-S...	ø 6	60	M10x1.5	40	-	20.6	4.5	2.6	14
ESS-80-S...	ESG-80-S...	ø 6	80	M10x1.5	68	-	23	9.4	4.7	14
ESS-100-S...	ESG-100-S...	ø 6	100	M10x1.5	85	-	25	8.4	5.5	14
ESS-150-S...	ESG-150-S...	ø 10	150	M20x2	105	115	45	13	12	27
ESS-200-S...	ESG-200-S...	ø 10	200	M20x2	105	160	50	13	15	27

## Data sheet

Ordering data				
Suction cup ø [mm]	ESS		ESV	
	Part no.	Type	Part no.	Type
<b>Fluoro rubber</b>				
2	189267	ESS-2-SF	–	
4	189272	ESS-4-SF	–	
6	189277	ESS-6-SF	–	
8	189282	ESS-8-SF	–	
10	189287	ESS-10-SF	–	
15	189292	ESS-15-SF	–	
20	189297	ESS-20-SF	190982	ESV-20-SF
30	189302	ESS-30-SF	190987	ESV-30-SF
40	189307	ESS-40-SF	190992	ESV-40-SF
50	189312	ESS-50-SF	190997	ESV-50-SF
60	189317	ESS-60-SF	191002	ESV-60-SF
80	189321	ESS-80-SF	191006	ESV-80-SF
100	189325	ESS-100-SF	191010	ESV-100-SF
150	189329	ESS-150-SF	191014	ESV-150-SF
200	189333	ESS-200-SF	191018	ESV-200-SF
<b>Nitrile rubber</b>				
2	189264	ESS-2-SN	–	
4	189269	ESS-4-SN	–	
6	189274	ESS-6-SN	–	
8	189279	ESS-8-SN	–	
10	189284	ESS-10-SN	–	
15	189289	ESS-15-SN	–	
20	189294	ESS-20-SN	190979	ESV-20-SN
30	189299	ESS-30-SN	190984	ESV-30-SN
40	189304	ESS-40-SN	190989	ESV-40-SN
50	189309	ESS-50-SN	190994	ESV-50-SN
60	189314	ESS-60-SN	190999	ESV-60-SN
80	189318	ESS-80-SN	191003	ESV-80-SN
100	189322	ESS-100-SN	191007	ESV-100-SN
150	189326	ESS-150-SN	191011	ESV-150-SN
200	189330	ESS-200-SN	191015	ESV-200-SN
<b>Butadiene rubber, anti-static</b>				
2	189268	ESS-2-SNA	–	
4	189273	ESS-4-SNA	–	
6	189278	ESS-6-SNA	–	
8	189283	ESS-8-SNA	–	
10	189288	ESS-10-SNA	–	
15	189293	ESS-15-SNA	–	
20	189298	ESS-20-SNA	190983	ESV-20-SNA
30	189303	ESS-30-SNA	190988	ESV-30-SNA
40	189308	ESS-40-SNA	190993	ESV-40-SNA
50	189313	ESS-50-SNA	190998	ESV-50-SNA



## Data sheet

Ordering data				
Suction cup ø [mm]	ESS		ESV	
	Part no.	Type	Part no.	Type
<b>Silicone</b>				
2	189266	ESS-2-SS	–	
4	189271	ESS-4-SS	–	
6	189276	ESS-6-SS	–	
8	189281	ESS-8-SS	–	
10	189286	ESS-10-SS	–	
15	189291	ESS-15-SS	–	
20	189296	ESS-20-SS	190981	ESV-20-SS
30	189301	ESS-30-SS	190986	ESV-30-SS
40	189306	ESS-40-SS	190991	ESV-40-SS
50	189311	ESS-50-SS	190996	ESV-50-SS
60	189316	ESS-60-SS	191001	ESV-60-SS
80	189320	ESS-80-SS	191005	ESV-80-SS
100	189324	ESS-100-SS	191009	ESV-100-SS
150	189328	ESS-150-SS	191013	ESV-150-SS
200	189332	ESS-200-SS	191017	ESV-200-SS
<b>Polyurethane</b>				
2	189265	ESS-2-SU	–	
4	189270	ESS-4-SU	–	
6	189275	ESS-6-SU	–	
8	189280	ESS-8-SU	–	
10	189285	ESS-10-SU	–	
15	189290	ESS-15-SU	–	
20	189295	ESS-20-SU	190980	ESV-20-SU
30	189300	ESS-30-SU	190985	ESV-30-SU
40	189305	ESS-40-SU	190990	ESV-40-SU
50	189310	ESS-50-SU	190995	ESV-50-SU
60	189315	ESS-60-SU	191000	ESV-60-SU
80	189319	ESS-80-SU	191004	ESV-80-SU
100	189323	ESS-100-SU	191008	ESV-100-SU
150	189327	ESS-150-SU	191012	ESV-150-SU
200	189331	ESS-200-SU	191016	ESV-200-SU

Suction cups with connector ESS/Suction cups without connector ESV, round, extra-deep

Data sheet

ESS-...-E  
ESV-...-E

⌀ - Diameter  
15 ... 100 mm

⌞ - Temperature range  
-30 ... +200°C



General technical data

Suction cup ø	[mm]	15	20	30	40	50	60	80	100
Vacuum connection		M4	M6				M10		
Nominal width	[mm]	2	3				6		
Suction cup shape		Round, extra deep							
Type of mounting		Via vacuum connection							
Connection position		On top							
Mounting position		Any							

Technical data

Suction cup ø [mm]	Allocation of suction cup holders → ESH	Holding force at nominal operating pressure -0.7 bar [N]	Suction cup volume [cm³]	Min. workpiece radius [mm]	Weight	
					ESS [g]	ESV [g]
15	Size 3	9.8	0.35	20	1.9	-
20	Size 4	17	0.84	30	6.4	1.6
30		37.2	2.12	50	9.2	2.9
40		67.6	4.04	80	16.9	8
50	Size 5	103.6	7.90	100	23.4	12.6
60		162.5	19.77	120	48	21
80		275	51.61	160	141	41
100		440.8	84.66	200	228	65

Lateral force [N] at nominal operating pressure -0.7 bar

Suction cup ø [mm]	ESS-...-EF	ESS-...-EN	ESS-...-ES	ESS-...-EU
15	14.5	9	10	15
20	15.5	14	13	16
30	18.5	24.5	21.5	41.5
40	22	53	28.5	46.5
50	60	115	42.5	62
60	62.5	130	63.5	134
80	148.5	216	107.5	136.5
100	254.5	351	150	352.5

## Data sheet

Operating and environmental conditions				
Type	ESS/ESV-...-EF	ESS/ESV-...-EN	ESS/ESV-...-ES	ESS/ESV-...-EU
Operating pressure [bar]	-0.95 ... 0			
Operating medium	Atmospheric air based on ISO 8573-1:2010 [7:--:-]			
Ambient temperature [°C]	-10 ... +200	-10 ... +70	-30 ... +180	-20 ... +60
Corrosion resistance class CRC <sup>1)</sup>	1			
Food-safe <sup>2)</sup>	See supplementary material information			

1) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

2) Additional information is available at [www.festo.com/sp](http://www.festo.com/sp) → Certificates.

Materials					
Type	ESS/ESV-...-EF	ESS/ESV-...-EN	ESS/ESV-...-ES	ESS/ESV-...-EU	
Shore hardness	60 ±5	60 ±5	50 ±5	60 ±5	
Suction cup	FPM	NBR	VMQ (silicone)	PUR	
	Colour: grey	Colour: black	Colour: transparent	Colour: blue	
Screwed trunnion for suction cup ø [mm]	15	Nickel-plated brass			
		20, 30	Nickel-plated brass		
			Galvanised and chrome-plated steel		
	40, 50	Nickel-plated brass			
		Nickel-plated wrought aluminium alloy			
		Galvanised and chrome-plated steel			
	60	Nickel-plated steel			
		Nickel-plated wrought aluminium alloy			
		Galvanised and chrome-plated steel			
	80, 100	Nickel-plated steel			
		POM			
		Galvanised and chrome-plated steel			
Note on materials	RoHS-compliant				
	Free of copper and PTFE				
	-			Contains paint-wetting impairment substances	

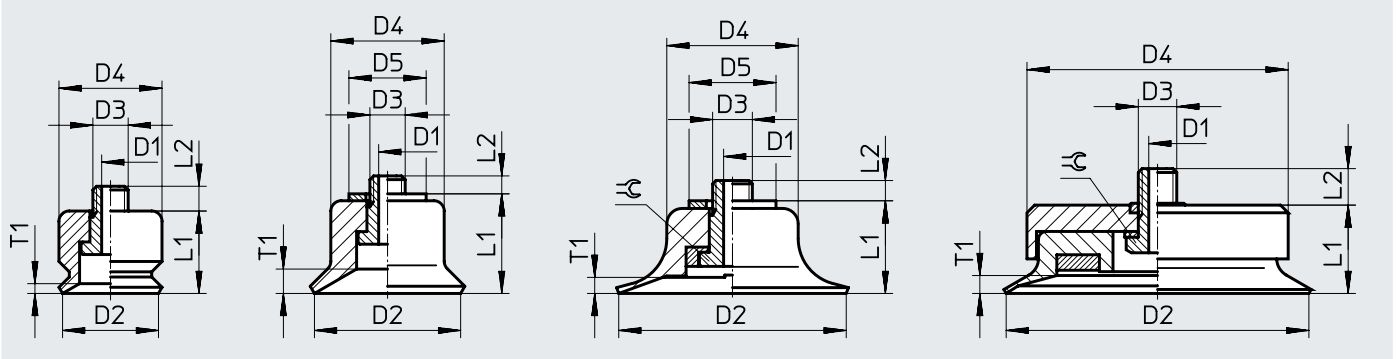
## Dimensions

ESS-15-E

ESS-20/30-E

ESS-40/50/60-E

ESS-80/100-E



Type Suction cup	For Suction gripper	D1 NS	D2 ø	D3	D4 ø	D5 ø	L1	L2	T1	⊕
ESS-15-E...	ESG-15-E...	≈⊕ 2	15	M4x0.7	11	-	10	3	2.9	-
ESS-20-E...	ESG-20-E...	≈⊕ 3	20	M6x1	15	15.5	12.6	2.4	3	-
ESS-30-E...	ESG-30-E...	≈⊕ 3	30	M6x1	17	15.5	15.6	3.4	4.5	-
ESS-40-E...	ESG-40-E...	≈⊕ 3	40	M6x1	25	22	19.1	2.7	4.5	-
ESS-50-E...	ESG-50-E...	≈⊕ 3	50	M6x1	30	22	21.1	3.4	6.5	-
ESS-60-E...	ESG-60-E...	⊕ 6	60	M10x1.5	40	-	27.6	5.4	9.5	14
ESS-80-E...	ESG-80-E...	⊕ 6	80	M10x1.5	68	-	33	9.4	8.6	14
ESS-100-E...	ESG-100-E...	⊕ 6	100	M10x1.5	85	-	33	8.4	10.7	14

## Data sheet

Ordering data				
Suction cup ø [mm]	ESS		ESV	
	Part no.	Type	Part no.	Type
<b>Fluoro rubber</b>				
15	189337	ESS-15-EF	–	
20	189341	ESS-20-EF	191026	ESV-20-EF
30	189345	ESS-30-EF	191030	ESV-30-EF
40	189349	ESS-40-EF	191034	ESV-40-EF
50	189353	ESS-50-EF	191038	ESV-50-EF
60	189357	ESS-60-EF	191042	ESV-60-EF
80	189361	ESS-80-EF	191046	ESV-80-EF
100	189365	ESS-100-EF	191050	ESV-100-EF
<b>Nitrile rubber</b>				
15	189334	ESS-15-EN	–	
20	189338	ESS-20-EN	191023	ESV-20-EN
30	189342	ESS-30-EN	191027	ESV-30-EN
40	189346	ESS-40-EN	191031	ESV-40-EN
50	189350	ESS-50-EN	191035	ESV-50-EN
60	189354	ESS-60-EN	191039	ESV-60-EN
80	189358	ESS-80-EN	191043	ESV-80-EN
100	189362	ESS-100-EN	191047	ESV-100-EN
<b>Silicone</b>				
15	189336	ESS-15-ES	–	
20	189340	ESS-20-ES	191025	ESV-20-ES
30	189344	ESS-30-ES	191029	ESV-30-ES
40	189348	ESS-40-ES	191033	ESV-40-ES
50	189352	ESS-50-ES	191037	ESV-50-ES
60	189356	ESS-60-ES	191041	ESV-60-ES
80	189360	ESS-80-ES	191045	ESV-80-ES
100	189364	ESS-100-ES	191049	ESV-100-ES
<b>Polyurethane</b>				
15	189335	ESS-15-EU	–	
20	189339	ESS-20-EU	191024	ESV-20-EU
30	189343	ESS-30-EU	191028	ESV-30-EU
40	189347	ESS-40-EU	191032	ESV-40-EU
50	189351	ESS-50-EU	191036	ESV-50-EU
60	189355	ESS-60-EU	191040	ESV-60-EU
80	189359	ESS-80-EU	191044	ESV-80-EU
100	189363	ESS-100-EU	191048	ESV-100-EU

## Data sheet

ESS-...-B  
ESV-...-B

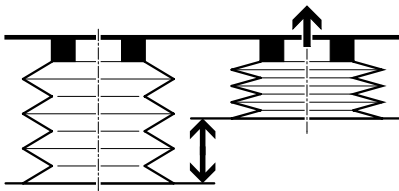
⌀ - Diameter  
10 ... 80 mm

🌡 - Temperature range  
-30 ... +180°C



General technical data							
Suction cup ø	[mm]	10	20	30	40	50	80
Vacuum connection		M4	M6				M10
Nominal width	[mm]	2	3				6
Suction cup shape		Round, bellows with 1.5 convolutions					
Type of mounting		Via vacuum connection					
Connection position		On top					
Mounting position		Any					
Suction cup height compensator H1	[mm]	4	6	8	9.5	11	10

### Suction cup height compensator H1



Technical data						
Suction cup ø	Allocation of suction cup holders → ESH	Holding force at nominal operating pressure -0.7 bar [N]	Suction cup volume [cm³]	Min. workpiece radius [mm]	Weight	
					ESS [g]	ESV [g]
[mm]						
10	Size 3	4.7	0.38	20	1.8	-
20	Size 4	12.9	1.60	40	6.7	1.9
30		26.2	4.07	80	9.9	3.6
40		52.3	8.87	90	18.7	9.8
50		72.6	14.23	150	24.7	13.9
80	Size 5	213.6	63.90	430	139	39

Lateral force [N] at nominal operating pressure -0.7 bar			
Suction cup ø [mm]	ESS-...-BN	ESS-...-BS	ESS-...-BU
10	4.5	2.5	3
20	9.5	8	9.5
30	24.5	16	21.5
40	32.5	32.5	33
50	55.5	38	47
80	199.5	93	132.5

## Data sheet

Operating and environmental conditions			
Type	ESS/ESV-...-BN	ESS/ESV-...-BS	ESS/ESV-...-BU
Operating pressure [bar]	-0.95 ... 0		
Operating medium	Atmospheric air based on ISO 8573-1:2010 [7:--:-]		
Ambient temperature [°C]	-10 ... +70	-30 ... +180	-20 ... +60
Corrosion resistance class CRC <sup>1)</sup>	1		
Food-safe <sup>2)</sup>	See supplementary material information		

1) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

2) Additional information is available at [www.festo.com/sp](http://www.festo.com/sp) → Certificates.

Materials			
Type	ESS/ESV-...-BN	ESS/ESV-...-BS	ESS/ESV-...-BU
Shore hardness	50 ±5	50 ±5	60 ±5
Suction cup	NBR	VMQ (silicone)	PUR
	Colour: black	Colour: transparent	Colour: blue
Screwed trunnion for suction cup ø [mm]	10	Nickel-plated brass	
	20, 30	Nickel-plated brass	
		Galvanised and chrome-plated steel	
	40, 50	Nickel-plated brass	
		Nickel-plated wrought aluminium alloy	
		Galvanised and chrome-plated steel	
80	Nickel-plated steel		
	POM		
	Galvanised and chrome-plated steel		
Note on materials	RoHS-compliant		
	Free of copper and PTFE		
	-		Contains paint-wetting impairment substances

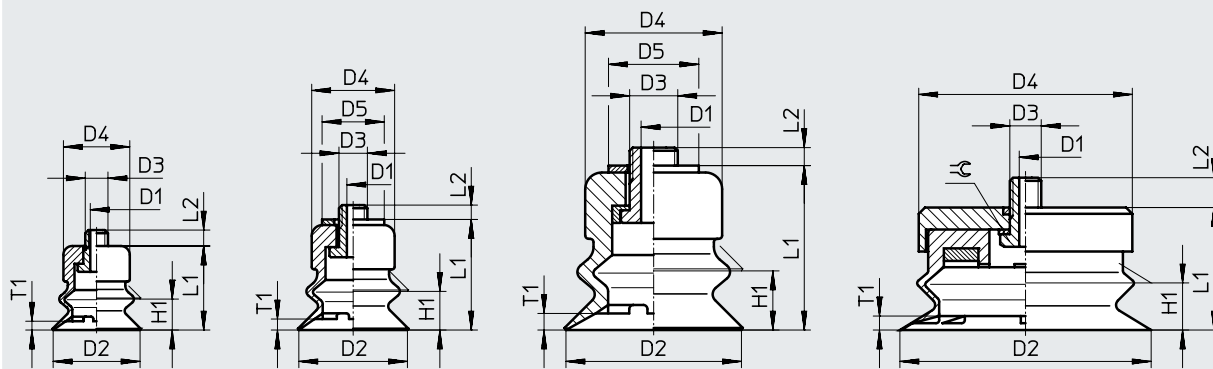
## Dimensions

ESS-10-B

ESS-20/30-B

ESS-40/50-B

ESS-80-B




Type	For	D1	D2	D3	D4	D5	H1	L1	L2	T1	⊕
Suction cup	Suction gripper	NS	ø		ø	ø					
ESS-10-B...	ESG-10-B...	⊕ 2	10	M4x0.7	10	-	4	16	3	1	-
ESS-20-B...	ESG-20-B...	⊕ 3	20	M6x1	15	15.5	6	20.6	2.4	2	-
ESS-30-B...	ESG-30-B...	⊕ 3	30	M6x1	17	15.5	8	24.6	3.4	2.5	-
ESS-40-B...	ESG-40-B...	⊕ 3	40	M6x1	25	22	9.5	31.6	2.7	4	-
ESS-50-B...	ESG-50-B...	⊕ 3	50	M6x1	30	22	11	33.6	3.4	4	-
ESS-80-B...	ESG-80-B...	ø 6	80	M10x1.5	68	-	10	39	9.4	2	14


## Data sheet

Ordering data				
Suction cup ø [mm]	ESS		ESV	
	Part no.	Type	Part no.	Type
<b>Nitrile rubber</b>				
10	189374	ESS-10-BN	–	
20	189378	ESS-20-BN	191054	ESV-20-BN
30	189382	ESS-30-BN	191057	ESV-30-BN
40	189386	ESS-40-BN	191060	ESV-40-BN
50	189390	ESS-50-BN	191063	ESV-50-BN
80	189394	ESS-80-BN	191066	ESV-80-BN
<b>Silicone</b>				
10	189376	ESS-10-BS	–	
20	189380	ESS-20-BS	191056	ESV-20-BS
30	189384	ESS-30-BS	191059	ESV-30-BS
40	189388	ESS-40-BS	191062	ESV-40-BS
50	189392	ESS-50-BS	191065	ESV-50-BS
80	189396	ESS-80-BS	191068	ESV-80-BS
<b>Polyurethane</b>				
10	189375	ESS-10-BU	–	
20	189379	ESS-20-BU	191055	ESV-20-BU
30	189383	ESS-30-BU	191058	ESV-30-BU
40	189387	ESS-40-BU	191061	ESV-40-BU
50	189391	ESS-50-BU	191064	ESV-50-BU
80	189395	ESS-80-BU	191067	ESV-80-BU

## Data sheet

ESS-...-BT  
ESV-...-BT

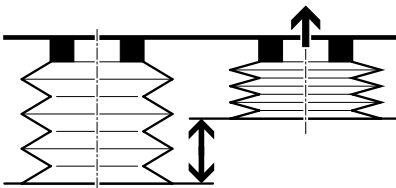
-  - Diameter  
40 ... 80 mm

-  - Temperature range  
-10 ... +80°C



General technical data				
Suction cup $\varnothing$	[mm]	40	50	80
Vacuum connection		M6	-	
		M10		
		G1/4 (female/male thread)		
Nominal width	[mm]	2.5		
Suction cup shape		Round, bellows with 1.5 convolutions		
Type of mounting		Via vacuum connection		
Connection position		On top		
Mounting position		Any		
Suction cup height compensator H1	[mm]	9	10	10.5

### Suction cup height compensator H1



Technical data							
Suction cup $\varnothing$	Vacuum connection	Allocation of suction cup holders $\rightarrow$ ESH	Holding force at nominal operating pressure -0.7 bar [N]	Suction cup volume [cm <sup>3</sup> ]	Min. workpiece radius [mm]	Weight	
						ESS	ESV
[mm]						[g]	[g]
40	M6	Size 4	59	9.8	35	18	10.5
	M10	Size 5				19	
	G1/4 female thread	-				19	
	G1/4 male thread	-				20.5	
50	M6	Size 4	100	17.6	40	24	16.2
	M10	Size 5				25	
	G1/4 female thread	-				25	
	G1/4 male thread	-				26	
80	M10	Size 5	237	59.1	100	84.5	57.2
	G1/4 female thread	-				87.5	
	G1/4 male thread	-				85.5	

### Lateral force [N] at nominal operating pressure -0.7 bar

Suction cup $\varnothing$	ESS-...-BT
[mm]	
40	22
50	39
80	102



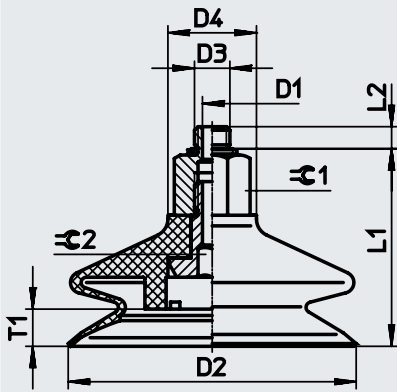
## Data sheet

Operating and environmental conditions	
Operating pressure [bar]	-0.95 ... 0
Operating medium	Atmospheric air based on ISO 8573-1:2010 [7:--:-]
Ambient temperature [°C]	-10 ... +80
Corrosion resistance class CRC <sup>1)</sup>	2

1) Corrosion resistance class CRC 2 to Festo standard FN 940070  
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Materials	
Shore hardness	72 ±5
Suction cup with connector	Vulkollan® Colour: reddish brown
Screwed trunnion	Wrought aluminium alloy
Note on materials	RoHS-compliant Free of copper and PTFE

### Dimensions



Type	D1 ∅ NS	D2 ∅	D3	D4 ∅	L1	L2	T1	∅1	∅2
ESS-40-BT	2.5	40	M6	20	36	3.45	9	15	4
			M10		36.3	6.2		17	
			G1/4		48.3	-			
ESS-40-BT-I			G1/4		50.3	-			
ESS-50-BT	2.5	50	M6	20	38.05	3.45	10	15	4
			M10		38.3	6.2		17	
			G1/4		50.3	-			
ESS-50-BT-I			G1/4		50.3	-			
ESS-80-BT	2.5	80	M10	20	53.3	6.2	10.5	17	8
			G1/4		60.8	-			
			G1/4		60.8	-			
ESS-80-BT-I			G1/4		60.8	-			

® is a registered trademark of the respective trademark holder in certain countries.

Data sheet

Ordering data					
Suction cup ø [mm]	Vacuum connection	ESS		ESV	
		Part no.	Type	Part no.	Type
40	M6	525989	ESS-40-BT-M6	–	
	M10	525990	ESS-40-BT-M10	–	
	G1/4 female thread	525991	ESS-40-BT-G1/4-l	–	
	G1/4 male thread	525992	ESS-40-BT-G1/4	–	
	–	–		526006	ESV-40-BT
50	M6	525993	ESS-50-BT-M6	–	
	M10	525994	ESS-50-BT-M10	–	
	G1/4 female thread	525995	ESS-50-BT-G1/4-l	–	
	G1/4 male thread	525996	ESS-50-BT-G1/4	–	
	–	–		526007	ESV-50-BT
80	M10	525997	ESS-80-BT-M10	–	
	G1/4 female thread	525998	ESS-80-BT-G1/4-l	–	
	G1/4 male thread	525999	ESS-80-BT-G1/4	–	
	–	–		526008	ESV-80-BT

## Data sheet

ESS-...-C  
ESV-...-C

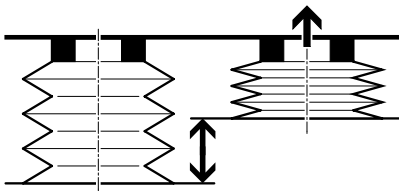
⌀ - Diameter  
10 ... 50 mm

🌡 - Temperature range  
-30 ... +180°C



General technical data						
Suction cup ø	[mm]	10	20	30	40	50
Vacuum connection		M4	M6			
Nominal width	[mm]	2	3			
Suction cup shape		Round, bellows with 3.5 convolutions				
Type of mounting		Via vacuum connection				
Connection position		On top				
Mounting position		Any				
Suction cup height compensator H1	[mm]	3.3	7	10.5	12.8	17.5

### Suction cup height compensator H1



Suction cup ø [mm]	Allocation of suction cup holders → ESH	Holding force at nominal operating pressure -0.7 bar [N]	Suction cup volume [cm³]	Min. workpiece radius [mm]	Weight	
					ESS [g]	ESV [g]
10	Size 3	3.9	0.29	25	1.6	-
20	Size 4	8.2	2.75	50	6.9	2.1
30		20.8	9.47	80	12.2	5.8
40		42.4	19.72	100	21.9	13
50		63.4	38.92	180	32.1	21.3

### Lateral force [N] at nominal operating pressure -0.7 bar

Suction cup ø [mm]	ESS-...-CN	ESS-...-CS
10	1.5	1
20	6.5	7
30	11.5	11
40	47.5	13
50	49	45.5

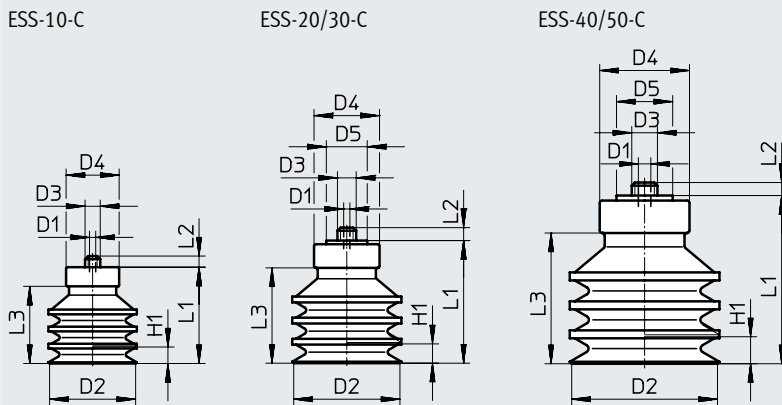
## Data sheet

Operating and environmental conditions		
Type	ESS/ESV-...-CN	ESS/ESV-...-CS
Operating pressure [bar]	-0.95 ... 0	
Operating medium	Atmospheric air based on ISO 8573-1:2010 [7:--:-]	
Ambient temperature [°C]	-10 ... +70	-30 ... +180
Corrosion resistance class CRC <sup>1)</sup>	1	
Food-safe <sup>2)</sup>	See supplementary material information	

- 1) Corrosion resistance class CRC 1 to Festo standard FN 940070  
Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).
- 2) Additional information is available at [www.festo.com/sp](http://www.festo.com/sp) → Certificates.

Materials		
Type	ESS/ESV-...-CN	ESS/ESV-...-CS
Shore hardness	50 ±5	
Suction cup	NBR	VMQ (silicone)
	Colour: black	Colour: transparent
Screwed trunnion for suction cup ø [mm]	10	Nickel-plated brass
	20, 30	Nickel-plated brass
		Galvanised and chrome-plated steel
	40, 50	Nickel-plated brass
		Nickel-plated wrought aluminium alloy
	Galvanised and chrome-plated steel	
Note on materials	RoHS-compliant	
	Free of copper and PTFE	
	-	Contains paint-wetting impairment substances

### Dimensions



Type	For Suction gripper	D1 ≅ NS	D2 ø	D3	D4 ø	D5 ø	H1	L1	L2	L3
ESS-10-C...	ESG-10-C...	2	10	M4x0.7	10	-	3.3	12.7	3	8.7
ESS-20-C...	ESG-20-C...	3	20	M6x1	15	15.5	7	23	2.4	16.4
ESS-30-C...	ESG-30-C...	3	30	M6x1	18	15.5	10.5	34.3	3.4	26.2
ESS-40-C...	ESG-40-C...	3	40	M6x1	25	22	12.8	39.6	2.7	31
ESS-50-C...	ESG-50-C...	3	50	M6x1	30	22	17.5	48	3.4	39.4

## Data sheet

Ordering data				
Suction cup ø [mm]	ESS		ESV	
	Part no.	Type	Part no.	Type
<b>Nitrile rubber</b>				
10	189398	ESS-10-CN	–	
20	189400	ESS-20-CN	191071	ESV-20-CN
30	189402	ESS-30-CN	191073	ESV-30-CN
40	189404	ESS-40-CN	191075	ESV-40-CN
50	189406	ESS-50-CN	191077	ESV-50-CN
<b>Silicone</b>				
10	189399	ESS-10-CS	–	
20	189401	ESS-20-CS	191072	ESV-20-CS
30	189403	ESS-30-CS	191074	ESV-30-CS
40	189405	ESS-40-CS	191076	ESV-40-CS
50	189407	ESS-50-CS	191078	ESV-50-CS

Suction cups with connector ESS/Suction cups without connector ESV, round, deep

Data sheet

ESS-...-GT  
ESV-...-GT

⌀ - Diameter  
30 ... 100 mm

⌞ - Temperature range  
-10 ... +80°C



General technical data							
Suction cup ø	[mm]	30	40	50	60	80	100
Vacuum connection		M6			-		
		M10					
		G1/8 (female/male thread)		-			
		-			G1/4 (female/male thread)		
Nominal width	[mm]	2.5				5.5	
Suction cup shape		Round, deep					
Type of mounting		Via vacuum connection					
Connection position		On top					
Mounting position		Any					
Suction cup height compensator H1	[mm]	3.5	5.5	8	6	7.5	9

Technical data								
Suction cup ø	Vacuum connection	Allocation of suction cup holders → ESH	Holding force at nominal operating pressure -0.7 bar [N]	Lateral force at nominal operating pressure -0.7 bar [N]	Suction cup volume [cm <sup>3</sup> ]	Min. workpiece radius [mm]	Weight	
							ESS [g]	ESV [g]
[mm]								
30	M6	Size 4	36	13	2.4	26	12	4.2
	M10	Size 5					13	
	G1/8-I female thread	-					14	
	G1/8 male thread	-					13	
40	M6	Size 4	64	20	5.4	35	14	5.7
	M10	Size 5					15	
	G1/4-I female thread	-					14.5	
	G1/4 male thread	-					16	
50	M6	Size 4	97	30	11.2	40	17	9.2
	M10	Size 5					18	
	G1/4-I female thread	-					18	
	G1/4 male thread	-					21	
60	M10	Size 5	134	37	11.3	75	20	10.7
	G1/4-I female thread	-					19.5	
	G1/4 male thread	-					21	
80	M10	Size 5	245	99	28.6	100	28	30.9
	G1/4-I female thread	-					61	
	G1/4 male thread	-					60	
100	M10	Size 5	375	183	53.9	135	86.5	58.9
	G1/4-I female thread	-					89.5	
	G1/4 male thread	-					87.5	

## Data sheet

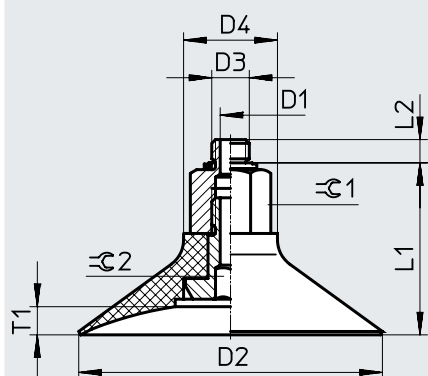
Operating and environmental conditions	
Operating pressure [bar]	-0.95 ... 0
Operating medium	Atmospheric air based on ISO 8573-1:2010 [7:--:-]
Ambient temperature [°C]	-10 ... +80
Corrosion resistance class CRC <sup>1)</sup>	2

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Materials	
Shore hardness	72 ±5
Suction cup with connector	Vulkollan® Colour: reddish brown
Screwed trunnion	Wrought aluminium alloy
Note on materials	RoHS-compliant Free of copper and PTFE

## Dimensions



Type	D1 ø NS	D2 ø	D3	D4 ø	L1	L2	T1	Ø1	Ø2
ESS-30-GT	2.5	30	M6	20	27.55	3.45	3.5	15	4
			M10		27.8	6.2		17	
			G1/8			4.7		15	
ESS-30-GT-I			G1/8		36.8	-			
ESS-40-GT	2.5	40	M6	20	29.55	3.45	5.5	15	4
			M10		29.8	6.2		17	
			G1/4						
ESS-40-GT-I			G1/4		41.8	-			
ESS-50-GT	2.5	50	M6	20	32.05	3.45	8	15	4
			M10		32.3	6.2		17	
			G1/4						
ESS-50-GT-I			G1/4		44.3	-			
ESS-60-GT	2.5	60	M10	20	29.8	6.2	6	17	4
			G1/4						
			G1/4			41.8		-	
ESS-60-GT-I			G1/4						
ESS-80-GT	5.5	80	M10	25	43.3	6.2	7.5	22	8
			G1/4						
ESS-80-GT-I			G1/4		54.3	-			
ESS-100-GT	5.5	100	M10	25	45.8	6.2	9	22	8
			G1/4						
ESS-100-GT-I			G1/4		56.8	-			

® is a registered trademark of the respective trademark holder in certain countries.


## Data sheet

Ordering data				ESV	
Suction cup ø [mm]	Vacuum connection	ESS Part no.	Type	Part no.	Type
30	M6	525968	ESS-30-GT-M6	–	
	M10	525969	ESS-30-GT-M10	–	
	G1/8 female thread	525970	ESS-30-GT-G1/8-I	–	
	G1/8 male thread	525971	ESS-30-GT-G1/8	–	
	–	–		526000	ESV-30-GT
40	M6	525972	ESS-40-GT-M6	–	
	M10	525973	ESS-40-GT-M10	–	
	G1/4 female thread	525974	ESS-40-GT-G1/4-I	–	
	G1/4 male thread	525975	ESS-40-GT-G1/4	–	
	–	–		526001	ESV-40-GT
50	M6	525976	ESS-50-GT-M6	–	
	M10	525977	ESS-50-GT-M10	–	
	G1/4 female thread	525978	ESS-50-GT-G1/4-I	–	
	G1/4 male thread	525979	ESS-50-GT-G1/4	–	
	–	–		526002	ESV-50-GT
60	M10	525980	ESS-60-GT-M10	–	
	G1/4 female thread	525981	ESS-60-GT-G1/4-I	–	
	G1/4 male thread	525982	ESS-60-GT-G1/4	–	
	–	–		526003	ESV-60-GT
80	M10	525983	ESS-80-GT-M10	–	
	G1/4 female thread	525984	ESS-80-GT-G1/4-I	–	
	G1/4 male thread	525985	ESS-80-GT-G1/4	–	
	–	–		526004	ESV-80-GT
100	M10	525986	ESS-100-GT-M10	–	
	G1/4 female thread	525987	ESS-100-GT-G1/4-I	–	
	G1/4 male thread	525988	ESS-100-GT-G1/4	–	
	–	–		526005	ESV-100-GT



## Data sheet

ESS-...-0


 Temperature range  
 -10 ... +70°C



General technical data												
Suction cup size	[mm]	4x10	4x20	6x10	6x20	8x20	8x30	10x30	15x45	20x60	25x75	30x90
Vacuum connection		M6							M10			
Nominal width	[mm]	2.5							6			
Suction cup shape		Oval, flat										
Type of mounting		Via vacuum connection										
Connection position		On top										
Mounting position		Any										

Technical data				
Suction cup size	Allocation of suction cup holders → ESH	Holding force at nominal operating pressure -0.7 bar	Suction cup volume	Weight
[mm]		[N]	[cm <sup>3</sup> ]	[g]
4x10	Size 4	2	0.064	2
4x20		3.4	0.112	2.5
6x10		2.9	0.106	2
6x20		5.9	0.196	2.5
8x20		8	0.256	2.5
8x30		10.9	0.376	3
10x30		15.2	0.350	2.9
15x45	Size 5	32	1.570	23.8
20x60		62.8	3.690	30.8
25x75		92.5	6.700	46.8
30x90		134.4	10.170	55.3

Lateral force [N] at nominal operating pressure -0.7 bar		
Suction cup size	Horizontal	Vertical
[mm]		
4x10	3.5	5
4x20	4.5	11
6x10	7.5	12
6x20	9	12.5
8x20	11	13
8x30	17	13.5
10x30	23	16
15x45	43	35
20x60	116	63
25x75	125.5	115
30x90	201	134.5

## Data sheet

### Operating and environmental conditions

Operating pressure [bar]	-0.95 ... 0
Operating medium	Atmospheric air based on ISO 8573-1:2010 [7:--:-]
Ambient temperature [°C]	-10 ... +70
Corrosion resistance class CRC <sup>1)</sup>	1
Food-safe <sup>2)</sup>	See supplementary material information

1) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. Dry indoor application or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

2) Additional information is available at [www.festo.com/sp](http://www.festo.com/sp) → Certificates.

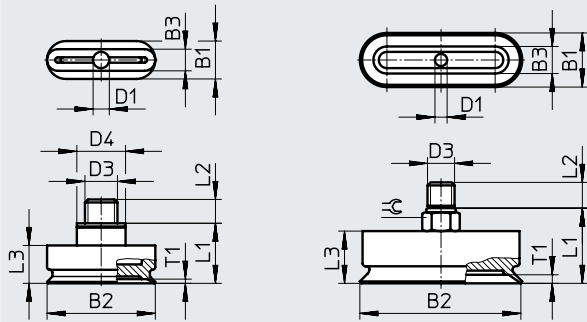
### Materials

Shore hardness	50 ±5
Suction cup	NBR Colour: black
Note on materials	RoHS-compliant Free of copper and PTFE

### Dimensions

ESS-4x10 ... 10x30-0

ESS-15x45 ... 30x90-0



Type	For Suction gripper	B1	B2	B3	D1 ∅ NS	D3	D4 ∅	L1	L2	L3	T1	⌀
ESS-4x10-0...	ESG-4x10-0...	7	10	4	2.5	M6x1	9	11.1	4.4	7	0.8	-
ESS-4x20-0...	ESG-4x20-0...	7	20	4	2.5	M6x1	9	11.1	4.4	7	0.8	-
ESS-6x10-0...	ESG-6x10-0...	7	10	6	2.5	M6x1	9	11.1	4.4	7	1	-
ESS-6x20-0...	ESG-6x20-0...	7	20	6	2.5	M6x1	9	11.1	4.4	7	1	-
ESS-8x20-0...	ESG-8x20-0...	7	20	8	2.5	M6x1	9	11.1	4.4	7	1	-
ESS-8x30-0...	ESG-8x30-0...	7	30	8	2.5	M6x1	9	11.1	4.4	7	1	-
ESS-10x30-0...	ESG-10x30-0...	10	30	7	2.5	M6x1	9	11.1	4.4	7	1.1	-
ESS-15x45-0...	ESG-15x45-0...	15	45	15	6	M10x1.5	-	25.5	8.5	18.5	2.5	12
ESS-20x60-0...	ESG-20x60-0...	20	60	20	6	M10x1.5	-	26.3	8.5	19.3	3.2	12
ESS-25x75-0...	ESG-25x75-0...	25	75	25	6	M10x1.5	-	28	8.5	21	3.7	12
ESS-30x90-0...	ESG-30x90-0...	30	90	30	6	M10x1.5	-	28.5	8.5	21.5	3.7	12

## Data sheet

Ordering data		
Suction cup size [mm]	ESS Part no.	Type
<b>Nitrile rubber</b>		
4x10	189408	ESS-4X10-ON
4x20	189409	ESS-4X20-ON
6x10	189410	ESS-6X10-ON
6x20	189411	ESS-6X20-ON
8x20	189412	ESS-8X20-ON
8x30	189413	ESS-8X30-ON
10x30	189414	ESS-10X30-ON
15x45	189415	ESS-15X45-ON
20x60	189416	ESS-20X60-ON
25x75	189417	ESS-25X75-ON
30x90	189418	ESS-30X90-ON

## Accessories

### Suction cup insert OASI

for suction cups with connector/  
suction cups without connector,  
bellows with 3.5 convolutions



#### Note

As the suction cup is positioned in the line of evacuation, it filters the air that has been drawn in and becomes contaminated. As with other filters, it must be replaced when it is contaminated.



The suction cup insert is compatible with the ESG suction gripper range. It is suitable for bellows suction cups with 3.5 convolutions and is simply snapped into the bellows.

The support offered by the suction cup insert enables delicate and fragile workpieces to be transported.

Areas of application:

- Semiconductor industry (wafers, solar cells)
- Electronics industry (printed circuit boards, plastic film)
- Paper industry
- PE film

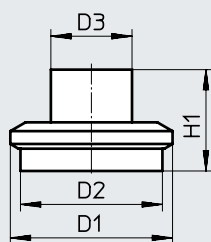
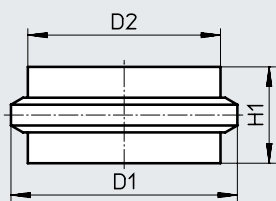
Technical data		OASI-10	OASI-20	OASI-20-E	OASI-30	OASI-40	OASI-50
Type							
Operating pressure	[bar]	-0.95 ... 0					
Operating medium		Atmospheric air based on ISO 8573-1:2010 [7:-:-]					
Ambient temperature	[°C]	5 ... 50					
Ejector pulse suitability	[bar]	0	≤0.5		≤2	≤5	
Type of mounting		Plug-in					
Mounting position		Any		Inner trunnion	Any	Inner thinning	
Food-safe <sup>1)</sup>		See supplementary material information					
<b>Material</b>							
Suction cup insert		PE					
Note on materials		RoHS-compliant					

1) Additional information is available at [www.festo.com/sp](http://www.festo.com/sp) → Certificates.

### Dimensions

OASI-...

OASI-20-E



D1	D2	D3	H1	Weight [g]	Part no.	Type
7	6	-	3	0.1	1048645	OASI-10
16	14	-	6.5	0.6	1048877	OASI-20
16	14	8	10	0.6	1072015	OASI-20-E <sup>1)</sup>
23.5	20	-	10	2.1	1048880	OASI-30
33	27	-	12	2.9	1048881	OASI-40
40	32	-	15	5.9	1048884	OASI-50

1) Additional feature E: suction cup insert with stop