

Bellows Suction Cups FSG SI-MD (2.5 Folds)

Suction area (Ø) 9 to 52 mm



Suitability for industry specific applications

Applications

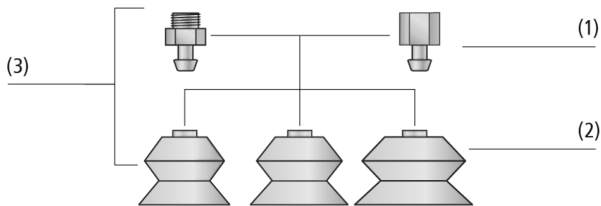
- Special material for use in processes utilizing metal detectors or cameras, e.g. the food industry
- Handling food products such as bread, pizza or baked goods on discharge conveyors
- Handling at temperatures up to +180 °C
- Use in food industry processes requiring metal-detectable suction cups



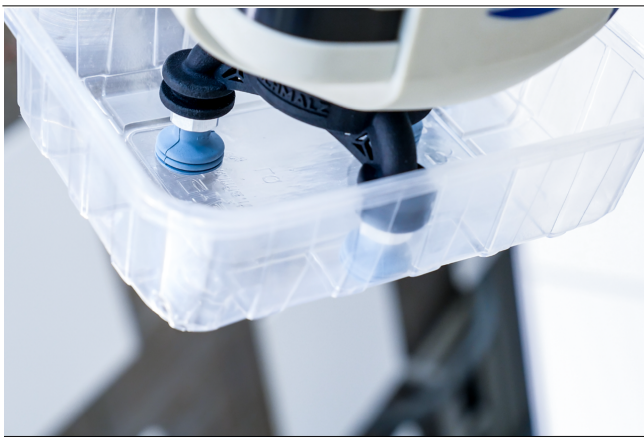
Bellows Suction Cups FSG SI-MD (2.5 Folds)

Design

- Suction cups made of special metal detectable material SI-MD (2)
- Suction cup connector pluggable via (SA-NIP) connector (1)
- Suction cup and connector can be ordered separately (3)



System design Bellows Suction Cups FSG SI-MD (2.5 Folds)



Bellows suction cups FSG SI-MD when handling cookies

Product highlights

- Metal detectable bellows suction cup made of silicone SI-MD for safe handling in the food industry
- FDA and BfR compliant and temperature resistant from -30 °C to +180 °C

Bellows Suction Cups FSG SI-MD (2.5 Folds)

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Designation code Bellows Suction Cups FSG SI-MD (2.5 Folds)

FSG	-	9	-	SI-MD-55	-	G1/8-IG
1		2		3		4

1 – Abbreviated designation

Code	Version
FSG	2.5 folds

2 – Suction area

Code	Diameter in mm
9...52	ø 9 to 52

3 – Material and Shore hardness

Code	Material
SI-MD-55	Silicone metal detectable

4 – Connection

Code	Connection
G1/8-IG	G1/8-IG (IG = female (F))
G1/8-AG	G1/8-AG (AG = male (M))
M5-AG	M5-AG
G1/4-IG	G1/4-IG
G1/4-AG	G1/4-AG

Ordering data Bellows Suction Cups FSG SI-MD (2.5 Folds)

Type	Vacuum connection:				
	G1/8"-F	G1/8"-M	M5-M	G1/4"-F	G1/4"-M
FSG 9	10.01.06.05703	10.01.06.05704	10.01.06.05705	-	-
FSG 12	10.01.06.05706	10.01.06.05707	10.01.06.05708	-	-
FSG 14	10.01.06.05709	10.01.06.05710	10.01.06.05711	-	-
FSG 18	10.01.06.05712	10.01.06.05713	10.01.06.05714	-	-
FSG 20	10.01.06.05715	10.01.06.05716	10.01.06.05717	-	-
FSG 25	10.01.06.05718	10.01.06.05719	-	-	-
FSG 32	-	-	-	10.01.06.05720	10.01.06.05721
FSG 42	-	-	-	10.01.06.05722	10.01.06.05723
FSG 52	-	-	-	10.01.06.05725	10.01.06.05724

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Ordering data Spare parts Bellows Suction Cups FSG SI-MD (2.5 Folds)

Type			Spare parts		Part no.
FSG	9	SI-MD-55	Bellows suction cup (round)	FG 9 SI-MD-55 N016	10.01.06.04244
FSG	12	SI-MD-55	Bellows suction cup (round)	FG 12 SI-MD-55 N016	10.01.06.04134
FSG	14	SI-MD-55	Bellows suction cup (round)	FG 14 SI-MD-55 N016	10.01.06.03982
FSG	18	SI-MD-55	Bellows suction cup (round)	FG 18 SI-MD-55 N016	10.01.06.05700
FSG	20	SI-MD-55	Bellows suction cup (round)	FG 20 SI-MD-55 N016	10.01.06.05701
FSG	25	SI-MD-55	Bellows suction cup (round)	FG 25 SI-MD-55 N016	10.01.06.05702
FSG	32	SI-MD-55	Bellows suction cup (round)	FG 32 SI-MD-55 N018	10.01.06.04526
FSG	42	SI-MD-55	Bellows suction cup (round)	FG 42 SI-MD-55 N018	10.01.06.04286
FSG	52	SI-MD-55	Bellows suction cup (round)	FG 52 SI-MD-55 N018	10.01.06.04882

Type			Spare parts		Part no.
FSG	9	G1/8-IG	Suction cup connection nipple	SA-NIP N016 G1/8-IG DN350	10.01.06.05731
FSG	9	G1/8-AG	Suction cup connection nipple	SA-NIP N016 G1/8-AG DN350	10.01.06.05735
FSG	9	M5-AG	Suction cup connection nipple	SA-NIP N016 M5-AG DN250	10.01.06.00123
FSG	12	G1/8-IG	Suction cup connection nipple	SA-NIP N016 G1/8-IG DN350	10.01.06.05731
FSG	12	G1/8-AG	Suction cup connection nipple	SA-NIP N016 G1/8-AG DN350	10.01.06.05735
FSG	12	M5-AG	Suction cup connection nipple	SA-NIP N016 M5-AG DN250	10.01.06.00123
FSG	14	G1/8-IG	Suction cup connection nipple	SA-NIP N016 G1/8-IG DN350	10.01.06.05731
FSG	14	G1/8-AG	Suction cup connection nipple	SA-NIP N016 G1/8-AG DN350	10.01.06.05735
FSG	14	M5-AG	Suction cup connection nipple	SA-NIP N016 M5-AG DN250	10.01.06.00123
FSG	18	G1/8-IG	Suction cup connection nipple	SA-NIP N016 G1/8-IG DN350	10.01.06.05731
FSG	18	G1/8-AG	Suction cup connection nipple	SA-NIP N016 G1/8-AG DN350	10.01.06.05735
FSG	18	M5-AG	Suction cup connection nipple	SA-NIP N016 M5-AG DN250	10.01.06.00123
FSG	20	G1/8-IG	Suction cup connection nipple	SA-NIP N016 G1/8-IG DN350	10.01.06.05731
FSG	20	G1/8-AG	Suction cup connection nipple	SA-NIP N016 G1/8-AG DN350	10.01.06.05735
FSG	20	M5-AG	Suction cup connection nipple	SA-NIP N016 M5-AG DN250	10.01.06.00123
FSG	25	G1/8-IG	Suction cup connection nipple	SA-NIP N016 G1/8-IG DN350	10.01.06.05731
FSG	25	G1/8-AG	Suction cup connection nipple	SA-NIP N016 G1/8-AG DN350	10.01.06.05735
FSG	32	G1/4-IG	Suction cup connection nipple	SA-NIP N018 G1/4-IG DN440	10.01.06.01066
FSG	32	G1/4-AG	Suction cup connection nipple	SA-NIP N018 G1/4-AG DN440	10.01.06.01065
FSG	42	G1/4-IG	Suction cup connection nipple	SA-NIP N018 G1/4-IG DN440	10.01.06.01066
FSG	42	G1/4-AG	Suction cup connection nipple	SA-NIP N018 G1/4-AG DN440	10.01.06.01065
FSG	52	G1/4-AG	Suction cup connection nipple	SA-NIP N018 G1/4-IG DN440	10.01.06.01066
FSG	52	G1/4-IG	Suction cup connection nipple	SA-NIP N018 G1/4-AG DN440	10.01.06.01065

Bellows Suction Cups FSG SI-MD (2.5 Folds)

Suction area (Ø) 9 to 52 mm

Technical data Bellows Suction Cups FSG SI-MD (2.5 Folds)

Type		Anschluss	Suction force (-600 mbar) [N]*	Pull-off force [N]	Volume [cm ³]	Workpiece radius min. (convex) [mm]	Hose diameter (recom.) d [mm]**
FSG	9	G1/8-IG	0.79	2.3	0.15	10	4
FSG	9	G1/8-AG	0.79	2.3	0.15	10	4
FSG	9	M5-AG	0.79	2.3	0.15	10	2
FSG	12	G1/8-IG	1.18	3.5	0.60	13	4
FSG	12	G1/8-AG	1.18	3.5	0.60	13	4
FSG	12	M5-AG	1.18	3.5	0.60	13	2
FSG	14	G1/8-IG	1.37	5.7	0.98	15	4
FSG	14	G1/8-AG	1.37	5.7	0.98	15	4
FSG	14	M5-AG	1.37	5.7	0.98	15	2
FSG	18	G1/8-IG	3.02	8.5	1.35	20	4
FSG	18	G1/8-AG	3.02	8.5	1.35	20	4
FSG	18	M5-AG	3.02	8.5	1.35	20	2
FSG	20	G1/8-IG	5.20	12.1	2.30	30	4
FSG	20	G1/8-AG	5.20	12.1	2.30	30	4
FSG	20	M5-AG	5.20	12.1	2.30	30	2
FSG	25	G1/8-IG	4.71	19.0	5.23	30	4
FSG	25	G1/8-AG	4.71	19.0	5.23	30	4
FSG	32	G1/4-IG	12.06	36.9	10.00	35	6
FSG	32	G1/4-AG	12.06	36.9	10.00	35	6
FSG	42	G1/4-IG	14.93	44.0	19.79	75	6
FSG	42	G1/4-AG	14.93	44.0	19.79	75	6
FSG	52	G1/4-AG	28.52	96.0	35.00	75	6
FSG	52	G1/4-IG	28.52	96.0	35.00	75	6

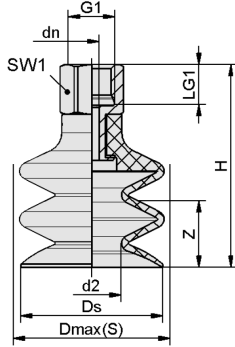
*The specified suction forces are theoretical values at a vacuum of -0.6 bar and with a smooth, dry workpiece surface - they do not include a safety factor

**The recommended hose diameter is based on a hose length of approx. 2 m

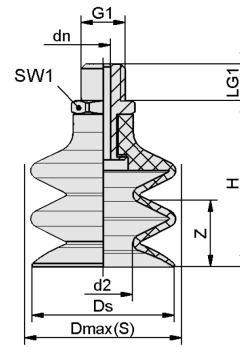
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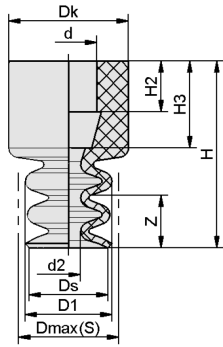
Design data Bellows Suction Cups FSG SI-MD (2.5 Folds)



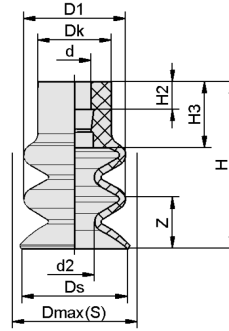
FSG 9...52 IG



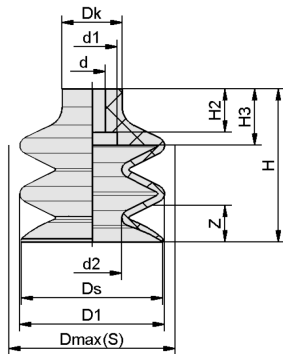
FSG 9...52 AG



FG 9



FG 12...25



FG 32...52

Bellows Suction Cups FSG SI-MD (2.5 Folds)

Suction area (Ø) 9 to 52 mm

Design data Bellows Suction Cups FSG SI-MD (2.5 Folds)

Type	d2 [mm]	dn	Dmax(S)	Ds	G1	H	LG1	SW1	Z (Stroke) [mm]
FSG 9 SI-MD-55 G1/8-IG	4.1	3.5	9.5	9.0	G1/8"-F	27.0	8.5	14	3
FSG 9 SI-MD-55 G1/8-AG	4.1	3.5	9.5	9.0	G1/8"-M	21.0	7.5	14	3
FSG 9 SI-MD-55 M5-AG	4.1	2.5	9.5	9.0	M5-M	20.0	5.0	7	3
FSG 12 SI-MD-55 G1/8-IG	5.0	3.5	13.0	12.0	G1/8"-F	33.0	8.5	14	7
FSG 12 SI-MD-55 G1/8-AG	5.0	3.5	13.0	12.0	G1/8"-M	27.0	7.5	14	7
FSG 12 SI-MD-55 M5-AG	5.0	2.5	13.0	12.0	M5-M	26.0	5.0	7	7
FSG 14 SI-MD-55 G1/8-IG	5.4	3.5	15.5	14.5	G1/8"-F	34.8	8.5	14	9
FSG 14 SI-MD-55 G1/8-AG	5.4	3.5	15.5	14.5	G1/8"-M	28.8	7.5	14	9
FSG 14 SI-MD-55 M5-AG	5.4	2.5	15.5	14.5	M5-M	27.8	5.0	7	9
FSG 18 SI-MD-55 G1/8-IG	8.0	3.5	19.0	17.2	G1/8"-F	34.6	8.5	14	9
FSG 18 SI-MD-55 G1/8-AG	8.0	3.5	19.0	17.2	G1/8"-M	28.6	7.5	14	9
FSG 18 SI-MD-55 M5-AG	8.0	2.5	19.0	17.2	M5-M	27.6	5.0	7	9
FSG 20 SI-MD-55 G1/8-IG	10.5	3.5	21.0	20.0	G1/8"-F	34.1	8.5	14	9
FSG 20 SI-MD-55 G1/8-AG	10.5	3.5	21.0	20.0	G1/8"-M	28.1	7.5	14	9
FSG 20 SI-MD-55 M5-AG	10.5	2.5	21.0	20.0	M5-M	27.1	5.0	7	9
FSG 25 SI-MD-55 G1/8-IG	10.0	3.5	26.0	23.0	G1/8"-F	46.0	8.5	14	18
FSG 25 SI-MD-55 G1/8-AG	10.0	3.5	26.0	23.0	G1/8"-M	40.0	7.5	14	18
FSG 32 SI-MD-55 G1/4-IG	16.0	4.4	33.5	32.0	G1/4"-F	52.5	12.0	17	15
FSG 32 SI-MD-55 G1/4-AG	16.0	4.4	33.5	32.0	G1/4"-M	41.5	11.0	17	15
FSG 42 SI-MD-55 G1/4-IG	17.8	4.4	45.0	42.6	G1/4"-F	61.0	12.0	17	20
FSG 42 SI-MD-55 G1/4-AG	17.8	4.4	45.0	42.6	G1/4"-M	50.0	11.0	17	20
FSG 52 SI-MD-55 G1/4-AG	24.6	4.4	55.0	52.5	G1/4"-M	52.7	11.0	17	25
FSG 52 SI-MD-55 G1/4-IG	24.6	4.4	55.0	52.5	G1/4"-F	63.7	12.0	17	25

Type	d	d1	d2 [mm]	D1 [mm]	Dk	Dmax(S)*	Ds	H	H2	H3	Z (Stroke)		
FG	9	SI-MD-55	4.5	-	4.1	8.9	9	9.5	9.0	15.0	3.8	8.2	3.0
FG	12	SI-MD-55	4.5	-	5.0	12.0	10	13.0	12.0	21.0	3.8	9.0	7.0
FG	14	SI-MD-55	4.5	-	5.4	13.9	10	15.5	14.5	22.8	3.8	9.0	9.0
FG	18	SI-MD-55	4.5	-	8.0	17.8	10	19.0	17.2	22.6	3.8	9.0	9.0
FG	20	SI-MD-55	4.5	-	10.5	20.0	10	21.0	20.0	22.1	3.8	9.0	9.0
FG	25	SI-MD-55	4.5	-	10.0	25.0	10	26.0	23.0	34.0	3.8	9.0	18.0
FG	32	SI-MD-55	8.0	15.0	16.0	32.4	18	33.5	32.0	37.5	13.0	17.0	15.0
FG	42	SI-MD-55	8.0	15.0	17.8	43.5	18	45.0	42.6	46.0	13.0	17.0	20.0

Bellows Suction Cups FSG SI-MD (2.5 Folds)

Suction area (Ø) 9 to 52 mm

Type			d	d1	d2 [mm]	D1 [mm]	Dk	Dmax(S)*	Ds	H	H2	H3	Z (Stroke)
FG	52	SI-MD-55	8.0	-	24.6	52.0	18	55.0	52.5	48.7	13.0	-	25.0

*External dimension of the suction cup when it is pressed against the workpiece by the vacuum