

Bellows Suction Cups SPOB1 (Oval, 1.5 Folds)

Suction area (LxW) from 60 x 20 mm and 100 x 40 mm



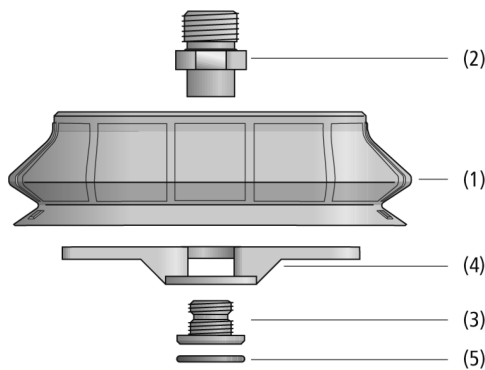
Suitability for Industry Specific Applications

Applications

- Oval bellows suction cup with 1.5 folds for the use in cardboard box and tray erectors
- Handling of cardboards and rigid or flexible packaging in top-loading and side-loading machines
- Palletizing and depalletizing processes
- Heavy-duty applications that require suction cups with excellent sealing and low wear



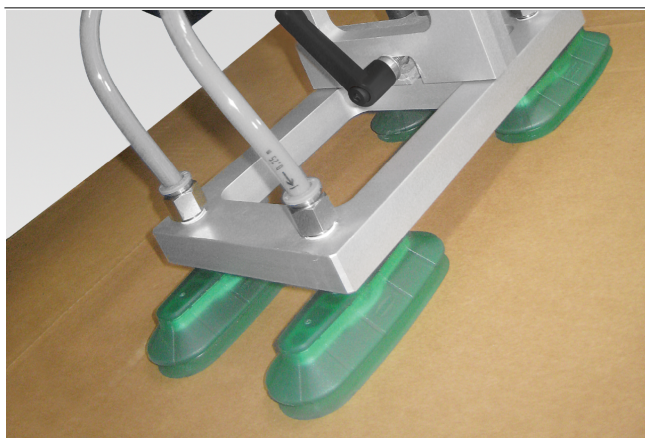
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Design

- Oval bellows suction cup SPOB1 with 1.5 folds (1) and soft, flexible sealing lip
- Made of wear-proof material Elastodur ED-65 with a long service life
- All sizes come with a 2-piece connection element: consisting of machine-side component (2) and suction-side component (3)
- Size 100 x 40 mm with additional suction cup insert (4); included in scope of delivery reusable connection elements
- Clip-in filter screen (5) as pre-filter (filter pore size 250 µm)

System Design Bellows Suction Cups SPOB1 (Oval, 1.5 Folds)



Bellows suction cups SPOB1 being used for handling of cardboard

Product Highlights

- Oval design ideal for elongated workpieces
- High intrinsic stability of the suction cup in dynamic processes
- Spacing elements between sealing lip and fold prevent the suction cup from moving
- Material Elastodur ED-65 minimizes wear (service life approx. 3 times higher than with NBR)

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Designation Code Bellows Suction Cups SPOB1 (Oval, 1.5 Folds)

SPOB1	–	60x20	–	ED-65	–	G1/8-AG
1		2		3		4

1 – Abbreviated designation

Code	Version
SPOB1	1.5 folds, oval

2 – Suction area

Code	LxW in mm
60x20...100x40	60x20 and 100x40

3 – Material

Code	Material
ED-65	Elastodur

4 – Connection

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

Suction cup SPOB1 (elastomer part + connection element) is delivered assembled. The assembly consists of:

- Suction cup of type SPOB1 – elastomer part, available in various diameters
- Connection element of type SC – available with various threads, includes stabilization plate for model size 100 x 400 mm

Available spare parts: suction cup SPOB1, Schmalz-Connector

Available accessories: filter screen (sieve, round)

Ordering Data Bellows Suction Cups SPOB1 (Oval, 1.5 Folds)

Type*	Part no.
SPOB1 60x20 ED-65 G1/8-AG	10.01.06.03510
SPOB1 60x20 ED-65 G1/8-IG	10.01.06.03511
SPOB1 100x40 ED-65 G1/4-AG	10.01.06.03512
SPOB1 100x40 ED-65 G1/4-IG	10.01.06.03513

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

Ordering Data Spare Parts Bellows Suction Cups SPOB1 (Oval, 1.5 Folds)

Type	Spare Parts	Part no.
SPOB1 60x20	Bellows suction cup (oval)	SPOB1 60x20 ED-65 SC040-AR
SPOB1 100x40	Bellows suction cup (oval)	SPOB1 100x40 ED-65 SC050-AR

Type	Spare Parts	Part no.
SPOB1 60x20 ED-65 G1/8-AG	Schmalz-Connector	SC 040-AR G1/8-AG MOD
SPOB1 60x20 ED-65 G1/8-IG	Schmalz-Connector	SC 040-AR G1/8-IG MOD
SPOB1 100x40 ED-65 G1/4-AG	Schmalz-Connector	SC 050-AR G1/4-AG MOD
SPOB1 100x40 ED-65 G1/4-IG	Schmalz-Connector	SC 050-AR G1/4-IG MOD

Ordering Data Accessories Bellows Suction Cups SPOB1 (Oval, 1.5 Folds)

Type	Accessories	Part no.
SPOB1 60x20	Sieve, round	SIEB 11x1 MS-A2 280 0.28/0.16
SPOB1 100x40	Sieve, round	SIEB 17.5x0.8 MS-A2 280 0.28/0.16

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Technical Data Bellows Suction Cups SPOB1 (Oval, 1.5 Folds)

Type		Suction force (-600 mbar) [N]*	Pull-off force [N]	Lateral force [N]	Volume [cm ³]	Workpiece radius min. (convex) [mm]	Hose diameter (recom.) d [mm]**
SPOB1	60x20	32.5	39.8	32.2	11.0	25	6
SPOB1	100x40	111.2	131.4	76.9	60.1	50	6

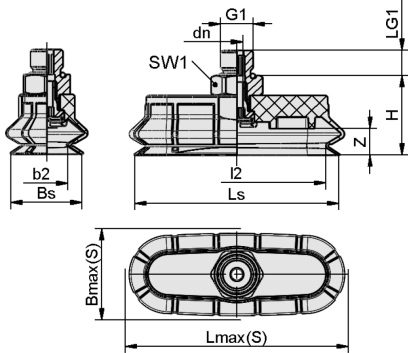
*The specified suction forces are theoretical values at a vacuum of -0.6 bar and with a smooth, dry workpiece surface - they do not include a safety factor

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

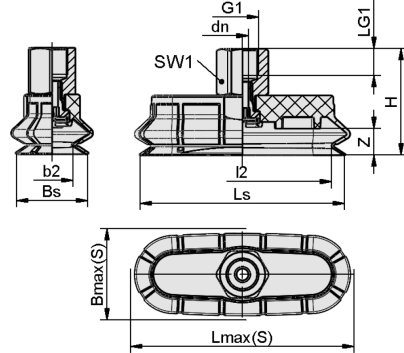
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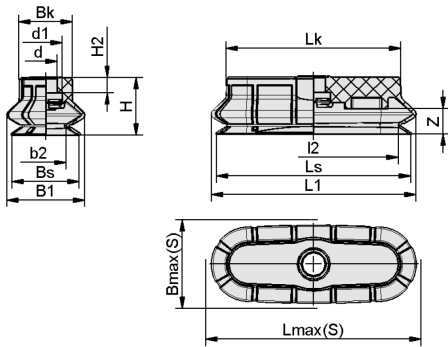
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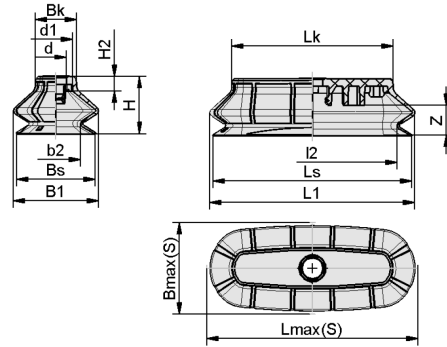
SPOB1 AG



SPOB1 IG



SPOB1 60x20



SPOB1 100x40

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Type*	b2 [mm]	Bmax(S) [mm]**	Bs [mm]	dn [mm]	G1	H [mm]	LG1 [mm]	Lmax(S) [mm]***	Ls [mm]	I2 [mm]	SW1 [mm]	Z (Stroke) [mm]
SPOB1 60x20 ED-65 G1/8- AG	12.8	27.5	21.4	3.6	G1/8"-M	24	7.5	67	61.4	53.5	14	8
SPOB1 60x20 ED-65 G1/8- IG	12.8	27.5	21.4	3.6	G1/8"-F	32	8.0	67	61.4	53.5	14	8
SPOB1 100x40 ED-65 G1/4- AG	25.9	52.0	41.4	6.1	G1/4"-M	37	10.0	113	104.4	88.9	17	16
SPOB1 100x40 ED-65 G1/4- IG	25.9	52.0	41.4	6.1	G1/4"-F	47	12.0	113	104.4	88.9	17	16

*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

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Type*	b2 [mm]	B1 [mm]	Bk [mm]	Bmax(S) [mm]**	Bs [mm]	d [mm]	d1 [mm]	H [mm]	H2 [mm]	L1 [mm]	I2 [mm]	Lk [mm]	Lmax(S) [mm]***	Ls [mm]	Z (Stroke) [mm]
SPOB1 60x20 ED-65 SC040-AR	12.8	24.6	16.8	27.5	21.4	7.3	10.5	18	4.8	64.6	53.4	55.1	67	61.4	8.0
SPOB1 100x40 ED-65 SC050-AR	25.9	44.6	21.6	52.0	41.4	11.0	17.5	30	7.0	107.6	88.9	84.6	113	104.4	16.0

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