



Vacuum cups for bag gripping



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Pouch packaging has long since established itself as one of the most important types of packaging in the consumer goods sector. They are used for bulk goods or liquids. But pouches are also increasingly being used in logistics.

In the past, cardboard boxes were mainly used for shipping, but today, more and more fragile goods, such as clothing, are being shipped in film pouches. Pouch packaging offers many advantages, such as the low use of materials or the ease with which the packaging process itself can be automated. However, handling the finished bags is often a particular challenge that is difficult to master with conventional vacuum cups. FIPA offers a broad portfolio of vacuum cups specially adapted to the handling of pouches and fast Pick&Place.

Several factors play an important role in choosing the right vacuum cup for bag gripping. The material of the bag itself is decisive, but so is the dynamic behaviour of the contents. Liquids have a high inertia, which counteracts the movement of the handling. A particularly secure hold of the bag cup is essential here. An optimum bag cup has a sealing lip that adapts flexibly and tightly to the film material without leaving creases or other damage. It should be able to follow the dynamic sideways movements without the bag peeling off during the movement.

There is no one perfect vacuum cup for all bags, so a wide selection of vacuum cup types, sizes and materials is essential to ensure a reliable handling process. With the vacuum cup series SV-BGX2, SV-BG3 and SV-BG5 and SL-FP FIPA offers exactly the right choice.





Series SV-BGX2 – 2.5 folds

2K polyurethane Varioflex® 60°/30°

Fields of application:

- > Bag handling in the packaging industry, online retail and logistics
- > Use for handling filled bags and a wide variety of film packaging

Special features:

- > Best possible sealing even on bags with significant wrinkling
- > Wear-resistant material for a long service life



Series SV-BG3 | SV-BG5 – 3.5 and 5.5 folds

2K silicone 70°/40°

Fields of application:

- > Handling a wide variety of film packaging in the packaging industry
- > Sealing lip remains flexible and elastic when handling chilled products
- > 3.5 folds: Use for handling filled bags
- > 5.5 folds: Use for handling bags filled with liquids or powders

Special features:

- > Best possible sealing even on pouches with strong wrinkle formation
- > Ideal stability and hold for short cycle times and high acceleration
- > 5.5 bellows absorb shocks and vibrations and adapt optimally to inclined surfaces



Series SL-FP – Flat vacuum cups

Silicone 35° or 55° (Material code SI-LE = suitable for the food industry)

Fields of application:

- > Optimised for handling a wide range of FlowPack packages
- > Sealing lip remains flexible and elastic when handling chilled products
- > 35° Shore A: particularly suitable for thin packaging
- > 55° Shore A: for supporting larger loads

Special features:

- > Extreme flexible single sealing lip
- > Only materials are used that are suitable for the food industry

Vacuum cups for bag gripping | SV-BGX2 – Shore A 60°/ 30°

Bag cups 2.5 folds made of Varioflex® – SV-BGX2

Bag cups 2.5 folds made of Varioflex® – SV-BGX2



Product notes

Robust 2K polyurethane bellows vacuum cup with 2.5 folds for bag handling in the packaging industry, online retail and logistics.
Use for handling filled bags and a wide variety of film packaging.
Soft, conformable sealing lip in 30° shore A.
Non-detachable vulcanized, robust bellows area made of PU in 60° Shore A.


Advantage

- > Best possible sealing even on bags with significant wrinkling allows low vacuum level (energy saving)
- > Flexibility also allows gripping of little filled bags
- > Ideal stability and grip for short cycle times and high acceleration
- > Wear-resistant material for a long service life

Technical data

Item no.	Model		Number of folds	Material / Color
21.035.190.16	SV-BGX2-35	12	2.5	Varioflex® 60°/30° (sw/r)
21.052.191.16	SV-BGX2-52	12	2.5	Varioflex® 60°/30° (sw/r)
21.064.192.16	SV-BGX2-64	15	2.5	Varioflex® 60°/30° (sw/r)

Accessories

Item no.	 Suitable fittings					
	NPSF1/8-female	NPT1/4-male	NPT3/8-male	G1/8-female	G1/4-male	G3/8-male
21.035.190.16	270.781-S	270.786-S	270.785-S	270.501-S	270.506-S	270.505-S
21.052.191.16	270.782-S	270.784-S	270.787-S	270.502-S	270.504-S	270.507-S
21.064.192.16	270.782-S	270.784-S	270.787-S	270.502-S	270.504-S	270.507-S

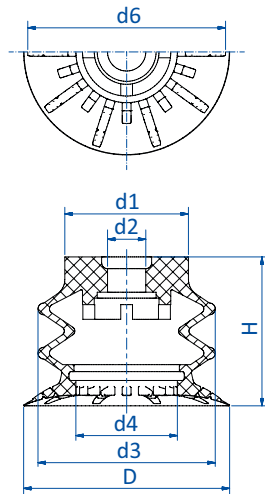
Hardness range



Vacuum cups for bag gripping | SV-BGX2 – Shore A 60°/ 30°

Bag cups 2.5 folds made of Varioflex® – SV-BGX2

Dimensions



Item no.	$\varnothing D$ [mm]	$\varnothing d_1$ [mm]	$\varnothing d_2$ [mm]	$\varnothing d_3$ [mm]	$\varnothing d_4$ [mm]	$\varnothing d_6$ [mm]	H [mm]
21.035.190.16	35	21	6.5	30	17	34	25.3
21.052.191.16	52	27.5	10.5	40	23	50	30
21.064.192.16	65	35	10.5	52	30	63	39

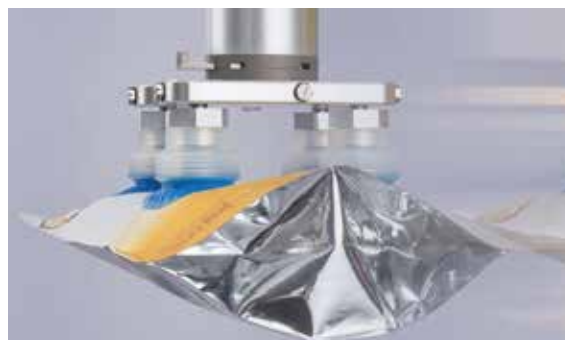
Application examples



Vacuum cups for bag gripping | SV-BG – Shore A 70°/ 40°

Bag cups 3.5 and 5.5 folds - SV-BG3 and SV-BG5

Bag cups 3.5 and 5.5 folds - SV-BG3 and SV-BG5



Product notes

Two-component bellows vacuum cups for bag handling in the packaging industry.
Use for handling liquid or powder filled pouches and a wide variety of film packaging.
Soft, conformable sealing lip in 40° shore A.
non-detachable vulcanized, robust bellows area made of silicone in 70° Shore A.

Advantage




- > Best possible sealing even on pouches with strong wrinkle formation
- > Ideal stability and hold for short cycle times and high acceleration
- > 3.5 bellows compact design allows fast cycles
- > 5.5 bellows absorb shocks and vibrations
- > Adapts optimally to inclined surfaces

Notes:


- > The vacuum cups must always be used in conjunction with a move-in guard to prevent film from being drawn in
- > Accessories, such as suitable holders and the move-in guards, are not included in the scope of delivery, please order separately

Technical data

Accessories

Item no.	Model		Number of folds	Material / Color	Accessories	
					Move-in guard curved	Move-in guard flat
						
25.030.095.8	SV-BG3-30	6	3,5	SI 70°/40° (tr/bl)	78.525-s	78.525-f
25.040.096.8	SV-BG3-40	7	3,5	SI 70°/40° (tr/bl)	78.526-s	78.526-f
25.050.097.8	SV-BG3-50	9	3,5	SI 70°/40° (tr/bl)	78.527-s	78.527-f
						
25.030.098.8	SV-BG5-30	10	5,5	SI 70°/40° (tr/bl)	78.525-s	78.525-f
25.040.099.8	SV-BG5-40	12	5,5	SI 70°/40° (tr/bl)	78.526-s	78.526-f
25.050.100.8	SV-BG5-50	15	5,5	SI 70°/40° (tr/bl)	78.527-s	78.527-f

Accessories

Item no.	 Suitable fittings		
	G1/8-male	G1/4-male	G3/8-male
25.030.095.8	270.776	270.777	270.778
25.040.096.8	270.776	270.777	270.778
25.050.097.8	270.776	270.777	270.778
25.030.098.8	270.776	270.777	270.778
25.040.099.8	270.776	270.777	270.778
25.050.100.8	270.776	270.777	270.778

Vacuum cups for bag gripping | SV-BG – Shore A 70°/ 40°

Bag cups 3.5 and 5.5 folds - SV-BG3 and SV-BG5

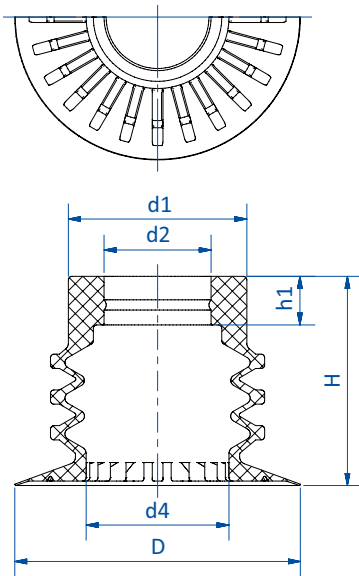
Hardness range



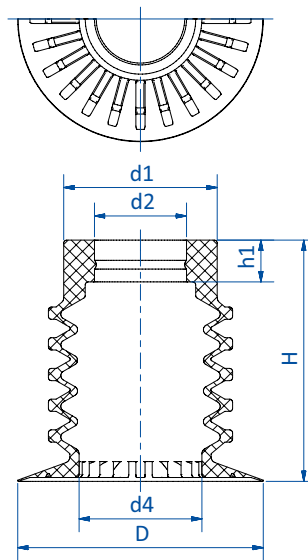
The non-detachable vulcanized, robust bellows area made of silicone 70° Shore A ensures the best possible stability and hold with short cycle times and high acceleration.

The soft, conformable sealing lip ensures the best possible seal even on bags with severe wrinkling.

Dimensions



Drawing A



Drawing A

Item no.	Drawing	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d4 [mm]	h1 [mm]	H [mm]
25.030.095.8	A	30	25	15	15	6.8	25
25.040.096.8	A	40	25	15	20	6.8	29.3
25.050.097.8	A	50	25	15	25	6.8	33.8
25.030.098.8	A	30	25	15	15	6.8	33
25.040.099.8	A	40	25	15	20	6.8	39.3
25.050.100.8	A	50	25	15	25	6.8	45.8

Vacuum cups for bag gripping | Move-in guard – SV-BG

Move-in guard for vacuum cups SV-BG

Move-in guard for vacuum cups SV-BG



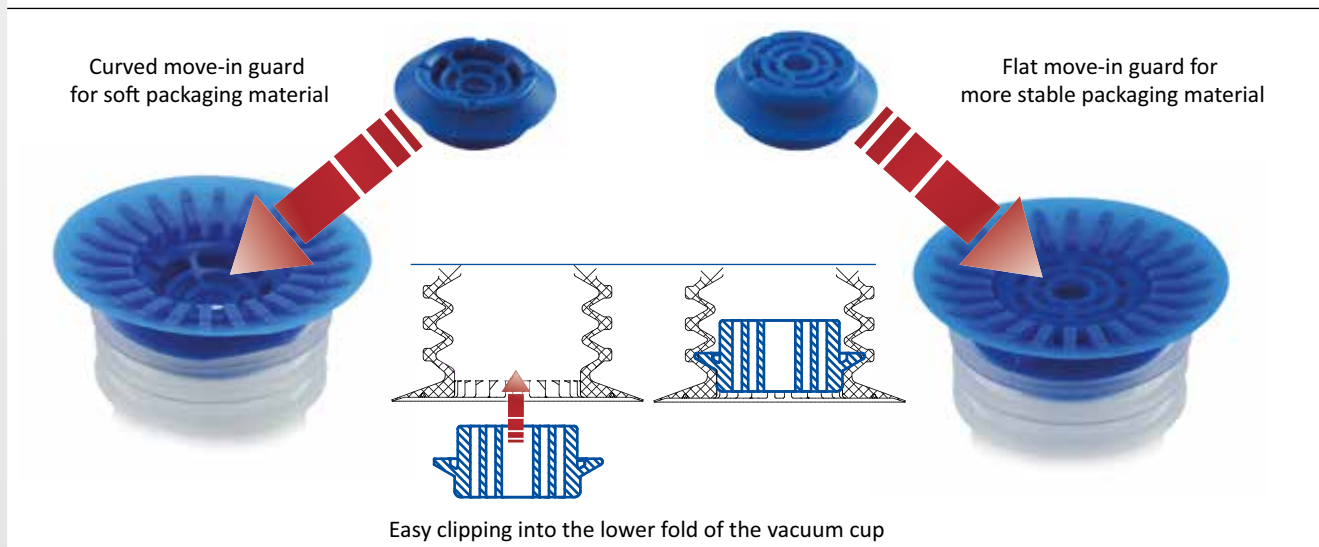
Product notes

- > Two variants of differently shaped support grids prevent flexible film packaging from being sucked in
- > Curved design suitable for soft packaging material
- > Flat version is used for more stable packaging material
- > Easy clipping into the lower fold of the SV-BG series vacuum cup
- > SV-BG series vacuum cups must always be used in conjunction with a move-in guard

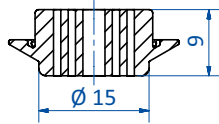
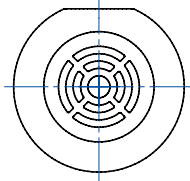
Technical data

Item no.	Design	Suitable for	Material
78.525-f	flat	SV-BG-30	PP
78.525-s	curved	SV-BG-30	PP
78.526-f	flat	SV-BG-40	PP
78.526-s	curved	SV-BG-40	PP
78.527-f	flat	SV-BG-50	PP
78.527-s	curved	SV-BG-50	PP

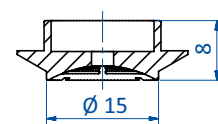
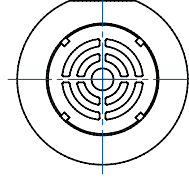
Two variants of differently shaped support grids clipped into the lower fold



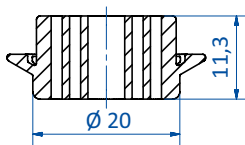
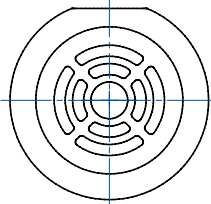
Dimensions



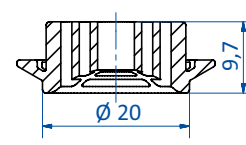
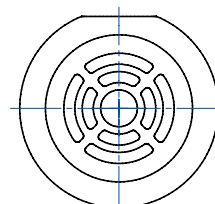
78.525-f



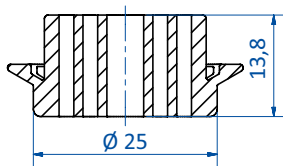
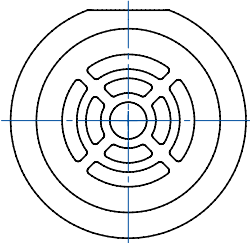
78.525-s



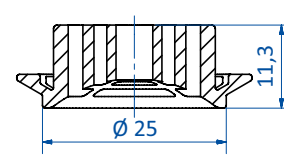
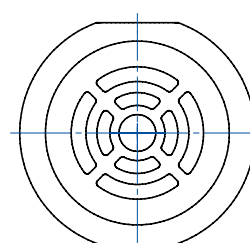
78.526-f



78.526-s



78.527-f



78.527-s

Vacuum cups for bag gripping | SL-FP – Shore A 35° / 55°

Flat vacuum cups Variopack® – SL-FP

Flat vacuum cups Variopack® – SL-FP

Optimised for FlowPack packaging



EXTREME FLEXIBLE SUCTION LIP



Product notes

Flat vacuum cups with extreme flexible single sealing lip for handling a wide variety of FlowPack packages. Only materials are used that are suitable for the food industry.

Advantage

- > Adapts optimally to a wide variety of surfaces
- > Very high cross force absorption due to internal support structure
- > Quick vacuum cup change by means of plug nipples
- > Increases pick rates and reduces machine downtimes


Ordering notes

* For vacuum cups with certificate of conformity for food contact, please select item number ending in "-LE".

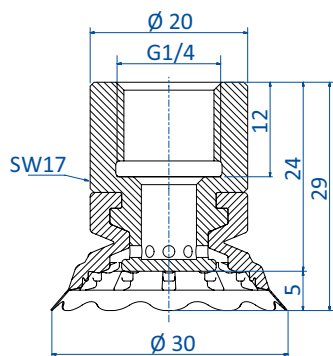
Notes:

Vacuum cups made of material with a hardness of 35° Shore A are particularly suitable for thin packaging. The soft, very flexible silicone seals a more extreme drapery than vacuum cups made of 55°. However, the harder version made of SI 55° Shore A can take larger loads.

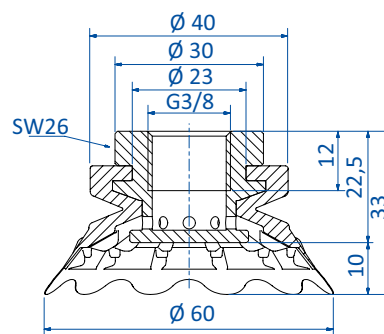
Technical data

Item no.	Model		Material / Color	Connection thread	Accessories
103.030.135.2	SL-FP-30	5	SI (tr)	G1/4-female	Spare vacuum cup: 104.030.100.2
103.030.135.2-LE*	SL-FP-30	5	SI-LE (tr)	G1/4-female	104.030.100.2-LE
103.030.135.8	SL-FP-30	5	SI (w)	G1/4-female	104.030.100.8
103.030.135.8-LE*	SL-FP-30	5	SI-LE (w)	G1/4-female	104.030.100.8-LE
103.060.133.2	SL-FP-60	10	SI (tr)	G3/8-female	104.060.098.2
103.060.133.2-LE*	SL-FP-60	10	SI-LE (tr)	G3/8-female	104.060.098.2-LE
103.060.133.8	SL-FP-60	10	SI (w)	G3/8-female	104.060.098.8
103.060.133.8-LE*	SL-FP-60	10	SI-LE (w)	G3/8-female	104.060.098.8-LE

Dimensions



Drawing A



Drawing B

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Vacuum, gripping and lifting technology
for reliable and efficient handling

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