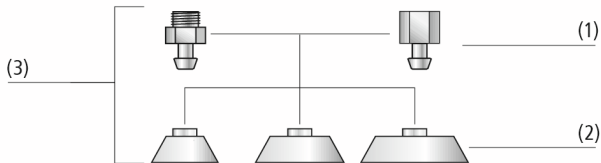


Flat Suction Cups SGON

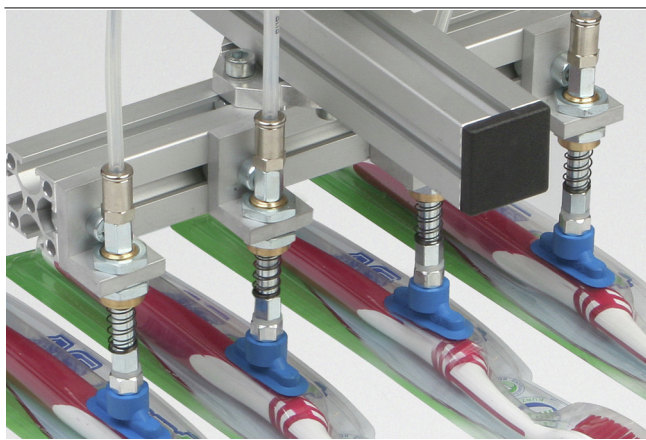
Suction area (LxW) from 4 x 2 mm to 90 x 30 mm



Flat Suction Cups SGON



System design Flat Suction Cups SGON



Flat suction cups SGON being used for handling blister packaging

Suitability for industry specific applications

Application

- Oval suction cup for handling of elongated workpieces, including curved objects, such as sections, pipes, packaging materials
- Handling of frame elements, such as doors and windows
- Considerably higher suction force than round, flat suction cups when handling narrow workpieces

Design

- Robust, wear-resistant suction cup SGON (3) with single sealing lip, consisting of suction cup SGO (2) and connection nipple (1)
- Nipple plugged into cup
- From size 24 x 8 mm, the suction cup is additionally secured with a two-ear clamp (anti-rotation device)
- With each nipple family, the replacement cups and nipples can be combined as desired

Product highlights

- Flat suction cups in oval design for long workpieces (profiles, pipes) or flat workpieces with webs
- Two-ear clamp prevents unintentional twisting during use (from size 24 x 8 mm)
- High suction force with small dimensions
- Support surfaces on the bottom prevent permanent deformation of thin-walled workpieces

Flat Suction Cups SGON

Suction area (LxW) from 4 x 2 mm to 90 x 30 mm

Designation code Flat Suction Cups SGON

SGON	–	30x10	–	SI-HD-65	–	G1/8-IG
1		2		3		4

1 – Abbreviated designation

Code	Version
SGON	Flat, oval

2 – Suction area

Code	LxW in mm
4x2...90x30	4x2 to 90x30

3 – Material

Code	Material
HT1-60	High temperature material
NBR-55	Nitrile caoutchuc
NBR-70	Nitrile caoutchuc
NBR-ESD-55	Nitrile caoutchuc
SI-HD-65	Silicone

4 – Connection

Code	Connection
M3-AG	M3-AG (AG = male (M))
M5-AG	M5-AG
M5-IG	M5-IG (IG = female (F))
G1/8-AG	G1/8-AG
G1/8-IG	G1/8-IG
G1/4-AG	G1/4-AG
G1/4-IG	G1/4-IG

Suction cup SGON (elastomer part + connection nipple) is delivered unassembled. The delivery consists of:

- Suction cup of type SGO – elastomer part, available in various dimensions (LxW) and materials
- Connection nipple of type SA-NIP – available with various threads
- Cups of the size 24 x 8 mm and larger are delivered with a two-ear clamp

Available spare parts: suction cup SGO, connection nipple SA-NIP, two-ear clamp

Ordering data Flat Suction Cups SGON

Type			Suction cup material with ShA: *				
			HT1-60	NBR-55	NBR-70	NBR-ESD-55	SI-HD-65
SGON	4x2	M3-AG	10.01.05.00404	10.01.01.00564	-	10.01.05.00938	10.01.05.01045
SGON	7x3.5	M3-AG	10.01.05.00405	10.01.01.00489	-	10.01.05.00939	10.01.05.01046
SGON	12x4	M5-AG	10.01.05.00406	10.01.05.00236	-	10.01.05.00940	10.01.01.00221
SGON	15x5	M5-AG	10.01.05.00407	10.01.05.00106	-	10.01.05.00941	10.01.05.01048
SGON	15x5	M5-IG	10.01.05.00418	10.01.05.00105	-	10.01.05.00942	10.01.05.01047
SGON	18x6	M5-AG	10.01.05.00408	10.01.05.00104	-	10.01.05.00943	10.01.05.01050
SGON	18x6	M5-IG	10.01.05.00419	10.01.05.00103	-	10.01.05.00944	10.01.05.01049
SGON	24x8	G1/8-AG	10.01.05.00409	10.01.05.00102	-	10.01.05.00945	10.01.05.01052
SGON	24x8	G1/8-IG	10.01.05.00420	10.01.05.00101	-	10.01.05.00946	10.01.05.01051
SGON	30x10	G1/8-AG	10.01.05.00410	10.01.05.00100	-	10.01.05.00947	10.01.05.01054
SGON	30x10	G1/8-IG	10.01.05.00421	10.01.05.00099	-	10.01.05.00948	10.01.05.01053
SGON	45x15	G1/4-AG	10.01.05.00411	10.01.05.00098	-	-	10.01.05.01056
SGON	45x15	G1/4-IG	10.01.05.00422	10.01.05.00097	-	-	10.01.05.01055
SGON	60x20	G1/4-AG	10.01.05.00412	10.01.05.00096	-	-	10.01.05.01058
SGON	60x20	G1/4-IG	10.01.05.00423	10.01.05.00095	-	-	10.01.05.01057
SGON	75x25	G1/4-AG	10.01.05.00413	10.01.05.00094	-	-	10.01.05.01060
SGON	75x25	G1/4-IG	10.01.05.00424	10.01.05.00093	-	-	10.01.05.01059
SGON	90x30	G1/4-AG	-	-	10.01.05.00092	-	10.01.05.01062
SGON	90x30	G1/4-IG	-	-	10.01.05.00091	-	10.01.05.01061

*Additional material specifications at beginning of the section "Vacuum Suction Cups"

Flat Suction Cups SGON

Suction area (LxW) from 4 x 2 mm to 90 x 30 mm

Ordering data Spare parts Flat Suction Cups SGON

Type		Suction cup material with ShA: *		
		HT1-60	NBR-55	NBR-70
SGO	4x2	10.01.05.00426	10.01.01.00456	-
SGO	7x3.5	10.01.05.00427	10.01.01.00488	-
SGO	12x4	10.01.05.00428	10.01.05.00235	-
SGO	15x5	10.01.05.00429	10.01.05.00071	-
SGO	18x6	10.01.05.00430	10.01.05.00072	-
SGO	24x8	10.01.05.00437	10.01.05.00151	-
SGO	30x10	10.01.05.00438	10.01.05.00152	-
SGO	45x15	10.01.05.00439	10.01.05.00153	-
SGO	60x20	10.01.05.00440	10.01.05.00154	-
SGO	75x25	10.01.05.00441	10.01.05.00155	-
SGO	90x30	-	-	10.01.05.00156

*Additional material specifications at beginning of the section "Vacuum Suction Cups"

Type		Suction cup material with ShA: *	
		NBR-ESD-55	SI-HD-65
SGO	12x4	10.01.05.00930	10.01.01.00222
SGO	7x3.5	10.01.05.00929	10.01.05.01027
SGO	15x5	10.01.05.00931	10.01.05.01028
SGO	18x6	10.01.05.00932	10.01.05.01029
SGO	30x10	10.01.05.00935	10.01.05.01037
SGO	4x2	10.01.05.00937	10.01.05.01026
SGO	24x8	10.01.05.01199	10.01.05.01036
SGO	45x15	-	10.01.05.01038
SGO	60x20	-	10.01.05.01039
SGO	75x25	-	10.01.05.01040
SGO	90x30	-	10.01.05.01041

*Additional material specifications at beginning of the section "Vacuum Suction Cups"

Type			Spare parts		Part no.
SGON	4x2	M3-AG	Suction cup connection nipple	SA-NIP N003 M3-AG DN100	10.01.01.00316
SGON	7x3.5	M3-AG	Suction cup connection nipple	SA-NIP N003 M3-AG DN100	10.01.01.00316
SGON	12x4	M5-AG	Suction cup connection nipple	SA-NIP N020 M5-AG DN180	10.01.01.00312
SGON	15x5	M5-AG	Suction cup connection nipple	SA-NIP N021 M5-AG DN200	10.01.05.00126
SGON	15x5	M5-IG	Suction cup connection nipple	SA-NIP N021 M5-IG DN200	10.01.05.00125
SGON	18x6	M5-AG	Suction cup connection nipple	SA-NIP N021 M5-AG DN200	10.01.05.00126
SGON	18x6	M5-IG	Suction cup connection nipple	SA-NIP N021 M5-IG DN200	10.01.05.00125
SGON	24x8	G1/8-AG	Suction cup connection nipple	SA-NIP N022 G1/8-AG DN350	10.01.05.00124
SGON	24x8	G1/8-IG	Suction cup connection nipple	SA-NIP N022 G1/8-IG DN350	10.01.05.00123
SGON	30x10	G1/8-AG	Suction cup connection nipple	SA-NIP N022 G1/8-AG DN350	10.01.05.00124
SGON	30x10	G1/8-IG	Suction cup connection nipple	SA-NIP N022 G1/8-IG DN350	10.01.05.00123
SGON	45x15	G1/4-AG	Suction cup connection nipple	SA-NIP N023 G1/4-AG DN350	10.01.05.00122
SGON	45x15	G1/4-IG	Suction cup connection nipple	SA-NIP N023 G1/4-IG DN350	10.01.05.00121
SGON	60x20	G1/4-AG	Suction cup connection nipple	SA-NIP N023 G1/4-AG DN350	10.01.05.00122
SGON	60x20	G1/4-IG	Suction cup connection nipple	SA-NIP N023 G1/4-IG DN350	10.01.05.00121
SGON	75x25	G1/4-AG	Suction cup connection nipple	SA-NIP N023 G1/4-AG DN350	10.01.05.00122
SGON	75x25	G1/4-IG	Suction cup connection nipple	SA-NIP N023 G1/4-IG DN350	10.01.05.00121

Flat Suction Cups SGON

Suction area (LxW) from 4 x 2 mm to 90 x 30 mm

Type			Spare parts		Part no.
SGON	90x30	G1/4-AG	Suction cup connection nipple	SA-NIP N023 G1/4-AG DN350	10.01.05.00122
SGON	90x30	G1/4-IG	Suction cup connection nipple	SA-NIP N023 G1/4-IG DN350	10.01.05.00121

Type		Spare parts		Part no.
SGON	24x8	Two-ear clamp	ZOKL 11-13	10.07.10.00032
SGON	30x10	Two-ear clamp	ZOKL 11-13	10.07.10.00032
SGON	45x15	Two-ear clamp	ZOKL 15-18	10.07.10.00033
SGON	60x20	Two-ear clamp	ZOKL 15-18	10.07.10.00033
SGON	75x25	Two-ear clamp	ZOKL 15-18	10.07.10.00033
SGON	90x30	Two-ear clamp	ZOKL 15-18	10.07.10.00033

Technical data Flat Suction Cups SGON

Type		Suction force (-600 mbar) [N]*	Volume [cm³]	Workpiece radius min. (convex) [mm]	Hose inner diameter (recom.) d [mm]**	Nipple family
SGON	4x2	0.42	0.018	1	2	N 003
SGON	7x3.5	1.00	0.029	3	2	N 003
SGON	12x4	1.80	0.173	3	2	N 020
SGON	15x5	3.10	0.175	4	2	N 021
SGON	18x6	4.50	0.205	4	2	N 021
SGON	24x8	8.00	0.327	8	4	N 022
SGON	30x10	12.20	0.516	8	4	N 022
SGON	45x15	28.20	2.306	10	6	N 023
SGON	60x20	50.10	3.611	20	6	N 023
SGON	75x25	78.30	5.860	30	6	N 023
SGON	90x30	112.60	9.473	35	6	N 023

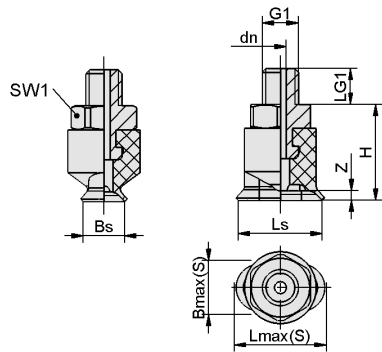
*The specified suction forces are theoretical values at a vacuum of -0.6 bar and with a smooth, dry workpiece surface - they do not include a safety factor

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

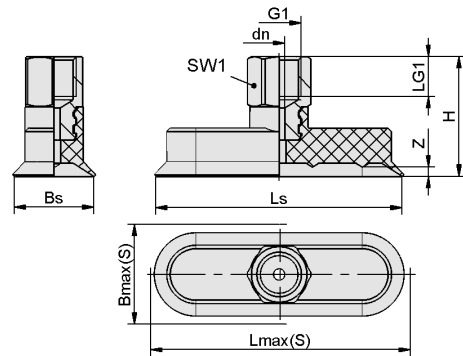
Flat Suction Cups SGON

Suction area (LxW) from 4 x 2 mm to 90 x 30 mm

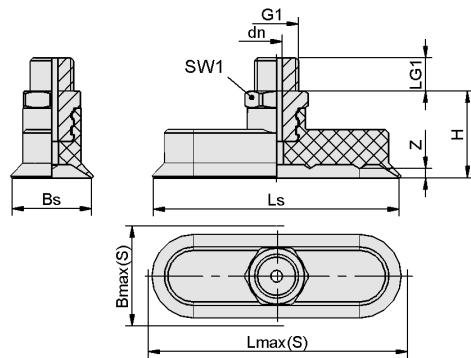
Design data Flat Suction Cups SGON



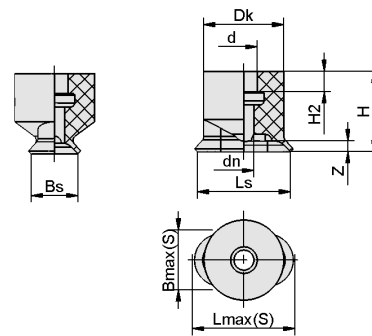
SGON 7x3,5 AG



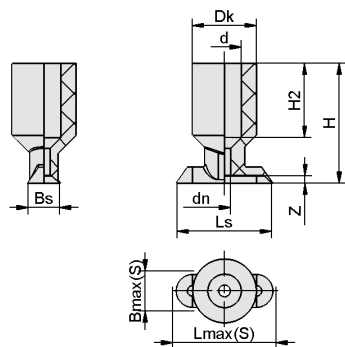
SGON 15x5 - 90x30 IG



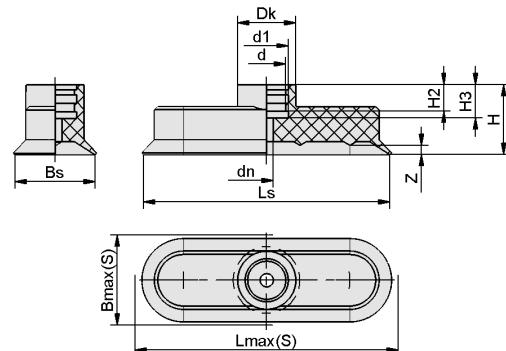
SGON 4x2 - 90x30 AG



SGO 4x2, 7x3.5



SGO 12x4



SGO 15x5 - 90x30

Flat Suction Cups SGON

Suction area (LxW) from 4 x 2 mm to 90 x 30 mm

Design data Flat Suction Cups SGON

Type*			Bmax(S) [mm]**	Bs [mm]	dn [mm]	G1	H [mm]	LG1 [mm]	Lmax.(S) [mm]***	Ls [mm]	SW1 [mm]	Z (Stroke) [mm]
SGON	4x2	M3-AG	2.5	2.0	1.0	M3-M	8	3.0	4.5	4.0	5	0.5
SGON	7x3.5	M3-AG	4.5	3.5	1.0	M3-M	8	3.0	8.0	7.0	5	0.8
SGON	12x4	M5-AG	5.0	3.9	1.5	M5-M	18	4.5	13.0	11.9	8	0.5
SGON	15x5	M5-AG	5.5	5.0	1.2	M5-M	17	5.0	15.5	15.0	8	0.7
SGON	15x5	M5-IG	5.5	5.0	1.2	M5-F	22	5.5	15.5	15.0	8	0.7
SGON	18x6	M5-AG	7.0	6.0	1.5	M5-M	17	5.0	18.5	18.0	8	0.8
SGON	18x6	M5-IG	7.0	6.0	1.5	M5-F	22	5.5	18.5	18.0	8	0.8
SGON	24x8	G1/8-AG	9.0	8.0	1.5	G1/8"-M	17	8.0	24.5	24.0	14	1.0
SGON	24x8	G1/8-IG	9.0	8.0	1.5	G1/8"-F	25	9.0	24.5	24.0	14	1.0
SGON	30x10	G1/8-AG	11.5	9.4	2.5	G1/8"-M	17	8.0	30.5	29.4	14	1.5
SGON	30x10	G1/8-IG	11.5	9.4	2.5	G1/8"-F	25	9.0	30.5	29.4	14	1.5
SGON	45x15	G1/4-AG	16.5	14.4	3.0	G1/4"-M	26	10.0	46.0	44.4	17	2.0
SGON	45x15	G1/4-IG	16.5	14.4	3.0	G1/4"-F	36	12.0	46.0	44.4	17	2.0
SGON	60x20	G1/4-AG	22.0	19.0	3.5	G1/4"-M	26	10.0	61.0	59.0	17	2.5
SGON	60x20	G1/4-IG	22.0	20.0	3.5	G1/4"-F	36	12.0	61.0	60.0	17	2.5
SGON	75x25	G1/4-AG	27.5	25.0	3.5	G1/4"-M	26	10.0	77.0	75.0	17	2.8
SGON	75x25	G1/4-IG	27.5	25.0	3.5	G1/4"-F	36	12.0	77.0	75.0	17	2.8
SGON	90x30	G1/4-AG	33.0	30.0	3.5	G1/4"-M	26	10.0	92.5	90.0	17	3.5
SGON	90x30	G1/4-IG	33.0	30.0	3.5	G1/4"-F	36	12.0	92.5	90.0	17	3.5

*Acceptable dimensional tolerances for rubber parts concerning to DIN ISO 3302-1 E3

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

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

Type*		Bmax(S) [mm]**	Bs [mm]	d [mm]	dn [mm]	Dk [mm]	d1 [mm]	H [mm]	H2 [mm]	H3 [mm]	Lmax.(S) [mm]***	Ls [mm]	Z (Stroke) [mm]
SGO	4x2	2.5	2.2	1.2	1.2	2.2	-	3.0	1.5	-	4.5	4.2	0.5
SGO	7x3.5	4.5	3.5	1.5	1.5	6.0	-	6.0	1.5	-	7.5	7.0	0.8
SGO	12x4	5.0	4.0	4.2	1.5	8.0	-	15.0	9.3	-	13.0	12.0	0.5
SGO	15x5	5.5	4.6	4.5	1.2	8.5	6	12.0	3.0	5.5	15.5	14.6	0.7
SGO	18x6	7.0	5.6	4.5	1.5	8.5	6	12.0	3.0	5.5	18.5	17.6	0.8
SGO	24x8	9.0	7.6	5.5	1.5	11.5	7	12.0	3.0	5.5	24.5	23.6	1.0
SGO	30x10	11.5	9.4	5.5	2.5	11.5	7	12.0	3.0	5.5	30.5	29.4	1.5
SGO	45x15	16.5	14.4	11.5	3.0	15.5	13	21.0	8.0	10.0	46.0	44.4	2.0
SGO	60x20	22.0	19.0	11.5	4.0	15.5	13	21.0	8.0	10.0	61.0	59.0	2.5
SGO	75x25	27.5	24.0	11.5	4.0	17.5	13	21.0	8.0	10.0	77.0	74.0	2.8
SGO	90x30	33.0	29.0	11.5	4.0	17.5	13	21.0	8.0	10.0	92.5	89.0	3.5

*Acceptable dimensional tolerances for rubber parts concerning to DIN ISO 3302-1 E3

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

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