



VACUUM CUPS

Product catalog

FIPA

WE CAN MOVE EVERYTHING.

With know-how, expertise, flexibility and professional project management, we enable you to the best solution for your handling task, in the vacuum, gripping and lifting technology.



Box

Efficient handling and transportation of cardboard packaging in storage and shipping areas.



Injection molded parts

Low-impact removal of hot plastic parts, cutting of sprues.



Sacks

Ergonomic, safe handling and picking of sacks.



Bags/Pouches

Handling of unstable flowpacks and bags with different textures.



Sheet metal

Fast cycling times and high process reliability for sheet metal transfer, body car handling and machine loading.



Wood

Handling of wooden elements with different surfaces, machine loading.



Glass/bottles

Impression-free, safe handling and assembly of panes, glass and window elements.



Paper/foils

Precise and reliable handling without soaking in the product.



Drums

Safe handling of heavy drums, buckets and canisters.



Food

Flexible and FDA-compliant handling for direct contact with food.



Pallets

Easy and safe handling of pallets for a smooth material flow.



Electronic parts

Clean and flexible handling of very small components with maximum precision.

AUTOMATION SOLUTIONS ACCORDING TO YOUR NEEDS

We are your global partner for all requirements in the industrial automation industry. Thanks to our many years of experience, reliability and flexibility, we always find the right solution to maximize your process reliability.

Production and logistics mean movement. In most industries, products are picked up, held, deposited, turned, turned over, positioned and lifted.

Vacuum technology can be used to move workpieces safely and quickly, but above all to handle them gently and without causing damage. We have a comprehensive range of innovative and high-quality products for all these applications. With our customer-specific solutions, you can optimize your production processes while supporting your employees in their daily work.

Are you looking for an automation approach and want to improve your processes?

We are more than just a supplier of components. With our expertise, application know-how and professional project management, we provide the optimum solution for your handling task in vacuum, gripping and lifting technology.

Do you want to increase efficiency and productivity at the same time as working ergonomically?

We work closely with our customers and therefore always find an answer- from standard solutions to customized designs the gripper construction.

Our goal: to optimize processes in production and logistics with individual components and customized solutions.

Personal contact, fast response times and expertise are our path to successful projects. We are active for you worldwide through our large partner network.

We keep moving for **you** so that production and logistics run reliably and smoothly.

THE EXTENSIVE FIPA RANGE

In the pick and place field, all vacuum cups have the same task: lifting parts and moving them without causing damage. Different vacuum cups are used depending on the shape, size and material of the goods to be handled. We have an extensive **range of flat, bellows and oval vacuum cups**, as well as matching **holders and spring levelers**, which we present in this catalog.



Are you looking for the right vacuum component?

The highest level of professionalism in generating, regulating, controlling and vacuum – this is guaranteed by the various vacuum components from FIPA. In the catalog for vacuum components you will find everything from suitable vacuum generation, vacuum filters, hoses and connecting elements.



Do you need gripping elements?

In the catalog for End-of-Arm-Tooling you will find everything, such as sprue grippers, gripper fingers, quick-change systems and air nippers, as well as our vacuum gripping systems.



Do you want to make lifting heavy loads easier?

Take the strain from your employees with the ideal tube lifter for your application. Our global is to make your material flow as efficient and ergonomic as possible.

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Overview of materials

Overview of vacuum cup materials

Short designation	Material code	Hardness [Shore A ± 5°]	Commercial designation	Commercial name (example)	Short-term working temperature [°C]	Short-term working temperature [°F]	Abrasion resistance	Flexibility	Oil-resistance	Fuel resistance	Ozone and weathering resistance	Acid resistance	Leaching resistance
CR	9	50 - 60	Chloroprene	Neoprene®	-40 / +110	-40 / +230	+	+	++	o	++	+	+
EPDM	15	50		Vistalon®	-40 / +130	-40 / +266	+	++	o	o	++++	+++	+++
FKM	7	65	Fluor rubber (FPM)	Viton®	-10 / +230	+14 / +446	o	o	++++	++++	++++	+++	+++
Foam rubber	12							++++					
HNBR	14	55	Hydrogenated acrylonitrile-butadiene rubber	Therban®	-30 / +160	-22 / +320	++	+	++++	++	+++	+	+
Monoflex	22	50	Polyurethane		10 / +50	+50 / +122	+++	++++	+++	+++	++	o	+++
NBR	1	50 - 60	Nitrile rubber	Perbunan®	-30 / +90	-22 / +194	+	+	+++	+	o	o	o
NBR-AS	1AS	50 - 70	Nitrile rubber, anti-static		-30 / +90	-22 / +194	+	+	+++	++	o	o	+
NR	4	35 - 45	Natural rubber	SMR	-40 / +80	-40 / +176	++	++++	o	o	o	+	++
NR	3	50 - 65	Natural rubber	SMR	-40 / +80	-40 / +176	++	+++	o	o	o	+	++
PU	5	50 - 65	Polyurethane (EU/AU)	Urepan®	-20 / +80	-4 / +176	++	+	+++	++	+	o	o
SBR	13	50 - 60	Styrene-butadiene-rubber (SBR)	Buna®	-30 / +80	-22 / +176	+++	++	o	o	+	+	+
SI	8; 8-LE*	35 - 45	Silicone rubber	Elastosil®	-40 / +200	-40 / +392	o	++++	o	o	+++	o	o
SI	2; 2-LE*	50 - 70	Silicone rubber	Elastosil®	-40 / +200	-40 / +392	o	+++	o	o	+++	o	o
SI-AS	2AS	50 - 70	Silicone rubber anti-static	Elastosil®	-40 / +200	-40 / +392	o	+++	o	o	+++	o	o
Tepuflex®	17	50	Thermoplastic elastomer		0 / +60	+32 / +140	+++	++	o	o	+++	o	o
Thermalon®	19	60			0 / +160	+32 / +320	++	+	+++	++	o	+	+
TPU	18	60 - 75	Thermoplastic elastomer	Elastollan®	0 / +65	+32 / +149	+++	o	+++	++	+++	o	+
Varioflex®	16	30/60	Polyurethane (2 Shore Hardnesses)		+10 / +50	+50 / +122	+++	++++	+++	+++	++	o	+++
Vinyl	V	50 - 55	PVC (soft)		0 / +60	+32 / +140	+++	++	+	+	++	++	++
Vulkollan®	11	75		Vulkollan®	-40 / +80	-40 / +176	++++	+	+++	++	+++	+	+

++++ = Excellent +++ = Very good ++ = Good + = Fair 0 = Low to satisfactory

Ordering example: Flat vacuum cup made of silicone 50° Shore A

Item No.

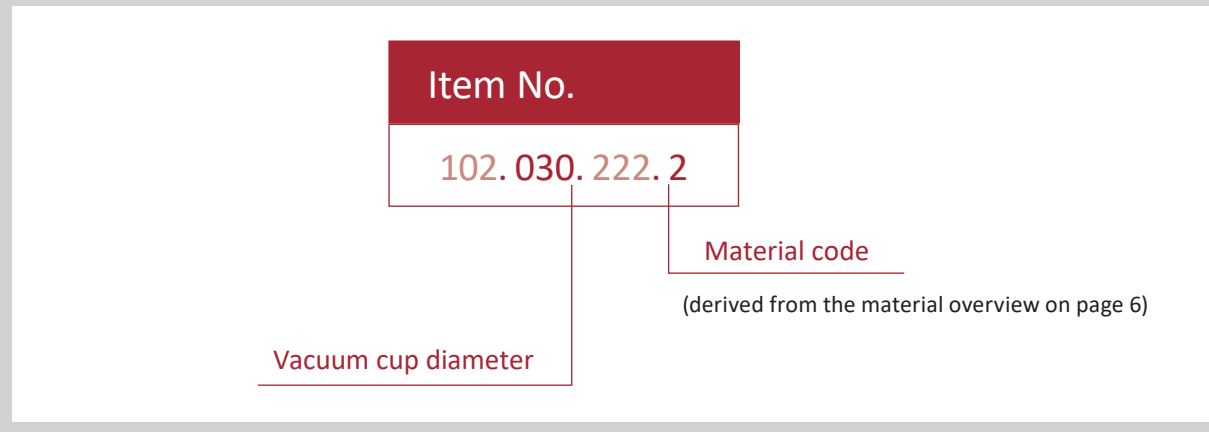
102.030.222. *_ > Add material code > 102.030.222.2

NOTE!

- > Depending on the application, vacuum cups are subject to mechanical and chemical stresses. The data serve therefore only as guidelines.
- > Special vacuum cups fitted with felt linings are extremely low-marking and can be deployed at temperatures up to a max. of 500 °C (932 °F)
- > Material colors may change, but the quality remains unaffected.
- > Material colors: bg = beige, bl = blue, br = brown, g = green, ge = yellow, gr = gray, or = orange, r = red, sw = black, tr = transparent, w = white
- > *Silicone vacuum cups with marking „-LE“: suitable for direct contact with food (compliant to EU regulation 1935/2004 and FDA § 177.2600 e and f)

Structure of order number:

Using the example of a flat vacuum cup with a diameter of 30 mm made of silicone material



Structure of the drawings

Drawing of the cup

Product feature

Item No. of the vacuum cup
(* Please always add the material code - to be derived from the material overview)

Recommended connection parts for the vacuum cup shown (fitting)

Recommended spring levelers for direct snap-in

Stroke spring levelers

Stroke vacuum cup

Available material (colour)

Item No.	Connection	see page
270.317	M5-AG	35
270.103	M6-AG	78
270.205	G1/8-AG	213
270.109	G1/8-iG	147
270.194	G1/4-AG	381

Item No.	Stroke	see page
50.020	8,5 mm	84

Item No.: 102.030.222.*

Material: NBR (sw), SI (tr)

Stroke: 2 mm

Cross reference: Additional sizes available are found on p. 283.

All dimensions in this catalogue are given in mm. Changes in any form are reserved.

Proper storage of elastomers

Some elastomer parts are stored for long periods. This can affect product quality. Changes are the result of individual or combined influences of special factors, such as deformation, oxygen, ozone, light, heat, moisture, oils and solvents. For this reason, precautions must be taken to ensure that the service life will not be considerably shortened by incorrect storage. Storage and the recording of time in storage is governed by ISO 2230 and DIN 7716.



HEAT

- > Storage temperature of elastomers should preferably be between +5 °C and +25 °C.
- > Direct contact with heat sources (such as radiators) or direct sunlight should be avoided.
- > Storage at low temperatures can cause elastomers to harden. In this temperature range, therefore, moulded parts must be handled with great care to avoid deformations.

MOISTURE

- > Relative humidity in storage areas should be below 70 %. Avoid extremely wet or dry conditions. No condensation should be present.

LIGHT, OZONE

- > Elastomer parts should be stored away from light sources and ozone. In particular, direct sunlight or strong artificial light containing an ultraviolet band should be avoided. The use of individual containers, especially plastic bags, is preferred, provided they are UV-protected.

DEFORMATION

- > Elastomer components should be stored free of compressions or deformations and in an unbent state. Items delivered in an unbent state should be kept in their original packaging.

CONTACT WITH LIQUIDS OR GREASE

- > Moulded elastomer parts should not come into contact during storage with solvents, oils or grease, if not already so packed by the manufacturer.

CONTACT WITH METAL AND NON-FERROUS METALS

- > Direct contact with certain metals such as manganese, iron, copper and its alloys, e.g. brass, damages some elastomers and should be avoided during storage.
- > Due to the potential for plasticiser migration or migration of other components, elastomers should not be stored in contact with PVCs.

LENGTH OF STORAGE AND INSPECTION (EMPIRICAL VALUES)

The useful life of elastomeric products depends to a considerable degree on the type of elastomer. If the above-mentioned recommendations for storage are observed, the various elastomers can be stored for the times given below:

AU, EU, BR, SBR, NR, thermoplastics	4 years
NBR, HNBR, CR	6 years
EPDM	8 years
FKM, SI, SI-FS	10 years

After the specified time, moulded elastomer parts should be inspected. An extension of shelf life is then possible. Elastomer parts and components less than 1.5 mm thick are more susceptible to attack by oxidation, even when stored under ideal conditions as recommended. The inspection interval should therefore be shorter than indicated above.

IMPORTANT INFORMATION ON THE STORAGE OF POLYURETHANE (AU/EU)

PE bags are used exclusively for safe transport and not for permanent storage.

Polyurethane products must not be stored in sealed PE bags (hydrolysis aging). Polyurethane articles are best stored unpacked.

When storing in cartons or other containers, ensure adequate ventilation (normal air circulation in the storage room is sufficient).

Polyurethane can be stored in PE bags only if the bag is not sealed. When stored in sealed PE bags, the polyurethane is destroyed by hydrolysis.

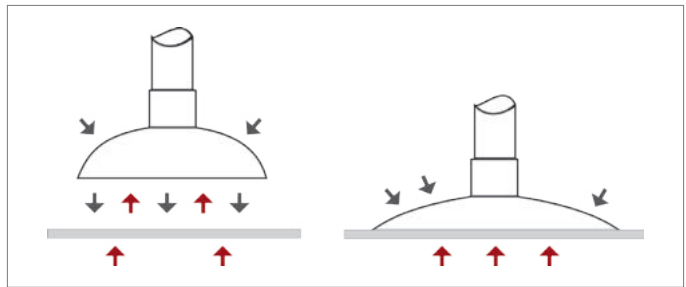
Optimal storage conditions:

Temperature:	room temperature (+5 to +25 °C)
Humidity:	ca. 30 % to 70 %
Air exchange:	air circulation at the storage place is necessary

General explanation for vacuum cups

Functional principle

It is not the vacuum unit that sucks up the workpiece to be moved, but the good to be handled that is pressed firmly to the vacuum unit. This happens due to the negative pressure that is created by the built-in vacuum cup or the connected vacuum generator.

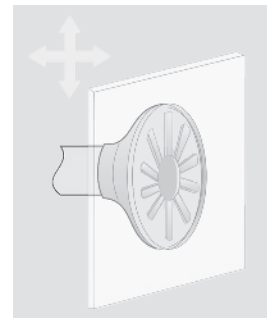


The functional principle is straightforward: The vacuum generator draws out the air located between the vacuum cup and workpiece. After contact, the vacuum cup seals off the workpiece surface against the surrounding air pressure. The underpressure or vacuum is created.

Depending on the application, different shapes and sizes of vacuum cups and vacuum cup materials are used.

Example:

For handling movements parallel to the vacuum surface, flat vacuum cups with cleats or knobs are especially suitable because of their high frictional resistance.



Calculation of the holding forces

The force exerted by a vacuum cup holding or lifting a workpiece depends on many factors. These include the acceleration, the safety factor, turning and tilting moments, the elasticity of the material and even the design of the vacuum cup.

Regardless of such factors, the holding power of a vacuum cup can easily be identified by the following formula:

$$\text{Holding power in N} = \frac{\text{active suction surface in cm}^2 \times \text{vacuum available in \%}}{10}$$

In short form:

$$F = \frac{A \times P}{10}$$

The following applies: The holding power of a vacuum cup is proportional to the active suction surface.

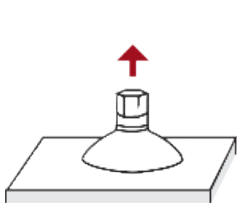
To determine the necessary vacuum cup diameter or the required active suction surface, the following formula helps:

$$\text{Vacuum cup diameter in mm} = 113 \times \sqrt{\frac{\text{Weight in kg} \times \text{Safety factor}}{\text{Underpressure in \%} \times \text{Number of vacuum cups}}}$$

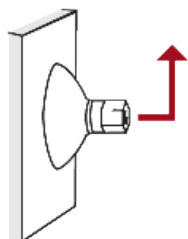
On page 465 you will find a table with average values for vacuum cups in standard applications.

Important: The safety factor (dependent on the lifting direction)

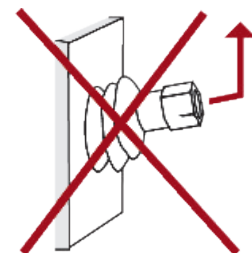
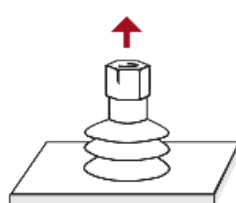
min. 2x safety factor



min. 2x safety factor



min. 2x safety factor



Flat vacuum cups series	12
All flat vacuum cups by size	
up to Ø 10 mm	51
Ø 11 - 20 mm	60
Ø 21 - 30 mm	74
Ø 31 - 40 mm	93
Ø 41 - 60 mm	101
Ø 61 - 80 mm	111
Ø 81 - 150 mm	120
larger Ø 150 mm	131



Flat vacuum cups series

Universal flat vacuum cups – SFU-A

Universal flat vacuum cups – SFU-A



Product notes

Very shallow cup with single-lip seal for handling various products with smooth or rough surfaces.
Connection up to Ø 50 mm by means of plug-in nipple, from Ø 60 mm with vulcanized carrier plate (bolttable).


Advantage

- > Great stability allows high acceleration
- > Fast cycle times are possible, due to the cup's low volume
- > Cost-effective replacement of worn seals

Ordering notes

Ø 1 mm to Ø 3 mm: PU = 10 pieces

Technical data

Item no.	Model		Material / Color	Connection thread
102.001.002.*	SFU-A-1,5	0.3	NBR (sw), SI (tr)	--
102.002.004.*	SFU-A-2	0.4	NBR (sw), SI (tr), SI-LE (tr)	--
102.003.005.*	SFU-A -3	0.5	NBR (sw), SI (tr), SI-LE (tr)	--
102.005.009.*	SFU-A -5	0.9	NBR (sw), SI (tr), SI-LE (tr)	--
102.006.013.*	SFU-A -6	1	NBR (sw), SI (tr)	--
102.008.017.*	SFU-A -8	1.4	NBR (sw), SI (tr)	--
102.010.024.*	SFU-A -10	1.2	NBR (sw), SI (tr), SI-LE (tr)	--
102.015.030.*	SFU-A-15	2	NBR (sw), SI (tr), SI-LE (tr)	--
102.015.309.*	SFU-A-15A	1.9	NBR (sw), SI (tr), SI-LE (tr)	--
102.020.041.*	SFU-A -20	2	NBR (sw), SI (tr), SI-LE (tr)	--
102.025.047.*	SFU-A -25	2.5	NBR (sw), SI (tr), SI-LE (tr)	--
102.030.053.*	SFU-A -30	2	NBR (sw), SI (tr), SI-LE (tr)	--
102.035.056.*	SFU-A -35	3	NBR (sw), SI (tr), SI-LE (tr)	--
102.040.061.*	SFU-A -40	3.5	NBR (sw), SI (tr), SI-LE (tr)	--
102.050.065.*	SFU-A -50	4	NBR (sw), SI (tr), SI-LE (tr)	--
102.060.303.*	SFU-A -60	5	NBR (sw), SI (tr), SI-LE (tr)	G1/4-female
102.080.304.*	SFU-A -80	6	NBR (sw), SI (tr), SI-LE (tr)	G1/4-female
102.095.305.*	SFU-A -95	6	NBR (sw), SI (tr), SI-LE (tr)	G1/4-female
154.120.018.*	SFU-A -120	7	NBR (sw), SI (tr), SI-LE (tr)	--
154.150.020.*	SFU-A -150	9	NBR (sw), SI (tr), SI-LE (tr)	--
154.191.025.*	SFU-A -200	13	NBR (sw), SI (tr), SI-LE (tr)	--

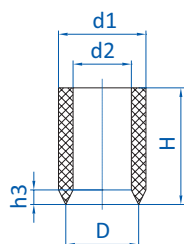
* When ordering please add the appropriate material code to item no.



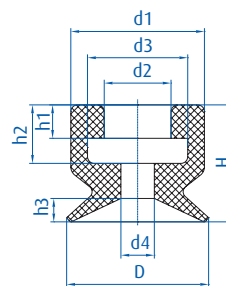
Accessories

Item no.	Suitable fittings										Suitable spring leveler (Snap-in)	
	M3-male	M5-male	M5-female	M6-male	M10-female	G1/8-male	G1/8-female	G1/4-male	G1/4-female	G1/2-female	Spring leveler	Spring leveler
102.001.002.*	270.011	--	--	--	--	--	--	--	--	--	--	--
102.002.004.*	270.014	270.300	--	--	--	--	--	--	--	--	--	--
102.003.005.*	270.014	270.300	--	--	--	--	--	--	--	--	--	--
102.005.009.*	--	270.010	270.005	--	--	270.009	270.007	--	--	--	50.330	9
102.006.013.*	--	270.010	270.005	--	--	270.009	270.007	--	--	--	50.330	9
102.008.017.*	--	270.010	270.005	--	--	270.009	270.007	--	--	--	50.330	9
102.010.024.*	--	270.010	270.005	--	--	270.009	270.007	--	--	--	50.330	9
102.015.030.*	--	270.200	--	--	--	270.064	270.065	--	--	--	--	--
102.015.309.*	--	270.010	270.005	--	--	270.009	270.007	--	--	--	50.330	9
102.020.041.*	--	270.311	--	--	--	270.063	270.061	--	--	--	--	--
102.025.047.*	--	--	--	270.312/19	--	270.030	270.019	270.274	270.275	--	--	--
102.030.053.*	--	--	--	270.312/19	--	270.030	270.019	270.274	270.275	--	--	--
102.035.056.*	--	--	--	270.312/19	--	270.030	270.019	270.274	270.275	--	--	--
102.040.061.*	--	--	--	270.312/19	--	270.030	270.019	270.274	270.275	--	--	--
102.050.065.*	--	--	--	--	--	270.490	270.489	270.491	270.492	--	--	--
102.060.303.*	--	--	--	--	270.090	--	--	270.120	--	--	--	--
102.080.304.*	--	--	--	--	270.090	--	--	270.120	--	--	--	--
102.095.305.*	--	--	--	--	270.090	--	--	270.120	--	--	--	--
154.120.018.*	--	--	--	--	--	--	--	--	--	270.056	--	--
154.150.020.*	--	--	--	--	--	--	--	--	--	270.056	--	--
154.191.025.*	--	--	--	--	--	--	--	--	--	270.056	--	--

Dimensions



Drawing A



Drawing B

① = Aluminum ② = Steel

Continued on the next page →

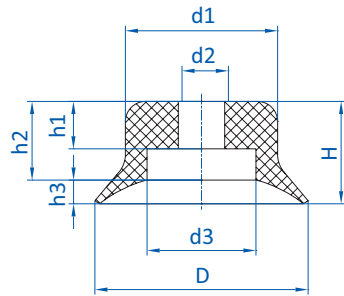
* When ordering please add the appropriate material code to item no.



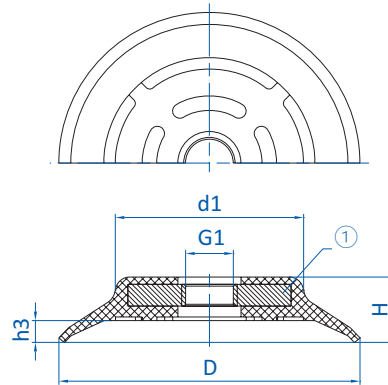
Flat vacuum cups series

Universal flat vacuum cups – SFU-A

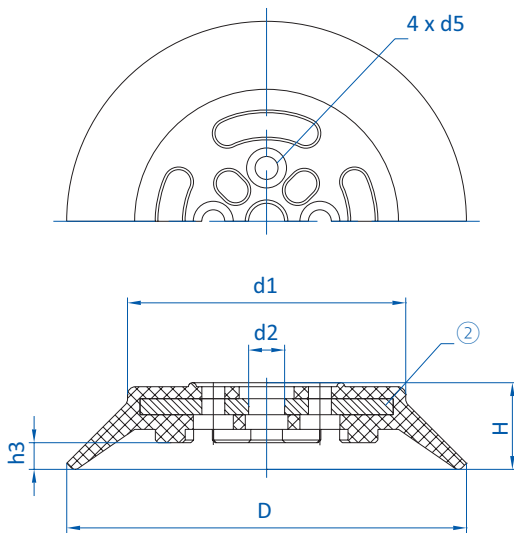
Dimensions



Drawing C



Drawing D



Drawing E

① = Aluminum ② = Steel

* When ordering please add the appropriate material code to item no.



Item no.	Drawing	∅ D [mm]	∅ d1 [mm]	∅ d2 [mm]	∅ d3 [mm]	G1	H [mm]	h1 [mm]	h2 [mm]	h3 [mm]
102.001.002.*	A	1.5	1.8	1.2	--	--	2.5	--	--	0.3
102.002.004.*	B	2.5	4	2	3	--	4	1.5	2.5	0.5
102.003.005.*	B	4	4	2	3	--	4	1.5	2.5	0.5
102.005.009.*	B	5	7.5	3.8	6	--	6.5	1.8	3.9	0.8
102.006.013.*	B	6.5	7.5	4	6	--	7	2	4	1
102.008.017.*	B	8.5	8	4	6	--	7	2	3.5	1.4
102.010.024.*	B	11	8.5	4	6	--	7.5	1.8	3.8	1.4
102.015.030.*	C	15	12	4.5	7.5	--	8	2.6	2.1	2.1
102.015.309.*	B	15.5	9	3.8	6	--	8	2.2	4.4	2
102.020.041.*	C	21	15	4.6	11	--	10	4.5	8	2.4
102.025.047.*	C	25	16	6	11	--	14	7	11	3
102.030.053.*	C	30	14	6	11	--	12	7	10	2
102.035.056.*	C	36	21	6	11	--	14	7	11.2	2.8
102.040.061.*	C	42	24	6	11	--	14	7	11.2	2.8
102.050.065.*	C	50	27	8	20	--	15	7.4	11.5	3.5
102.060.303.*	D	62	38	--	--	G1/4	16	--	--	4.8
102.080.304.*	D	83	52	--	--	G1/4	18	--	--	6
102.095.305.*	D	95	66	--	--	G1/4	18	--	--	5.5
154.120.018.*	E	117	90	14	--	--	26	--	--	9
154.150.020.*	E	150	104	13.5	--	--	33	--	--	10
154.191.025.*	E	193	142	13	--	--	40	--	--	15.5

* When ordering please add the appropriate material code to item no.



Flat vacuum cups series

Universal flat vacuum cups – SKT-F

Universal flat vacuum cups – SKT-F



Product notes

Universal flat suction cup with single sealing lip for handling flat workpieces with smooth to slightly rough surfaces. Connection up to Ø 50 mm by means of plug-in nipple, from Ø 60 mm with vulcanized carrier plate made of aluminum (screwable).

Advantage

- > High stability enables high acceleration
- > Fast cycle times possible due to low inherent volume

Technical data

Item no.	Model		Material / Color
102.005.496.*	SKT-F-5	1	NBR (sw), SI (tr)
102.008.497.*	SKT-F-8	1.4	NBR (sw), SI (tr)
102.010.498.*	SKT-F-10	1.5	NBR (sw), SI (tr)
102.015.499.*	SKT-F-15	2	NBR (sw), SI (tr)
102.020.500.*	SKT-F-20	2.5	NBR (sw), SI (tr)
102.025.501.*	SKT-F-25	3	NBR (sw), SI (tr)
102.030.502.*	SKT-F-30	2	NBR (sw), SI (tr)
102.040.503.*	SKT-F-40	4	NBR (sw), SI (tr)
102.050.504.*	SKT-F-50	4	NBR (sw), SI (tr)
102.060.505.*	SKT-F-60	4	NBR (sw), SI (tr)

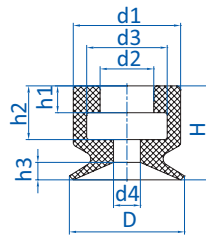
Accessories

Item no.	Suitable fittings							Suitable spring leveler (Snap-in)	
	M5-male	M5-female	M6-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female	Spring leveler	
102.005.496.*	270.010	270.005	--	270.009	270.007	--	--	50.330	9
102.008.497.*	270.010	270.005	--	270.009	270.007	--	--	50.330	9
102.010.498.*	270.010	270.005	--	270.009	270.007	--	--	50.330	9
102.015.499.*	270.200	--	--	270.064	270.065	--	--	50.330	9
102.020.500.*	270.311	--	--	270.063	270.061	--	--	--	--
102.025.501.*	--	--	270.312/19	270.030	270.019	270.274	270.275	--	--
102.030.502.*	--	--	270.312/19	270.030	270.019	270.274	270.275	--	--
102.040.503.*	--	--	270.312/19	270.030	270.019	270.274	270.275	--	--
102.050.504.*	--	--	--	270.012	270.020	270.491	270.492	--	--
102.060.505.*	--	--	--	--	--	--	--	--	--

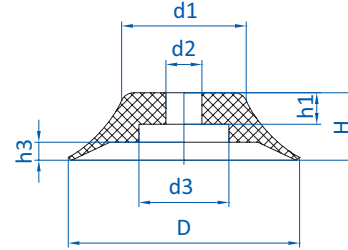
* When ordering please add the appropriate material code to item no.



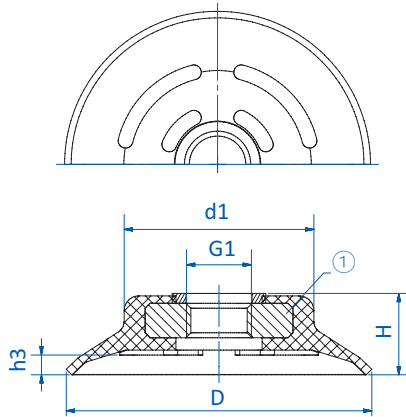
Dimensions



Drawing A



Drawing B



Drawing C

① = Aluminum

Item no.	Drawing	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	G1	H [mm]	h1 [mm]	h2 [mm]	h3 [mm]
102.005.496_*	A	5.5	7.5	4.2	6.5	1.5	--	6.5	2	4	1
102.008.497_*	A	9.5	9	4.2	6.5	2.4	--	7	2	4	1.4
102.010.498_*	A	10.5	8.5	4.2	6.5	2	--	7.5	2	4	1.5
102.015.499_*	B	16	12	5	8	--	--	8	2.5	--	2
102.020.500_*	B	21	15	5	11	--	--	10	4.5	--	2.5
102.025.501_*	B	25.5	16	6	11	--	--	14	7	--	3
102.030.502_*	B	30	14	6	11	--	--	12	7	--	2
102.040.503_*	B	41	24	6	11	--	--	14	7	--	4
102.050.504_*	B	51	27.5	8	20	--	--	15	7	--	4
102.060.505_*	C	62	38.5	--	--	--	G1/4	16.5	--	--	4

* When ordering please add the appropriate material code to item no.



Flat vacuum cups series

High-temperature Thermalon® cups – SKT-F

High-temperature Thermalon® cups – SKT-F



UP TO 160 °C (320 °F) & MINIMUM MARKING




Product notes

Flat vacuum cups for smooth surfaces especially suitable for removing hot plastic parts to be painted from an injection molding machine. Thermalon® is a material mixture specially optimized for the plastics industry with a hardness of 60° Shore A. Connection up to Ø 50 mm by means of plug-in nipple, from Ø 60 mm with vulcanized carrier plate (boltable).




Advantage

- > Extremely low-marking
- > Free of silicone and other paint-wetting-impairment substances (PWIS)
- > Great stability allows high acceleration

Technical data

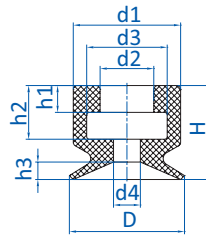
Item no.	Model		Material / Color	Short-term working temperature < 30 Sec [°C (°F)]
102.005.496.19	SKT-F-5	1	Thermalon® (bl)	0 - 160 (32 - 320)
102.008.497.19	SKT-F-8	1.4	Thermalon® (bl)	0 - 160 (32 - 320)
102.010.498.19	SKT-F-10	1.5	Thermalon® (bl)	0 - 160 (32 - 320)
102.015.499.19	SKT-F-15	2	Thermalon® (bl)	0 - 160 (32 - 320)
102.020.500.19	SKT-F-20	2.5	Thermalon® (bl)	0 - 160 (32 - 320)
102.025.501.19	SKT-F-25	3	Thermalon® (bl)	0 - 160 (32 - 320)
102.030.502.19	SKT-F-30	2	Thermalon® (bl)	0 - 160 (32 - 320)
102.040.503.19	SKT-F-40	4	Thermalon® (bl)	0 - 160 (32 - 320)
102.050.504.19	SKT-F-50	4	Thermalon® (bl)	0 - 160 (32 - 320)
102.060.505.19	SKT-F-60	4	Thermalon® (bl)	0 - 160 (32 - 320)
102.080.304.19	SKT-F 80	6	Thermalon® (bl)	0 - 160 (32 - 320)
102.095.305.19	SKT-F 95	6	Thermalon® (bl)	0 - 160 (32 - 320)

Accessories

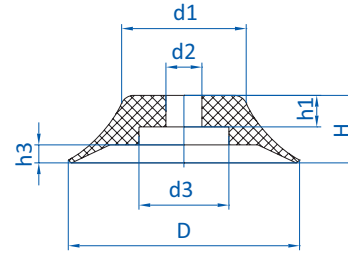
Item no.	 Suitable fittings							 Suitable spring leveler (Snap-in)	
	M5-male	M5-female	M6-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female	Spring leveler	
102.005.496.19	270.010	270.005	--	270.009	270.007	--	--	50.330	9
102.008.497.19	270.010	270.005	--	270.009	270.007	--	--	50.330	9
102.010.498.19	270.010	270.005	--	270.009	270.007	--	--	50.330	9
102.015.499.19	270.200	--	--	270.064	270.065	--	--	50.330	9
102.020.500.19	270.311	--	--	270.063	270.061	--	--	--	--
102.025.501.19	--	--	270.312/19	270.030	270.019	270.274	270.275	--	--
102.030.502.19	--	--	270.312/19	270.030	270.019	270.274	270.275	--	--
102.040.503.19	--	--	270.312/19	270.030	270.019	270.274	270.275	--	--
102.050.504.19	--	--	--	270.012	270.020	270.491	270.492	--	--
102.060.505.19	--	--	--	--	--	--	--	--	--
102.080.304.19	--	--	--	--	--	--	--	--	--
102.095.305.19	--	--	--	--	--	--	--	--	--



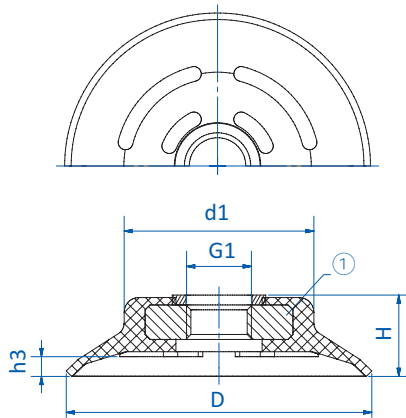
Dimensions



Drawing A



Drawing B



Drawing C

① = Aluminum

Item no.	Drawing	∅ D [mm]	∅ d1 [mm]	∅ d2 [mm]	∅ d3 [mm]	∅ d4 [mm]	G1	H [mm]	h1 [mm]	h2 [mm]	h3 [mm]
102.005.496.19	A	5.5	7.5	4.2	6.5	1.5	--	6.5	2	4	1
102.008.497.19	A	9.5	9	4.2	6.5	2.4	--	7	2	4	1.4
102.010.498.19	A	10.5	8.5	4.2	6.5	2	--	7.5	2	4	1.5
102.015.499.19	B	16	12	5	8	--	--	8	2.5	--	2
102.020.500.19	B	21	15	5	11	--	--	10	4.5	--	2.5
102.025.501.19	B	25.5	16	6	11	--	--	14	7	--	3
102.030.502.19	B	30	14	6	11	--	--	12	7	--	2
102.040.503.19	B	41	24	6	11	--	--	14	7	--	4
102.050.504.19	B	51	27.5	8	20	--	--	15	7	--	4
102.060.505.19	C	62	38.5	--	--	--	G1/4	16.5	--	--	4
102.080.304.19	C	82	50.5	--	--	--	G1/4	18	--	--	6
102.095.305.19	C	95	66	--	--	--	G1/4	18	--	--	6



Flat vacuum cups, modular – SP-F



Product notes	Advantage
Universal flat vacuum cup in even, supported or deep design. Design: Replacement sealing lip for attachment to fitting.	<ul style="list-style-type: none"> > High suction force > Fast cycle times possible > Very resistant to wear (Tepuflex®) > Compatible with established products from other vendors

Ordering notes
Explanation of the ending of the accessory fitting: > S: with screen

Technical data				Accessories
Item no.	Model		Material / Color	Retaining ring:
Smooth design				
102.005.090.*	SP-F-5	0.5	SI (tr), CR (sw)	--
102.007.091.*	SP-F-7	1	SI (tr), CR (sw)	--
102.009.092.*	SP-F-9	1.5	SI (tr), CR (sw)	--
102.011.093.*	SP-F-10	1	SI (tr), CR (sw)	--
102.016.098.*	SP-F-15	2	SI (tr), CR (sw)	--
102.020.095.*	SP-F-20	2.5	SI (tr), CR (sw)	78.011
102.030.096.*	SP-F-30	3.5	SI (tr), CR (sw)	78.011
102.040.094.*	SP-F-40	4	SI (tr), CR (sw)	78.012
102.050.097.*	SP-F-50	6.5	SI (tr), CR (sw)	78.013
With cleats				
104.016.003.*	SP-FA-16	0.5	SI (tr), CR (sw)	--
125.020.004.*	SP-FA-20	1	Tepuflex® (or), SI (tr), SI-LE (tr), CR (sw)	78.011
125.025.007.*	SP-FA-25	1	Tepuflex® (or), SI (tr), CR (sw)	78.011
125.030.010.*	SP-FA-30	2	Tepuflex® (or), SI (tr), CR (sw)	78.011
125.040.013.*	SP-FA-40	2	Tepuflex® (or), SI (tr), CR (sw)	78.012
125.050.017.*	SP-FA-50	2.5	Tepuflex® (or), SI (tr), CR (sw)	78.013
154.078.027.*	SP-FA-75	3	SI (tr), SI-LE (tr), CR (sw)	--
154.113.028.*	SP-FA-110	5	SI (tr), SI-LE (tr), CR (sw)	--
154.155.026.*	SP-FA-150	5	CR (sw)	--
Deep design				
122.016.012.*	SP-FD-16	1.5	SI (tr)	--
122.022.022.*	SP-FD-20	2.5	SI (tr), SI-LE (tr), CR (sw)	78.011

* When ordering please add the appropriate material code to item no.



Flat vacuum cups series

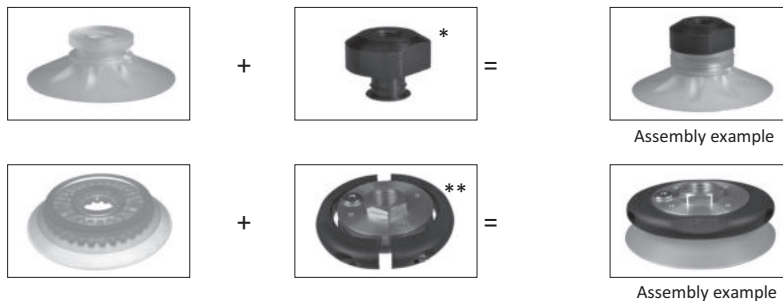
Flat vacuum cups, modular – SP-F

Accessories

Item no.	Suitable fittings									
	M5-male	M5-female	M6-male	G1/8-male	G1/8-female	G1/4-male	G3/8-male	G3/8-female	G1/2-female	G3/4-female
Smooth design										
102.005.090.*	270.153	--	--	--	--	--	--	--	--	--
102.007.091.*	270.153	--	--	--	--	--	--	--	--	--
102.009.092.*	270.153	--	--	--	--	--	--	--	--	--
102.011.093.*	270.134	--	270.104	--	--	--	--	--	--	--
102.016.098.*	270.134	--	270.104	--	--	--	--	--	--	--
102.020.095.*	--	270.500-S	--	270.250, 270.503-S	--	--	--	--	--	--
102.030.096.*	--	270.500-S	--	270.250, 270.503-S	--	--	--	--	--	--
102.040.094.*	--	--	--	--	270.251, 270.501-S	270.506-S	270.505-S	--	--	--
102.050.097.*	--	--	--	--	270.252, 270.502-S	270.504-S	270.507-S	--	--	--
With cleats										
104.016.003.*	270.134	--	270.104	--	--	--	--	--	--	--
125.020.004.*	--	270.500-S	--	270.250, 270.503-S	--	--	--	--	--	--
125.025.007.*	--	270.500-S	--	270.250, 270.503-S	--	--	--	--	--	--
125.030.010.*	--	270.500-S	--	270.250, 270.503-S	--	--	--	--	--	--
125.040.013.*	--	--	--	--	270.251, 270.501-S	270.506-S	270.505-S	--	--	--
125.050.017.*	--	--	--	--	270.252, 270.502-S	270.504-S	270.507-S	--	--	--
154.078.027.*	--	--	--	--	270.527-S	--	--	270.528-S	270.529-S	--
154.113.028.*	--	--	--	--	--	--	--	270.530-S	270.531-S	--
154.155.026.*	--	--	--	--	--	--	--	--	270.532-S	270.533-S
Deep design										
122.016.012.*	270.134	--	270.104	--	--	--	--	--	--	--
122.022.022.*	--	270.500-S	--	270.250, 270.503-S	--	--	--	--	--	--

Flat vacuum cups, modular

Example:



* Fittings are optionally available with and without filter screen

** Fittings come fitted with filter screen as standard

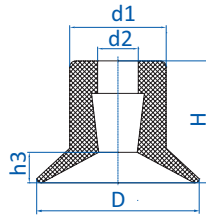
* When ordering please add the appropriate material code to item no.



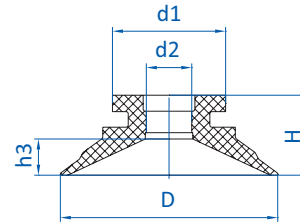
Flat vacuum cups, modular

- > The modular series allows you to assemble your own vacuum cups
- > Worn sealing lips can be replaced quickly, cost-effective and easily
- > High flexibility thanks to a large selection of fitting threads

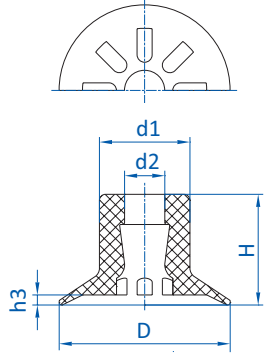
Dimensions



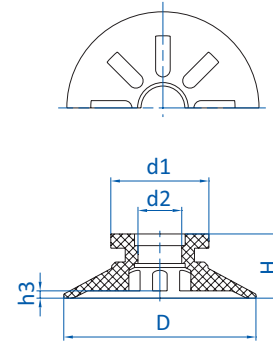
Drawing A



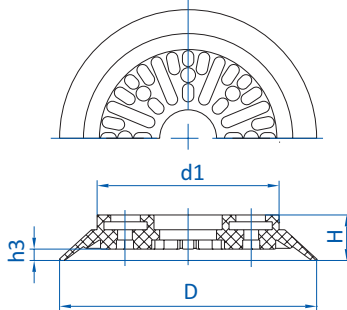
Drawing B



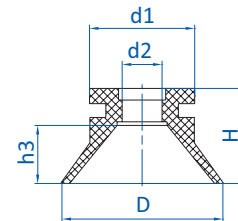
Drawing C



Drawing D



Drawing E



Drawing F

Item no.	Drawing	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	H [mm]	h3 [mm]
Smooth design						
102.005.090_*	A	5	4.5	2	6	0.5
102.007.091_*	A	7	5	2	7	0.9
102.009.092_*	A	9.5	5	2	7	1.1
102.011.093_*	A	11	9	3.8	10.5	0.8
102.016.098_*	A	16	9.5	4	12	3
102.020.095_*	B	22	14.5	5.5	8	3
102.030.096_*	B	32	14.5	6.5	10.5	4.7
102.040.094_*	B	42	20	7	13.5	6
102.050.097_*	B	52	27	11	19	8.5

* When ordering please add the appropriate material code to item no.



Flat vacuum cups series

Flat vacuum cups, modular – SP-F

Item no.	Drawing	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	H [mm]	h3 [mm]
With cleats						
104.016.003._*	C	17	9	4	11	1
125.020.004._*	D	22	14.5	5.5	8	0.9
125.025.007._*	D	28	14	5.5	9	1
125.030.010._*	D	32	14.5	6.5	10.5	1.2
125.040.013._*	D	42	20	7	13.5	2.1
125.050.017._*	D	53	27	12	17.5	2
154.078.027._*	E	78	55	--	13	3
154.113.028._*	E	113	80	--	20	5
154.155.026._*	E	155	109	--	24	5
Deep design						
122.016.012._*	F	17.5	9	4	17	8
122.022.022._*	F	22	14.5	5.5	13	8

* When ordering please add the appropriate material code to item no.



Flat vacuum cups with fully assembled fitting – SP-F




Product notes

Universal flat vacuum cups in even or supported design. Series with sensing valve prevents dropping of the product if individual vacuum cups in a system are not in contact with the product.
Version: Complete with vacuum cup fitting and filter screen.

Advantage

- > High suction force
- > Fast cycle times possible
- > Very resistant to wear (Tepuflex®)
- > Compatible with established products from other vendors

Technical data

Item no.	Model	Connection thread		Material / Color	Accessories
Smooth design with fitting & filter screen					Spare vacuum cup:
120.020.006.*	SP-F-20	G1/8-male, M5-female	2.5	SI (tr), CR (sw)	102.020.095.*
120.030.013.*	SP-F-30	G1/8-male, M5-female	3.5	SI (tr), CR (sw)	102.030.096.*
120.040.076.*	SP-F-40	G1/8-female	4	SI (tr), CR (sw)	102.040.094.*
120.050.078.*	SP-F-50	G1/8-female	6.5	CR (sw)	102.050.097.9
Smooth design with fitting, filter screen & touch valve					
121.030.006.*	SP-F-30	G1/8-male, M5-female	2.5	CR (sw)	102.030.096.9
121.040.007.*	SP-F-40	G1/8-female	4	SI (tr), CR (sw)	102.040.094.*
With cleats, fitting & filter screen					
123.020.003.*	SP-FA-20	G1/8-male, M5-female	1	Tepuflex® (or), SI (tr), CR (sw)	125.020.004.*
123.025.010.*	SP-FA-25	G1/8-male, M5-female	1	SI (tr), CR (sw)	125.025.007.*
123.030.019.*	SP-FA-30	G1/8-male, M5-female	2	Tepuflex® (or), SI (tr), CR (sw)	125.030.010.*
123.040.028.*	SP-FA-40	G1/8-female	2	SI (tr), CR (sw)	125.040.013.*
123.050.034.*	SP-FA-50	G1/8-female	2.5	Tepuflex® (or), SI (tr), CR (sw)	125.050.017.*
With cleats, fitting, filter screen & touch valve					
124.030.002.*	SP-FA-30	G1/8-male, M5-female	2	SI (tr)	125.030.010.2
124.040.006.*	SP-FA-40	G1/8-female	2	SI (tr)	125.040.013.2
124.050.009.*	SP-FA-50	G1/8-female	2.5	SI (tr), CR (sw)	125.050.017.*

Continued on the next page →

* When ordering please add the appropriate material code to item no.

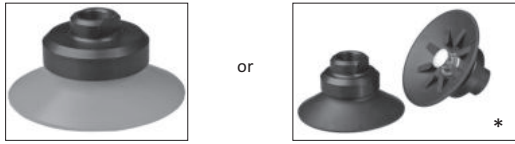


Flat vacuum cups series

Flat vacuum cups with fully assembled fitting – SP-F

Flat vacuum cups with fully mounted fitting

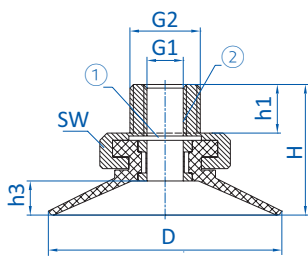
Example:



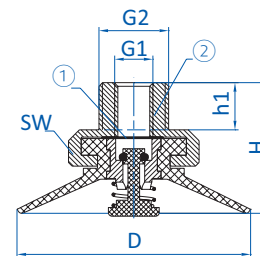
* Version with touch valve available only for flat vacuum cups in smooth design and flat vacuum cups with cleats

- > High process reliability thanks to permanently installed fitting
- > Worn sealing lips can be replaced if necessary

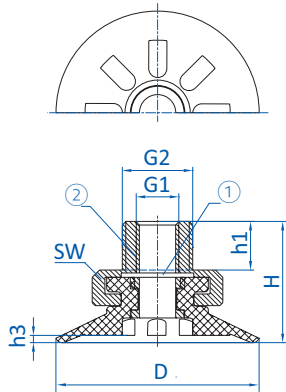
Dimensions



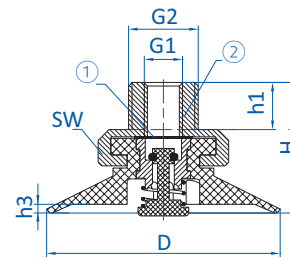
Drawing A



Drawing B



Drawing C



Drawing E

① = Filter screen ② = Aluminum

Item no.	Drawing	Ø D [mm]	Ø d4 [mm]	G1	G2	H [mm]	h1 [mm]	h3 [mm]	SW
Smooth design with fitting & filter screen									
120.020.006.*	A	22	--	M5	G1/8	15.5	6.5	3	17
120.030.013.*	A	32	--	M5	G1/8	18	6.5	4.5	17
120.040.076.*	A	42	--	G1/8	--	22	--	6	12
120.050.078.*	A	52	--	G1/8	--	27	--	8.5	12
Smooth design with fitting, filter screen & touch valve									
121.030.006.*	B	32	--	M5	G1/8	18	6.5	--	17
121.040.007.*	B	42	--	G1/8	--	22	--	--	12
With cleats, fitting & filter screen									
123.020.003.*	C	22	--	M5	G1/8	15.5	6.5	0.9	17

* When ordering please add the appropriate material code to item no.



Item no.	Drawing	∅ D [mm]	∅ d4 [mm]	G1	G2	H [mm]	h1 [mm]	h3 [mm]	SW
123.025.010.*	C	28	--	M5	G1/8	16.5	6.5	1	17
123.030.019.*	C	32	--	M5	G1/8	18	6.5	1.2	17
123.040.028.*	C	42	--	G1/8	--	22	--	2.1	12
123.050.034.*	C	53	--	G1/8	--	26	--	2	12
With cleats, fitting, filter screen & touch valve									
124.030.002.*	E	32	--	M5	G1/8	18	--	1.2	17
124.040.006.*	E	42	--	G1/8	--	22	--	2.1	12
124.050.009.*	E	53	--	G1/8	--	26	--	2	12

* When ordering please add the appropriate material code to item no.



Flat vacuum cups series

Flat vacuum cups with a flexible lip – SFU-F

Flat vacuum cups with a flexible lip – SFU-F




Product notes

Flat vacuum cups with a soft, very flexible single-lip seal for handling highly sensitive products.
Connection via plug-in nipple.
Compatible "snap-in" spring leveller available.




Advantage

- > Gentle product handling
- > Very good fit to the product surface
- > Good seal over a slightly rough surface
- > Low volume of the cup enables fast cycle times
- > Cost-effective replacement of worn seals

Technical data

Item no.	Model		Material / Color
102.004.216.*	SFU-F-4	1	NBR (sw), SI (tr)
102.006.217.*	SFU-F-6	1	NBR (sw), SI (tr)
102.008.218.*	SFU-F-8	1	NBR (sw), SI (tr)
102.010.219.*	SFU-F-10	1	NBR (sw), SI (tr)
102.015.220.*	SFU-F-15	2	NBR (sw), SI (tr)
102.020.221.*	SFU-F-20	2	NBR (sw), SI (tr)
102.030.222.*	SFU-F-30	2	NBR (sw), SI (tr)
102.040.223.*	SFU-F-40	2	NBR (sw), SI (tr)

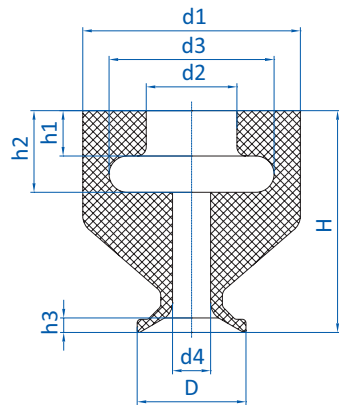
Accessories

Item no.	 Suitable fittings					 Suitable spring leveller (Snap-in)		
	M5-male	M6-male	G1/8-male	G1/8-female	G1/4-male	Spring leveller		Hose outside Ø
102.004.216.*	270.200	--	270.064	270.065	--	50.018	8.5	4
102.006.217.*	270.200	--	270.064	270.065	--	50.018	8.5	4
102.008.218.*	270.200	--	270.064	270.065	--	50.018	8.5	4
102.010.219.*	270.200	--	270.064	270.065	--	50.018	8.5	4
102.015.220.*	270.200	--	270.064	270.065	--	50.018	8.5	4
102.020.221.*	270.317	270.103	270.205	270.109	270.194	50.020	8.5	6
102.030.222.*	270.317	270.103	270.205	270.109	270.194	50.020	8.5	6
102.040.223.*	270.317	270.103	270.205	270.109	270.194	50.020	8.5	6

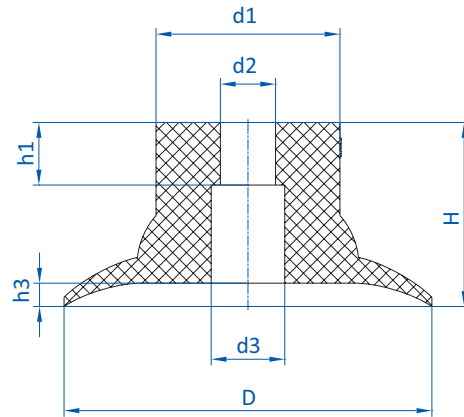
* When ordering please add the appropriate material code to item no.



Dimensions



Drawing A



Drawing B

Item no.	Drawing	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	H [mm]	h1 [mm]	h2 [mm]	h3 [mm]
102.004.216.*	A	3.8	12	5	9	1.1	12	2.5	4.5	0.7
102.006.217.*	A	6	12	5	9	2.1	12.5	2.5	4.5	0.8
102.008.218.*	A	8	12	5	9	2	12.5	2.5	4.5	1.7
102.010.219.*	A	10.5	12	5	9	3	14.5	2.5	4.5	4.2
102.015.220.*	A	16	12	5	9.5	3.3	14	2.4	4.7	2.3
102.020.221.*	B	20	12	4.5	6	--	15	4.7	--	2.1
102.030.222.*	B	30	15	4.5	6	--	15	5	--	1.9
102.040.223.*	B	40	19.5	4.7	6.5	--	15	5	--	2

* When ordering please add the appropriate material code to item no.



Flat vacuum cups universal – SFU-D




Product notes

Universal flat vacuum cups with tapering curved sealing lip. Connection via plug-in nipple.

Advantage

- > Pre-tension of the sealing lip enables gripping of uneven and slightly curved products
- > Large stroke

Technical data

Item no.	Model		Material / Color
112.004.001.*	SFU-D-4	0.5	NBR (sw), SI (r)
112.005.002.*	SFU-D-5	0.7	NBR (sw), SI (r)
112.006.003.*	SFU-D-6	1	NBR (sw), SI (r)
112.008.007.*	SFU-D-8	1.5	NBR (sw), SI (w), SI-LE (w), NR (sw)
112.010.011.*	SFU-D-10	2	NBR (sw), SI (w), SI-LE (w)
112.012.015.*	SFU-D-12	2	NBR (sw), SI (w), NR (sw)
112.015.022.*	SFU-D-15	2	NBR (sw), SI (w), NR (sw)
112.018.024.*	SFU-D-18	2.3	NBR (sw), SI (w), NR (sw)
112.020.031.*	SFU-D-20	2.3	NBR (sw), SI (w), NR (sw)
112.022.037.*	SFU-D-22	2.5	NBR (sw), SI (w)
112.025.042.*	SFU-D-25	4.5	NBR (sw), SI (w), SI-LE (w), NR (sw)
112.030.052.*	SFU-D-30	4.5	NBR (sw), SI (w)
112.035.060.*	SFU-D-35	5	NBR (sw), SI (w), NR (sw)
112.040.071.*	SFU-D-40	4	NBR (sw), SI (tr)
112.045.077.*	SFU-D-45	7	NBR (sw), SI (w), NR (sw)
112.060.091.*	SFU-D-60	9	NBR (sw), SI (tr)
112.085.102.*	SFU-D-85	12	NBR (sw), SI (tr), NR (sw)

Continued on the next page →

* When ordering please add the appropriate material code to item no.



Flat vacuum cups series

Flat vacuum cups universal – SFU-D

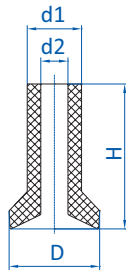
Accessories

Item no.	Suitable fittings							
	M3-male	M5-male	M5-female	M6-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
112.004.001.*	270.025	--	--	--	--	--	--	--
112.005.002.*	270.025	--	--	--	--	--	--	--
112.006.003.*	270.025	--	--	--	--	--	--	--
112.008.007.*	--	270.536	--	--	--	--	--	--
112.010.011.*	--	270.134	270.347	270.104	270.033	270.478	--	--
112.012.015.*	--	270.134	270.347	270.104	270.033	270.478	--	--
112.015.022.*	--	270.134	--	270.104	270.033	270.478	--	--
112.018.024.*	--	270.134	270.347	270.104	270.033	270.478	--	--
112.020.031.*	--	270.134	270.347	270.104	270.033	270.478	--	--
112.022.037.*	--	270.134	270.347	270.104	270.033	270.478	--	--
112.025.042.*	--	270.443	--	--	270.238	270.110	270.534	--
112.030.052.*	--	270.443	--	--	270.238	270.110	270.534	--
112.035.060.*	--	--	--	--	--	--	270.451	270.452
112.040.071.*	--	--	--	--	--	--	270.451	270.452
112.045.077.*	--	--	--	--	--	--	270.451	270.452
112.060.091.*	--	--	--	--	--	--	270.042	--
112.085.102.*	--	--	--	--	--	--	270.216	--

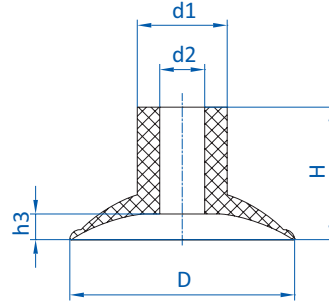
* When ordering please add the appropriate material code to item no.



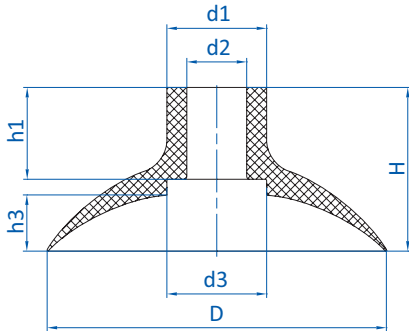
Dimensions



Drawing A



Drawing B



Drawing C

Item no.	Drawing	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	H [mm]	h1 [mm]	h3 [mm]
112.004.001.*	A	4	3	1.5	--	7.5	--	--
112.005.002.*	A	5	3	1.5	--	8	--	--
112.006.003.*	A	6	3	1.5	--	8	--	--
112.008.007.*	B	8	5	2.8	--	8	--	1.6
112.010.011.*	B	10	6.7	3.8	--	10.5	--	1.9
112.012.015.*	B	12	8	4	--	11	--	1.7
112.015.022.*	B	15	8	4	--	12	--	2.5
112.018.024.*	B	18	8	3.9	--	11.5	--	2.3
112.020.031.*	B	20	8	4	--	12	--	2.3
112.022.037.*	B	22	8	4	--	13	--	2.5
112.025.042.*	B	25	12	6	--	16	--	4.3
112.030.052.*	B	30	12	6	--	17	--	4.4
112.035.060.*	B	35	15	10	--	16.5	--	5.2
112.040.071.*	B	40	15	10	--	16	--	4
112.045.077.*	B	45	15.5	10	--	17	--	7.5
112.060.091.*	C	60	15	10	25	23	10	9
112.085.102.*	C	85	25	15	25	41	23	14

* When ordering please add the appropriate material code to item no.



Flat vacuum cups series

Flat vacuum cups with long shaft – SFU-L

Flat vacuum cups with long shaft – SFU-L



Product notes

Flat vacuum cups for handling sensitive or uneven and slightly curved products. Long, slim design enables pipe mounting and low gimbal leveling for uneven product surfaces.

Advantage

- > Gentle handling of particularly sensitive products
- > Cost-effective replacement of worn seals

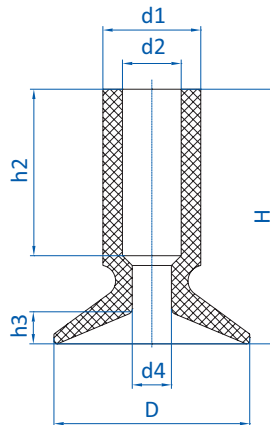
Technical data

Item no.	Model	↓	Material / Color
122.006.002.*	SFU-L-6	1.5	NBR (sw), SI (tr)
122.010.005.*	SFU-L-10	1.5	NBR (sw), SI (tr)
122.016.009.*	SFU-L-16	5	NBR (sw), SI (tr), NR (sw)
122.025.025.*	SFU-L-25	5	NBR (sw), SI (tr), NR (sw)

Accessories

Item no.	Suitable fittings				
	M5-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
122.006.002.*	270.001	--	--	--	--
122.010.005.*	270.022	--	--	--	--
122.016.009.*	270.013	270.003	270.015	270.194	--
122.025.025.*	--	270.132	270.114	270.043	270.178

Dimensions



* When ordering please add the appropriate material code to item no.

Flat vacuum cups series

Flat vacuum cups with long shaft – SFU-L



Item no.	∅ D [mm]	∅ d1 [mm]	∅ d2 [mm]	∅ d4 [mm]	H [mm]	h2 [mm]	h3 [mm]
122.006.002._*	6	4	2	1	12	8	1.3
122.010.005._*	10	5	3	2	13	8.5	1.6
122.016.009._*	16	8	4.8	2.5	20	13	3.8
122.025.025._*	25	12	8	4	30	18	5.5

* When ordering please add the appropriate material code to item no.



Flat vacuum cups series

Flat vacuum cups for chocolates – SL-PF

Flat vacuum cups for chocolates – SL-PF



Product notes

Flat vacuum cups made of FDA-approved silicone for handling delicate products with heavily textured surfaces.

Advantage

- > Gentle handling of the most sensitive surfaces
- > Also suitable for three-dimensional products, e.g. chocolates

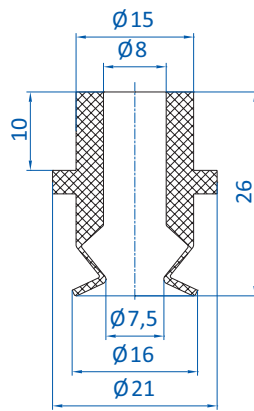
Technical data

Item no.	Model	 ↓	Material / Color
107.016.008._*	SL-PF-16	2.4	SI (tr), SI-LE (tr)
102.018.345._*	SL-PF-18	--	SI (tr)
107.018.004._*	SL-PF-18A	--	SI (tr), SI-LE (tr)
102.022.043._*	SL-PF-22	5	SI (tr), SI-LE (tr)

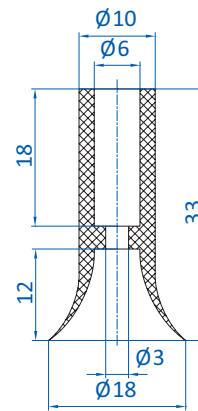
Accessories

Item no.	Suitable fittings				
	M5-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
107.016.008._*	--	270.132	270.114	270.043	270.178
102.018.345._*	270.443	270.238	270.110	270.534	--
107.018.004._*	270.399	270.033	270.478	--	--
102.022.043._*	--	270.112	270.114	270.113	270.178

Dimensions



Drawing A

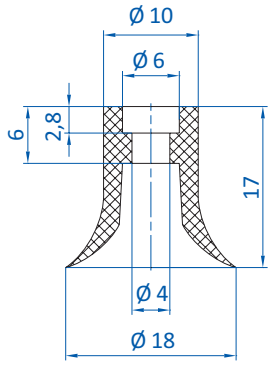


Drawing B

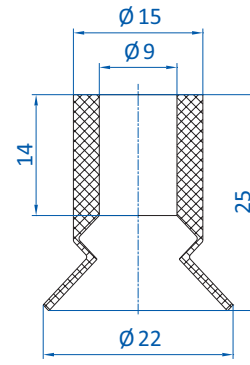
* When ordering please add the appropriate material code to item no.



Dimensions



Drawing C



Drawing D

Item no.	Drawing
107.016.008._*	A
102.018.345._*	B
107.018.004._*	C
102.022.043._*	D

* When ordering please add the appropriate material code to item no.



Flat vacuum cups series

Flat vacuum cups for dynamic handling of oily metal sheets – SM-F

Flat vacuum cups for dynamic handling of oily metal sheets – SM-F



Product notes

Robust, round NBR flat vacuum cups, 60° Shore A with vulcanized fitting made of aluminum and large area, multi-part "anti-slip" cleats. Various connection threads available. PWIS-conform to guideline VDMA 24364 test category A1.

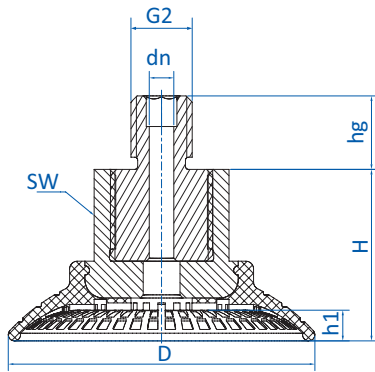
Advantage

- > Reliable, non-slip handling of oily sheets due to "anti-slip" cleats. Good absorption of lateral forces
- > Supports help to prevent deep-drawing or deformation of thin sheets
- > Leak-free suction even with slightly curved surfaces due to flexible sealing lip
- > Vulcanized connection thread ensures a secure fit

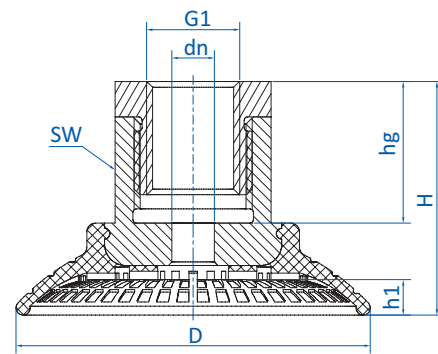
Technical Data

Model / Lip dimensions	Thread (Aluminum)						
	G1/4-male	G1/4-female	G3/8-female	M10-male	M14x1.5-male	Rectangular adapter	
SM-F-30	103.030.030.1	103.030.031.1	103.030.032.1	103.030.033.1	103.030.034.1	103.030.035.1	3
SM-F-40	103.040.036.1	103.040.037.1	103.040.038.1	103.040.039.1	103.040.040.1	103.040.041.1	4
SM-F-50	103.050.042.1	103.050.043.1	103.050.044.1	103.050.045.1	103.050.046.1	103.050.047.1	5
SM-F-60	103.060.048.1	103.060.049.1	103.060.050.1	103.060.051.1	103.060.052.1	103.060.053.1	6
SM-F-80	103.080.054.1	103.080.055.1	103.080.056.1	103.080.057.1	103.080.058.1	103.080.059.1	7.6
SM-F-100	103.100.060.1	103.100.061.1	103.100.062.1	103.100.063.1	103.100.064.1	103.100.065.1	9.5
SM-F-125	103.125.066.1	103.125.067.1	103.125.068.1	103.125.069.1	103.125.070.1	103.125.071.1	12.5

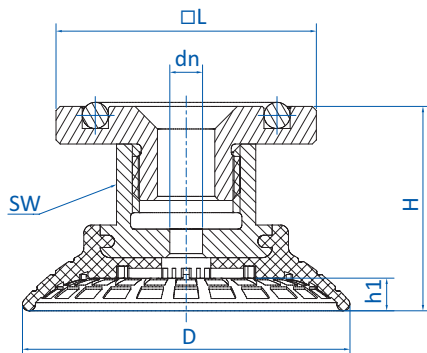
Dimensions



Drawing A



Drawing B



Drawing C



„Anti-slip“ Cleats (SM-F-100)



Item no.	Drawing	Ø D [mm]	Ø D max.* [mm]	Ø dn [mm]	G1 (female)	G2 (male)	□L [mm]	H [mm]	h1 [mm]	hg [mm]	SW
103.030.030.1	A	30	32.6	4	--	G1/4	--	20	3	10	17
103.030.031.1	B	30	32.6	4	G1/4	--	--	20	3	12	17
103.030.032.1	B	30	32.6	4	G3/8	--	--	36	3	10	17
103.030.033.1	A	30	32.6	4	--	M10	--	20	3	12	17
103.030.034.1	A	30	32.6	4	--	M14x1.5	--	20	3	12	17
103.030.035.1	C	30	32.6	4	--	--	31.8	23.2	3	--	17
103.040.036.1	A	40	43.1	4	--	G1/4	--	22	4	10	17
103.040.037.1	B	40	43.1	4	G1/4	--	--	22	4	12	17
103.040.038.1	B	40	43.1	4	G3/8	--	--	38	4	10	17
103.040.039.1	A	40	43.1	4	--	M10	--	22	4	12	17
103.040.040.1	A	40	43.1	4	--	M14x1.5	--	22	4	12	17
103.040.041.1	C	40	43.1	4	--	--	31.8	25	4	--	17
103.050.042.1	A	50	53.5	6	--	G1/4	--	28	5	10	22
103.050.043.1	B	50	53.5	6	G1/4	--	--	33	5	20	22
103.050.044.1	B	50	53.5	6	G3/8	--	--	28	5	15	22
103.050.045.1	A	50	53.5	4	--	M10	--	28	5	12	22
103.050.046.1	A	50	53.5	6	--	M14x1.5	--	28	5	12	22
103.050.047.1	C	50	53.5	6	--	--	31.8	27.5	5	--	22
103.060.048.1	A	60	63.8	6	--	G1/4	--	31	6	10	22
103.060.049.1	B	60	63.8	8	G1/4	--	--	36	6	20	22
103.060.050.1	B	60	63.8	8	G3/8	--	--	31	6	15	22
103.060.051.1	A	60	63.8	4	--	M10	--	31	6	12	22
103.060.052.1	A	60	63.8	6	--	M14x1.5	--	31	6	12	22
103.060.053.1	C	60	63.8	8	--	--	31.8	30.5	6	--	22
103.080.054.1	A	80	85.1	6	--	G1/4	--	35	7.6	10	22
103.080.055.1	B	80	85.1	8	G1/4	--	--	40	7.6	20	22
103.080.056.1	B	80	85.1	8	G3/8	--	--	35	7.6	15	22
103.080.057.1	A	80	85.1	4	--	M10	--	35	7.6	12	22
103.080.058.1	A	80	85.1	6	--	M14x1.5	--	35	7.6	12	22
103.080.059.1	C	80	85.1	8	--	--	31.8	34.5	7.6	--	22
103.100.060.1	A	100	104	6	--	G1/4	--	36	9.5	10	22
103.100.061.1	B	100	104	8	G1/4	--	--	41	9.5	20	22
103.100.062.1	B	100	104	8	G3/8	--	--	36	9.5	15	22
103.100.063.1	A	100	104	4	--	M10	--	36	9.5	12	22
103.100.064.1	A	100	104	6	--	M14x1.5	--	36	9.5	12	22
103.100.065.1	C	100	104	8	--	--	31.8	35.5	9.5	--	22
103.125.066.1	A	125	133	6	--	G1/4	--	43	12.5	10	22
103.125.067.1	B	125	133	8	G1/4	--	--	48	12.5	20	22
103.125.068.1	B	125	133	8	G3/8	--	--	43	12.5	15	22
103.125.069.1	A	125	133	4	--	M10	--	43	12.5	12	22
103.125.070.1	A	125	133	6	--	M14x1.5	--	43	12.5	12	22
103.125.071.1	C	125	133	8	--	--	31.8	42.5	12.5	--	22

* aspirated condition



Flat vacuum cups series

Bell shaped vacuum cups for dynamic handling of strongly curved metal sheets – SM-G

Bell shaped vacuum cups for dynamic handling of strongly curved metal sheets – SM-G



ESPECIALLY FOR STRONGLY CURVED SURFACES



Product notes

Flexible, round NBR bell shaped cup, 60° Shore A with vulcanized fitting made of aluminum for best adaptation to strongly curved metal sheets. Large area "anti-slip" cleats, various connection threads available. PWIS-conform to guideline VDMA 24364 test category A1.

Advantage

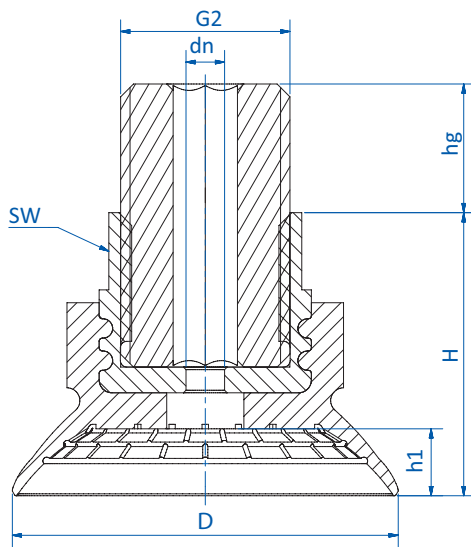
- > Reliable, non-slip handling of oily sheets due to "anti-slip" cleats. Good absorption of lateral forces.
- > Supports help to prevent deep-drawing or deformation of thin sheets
- > Leak-free suction even with strongly curved surfaces due to very flexible sealing lip
- > Vulcanized connection thread ensures a secure fit

Technical data

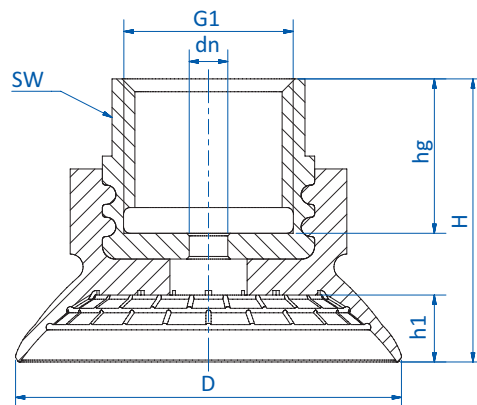
Model / Lip dimensions	Thread (Aluminum)				Volume [cm ³]	Gripping force* [N]	
	G1/4-male	G1/4-female	G3/8-female	Rectangular adapter			
SM-G-22	103.022.143.1	103.022.142.1	103.022.148.1	103.022.151.1	1.13	19	4
SM-G-30	103.030.144.1	103.030.141.1	103.030.149.1	103.030.152.1	2.64	33	5.2
SM-G-45	103.045.145.1	103.045.137.1	103.045.150.1	103.045.153.1	9.38	72	7.8
SM-G-60	103.060.146.1	103.060.138.1	103.060.136.1	103.060.154.1	21.77	133	10.6
SM-G-80	103.080.147.1	103.080.139.1	103.080.090.1	103.080.155.1	47.86	218	12.8

* The gripping force specifications are theoretical guide values on dry, smooth and even workpiece surfaces at 60 % vacuum – they do not include a safety factor

Dimensions



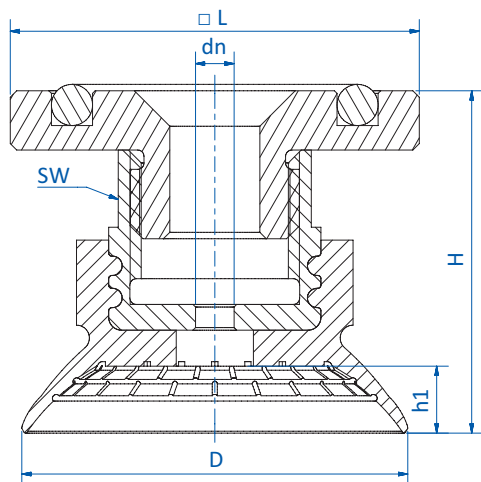
Drawing A



Drawing B



Dimensions



Drawing C

Item no.	Drawing	Ø D [mm]	Ø D max.* [mm]	Ø dn [mm]	G1 (female)	G2 (male)	□L [mm]	H [mm]	h1 [mm]	hg [mm]	SW
103.022.143.1	A	22	26.3	3	--	G1/4	--	22	4	12	15
103.022.142.1	B	22	26.3	3	G1/4	--	--	15	4	12	15
103.022.148.1	B	22	26.3	3	G3/8	--	--	38	4	10	15
103.022.151.1	C	22	26.3	3	--	--	31.8	26.6	4	--	15
103.030.144.1	A	30	34.1	3	--	G1/4	--	22	5.2	10	15
103.030.141.1	B	30	34.1	3	G1/4	--	--	22	5.2	12	15
103.030.149.1	B	30	34.1	3	G3/8	--	--	38	5.2	10	15
103.030.152.1	C	30	34.1	3	--	--	31.8	26.6	5.2	--	15
103.045.145.1	A	47	53.1	4	--	G1/4	--	24.5	7.8	10	17
103.045.137.1	B	47	53.1	4	G1/4	--	--	24.5	7.8	12	17
103.045.150.1	B	47	53.1	4	G3/8	--	--	40.5	7.8	10	17
103.045.153.1	C	47	53.1	4	--	--	31.8	29.1	7.8	--	17
103.060.146.1	A	63	71	6	--	G1/4	--	31	10.6	10	22
103.060.138.1	B	63	71	6	G1/4	--	--	36	10.6	20	22
103.060.136.1	B	63	71	6	G3/8	--	--	31	10.6	15	22
103.060.154.1	C	63	71	6	--	--	31.8	35.6	10.6	--	22
103.080.147.1	A	83	92.4	7.1	--	G1/4	--	35	12.8	10	22
103.080.139.1	B	83	92.4	7.1	G1/4	--	--	40	12.8	20	22
103.080.090.1	B	83	92.4	7.1	G3/8	--	--	35	12.8	15	22
103.080.155.1	C	83	92.4	7.1	--	--	31.8	39.6	12.8	--	22

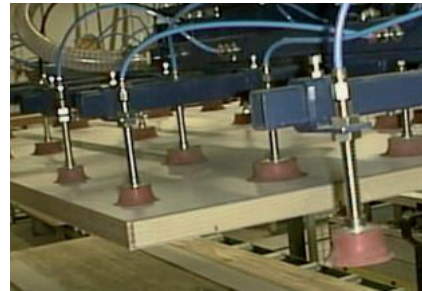
* aspirated condition



Flat vacuum cups series

Flat vacuum cups for textured surfaces – SFU-R

Flat vacuum cups for textured surfaces – SFU-R



Product notes

Flat vacuum cups with safety sealing lips to handle rough surfaces, as well as smooth but very uneven products. Connection via an interlocking, snap-in aluminum plate.

Advantage

- > Leak-free gripping of many difficult product surfaces thanks to extremely flexible thinly tapered sealing lip
- > High stability under lateral forces
- > Optimum process reliability due to additional double lip seal
- > Cleats help prevent warping of the product
- > Cost-effective tool-free changing of worn seals

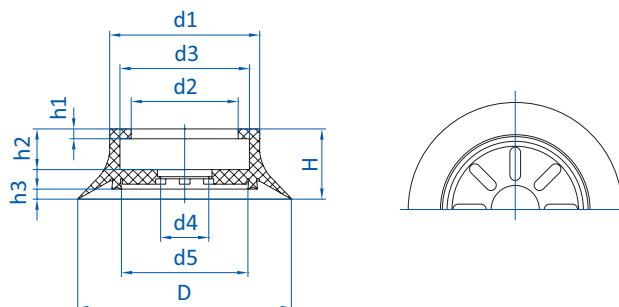
Technical data

Item no.	Model	↓	Material / Color
102.040.357._*	SFU-R-40	3	SI (tr), NR (br)
102.070.234._*	SFU-R-70	6	NBR (gr), SI (tr), NR (bg), NR (br)
102.100.269._*	SFU-R-100	5	NBR (gr), NR (br)
102.200.350._*	SFU-R-200	5	NR (w)

Accessories

Item no.	Suitable fittings		
	G1/8-female	G1/4-female	G1/2-female
102.040.357._*	270.234	--	--
102.070.234._*	--	270.179	--
102.100.269._*	--	270.180	--
102.200.350._*	--	--	270.335

Dimensions



Item no.	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	Ø d5 [mm]	H [mm]	h1 [mm]	h2 [mm]	h3 [mm]
102.040.357._*	40	26	17.5	21	8	21	12.5	2.9	6	2.5
102.070.234._*	70	50	33	43	14	40	30	3.5	17	5.4
102.100.269._*	100	70	50	61	23	59	33	4.6	19	4.7
102.200.350._*	200	168	148	158	25	158	31	5	18.5	3.2

* When ordering please add the appropriate material code to item no.



Flat vacuum cups for separating porous products – SFU-RT



Product notes

Flat vacuum cups for stacking of partially air-permeable plate material that air is drawn through. Separates uppermost plate layer from underlying plate layers. Soft sealing lip made of abrasion-resistant NR. Secure handling even of rough surfaces thanks to additional internal safety sealing lip. High stability under lateral forces. Cost-effective replacement of the wear part, as it comes in two parts.

Ordering notes

Elastomer seal and carrier plate 270.380 must be ordered separately

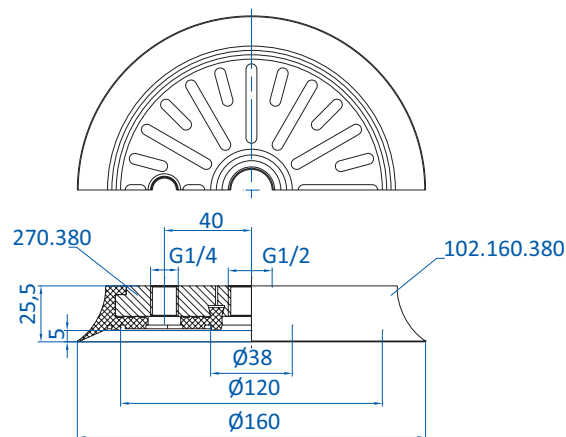
Technical data

Item no.	Model		Material / Color	Suitable fittings
102.160.380.4	SFU-RT-160	6	NR (bg)	270.380

Functional principle

Task: Access the top layer of porous materials without carrying along the lower layers. Simultaneous intake (outer chamber) and selective blowing in a separate central chamber breaks adhesive forces between the layers. The unwanted take-up of lower layers is prevented. The air pressure level should be between 1 and 3 bar (14.5 and 43.5 psi) and is dependent on the nature of the product.

Dimensions



Gripping force [N] at vacuum level [%]

Item no.	20 % Vacuum	30 % Vacuum	40 % Vacuum	50 % Vacuum	60 % Vacuum	70 % Vacuum
102.160.380.4	83	137	186	230	280	324



Flat vacuum cups Variopack® – SL-FP

Optimized 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

Technical data

Item no.	Model		Material / Color	Connection thread
103.030.135.2	SL-FP-30	5	SI (tr)	G1/4-female
103.030.135.2-LE*	SL-FP-30	5	SI-LE (tr)	G1/4-female
103.030.135.8	SL-FP-30	5	SI (w)	G1/4-female
103.030.135.8-LE*	SL-FP-30	5	SI-LE (w)	G1/4-female
103.060.133.2	SL-FP-60	10	SI (tr)	G3/8-female
103.060.133.2-LE*	SL-FP-60	10	SI-LE (tr)	G3/8-female
103.060.133.8	SL-FP-60	10	SI (w)	G3/8-female
103.060.133.8-LE*	SL-FP-60	10	SI-LE (w)	G3/8-female

Accessories

Spare vacuum cup:

104.030.100.2
104.030.100.2-LE
104.030.100.8
104.030.100.8-LE
104.060.098.2
104.060.098.2-LE
104.060.098.8
104.060.098.8-LE

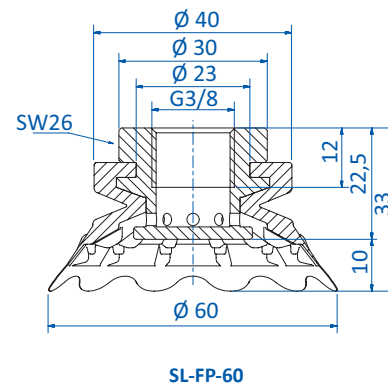
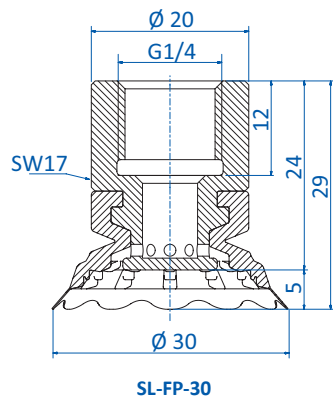
Ordering notes

* 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.

Dimensions





Flat vacuum cups series

Flat vacuum cups with double safety sealing lips – SFU-S

Flat vacuum cups with double safety sealing lips – SFU-S




Product notes

Flat vacuum cups with dual internal safety sealing lip as well as vulcanized carrier plate made of aluminum.

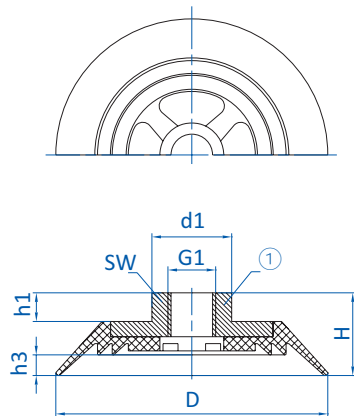
Advantage

- > High process reliability through multiple sealing lip
- > Excellent lateral stability due to vulcanized carrier plate, as well as rubberized support surfaces for the product

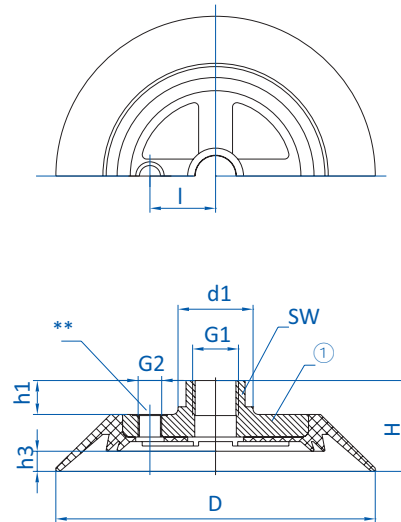
Technical data

Item no.	Model	Connection thread		Material / Color
150.030.031._*	SFU-S-30	M5-female	3	SI (r), CR (sw)
150.050.032._*	SFU-S-50	G1/8-female	5.5	SI (r), CR (sw)
150.075.033._*	SFU-S-75	G1/4-female	6	SI (r), CR (sw)
150.100.034._*	SFU-S-100	G3/8-female	9	NBR (sw), SI (tr), NR (w)
150.150.010._*	SFU-S-150	G1/2-female	9	SI (gr), CR (gr)
150.225.018._*	SFU-S-225	G3/4-female	9.5	SI (gr), CR (gr)

Dimensions



Drawing A



Drawing B

① = Aluminum ** = Vacuum connection at the side possible

* When ordering please add the appropriate material code to item no.

Flat vacuum cups series

Flat vacuum cups with double safety sealing lips – SFU-S



Item no.	Drawing	∅ D [mm]	l [mm]	∅ d1 [mm]	G1	G2	H [mm]	h1 [mm]	h3 [mm]	SW
150.030.031.*	A	29	--	10	M5	--	17.5	7	3	8
150.050.032.*	A	50	--	18	G1/8	--	18.5	7	5.5	14
150.075.033.*	A	75	--	22	G1/4	--	23	8	5.5	17
150.100.034.*	A	100	--	30	G3/8	--	30	10	9	24
150.150.010.*	B	146	30	34	G1/2	G1/8	42	15.5	9	27
150.225.018.*	B	223	50	49	G3/4	G1/8	52	20	9.5	40

* When ordering please add the appropriate material code to item no.



Flat vacuum cups series

Vacuum suction plates with foam rubber sealing lip – SP-PLM

Vacuum suction plates with foam rubber sealing lip – SP-PLM



Product notes

Flat vacuum suction plate with a soft, foamed sealing lip made of EPDM. The sealing lip snaps (form-locking) into a support plate.

Advantage

- > Good sealing of heavily textured surfaces
- > Cost-effective replacement of worn seals

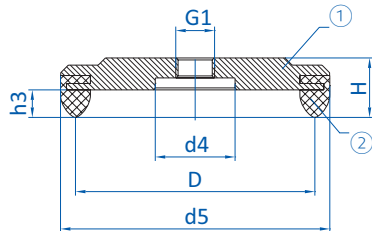
Technical data

Item no.	Model	Connection thread		Weight [g]	Material / Color
160.042.001.*	SP-PLM-35	G1/8-female	1	22	EPDM (sw)
160.067.003.*	SP-PLM-60	G1/8-female	1	63	EPDM (sw)
160.107.006.*	SP-PLM-100	G1/2-female	1	234	EPDM (sw)
160.145.014.*	SP-PLM-140	G1/2-female	1	588	EPDM (sw)
160.215.009.*	SP-PLM-200	G3/4-female	2.5	1,220	EPDM (sw)

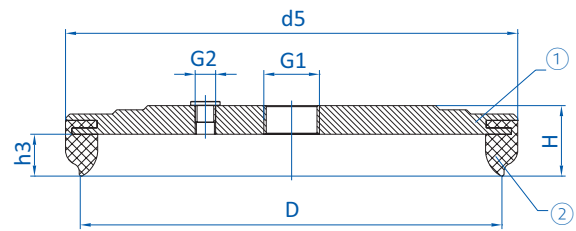
Accessories

Spare vacuum cup:	Touch valve:
102.038.451.15	270.129
102.060.452.15	270.129
102.100.453.15	270.130
102.140.454.15	270.130
102.210.455.15	--

Dimensions



Drawing A



Drawing B

① = Aluminum ② = EPDM foamed

Item no.	Drawing	∅ D [mm]	∅ d4 [mm]	∅ d5 [mm]	G1	G2	H [mm]	h3 [mm]
160.042.001.*	A	35	20	43	G1/8	--	15	7
160.067.003.*	A	60	20	68	G1/8	--	15	7
160.107.006.*	A	100	30	108	G1/2	--	19	7
160.145.014.*	A	138	30	145	G1/2	--	24	7
160.215.009.*	B	201	--	215	G3/4	G1/8	34	20

* When ordering please add the appropriate material code to item no.



Heavy-duty flat vacuum suction plates – SFPL-D




Product notes

Heavy-duty vacuum suction plate for both smooth and rough surfaces such as metal sheets, cut marble, granite, precast concrete, metal plates or rough-sawn wood. Central mounting connection – lateral vacuum port.

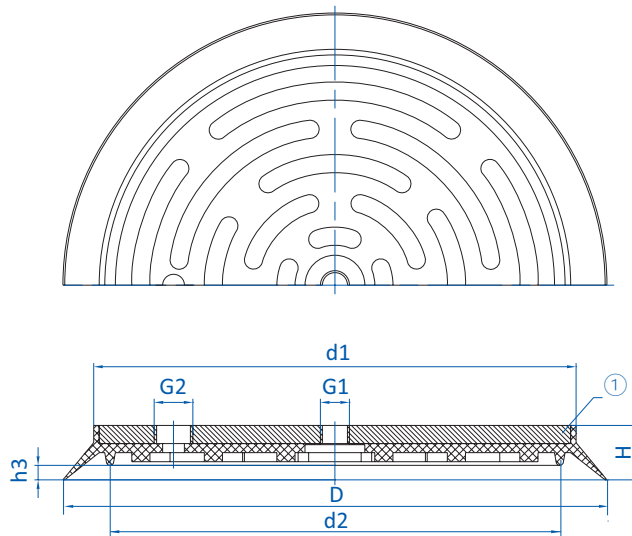
Advantage

- > Vulcanized steel carrier plate allows lifting of very heavy loads
- > Secure gripping of uneven surfaces thanks to additional inner sealing lip
- > Lateral vacuum connection

Technical data

Item no.	Model	Connection thread		Weight [g]	Material / Color
152.160.127.9	SFPL-D-160	M12-female	9	970	CR (sw)
152.200.128.1	SFPL-D-200	M12-female	9	1,741	CR (sw)
152.250.129.1	SFPL-D-250	M12-female	9	2,990	CR (sw)
152.300.130.1	SFPL-D-300	M16-female	12	4,370	NBR (sw)
152.350.131.1	SFPL-D-350	M16-female	13	6,274	NBR (sw)

Dimensions



① = Steel

Item no.	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	G1	G2	H [mm]	h3 [mm]
152.160.127.9	160	124	109	M12	G3/8	28	9
152.200.128.1	200	166	146	M12	G1/2	27	7.5
152.250.129.1	250	212	194	M12	G3/8	27	7
152.300.130.1	300	266	248	M16	G1/2	30	8
152.350.131.1	350	316	298	M16	G1/2	30	8



Flat vacuum cups series

Flat XXL-suction rings – SFR


Flat XXL-suction rings – SFR



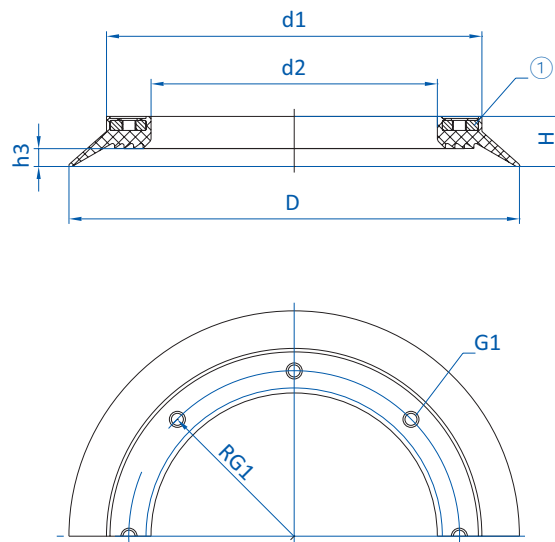
Product notes

Large flat suction seals vulcanized on steel ring for handling very large loads. Mounting through circular, circumferentially placed thread holes.

Technical data

Item no.	Material / Color	
152.285.099.1	NBR (sw)	11
152.450.105.1	NBR (sw)	18
152.540.106.1	NBR (sw)	18
152.630.107.1	NBR (sw)	18
152.720.108.1	NBR (sw)	18
152.920.109.1	NBR (sw)	18

Dimensions

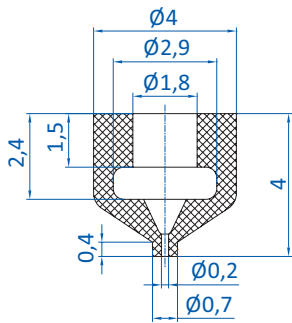


① = Ring made of vulcanized steel

Item no.	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	G1	R G1	H [mm]	h3 [mm]
152.285.099.1	285	250	160	4xM12	102.5	32	11
152.450.105.1	450	375	286	8xM12	165	50	18
152.540.106.1	540	465	375	8xM12	210	50	18
152.630.107.1	630	556	464	12xM12	255	50	18
152.720.108.1	720	646	554	12xM12	300	50	18
152.920.109.1	920	846	754	12xM12	400	50	18

Flat vacuum cups by size

Ø 0.7 - 2 mm

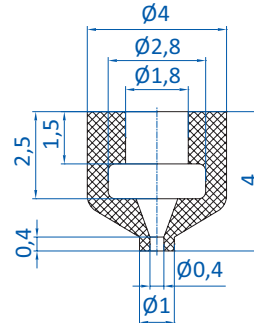


	Connection	
270.524	M3-male	--

Item no.
102.001.425._

Material
NBR (sw), SI-AS (sw), PU

0 mm

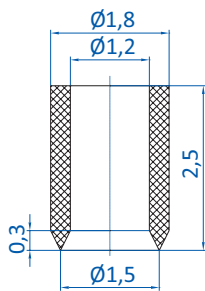


	Connection	
270.524	M3-male	--

Item no.
102.001.463._*

Material
NBR (sw), SI-AS (sw)

0 mm



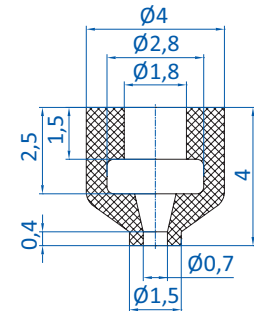
	Connection	
270.011	M3-male	--

Item no.
102.001.002._*

Material
NBR (sw), SI (tr)

0.3 mm

Details and additional sizes available are found on p. 12.
Ordering notes Packing unit = 10 pieces

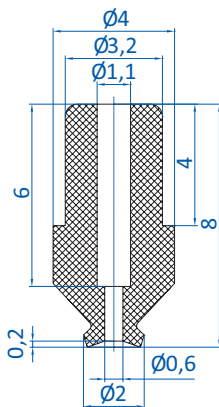


	Connection	
270.524	M3-male	--

Item no.
102.002.464._*

Material
NBR (sw), SI-AS (sw)

0 mm

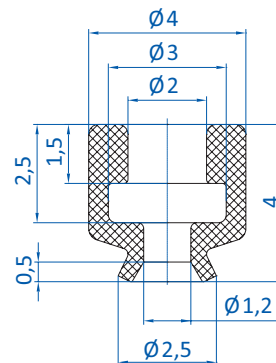


	Connection	
270.427	M3-male	--

Item no.
102.002.279._*

Material
NBR (sw), NBR-AS (sw), SI (tr),
SI-AS (sw), PU (bl), FKM (gr)

0.2 mm



	Connection	
270.014	M3-male	--
270.300	M5-male	--

Item no.
102.002.004._*

Material
NBR (sw), SI (tr), SI-LE (tr), PU
(bl)

0.4 mm

Details and additional sizes available are found on p. 12.
Ordering notes Packing unit = 10 pieces

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 3 - 4 mm

Item no.	Material	Connection
270.427	M3-male	--

Item no. 102.003.280.*	Material NBR (sw), SI (tr), SI-AS (sw), PU (bl), FKM (gr)	Thickness 0.3 mm
----------------------------------	---	----------------------------

Item no.	Material	Connection
270.025	M3-male	--

Item no. 102.003.480.*	Material NBR (sw)	Thickness 0.3 mm
----------------------------------	-----------------------------	----------------------------

Item no.	Material	Connection
270.200	M5-male	--
270.064	G1/8-male	--
270.065	G1/8-female	--

50.018	8.5 mm	--
--------	--------	----

Item no. 102.004.216.*	Material NBR (sw), SI (tr)	Thickness 1 mm
----------------------------------	--------------------------------------	--------------------------

Details and additional sizes available are found on p. 28.

Item no.	Material	Connection
270.427	M3-male	--

Item no. 102.004.281.*	Material NBR (sw), SI (tr), SI-AS (sw), PU (bl), FKM (gr)	Thickness 0.3 mm
----------------------------------	---	----------------------------

Item no.	Material	Connection
270.014	M3-male	--
270.300	M5-male	--

BESTSELLER

Item no. 102.003.005.*	Material NBR (sw), SI (tr), SI-LE (tr), PU (bl), FKM (sw)	Thickness 0.5 mm
----------------------------------	---	----------------------------

Details and additional sizes available are found on p. 12.
Ordering notes Packing unit = 10 pieces

Item no.	Material	Connection
270.025	M3-male	--

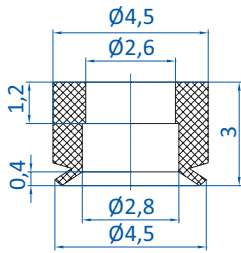
Item no. 112.004.001.*	Material NBR (sw), SI (r)	Thickness 0.5 mm
----------------------------------	-------------------------------------	----------------------------

Details and additional sizes available are found on p. 31.

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 5 mm

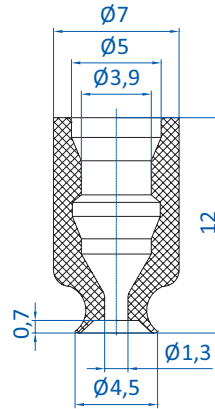


Item no.	Connection	
270.014	M3-male	--
270.111	M4-male	--

Item no.
102.005.115._*

Material
NBR (sw), SI (tr)

0.5 mm

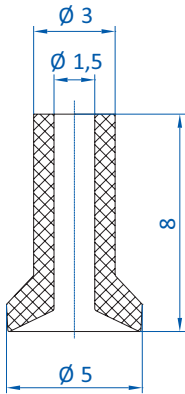


Item no.	Connection	
270.399	M5-male	--

Item no.
102.005.391._*

Material
SI (tr)

0.5 mm



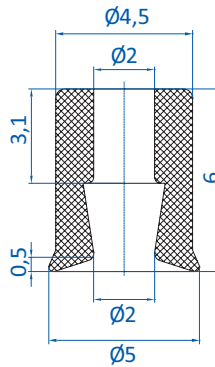
Item no.	Connection	
270.025	M3-male	--

Item no.
112.005.002._*

Material
NBR (sw), SI (r)

0.7 mm

Details and additional sizes available are found on p. 31.



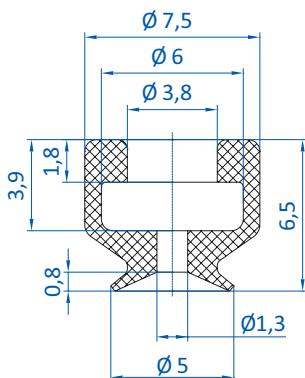
Item no.	Connection	
270.153	M5-male	--

Item no.
102.005.090._*

Material
SI (tr), CR (sw)

0.5 mm

Details and additional sizes available are found on p. 21.



Item no.	Connection	
270.010	M5-male	--
270.005	M5-female	--
270.009	G1/8-male	--
270.007	G1/8-female	--

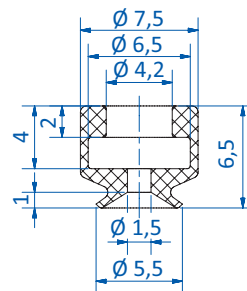
Item no.	Connection	
50.330	9 mm	--

Item no.
102.005.009._*

Material
NBR (sw), SI (tr), SI-LE (tr), FKM (sw)

0.9 mm

Details and additional sizes available are found on p. 12.



Item no.	Connection	
270.010	M5-male	--
270.005	M5-female	--
270.009	G1/8-male	--
270.007	G1/8-female	--

Item no.	Connection	
50.330	9 mm	--

Item no.
102.005.496._*

Material
NBR (sw), SI (tr), Thermalon® (bl)

1 mm

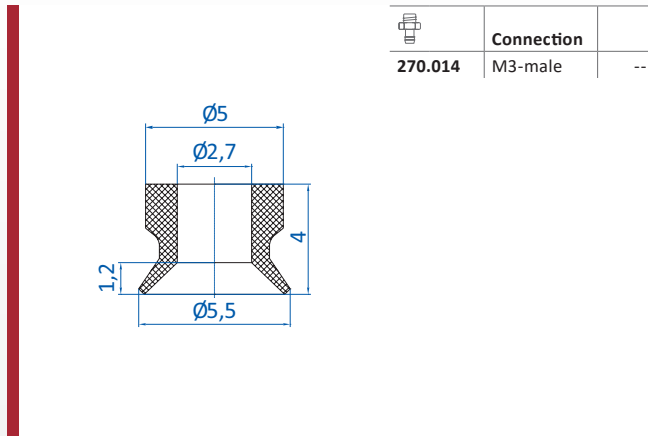
Details and additional sizes available are found on p. 16.

* When ordering please add the appropriate material code to item no.



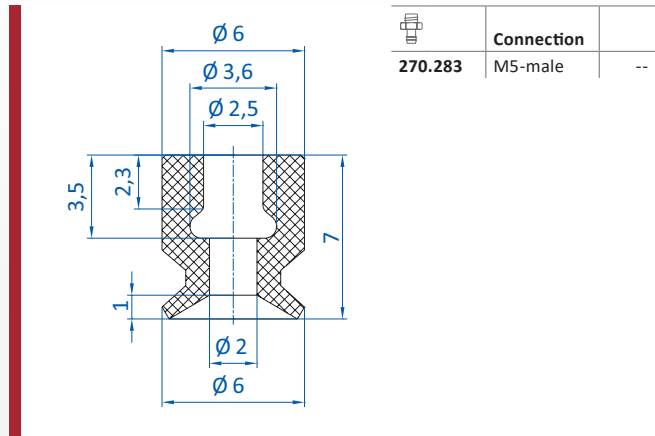
Flat vacuum cups by size

Ø 5 - 6 mm



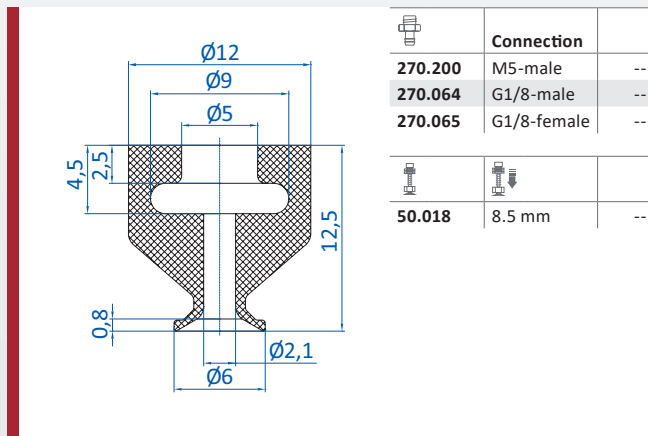
Item no.	Connection	
270.014	M3-male	--

Item no. 102.005.081._*	Material NBR (sw), SI (tr)	0.9 mm
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Item no.	Connection	
270.283	M5-male	--

Item no. 102.006.282._*	Material NBR (sw), SI (tr), SI-AS (sw), PU (bl), FKM (gr)	0.5 mm
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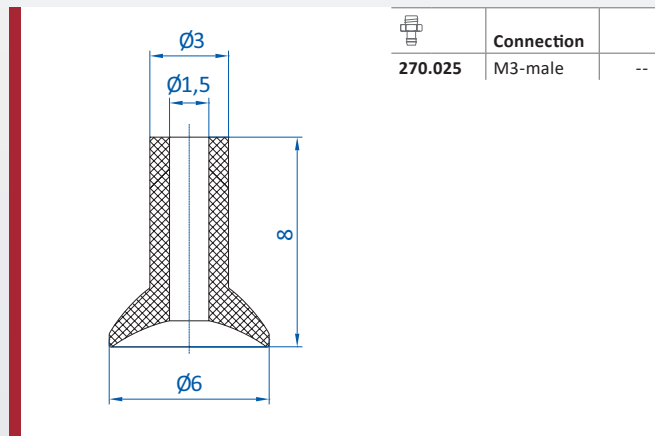


Item no.	Connection	
270.200	M5-male	--
270.064	G1/8-male	--
270.065	G1/8-female	--

Item no.	Connection	
50.018	8.5 mm	--

Item no. 102.006.217._*	Material NBR (sw), SI (tr)	1 mm
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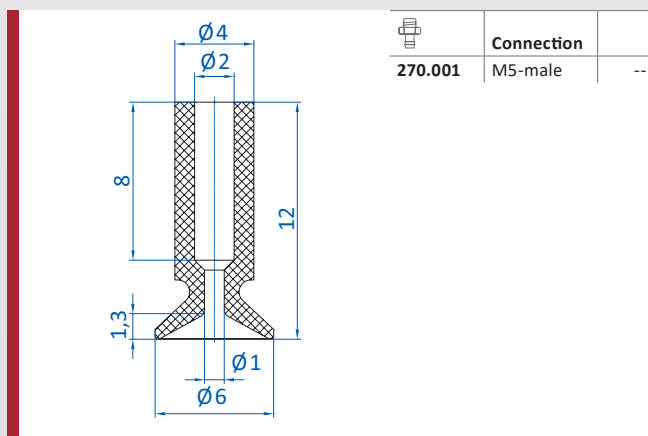
Details and additional sizes available are found on p. 28.



Item no.	Connection	
270.025	M3-male	--

Item no. 112.006.003._*	Material NBR (sw), SI (r)	1 mm
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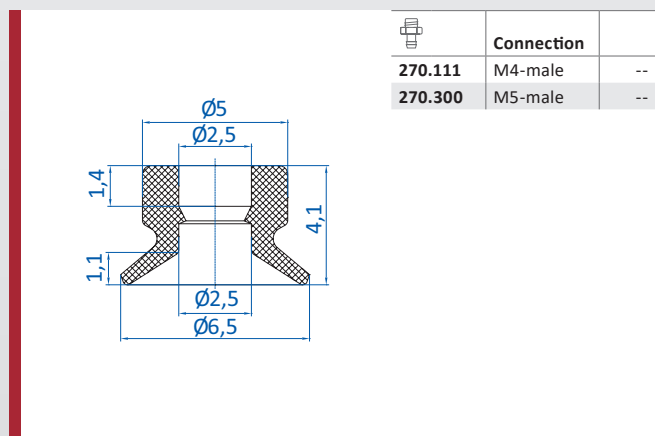
Details and additional sizes available are found on p. 31.



Item no.	Connection	
270.001	M5-male	--

Item no. 122.006.002._*	Material NBR (sw), SI (tr)	1.5 mm
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Details and additional sizes available are found on p. 34.



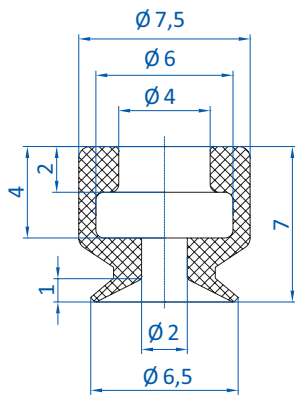
Item no.	Connection	
270.111	M4-male	--
270.300	M5-male	--

Item no. 102.006.297._*	Material NBR (sw)	0.8 mm
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* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 6 - 7 mm



Item no.	Connection	
270.010	M5-male	--
270.005	M5-female	--
270.009	G1/8-male	--
270.007	G1/8-female	--
50.330	9 mm	--

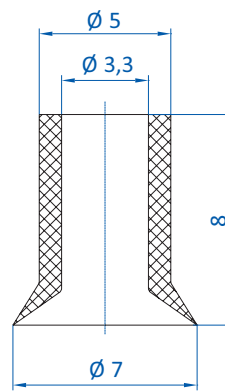
BESTSELLER

Item no.
102.006.013._*

Material
NBR (sw), SI (tr), PU (bl)

1 mm

Details and additional sizes available are found on p. 12.

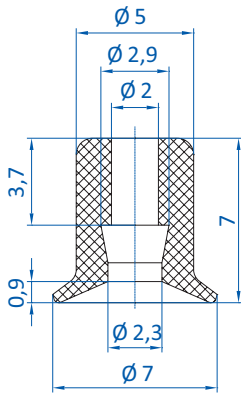


Item no.	Connection	
270.536	M5-male	--

Item no.
112.006.004._*

Material
NBR (sw), SI (tr)

1 mm



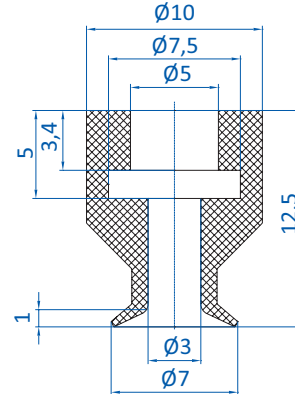
Item no.	Connection	
270.153	M5-male	--

Item no.
102.007.091._*

Material
SI (tr), CR (sw)

1 mm

Details and additional sizes available are found on p. 21.

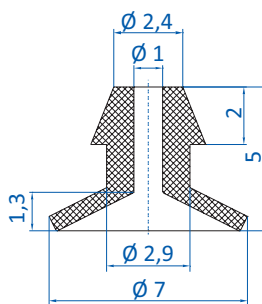


Item no.	Connection	
270.037	M5-male	--
270.085	G1/8-male	--
270.086	G1/8-female	--

Item no.
102.007.109._*

Material
SI (r)

1.6 mm

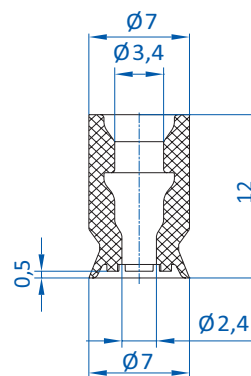


Item no.	Connection	
270.025	M3-male	--

Item no.
102.007.266._*

Material
SI (tr)

1.5 mm



Item no.	Connection	
270.399	M5-male	--

Item no.
102.007.484._*

Material
SI (tr)

0.8 mm

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 8 mm

Connection	
270.536	M5-male --

Item no. 102.008.187.*	Material NR (sw)	1.5 mm
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Connection	
270.010	M5-male --
270.005	M5-female --
270.009	G1/8-male --
270.007	G1/8-female --

Item no. 102.008.392.*	Material SI (tr)	0.5 mm
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Connection	
270.283	M5-male --

Item no. 102.008.283.*	Material NBR (sw), SI (tr), SI-AS (sw), PU (bl), FKM (gr)	1 mm
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Connection	
270.536	M5-male --

Item no. 102.008.395.*	Material NBR (sw)	0.9 mm
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Connection	
270.536	M5-male --

Item no. 112.008.007.*	Material NBR (sw), SI (w), SI-LE (w), NR (sw)	1.5 mm
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Details and additional sizes available are found on p. 31.

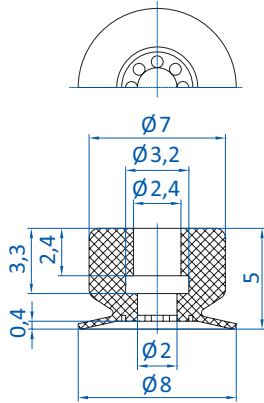
Connection	
270.536	M5-male --

Item no. 112.008.009.*	Material SI (tr), NR (sw)	1 mm
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* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 8 mm



Item no.	Connection	
270.283	M5-male	--

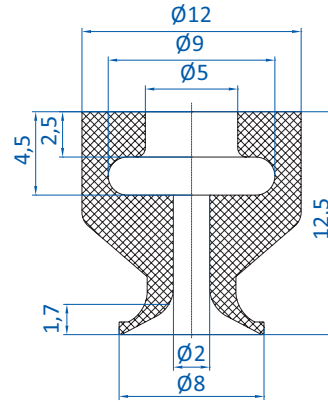
VERY FLEXIBLE

Item no.
104.008.070._*

Material
NBR (sw), SI-FS (r)

0.5 mm

This vacuum cup is also available in the following dimensions: 10 mm, 15 mm, 20 mm



Item no.	Connection	
270.200	M5-male	--
270.064	G1/8-male	--
270.065	G1/8-female	--

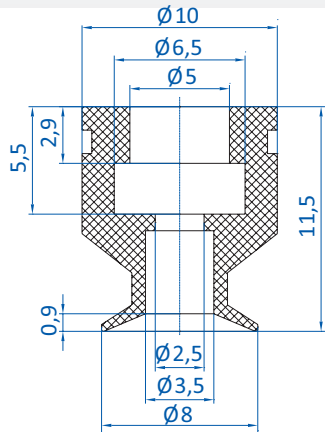
Item no.	Connection	
50.018	8.5 mm	--

Item no.
102.008.218._*

Material
NBR (sw), SI (tr)

1 mm

Details and additional sizes available are found on p. 28.

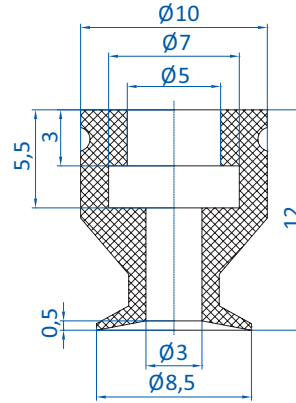


Item no.	Connection	
270.010	M5-male	--
270.005	M5-female	--
270.009	G1/8-male	--
270.007	G1/8-female	--

Item no.
102.008.227._*

Material
SI (tr)

0.5 mm



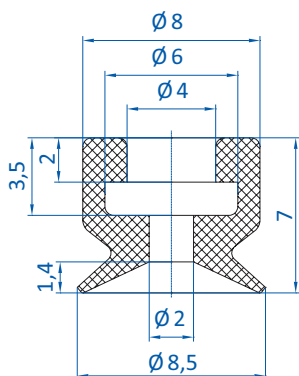
Item no.	Connection	
270.200	M5-male	--
270.064	G1/8-male	--
270.065	G1/8-female	--

Item no.	Connection	
50.018	8.5 mm	--
50.141	9 mm	--

Item no.
102.008.362._*

Material
SI (bl)

0.6 mm



Item no.	Connection	
270.010	M5-male	--
270.005	M5-female	--
270.009	G1/8-male	--
270.007	G1/8-female	--

Item no.	Connection	
50.330	9 mm	--

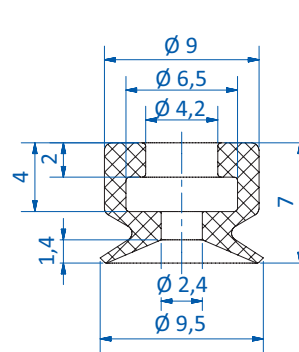
BESTSELLER

Item no.
102.008.017._*

Material
NBR (sw), SI (tr), PU (bl), FKM (sw)

1.4 mm

Details and additional sizes available are found on p. 12.



Item no.	Connection	
270.010	M5-male	--
270.005	M5-female	--
270.009	G1/8-male	--
270.007	G1/8-female	--

Item no.	Connection	
50.330	9 mm	--

Item no.
102.008.497._*

Material
NBR (sw), SI (tr), SI-LE (tr), Thermalon® (bl)

1.4 mm

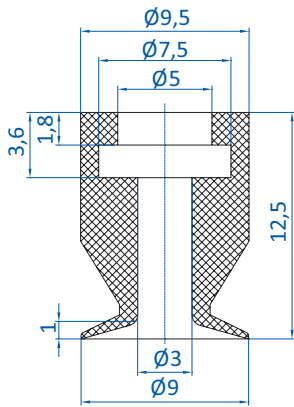
Details and additional sizes available are found on p. 16.

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 8 - 10 mm



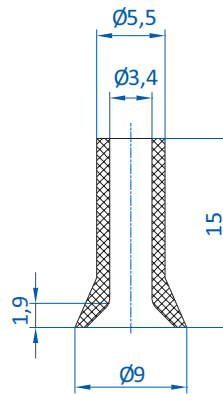
Item no.	Connection	
270.200	M5-male	--
270.064	G1/8-male	--
270.065	G1/8-female	--

Item no.	Height	
50.018	8.5 mm	--
50.141	9 mm	--

Item no.
102.009.111.*

Material
SI (tr)

1 mm

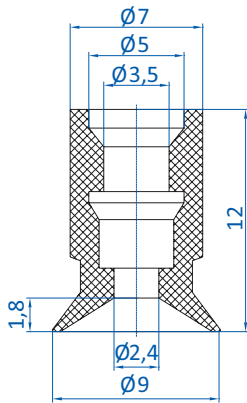


Item no.	Connection	
270.134	M5-male	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
107.009.001.*

Material
SI (tr), NR (br)

1.5 mm

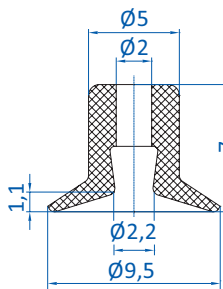


Item no.	Connection	
270.399	M5-male	--

Item no.
102.008.228.*

Material
SI (tr)

0.8 mm



Item no.	Connection	
270.153	M5-male	--

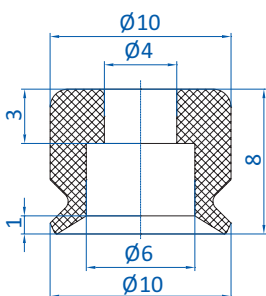
BESTSELLER

Item no.
102.009.092.*

Material
SI (tr), CR (sw)

1.5 mm

Details and additional sizes available are found on p. 21.



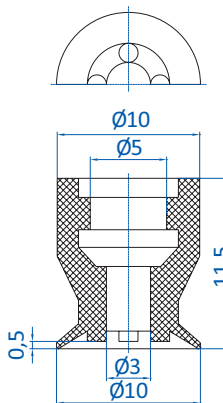
Item no.	Connection	
270.010	M5-male	--
270.009	G1/8-male	--
270.007	G1/8-female	--

Item no.	Height	
50.103	5.5 mm	--
50.125	9.5 mm	--
50.126	15 mm	--
50.127	19.5 mm	--

Item no.
102.010.284.*

Material
NBR (sw), SI (tr), SI-AS (sw), PU (bl), FKM (gr)

1 mm



Item no.	Connection	
270.094	M5-male	--
270.095	G1/8-male	--
270.096	G1/8-female	--

Item no.
104.010.001.*

Material
NBR (sw), SI (bl)

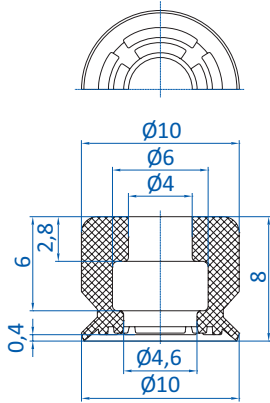
1.5 mm

This vacuum cup is also available in the following dimensions: 15 mm, 18 mm, 24 mm, 30 mm, 40 mm, 50 mm

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 10 mm

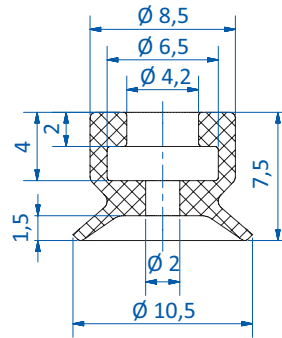


Connection		
	270.010	M5-male --
	270.009	G1/8-male --
	270.007	G1/8-female --
	50.103	5.5 mm --
	50.104	6 mm --
	50.125	9.5 mm --
	50.126	15 mm --
	50.127	19.5 mm --

Item no.
104.010.065._*

Material
NBR (sw)

0.5 mm



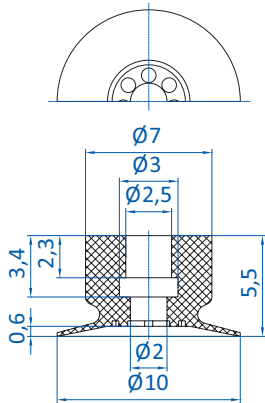
Connection		
	270.010	M5-male --
	270.005	M5-female --
	270.009	G1/8-male --
	270.007	G1/8-female --
	50.330	9 mm --

Item no.
102.010.498._*

Material
NBR (sw), SI (tr), Thermalon® (bl)

1.5 mm

Details and additional sizes available are found on p. 16.



Connection		
	270.283	M5-male --

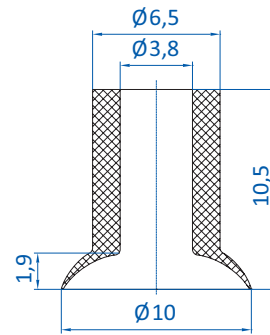
VERY FLEXIBLE

Item no.
104.010.071._*

Material
NBR (sw), SI-FS (r)

0.7 mm

This vacuum cup is also available in the following dimensions: 8 mm, 15 mm, 20 mm



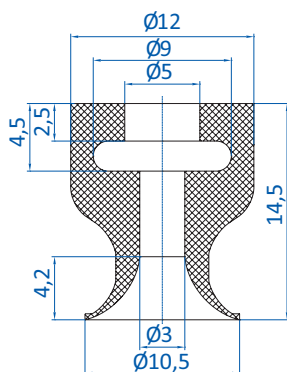
Connection		
	270.134	M5-male --
	270.347	M5-female --
	270.104	M6-male --
	270.033	G1/8-male --
	270.478	G1/8-female --
	50.037	25 mm --

Item no.
112.010.011._*

Material
NBR (sw), SI (w), SI-LE (w)

2 mm

Details and additional sizes available are found on p. 31.



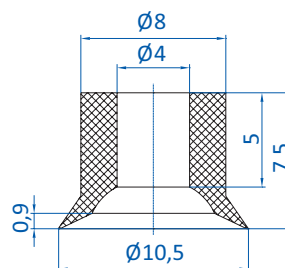
Connection		
	270.200	M5-male --
	270.064	G1/8-male --
	270.065	G1/8-female --
	50.018	8.5 mm --

Item no.
102.010.219._*

Material
NBR (sw), SI (tr)

1 mm

Details and additional sizes available are found on p. 28.



Connection		
	270.010	M5-male --
	270.005	M5-female --
	270.009	G1/8-male --
	270.007	G1/8-female --

Item no.
112.010.027._*

Material
NBR (sw), SI (bl)

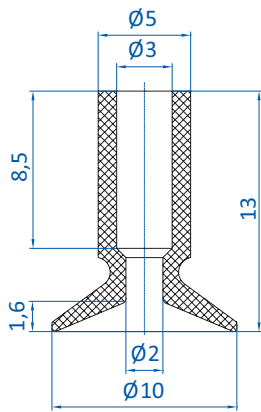
1.5 mm

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

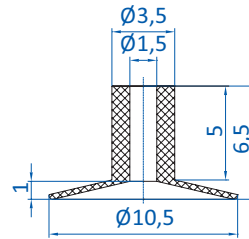
Ø 10 - 11 mm



Item no.	Connection	
270.022	M5-male	--

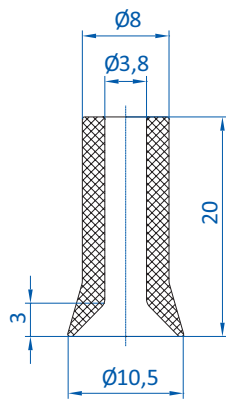
Item no. 122.010.005.* **Material** NBR (sw), SI (tr) 1.5 mm

Details and additional sizes available are found on p. 34.



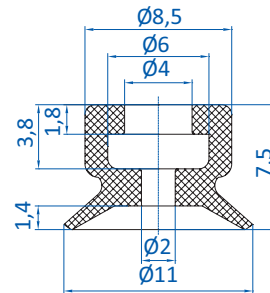
Item no.	Connection	
270.025	M3-male	--
270.001	M5-male	--

Item no. 102.011.172.* **Material** Vinyl (bl) 0.5 mm



Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no. 102.011.173.* **Material** Vinyl (bl) 1.5 mm

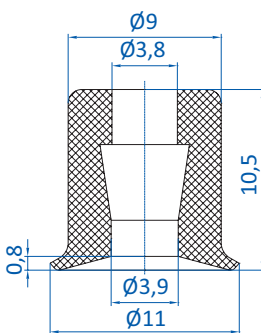


Item no.	Connection	
270.010	M5-male	--
270.005	M5-female	--
270.009	G1/8-male	--
270.007	G1/8-female	--

Item no.	Thickness	
50.330	9 mm	--

Item no. 102.010.024.* **Material** NBR (sw), SI (tr), SI-LE (tr), PU (bl) 1.2 mm

Details and additional sizes available are found on p. 12.



Item no.	Connection	
270.134	M5-male	--
270.104	M6-male	--

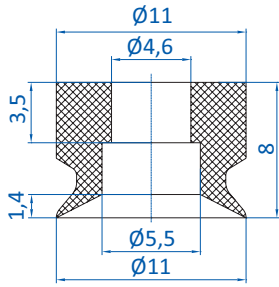
Item no. 102.011.093.* **Material** SI (tr), CR (sw) 1 mm

Details and additional sizes available are found on p. 21.

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 11 - 12 mm

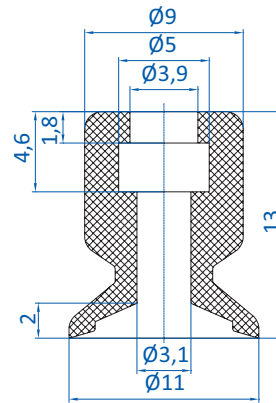


Item no.	Connection	
270.010	M5-male	--
270.005	M5-female	--
270.009	G1/8-male	--
270.007	G1/8-female	--

Item no.
102.011.181.*

Material
NBR (sw), SI (tr)

25 mm 1 mm

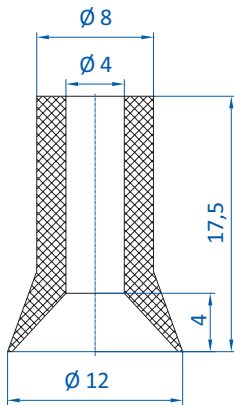


Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
102.011.171.*

Material
Vinyl (bl)

25 mm 0.5 mm

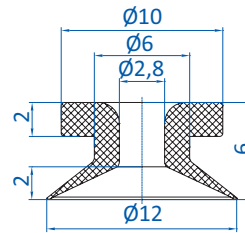


Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
102.012.101.*

Material
NR (br)

25 mm 2.5 mm

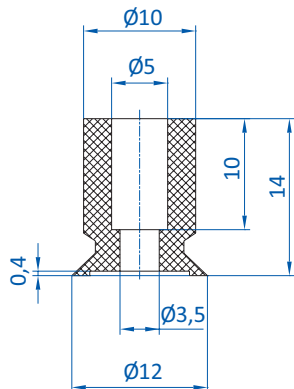


Item no.	Connection	
270.283	M5-male	--

Item no.
102.012.267.*

Material
NR (br)

25 mm 2.5 mm



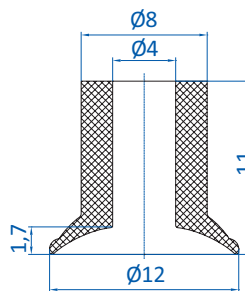
Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--
270.194	G1/4-male	--

Item no.	Connection	
50.037	25 mm	--

Item no.
107.012.002.*

Material
NBR (sw), SI (tr), NR (bg)

25 mm 0.4 mm



Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.	Connection	
50.037	25 mm	--

Item no.
112.012.015.*

Material
NBR (sw), SI (w), NR (sw)

25 mm 2 mm

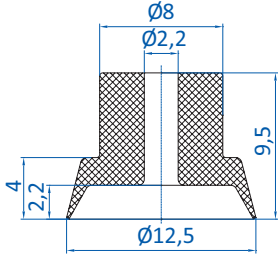
Details and additional sizes available are found on p. 31.

* When ordering please add the appropriate material code to item no.



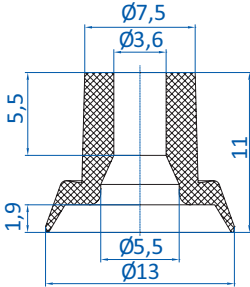
Flat vacuum cups by size

Ø 13 - 14 mm



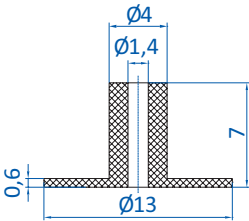
Item no.	Connection	
270.153	M5-male	--

Item no. 102.013.070._*	Material NR (bg)	2 mm
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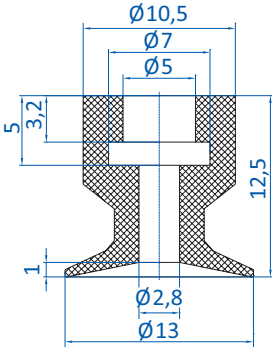
Item no.	Connection	
270.010	M5-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no. 102.013.077._*	Material NR (bl)	2 mm
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Item no.	Connection	
270.025	M3-male	--

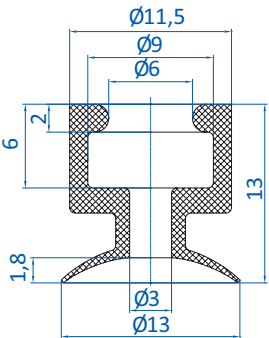
Item no. 102.013.012._*	Material SI (tr)	0 mm
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Item no.	Connection	
270.200	M5-male	--
270.064	G1/8-male	--
270.065	G1/8-female	--

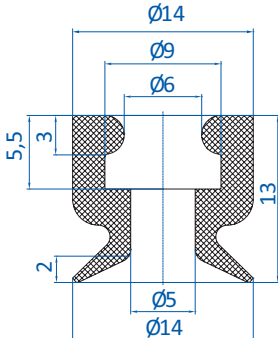
Item no.	Thickness	
50.018	8.5 mm	--
50.141	9 mm	--

Item no. 102.013.363._*	Material SI (bl)	0.8 mm
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Item no.	Connection	
270.037	M5-male	--
270.373	M6-male	--
270.085	G1/8-male	--
270.086	G1/8-female	--

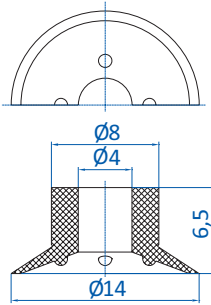
Item no. 102.012.332._*	Material NR (or)	1.5 mm
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Item no.	Connection	
270.037	M5-male	--
270.373	M6-male	--
270.085	G1/8-male	--
270.086	G1/8-female	--

Item no. 102.014.333._*	Material NR (or)	2 mm
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* When ordering please add the appropriate material code to item no.

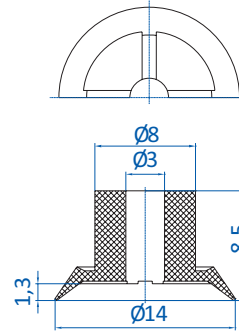


	Connection	
270.010	M5-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
104.014.020_*

Material
NBR (sw)

1.5 mm

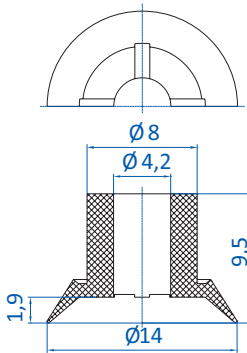


	Connection	
270.536	M5-male	--

Item no.
102.014.089_*

Material
NBR (sw)

1.5 mm

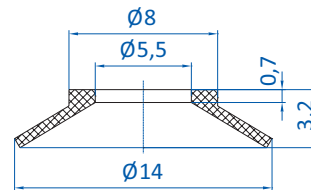


	Connection	
270.010	M5-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
104.014.025_*

Material
SI (tr), NR (sw)

2 mm

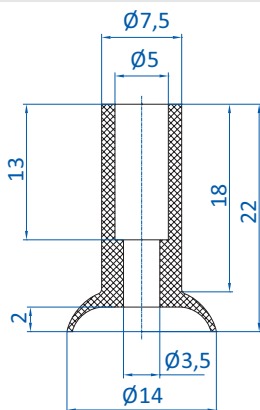


	Connection	
270.105	M6-male	--
270.040	M8-male	--
270.077	G1/8-male	--

Item no.
107.014.005_*

Material
PU (bl)

1.5 mm

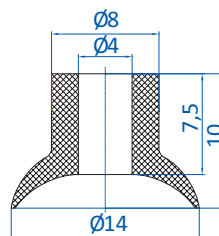


	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

Item no.
115.015.002_*

Material
NR (bg)

3 mm



	Connection	
270.010	M5-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
112.015.021_*

Material
NBR (sw), SI (tr)

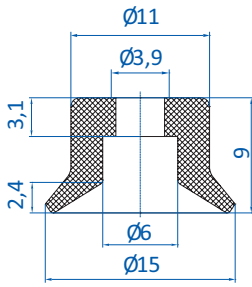
2 mm

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

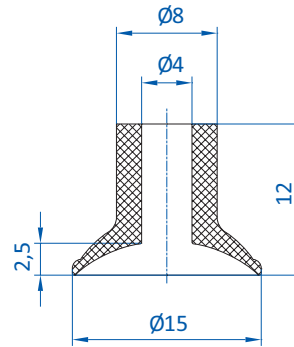
Ø 15 mm



Connection		
	Connection	
	270.010	M5-male --
	270.009	G1/8-male --
	270.007	G1/8-female --
	Thickness	
	50.103	5.5 mm --
	50.125	9.5 mm --
	50.126	15 mm --
	50.127	19.5 mm --

Item no.
102.015.285._*

Material
NBR (sw), SI (tr), SI-AS (sw), PU (bl), FKM (gr)
 1.5 mm

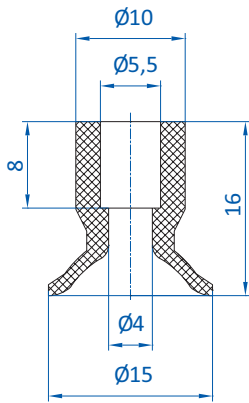


Connection		
	Connection	
	270.134	M5-male --
	270.104	M6-male --
	270.033	G1/8-male --
	270.478	G1/8-female --
	Thickness	
	50.037	25 mm --

Item no.
112.015.022._*

Material
NBR (sw), SI (w), NR (sw)
 2 mm

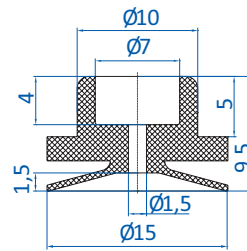
Details and additional sizes available are found on p. 31.



Connection		
	Connection	
	270.013	M5-male --
	270.005	M5-female --
	270.103	M6-male --
	270.003	G1/8-male --
	270.015	G1/8-female --

Item no.
122.015.004._*

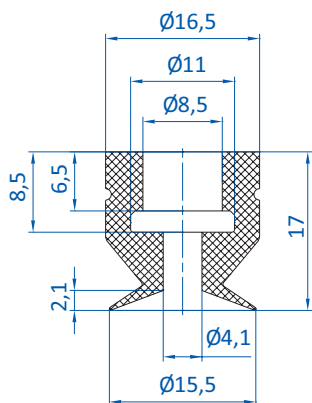
Material
CR (sw)
 2 mm



Connection		
	Connection	
	270.200	M5-male --
	270.064	G1/8-male --
	270.065	G1/8-female --
	Thickness	
	50.018	8.5 mm --

Item no.
102.015.339._*

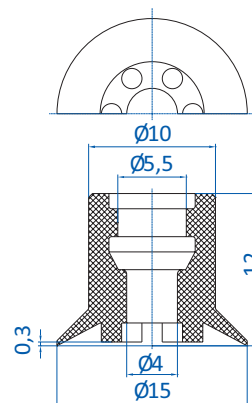
Material
Vinyl (bl)
 1.5 mm



Connection		
	Connection	
	270.012	G1/8-male --
	270.020	G1/8-female --
	270.034	G1/4-male --
	270.038	G1/4-female --
	Thickness	
	50.005	5 mm --
	50.145	11 mm --
	50.146	30 mm --

Item no.
102.015.414._*

Material
SI (bl)
 2 mm



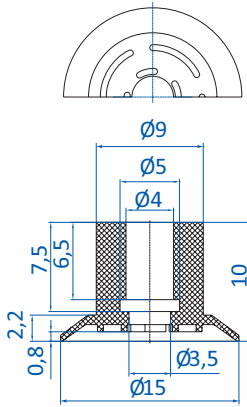
Connection		
	Connection	
	270.094	M5-male --
	270.095	G1/8-male --
	270.096	G1/8-female --

Item no.
104.015.002._*

Material
NBR (sw), SI (bl)
 1 mm

This vacuum cup is also available in the following dimensions: 10 mm, 18 mm, 24 mm, 30 mm, 40 mm, 50 mm

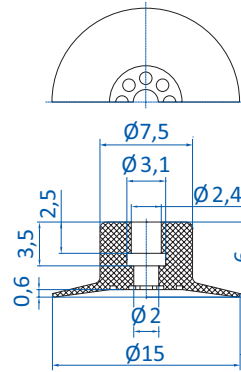
* When ordering please add the appropriate material code to item no.



Item no.	Connection	
270.134	M5-male	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no. 102.015.431.* Material SI (tr), NR (bg) 0.5 mm

This vacuum cup is also available in the following dimensions: 24 mm, 28 mm, 30 mm, 40 mm

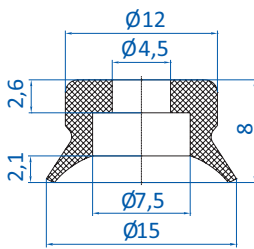


Item no.	Connection	
270.283	M5-male	--

VERY FLEXIBLE

Item no. 104.015.072.* Material NBR (sw), SI-FS (r) 1.1 mm

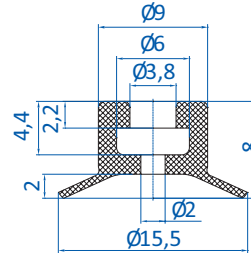
This vacuum cup is also available in the following dimensions: 8 mm, 10 mm, 20 mm



Item no.	Connection	
270.200	M5-male	--
270.064	G1/8-male	--
270.065	G1/8-female	--

Item no. 102.015.030.* Material NBR (sw), SI (tr), SI-LE (tr), PU (bl) 2 mm

Details and additional sizes available are found on p. 12.

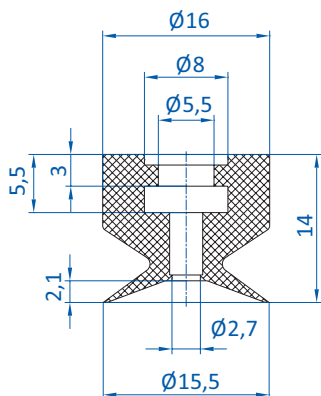


Item no.	Connection	
270.010	M5-male	--
270.005	M5-female	--
270.009	G1/8-male	--
270.007	G1/8-female	--

Item no.	Connection	
50.330	9 mm	--

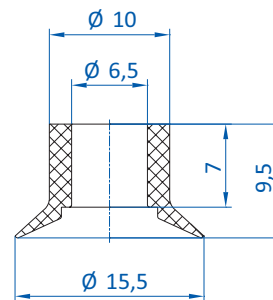
Item no. 102.015.309.* Material NBR (sw), SI (tr), SI-LE (tr), PU (bl) 1.9 mm

Details and additional sizes available are found on p. 12.



Item no.	Connection	
270.037	M5-male	--
270.085	G1/8-male	--
270.086	G1/8-female	--

Item no. 102.016.319.* Material PU (bl) 2 mm



Item no.	Connection	
270.250	G1/8-male	--

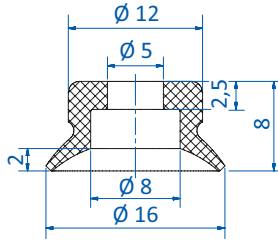
Item no. 102.016.146.* Material NR (gr) 2 mm

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 15 - 16 mm



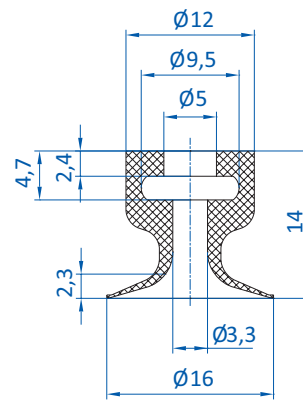
Connection		
	270.200	M5-male --
	270.064	G1/8-male --
	270.065	G1/8-female --
	50.330	9 mm --

Item no.
102.015.499._*

Material
NBR (sw), SI (tr), Thermalon® (bl)

2 mm

Details and additional sizes available are found on p. 16.



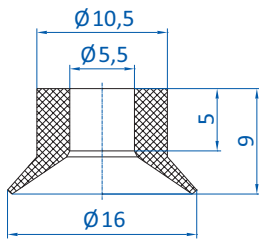
Connection		
	270.200	M5-male --
	270.064	G1/8-male --
	270.065	G1/8-female --
	50.018	8.5 mm --

Item no.
102.015.220._*

Material
NBR (sw), SI (tr)

2 mm

Details and additional sizes available are found on p. 28.



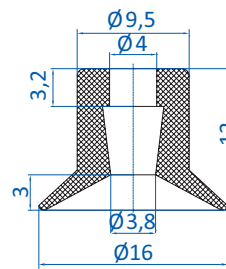
Connection		
	270.094	M5-male --
	270.095	G1/8-male --
	270.096	G1/8-female --

Item no.
126.016.003._*

Material
NR (bg)

3 mm

Details and additional sizes available are found on p. 16.



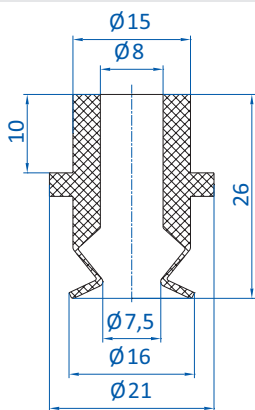
Connection		
	270.134	M5-male --
	270.104	M6-male --

Item no.
102.016.098._*

Material
SI (tr), CR (sw)

2 mm

Details and additional sizes available are found on p. 21.



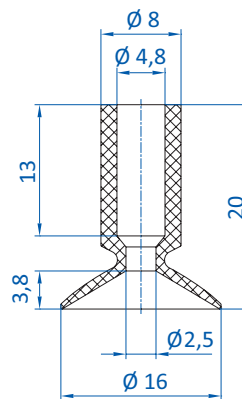
Connection		
	270.132	G1/8-male --
	270.114	G1/8-female --
	270.043	G1/4-male --
	270.178	G1/4-female --

Item no.
107.016.008._*

Material
SI (tr), SI-LE (tr)

2.4 mm

Details and additional sizes available are found on p. 36.



Connection		
	270.013	M5-male --
	270.003	G1/8-male --
	270.015	G1/8-female --
	270.194	G1/4-male --
	50.037	25 mm --

Item no.
122.016.009._*

Material
NBR (sw), SI (tr), SI-LE (tr), NR (sw)

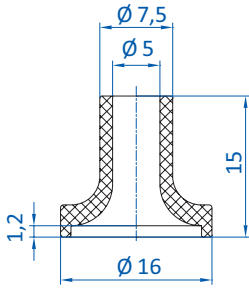
5 mm

Details and additional sizes available are found on p. 34.

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 16 - 18 mm

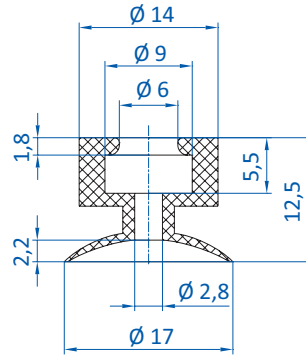


Item no.	Connection	
270.013	M5-male	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

Item no.
102.016.122._*

Material
NR (bg)

3 mm

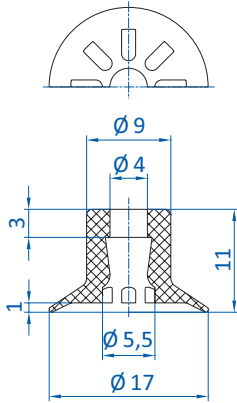


Item no.	Connection	
270.037	M5-male	--
270.373	M6-male	--
270.085	G1/8-male	--
270.086	G1/8-female	--

Item no.
102.016.255._*

Material
SI (r)

3 mm



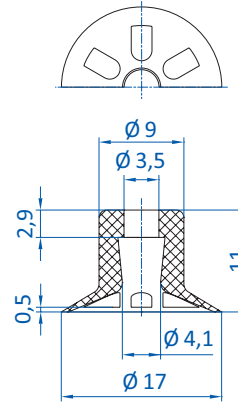
Item no.	Connection	
270.134	M5-male	--
270.104	M6-male	--

BESTSELLER

Item no.
104.016.003._*

Material
SI (tr), CR (sw)

0.5 mm



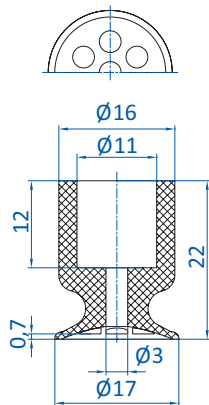
Item no.	Connection	
270.134	M5-male	--
270.104	M6-male	--

Item no.
104.017.026._*

Material
NR (sw)

1 mm

Details and additional sizes available are found on p. 21.

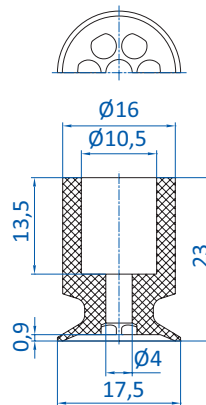


Item no.	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
102.017.193._*

Material
Vulkollan® (br)

0.7 mm



Item no.	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
104.018.049._*

Material
Vinyl (bl)

2 mm

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 17 - 18 mm

Item no.	Material	Connection
270.536	NR (bl)	M5-male

Item no. **102.017.132._*** Material NR (bl) 3 mm

Item no.	Material	Connection
270.536	NR (g)	M5-male

Item no. **102.017.133._*** Material NR (g) 2.4 mm

Item no.	Material	Connection
270.536	NR (br)	M5-male

Item no. **102.017.276._*** Material NR (br) 3 mm

Item no.	Material	Connection
270.024	NR (bl)	M5-male
270.347	NR (bl)	M5-female
270.033	NR (bl)	G1/8-male

Item no. **102.018.277._*** Material NR (bl) 0.6 mm

Item no.	Material	Connection
270.500-S	NR (bg)	M5-female
270.250	NR (bg)	G1/8-male
270.503-S	NR (bg)	G1/8-male

Item no. **102.019.139._*** Material NR (bg) 1 mm

Item no.	Material	Connection
270.134	SI (tr)	M5-male
270.104	SI (tr)	M6-male

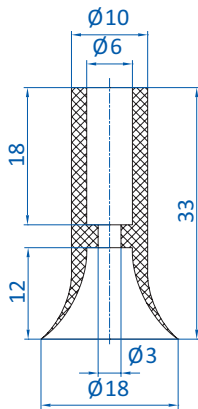
Item no. **122.016.012._*** Material SI (tr) 1.5 mm

Details and additional sizes available are found on p. 21.

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 18 mm

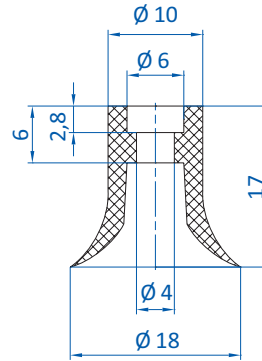


Item no.	Connection	
270.443	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

FLEXIBLE LIP

Item no. 102.018.345.* Material SI (tr) mm

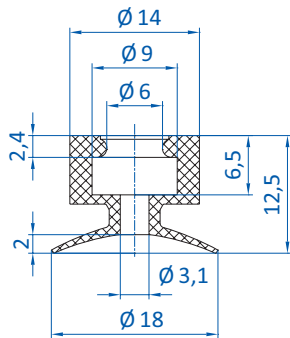
Details and additional sizes available are found on p. 36.



Item no.	Connection	
270.399	M5-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

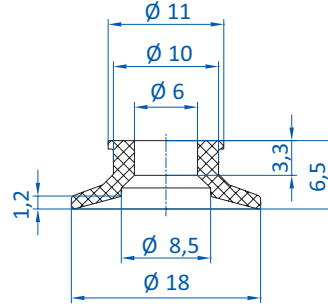
Item no. 107.018.004.* Material SI (tr), SI-LE (tr) mm

Details and additional sizes available are found on p. 36.



Item no.	Connection	
270.037	M5-male	--
270.373	M6-male	--
270.085	G1/8-male	--
270.086	G1/8-female	--

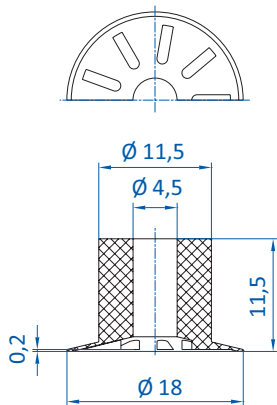
Item no. 102.018.442.* Material NR (or) 2 mm



Item no.	Connection	
270.200	M5-male	--
270.064	G1/8-male	--
270.065	G1/8-female	--

Item no.	Material	Thickness
50.018	NR	8.5 mm

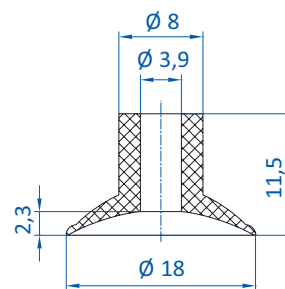
Item no. 102.018.143.* Material NR (bg) 0.5 mm



Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

Item no.	Material	Thickness
50.037	Vinyl	25 mm

Item no. 104.018.051.* Material Vinyl (bl) 0.5 mm



Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.	Material	Thickness
50.037	NBR	25 mm

Item no. 112.018.024.* Material NBR (sw), SI (w), NR (sw) 2.3 mm

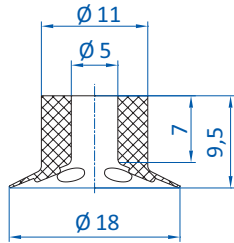
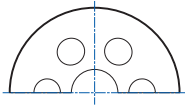
Details and additional sizes available are found on p. 31.

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 18 - 19 mm

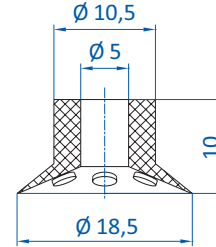
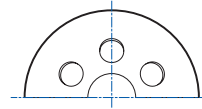


	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

Item no.
112.018.111.*

Material
SI (tr), SI-LE (tr), NR (sw)

1 mm

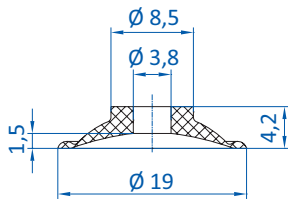


	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

Item no.
127.018.001.*

Material
NBR (sw), SI (tr), NR (bg)

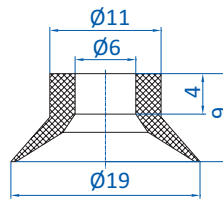
1.5 mm



Item no.
112.019.073.*

Material
NR (sw)

2 mm

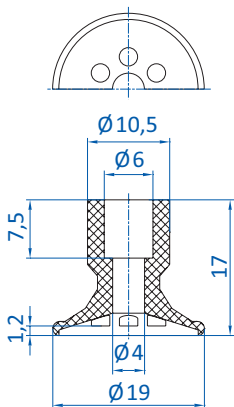


	Connection	
270.500-S	M5-female	--
270.250	G1/8-male	--
270.503-S	G1/8-male	--
270.534	G1/4-male	--

Item no.
122.019.014.*

Material
SI (tr), NR (bg)

3 mm



	Connection	
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

Item no.
104.020.042.*

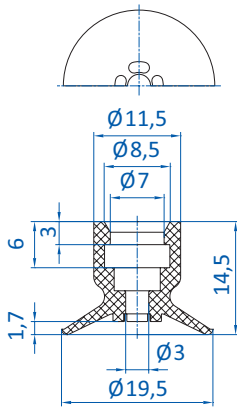
Material
Vinyl (bl)

0.5 mm

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

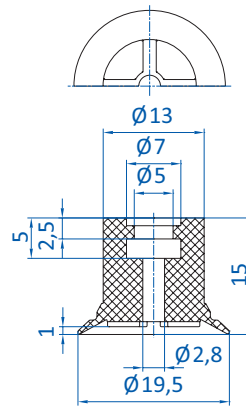
Ø 20 mm



Item no.	Connection	
270.251	G1/8-female	--
270.501-S	G1/8-female	--
270.506-S	G1/4-male	--
270.505-S	G3/8-male	--

Item no. 102.020.355._* Material NBR (sw) 3 mm

This vacuum cup is also available in the following dimensions: 28 mm

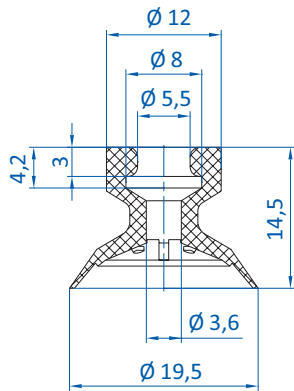


Item no.	Connection	
270.037	M5-male	--
270.373	M6-male	--
270.085	G1/8-male	--
270.086	G1/8-female	--

Item no.	Connection	
50.018	8.5 mm	--

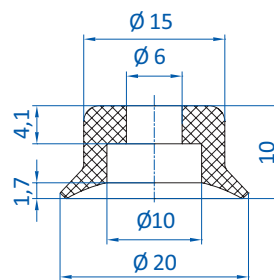
BESTSELLER

Item no. 102.020.083._* Material NBR (sw), SI (tr), SI (r) 1 mm



Item no.	Connection	
270.037	M5-male	--
270.373	M6-male	--
270.085	G1/8-male	--
270.086	G1/8-female	--

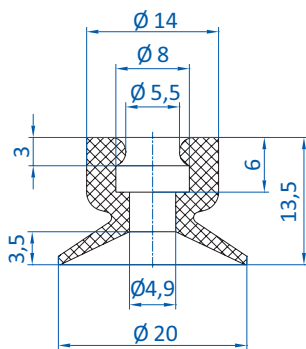
Item no. 102.020.272._* Material NR (sw) 1 mm



Item no.	Connection	
270.311	M5-male	--
270.459	M6-male	--
270.480	G1/8-male	--
270.479	G1/8-female	--

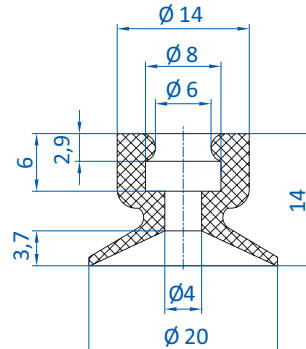
Item no.	Connection	
50.095	19.5 mm	--
50.096	30 mm	--
50.097	39 mm	--
50.098	49.5 mm	--

Item no. 102.020.286._* Material NBR (sw), SI (tr), PU (bl), FKM (gr) 2 mm



Item no.	Connection	
270.037	M5-male	--
270.373	M6-male	--
270.085	G1/8-male	--
270.086	G1/8-female	--

Item no. 102.020.140._* Material NR (sw), NR (or) 3 mm



Item no.	Connection	
270.037	M5-male	--
270.373	M6-male	--
270.085	G1/8-male	--
270.086	G1/8-female	--

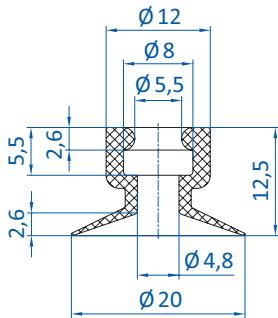
Item no. 126.020.004._* Material SI (tr), SI-LE (tr), NR (or), NR (br) 3.5 mm

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 20 mm

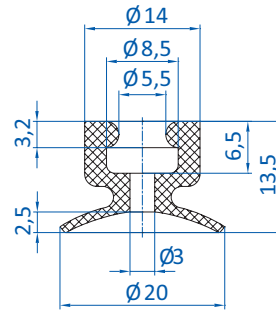


Connection		
270.037	M5-male	--
270.373	M6-male	--
270.085	G1/8-male	--
270.086	G1/8-female	--

Item no.
126.020.005.*

Material
NBR (sw), SI (tr), NR (sw)

1 mm



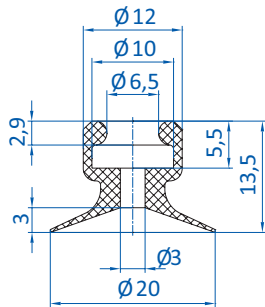
Connection		
270.037	M5-male	--
270.373	M6-male	--
270.085	G1/8-male	--
270.086	G1/8-female	--

WEAR-RESISTANT

Item no.
102.020.299.*

Material
Vulkollan® (br)

3.5 mm



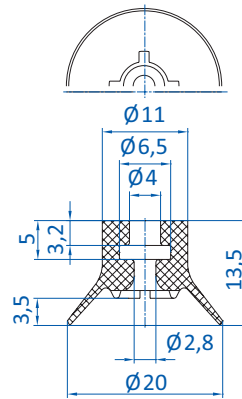
Connection		
270.037	M5-male	--
270.373	M6-male	--
270.085	G1/8-male	--
270.086	G1/8-female	--

WEAR-RESISTANT

Item no.
102.020.308.*

Material
Vulkollan® (br)

1 mm

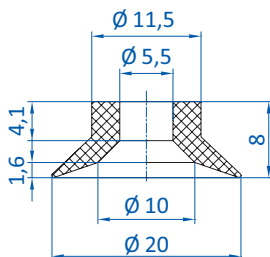


Connection		
270.094	M5-male	--
270.095	G1/8-male	--
270.096	G1/8-female	--

Item no.
102.020.321.*

Material
Vulkollan® (br)

3.5 mm

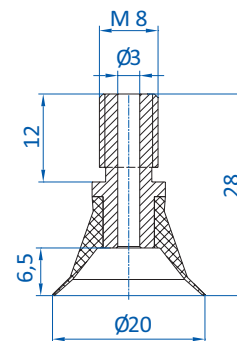


Connection		
270.094	M5-male	--
270.095	G1/8-male	--
270.096	G1/8-female	--

Item no.
102.019.110.*

Material
NR (bg)

2 mm



Item no.
102.019.003.*

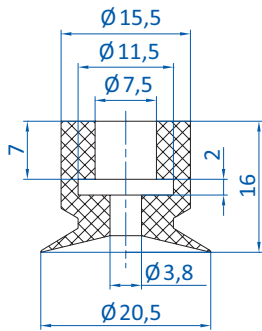
Material
SI (tr), NR (sw)

2 mm

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 20 mm

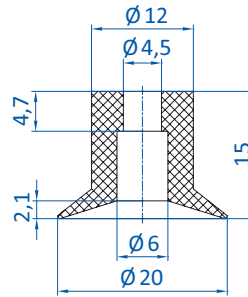


Item no.	Connection	
270.012	G1/8-male	--
270.020	G1/8-female	--
270.034	G1/4-male	--
270.038	G1/4-female	--
50.005	5 mm	--
50.145	11 mm	--
50.146	30 mm	--

Item no.
107.020.014._*

Material
SI (tr)

1 mm



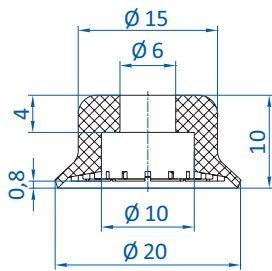
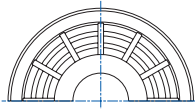
Item no.	Connection	
270.317	M5-male	--
270.103	M6-male	--
270.205	G1/8-male	--
270.109	G1/8-female	--
270.194	G1/4-male	--
50.020	8.5 mm	--

Item no.
102.020.221._*

Material
NBR (sw), SI (tr)

2 mm

Details and additional sizes available are found on p. 28.

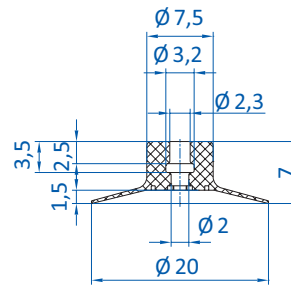
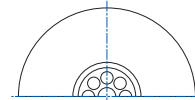


Item no.	Connection	
270.311	M5-male	--
270.459	M6-male	--
270.480	G1/8-male	--
270.479	G1/8-female	--
50.085	6 mm	--
50.128	10 mm	--
50.129	15 mm	--
50.130	19.5 mm	--
50.095	19.5 mm	--
50.096	30 mm	--
50.097	39 mm	--
50.098	49.5 mm	--

Item no.
104.020.066._*

Material
NBR (sw)

1.1 mm



Item no.	Connection	
270.283	M5-male	--

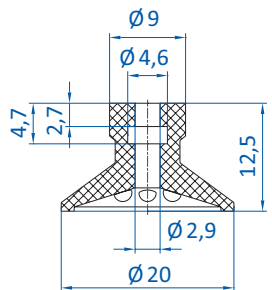
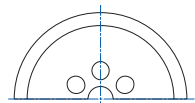
VERY FLEXIBLE

Item no.
104.020.073._*

Material
NBR (sw), SI-FS (r)

1.6 mm

This vacuum cup is also available in the following dimensions: 8 mm, 10 mm, 15 mm

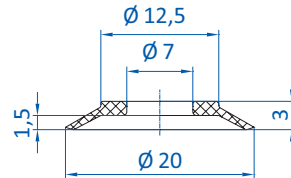


Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--

Item no.
104.020.075._*

Material
Vinyl (bl)

2 mm



Item no.	Connection	
270.105	M6-male	--
270.040	M8-male	--
270.077	G1/8-male	--

Item no.
102.020.271._*

Material
NR (sw)

1 mm

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 20 - 21 mm

Item no.	Connection	
270.132	G1/8-male	--
270.114	G1/8-female	--
270.043	G1/4-male	--
270.178	G1/4-female	--

Item no.	Material	Thickness
107.020.013.*	SI (tr), NR (br)	4 mm

Item no.	Connection	
270.112	G1/8-male	--
270.114	G1/8-female	--
270.113	G1/4-male	--
270.178	G1/4-female	--

Item no.	Material	Thickness
107.020.015.*	SI (tr), NR (sw), NR (br)	3 mm

Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.	Thickness	
50.037	25 mm	--

Item no.	Material	Thickness
112.020.031.*	NBR (sw), SI (w), NR (sw)	2.3 mm

Details and additional sizes available are found on p. 31.

Item no.	Connection	
270.097	G1/4-male	--
270.098	G1/4-female	--

Item no.	Material	Thickness
122.020.017.*	SI (tr), NR (bg)	3 mm

Item no.	Connection	
270.013	M5-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

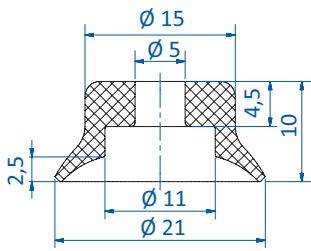
Item no.	Material	Thickness
102.020.312.*	SI (tr)	2.5 mm

Item no.	Connection	
270.311	M5-male	--
270.063	G1/8-male	--
270.061	G1/8-female	--

Item no.	Material	Thickness
102.020.041.*	NBR (sw), SI (tr), SI-LE (tr), PU (bl)	2 mm

Details and additional sizes available are found on p. 12.

* When ordering please add the appropriate material code to item no.



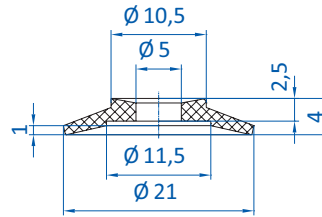
	Connection	
270.311	M5-male	--
270.063	G1/8-male	--
270.061	G1/8-female	--

Item no.
102.020.500.*

Material
NBR (sw), SI (tr), Thermalon® (bl)

2.5 mm

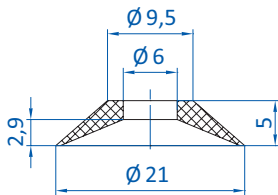
Details and additional sizes available are found on p. 16.



Item no.
102.021.063.*

Material
NR (sw)

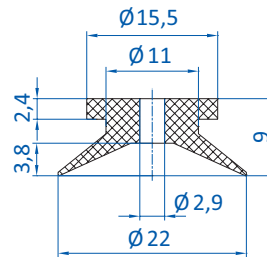
1 mm



Item no.
107.021.049.*

Material
NR (bg)

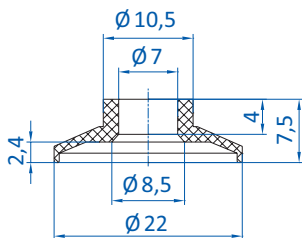
1.5 mm



Item no.
102.022.150.*

Material
Vinyl (bl)

2.5 mm

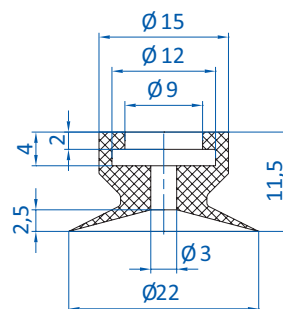


	Connection	
270.500-S	M5-female	--
270.250	G1/8-male	--
270.503-S	G1/8-male	--

Item no.
102.022.185.*

Material
NR (gr)

0.5 mm



	Connection	
270.541	G1/8-male	--

Item no.
102.022.406.*

Material
SI (r)

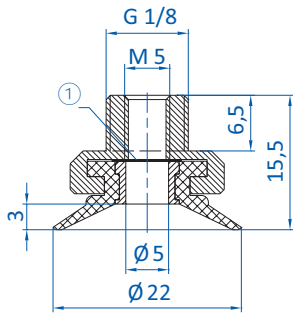
2 mm

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

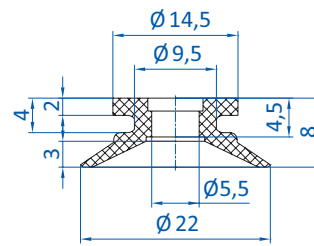
Ø 22 mm



① = Filter screen

Item no. 120.020.006.*	Material SI (tr), CR (sw)	2.5 mm
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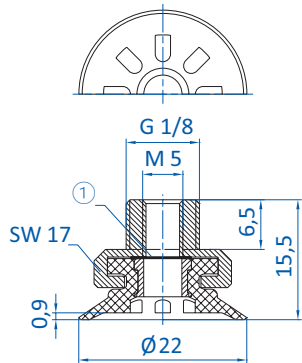
Details and additional sizes available are found on p. 25.



Item no. 102.020.095.*	Material SI (tr), CR (sw)	2.5 mm
----------------------------------	-------------------------------------	--------

Details and additional sizes available are found on p. 21.

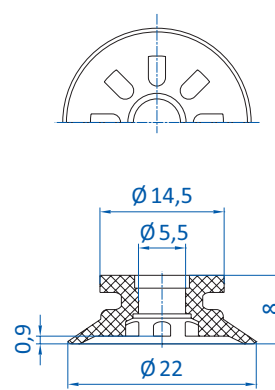
	Connection	
270.783-S	NPT1/8-male	--
270.500-S	M5-female	--
270.250	G1/8-male	--
270.503-S	G1/8-male	--



① = Filter screen

Item no. 123.020.003.*	Material Tepuflex® (or), SI (tr), CR (sw)	1 mm
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Details and additional sizes available are found on p. 25.

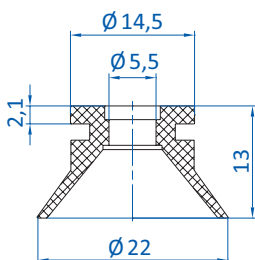


Item no. 125.020.004.*	Material Tepuflex® (or), SI (tr), SI-LE (tr), CR (sw)	1 mm
----------------------------------	---	------

Details and additional sizes available are found on p. 21.

	Connection	
270.783-S	NPT1/8-male	--
270.500-S	M5-female	--
270.250	G1/8-male	--
270.503-S	G1/8-male	--

BESTSELLER

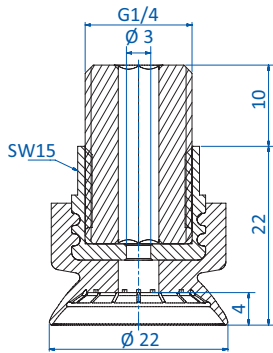


Item no. 122.022.022.*	Material SI (tr), SI-LE (tr), CR (sw)	2.5 mm
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Details and additional sizes available are found on p. 21.

	Connection	
270.783-S	NPT1/8-male	--
270.500-S	M5-female	--
270.250	G1/8-male	--
270.503-S	G1/8-male	--

* When ordering please add the appropriate material code to item no.



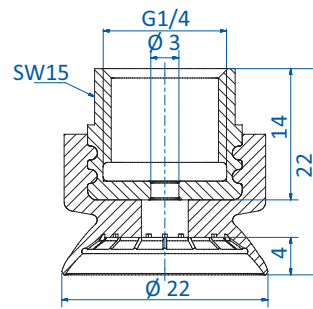
FOR STRONGLY CURVED METAL SHEETS

Item no.
103.022.143.*

Material
NBR (bl)

4 mm

Details and additional sizes available are found on p. 40.



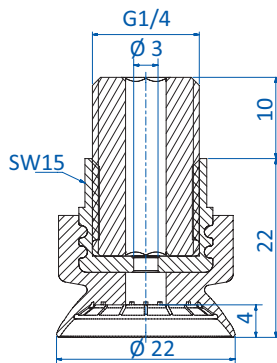
FOR STRONGLY CURVED METAL SHEETS

Item no.
103.022.142.*

Material
NBR (bl)

4 mm

Details and additional sizes available are found on p. 40.



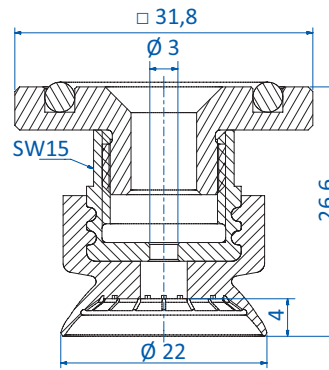
FOR STRONGLY CURVED METAL SHEETS

Item no.
103.022.148.*

Material
NBR (bl)

4 mm

Details and additional sizes available are found on p. 40.



FOR STRONGLY CURVED METAL SHEETS

Item no.
103.022.151.*

Material
NBR (bl)

4 mm

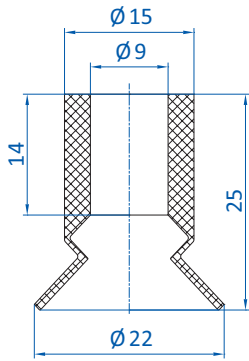
Details and additional sizes available are found on p. 40.

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 22 - 24 mm



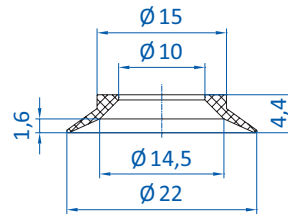
Item no.	Connection	
270.112	G1/8-male	--
270.114	G1/8-female	--
270.113	G1/4-male	--
270.178	G1/4-female	--

Item no.
102.022.043._*

Material
NBR (sw), SI (tr), SI-LE (tr), NR (sw)

5 mm

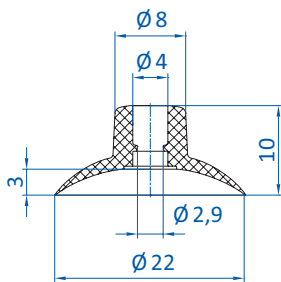
Details and additional sizes available are found on p. 36.



Item no.
107.022.016._*

Material
NR (sw)

1 mm



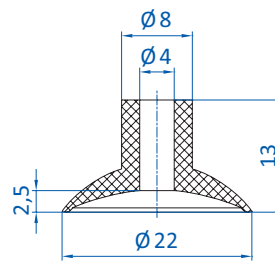
Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

Item no.
102.022.071._*

Material
PU (bl)

3 mm

This vacuum cup is also available in the following dimensions: 25 mm, 30 mm



Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

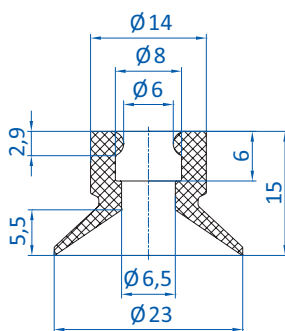
Item no.	Thickness	
50.037	25 mm	--

Item no.
112.022.037._*

Material
NBR (sw), SI (w)

2.5 mm

Details and additional sizes available are found on p. 31.

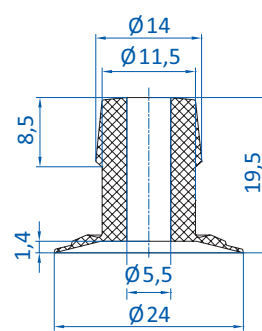


Item no.	Connection	
270.200	M5-male	--
270.064	G1/8-male	--
270.065	G1/8-female	--

Item no.
102.023.356._*

Material
Vinyl (bl)

3.8 mm



Item no.	Connection	
270.443	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

Item no.
102.023.149._*

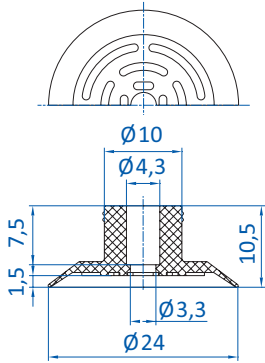
Material
Vinyl (tr)

0.5 mm

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 24 - 25 mm



Item no.	Connection	
270.134	M5-male	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

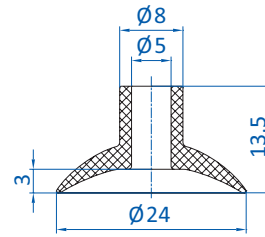
BESTSELLER

Item no.
102.024.457.*

Material
SI (tr), NR (bg)

1.8 mm

This vacuum cup is also available in the following dimensions: 15 mm, 28 mm, 30 mm, 40 mm

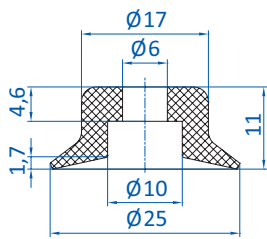


Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
102.024.123.*

Material
NR (sw)

4 mm



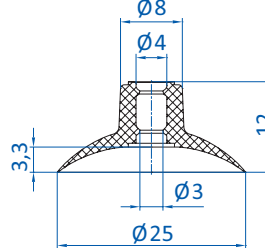
Item no.	Connection	
270.311	M5-male	--
270.459	M6-male	--
270.480	G1/8-male	--
270.479	G1/8-female	--

Item no.	Item no.	
50.095	19.5 mm	--
50.096	30 mm	--
50.097	39 mm	--
50.098	49.5 mm	--

Item no.
102.025.287.*

Material
NBR (sw), SI (tr), FKM (gr)

2 mm



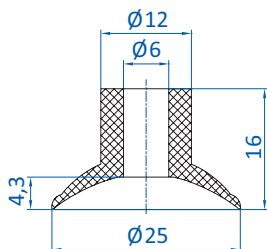
Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
102.025.085.*

Material
PU (r)

4 mm

This vacuum cup is also available in the following dimensions: 22 mm, 30 mm



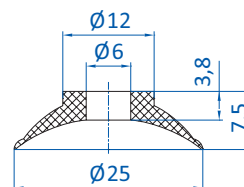
Item no.	Connection	
270.443	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

Item no.
112.025.042.*

Material
NBR (sw), SI (w), SI-LE (w), NR (sw)

4.5 mm

Details and additional sizes available are found on p. 31.



Item no.	Connection	
270.039	M6-male	--

Item no.
112.025.043.*

Material
NBR (sw), SI (w), SI-LE (w), NR (sw)

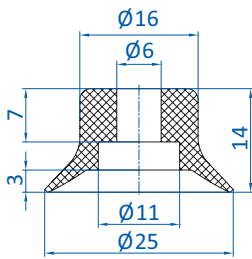
2.5 mm

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 25 mm



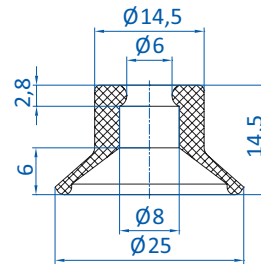
Item no.	Connection	
270.312/19	M6-male	--
270.030	G1/8-male	--
270.019	G1/8-female	--
270.274	G1/4-male	--
270.275	G1/4-female	--

Item no.
102.025.047.*

Material
NBR (sw), SI (tr), SI-LE (tr), PU (bl)

2.5 mm

Details and additional sizes available are found on p. 12.

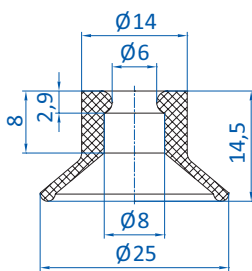


Item no.	Connection	
270.200	M5-male	--
270.064	G1/8-male	--
270.065	G1/8-female	--

Item no.
102.025.102.*

Material
NR (g), NR (sw)

4 mm

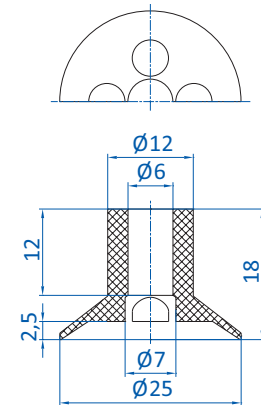


Item no.	Connection	
270.200	M5-male	--
270.064	G1/8-male	--
270.065	G1/8-female	--

Item no.
126.025.010.*

Material
FKM (sw)

5 mm

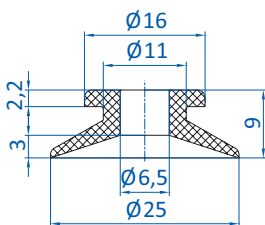


Item no.	Connection	
270.443	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

Item no.
102.025.113.*

Material
NBR (sw), SI (tr)

3.5 mm

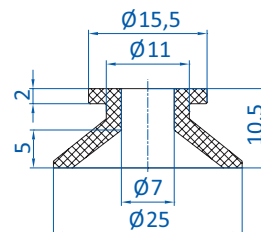


Item no.	Connection	
270.500-S	M5-female	--
270.250	G1/8-male	--
270.503-S	G1/8-male	--

Item no.
102.025.103.*

Material
NR (sw)

2.5 mm



Item no.
102.026.128.*

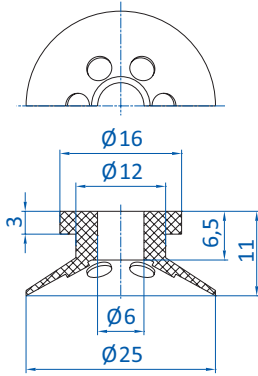
Material
NR (bg)

2.5 mm

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 25 mm

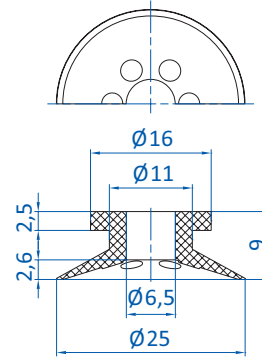


	Connection	
270.200	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

Item no.
104.025.027.*

Material
NR (bg)

3.5 mm

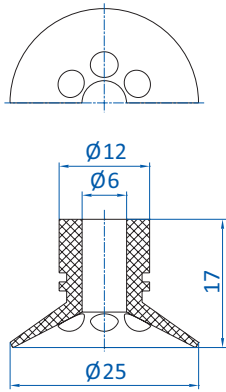


	Connection	
270.500-S	M5-female	--
270.250	G1/8-male	--
270.503-S	G1/8-male	--

Item no.
104.025.031.*

Material
NR (bg), PU (sw)

1 mm

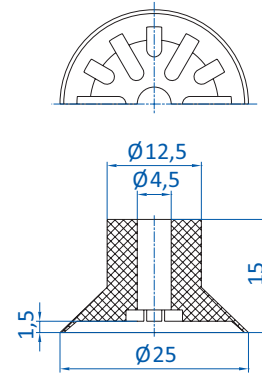


	Connection	
270.443	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

Item no.
104.025.040.*

Material
Vinyl (bl)

2.5 mm

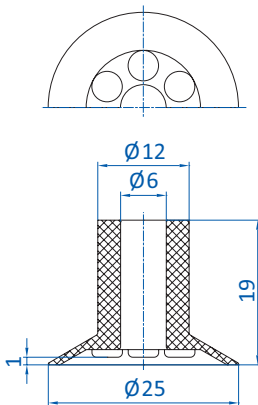


	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--
270.194	G1/4-male	--

Item no.
104.025.043.*

Material
Vinyl (bl)

1.5 mm

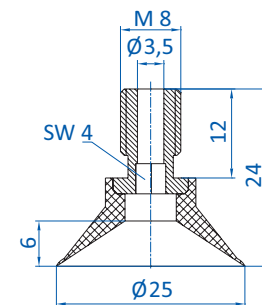


	Connection	
270.443	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

Item no.
104.025.094.*

Material
NR (br)

1 mm



Item no.
120.025.086.*

Material
SI (w), NR (sw)

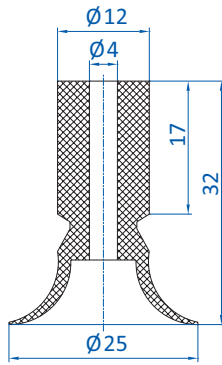
3.5 mm

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 25 mm

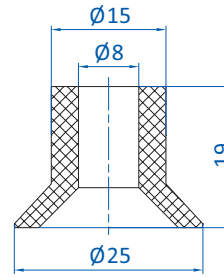


Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
126.025.009._*

Material
NR (bg)

mm

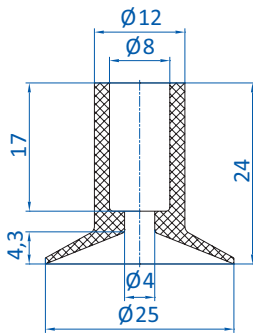


Item no.	Connection	
270.114	G1/8-female	--
270.043	G1/4-male	--
270.178	G1/4-female	--

Item no.
107.025.020._*

Material
NR (br)

1 mm

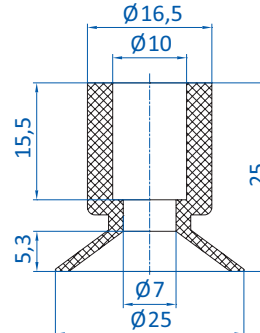


Item no.	Connection	
270.132	G1/8-male	--
270.114	G1/8-female	--
270.043	G1/4-male	--
270.178	G1/4-female	--

Item no.
102.025.417._*

Material
SI (r)

3 mm

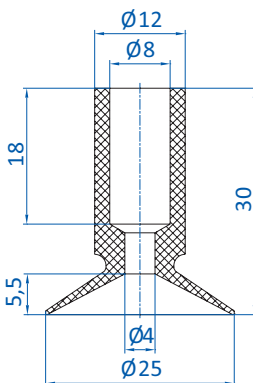


Item no.	Connection	
270.244	M5-male	--
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
102.025.126._*

Material
NR (bg)

4 mm

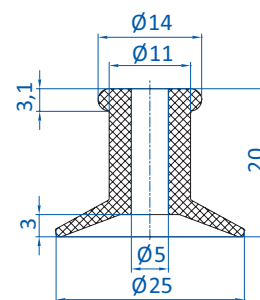


Item no.	Connection	
270.132	G1/8-male	--
270.114	G1/8-female	--
270.043	G1/4-male	--
270.178	G1/4-female	--

Item no.
122.025.025._*

Material
NBR (sw), SI (tr), NR (sw)

5 mm



Item no.	Connection	
270.013	M5-male	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--
270.194	G1/4-male	--

Item no.
102.027.124._*

Material
NR (bg)

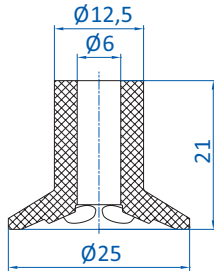
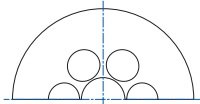
4 mm

Details and additional sizes available are found on p. 34.

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 25 - 26 mm

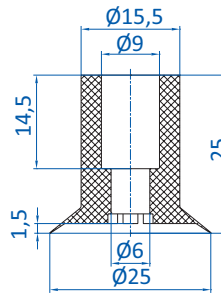
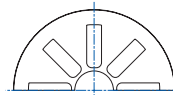


	Connection	
270.443	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

Item no.
104.026.033._*

Material
NR (bg)

2 mm

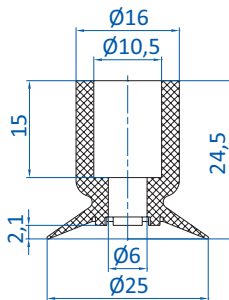
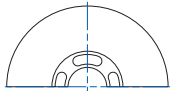


	Connection	
270.132	G1/8-male	--
270.114	G1/8-female	--
270.208	G1/4-male	--
270.178	G1/4-female	--

Item no.
102.025.373._*

Material
Vinyl (bl)

1.5 mm

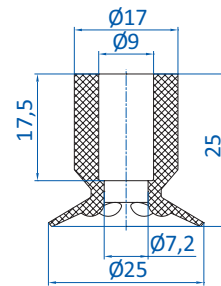
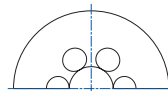


	Connection	
270.244	M5-male	--
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
104.025.037._*

Material
NR (bg)

2 mm

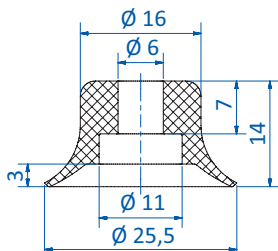


	Connection	
270.244	M5-male	--
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
104.025.056._*

Material
Vinyl (bl)

2.5 mm



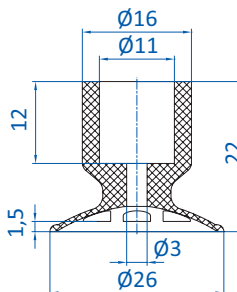
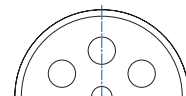
	Connection	
270.312/19	M6-male	--
270.030	G1/8-male	--
270.019	G1/8-female	--
270.274	G1/4-male	--
270.275	G1/4-female	--

Item no.
102.025.501._*

Material
NBR (sw), SI (tr), SI-LE (tr),
Thermalon® (bl)

3 mm

Details and additional sizes available are found on p. 16.



	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

WEAR-RESISTANT

Item no.
102.025.192._*

Material
Vulkollan® (br)

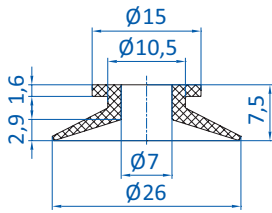
3 mm

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

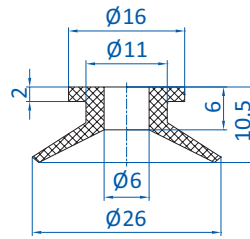
Ø 26 - 27 mm



Item no.
102.026.121._*

Material
NR (bg)

3 mm

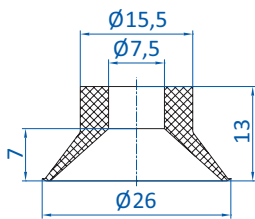


Item no.
102.026.180._*

Material
Vinyl (bl)

4 mm

	Connection	
270.200	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

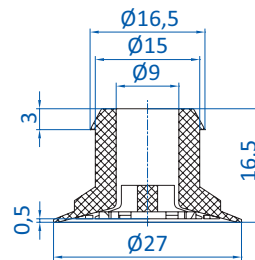
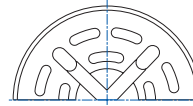


Item no.
102.027.167._*

Material
Vinyl (bl)

5 mm

	Connection	
270.043	G1/4-male	--
270.038	G1/4-female	--



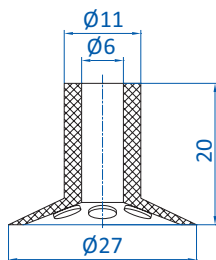
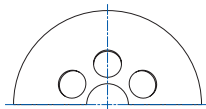
Item no.
102.027.298._*

Material
SI (tr)

0.5 mm

	Connection	
270.451	G1/4-male	--
270.452	G1/4-female	--

Notes: Especially well-suited for foils
This vacuum cup is also available in the following dimensions: 36 mm

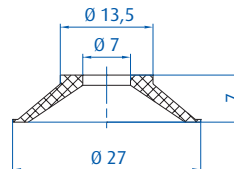


Item no.
104.027.032._*

Material
NR (bg)

2 mm

	Connection	
270.443	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--



Item no.
107.027.022._*

Material
NBR (sw), SI (tr)

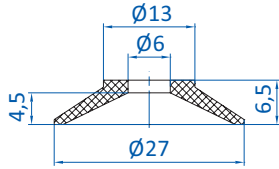
4 mm

	Connection	
270.105	M6-male	--
270.040	M8-male	--
270.077	G1/8-male	--

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 27 - 28 mm

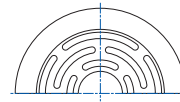


Item no.	Connection	
270.105	M6-male	--
270.040	M8-male	--
270.077	G1/8-male	--

Item no.
107.027.052.*

Material
NR (gr)

3 mm

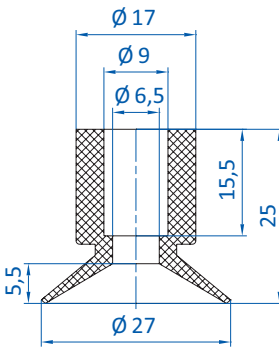


Item no.	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
104.027.062.*

Material
NR (sw)

2 mm



Item no.	Connection	
270.244	M5-male	--
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
102.028.164.*

Material
Vinyl (bl)

5 mm



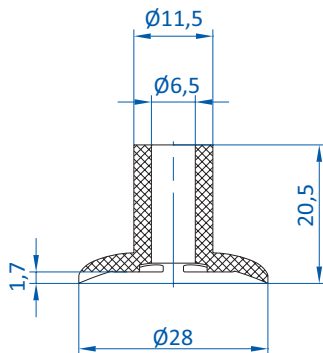
Item no.	Connection	
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
104.029.093.*

Material
NR (sw)

1 mm

This vacuum cup is also available in the following dimensions: 15 mm, 24 mm, 30 mm, 40 mm

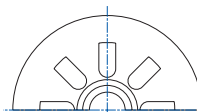


Item no.	Connection	
270.112	G1/8-male	--
270.114	G1/8-female	--
270.113	G1/4-male	--
270.178	G1/4-female	--

Item no.
102.027.246.*

Material
NR (br)

2 mm



Item no.	Connection	
270.783-S	NPT1/8-male	--
270.500-S	M5-female	--
270.250	G1/8-male	--
270.503-S	G1/8-male	--

Item no.
125.025.007.*

Material
Tepuflex® (or), SI (tr), CR (sw)

1 mm

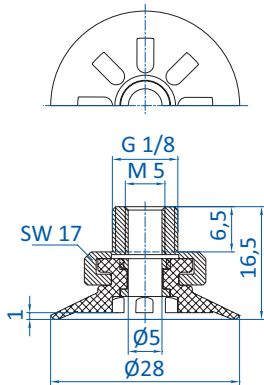
Details and additional sizes available are found on p. 21.

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 25 - 28 mm

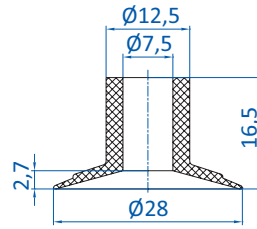


Item no.
123.025.010.*

Material
SI (tr), CR (sw)

1 mm

Details and additional sizes available are found on p. 25.

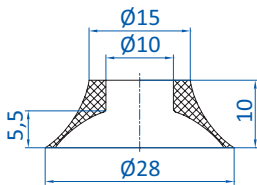


Item no.
102.028.175.*

Material
Vinyl (bl)

2 mm

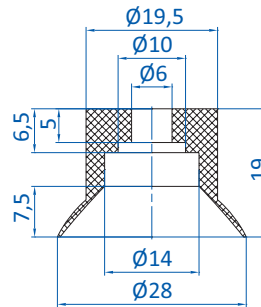
	Connection	
270.112	G1/8-male	--
270.114	G1/8-female	--
270.113	G1/4-male	--
270.178	G1/4-female	--



Item no.
102.028.375.*

Material
SI (tr)

2 mm

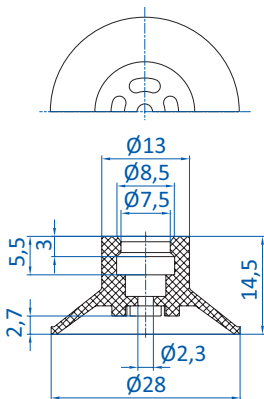


Item no.
102.028.159.*

Material
Vinyl (bl)

4 mm

	Connection	
270.459	M6-male	--
270.480	G1/8-male	--
270.479	G1/8-female	--



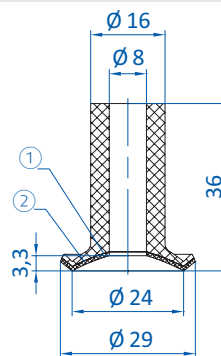
Item no.
102.028.194.*

Material
NBR (sw)

3 mm

This vacuum cup is also available in the following dimensions: 20 mm

	Connection	
270.251	G1/8-female	--
270.501-S	G1/8-female	--
270.506-S	G1/4-male	--
270.505-S	G3/8-male	--



Item no.
26.025.009.2F

Material
SI (tr/ge)

2 mm

Details and additional sizes available are found on p. 394.

	Connection	
270.132	G1/8-male	--
270.114	G1/8-female	--
270.208	G1/4-male	--
270.178	G1/4-female	--

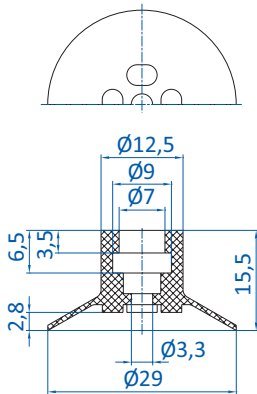
NON-MARKING!
TEMP. MAX. 500 °C
(932 °F)

① = Felt pads ② = For silicone vacuum cups: Silicone blocker through evaporated aluminum layer

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 29 - 30 mm

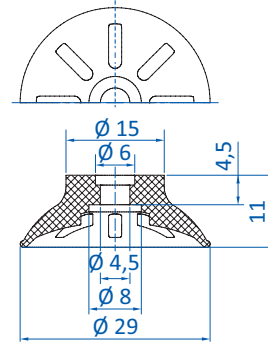


	Connection	
270.030	G1/8-male	--
270.019	G1/8-female	--

Item no.
104.029.053.*

Material
Vinyl (bl)

4 mm



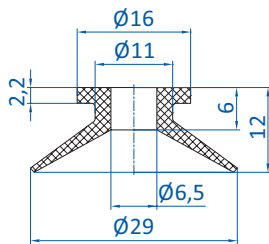
	Connection	
270.063	G1/8-male	--

BESTSELLER

Item no.
102.029.509.*

Material
NR (br)

4 mm

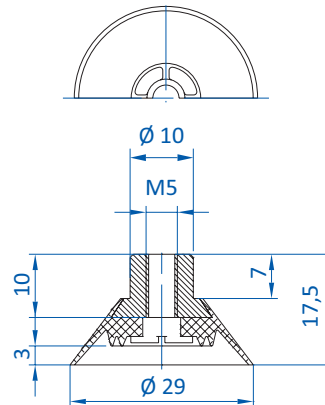


	Connection	
270.200	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

Item no.
102.029.160.*

Material
Vinyl (bl)

4.5 mm

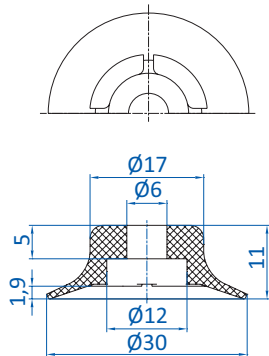


Item no.
150.030.031.*

Material
SI (r), CR (sw)

3 mm

Details and additional sizes available are found on p. 46.



	Connection	
270.460	M6-male	--
270.482	G1/8-male	--
270.481	G1/8-female	--
270.483	G1/4-male	--
270.484	G1/4-female	--

50.095	19.5 mm	--
50.096	30 mm	--
50.097	39 mm	--
50.098	49.5 mm	--

Item no.
102.030.288.*

Material
NBR (sw), SI (tr), PU (bl), FKM (gr)

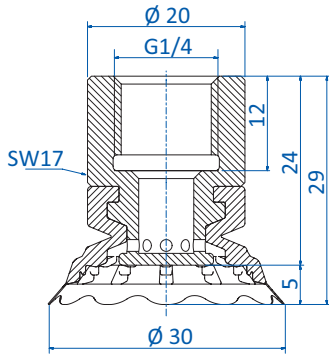
2 mm

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 30 mm

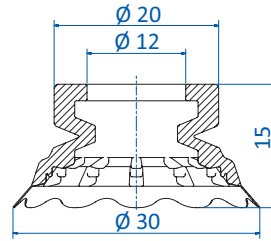


Item no.
103.030.135.*

Material
SI (tr), SI-LE (tr), SI (w), SI-LE (w)

5 mm

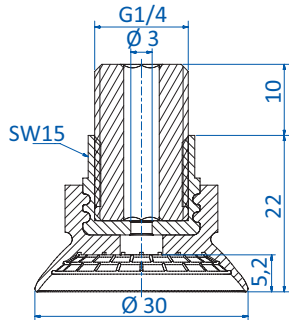
Item no.	Connection	
270.729	G1/4-female	--



Item no.
104.030.100.*

Material
SI (tr), SI-LE (tr), SI (w), SI-LE (w)

5 mm



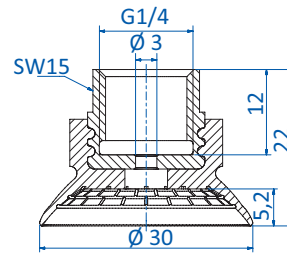
FOR STRONGLY
CURVED METAL
SHEETS

Item no.
103.030.144.*

Material
NBR (bl)

5.2 mm

Details and additional sizes available are found on p. 40.



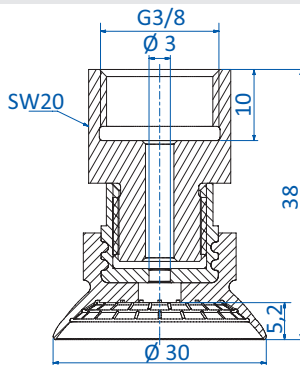
FOR STRONGLY
CURVED METAL
SHEETS

Item no.
103.030.141.*

Material
NBR (bl)

5.2 mm

Details and additional sizes available are found on p. 40.



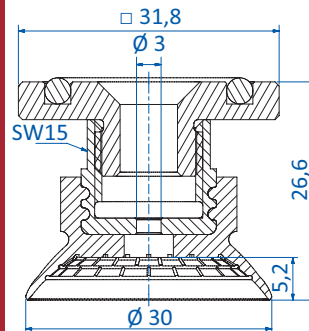
FOR STRONGLY
CURVED METAL
SHEETS

Item no.
103.030.149.*

Material
NBR (bl)

5.2 mm

Details and additional sizes available are found on p. 40.



FOR STRONGLY
CURVED METAL
SHEETS

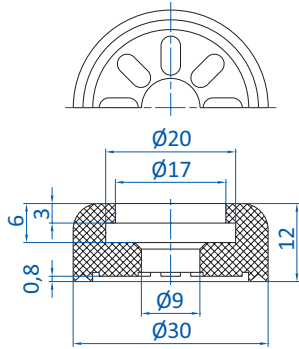
Item no.
103.030.152.*

Material
NBR (bl)

5.2 mm

Details and additional sizes available are found on p. 40.

* When ordering please add the appropriate material code to item no.

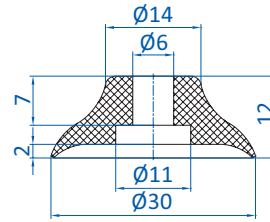


Item no.	Connection	Material
270.234	G1/8-female	--

Item no.
102.030.459._*

Material
HNBR (ge)

2 mm



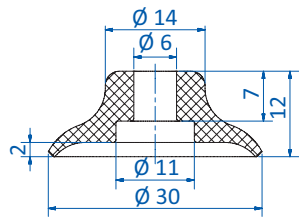
Item no.	Connection	Material
270.312/19	M6-male	--
270.030	G1/8-male	--
270.019	G1/8-female	--
270.274	G1/4-male	--
270.275	G1/4-female	--

Item no.
102.030.053._*

Material
NBR (sw), SI (tr), SI-LE (tr), PU (bl)

2 mm

Details and additional sizes available are found on p. 12.



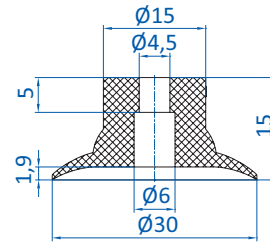
Item no.	Connection	Material
270.312/19	M6-male	--
270.030	G1/8-male	--
270.019	G1/8-female	--
270.274	G1/4-male	--
270.275	G1/4-female	--

Item no.
102.030.502._*

Material
NBR (sw), SI (tr), Thermalon® (bl)

2 mm

Details and additional sizes available are found on p. 16.



Item no.	Connection	Material
270.317	M5-male	--
270.103	M6-male	--
270.205	G1/8-male	--
270.109	G1/8-female	--
270.194	G1/4-male	--

Item no.	Material	Thickness
50.020	8.5 mm	--

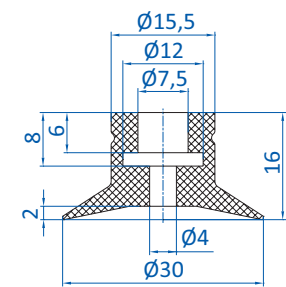
BESTSELLER

Item no.
102.030.222._*

Material
NBR (sw), SI (tr)

2 mm

Details and additional sizes available are found on p. 28.



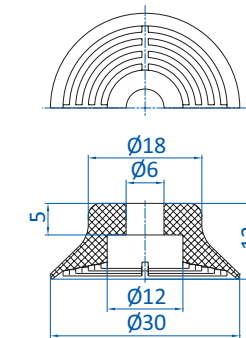
Item no.	Connection	Material
270.012	G1/8-male	--
270.020	G1/8-female	--
270.034	G1/4-male	--
270.038	G1/4-female	--

Item no.	Material	Thickness
50.005	5 mm	--
50.145	11 mm	--
50.146	30 mm	--

Item no.
126.030.013._*

Material
SI (bl), SI (r)

1.5 mm



Item no.	Connection	Material
270.460	M6-male	--
270.482	G1/8-male	--
270.481	G1/8-female	--
270.483	G1/4-male	--
270.484	G1/4-female	--

Item no.	Material	Thickness
50.085	6 mm	--
50.128	10 mm	--
50.129	15 mm	--
50.095	19.5 mm	--
50.096	30 mm	--
50.097	39 mm	--
50.098	49.5 mm	--

Item no.
104.030.067._*

Material
NBR (sw)

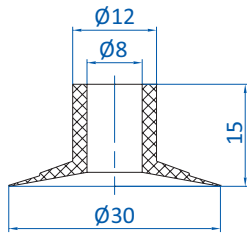
1.8 mm

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 30 mm

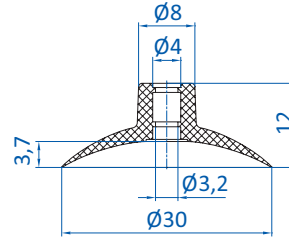


Item no.	Connection	
270.112	G1/8-male	--
270.113	G1/4-male	--
270.043	G1/4-male	--
270.178	G1/4-female	--

Item no.
107.030.023._*

Material
NBR (sw), NR (bg)

1 mm



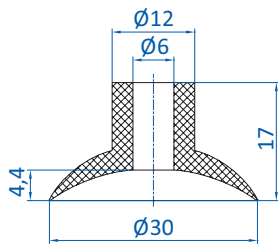
Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
102.030.086._*

Material
PU (g)

4.5 mm

This vacuum cup is also available in the following dimensions: 22 mm, 25 mm



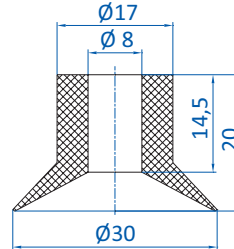
Item no.	Connection	
270.443	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

Item no.
112.030.052._*

Material
NBR (sw), SI (w)

4.5 mm

Details and additional sizes available are found on p. 31.

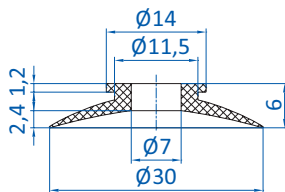


Item no.	Connection	
270.132	G1/8-male	--
270.114	G1/8-female	--
270.043	G1/4-male	--
270.178	G1/4-female	--

Item no.
115.030.005._*

Material
NBR (sw), SI (tr), SI-LE (tr), NR (sw), NR (bg)

3 mm



Item no.
102.030.178._*

Material
Vinyl (bl)

3 mm

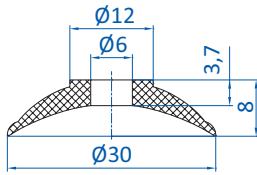
* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 30 mm



Connection	
270.255	M8-male

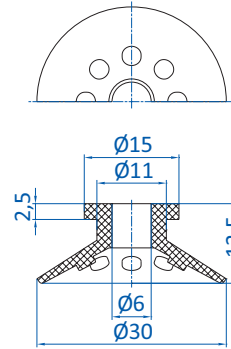


Item no.
112.030.051.*

Material
NBR (sw), SI (w)

4 mm

Connection	
270.039	M6-male
270.030	G1/8-male
270.019	G1/8-female
270.274	G1/4-male
270.275	G1/4-female

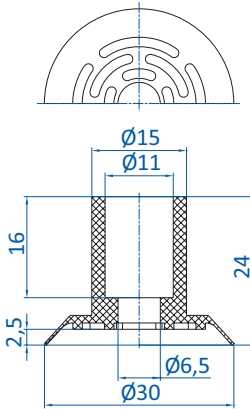


Item no.
104.030.059.*

Material
Vinyl (bl)

3 mm

Connection	
270.451	G1/4-male
270.452	G1/4-female



BESTSELLER

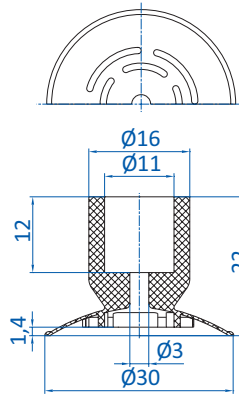
Item no.
104.030.009.*

Material
NBR (sw), SI (w), SI-LE (w), SI (tr), NR (sw)

3 mm

This vacuum cup is also available in the following dimensions: 15 mm, 24 mm, 28 mm, 40 mm

Connection	
270.177	M10-male
270.451	G1/4-male
270.452	G1/4-female



Item no.
102.030.215.*

Material
Vulkollan® (br)

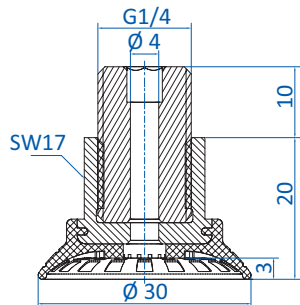
2 mm

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 30 mm



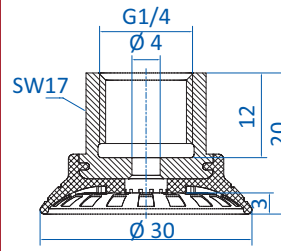
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
103.030.030.*

Material
NBR (bl)

3 mm

Details and additional sizes available are found on p. 38.



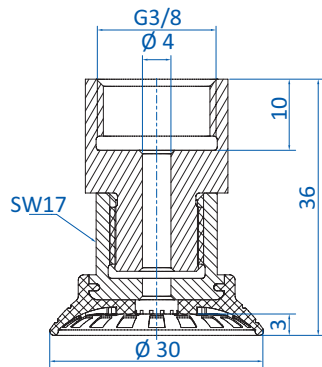
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
103.030.031.*

Material
NBR (bl)

3 mm

Details and additional sizes available are found on p. 38.



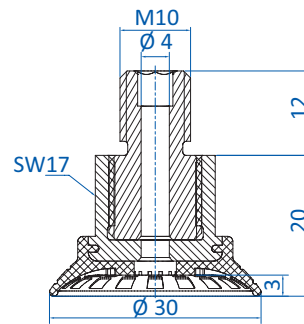
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
103.030.032.*

Material
NBR (bl)

3 mm

Details and additional sizes available are found on p. 38.



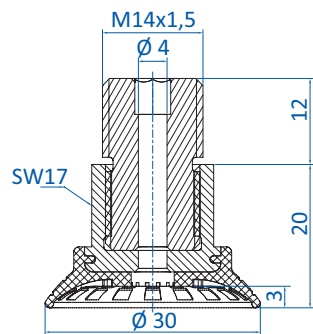
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
103.030.033.*

Material
NBR (bl)

3 mm

Details and additional sizes available are found on p. 38.



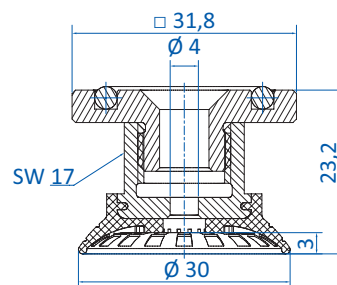
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
103.030.034.*

Material
NBR (bl)

3 mm

Details and additional sizes available are found on p. 38.



**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

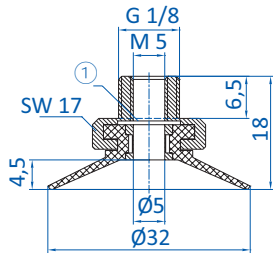
Item no.
103.030.035.*

Material
NBR (bl)

3 mm

Details and additional sizes available are found on p. 38.

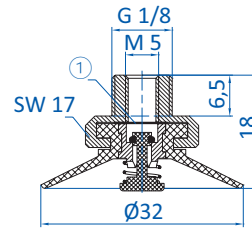
* When ordering please add the appropriate material code to item no.



① = Filter screen

Item no. 120.030.013._*	Material SI (tr), CR (sw)	3.5 mm
--	-------------------------------------	--------

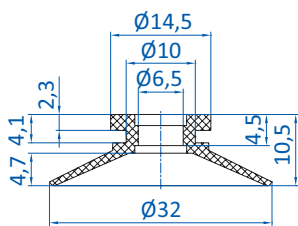
Details and additional sizes available are found on p. 25.



① = Filter screen

Item no. 121.030.006._*	Material CR (sw)	2.5 mm
--	----------------------------	--------

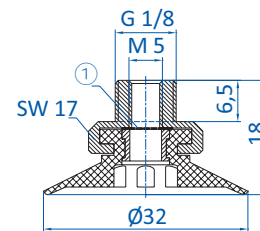
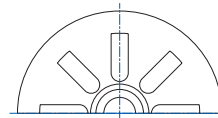
Details and additional sizes available are found on p. 25.



	Connection	
270.783-S	NPT1/8-male	--
270.500-S	M5-female	--
270.250	G1/8-male	--
270.503-S	G1/8-male	--

Item no. 102.030.096._*	Material SI (tr), CR (sw)	3.5 mm
--	-------------------------------------	--------

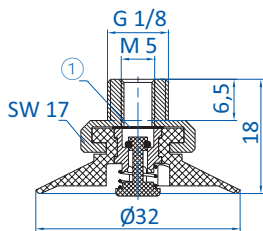
Details and additional sizes available are found on p. 21.



① = Filter screen

Item no. 123.030.019._*	Material Tepuflex® (or), SI (tr), CR (sw)	2 mm
--	---	------

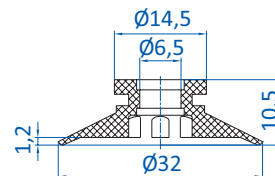
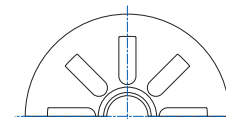
Details and additional sizes available are found on p. 25.



① = Filter screen

Item no. 124.030.002._*	Material SI (tr)	2 mm
--	----------------------------	------

Details and additional sizes available are found on p. 25.



	Connection	
270.783-S	NPT1/8-male	--
270.500-S	M5-female	--
270.250	G1/8-male	--
270.503-S	G1/8-male	--

BESTSELLER

Item no. 125.030.010._*	Material Tepuflex® (or), SI (tr), CR (sw)	2 mm
--	---	------

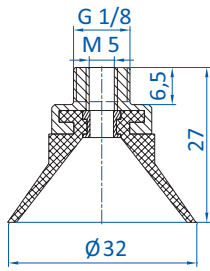
Details and additional sizes available are found on p. 21.

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

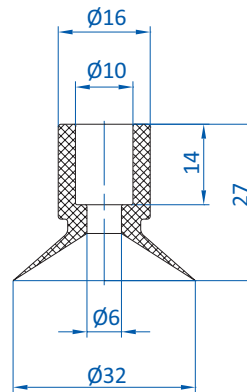
Ø 32 - 33 mm



Item no.
120.032.025.*

Material
SI (tr), CR (sw)

5 mm

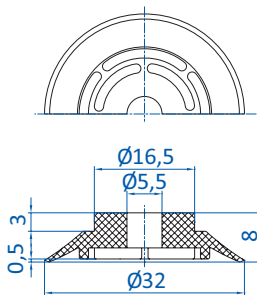


Item no.
122.030.034.*

Material
SI (tr), NR (sw)

6.5 mm

	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

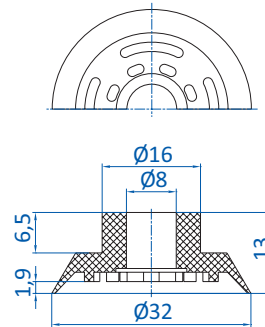


Item no.
102.032.104.*

Material
NR (bg)

1.8 mm

	Connection	
270.063	G1/8-male	--
270.061	G1/8-female	--

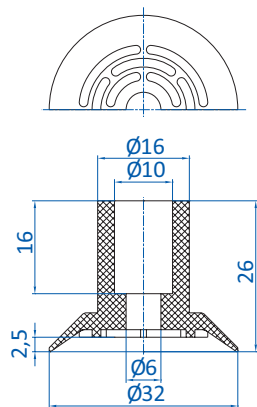


Item no.
108.032.002.*

Material
SI (tr), NR (bg)

2 mm

	Connection	
270.451	G1/4-male	--
270.452	G1/4-female	--

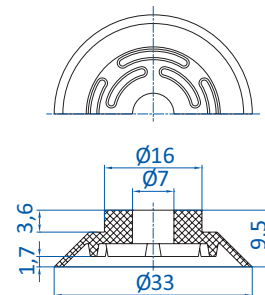


Item no.
104.033.034.*

Material
NR (bg), CR (r)

2.5 mm

	Connection	
270.244	M5-male	--
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--



Item no.
102.033.398.*

Material
Vinyl (bl)

2 mm

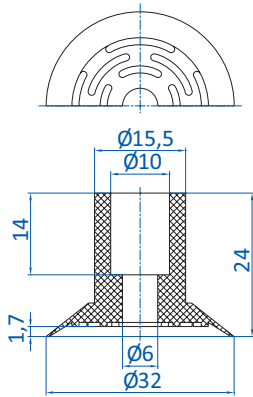
	Connection	
270.039	M6-male	--

Notes: Especially well-suited for flexible products (foils, leather, veneer)

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 32 - 34 mm

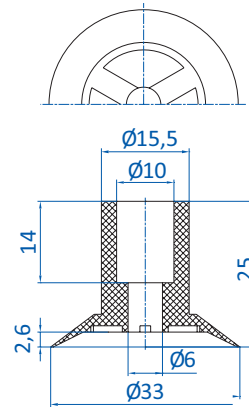


	Connection	
270.244	M5-male	--
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
104.032.044.*

Material
Vinyl (bl)

3 mm
2 mm

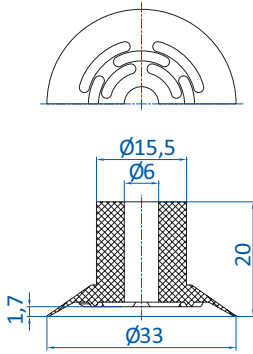


	Connection	
270.244	M5-male	--
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
102.033.226.*

Material
Vinyl (bl)

3 mm

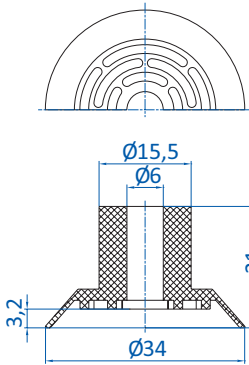


	Connection	
270.443	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

Item no.
104.033.057.*

Material
Vinyl (bl)

1,5 mm

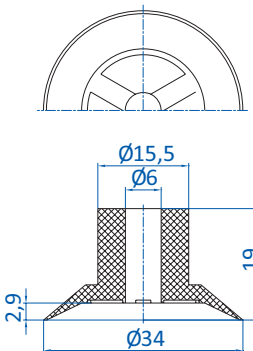


	Connection	
270.030	G1/8-male	--
270.114	G1/8-female	--
270.043	G1/4-male	--
270.178	G1/4-female	--

Item no.
104.034.036.*

Material
NR (bg)

3 mm

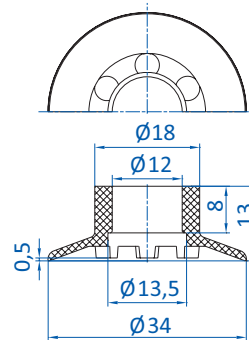


	Connection	
270.443	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

Item no.
104.034.054.*

Material
Vinyl (bl)

3 mm



	Connection	
270.097	G1/4-male	--
270.098	G1/4-female	--

Item no.
108.034.003.*

Material
NR (bg)

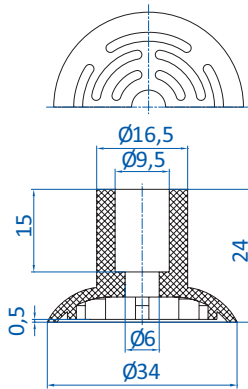
1 mm

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

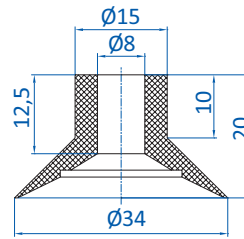
Ø 34 - 35 mm



	Connection	
270.244	M5-male	--
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

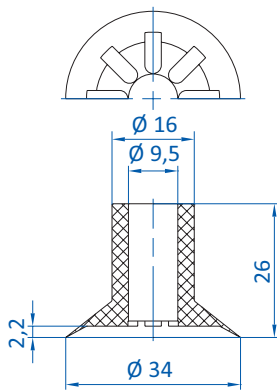
Item no. 116.034.001.* **Material** NR (sw), NR (bg) 0.5 mm

Notes: Especially well-suited for flexible products (foils, leather, veneer)



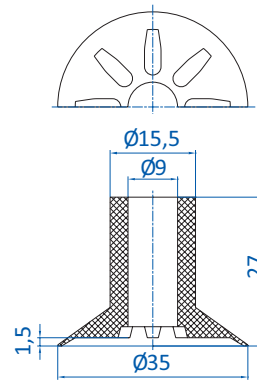
	Connection	
270.112	G1/8-male	--
270.114	G1/8-female	--
270.113	G1/4-male	--
270.178	G1/4-female	--

Item no. 122.034.038.* **Material** NR (sw), NR (br) 3 mm



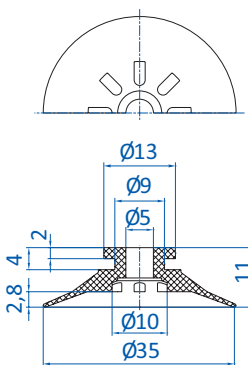
	Connection	
270.177	M10-male	--
270.132	G1/8-male	--
270.114	G1/8-female	--
270.208	G1/4-male	--
270.452	G1/4-female	--

Item no. 104.035.048.* **Material** Vinyl (bl) 2 mm



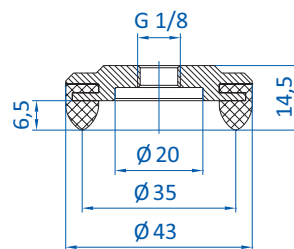
	Connection	
270.177	M10-male	--
270.132	G1/8-male	--
270.114	G1/8-female	--
270.208	G1/4-male	--
270.452	G1/4-female	--

Item no. 104.035.050.* **Material** Vinyl (bl) 2 mm



	Connection	
270.310	M5-male	--
270.250	G1/8-male	--

Item no. 102.035.320.* **Material** NR (sw) 2.8 mm



Item no. 160.042.001.* **Material** EPDM (sw) 1 mm

Details and additional sizes available are found on p. 48.
Notes: Foam sealing lip equalizes product unevenness

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 35 - 36 mm



	Connection	
270.250	G1/8-male	--

Item no. 112.035.059._*	Material SI (tr), NR (sw)	3 mm
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	Connection	
270.039	M6-male	--

Item no. 112.035.065._*	Material SI (tr)	5.5 mm
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	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no. 112.035.060._*	Material NBR (sw), SI (w), NR (sw)	5 mm
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Details and additional sizes available are found on p. 31.

Item no. 115.035.007._*	Material NBR (sw), SI (tr), NR (sw)	5 mm
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	Connection	
270.255	M8-male	--

Item no. 102.036.106._*	Material SI (gr)	3 mm
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	Connection	
270.312/19	M6-male	--
270.030	G1/8-male	--
270.019	G1/8-female	--
270.274	G1/4-male	--
270.275	G1/4-female	--

Item no. 102.035.056._*	Material NBR (sw), SI (tr), SI-LE (tr)	3 mm
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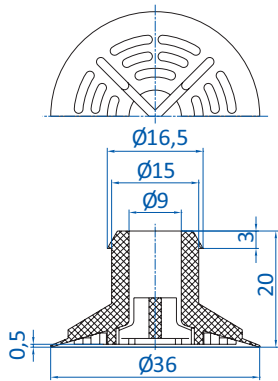
Details and additional sizes available are found on p. 12.

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 36 - 40 mm



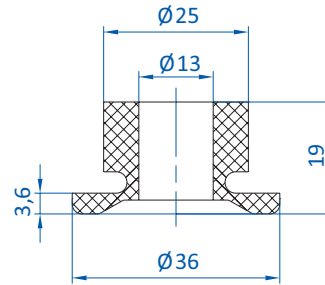
Item no.	Connection	
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
102.036.342.*

Material
SI (tr)

0.5 mm

Notes: Especially well-suited for foils
This vacuum cup is also available in the following dimensions: 27 mm

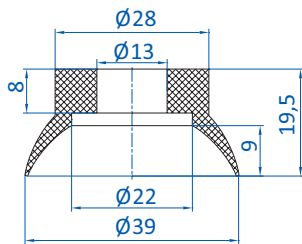


Item no.	Connection	
270.207	G1/4-male	--

Item no.
107.036.037.*

Material
NR (br)

1.5 mm

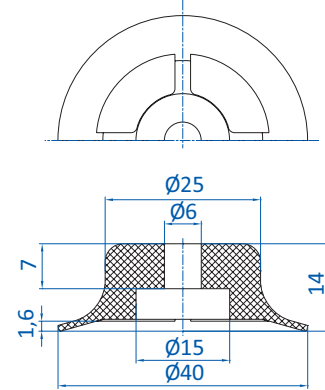


Item no.	Connection	
270.210	G1/4-male	--

Item no.
112.039.069.*

Material
NR (bg)

5 mm

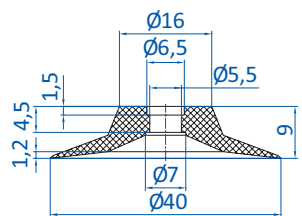


Item no.	Connection	
270.498	M6-male	--
270.486	G1/8-male	--
270.487	G1/4-male	--
270.488	G1/4-female	--

Item no.
102.040.289.*

Material
NBR (sw), SI (tr), PU (bl), FKM (gr)

2 mm

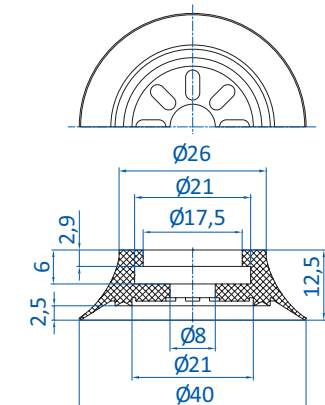


Item no.	Connection	
270.500-S	M5-female	--
270.250	G1/8-male	--
270.503-S	G1/8-male	--

Item no.
102.040.310.*

Material
CR (sw)

2 mm



Item no.	Connection	
270.234	G1/8-female	--

FLEXIBLE LIP

Item no.
102.040.357.*

Material
SI (tr), NR (br)

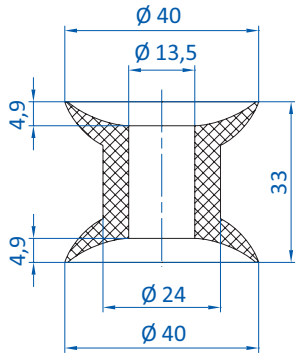
3 mm

Details and additional sizes available are found on p. 42.

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 40 mm

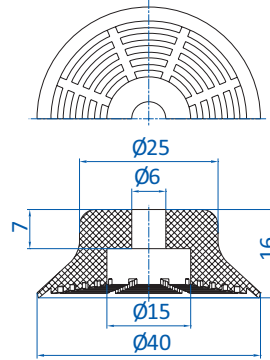


Item no.	Connection	
270.116	G1/4-female	--

Item no.
102.039.235._*

Material
NR (br)

5 mm

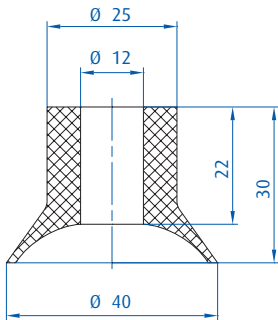


Item no.	Connection	
270.498	M6-male	--
270.486	G1/8-male	--
270.485	G1/8-female	--
270.487	G1/4-male	--
270.488	G1/4-female	--

Item no.
104.040.068._*

Material
NBR (sw)

2.5 mm

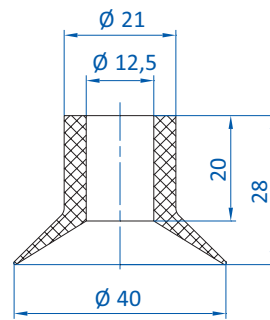


Item no.	Connection	
270.049-1	G1/4-male	--

Item no.
122.040.001._*

Material
NBR (sw), SI (tr), NR (bg)

5 mm

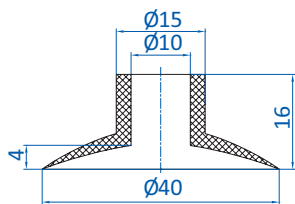


Item no.	Connection	
270.049-1	G1/4-male	--

Item no.
122.040.044._*

Material
SI (tr), NR (bg)

4.5 mm

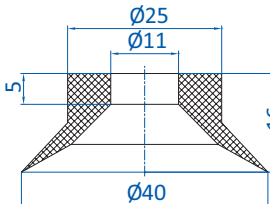


Item no.	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
112.040.071._*

Material
NBR (sw), SI (tr)

4 mm



Item no.	Connection	
270.256	M8-male	--
270.252	G1/8-female	--

Item no.
126.040.016._*

Material
SI (tr), NR (bg), PU (bl)

5 mm

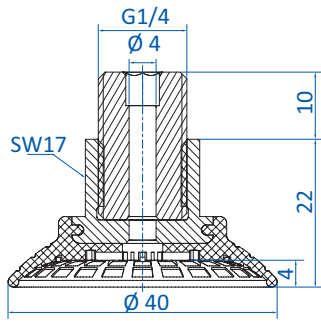
Details and additional sizes available are found on p. 31.

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 40 mm



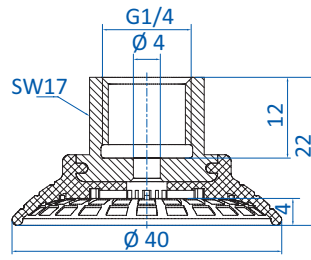
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
103.040.036._*

Material
NBR (bl)

4 mm

Details and additional sizes available are found on p. 38.



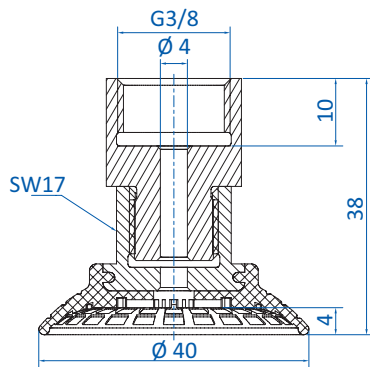
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
103.040.037._*

Material
NBR (bl)

4 mm

Details and additional sizes available are found on p. 38.



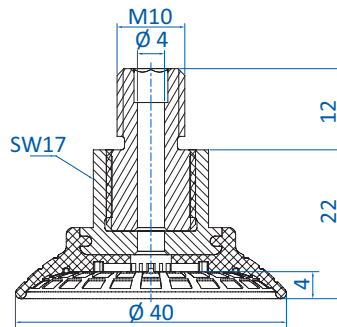
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
103.040.038._*

Material
NBR (bl)

4 mm

Details and additional sizes available are found on p. 38.



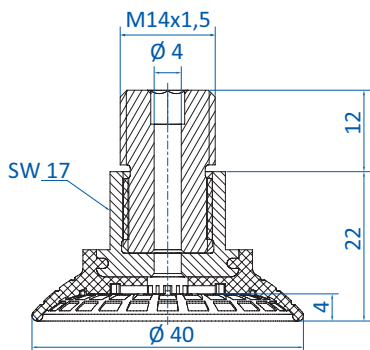
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
103.040.039._*

Material
NBR (bl)

4 mm

Details and additional sizes available are found on p. 38.



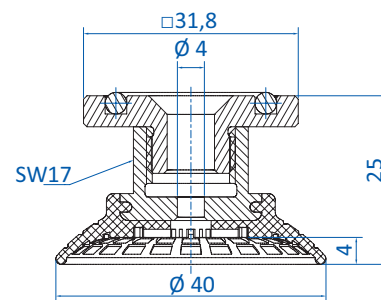
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
103.040.040._*

Material
NBR (bl)

4 mm

Details and additional sizes available are found on p. 38.



**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
103.040.041._*

Material
NBR (bl)

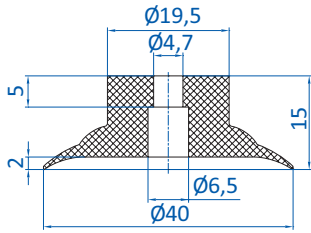
4 mm

Details and additional sizes available are found on p. 38.

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 40 - 42 mm



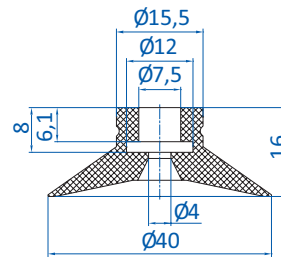
Item no.	Connection	Material
270.317	M5-male	--
270.103	M6-male	--
270.205	G1/8-male	--
270.109	G1/8-female	--
270.194	G1/4-male	--
50.020	8.5 mm	--

Item no.
102.040.223._*

Material
NBR (sw), SI (tr)

2 mm

Details and additional sizes available are found on p. 28.

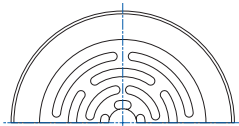


Item no.	Connection	Material
270.012	G1/8-male	--
270.020	G1/8-female	--
270.034	G1/4-male	--
270.038	G1/4-female	--
50.005	5 mm	--
50.145	11 mm	--
50.146	30 mm	--

Item no.
102.040.364._*

Material
SI (bl)

3 mm



Item no.	Connection	Material
270.112	G1/8-male	--
270.114	G1/8-female	--
270.113	G1/4-male	--
270.178	G1/4-female	--

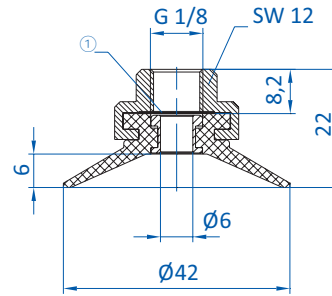
BESTSELLER

Item no.
104.040.018._*

Material
SI (tr), SI-LE (tr), NR (sw), NR (br)

2 mm

This vacuum cup is also available in the following dimensions: 15 mm, 24 mm, 28 mm, 30 mm



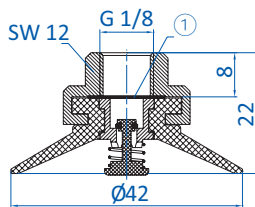
① = Filter screen

Item no.
120.040.076._*

Material
SI (tr), CR (sw)

4 mm

Details and additional sizes available are found on p. 25.



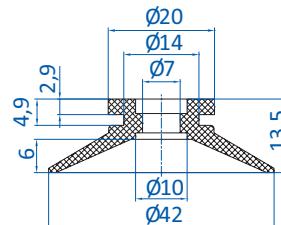
① = Filter screen

Item no.
121.040.007._*

Material
SI (tr), CR (sw)

4 mm

Details and additional sizes available are found on p. 25.



Item no.	Connection	Material
270.781-S	NPSF1/8-female	--
270.786-S	NPT1/4-male	--
270.785-S	NPT3/8-male	--
270.251	G1/8-female	--
270.501-S	G1/8-female	--
270.506-S	G1/4-male	--
270.505-S	G3/8-male	--

Item no.
102.040.094._*

Material
SI (tr), CR (sw)

4 mm

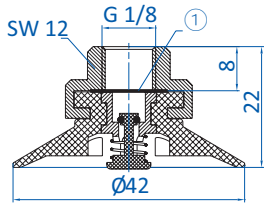
Details and additional sizes available are found on p. 21.

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 41 - 42 mm



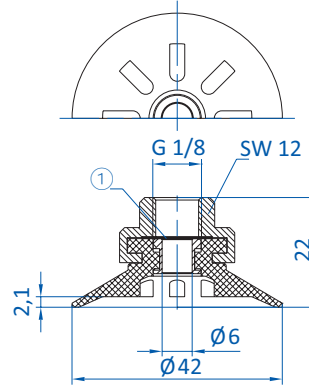
① = Filter screen

Item no.
124.040.006.*

Material
SI (tr)

2 mm

Details and additional sizes available are found on p. 25.



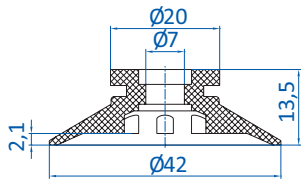
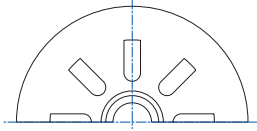
① = Filter screen

Item no.
123.040.028.*

Material
SI (tr), CR (sw)

2 mm

Details and additional sizes available are found on p. 25.



	Connection	
270.781-S	NPSF1/8-female	--
270.786-S	NPT1/4-male	--
270.785-S	NPT3/8-male	--
270.251	G1/8-female	--
270.501-S	G1/8-female	--
270.506-S	G1/4-male	--
270.505-S	G3/8-male	--

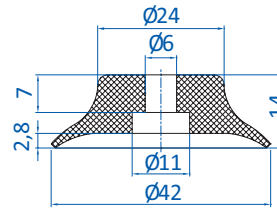
BESTSELLER

Item no.
125.040.013.*

Material
Tepuflex® (or), SI (tr), CR (sw)

2 mm

Details and additional sizes available are found on p. 21.



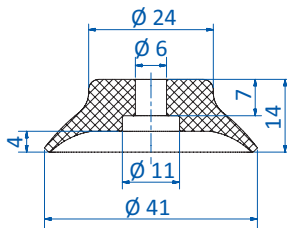
	Connection	
270.312/19	M6-male	--
270.030	G1/8-male	--
270.019	G1/8-female	--
270.274	G1/4-male	--
270.275	G1/4-female	--

Item no.
102.040.061.*

Material
NBR (sw), SI (tr), SI-LE (tr), PU (bl)

3.5 mm

Details and additional sizes available are found on p. 12.



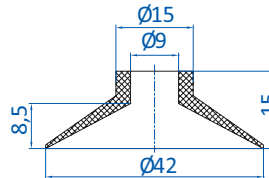
	Connection	
270.312/19	M6-male	--
270.030	G1/8-male	--
270.019	G1/8-female	--
270.274	G1/4-male	--
270.275	G1/4-female	--

Item no.
102.040.503.*

Material
NBR (sw), SI (tr), SI-LE (tr),
Thermalon® (bl)

4 mm

Details and additional sizes available are found on p. 16.



	Connection	
270.034	G1/4-male	--
270.038	G1/4-female	--

Item no.
102.042.232.*

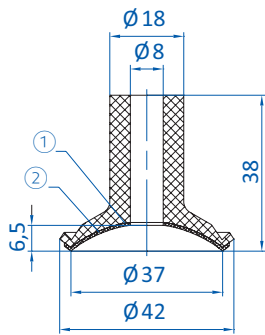
Material
NR (sw)

7 mm

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 37 - 46 mm



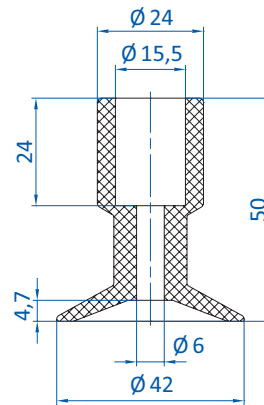
Item no.	Connection	
270.132	G1/8-male	--
270.114	G1/8-female	--
270.208	G1/4-male	--
270.178	G1/4-female	--

NON-MARKING! TEMP. MAX. 500 °C (932 °F)

① = Felt pads ② = For silicone vacuum cups: Silicone blocker through evaporated aluminum layer

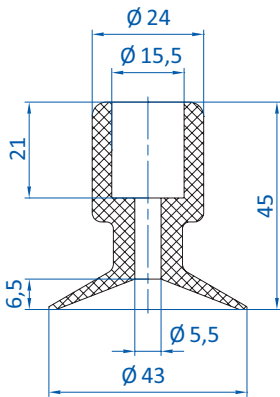
Item no. 26.037.010.2F	Material SI (tr/ge)	3 mm
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Details and additional sizes available are found on p. 394.



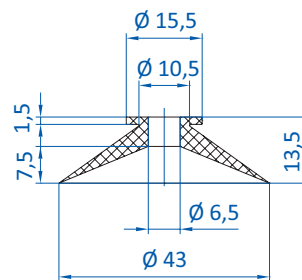
Item no.	Connection	
270.116	G1/4-female	--

Item no. 102.042.184._*	Material Vinyl (bl)	4 mm
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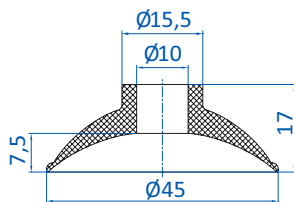
Item no.	Connection	
270.116	G1/4-female	--

Item no. 102.043.252._*	Material NR (br)	7 mm
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Item no.	Connection	
270.063	G1/8-male	--
270.061	G1/8-female	--

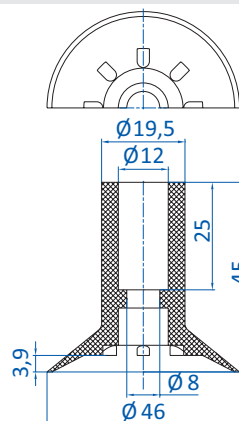
Item no. 102.043.170._*	Material Vinyl (bl)	5 mm
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Item no.	Connection	
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no. 112.045.077._*	Material NBR (sw), SI (w), NR (sw)	7 mm
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Details and additional sizes available are found on p. 31.



Item no.	Connection	
270.049-1	G1/4-male	--

Item no. 127.045.002._*	Material NR (sw)	5 mm
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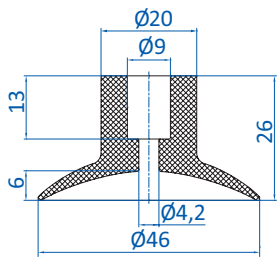
This vacuum cup is also available in the following dimensions: 65 mm

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 46 - 49 mm

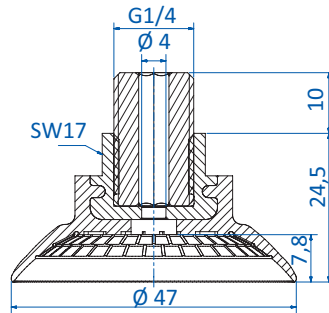


	Connection	
270.132	G1/8-male	--
270.114	G1/8-female	--
270.208	G1/4-male	--

Item no.
102.046.046._*

Material
NBR (sw)

7.8 mm



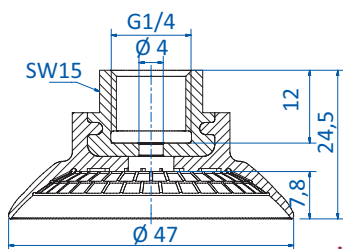
FOR STRONGLY CURVED METAL SHEETS

Item no.
103.045.145._*

Material
NBR (bl)

7.8 mm

Details and additional sizes available are found on p. 40.



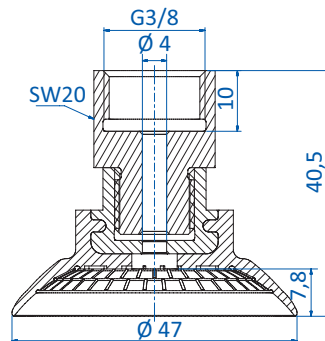
FOR STRONGLY CURVED METAL SHEETS

Item no.
103.045.137._*

Material
NBR (bl)

7.8 mm

Details and additional sizes available are found on p. 40.



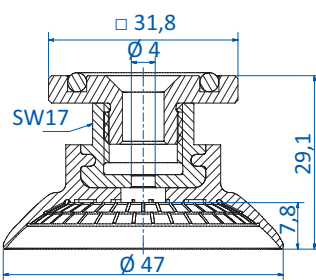
FOR STRONGLY CURVED METAL SHEETS

Item no.
103.045.150._*

Material
NBR (bl)

7.8 mm

Details and additional sizes available are found on p. 40.



FOR STRONGLY CURVED METAL SHEETS

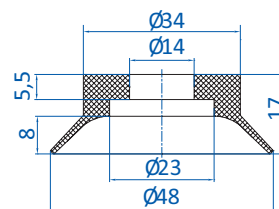
Item no.
103.045.153._*

Material
NBR (bl)

7.8 mm

Details and additional sizes available are found on p. 40.

	Connection	
270.210	G1/4-male	--



Item no.
107.048.031._*

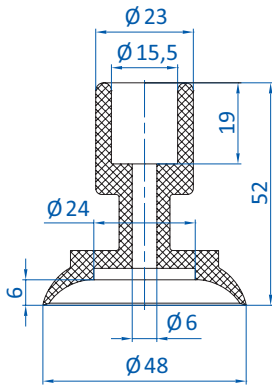
Material
SI (tr), NR (gr)

5 mm

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

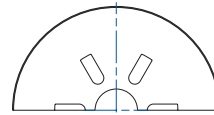
Ø 49 - 50 mm



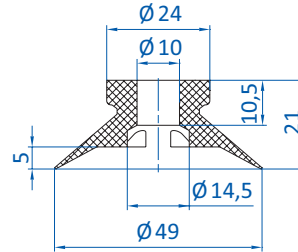
Item no.
115.048.008._*

Material
NR (sw)

8 mm



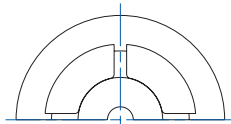
	Connection	
270.249	G1/4-male	--
270.248	G1/4-female	--



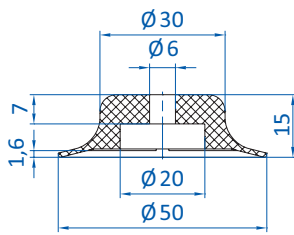
Item no.
127.050.004._*

Material
SI (tr), NR (sw)

4 mm



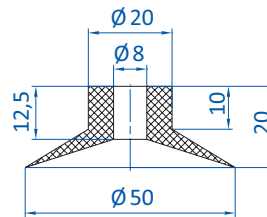
	Connection	
270.499	M6-male	--
270.490	G1/8-male	--
270.489	G1/8-female	--
270.491	G1/4-male	--
270.492	G1/4-female	--



Item no.
102.050.290._*

Material
NBR (sw), SI (tr), PU (bl), FKM (gr)

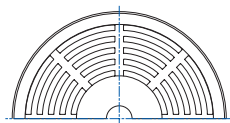
2 mm



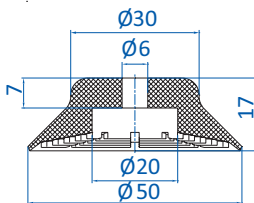
Item no.
126.050.017._*

Material
SI (tr), NR (bg)

4 mm



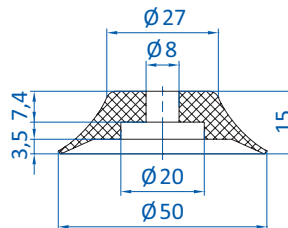
	Connection	
270.499	M6-male	--
270.490	G1/8-male	--
270.489	G1/8-female	--
270.491	G1/4-male	--
270.492	G1/4-female	--



Item no.
104.050.069._*

Material
NBR (sw)

3.1 mm



Item no.
102.050.065._*

Material
NBR (sw), SI (tr), SI-LE (tr), PU (bl)

4 mm

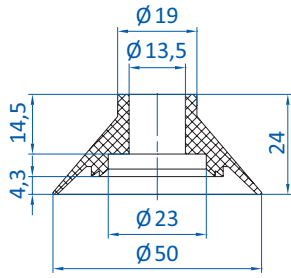
Details and additional sizes available are found on p. 12.

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 50 mm



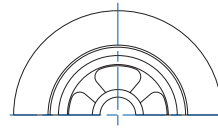
	Connection	
270.184	G1/4-male	--

BESTSELLER

Item no.
127.050.003._*

Material
SI (r), CR (sw)

5 mm



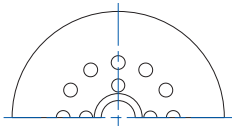
① = Aluminum

Item no.
150.050.032._*

Material
SI (r), FKM (sw), CR (sw)

5.5 mm

Details and additional sizes available are found on p. 46.

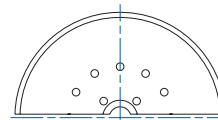


	Connection	
270.112	G1/8-male	--
270.114	G1/8-female	--
270.043	G1/4-male	--
270.178	G1/4-female	--

Item no.
102.050.433._*

Material
Vulkollan® (br)

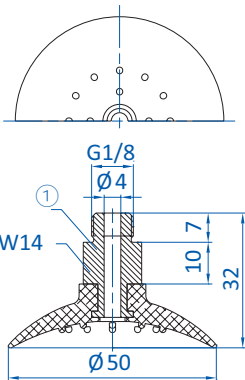
3 mm



Item no.
110.050.080._*

Material
NR (sw)

4 mm

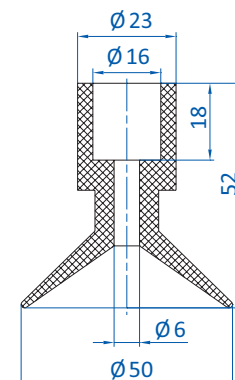


① = Aluminum

Item no.
113.050.014._*

Material
NBR (sw)

5 mm

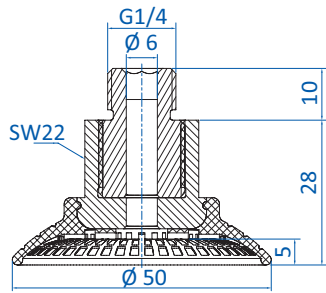


Item no.
126.050.018._*

Material
NR (bg)

10 mm

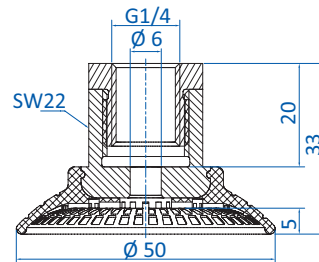
* When ordering please add the appropriate material code to item no.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
103.050.042.* **Material**
NBR (bl) 5 mm

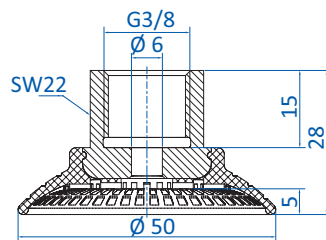
Details and additional sizes available are found on p. 38.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
103.050.043.* **Material**
NBR (bl) 5 mm

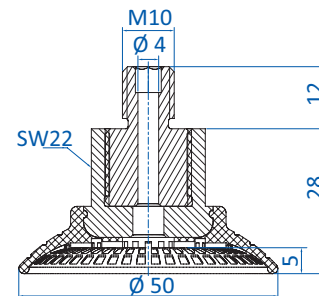
Details and additional sizes available are found on p. 38.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
103.050.044.* **Material**
NBR (bl) 5 mm

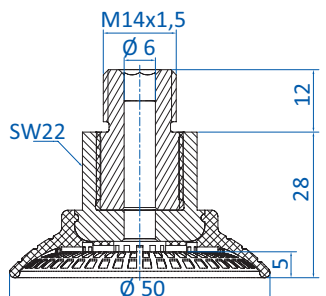
Details and additional sizes available are found on p. 38.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
103.050.045.* **Material**
NBR (bl) 5 mm

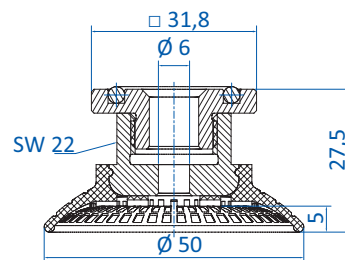
Details and additional sizes available are found on p. 38.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
103.050.046.* **Material**
NBR (bl) 5 mm

Details and additional sizes available are found on p. 38.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
103.050.047.* **Material**
NBR (bl) 5 mm

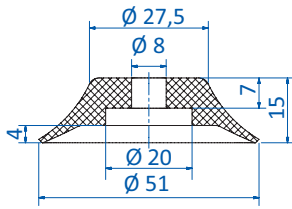
Details and additional sizes available are found on p. 38.

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

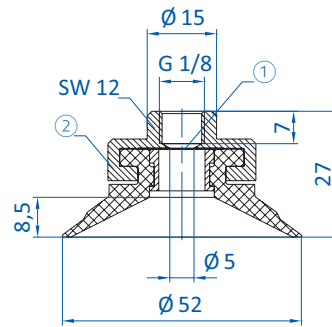
Ø 50 - 53 mm



Connection		
270.012	G1/8-male	--
270.020	G1/8-female	--
270.491	G1/4-male	--
270.492	G1/4-female	--

Item no. 102.050.504._*	Material NBR (sw), SI (tr), Thermalon® (bl)	4 mm
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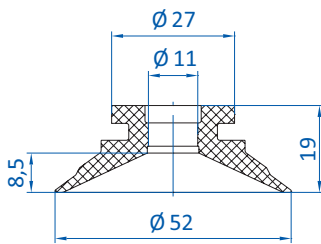
Details and additional sizes available are found on p. 16.



① = Filter screen ② = Aluminum

Item no. 120.050.078._*	Material CR (sw)	6.5 mm
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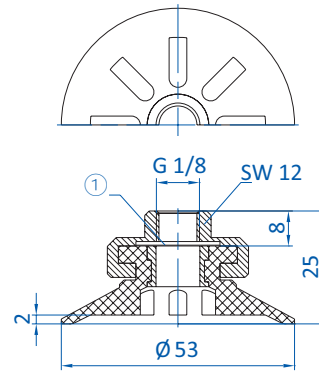
Details and additional sizes available are found on p. 25.



Connection		
270.782-S	NPSF1/8-female	--
270.784-S	NPT1/4-male	--
270.787-S	NPT3/8-male	--
270.252	G1/8-female	--
270.502-S	G1/8-female	--
270.504-S	G1/4-male	--
270.507-S	G3/8-male	--

Item no. 102.050.097._*	Material SI (tr), CR (sw)	6.5 mm
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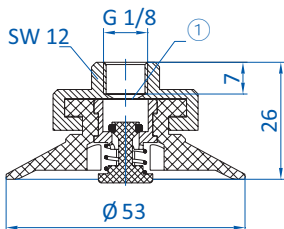
Details and additional sizes available are found on p. 21.



① = Filter screen

Item no. 123.050.034._*	Material Tepuflex® (or), SI (tr), CR (sw)	2.5 mm
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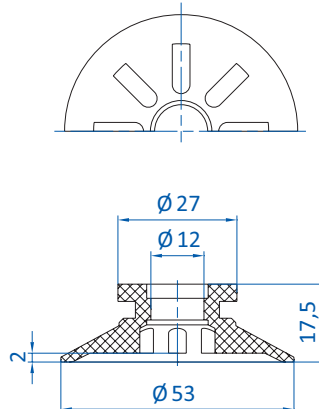
Details and additional sizes available are found on p. 25.



① = Filter screen

Item no. 124.050.009._*	Material SI (tr), CR (sw)	2.5 mm
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Details and additional sizes available are found on p. 25.

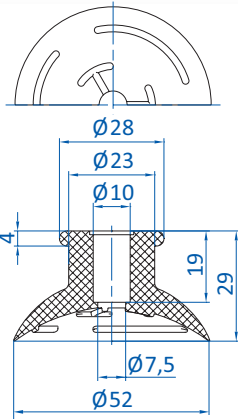


Connection		
270.782-S	NPSF1/8-female	--
270.784-S	NPT1/4-male	--
270.787-S	NPT3/8-male	--
270.252	G1/8-female	--
270.502-S	G1/8-female	--
270.504-S	G1/4-male	--
270.507-S	G3/8-male	--

Item no. 125.050.017._*	Material Tepuflex® (or), SI (tr), CR (sw)	2.5 mm
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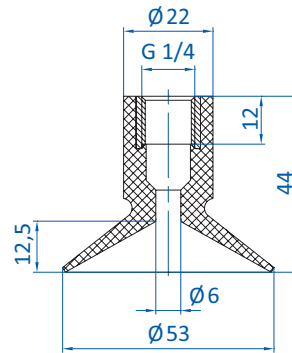
Details and additional sizes available are found on p. 21.

* When ordering please add the appropriate material code to item no.



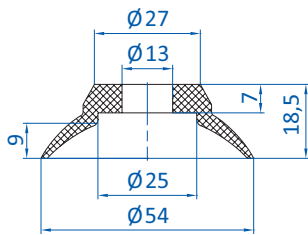
	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
114.052.008.* **Material**
NR (bg) 6 mm



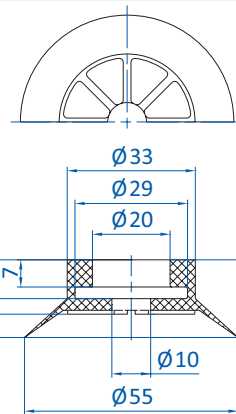
Item no.
120.050.040.* **Material**
SI (tr), NR (sw) 11 mm

This vacuum cup is also available in the following dimensions: 42 mm, 62 mm, 83 mm



	Connection	
270.184	G1/4-male	--

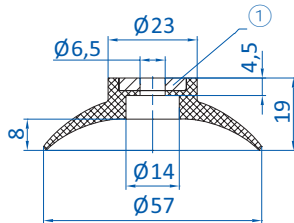
Item no.
112.055.086.* **Material**
PU (bl) 6 mm



	Connection	
270.289	G1/8-female	--

FLEXIBLE LIP

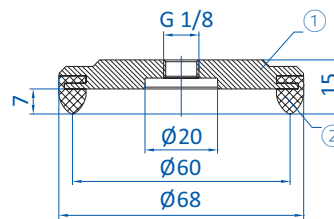
Item no.
154.055.060.* **Material**
NBR (gr) 6 mm



	Connection	
270.312/19	M6-male	--

① = Aluminum

Item no.
112.057.087.* **Material**
NR (sw) 6 mm



① = Aluminum ② = EPDM foamed

Item no.
160.067.003.* **Material**
EPDM (sw) 1 mm

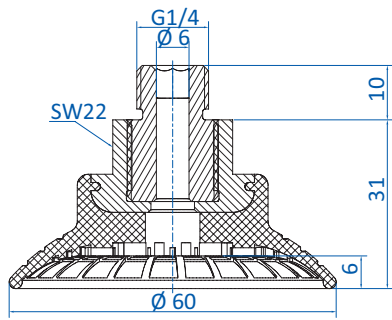
Details and additional sizes available are found on p. 48.
Notes: Foam sealing lip equalizes product unevenness

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 60 mm



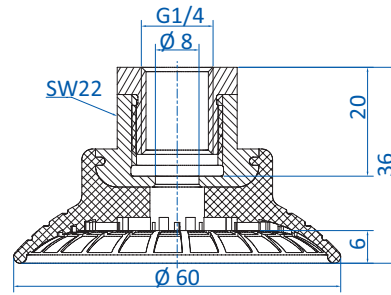
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
103.060.048.*

Material
NBR (bl)

6 mm

Details and additional sizes available are found on p. 38.



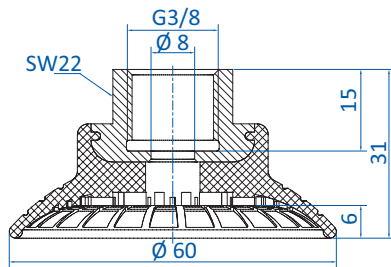
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
103.060.049.*

Material
NBR (bl)

6 mm

Details and additional sizes available are found on p. 38.



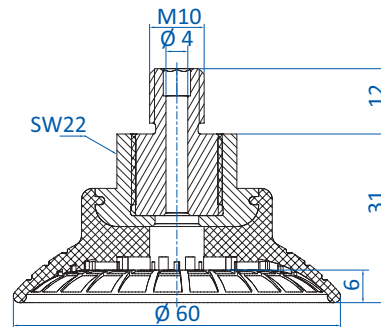
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
103.060.050.*

Material
NBR (bl)

6 mm

Details and additional sizes available are found on p. 38.



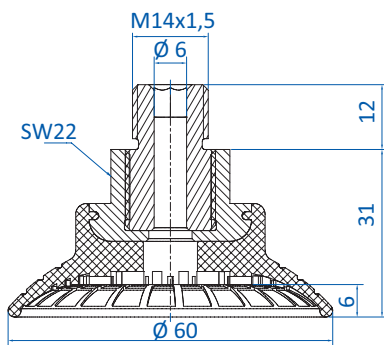
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
103.060.051.*

Material
NBR (bl)

6 mm

Details and additional sizes available are found on p. 38.



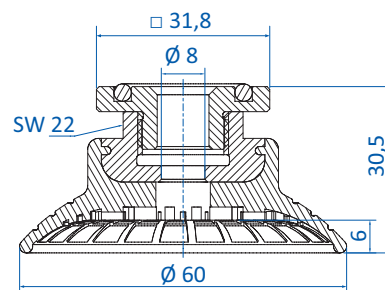
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
103.060.052.*

Material
NBR (bl)

6 mm

Details and additional sizes available are found on p. 38.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
103.060.053.*

Material
NBR (bl)

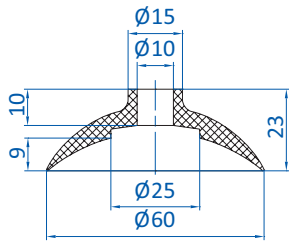
6 mm

Details and additional sizes available are found on p. 38.

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 60 - 62 mm



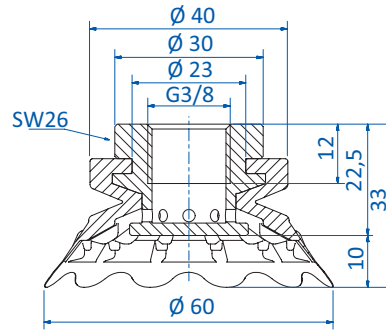
	Connection	
270.042	G1/4-male	--

Item no.
112.060.091.*

Material
NBR (sw), SI (tr)

5 mm

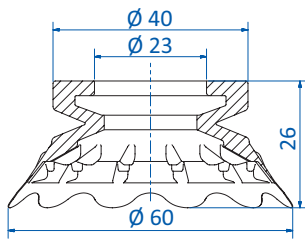
Details and additional sizes available are found on p. 31.



Item no.
103.060.133.*

Material
SI (tr), SI-LE (tr), SI (w), SI-LE (w)

10 mm

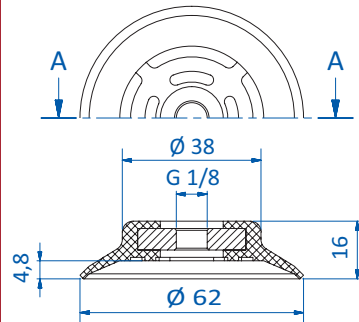


	Connection	
270.725	G3/8-female	--

Item no.
104.060.098.*

Material
SI (tr), SI-LE (tr), SI (w), SI-LE (w)

10 mm

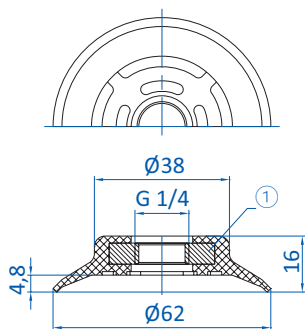


① = Aluminum

Item no.
102.060.544.*

Material
NBR (sw)

5 mm



	Connection	
270.090	M10-female	--
270.120	G1/4-male	--

① = Aluminum

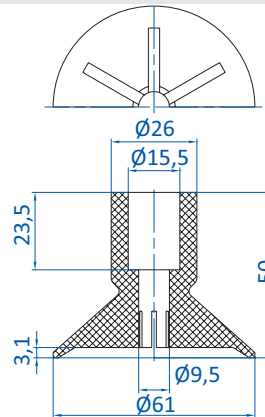
Item no.
102.060.303.*

Material
NBR (sw), SI (tr), SI-LE (tr)

5 mm

Details and additional sizes available are found on p. 12.

BESTSELLER



	Connection	
270.116	G1/4-female	--

Item no.
104.061.060.*

Material
Vinyl (bl)

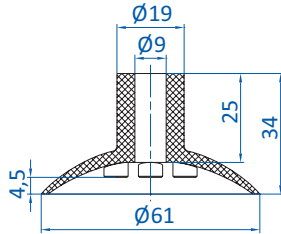
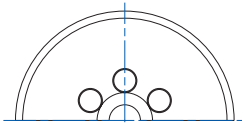
2.5 mm

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 60 - 62 mm

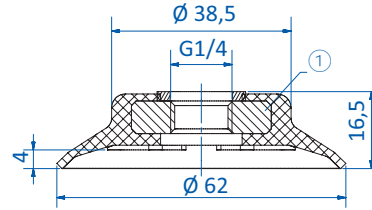


	Connection	
270.208	G1/4-male	--

Item no.
114.061.010._*

Material
SI (tr), NR (sw)

5 mm



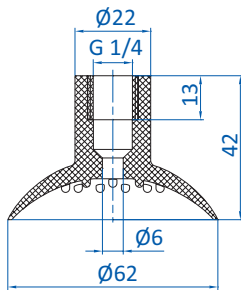
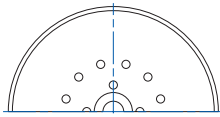
① = Aluminum

Item no.
102.060.505._*

Material
NBR (sw), SI (tr), Thermalon® (bl)

4 mm

Details and additional sizes available are found on p. 16.



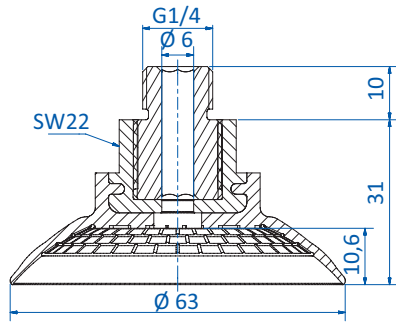
Item no.
110.060.085._*

Material
SI (tr), NR (sw)

9.5 mm

This vacuum cup is also available in the following dimensions: 43 mm, 50 mm, 81 mm, 100 mm

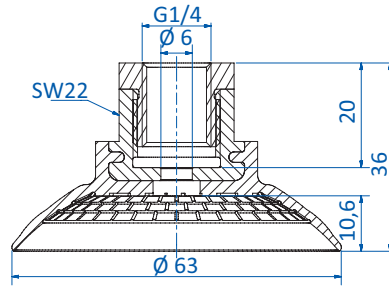
* When ordering please add the appropriate material code to item no.



FOR STRONGLY CURVED METAL SHEETS

Item no.
103.060.146._* **Material**
NBR (bl) 10.6 mm

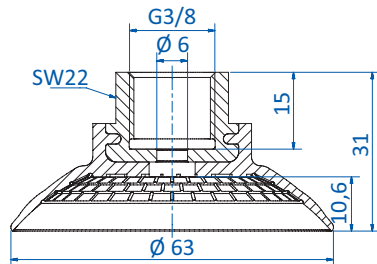
Details and additional sizes available are found on p. 40.



FOR STRONGLY CURVED METAL SHEETS

Item no.
103.060.138._* **Material**
NBR (bl) 10.6 mm

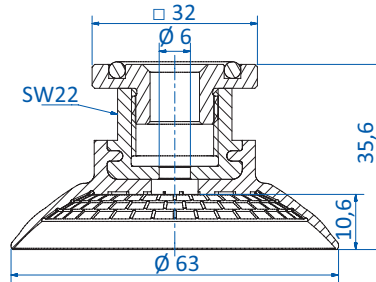
Details and additional sizes available are found on p. 40.



FOR STRONGLY CURVED METAL SHEETS

Item no.
103.060.136._* **Material**
NBR (bl) 10.6 mm

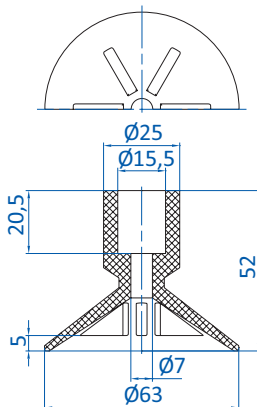
Details and additional sizes available are found on p. 40.



FOR STRONGLY CURVED METAL SHEETS

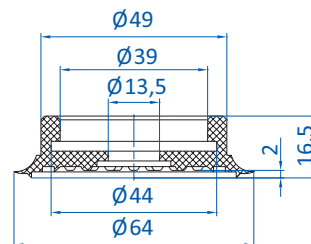
Item no.
103.060.154._* **Material**
NBR (bl) 10.6 mm

Details and additional sizes available are found on p. 40.



Item no.	Connection	Material
270.116	G1/4-female	--

Item no.
104.063.041._* **Material**
NR (bg), CR (r) 6.5 mm



Item no.	Connection	Material
270.262	G1/8-female	--
270.284	G1/4-female	--

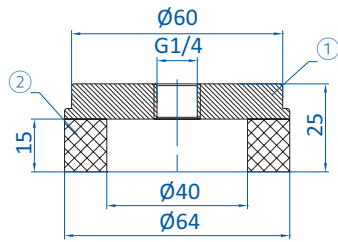
Item no.
154.065.002._* **Material**
SI (tr), NR (sw), Vinyl (bl) 1.5 mm

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

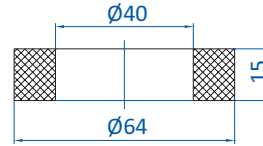
Ø 64 - 65 mm



① = Aluminum ② = Sponge rubber NR

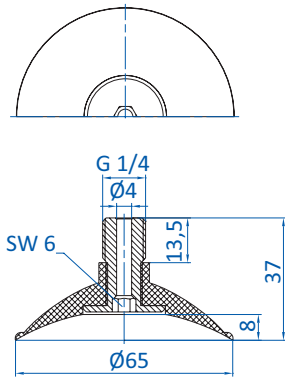
Item no. 206.064.006._*	Material Sponge rubber (or)	10 mm
-----------------------------------	---------------------------------------	-------

This vacuum cup is also available in the following dimensions: 91 mm



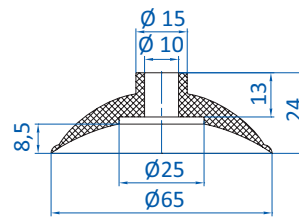
Item no. 208.064.001._*	Material Sponge rubber (or)	10 mm
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This vacuum cup is also available in the following dimensions: 91 mm

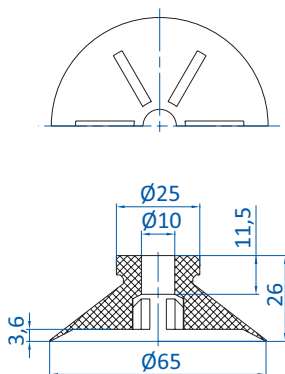


Item no. 110.065.091._*	Material NBR (sw), SI (tr), NR (sw), Vinyl (bl)	7 mm
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	Connection	
270.176	G1/4-male	--



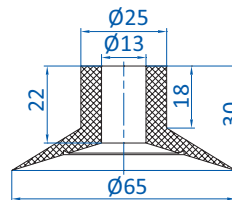
Item no. 112.065.093._*	Material NBR (sw), SI (tr), NR (sw), NR (bg), Vinyl (bl)	7 mm
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	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no. 125.065.026._*	Material SI (tr), NR (sw), NR (bg)	5 mm
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	Connection	
270.207	G1/4-male	--



Item no. 126.065.019._*	Material SI (tr), NR (sw)	5 mm
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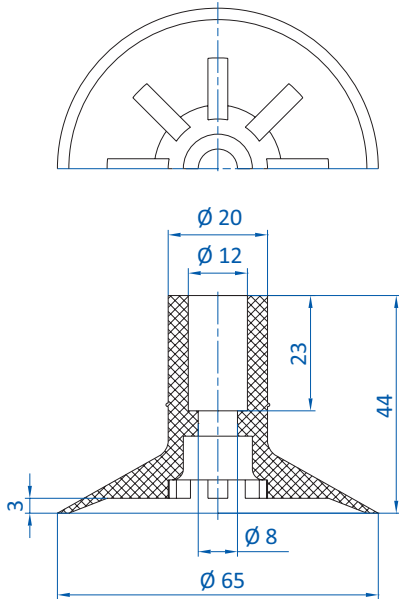
* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 65 - 70 mm



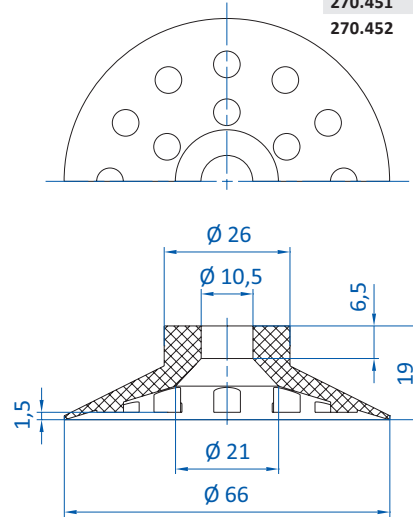
Connection	
270.049-1	G1/4-male --



Item no. 127.065.006._*	Material SI (tr), NR (sw)	3 mm
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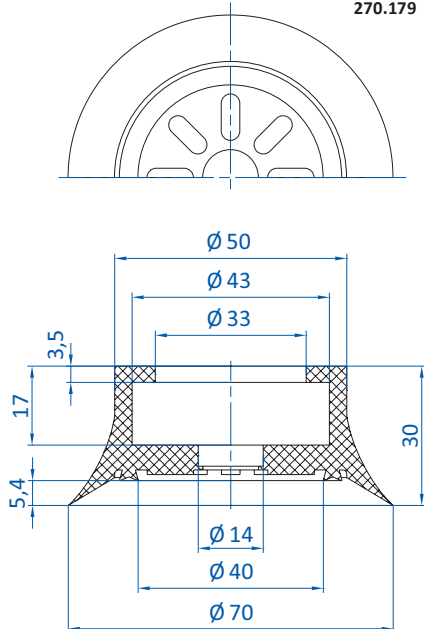
This vacuum cup is also available in the following dimensions: 46 mm

Connection	
270.256	M8-male --
270.012	G1/8-male --
270.020	G1/8-female --
270.451	G1/4-male --
270.452	G1/4-female --



Item no. 125.066.027._*	Material NBR (sw), SI (tr), NR (sw)	0.5 mm
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Connection	
270.179	G1/4-female --

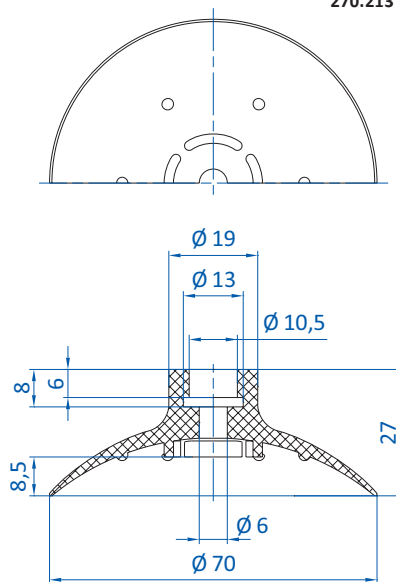


BESTSELLER

Item no. 102.070.234._*	Material NBR (gr), SBR (br), SI (tr), NR (bg), NR (br)	6 mm
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Details and additional sizes available are found on p. 42.

Connection	
270.213	G1/4-male --



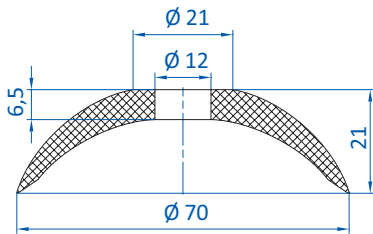
Item no. 102.070.325._*	Material Vulkollan® (br)	8.5 mm
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* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

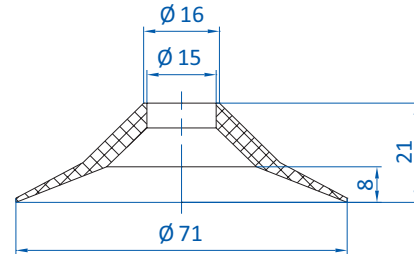
Ø 70 - 75 mm



Item no.
112.070.096._*

Material
NR (bg)

12 mm

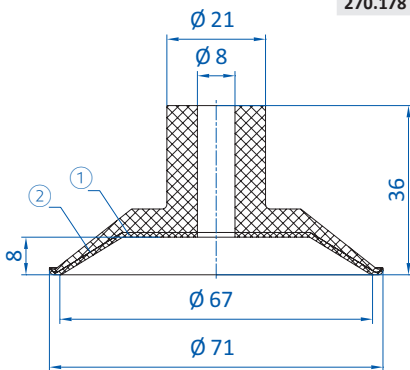


Item no.
107.070.029._*

Material
NR (br)

6 mm

	Connection	
270.132	G1/8-male	--
270.114	G1/8-female	--
270.208	G1/4-male	--
270.178	G1/4-female	--



**NON-MARKING!
TEMP. MAX. 500 °C
(932 °F)**

① = Felt pads ② = For silicone vacuum cups: Silicone blocker through evaporated aluminum layer

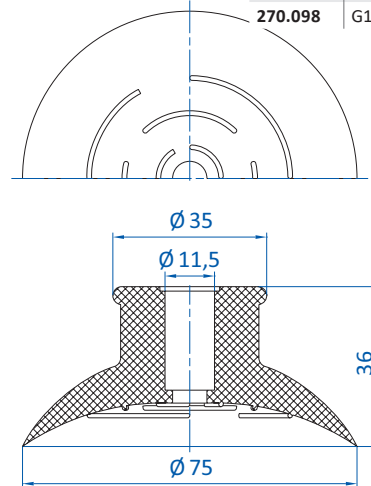
Item no.
26.070.011.2F

Material
SI (tr/ge)

7 mm

Details and additional sizes available are found on p. 394.

	Connection	
270.177	M10-male	--
270.049-1	G1/4-male	--
270.098	G1/4-female	--

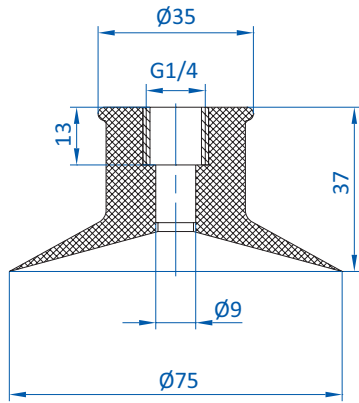


Item no.
114.075.012._*

Material
NR (br)

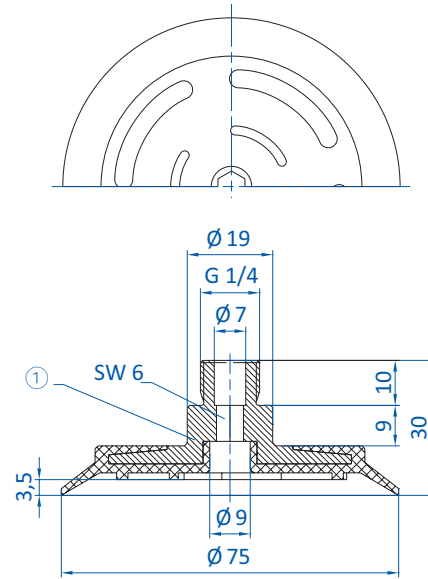
3.5 mm

* When ordering please add the appropriate material code to item no.



Item no.
120.075.075._*

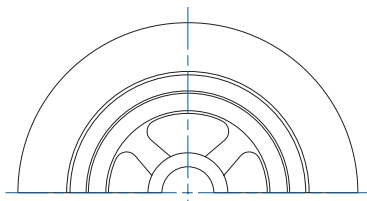
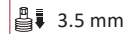
Material
NR (bg)



① = Aluminum

Item no.
103.075.025._*

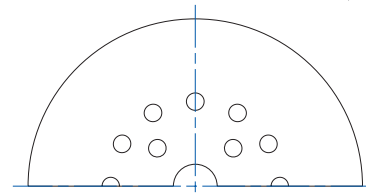
Material
Vulkollan® (br)



① = Aluminum

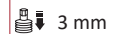
Item no.
150.075.033._*

Material
SI (r), FKM (sw), CR (sw)



Item no.
102.075.275._*

Material
NR (br)



270.044

Connection
G1/4-male

--

Details and additional sizes available are found on p. 46.

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 78 - 80 mm

Connection	
270.527-S	G1/8-female --
270.528-S	G3/8-female --
270.529-S	G1/2-female --

Item no.
154.078.027._*

Material
SI (tr), SI-LE (tr), CR (sw)

3 mm

Details and additional sizes available are found on p. 21.

① = Steel

Item no.
104.080.078._*

Material
SBR (br)

4.5 mm

Notes: Use: Picking up products of varying sizes

Connection	
270.338	M12x1.75-female --

Item no.
154.080.055._*

Material
NBR (gr), SI (tr), NR (sw)

6 mm

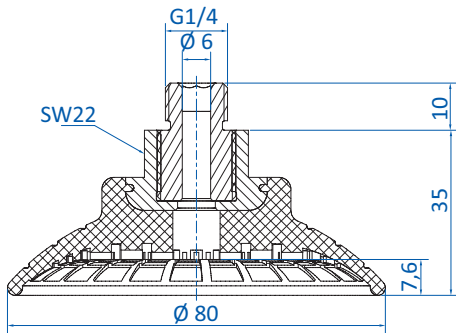
Connection	
270.042	G1/4-male --

Item no.
114.080.021._*

Material
NR (br)

9 mm

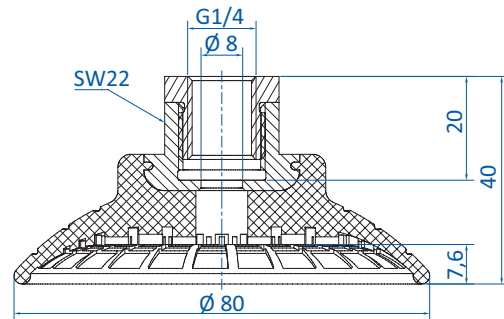
* When ordering please add the appropriate material code to item no.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 103.080.054.*	Material NBR (bl)	7.6 mm
----------------------------------	-----------------------------	--------

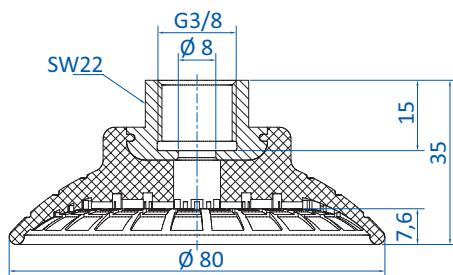
Details and additional sizes available are found on p. 38.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 103.080.055.*	Material NBR (bl)	7.6 mm
----------------------------------	-----------------------------	--------

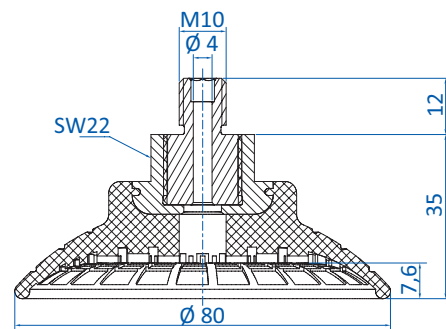
Details and additional sizes available are found on p. 38.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 103.080.056.*	Material NBR (bl)	7.6 mm
----------------------------------	-----------------------------	--------

Details and additional sizes available are found on p. 38.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 103.080.057.*	Material NBR (bl)	7.6 mm
----------------------------------	-----------------------------	--------

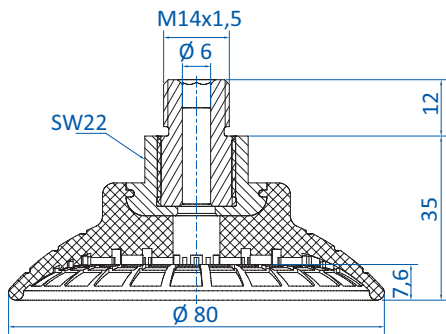
Details and additional sizes available are found on p. 38.

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 80 - 83 mm



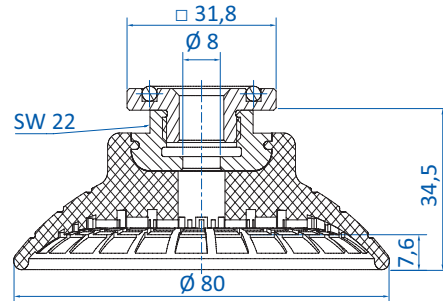
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
103.080.058._*

Material
NBR (bl)

7.6 mm

Details and additional sizes available are found on p. 38.



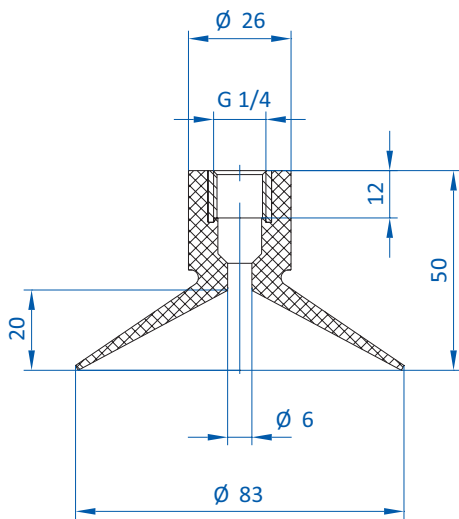
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
103.080.059._*

Material
NBR (bl)

7.6 mm

Details and additional sizes available are found on p. 38.



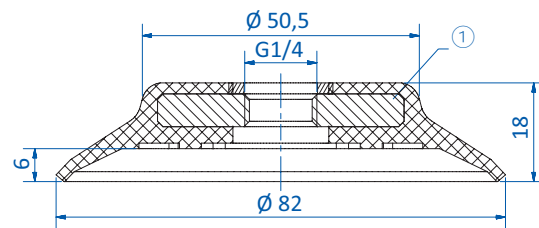
Item no.
120.080.052._*

Material
SI (tr)

12 mm

This vacuum cup is also available in the following dimensions: 42 mm, 53 mm, 62 mm

	Connection	
270.090	M10-female	--
270.120	G1/4-male	--



① = Aluminum

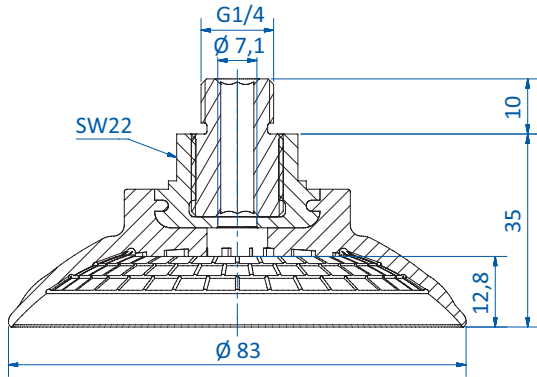
Item no.
102.080.304._*

Material
NBR (sw), SI (tr), SI-LE (tr),
Thermalon® (bl)

6 mm

Details and additional sizes available are found on p. 12.

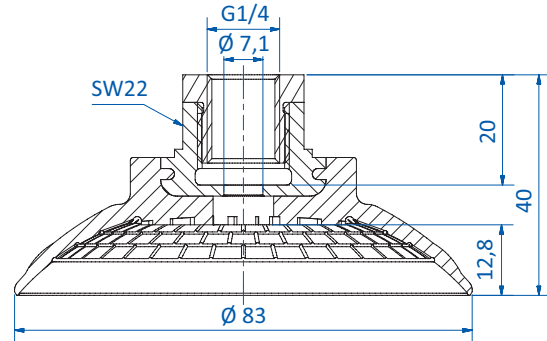
* When ordering please add the appropriate material code to item no.



FOR STRONGLY CURVED METAL SHEETS

Item no. 103.080.147.*	Material NBR (bl)	12.8 mm
----------------------------------	-----------------------------	---------

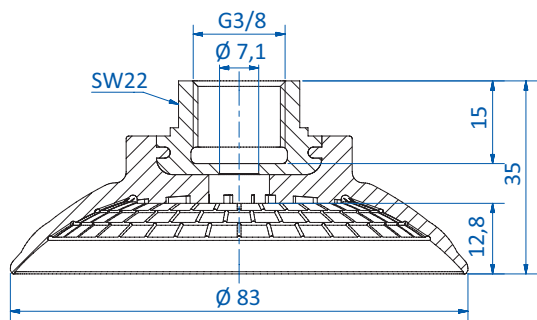
Details and additional sizes available are found on p. 40.



FOR STRONGLY CURVED METAL SHEETS

Item no. 103.080.139.*	Material NBR (bl)	12.8 mm
----------------------------------	-----------------------------	---------

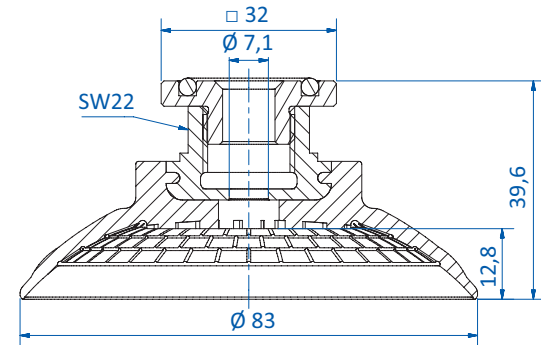
Details and additional sizes available are found on p. 40.



FOR STRONGLY CURVED METAL SHEETS

Item no. 103.080.090.*	Material NBR (bl)	12.8 mm
----------------------------------	-----------------------------	---------

Details and additional sizes available are found on p. 40.



FOR STRONGLY CURVED METAL SHEETS

Item no. 103.080.155.*	Material NBR (bl)	12.8 mm
----------------------------------	-----------------------------	---------

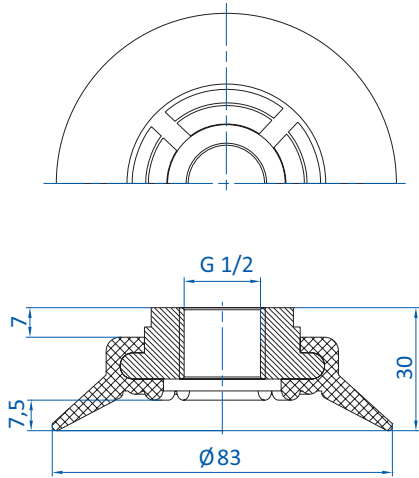
Details and additional sizes available are found on p. 40.

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 83 - 90 mm

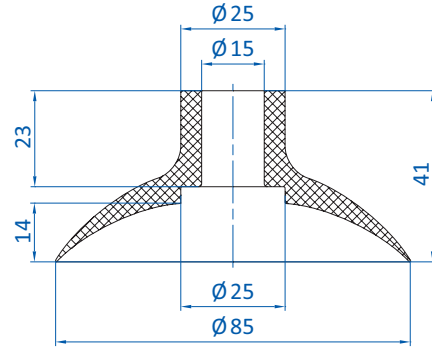


Item no.
100.083.060._*

Material
Vinyl (bl)

7.5 mm

	Connection	
270.216	G1/4-male	--



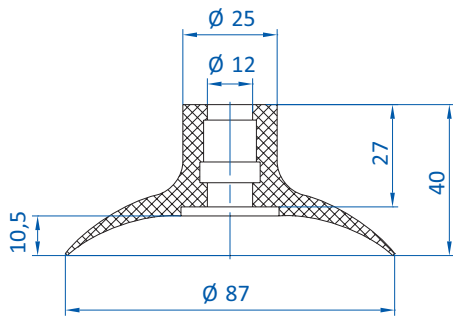
Item no.
112.085.102._*

Material
NBR (sw), SI (tr), NR (sw)

12 mm

Details and additional sizes available are found on p. 31.

	Connection	
270.338	M12x1.75-female	--
270.207	G1/4-male	--

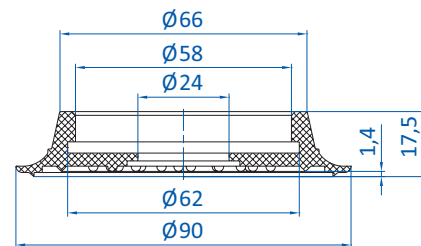


Item no.
112.087.089._*

Material
NR (sw)

9 mm

	Connection	
270.158	G1/8-female	--
270.264	G1/4-female	--
270.286	G1/2-female	--

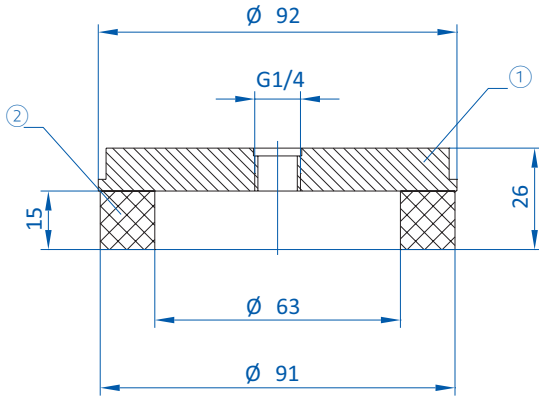


Item no.
154.090.010._*

Material
NR (sw)

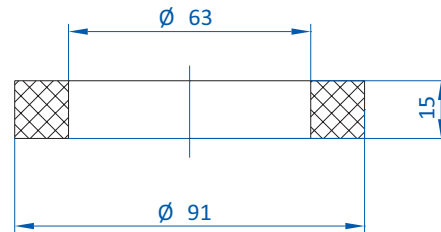
1.5 mm

* When ordering please add the appropriate material code to item no.



① = Aluminum ② = Sponge rubber NR

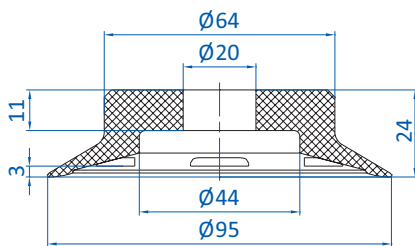
Item no. 206.092.007._*	Material Sponge rubber (or)	10 mm
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Item no. 208.092.002._*	Material Sponge rubber (or)	10 mm
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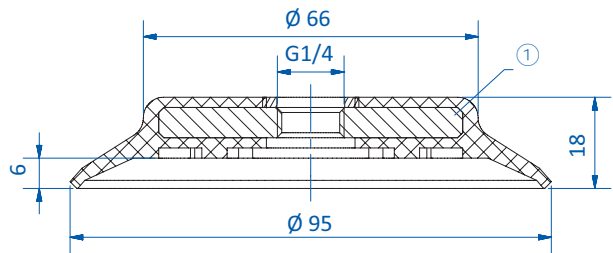
This vacuum cup is also available in the following dimensions: 64 mm

	Connection	
270.100	G1/4-male	--



Item no. 102.095.182._*	Material NR (bg)	2.5 mm
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	Connection	
270.090	M10-female	--
270.120	G1/4-male	--



① = Aluminum

Item no. 102.095.305._*	Material NBR (sw), SI (tr), SI-LE (tr), Thermalon® (bl)	6 mm
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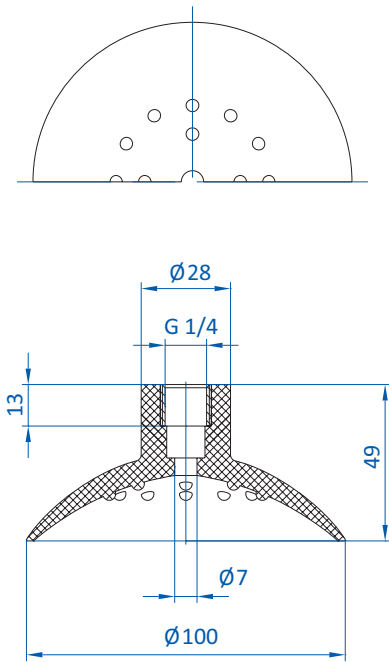
Details and additional sizes available are found on p. 12.

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 100 mm

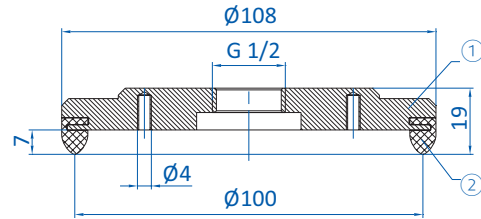


Item no.
110.100.103._*

Material
NBR (sw)

13 mm

This vacuum cup is also available in the following dimensions: 43 mm, 50 mm, 62 mm, 81 mm



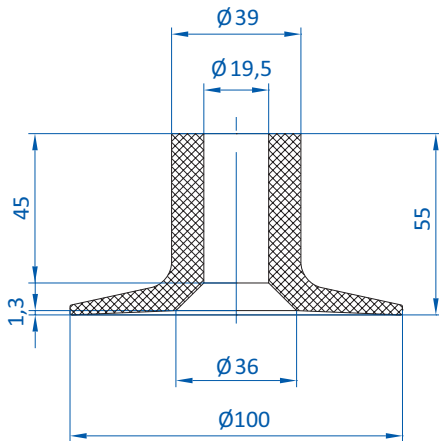
① = Aluminum ② = EPDM foamed

Item no.
160.107.006._*

Material
EPDM (sw)

1 mm

Details and additional sizes available are found on p. 48.
Notes: Foam sealing lip equalizes product unevenness



Item no.
102.100.100._*

Material
NR (bg)

0.5 mm

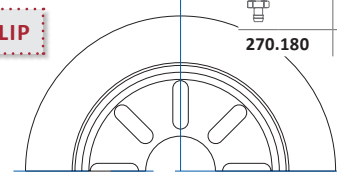
FLEXIBLE LIP



270.180

Connection
G1/4-female

--



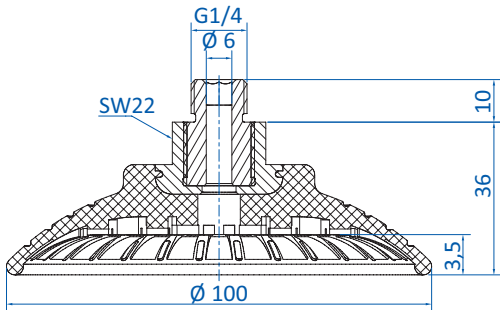
Item no.
102.100.269._*

Material
SBR (br), NBR (gr), NR (br)

5 mm

Details and additional sizes available are found on p. 42.

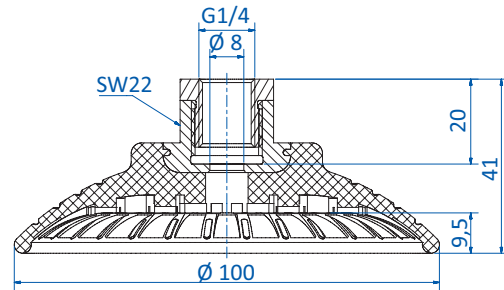
* When ordering please add the appropriate material code to item no.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 103.100.060.*	Material NBR (bl)	9.5 mm
----------------------------------	-----------------------------	--------

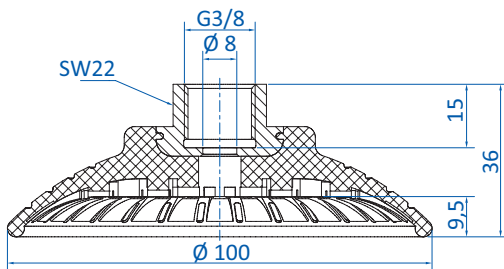
Details and additional sizes available are found on p. 38.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 103.100.061.*	Material NBR (bl)	9.5 mm
----------------------------------	-----------------------------	--------

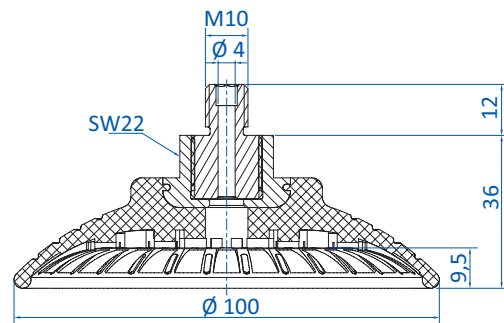
Details and additional sizes available are found on p. 38.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 103.100.062.*	Material NBR (bl)	9.5 mm
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Details and additional sizes available are found on p. 38.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 103.100.063.*	Material NBR (bl)	9.5 mm
----------------------------------	-----------------------------	--------

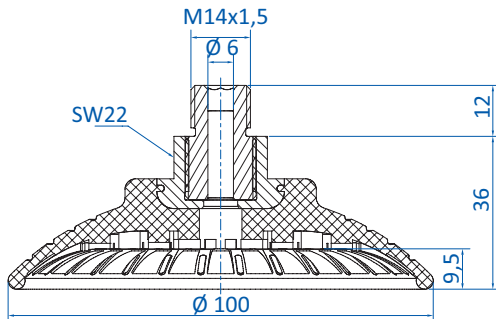
Details and additional sizes available are found on p. 38.

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

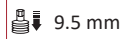
Ø 100 - 105 mm



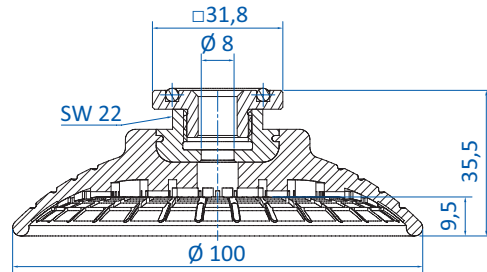
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
103.100.064._*

Material
NBR (bl)



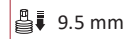
Details and additional sizes available are found on p. 38.



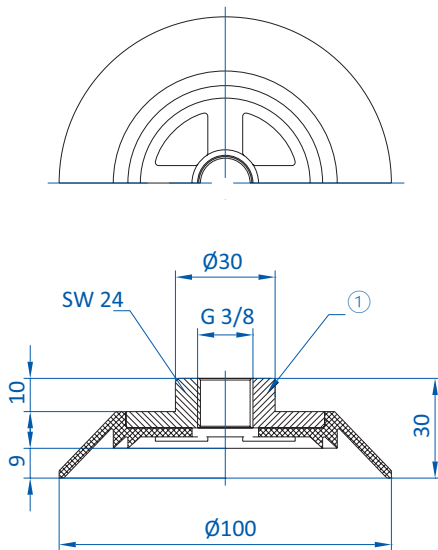
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
103.100.065._*

Material
NBR (bl)



Details and additional sizes available are found on p. 38.



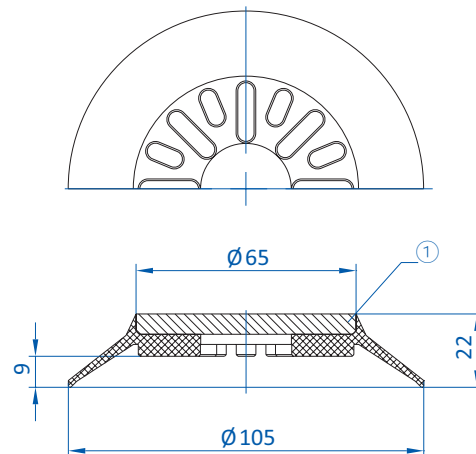
① = Aluminum

Item no.
150.100.034._*

Material
NBR (sw), SI (tr), NR (w)



Details and additional sizes available are found on p. 46.



① = Steel

Item no.
152.105.094._*

Material
NBR (gr)

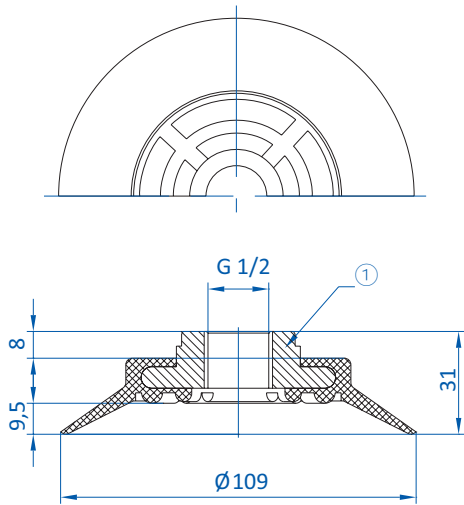


Ordering notes Customized drilling patterns on request

* When ordering please add the appropriate material code to item no.

Flat vacuum cups by size

Ø 109 - 117 mm

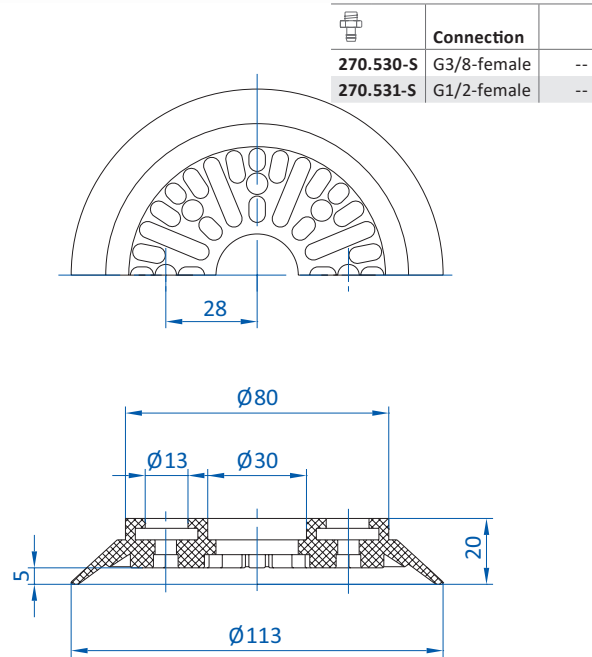


① = Aluminum

Item no.
100.109.059._*

Material
Vinyl (bl)

9.5 mm

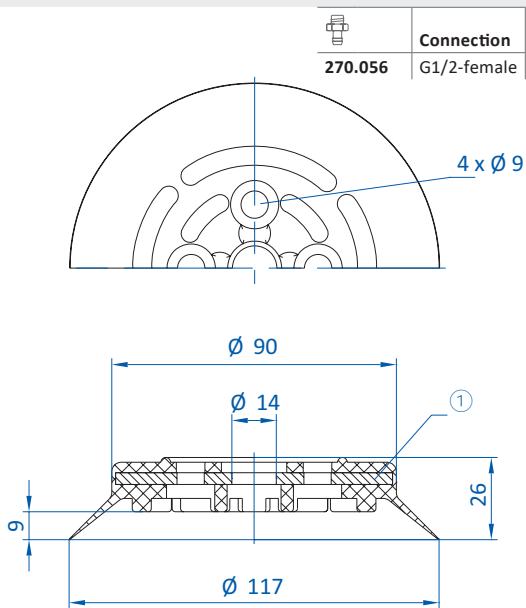


Item no.
154.113.028._*

Material
SI (tr), SI-LE (tr), CR (sw)

5 mm

Details and additional sizes available are found on p. 21.



① = Steel

Item no.
154.120.018._*

Material
NBR (sw), SI (tr), SI-LE (tr)

7 mm

Details and additional sizes available are found on p. 12.

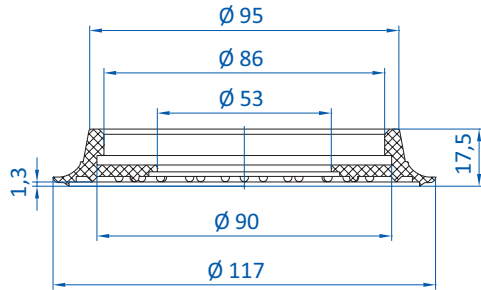
* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 117 - 125 mm

Item no.	Connection	
270.164	G1/8-female	--
270.224	G1/4-female	--
270.167	G3/8-female	--
270.266	G1/2-female	--

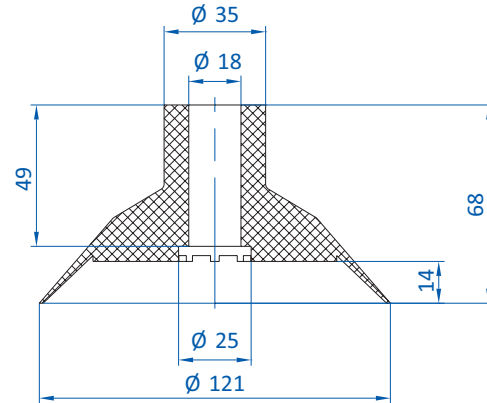
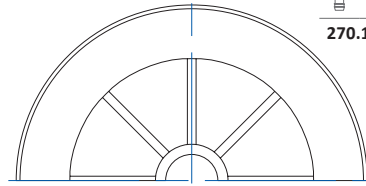


Item no.
154.120.017.*

Material
SI (tr), NR (sw), Vinyl (bl)

12.5 mm

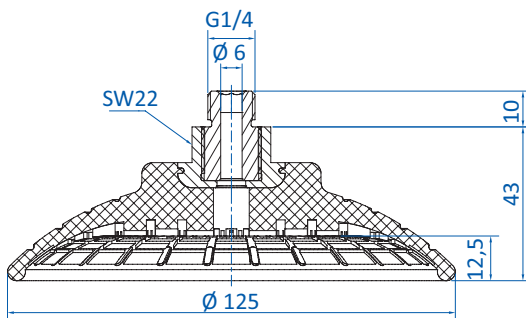
Item no.	Connection	
270.116	G1/4-female	--



Item no.
108.120.006.*

Material
NR (sw)

14 mm



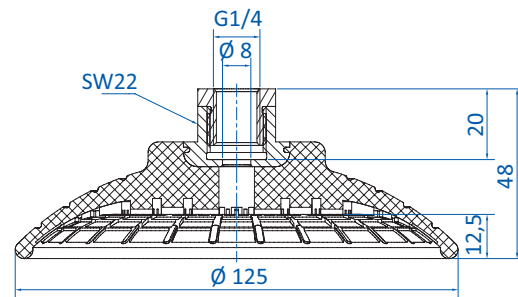
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
103.125.066.*

Material
NBR (bl)

12.5 mm

Details and additional sizes available are found on p. 38.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

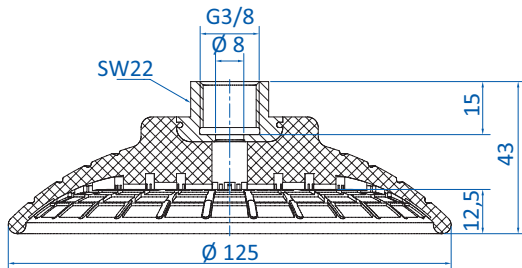
Item no.
103.125.067.*

Material
NBR (bl)

12.5 mm

Details and additional sizes available are found on p. 38.

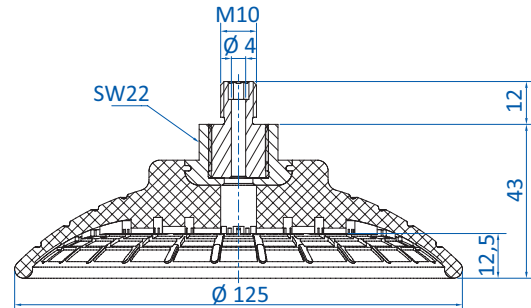
* When ordering please add the appropriate material code to item no.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 103.125.068._*	Material NBR (bl)	12.5 mm
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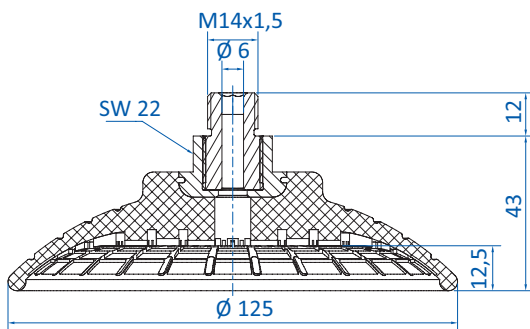
Details and additional sizes available are found on p. 38.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 103.125.069._*	Material NBR (bl)	12.5 mm
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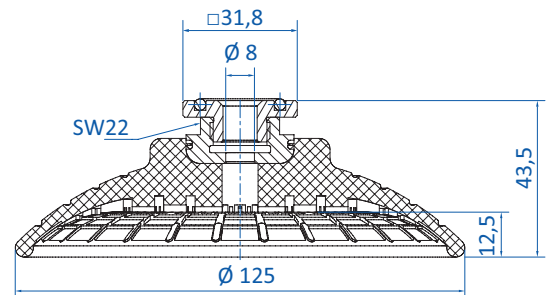
Details and additional sizes available are found on p. 38.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 103.125.070._*	Material NBR (bl)	12.5 mm
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Details and additional sizes available are found on p. 38.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 103.125.071._*	Material NBR (bl)	12.5 mm
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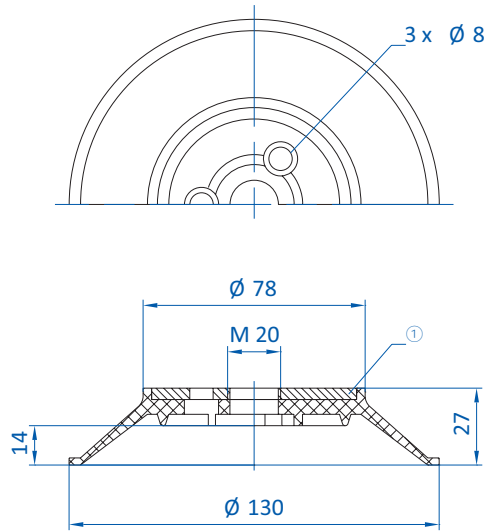
Details and additional sizes available are found on p. 38.

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 130 - 137 mm



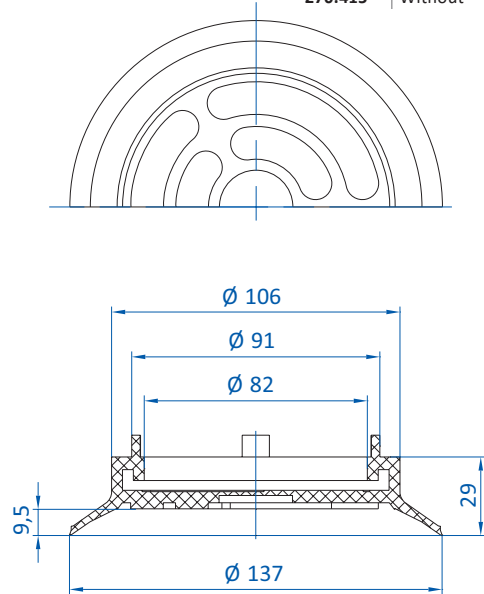
① = Steel

Item no.
100.130.058._*

Material
NR (sw)

14 mm

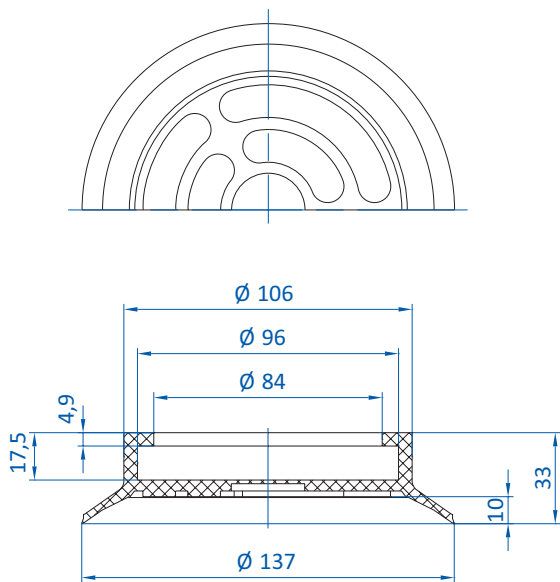
	Connection	
270.415	Without	--



Item no.
102.130.258._*

Material
SBR (sw)

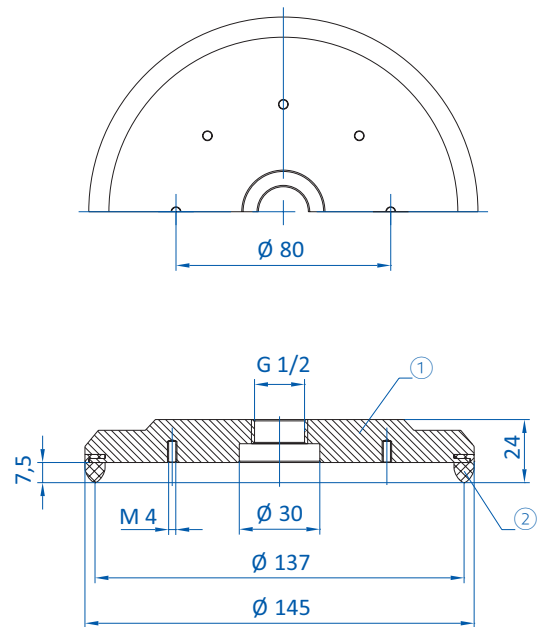
10 mm



Item no.
102.135.256._*

Material
NBR (gr), SBR (sw)

11 mm



① = Aluminum ② = EPDM foamed

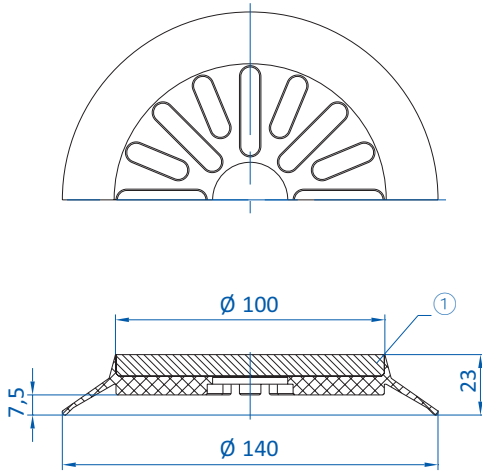
Item no.
160.145.014._*

Material
EPDM (sw)

1 mm

Details and additional sizes available are found on p. 48.
Notes: Foam sealing lip equalizes product unevenness

* When ordering please add the appropriate material code to item no.



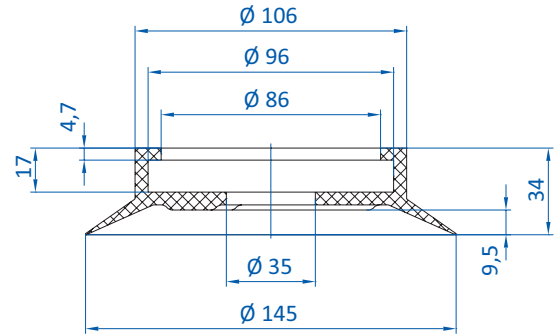
① = Steel

Item no.
152.140.096._*

Material
NBR (gr)

8 mm

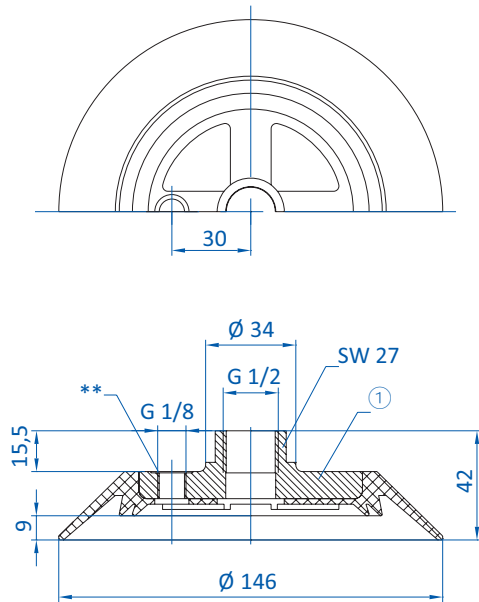
Ordering notes Customized drilling patterns on request



Item no.
102.145.257._*

Material
NBR (gr), SBR (sw)

9 mm



① = Aluminum ** = Vacuum connection at the side possible

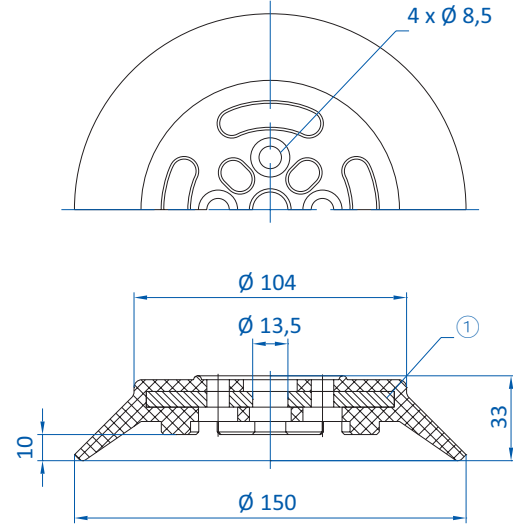
Item no.
150.150.010._*

Material
SI (gr), CR (gr)

9 mm

Details and additional sizes available are found on p. 46.

	Connection	
270.056	G1/2-female	--
	4 x Ø 8,5	



① = Steel

Item no.
154.150.020._*

Material
NBR (sw), SI (tr), SI-LE (tr)

9 mm

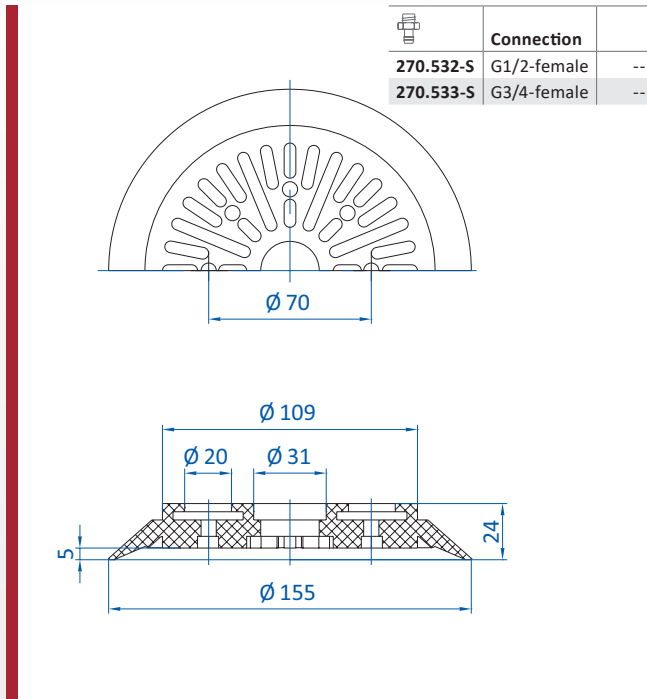
Details and additional sizes available are found on p. 12.

* When ordering please add the appropriate material code to item no.



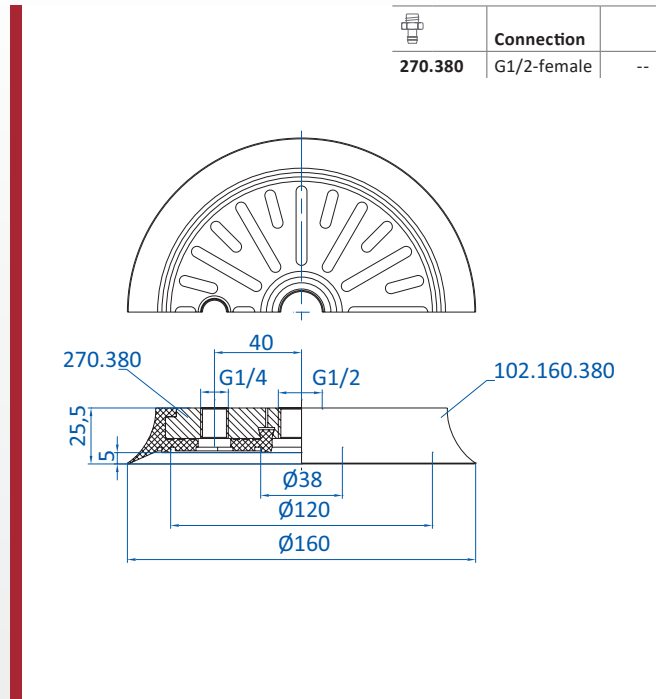
Flat vacuum cups by size

Ø 155 - 160 mm



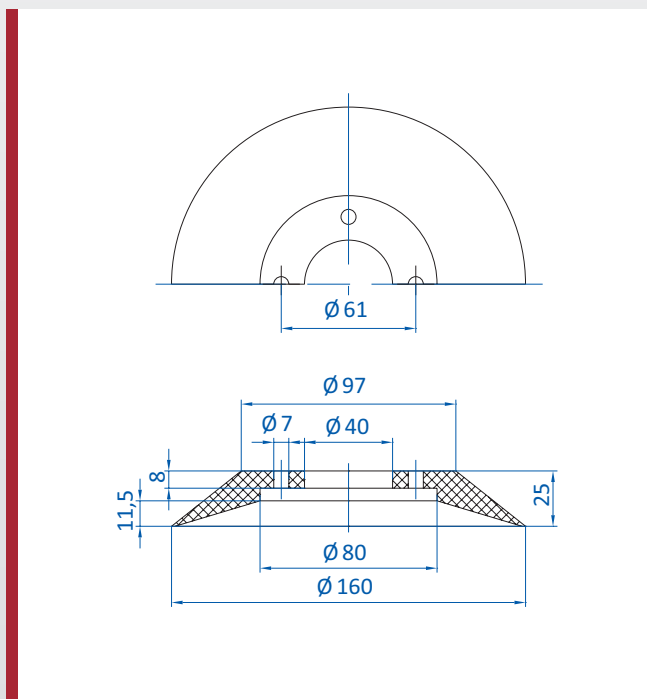
Item no. 154.155.026.* **Material** CR (sw) 5 mm

Details and additional sizes available are found on p. 21.

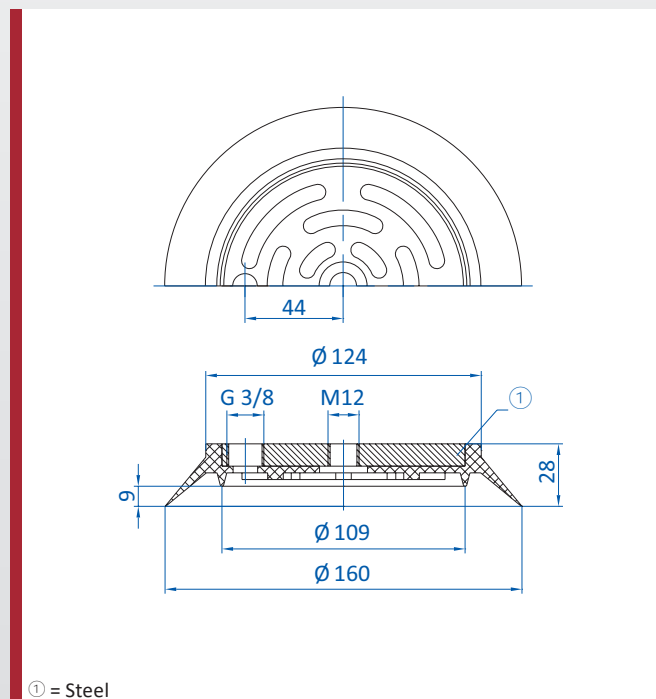


Item no. 102.160.380.* **Material** NR (bg) 6 mm

Ordering notes Elastomer seal and carrier plate 270.380 must be ordered separately



Item no. 102.160.031.* **Material** SI (r), NR (gr) 10 mm



Item no. 152.160.127.9 **Material** CR (sw) 9 mm

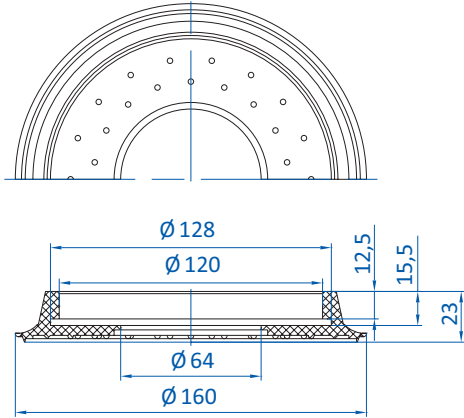
① = Steel

Details and additional sizes available are found on p. 49.

* When ordering please add the appropriate material code to item no.



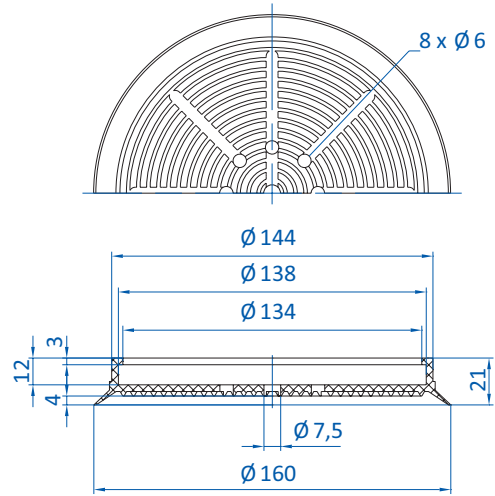
	Connection	
270.171	G1/4-female	--
270.173	G3/8-female	--
270.268	G1/2-female	--



Item no.
154.160.024._*

Material
SI (tr), NR (sw)

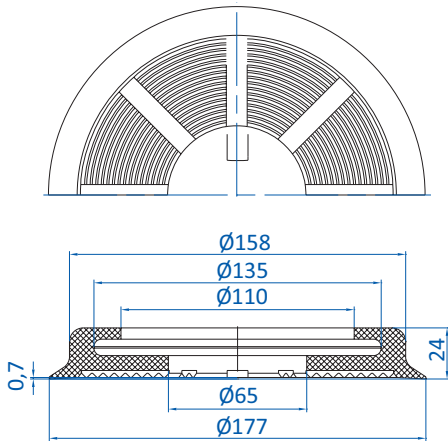
3 mm



Item no.
154.160.049._*

Material
NBR (gr), SI (tr)

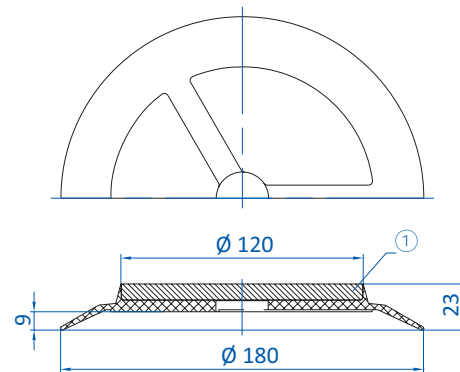
4.7 mm



Item no.
154.177.053._*

Material
SI (tr), SI-LE (tr)

0.5 mm



① = Steel

Item no.
152.180.067._*

Material
NBR (gr)

9 mm

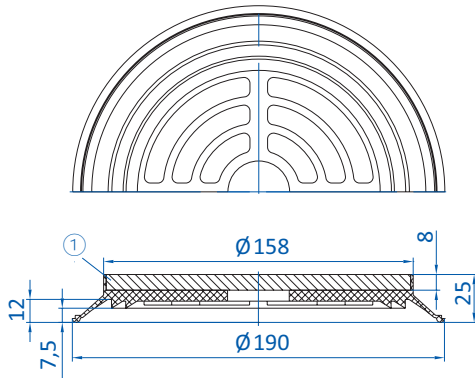
Ordering notes Customized drilling patterns on request

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 190 - 200 mm



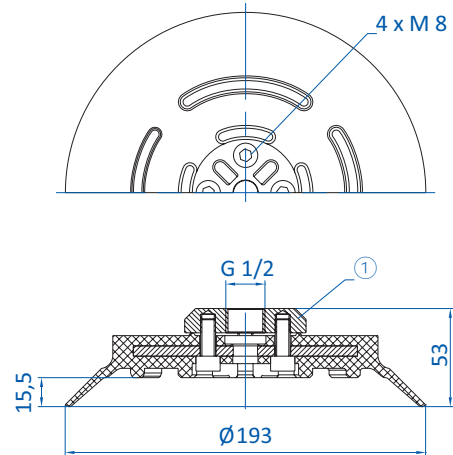
① = Steel

Item no.
152.190.080.*

Material
SBR (br), NBR (gr)

10 mm

Ordering notes Customized drilling patterns on request



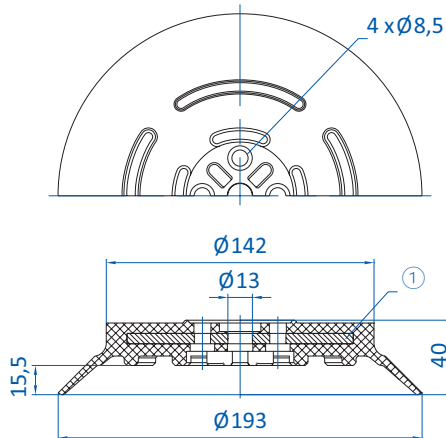
① = Aluminum

Item no.
152.191.025.*

Material
NBR (sw), SI (tr), PU (bl)

13 mm

Connection	
270.056	G1/2-female --



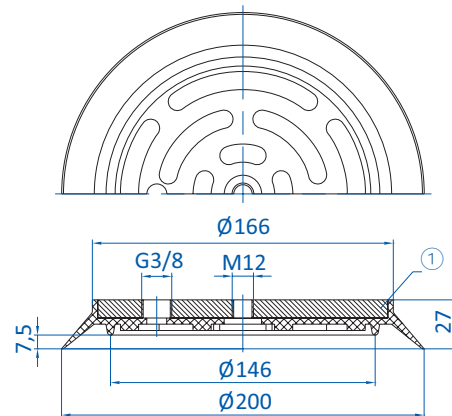
① = Steel

Item no.
154.191.025.*

Material
NBR (sw), SI (tr), SI-LE (tr), PU (bl)

13 mm

Details and additional sizes available are found on p. 12.



① = Steel

Item no.
152.200.128.1

Material
CR (sw)

9 mm

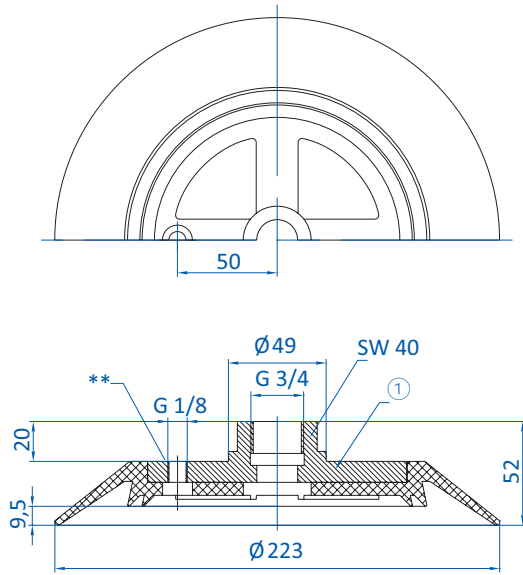
Details and additional sizes available are found on p. 12.

* When ordering please add the appropriate material code to item no.



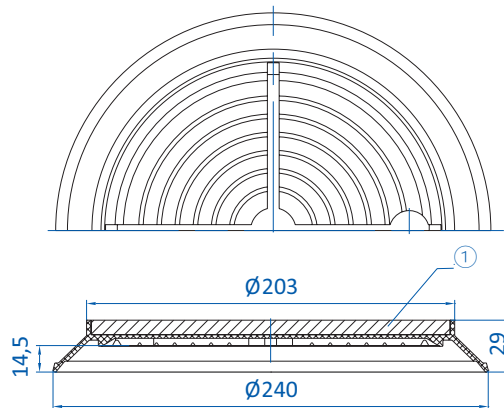
Flat vacuum cups by size

Ø 223 - 240 mm



① = Aluminum ** = Vacuum connection at the side possible

Item no. 150.225.018._*	Material SI (gr), CR (gr)	9.5 mm	Details and additional sizes available are found on p. 46.
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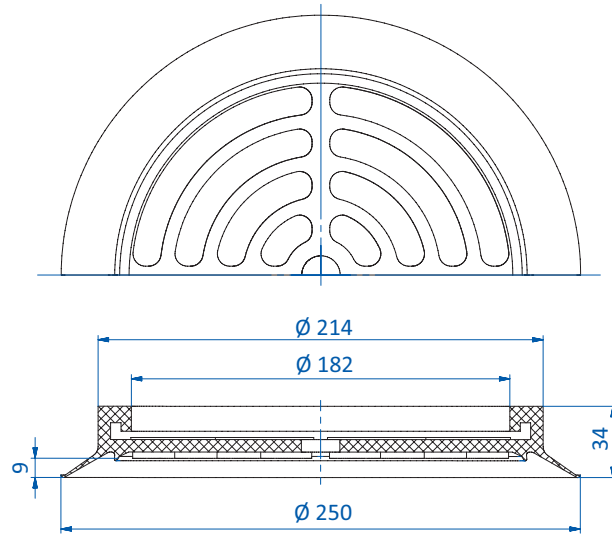
① = Steel

Item no. 152.240.046._*	Material NBR (gr), SBR (sw)	14 mm	Ordering notes Customized drilling patterns on request
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* When ordering please add the appropriate material code to item no.



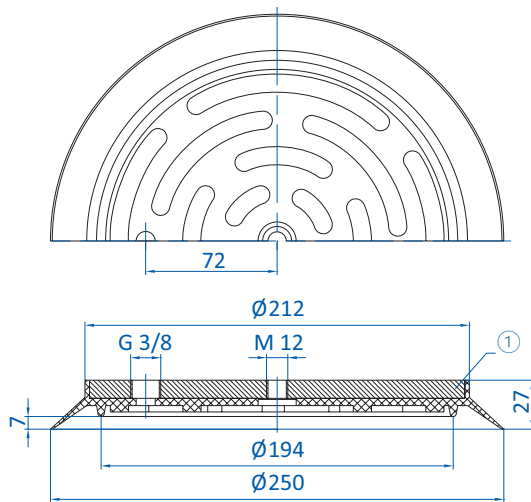
	Connection	
270.236	G1/2-female	--



Item no.
102.250.261.*

Material
SBR (sw)

8.5 mm



① = Steel

Item no.
152.250.129.1

Material
CR (sw)

9 mm

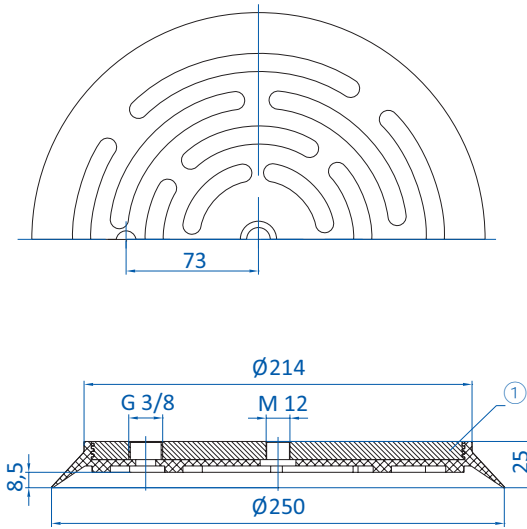
Details and additional sizes available are found on p. 49.

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 250 - 285 mm

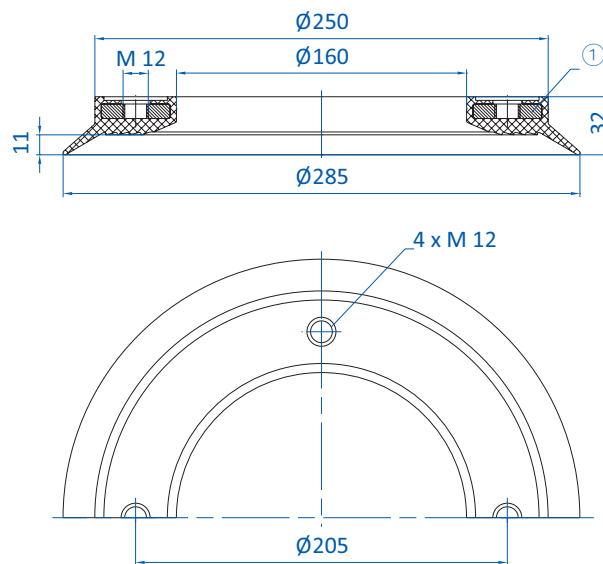


① = Steel

Item no.
152.250.031._*

Material
NBR (sw)

11 mm



① = Ring made of vulcanized steel

Item no.
152.285.099.1

Material
NBR (sw)

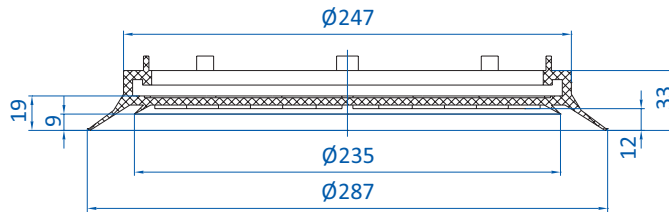
11 mm

Details and additional sizes available are found on p. 50.

* When ordering please add the appropriate material code to item no.



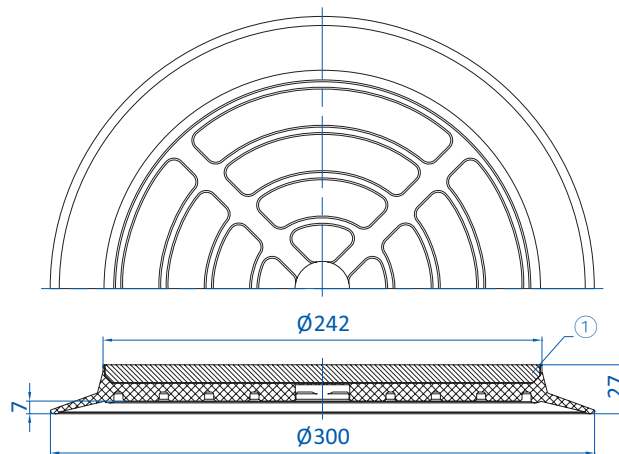
	Connection	
270.535	Without	--



Item no.
102.290.262._*

Material
SBR (sw)

15 mm



① = Steel

Item no.
152.300.098._*

Material
NBR (gr)

7 mm

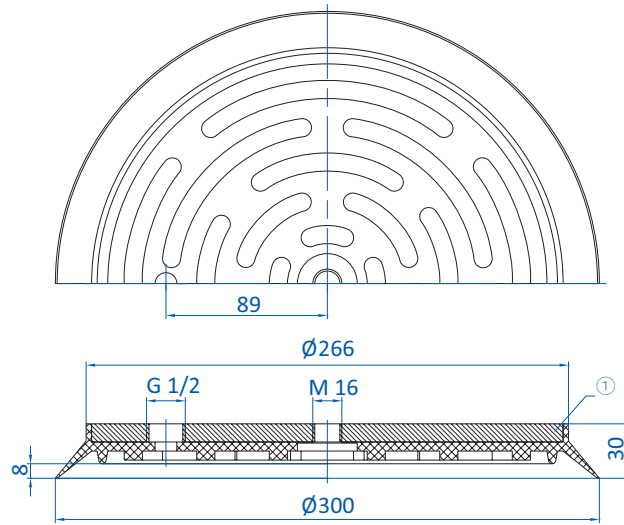
Ordering notes Customized drilling patterns on request

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size


Ø 300 - 350 mm



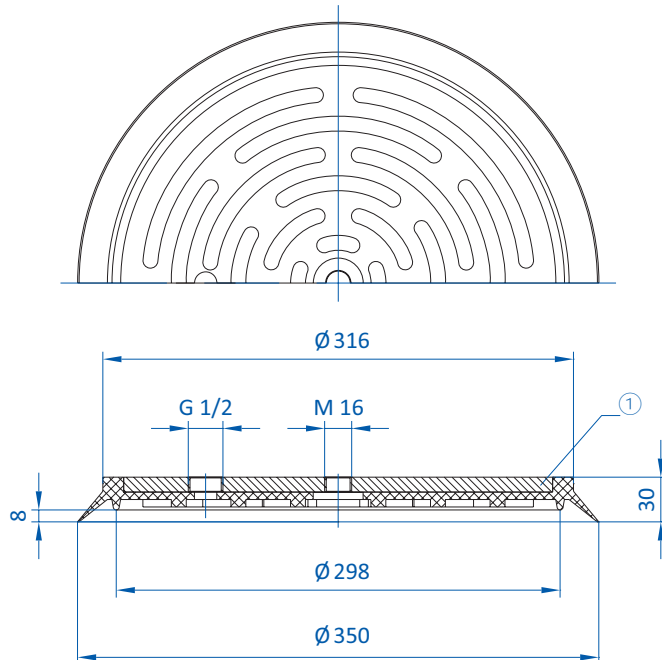
① = Steel

Item no.
152.300.130.1

Material
NBR (sw)

 12 mm


Details and additional sizes available are found on p. 49.



① = Steel

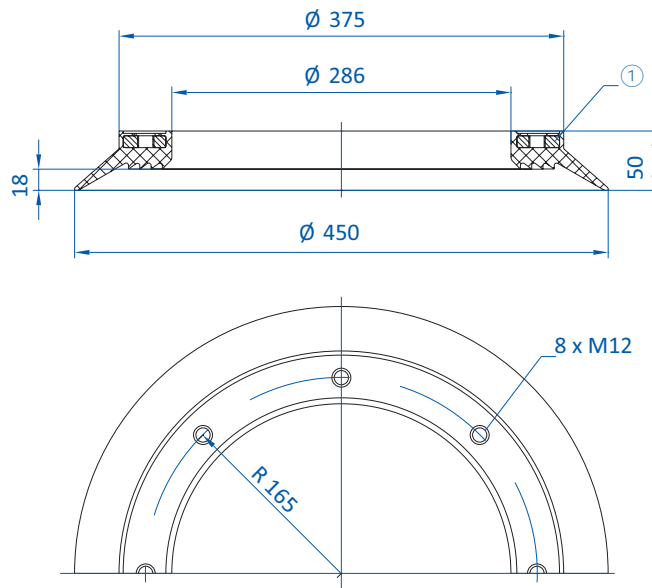
Item no.
152.350.131.1

Material
NBR (sw)

 13 mm

Details and additional sizes available are found on p. 49.

* When ordering please add the appropriate material code to item no.



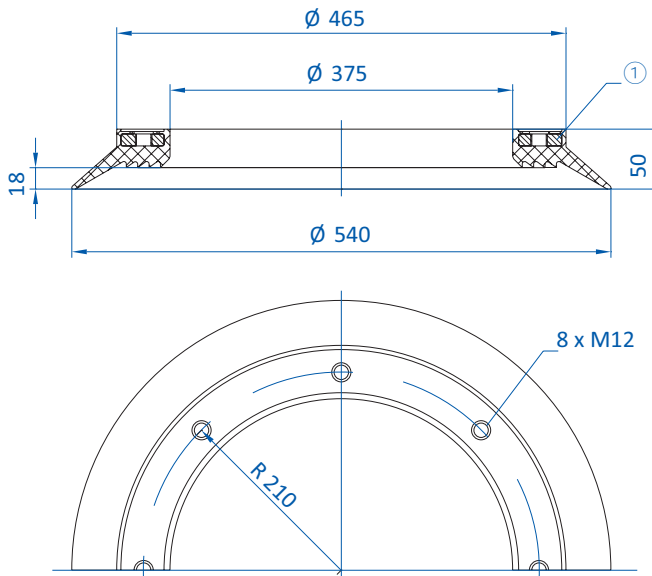
① = Ring made of vulcanized steel

Item no.
152.450.105.1

Material
NBR (sw)

18 mm

Details and additional sizes available are found on p. 50.



① = Ring made of vulcanized steel

Item no.
152.540.106.1

Material
NBR (sw)

18 mm

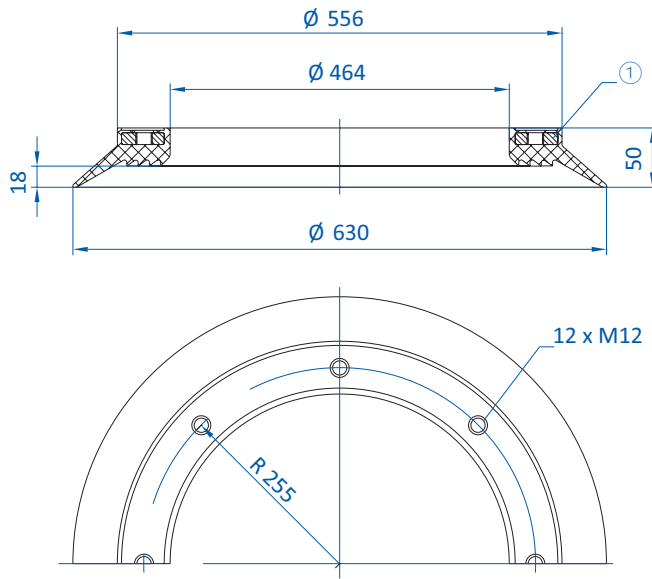
Details and additional sizes available are found on p. 50.

* When ordering please add the appropriate material code to item no.



Flat vacuum cups by size

Ø 630 - 720 mm



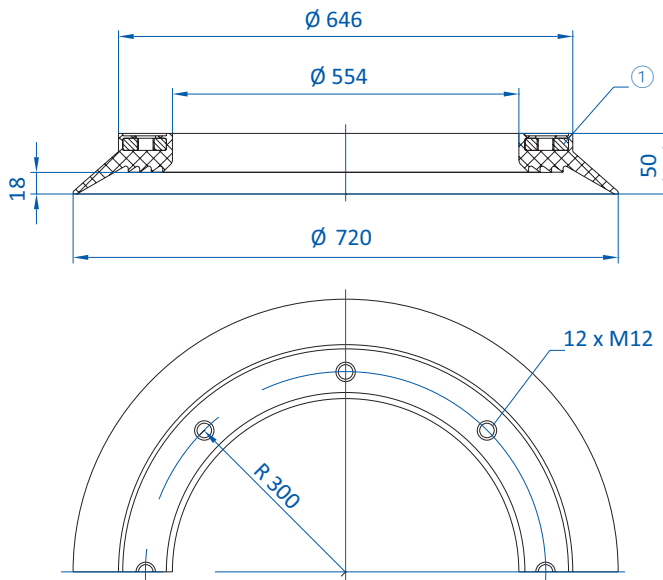
① = Ring made of vulcanized steel

Item no.
152.630.107.1

Material
NBR (sw)

18 mm

Details and additional sizes available are found on p. 50.



① = Ring made of vulcanized steel

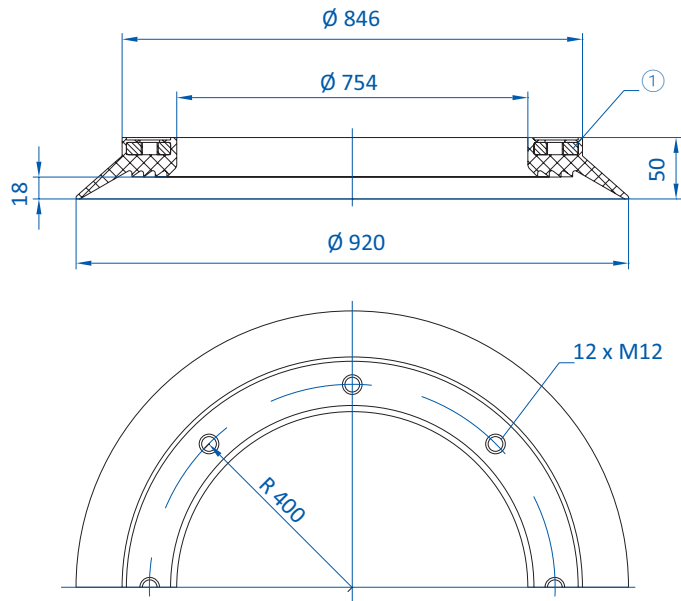
Item no.
152.720.108.1

Material
NBR (sw)

18 mm


Details and additional sizes available are found on p. 50.

* When ordering please add the appropriate material code to item no.



Item no.
152.920.109.1

Material
NBR (sw)

 18 mm

Details and additional sizes available are found on p. 50.

* When ordering please add the appropriate material code to item no.

Bellows vacuum cups series	147
All bellows vacuum cups by size	
up to Ø 10 mm	223
Ø 11 - 20 mm	231
Ø 21 - 30 mm	249
Ø 31 - 40 mm	260
Ø 41 - 60 mm	272
Ø 61 - 80 mm	286
Ø 81 - 150 mm	293
larger Ø 150 mm	302



Bellows vacuum cups, universal, 1.5 folds – SBU 1



Product notes

Universal bellows vacuum cups with 1.5 folds for handling sensitive or uneven products.
Connection up to \varnothing 75 mm by means of plug-in nipple, from \varnothing 88 mm with vulcanized bracket.

Advantage

- > Bellows compensate for differences in height and enable good adaptation to curved or uneven product surfaces
- > Soft attachment for sensitive products
- > Cost-effective replacement of worn seals

Technical data

Item no.	Model		Number of folds	Material / Color	Connection thread
23.005.181.*	SBU 1-5	2	1.5	NBR (sw), SI (tr), SI-LE (tr)	--
23.011.008.*	SBU 1-11	4.5	1.5	NBR (sw), SI (tr), SI-LE (tr)	--
23.013.120.*	SBU 1-13	4	1.5	NBR (sw), SI (tr), SI-LE (tr), NR (gr)	--
23.016.016.*	SBU 1-16	6	1.5	NBR (sw), SI (tr), SI-LE (tr)	--
23.019.119.*	SBU 1-19	4	1.5	NBR (sw), SI (tr), SI-LE (tr)	--
23.022.028.*	SBU 1-22	8	1.5	NBR (sw), SI (tr), SI-LE (tr)	--
23.025.137.*	SBU 1-25	9	1.5	NBR (sw), SI (tr), SI-LE (tr), NR (gr)	--
23.033.039.*	SBU 1-33	12	1.5	NBR (sw), SI (tr), SI-LE (tr), NR (gr)	--
23.043.096.*	SBU 1-43	12	1.5	NBR (sw), SI (tr), NR (gr)	--
23.053.033.*	SBU 1-53	11	1.5	NBR (sw), SI (tr), SI-LE (tr), NR (gr)	--
23.075.151.*	SBU 1-75	20	1.5	NBR (sw), SI (tr), SI-LE (tr)	--
22.088.158.*	SBU 1-88	23	1.5	NBR (sw), SI (tr), SI-LE (tr)	G1/4-male
22.088.159.*	SBU 1-88	23	1.5	NBR (sw), SI (tr), SI-LE (tr)	G1/4-female

Continued on the next page

* When ordering please add the appropriate material code to item no.



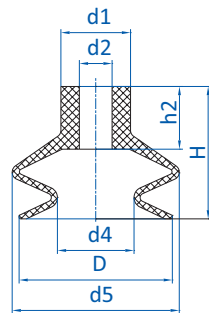
Bellows vacuum cups series

Bellows vacuum cups, universal, 1.5 folds – SBU 1

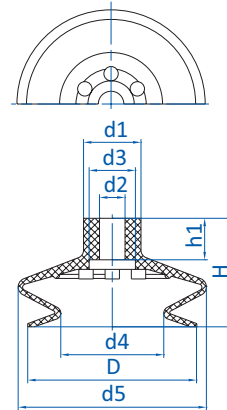
Accessories

Item no.	Suitable fittings								Suitable spring lever (Snap-in)		
	M5-male	M5-female	M6-male	M10-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female	Spring lever	Hose outside Ø	
23.005.181.*	270.195	--	--	--	--	--	--	--	--	--	--
23.011.008.*	270.013	270.005	270.103	--	270.003	270.015	--	--	50.037	25	--
23.013.120.*	270.013	270.005	270.103	--	270.003	270.015	--	--	50.037	25	--
23.016.016.*	270.013	270.005	270.103	--	270.003	270.015	--	--	50.037	25	--
23.019.119.*	270.013	270.005	270.103	--	270.003	270.015	270.194	--	50.037	25	--
23.022.028.*	270.013	270.005	270.103	--	270.003	270.015	270.194	--	50.037	25	--
23.025.137.*	270.013	270.005	270.103	--	270.003	270.015	270.194	--	50.037	25	--
23.033.039.*	--	--	270.315	--	270.196	270.114	270.190	270.192	--	--	--
23.043.096.*	--	--	270.315	--	270.196	270.114	270.190	270.192	--	--	--
23.053.033.*	--	--	270.315	--	270.196	270.114	270.190	270.192	--	--	--
23.075.151.*	--	--	--	270.177	--	--	270.451	270.452	--	--	--
22.088.158.*	--	--	--	--	--	--	--	--	--	--	--
22.088.159.*	--	--	--	--	--	--	--	--	--	--	--

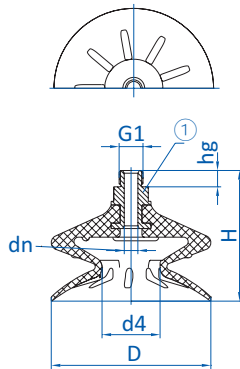
Dimensions



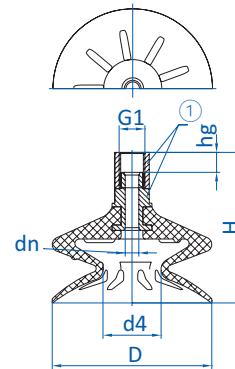
Drawing A



Drawing B



Drawing C



Drawing D

① = Aluminum fitting, vulcanized

* When ordering please add the appropriate material code to item no.



Item no.	Drawing	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	Ø d5 [mm]	Ø dn [mm]	G1	H [mm]	h1 [mm]	h2 [mm]	hg [mm]
23.005.181._*	A	5	3	1.5	--	2	5	--	--	13	--	9.5	--
23.011.008._*	A	12	10	5	--	4.5	12	--	--	16	--	9	--
23.013.120._*	A	13.5	10	3.8	--	5	13.5	--	--	16	--	9	--
23.016.016._*	A	16	10	5	--	8	17	--	--	19	--	9	--
23.019.119._*	A	18.5	11.5	4.5	--	11.2	19.7	--	--	15	--	8.7	--
23.022.028._*	A	22	10	4.7	--	11	24	--	--	19	--	9	--
23.025.137._*	A	24	10	4	--	10	24	--	--	23	--	9	--
23.033.039._*	B	33.5	18	8	16.5	17	36	--	--	28	13	--	--
23.043.096._*	B	43	18	8	14.5	23	45	--	--	27	12	--	--
23.053.033._*	B	53	18	8	14.5	32	59	--	--	34	13	--	--
23.075.151._*	B	75	27	11	--	43	70.5	--	--	52	--	22	--
22.088.158._*	C	88	--	--	--	32	88	7.5	G1/4	72	--	--	9
22.088.159._*	D	88	--	--	--	32	88	7.5	G1/4	83	--	--	11

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups series

Bellows vacuum cups, universal, 1.5 folds – SKT-B1

Bellows vacuum cups, universal, 1.5 folds – SKT-B1



Product notes

Universal bellows vacuum cup with 1.5 folds for handling delicate or uneven products.
Connection by means of plug nipple.

Advantage

- > Bellows compensate for differences in height and enable a gentle touchdown on sensitive product surfaces
- > Soft sealing lip adapts to uneven surfaces
- > Cost-effective replacement of worn seals

Technical data

Item no.	Model	Number of folds	Material / Color
23.005.286.*	SKT-B1-5	2	NBR (sw), SI (tr)
23.011.234.*	SKT-B1-11	5.5	NBR (sw), SI (tr)
23.014.235.*	SKT-B1-14	5	NBR (sw), SI (tr)
23.016.236.*	SKT-B1-16	8.5	NBR (sw), SI (tr)
23.018.237.*	SKT-B1-18	5	NBR (sw), SI (tr)
23.020.238.*	SKT-B1-20	5	NBR (sw), SI (tr)
23.022.239.*	SKT-B1-22	8	NBR (sw), SI (tr)
23.025.240.*	SKT-B1-25	12	NBR (sw), SI (tr)
23.033.241.*	SKT-B1-33	11	NBR (sw), SI (tr)
23.043.242.*	SKT-B1-43	12.5	NBR (sw), SI (tr), SI-LE (tr)
23.053.243.*	SKT-B1-53	15	NBR (sw), SI (tr), SI-LE (tr)
23.063.244.*	SKT-B1-63	15	NBR (sw), SI (tr)

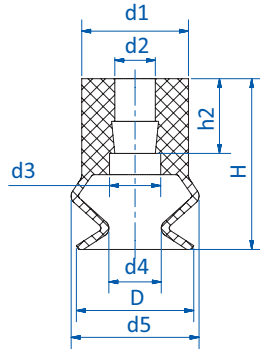
Accessories

Item no.	Suitable fittings						
	M5-male	M5-female	M6-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
23.005.286.*	270.772	--	--	--	--	--	--
23.011.234.*	270.772	270.347	270.104	270.033	270.478	--	--
23.014.235.*	270.772	270.347	270.104	270.033	270.478	--	--
23.016.236.*	270.772	270.347	270.104	270.033	270.478	--	--
23.018.237.*	270.772	270.347	270.104	270.033	270.478	--	--
23.020.238.*	270.772	270.347	270.104	270.033	270.478	--	--
23.022.239.*	270.772	270.347	270.104	270.033	270.478	--	--
23.025.240.*	270.772	270.347	270.104	270.033	270.478	--	--
23.033.241.*	--	--	270.315	270.196	270.114	270.190	270.192
23.043.242.*	--	--	270.315	270.196	270.114	270.190	270.192
23.053.243.*	--	--	270.315	270.196	270.114	270.190	270.192
23.063.244.*	--	--	270.315	270.196	270.114	270.190	270.192

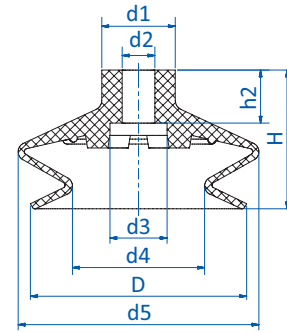
* When ordering please add the appropriate material code to item no.



Dimensions



Drawing A



Drawing B

Item no.	Drawing	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	Ø d5 [mm]	H [mm]	h2 [mm]
23.005.286.*	A	5.5	7	3.8	--	2.5	6	11	7
23.011.234.*	A	11	10	3.8	4.8	4.9	12	16	7
23.014.235.*	A	14	10	3.8	4.8	4.8	14	16	7
23.016.236.*	A	16	10	3.8	4.8	8.2	17.5	19	7
23.018.237.*	A	18	10	3.8	4.8	7.8	18	16.5	7
23.020.238.*	A	19	10	3.8	4.8	10.6	20	16	7
23.022.239.*	A	22	10	3.8	4.8	11.4	24	19	7
23.025.240.*	A	24	10	3.8	4.8	9.2	25	23	7
23.033.241.*	B	33	18	8	16	17	36	27.5	13
23.043.242.*	B	43	18	8	14	22.5	46	28	13
23.053.243.*	B	53	18	8	14	32.4	59	34	13
23.063.244.*	B	63	18	8	14	42.5	67	34	13

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups series

High-temperature Thermalon® bellows cups, 1.5 folds – SKT-B1

High-temperature Thermalon® bellows cups, 1.5 folds – SKT-B1



UP TO 160 °C (320 °F) & MINIMUM MARKING


Product notes

Bellows vacuum cups for uneven surfaces especially suited for removing hot plastic parts to be painted from an injection molding machine. Thermalon® is a material mixture specially optimized for the plastics industry with a hardness of 60° Shore A. Connection via plug-in nipple.

Advantage

- > Extremely low-marking
- > Free of silicone and other paint-wetting-impairment substances (PWIS)
- > Bellows compensate differences in height and enable good adaptation to curved or uneven product surfaces

Technical data

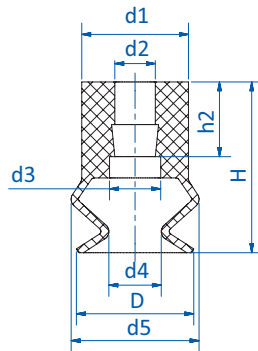
Item no.	Model		Number of folds	Material / Color	Short-term working temperature < 30 Sec [°C (°F)]
23.005.286.19	SKT-B1-5	2	1.5	Thermalon® (bl)	0 - 160 (32 - 320)
23.011.234.19	SKT-B1-11	5.5	1.5	Thermalon® (bl)	0 - 160 (32 - 320)
23.014.235.19	SKT-B1-14	5	1.5	Thermalon® (bl)	0 - 160 (32 - 320)
23.016.236.19	SKT-B1-16	8.5	1.5	Thermalon® (bl)	0 - 160 (32 - 320)
23.018.237.19	SKT-B1-18	5	1.5	Thermalon® (bl)	0 - 160 (32 - 320)
23.020.238.19	SKT-B1-20	5	1.5	Thermalon® (bl)	0 - 160 (32 - 320)
23.022.239.19	SKT-B1-22	8	1.5	Thermalon® (bl)	0 - 160 (32 - 320)
23.025.240.19	SKT-B1-25	12	1.5	Thermalon® (bl)	0 - 160 (32 - 320)
23.033.241.19	SKT-B1-33	11	1.5	Thermalon® (bl)	0 - 160 (32 - 320)
23.043.242.19	SKT-B1-43	12.5	1.5	Thermalon® (bl)	0 - 160 (32 - 320)
23.053.243.19	SKT-B1-53	15	1.5	Thermalon® (bl)	0 - 160 (32 - 320)
23.063.244.19	SKT-B1-63	15	1.5	Thermalon® (bl)	0 - 160 (32 - 320)



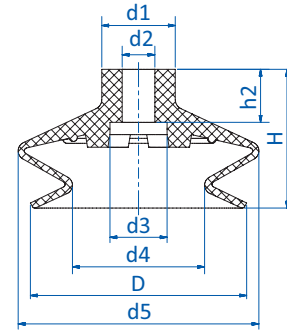
Accessories

Item no.	Suitable fittings						
	M5-male	M5-female	M6-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
23.005.286.19	270.772	--	--	--	--	--	--
23.011.234.19	270.772	270.347	270.104	270.033	270.478	--	--
23.014.235.19	270.772	270.347	270.104	270.033	270.478	--	--
23.016.236.19	270.772	270.347	270.104	270.033	270.478	--	--
23.018.237.19	270.772	270.347	270.104	270.033	270.478	--	--
23.020.238.19	270.772	270.347	270.104	270.033	270.478	--	--
23.022.239.19	270.772	270.347	270.104	270.033	270.478	--	--
23.025.240.19	270.772	270.347	270.104	270.033	270.478	--	--
23.033.241.19	--	--	270.315	270.196	270.114	270.190	270.192
23.043.242.19	--	--	270.315	270.196	270.114	270.190	270.192
23.053.243.19	--	--	270.315	270.196	270.114	270.190	270.192
23.063.244.19	--	--	270.315	270.196	270.114	270.190	270.192

Dimensions



Drawing A



Drawing B

Item no.	Drawing	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	Ø d5 [mm]	H [mm]	h2 [mm]
23.005.286.19	A	5.5	7	3.8	--	2.5	6	11	7
23.011.234.19	A	11	10	3.8	4.8	4.9	12	16	7
23.014.235.19	A	14	10	3.8	4.8	4.8	14	16	7
23.016.236.19	A	16	10	3.8	4.8	8.2	17.5	19	7
23.018.237.19	A	18	10	3.8	4.8	7.8	18	16.5	7
23.020.238.19	A	19	10	3.8	4.8	10.6	20	16	7
23.022.239.19	A	22	10	3.8	4.8	11.4	24	19	7
23.025.240.19	A	24	10	3.8	4.8	9.2	25	23	7
23.033.241.19	B	33	18	8	16	17	36	27.5	13
23.043.242.19	B	43	18	8	14	22.5	46	28	13
23.053.243.19	B	53	18	8	14	32.4	59	34	13
23.063.244.19	B	63	18	8	14	42.5	67	34	13



Bellows vacuum cups series

High-temperature Thermalon®-flocked bellows cups, 1.5 folds – SKT-B1

High-temperature Thermalon®-flocked bellows cups, 1.5 folds – SKT-B1



Product notes

Bellows vacuum cup made of proven Thermalon® with additional flock coating of the contact surfaces for the highest demands on non-marking gripping.

Ideally suited for uneven surfaces with special suitability for the removal of hot plastic parts to be painted from the injection molding machine.

Thermalon® is a material mixture with a hardness of 60° Shore A, specially optimized for the plastics industry.

Flock coating made of thin polyamide layer PA6.6 black. Connection by means of plug nipple.

Advantage

- > Nearly non-marking
- > Quick depositing of the product, as there is no static friction due to thin flock coating
- > Free of silicone and other paint-wetting-impairment substances (PWIS)
- > Bellows compensates for height differences and allows good adaptation to curved or uneven product surfaces
- > Temperature-resistant up to 160 °C (320 °F)

Notes:

The flock coating could cause leakage, which must be taken into account in the layout of the vacuum source.

Technical data

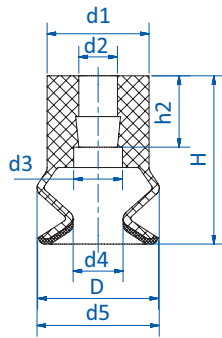
Item no.	Model	Number of folds	Number of folds	Material / Color	Required suction power for 60 % vacuum [NI/min]	Short-term working temperature < 30 Sec [°C (°F)]
23.005.286.19F	SKT-B1-6	2	1.5	Thermalon®-flocked (bl/sw)	7	0 - 160 (32 - 320)
23.011.234.19F	SKT-B1-11	5.5	1.5	Thermalon®-flocked (bl/sw)	11	0 - 160 (32 - 320)
23.014.235.19F	SKT-B1-14	5	1.5	Thermalon®-flocked (bl/sw)	16	0 - 160 (32 - 320)
23.016.236.19F	SKT-B1-16	8.5	1.5	Thermalon®-flocked (bl/sw)	16	0 - 160 (32 - 320)
23.020.238.19F	SKT-B1-20	5	1.5	Thermalon®-flocked (bl/sw)	17	0 - 160 (32 - 320)
23.022.239.19F	SKT-B1-22	8	1.5	Thermalon®-flocked (bl/sw)	17	0 - 160 (32 - 320)
23.025.240.19F	SKT-B1-25	12	1.5	Thermalon®-flocked (bl/sw)	18	0 - 160 (32 - 320)
23.033.241.19F	SKT-B1-33	11	1.5	Thermalon®-flocked (bl/sw)	18	0 - 160 (32 - 320)

Accessories

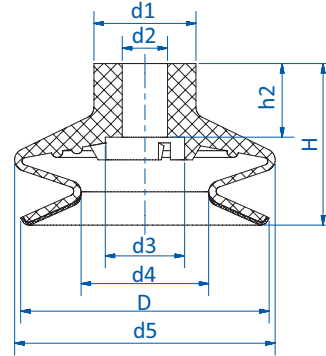
Item no.	Suitable fittings						
	M5-male	M5-female	M6-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
23.005.286.19F	270.772	--	--	--	--	--	--
23.011.234.19F	270.772	270.347	270.104	270.033	270.478	--	--
23.014.235.19F	270.772	270.347	270.104	270.033	270.478	--	--
23.016.236.19F	270.772	270.347	270.104	270.033	270.478	--	--
23.020.238.19F	270.772	270.347	270.104	270.033	270.478	--	--
23.022.239.19F	270.772	270.347	270.104	270.033	270.478	--	--
23.025.240.19F	270.772	270.347	270.104	270.033	270.478	--	--
23.033.241.19F	--	--	270.315	270.196	270.114	270.190	270.192



Dimensions



Drawing A



Drawing B

Item no.	Drawing	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	Ø d5 [mm]	H [mm]	h2 [mm]
23.005.286.19F	A	6	7	3.8	--	2.5	6.4	11.5	7
23.011.234.19F	A	11.9	10	3.8	4.8	4.9	12	16.5	7
23.014.235.19F	A	14.9	10	3.8	4.8	4.8	14	16.5	7
23.016.236.19F	A	16.8	10	3.8	4.8	8.2	17.5	19.5	7
23.020.238.19F	A	19.9	10	3.8	4.8	10.6	20	16.5	7
23.022.239.19F	A	22.9	10	3.8	4.8	11.4	24	19.5	7
23.025.240.19F	A	24.9	10	3.8	4.8	9.2	25	23.5	7
23.033.241.19F	B	33.9	18	8	16	17	36	28	13



Bellows vacuum cups series

High-temperature HNBR bellows cups, 1.5 folds – SKH-B1

High-temperature HNBR bellows cups, 1.5 folds – SKH-B1

UP TO 160 °C (320 °F) & MINIMUM MARKING



Product notes

Bellows vacuum cups for uneven surfaces with suitability for removing hot plastic parts to be painted from an injection molding machine.

Advantage

- > Free of silicone and other paint-wetting-impairment substances (PWIS)
- > Minimum marking
- > Bellows compensate differences in height and enable good adaptation to curved or uneven product surfaces

Technical data

Item no.	Model		Number of folds	Material / Color	Usage temperature [°C (°F)]
23.005.178.14	SKH-B1-5	2	1.5	HNBR (ge)	0 - 160 (32 - 320)
23.008.166.14	SKH-B1-8	3.5	1.5	HNBR (ge)	0 - 160 (32 - 320)
23.011.008.14/2	SKH-B1-11	4.5	1.5	HNBR (ge)	0 - 160 (32 - 320)
23.015.122.14	SKH-B1-15	5	1.5	HNBR (ge)	0 - 160 (32 - 320)
23.016.016.14/2	SKH-B1-16	6	1.5	HNBR (ge)	0 - 160 (32 - 320)
23.020.124.14	SKH-B1-20	8	1.5	HNBR (ge)	0 - 160 (32 - 320)
23.030.125.14	SKH-B1-30	9	1.5	HNBR (ge)	0 - 160 (32 - 320)
23.043.096.14	SKH-B1-43	12	1.5	HNBR (ge)	0 - 160 (32 - 320)

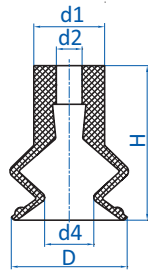
Accessories

Item no.	Suitable fittings							Suitable spring leveler (Snap-in)	
	M5-male	M5-female	M6-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female	Spring leveler	
23.005.178.14	270.153	--	--	--	--	--	--	--	--
23.008.166.14	270.153	--	--	--	--	--	--	--	--
23.011.008.14/2	270.013	270.005	270.103	270.003	270.015	--	--	50.037	25
23.015.122.14	270.010	270.005	--	270.009	270.007	--	--	50.330	9
23.016.016.14/2	270.013	270.005	270.103	270.003	270.015	--	--	50.037	25
23.020.124.14	270.311	--	--	270.063	270.061	--	--	--	--
23.030.125.14	--	--	270.312/19	270.030	270.019	270.274	270.275	--	--
23.043.096.14	--	--	270.315	270.196	270.114	270.190	270.192	--	--

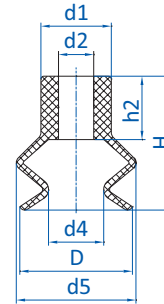
* When ordering please add the appropriate material code to item no.



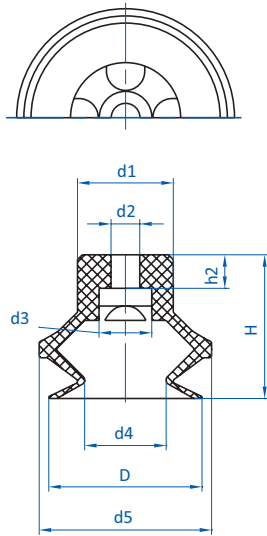
Dimensions



Drawing A



Drawing B



Drawing C

Item no.	Drawing	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	Ø d5 [mm]	H [mm]	h2 [mm]
23.005.178.14	A	6	5	2	--	2.2	--	9	--
23.008.166.14	A	9	5.5	2	--	3.8	--	12	--
23.011.008.14/2	B	12	10	5	--	4.5	12	16	9
23.015.122.14	C	16	8.5	3.6	6	8	17	16	1.7
23.016.016.14/2	B	16	10	5	--	8	17	19	9
23.020.124.14	C	21.5	15	4.5	11	10	23.5	20	4.6
23.030.125.14	C	32	20	6	11	17	36	30	7
23.043.096.14	B	43	18	8	--	23	45	27	12

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups, universal, 2.5 folds – SBU 2



Product notes

Universal bellows vacuum cups with 2.5 folds for handling sensitive or uneven products over large stroke movements.
Connection up to Ø 75 mm by means of plug-in nipple, from Ø 88 mm with vulcanized bracket.

Advantage

- > Bellows compensate for differences in height and enable good adaptation to curved or uneven product surfaces
- > Soft attachment for sensitive products
- > Cost-effective replacement of worn seals

Technical data

Item no.	Model		Number of folds	Material / Color	Connection thread
21.004.083._*	SBU 2-4	3	2.5	SI (tr), SI-LE (tr)	--
21.005.057._*	SBU 2-5	3	2.5	NBR (g), SI (g), SI (tr), SI-LE (tr)	--
21.006.093._*	SBU 2-6A	3	2.5	NBR (sw), SI (tr), SI-LE (tr)	--
21.006.087._*	SBU 2-6	3.5	2.5	NBR (sw), SI (tr), SI-LE (tr)	--
21.008.094._*	SBU 2-8	4	2.5	NBR (sw), SI (tr), SI-LE (tr)	--
21.009.002._*	SBU 2-9	2	2.5	NBR (sw), SI (tr), SI-LE (tr), NR (gr), PU (bl)	--
21.010.119._*	SBU 2-10	8	2.5	NBR (sw), SI (tr), SI-LE (tr)	--
21.012.135._*	SBU 2-12	7	2.5	NBR (sw), SI (tr), SI-LE (tr), NR (gr), PU (bl)	--
21.014.133._*	SBU 2-14A	11	2.5	NBR (sw), SI (tr), SI-LE (tr), NR (gr)	--
21.014.007._*	SBU 2-14	12	2.5	NBR (sw), SI (tr), SI-LE (tr), PU (bl)	--
21.018.010._*	SBU 2-18	8	2.5	NBR (sw), SI (tr), SI-LE (tr), PU (bl)	--
21.020.016._*	SBU 2-20	9	2.5	NBR (sw), SI (tr), SI-LE (tr)	--
21.025.060._*	SBU 2-25	19	2.5	NBR (sw), SI (tr), SI-LE (tr)	--
21.032.075._*	SBU 2-32	13	2.5	NBR (sw), SI (tr), SI-LE (tr), NR (gr), PU (bl)	--
21.043.049._*	SBU 2-43	19	2.5	NBR (sw), SI (tr), SI-LE (tr), NR (gr)	--
21.062.055._*	SBU 2-62	25	2.5	NBR (sw), SI (tr), SI-LE (tr)	--
20.088.123._*	SBU 2-88	36	2.5	NBR (sw), SI (tr)	G1/4-male
20.088.124._*	SBU 2-88	36	2.5	NBR (sw), SI (tr)	G1/4-female

Continued on the next page →

* When ordering please add the appropriate material code to item no.



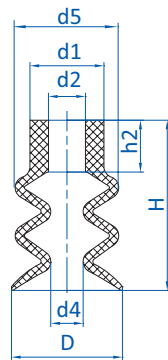
Bellows vacuum cups series

Bellows vacuum cups, universal, 2.5 folds – SBU 2

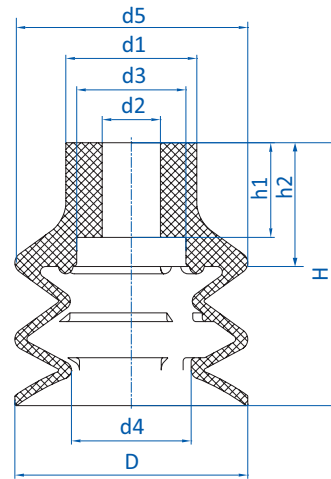
Accessories

Item no.	Suitable fittings						
	M5-male	M5-female	M6-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
21.004.083._*	270.134	270.347	270.104	270.033	270.478	--	--
21.005.057._*	270.134	270.347	270.104	270.033	270.478	--	--
21.006.093._*	270.134	270.347	270.104	270.033	270.478	--	--
21.006.087._*	270.013	270.005	270.103	270.003	270.015	--	--
21.008.094._*	270.134	270.347	270.104	270.033	270.478	--	--
21.009.002._*	270.013	270.005	270.103	270.003	270.015	--	--
21.010.119._*	270.013	270.005	270.103	270.003	270.015	--	--
21.012.135._*	270.013	270.005	270.103	270.003	270.015	--	--
21.014.133._*	270.134	270.347	270.104	270.033	270.478	--	--
21.014.007._*	270.013	270.005	270.103	270.003	270.015	--	--
21.018.010._*	270.013	270.005	270.103	270.003	270.015	--	--
21.020.016._*	270.013	270.005	270.103	270.003	270.015	270.194	--
21.025.060._*	270.013	270.005	270.103	270.003	270.015	270.194	--
21.032.075._*	--	--	270.315	270.196	270.114	270.190	270.192
21.043.049._*	--	--	270.315	270.196	270.114	270.190	270.192
21.062.055._*	--	--	270.315	--	--	270.540	270.539
20.088.123._*	--	--	--	--	--	--	--
20.088.124._*	--	--	--	--	--	--	--

Dimensions



Drawing A



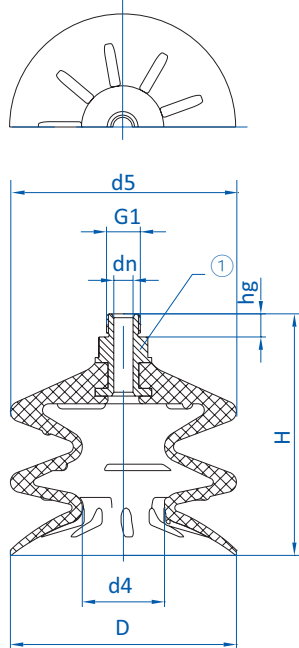
Drawing B

① = Aluminum fitting, vulcanized

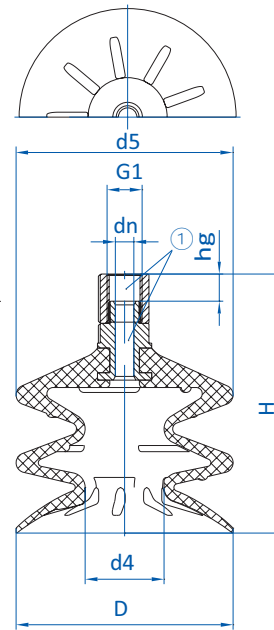
* When ordering please add the appropriate material code to item no.



Dimensions



Drawing C



Drawing D

① = Aluminum fitting, vulcanized

Item no.	Drawing	∅ D [mm]	∅ d1 [mm]	∅ d2 [mm]	∅ d3 [mm]	∅ d4 [mm]	∅ d5 [mm]	∅ dn [mm]	G1	H [mm]	h1 [mm]	h2 [mm]	hg [mm]
21.004.083.*	A	4.5	7	4	--	2	6.5	--	--	14	--	8	--
21.005.057.*	A	5.5	7	4	--	2.5	6.5	--	--	14	--	8.5	--
21.006.093.*	A	6	8	4	--	3	8	--	--	15	--	8	--
21.006.087.*	A	6.5	9	5	--	2.5	6.5	--	--	14.5	--	7.5	--
21.008.094.*	A	7.5	8	4	--	4	7.5	--	--	15	--	8.5	--
21.009.002.*	A	9	9	5	--	4	9	--	--	15	--	7	--
21.010.119.*	A	10	10	5	--	4.5	10	--	--	21	--	7	--
21.012.135.*	A	12	10	5	--	5	12	--	--	21	--	9	--
21.014.133.*	A	14	10	3.8	--	5.5	14	--	--	23	--	7.5	--
21.014.007.*	A	15	10	5	--	4.5	15	--	--	23	--	7	--
21.018.010.*	A	18	10	4.5	--	7	18	--	--	22	--	8.5	--
21.020.016.*	A	20	10	4.5	--	10	20	--	--	23	--	9	--
21.025.060.*	A	25	10	4.8	--	10	25	--	--	33	--	8	--
21.032.075.*	B	32	18	8	15	16.5	32	--	--	36	--	17	--
21.043.049.*	B	42	20	8	15	15.5	42	--	--	46	13	--	--
21.062.055.*	B	62	21	8.5	14.5	27.5	62	--	--	54	13	14.7	--
20.088.123.*	C	88	--	--	--	32	88	7.5	G1/4	94	--	--	9
20.088.124.*	D	88	--	--	--	32	88	7.5	G1/4	105	--	--	11

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups series

Bellows vacuum cups, universal, 2.5 folds – SKT-B2

Bellows vacuum cups, universal, 2.5 folds – SKT-B2




Product notes

Universal bellows vacuum cup with 2.5 folds for handling delicate or uneven products with a large lifting movement. Connection by means of plug-in nipple.


Advantage

- > Bellows compensate for large differences in height and enable a gentle touchdown on highly sensitive product surfaces
- > Soft sealing lip adapts very well to uneven and curved surfaces
- > Cost-effective replacement of worn seals

Technical data

Item no.	Model		Number of folds	Material / Color
21.005.146.*	SKT-B2-5	3	2.5	NBR (sw), SI (tr)
21.007.147.*	SKT-B2-7	3	2.5	NBR (sw), SI (tr)
21.009.148.*	SKT-B2-9	3	2.5	NBR (sw), SI (tr)
21.012.149.*	SKT-B2-12	7	2.5	NBR (sw), SI (tr)
21.014.150.*	SKT-B2-14	10	2.5	NBR (sw), SI (tr)
21.018.151.*	SKT-B2-18	10	2.5	NBR (sw), SI (tr)
21.020.152.*	SKT-B2-20	10	2.5	NBR (sw), SI (tr)
21.025.153.*	SKT-B2-25	20	2.5	NBR (sw), SI (tr)
21.032.154.*	SKT-B2-32	14.5	2.5	NBR (sw), SI (tr)
21.042.155.*	SKT-B2-42	22	2.5	NBR (sw), SI (tr)
21.052.156.*	SKT-B2-52	27	2.5	NBR (sw), SI (tr)
21.062.157.*	SKT-B2-62	31	2.5	NBR (sw), SI (tr), SI-LE (tr)

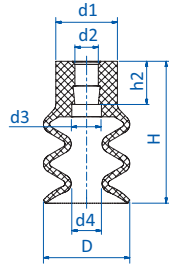
Accessories

Item no.	 Suitable fittings						
	M5-male	M5-female	M6-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
21.005.146.*	270.772	270.347	270.104	270.033	270.478	--	--
21.007.147.*	270.772	270.347	270.104	270.033	270.478	--	--
21.009.148.*	270.772	270.347	270.104	270.033	270.478	--	--
21.012.149.*	270.772	270.347	270.104	270.033	270.478	--	--
21.014.150.*	270.772	270.347	270.104	270.033	270.478	--	--
21.018.151.*	270.772	270.347	270.104	270.033	270.478	--	--
21.020.152.*	270.772	270.347	270.104	270.033	270.478	--	--
21.025.153.*	270.772	270.347	270.104	270.033	270.478	--	--
21.032.154.*	--	--	270.315	270.196	270.114	270.190	270.192
21.042.155.*	--	--	270.315	270.196	270.114	270.190	270.192
21.052.156.*	--	--	270.315	270.196	270.114	270.190	270.192
21.062.157.*	--	--	270.315	270.196	270.114	270.190	270.192

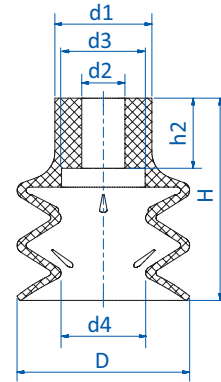
* When ordering please add the appropriate material code to item no.



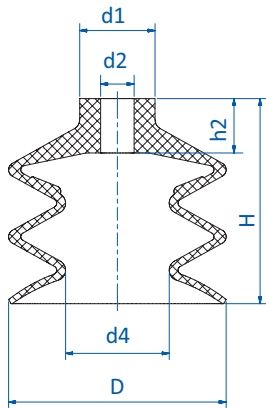
Dimensions



Drawing A



Drawing B



Drawing C

Item no.	Drawing	∅ D [mm]	∅ d1 [mm]	∅ d2 [mm]	∅ d3 [mm]	∅ d4 [mm]	H [mm]	h2 [mm]
21.005.146._*	A	5.3	7	3.8	2.7	2.7	13.5	7
21.007.147._*	A	6.2	9	3.8	--	2.2	13.5	7
21.009.148._*	A	9.2	9	3.8	--	4.6	15	7
21.012.149._*	A	12	10	3.8	4.8	4.8	21	7
21.014.150._*	A	14	10	3.8	4.8	4.8	23	7
21.018.151._*	A	18	10	3.8	4.8	8.1	23	7
21.020.152._*	A	20	10	3.8	4.8	10	23	7
21.025.153._*	A	25	10	3.8	4.8	10	34	7
21.032.154._*	B	32	18	8	15.7	15.7	37.5	13
21.042.155._*	B	42	18	8	15	18	46	13
21.052.156._*	C	52	18	8	--	24.8	49	13
21.062.157._*	C	62	18	8	--	29.4	55	13

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups series

High-temperature Thermalon® bellows cups, 2.5 folds – SKT-B2

High-temperature Thermalon® bellows cups, 2.5 folds – SKT-B2

UP TO 160 °C (320 °F) & MINIMUM MARKING



Product notes

Bellows vacuum cups for uneven surfaces especially suited for removing hot plastic parts to be painted from an injection molding machine. Thermalon® is a material mixture specially optimized for the plastics industry with a hardness of 60° Shore A. Connection via plug-in nipple.

Advantage

- > Extremely low-marking
- > Free of silicone and other paint-wetting-impairment substances (PWIS)
- > Long vacuum cup stroke and good adaptation to curved or uneven product surfaces

Technical data

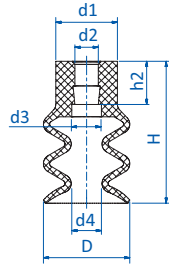
Item no.	Model	Number of folds	Material / Color	Number of folds	Short-term working temperature < 30 Sec [°C (°F)]
21.005.146.19	SKT-B2-5	3	Thermalon® (bl)	2.5	0 - 160 (32 - 320)
21.007.147.19	SKT-B2-7	3	Thermalon® (bl)	2.5	0 - 160 (32 - 320)
21.009.148.19	SKT-B2-9	3	Thermalon® (bl)	2.5	0 - 160 (32 - 320)
21.012.149.19	SKT-B2-12	7	Thermalon® (bl)	2.5	0 - 160 (32 - 320)
21.014.150.19	SKT-B2-14	10	Thermalon® (bl)	2.5	0 - 160 (32 - 320)
21.018.151.19	SKT-B2-18	10	Thermalon® (bl)	2.5	0 - 160 (32 - 320)
21.020.152.19	SKT-B2-20	10	Thermalon® (bl)	2.5	0 - 160 (32 - 320)
21.025.153.19	SKT-B2-25	20	Thermalon® (bl)	2.5	0 - 160 (32 - 320)
21.032.154.19	SKT-B2-32	14.5	Thermalon® (bl)	2.5	0 - 160 (32 - 320)
21.042.155.19	SKT-B2-42	22	Thermalon® (bl)	2.5	0 - 160 (32 - 320)
21.052.156.19	SKT-B2-52	27	Thermalon® (bl)	2.5	0 - 160 (32 - 320)
21.062.157.19	SKT-B2-62	31	Thermalon® (bl)	2.5	0 - 160 (32 - 320)

Accessories

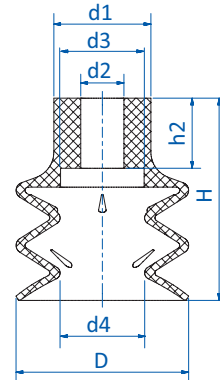
Item no.	Suitable fittings						
	M5-male	M5-female	M6-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
21.005.146.19	270.772	270.347	270.104	270.033	270.478	--	--
21.007.147.19	270.772	270.347	270.104	270.033	270.478	--	--
21.009.148.19	270.772	270.347	270.104	270.033	270.478	--	--
21.012.149.19	270.772	270.347	270.104	270.033	270.478	--	--
21.014.150.19	270.772	270.347	270.104	270.033	270.478	--	--
21.018.151.19	270.772	270.347	270.104	270.033	270.478	--	--
21.020.152.19	270.772	270.347	270.104	270.033	270.478	--	--
21.025.153.19	270.772	270.347	270.104	270.033	270.478	--	--
21.032.154.19	--	--	270.315	270.196	270.114	270.190	270.192
21.042.155.19	--	--	270.315	270.196	270.114	270.190	270.192
21.052.156.19	--	--	270.315	270.196	270.114	270.190	270.192
21.062.157.19	--	--	270.315	270.196	270.114	270.190	270.192



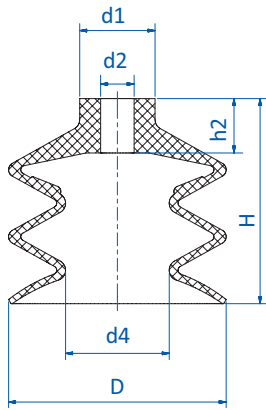
Dimensions



Drawing A



Drawing B



Drawing C

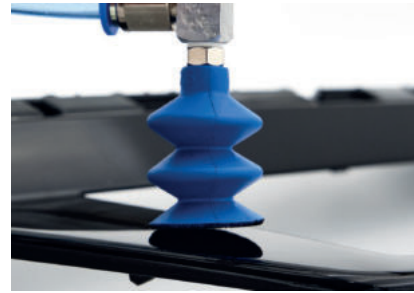
Item no.	Drawing	∅ D [mm]	∅ d1 [mm]	∅ d2 [mm]	∅ d3 [mm]	∅ d4 [mm]	H [mm]	h2 [mm]
21.005.146.19	A	5.3	7	3.8	2.7	2.7	13.5	7
21.007.147.19	A	6.2	9	3.8	--	2.2	13.5	7
21.009.148.19	A	9.2	9	3.8	--	4.6	15	7
21.012.149.19	A	12	10	3.8	4.8	4.8	21	7
21.014.150.19	A	14	10	3.8	4.8	4.8	23	7
21.018.151.19	A	18	10	3.8	4.8	8.1	23	7
21.020.152.19	A	20	10	3.8	4.8	10	23	7
21.025.153.19	A	25	10	3.8	4.8	10	34	7
21.032.154.19	B	32	18	8	15.7	15.7	37.5	13
21.042.155.19	B	42	18	8	15	18	46	13
21.052.156.19	C	52	18	8	--	24.8	49	13
21.062.157.19	C	62	18	8	--	29.4	55	13



Bellows vacuum cups series

High-temperature Thermalon®-flocked bellows cups, 2.5 folds – SKT-B2

High-temperature Thermalon®-flocked bellows cups, 2.5 folds – SKT-B2



Product notes

Bellows vacuum cup made of proven Thermalon® with additional flock coating of the contact surfaces for the highest demands on non-marking gripping.

Ideally suited for uneven surfaces with special suitability for the removal of hot plastic parts to be painted from the injection molding machine.

Thermalon® is a material mixture with a hardness of 60° Shore A, specially optimized for the plastics industry.

Flock coating made of thin polyamide layer PA6.6 black. Connection by means of plug nipple.


Advantage

- > Nearly non-marking
- > Quick depositing of the product, as there is no static friction due to thin flock coating
- > Free of silicone and other paint-wetting-impairment substances (PWIS)
- > Large suction stroke and good adaptation to curved or uneven product surfaces
- > • Temperature-resistant up to 160 °C (320 °F)


Notes:

The flock coating could cause leakage, which must be taken into account in the layout of the vacuum source.

Technical data

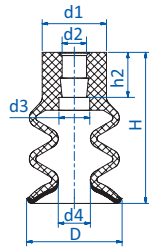
Item no.	Model	 Number of folds	Number of folds	Material / Color	Required suction power for 60 % vacuum [NI/min]	Short-term working temperature < 30 Sec [°C (°F)]
21.009.148.19F	SKT-B2-9	3	2.5	Thermalon®-flocked (bl/sw)	10	0 - 160 (32 - 320)
21.012.149.19F	SKT-B2-12	7	2.5	Thermalon®-flocked (bl/sw)	11	0 - 160 (32 - 320)
21.014.150.19F	SKT-B2-14	10	2.5	Thermalon®-flocked (bl/sw)	16	0 - 160 (32 - 320)
21.020.152.19F	SKT-B2-20	10	2.5	Thermalon®-flocked (bl/sw)	17	0 - 160 (32 - 320)
21.025.153.19F	SKT-B2-25	20	2.5	Thermalon®-flocked (bl/sw)	18	0 - 160 (32 - 320)
21.032.154.19F	SKT-B2-32	14.5	2.5	Thermalon®-flocked (bl/sw)	18	0 - 160 (32 - 320)
21.042.155.19F	SKT-B2-42	22	2.5	Thermalon®-flocked (bl/sw)	21	0 - 160 (32 - 320)

Accessories

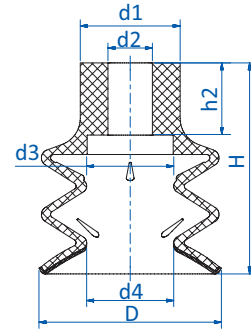
Item no.	 Suitable fittings						
	M5-male	M5-female	M6-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
21.009.148.19F	270.772	270.347	270.104	270.033	270.478	--	--
21.012.149.19F	270.772	270.347	270.104	270.033	270.478	--	--
21.014.150.19F	270.772	270.347	270.104	270.033	270.478	--	--
21.020.152.19F	270.772	270.347	270.104	270.033	270.478	--	--
21.025.153.19F	270.772	270.347	270.104	270.033	270.478	--	--
21.032.154.19F	--	--	270.315	270.196	270.114	270.190	270.192
21.042.155.19F	--	--	270.315	270.196	270.114	270.190	270.192



Dimensions



Drawing A



Drawing B

Item no.	Drawing	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	H [mm]	h2 [mm]
21.009.148.19F	A	10.1	9	3.8	--	3.9	15.5	7
21.012.149.19F	A	12.9	10	3.8	4.8	5	21.5	7
21.014.150.19F	A	14.9	10	3.8	4.8	5	23.5	7
21.020.152.19F	A	20.9	10	3.8	4.8	10	23.5	7
21.025.153.19F	A	25.9	10	3.8	4.8	10.1	34.5	7
21.032.154.19F	B	32.9	18	8	15.7	15.7	38	13
21.042.155.19F	B	42.9	18	8	15	18	46.5	13



Bellows vacuum cups series

High-temperature HNBR bellows cups, 2.5 folds – SKH-B2

High-temperature HNBR bellows cups, 2.5 folds – SKH-B2

UP TO 160 °C (320 °F) & MINIMUM MARKING




Product notes

Bellows vacuum cups for uneven surfaces with suitability for removing hot plastic parts to be painted from an injection molding machine. Connection via plug-in nipple.


Advantage

- > Free of silicone and other paint-wetting-impairment substances (PWIS)
- > Minimum marking
- > Long vacuum cup stroke and good adaptation to curved or uneven product surfaces

Technical data

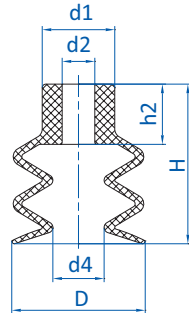
Item no.	Model		Number of folds	Material / Color	Usage temperature [°C (°F)]
21.005.057.14	SKH-B2-5	3	2.5	HNBR (ge)	0 - 160 (32 - 320)
21.007.089.14	SKH-B2-7	3	2.5	HNBR (ge)	0 - 160 (32 - 320)
21.009.002.14	SKH-B2-9	2	2.5	HNBR (ge)	0 - 160 (32 - 320)
21.012.135.14	SKH-B2-12	7	2.5	HNBR (ge)	0 - 160 (32 - 320)
21.014.053.14	SKH-B2-14	9	2.5	HNBR (ge)	0 - 160 (32 - 320)
21.018.010.14	SKH-B2-18	8	2.5	HNBR (ge)	0 - 160 (32 - 320)
21.020.016.14/2	SKH-B2-20	9	2.5	HNBR (ge)	0 - 160 (32 - 320)
21.032.075.14/3	SKH-B2-32	13	2.5	HNBR (ge)	0 - 160 (32 - 320)
21.043.049.14	SKH-B2-43	19	2.5	HNBR (ge)	0 - 160 (32 - 320)
21.060.051.14	SKH-B2-60	25	2.5	HNBR (ge)	0 - 160 (32 - 320)

Accessories

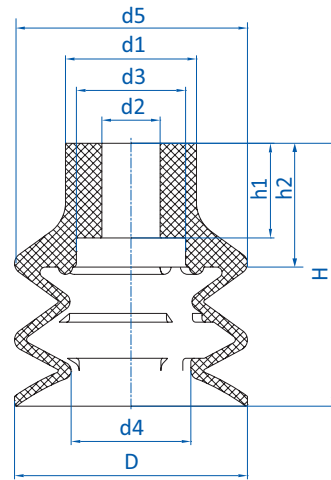
Item no.	 Suitable fittings						
	M5-male	M5-female	M6-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
21.005.057.14	270.134	270.347	270.104	270.033	270.478	--	--
21.007.089.14	270.010	270.005	--	270.009	270.007	--	--
21.009.002.14	270.013	270.005	270.103	270.003	270.015	--	--
21.012.135.14	270.013	270.005	270.103	270.003	270.015	--	--
21.014.053.14	270.134	270.347	270.104	270.033	270.478	--	--
21.018.010.14	270.013	270.005	270.103	270.003	270.015	--	--
21.020.016.14/2	270.013	270.005	270.103	270.003	270.015	270.194	--
21.032.075.14/3	--	--	270.315	270.196	270.114	270.190	270.192
21.043.049.14	--	--	270.315	270.196	270.114	270.190	270.192
21.060.051.14	--	--	270.315	--	--	270.540	270.539



Dimensions



Drawing A



Drawing B

Item no.	Drawing	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	Ø d5 [mm]	H [mm]	h1 [mm]	h2 [mm]
21.005.057.14	A	5.5	7	4	--	2.5	--	14	0 - 0	8.5
21.007.089.14	B	7	7.5	4	5.5	3	7	10	2	3.5
21.009.002.14	A	9	9	5	--	4	--	15	--	7
21.012.135.14	A	12	10	5	--	5	--	21	--	9
21.014.053.14	A	14	8	4	--	5.5	--	18	--	5.5
21.018.010.14	A	18	10	4.5	--	7	--	22	--	8.5
21.020.016.14/2	A	20	10	4.5	--	10	--	23	--	9
21.032.075.14/3	B	32	18	8	15	16.5	32	36	13	--
21.043.049.14	B	42	20	8	15	15.5	42	46	13	17
21.060.051.14	B	61	22	8	14	28	61	57	14	18.5



Bellows vacuum cups series

Bellows vacuum cups, universal, 3.5 folds – SBU 3

Bellows vacuum cups, universal, 3.5 folds – SBU 3



Product notes

Universal bellows vacuum cups with 3.5 folds for handling sensitive or uneven products over very large lift movements. Connection via plug-in nipple.

Advantage

- > Bellows compensate for differences in height and enable good adaptation to curved or uneven product surfaces
- > Soft attachment for sensitive products
- > Cost-effective replacement of worn seals

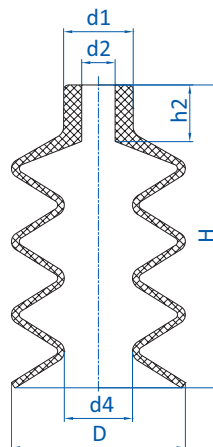
Technical data

Item no.	Model	Number of folds	Number of folds	Material / Color
25.018.031._*	SBU 3-18	12	3.5	NBR (sw), SI (tr)
25.025.005._*	SBU 3-25	24	3.5	NBR (sw), SI (tr), SI-LE (tr)

Accessories

Item no.	Suitable fittings					
	M5-male	M5-female	M6-male	G1/8-male	G1/8-female	G1/4-male
25.018.031._*	270.013	270.005	270.103	270.003	270.015	270.194
25.025.005._*	270.013	270.005	270.103	270.003	270.015	270.194

Dimensions



Item no.	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d4 [mm]	H [mm]	h2 [mm]
25.018.031._*	18	9.5	5	8	29	7
25.025.005._*	25	10	4.8	10	44	8

* When ordering please add the appropriate material code to item no.

Bellows vacuum cups series

Vulkollan® bellows cups, universal, 1.5 to 2.5 folds – SBU-VU



Vulkollan® bellows cups, universal, 1.5 to 2.5 folds – SBU-VU



Product notes	Advantage
Extremely robust universal bellows vacuum cups, material made from Vulkollan®	<ul style="list-style-type: none"> > Minimal abrasion > Very long life cycle > Very good resetting, enabling fast cycle times > Bellows compensate differences in height and enable good adaptation to curved or uneven product surfaces > Cost-effective replacement of worn seals

Technical data

Item no.	Model	↓	Number of folds	Material / Color
	Bellows vacuum cups, 1.5 folds – SBU1-VU			
23.020.169._*	SBU1-VU-20	7	1.5	Vulkollan® (br)
23.030.170._*	SBU1-VU-30	8	1.5	Vulkollan® (br)
23.050.171._*	SBU1-VU-50	10	1.5	Vulkollan® (br)
	Bellows vacuum cups, 2.5 folds – SBU2-VU			
21.009.106._*	SBU2-VU-9	2	2.5	Vulkollan® (br)
21.020.090._*	SBU2-VU-20	8	2.5	Vulkollan® (br)
21.032.091._*	SBU2-VU-30	16	2.5	Vulkollan® (br)
21.030.076._*	SBU2-VU-31	14	2.5	Vulkollan® (br)
21.051.097._*	SBU2-VU-50	18	2.5	Vulkollan® (br)
21.062.092._*	SBU2-VU-60	25	2.5	Vulkollan® (br)

Continued on the next page →

* When ordering please add the appropriate material code to item no.



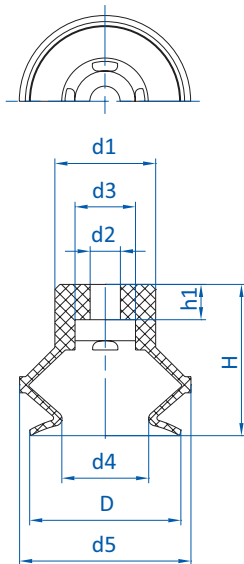
Bellows vacuum cups series

Vulkollan® bellows cups, universal, 1.5 to 2.5 folds – SBU-VU

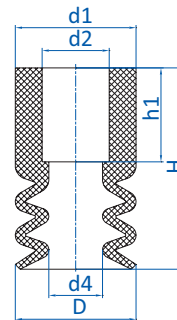
Accessories

Item no.	Suitable fittings							
	M5-male	M5-female	M6-male	M8-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
Bellows vacuum cups, 1.5 folds – SBU1-VU								
23.020.169.*	--	--	270.312/19	--	270.482	270.481	270.483	270.484
23.030.170.*	--	--	270.312/19	--	270.482	270.481	270.483	270.484
23.050.171.*	--	--	270.314	--	270.490	270.489	270.491	270.492
Bellows vacuum cups, 2.5 folds – SBU2-VU								
21.009.106.*	270.013	270.005	270.103	--	270.003	270.015	--	--
21.020.090.*	270.024	--	270.104	--	270.033	270.478	--	--
21.032.091.*	--	--	270.315	--	270.132	270.114	270.190, 270.540	270.192, 270.539
21.030.076.*	--	--	--	270.255	270.486	270.485	270.487	270.488
21.051.097.*	--	--	--	--	270.132	270.114	270.204	270.324
21.062.092.*	--	--	270.315	--	--	--	270.540	270.539

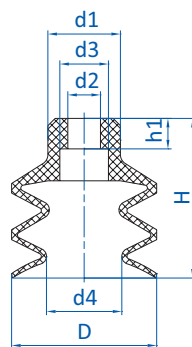
Dimensions



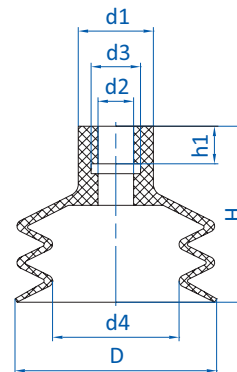
Drawing A



Drawing B



Drawing C

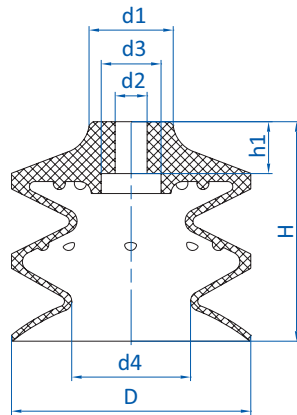


Drawing D

* When ordering please add the appropriate material code to item no.



Dimensions



Drawing E

Item no.	Drawing	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	Ø d5 [mm]	H [mm]	h1 [mm]
Bellows vacuum cups, 1.5 folds – SBU1-VU									
23.020.169._*	A	20	15	6	12	12.5	22	22	7
23.030.170._*	A	30	20	6	12	17	34	30	7
23.050.171._*	A	50	29	9	20	31	56	37	7
Bellows vacuum cups, 2.5 folds – SBU2-VU									
21.009.106._*	B	9	9	5.5	--	4	--	15	7
21.020.090._*	C	20	10	4.5	6.5	10.5	--	22	4.2
21.032.091._*	C	30	18	8	15	17	--	38	13
21.030.076._*	C	31	18.5	8	15	19.5	--	29	7
21.051.097._*	D	51	19	9	12.5	32	--	45	9.5
21.062.092._*	E	60	21	8	15	30	--	55	13

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups series

Bellows vacuum cups, universal, 1.5 folds, modular – SP-B1

Bellows vacuum cups, universal, 1.5 folds, modular – SP-B1



Product notes

Bellows vacuum cups with a short stroke compensates for small irregularities.
Version: Replacement sealing lip for attachment to fitting

Advantage

- > High suction force
- > Fast cycle times possible
- > Very resistant to wear (Tepuflex®)
- > Compatible with established products from other vendors

Ordering notes

Explanation of the ending of the accessory fitting:
> S: with screen

Technical data

Item no.	Model		Number of folds	Material / Color	Accessories	
					Filter disc:	Retaining ring:
23.005.178.*	SP-B1-5	2	1.5	SI (r), SI-LE (r), SI-AS (sw), CR (sw)	--	--
23.008.166.*	SP-B1-8	3.5	1.5	SI (r), SI-LE (r), SI-AS (sw), CR (sw)	--	--
23.011.295.*	SP-B1-11	4.5	1.5	SI (r), SI-LE (r), CR (sw)	--	--
23.013.296.*	SP-B1-13	5.3	1.5	SI (r), SI-LE (r), CR (sw)	--	--
23.016.297.*	SP-B1-16	6.7	1.5	SI (r), SI-LE (r), CR (sw)	--	--
23.020.026.*	SP-B1-20	9	1.5	Tepuflex® (or), SI (tr), SI-LE (tr), CR (sw)	78.200	78.011
23.030.037.*	SP-B1-30	9	1.5	Tepuflex® (or), SI (tr), SI-LE (tr), CR (sw)	78.201	78.011
23.040.045.*	SP-B1-40	9	1.5	Tepuflex® (or), SI (tr), CR (sw)	78.202	78.012
23.050.054.*	SP-B1-50	12	1.5	Tepuflex® (or), SI (tr), SI-LE (tr), CR (sw)	78.203	78.013
23.078.065.*	SP-B1-75	22	1.5	SI (tr), SI-LE (tr), CR (sw)	--	--
23.117.069.*	SP-B1-110	29	1.5	SI (tr), SI-LE (tr), CR (sw)	--	--
23.160.072.*	SP-B1-150	41	1.5	SI (tr), SI-LE (tr), CR (sw)	--	--

Accessories

Item no.	Suitable fittings									
	M5-male	M5-female	M6-male	G1/8-male	G1/8-female	G1/4-male	G3/8-male	G3/8-female	G1/2-female	G3/4-female
23.005.178.*	270.153	--	--	--	--	--	--	--	--	--
23.008.166.*	270.153	--	--	--	--	--	--	--	--	--
23.011.295.*	270.134	--	270.104	--	--	--	--	--	--	--
23.013.296.*	270.134	--	270.104	--	--	--	--	--	--	--

* When ordering please add the appropriate material code to item no.

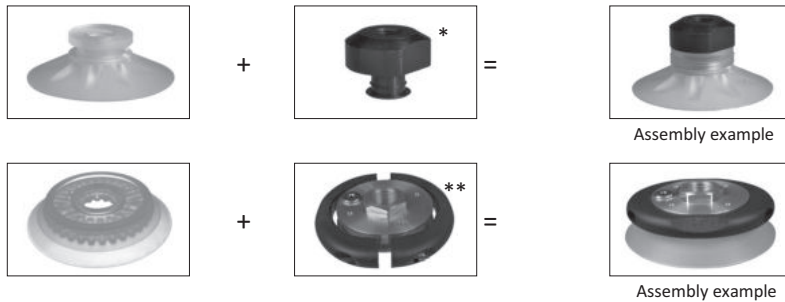


Accessories

Item no.	Suitable fittings									
	M5-male	M5-female	M6-male	G1/8-male	G1/8-female	G1/4-male	G3/8-male	G3/8-female	G1/2-female	G3/4-female
23.016.297.*	270.134	--	270.104	--	--	--	--	--	--	--
23.020.026.*	--	270.500-S	--	270.250, 270.503-S	--	--	--	--	--	--
23.030.037.*	--	270.500-S	--	270.250, 270.503-S	--	--	--	--	--	--
23.040.045.*	--	--	--	--	270.251, 270.501-S	270.506-S	270.505-S	--	--	--
23.050.054.*	--	--	--	--	270.252, 270.502-S	270.504-S	270.507-S	--	--	--
23.078.065.*	--	--	--	--	270.527-S	--	--	270.528-S	270.529-S	--
23.117.069.*	--	--	--	--	--	--	--	270.530-S	270.531-S	--
23.160.072.*	--	--	--	--	--	--	--	--	270.532-S	270.533-S

Bellows vacuum cups – modular

Example:



- * Fittings are optionally available with and without filter screen
- ** Fittings come fitted with filter screen as standard

- > The modular series allows you to assemble your own vacuum cups
- > Worn sealing lips can be replaced quickly, cost-effective and easily
- > High flexibility thanks to a large selection of fitting threads

Continued on the next page

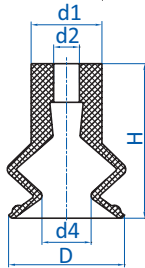
* When ordering please add the appropriate material code to item no.



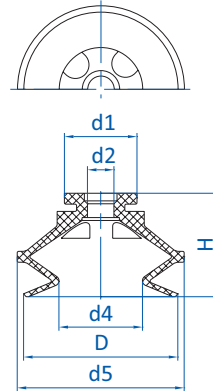
Bellows vacuum cups series

Bellows vacuum cups, universal, 1.5 folds, modular – SP-B1

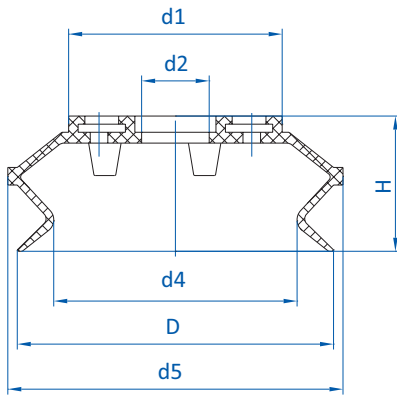
Dimensions



Drawing A



Drawing B



Drawing C

Item no.	Drawing	∅ D [mm]	∅ d1 [mm]	∅ d2 [mm]	∅ d4 [mm]	∅ d5 [mm]	H [mm]
23.005.178.*	A	6	4.5	2	2.2	--	9
23.008.166.*	A	9	5.5	2	3.8	--	12
23.011.295.*	A	11	9	3.8	4	--	16.5
23.013.296.*	A	13	9	3.8	4.6	--	19
23.016.297.*	A	16.5	9	3.8	7.5	--	19.5
23.020.026.*	B	21	14.5	5.5	11	24	19.5
23.030.037.*	B	33	15	5.5	18.5	37	28
23.040.045.*	B	43	20	7.5	23	46	29
23.050.054.*	B	53	26	10.5	32	58	35
23.078.065.*	C	81	55	10	59	84	37
23.117.069.*	C	117	79	25	90	124	50
23.160.072.*	C	160	110	24	112	166	67

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups with 4,5 folds, modular – SP-B4



Product notes

Bellows vacuum cups with a long stroke.
Version: Replacement sealing lip for attachment to fitting

Advantage

- > High suction force
- > Very large height compensation
- > Compatible with established products from other vendors

Ordering notes

Explanation of the ending of the accessory fitting:
> S: with screen

Technical data

Item no.	Model	Number of folds	Number of folds	Material / Color
25.020.025._*	SP-B4-20	16	4.5	SI (tr), SI-LE (tr), CR (sw)
25.030.026._*	SP-B4-30	21	4.5	SI (tr), SI-LE (tr), CR (sw)
25.040.027._*	SP-B4-40	20	4.5	SI (tr), SI-LE (tr), CR (sw)
25.050.028._*	SP-B4-50	25	4.5	SI (tr), SI-LE (tr), CR (sw)

Accessories

Retaining ring:	Stiffening ring:
78.011	78.000
78.012	78.001
78.012	78.002
78.013	78.003

Accessories

Item no.	Suitable fittings				
	M5-female	G1/8-male	G1/8-female	G1/4-male	G3/8-male
25.020.025._*	270.500-S	270.250, 270.503-S	--	--	--
25.030.026._*	--	--	270.251, 270.501-S	270.506-S	270.505-S
25.040.027._*	--	--	270.251, 270.501-S	270.506-S	270.505-S
25.050.028._*	--	--	270.252, 270.502-S	270.504-S	270.507-S

Continued on the next page

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups series

Bellows vacuum cups with 4,5 folds, modular – SP-B4

Bellows vacuum cups – modular

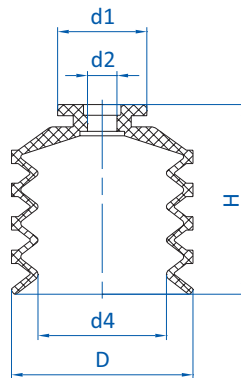
Example:



* Fittings are optionally available with and without filter screen

- > The modular series allows you to assemble your own vacuum cups
- > Worn sealing lips can be replaced quickly, cost-effective and easily
- > High flexibility thanks to a large selection of fitting threads

Dimensions



Item no.	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d4 [mm]	H [mm]
25.020.025._*	20	14.5	5	14	23
25.030.026._*	31	20	6.5	22	32
25.040.027._*	41	20	6.5	29	43
25.050.028._*	51	27	10.5	37	53

* When ordering please add the appropriate material code to item no.



Varioflex® bellows cups, 1.5 folds – SP-BX1



POLYURETHANE COMPOSITE MATERIAL 60°/30°



Product notes

Bellows vacuum cups with 1.5 folds made of an extremely wear-resistant polymer.
Soft, flexible sealing lip in 30° Shore A (red).
Stable body in 60° Shore A (black).
Cleats stabilize the product.

Advantage

- > Long life cycle reduces machine downtimes
- > Perfect sealing performance on rough or uneven surface
- > High stability and fast reset
- > Oil and ozone-resistant
- > Bellows compensate for height differences
- > Cleats allow for fast acceleration

Notes:

Explanation of the type description:

- > SP-BX1 = Series name of the bellows vacuum cup with 1.5 folds
- > -xx = nominal diameter
- > -PUxx = Material / Hardness
- > Example: SP-BX1-15-PU60/30
bellows vacuum cup with 1.5 folds and a nominal diameter of 15 mm, material Varioflex® (Polyurethan 60°/30° Shore A)

Technical data

Model / Lip dimensions	Connection thread					Spare cup
	M5-male	M6-male	G1/8-male	G1/8-female		
SP-BX1-10-PU60/30	22.011.332.16	22.011.333.16	--	--	3	23.011.294.16
SP-BX1-15-PU60/30	22.016.253.16	22.016.254.16	--	--	4,5	23.016.263.16
SP-BX1-20-PU60/30	--	--	22.021.255.16	--	5	23.021.264.16
SP-BX1-25-PU60/30	--	--	22.026.256.16	--	5	23.026.265.16
SP-BX1-35-PU60/30	--	--	--	22.037.257.16	9	23.037.266.16
SP-BX1-50-PU60/30	--	--	--	22.053.259.16	10	23.053.267.16

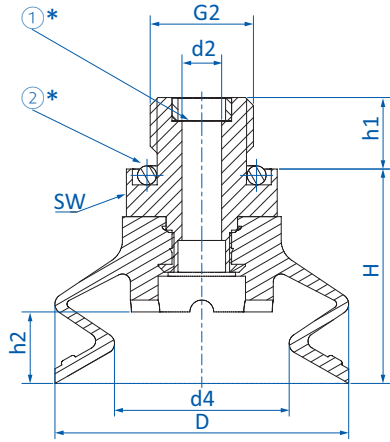
Model / Lip dimensions	Connection thread					Spare cup
	G1/4-male	G3/8-male	G3/8-female	G1/2-female		
SP-BX1-35-PU60/30	22.037.258.16	--	--	--	9	23.037.266.16
SP-BX1-50-PU60/30	22.053.260.16	22.053.261.16	--	--	10	23.053.267.16
SP-BX1-75-PU60/30	--	22.075.262.16	22.075.263.16	--	18	--
SP-BX1-115-PU60/30	--	--	22.115.266.16	22.115.267.16	28	23.115.274.16
SP-BX1-160-PU60/30	--	--	22.160.264.16	22.160.265.16	40	23.160.273.16



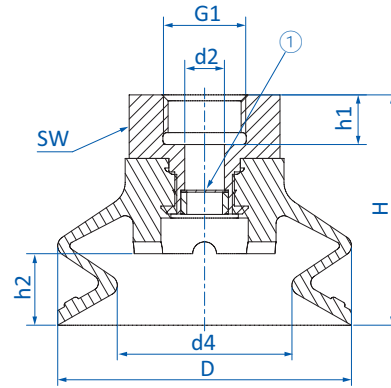
Series | Bellows vacuum cups SB

Varioflex® bellows cups, 1.5 folds – SP-BX1

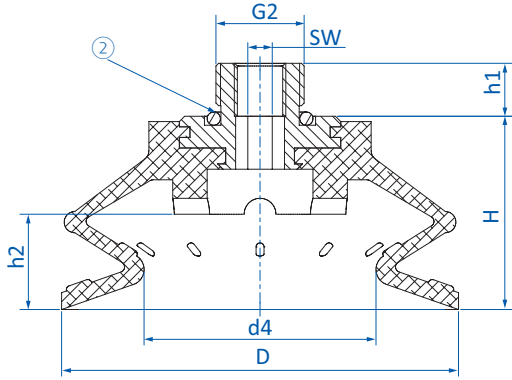
Dimensions



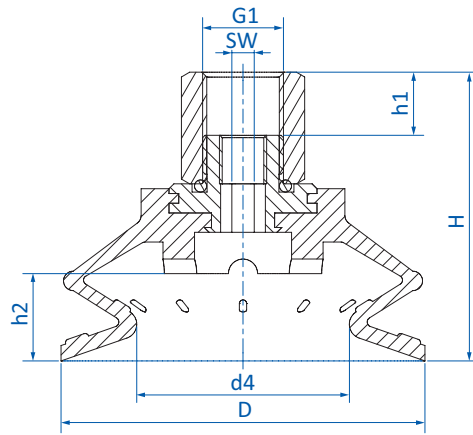
Drawing A



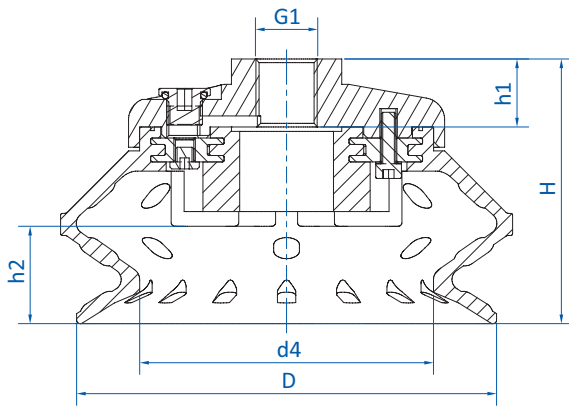
Drawing B



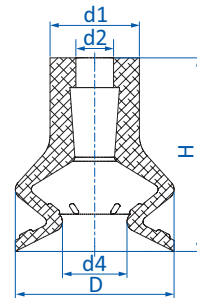
Drawing C



Drawing D



Drawing E

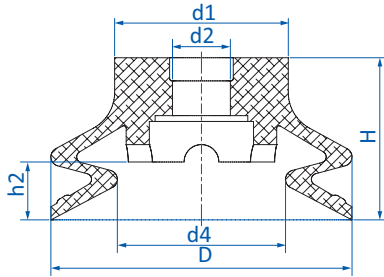


Drawing F

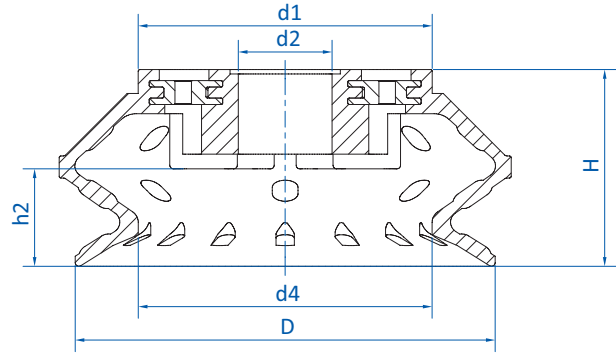
① = Filter screen ② = O-ring * = Size 11 and 16 mm without filter screen and O-ring



Dimensions



Drawing G



Drawing H

① = Filter screen ② = O-ring

Item no.	Drawing	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d4 [mm]	G1 (female)	G2 (male)	H	h1 [mm]	h2 [mm]	SW
Bellows vacuum cups 1.5 folds – SP-BX1 fully assembled with fitting											
22.011.332.16	A	11	--	2.8	5.6	--	M5	17.5	5	--	8
22.011.333.16	A	11	--	2.5	5.6	--	M6	18	6	--	13
22.016.253.16	A	16	--	2.5	6.5	--	M5	25	3.6	--	8
22.016.254.16	A	16	--	2.5	6.5	--	M6	24	6	--	13
22.021.255.16	A	21	--	4	12	--	G1/8	19	7	5	13
22.026.256.16	A	26	--	4	14.5	--	G1/8	19	7	5	13
22.037.257.16	B	37	--	5	22	G1/8	--	29	6.3	9	19
22.037.258.16	A	37	--	5	22	--	G1/4	27	9	9	19
22.053.259.16	B	53	--	8	32.5	G1/8	--	35	9	10	22
22.053.260.16	A	53	--	6	32.5	--	G1/4	32	9	10	22
22.053.261.16	A	53	--	6	32.5	--	G3/8	32	10	10	22
22.075.262.16	C	75	--	--	44	--	G3/8	36.5	10	18	8
22.075.263.16	D	75	--	--	44	G3/8	--	59.5	13	18	8
22.115.266.16	E	115	--	--	79.9	G3/8	--	72	18.5	26.5	--
22.115.267.16	E	115	--	--	79.9	G1/2	--	72	18.5	26.5	--
22.160.264.16	E	160	--	--	112.7	G3/8	--	89	21	40.5	--
22.160.265.16	E	160	--	--	112.7	G1/2	--	89	21	40.5	--

Spare cups

23.011.294.16	F	11	9	3.8	5.6	--	--	14	--	--	--
23.016.263.16	F	16	9	4	6.5	--	--	19.5	--	--	--
23.021.264.16	G	21	11	5	12	--	--	14	--	5	--
23.026.265.16	G	26	15	5	14.5	--	--	14	--	5	--
23.037.266.16	G	37	20	7	22	--	--	21	--	9	--
23.053.267.16	G	53	26	10.5	32.5	--	--	26	--	10	--
23.115.274.16	H	115	80	25.5	79.9	--	--	53.5	--	26.5	--
23.160.273.16	H	160	110	25.5	112.7	--	--	68	--	40.5	--



Series | Bellows vacuum cups SB

Monoflex bellows cups, 1.5 folds – SP-BX1

Monoflex bellows cups, 1.5 folds – SP-BX1



Product notes

Bellows vacuum cup with 1.5 folds made of very wear-resistant polyurethane.
Hardness 50° Shore A
Support ribs stabilize the product.

Advantage

- > Long life cycle reduces machine downtimes
- > Oil and ozone-resistant
- > Bellows compensate for height and angle differences
- > Cleats allow for fast acceleration

Notes:

Explanation of the type description:

- > SP-BX1 = Series name of the bellows vacuum cup with 1.5 folds
- > -xx = nominal diameter
- > -PUxx = Material / Hardness

Example: SP-BX1-15-PU50 = bellows vacuum cup with 1.5 folds and a nominal diameter of 15 mm, material Polyurethan 50° Shore A

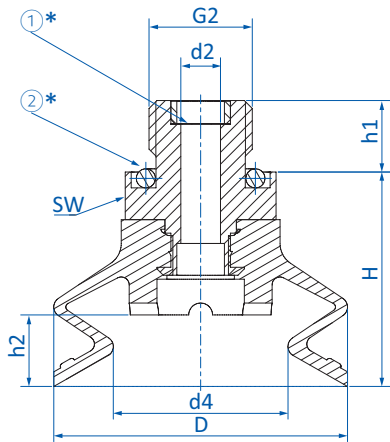
Technical data

Model / Lip dimensions	Connection thread					Spare cup
	M5-male	M6-male	G1/8-male	G1/8-female		
SP-BX1-10-PU50	22.011.332.22	22.011.333.22	--	--	3	23.011.294.22
SP-BX1-15-PU50	22.016.253.22	22.016.254.22	--	--	4,5	23.016.263.22
SP-BX1-20-PU50	--	--	22.021.255.22	--	5	23.021.264.22
SP-BX1-25-PU50	--	--	22.026.256.22	--	5	23.026.265.22
SP-BX1-35-PU50	--	--	--	22.037.257.22	9	23.037.266.22
SP-BX1-50-PU50	--	--	--	22.053.259.22	10	23.053.267.22

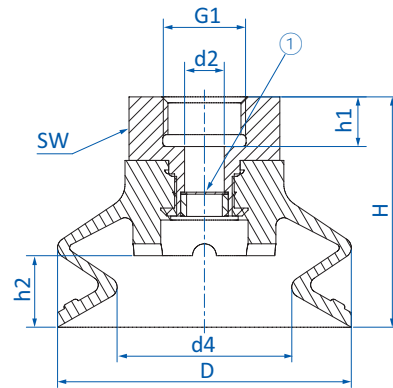
Model / Lip dimensions	Connection thread					Spare cup
	G1/4-male	G3/8-male	G3/8-female	G1/2-female		
SP-BX1-35-PU50	22.037.258.22	--	--	--	9	23.037.266.22
SP-BX1-50-PU50	22.053.260.22	22.053.261.22	--	--	10	23.053.267.22
SP-BX1-75-PU50	--	22.075.262.22	22.075.263.22	--	18	--



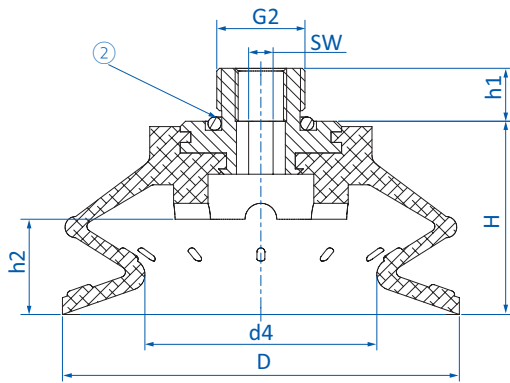
Dimensions



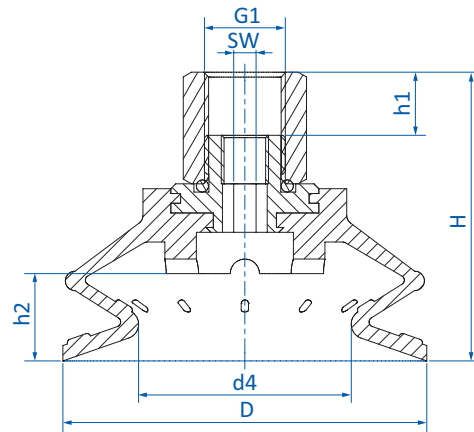
Drawing A



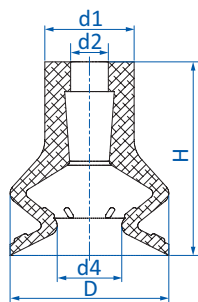
Drawing B



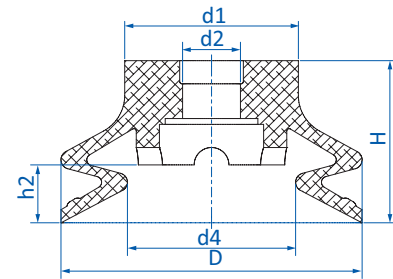
Drawing C



Drawing D



Drawing F



Drawing G

① = Filter screen ② = O-Ring * = Size 11 and 16 mm without strainer and O-ring



Series | Bellows vacuum cups SB

Monoflex bellows cups, 1.5 folds – SP-BX1

Item no.	Drawing	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d4 [mm]	Ø d3 [mm]	G1 (female)	G2 (male)	H	h1 [mm]	h2 [mm]	SW
22.011.332.22	A	11	--	2.8	5.6	14	--	M5	17.5	5	--	8
22.011.333.22	A	11	--	2.5	5.6	14	--	M6	18	6	--	13
22.016.253.22	A	16	--	2.5	6.5	14	--	M5	25	3.6	--	8
22.016.254.22	A	16	--	2.5	6.5	14	--	M6	24	6	--	13
22.021.255.22	A	21	--	4	12	14	--	G1/8	19	7	5	13
22.026.256.22	A	26	--	4	14.5	14	--	G1/8	19	7	5	13
22.037.257.22	B	37	--	5	22	14	G1/8	--	29	6.3	9	19
22.037.258.22	A	37	--	5	22	14	--	G1/4	27	9	9	19
22.053.259.22	B	53	--	8	32.5	14	G1/8	--	35	9	10	22
22.053.260.22	A	53	--	6	32.5	14	--	G1/4	32	9	10	22
22.053.261.22	A	53	--	6	32.5	14	--	G3/8	32	10	10	22
22.075.262.22	C	75	--	--	44	14	--	G3/8	36.5	10	18	8
22.075.236.22	D	75	--	--	44	14	G3/8	--	59.5	13	18	8
23.011.294.22	F	11	9	3.8	5.6	14	--	--	14	--	--	--
23.016.263.22	F	16	9	4	6.5	14	--	--	19.5	--	--	--
23.021.264.22	G	21	11	5	12	14	--	--	14	--	5	--
23.026.265.22	G	26	15	5	14.5	14	--	--	14	--	5	--
23.037.266.22	G	37	20	7	22	14	--	--	21	--	9	--
23.053.267.22	G	53	26	10.5	32.5	14	--	--	26	--	10	--



Varioflex® bellows cups, 2.5 folds – SP-BX2



POLYURETHANE COMPOSITE MATERIAL 60°/30°

Product notes

Bellows vacuum cups with 2.5 bellows made of an extremely wear-resistant polymer.
Soft, flexible sealing lip in 30° Shore A (red).
Stable body in 60° Shore A (black).

Advantage

- > Long life cycle reduces machine downtimes
- > Perfect sealing performance on rough or uneven surface
- > High stability and fast reset
- > Oil and ozone-resistant
- > Excellent height and angle compensation
- > Optional: filter disc from Ø 26 mm installed between the bellows

Ordering notes

- > For versions with a filter disc, please add "-FI" to the material code (e.g. 20.026.148.16-FI)*
- > The filter disc is delivered assembled for diameters of 26 - 53 mm
- > The filter disc is included for diameters ≥ 77 mm

Notes:

Explanation of the type description:

- > SP-BX2 = Series name of the bellows vacuum cup with 2.5 folds
- > -xx = nominal diameter
- > -PUxx = Material / Hardness
- > Example: SP-BX2-15-PU60/30
bellows vacuum cup with 2.5 folds and a nominal diameter of 15 mm, material Varioflex® (Polyurethan 60°/30° Shore A)

Technical data

Model / Lip dimensions	Connection thread					Spare cup
	M5-male	M6-male	G1/8-male	G1/8-female		
SP-BX2-10-PU60/30	20.011.200.16	20.011.201.16	--	--	4,5	21.011.187.16
SP-BX2-15-PU60/30	20.016.145.16	20.016.146.16	--	--	5,5	21.016.175.16
SP-BX2-20-PU60/30	--	--	20.021.147.16	--	6,5	21.021.176.16
SP-BX2-25-PU60/30	--	--	20.026.148.16 (*-FI)	--	8	21.026.177.16 (*-FI)
SP-BX2-35-PU60/30	--	--	--	20.037.149.16 (*-FI)	14	21.037.177.16 (*-FI)
SP-BX2-50-PU60/30	--	--	--	20.053.151.16 (*-FI)	19	21.053.178.16 (*-FI)

Model / Lip dimensions	Connection thread				Spare cup
	G1/4-male	G3/8-male	G3/8-female		
SP-BX2-35-PU60/30	20.037.150.16 (*-FI)	--	--	14	21.037.177.16 (*-FI)
SP-BX2-50-PU60/30	20.053.152.16 (*-FI)	20.053.153.16 (*-FI)	--	19	21.053.178.16 (*-FI)
SP-BX2-75-PU60/30	--	20.077.154.16 (*-FI)	20.077.155.16 (*-FI)	25	--

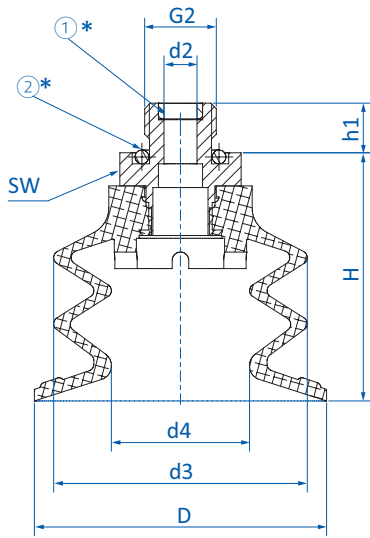
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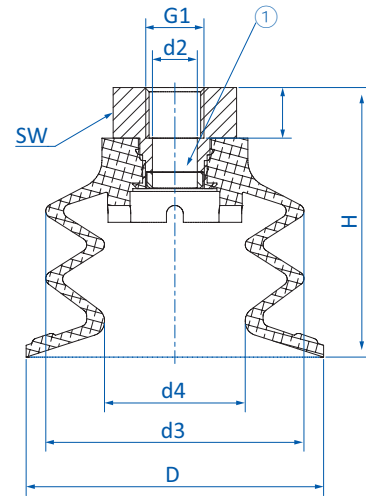
Series | Bellows vacuum cups SB

Varioflex® bellows cups, 2.5 folds – SP-BX2

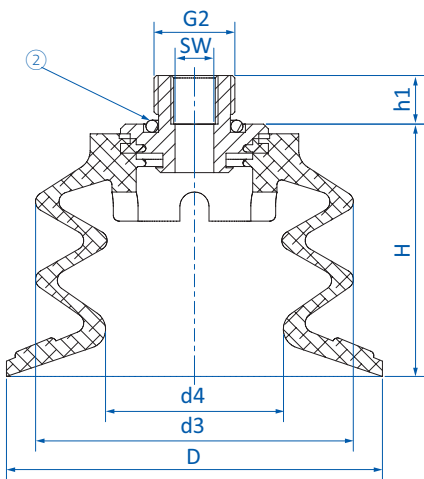
Dimensions



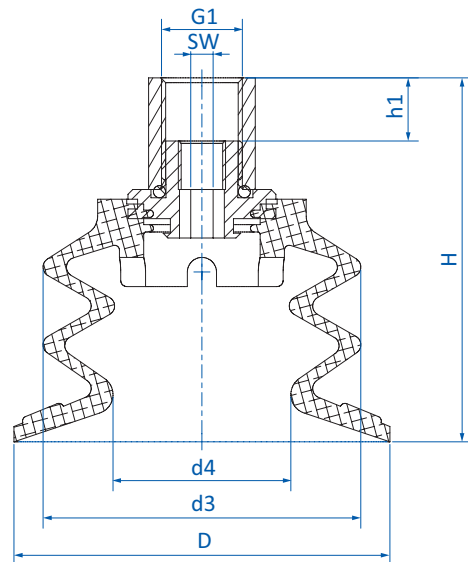
Drawing A



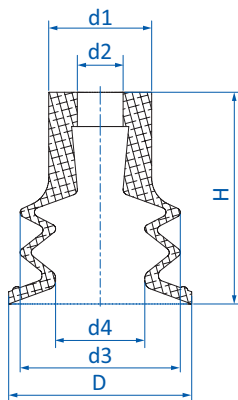
Drawing B



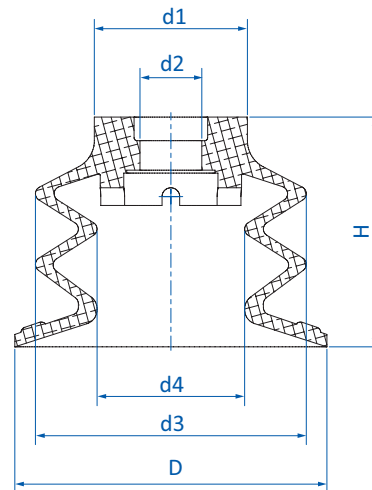
Drawing C



Drawing D



Drawing E



Drawing F

① = Filter screen ② = O-ring * = Size 11 and 16 mm without filter screen and O-ring



Item no.	Drawing	∅ D [mm]	∅ d1 [mm]	∅ d2 [mm]	∅ d3 [mm]	∅ d4 [mm]	G1 (female)	G2 (male)	H	h1 [mm]	SW
Bellows vacuum cups 2.5 folds – SP-BX2 fully assembled with fitting											
20.011.200.16	A	11	--	2.8	11	6.6	--	M5	20.5	5	8
20.011.201.16	A	11	--	2.5	11	6.6	--	M6	21	6	13
20.016.145.16	A	16	--	2.8	14	9	--	M5	24	4	8
20.016.146.16	A	16	--	2.5	14	9	--	M6	23	6	13
20.021.147.16	A	21	--	4	20	12	--	G1/8	20.2	7	13
20.026.148.16	A	26	--	4	23	12	--	G1/8	24	7	13
20.037.149.16	B	37	--	5	31	18	G1/8	--	34.8	6.3	19
20.037.150.16	A	37	--	5	31	18	--	G1/4	32.8	9	19
20.053.151.16	B	53	--	8	46	25	G1/8	--	48	9	22
20.053.152.16	A	53	--	6	46	25	--	G1/4	45	9	22
20.053.153.16	A	53	--	6	46	25	--	G3/8	45	10	22
20.077.154.16	C	77.5	--	--	65.5	37	--	G3/8	52	10	8
20.077.155.16	D	77.5	--	--	65.5	37	G3/8	--	75	13	8
Spare cups											
21.011.187.16	E	11	9.5	3.8	11	6.6	--	--	16.5	--	--
21.016.175.16	E	16	9	4	14	9	--	--	18.5	--	--
21.021.176.16	F	21	11	5	20	12	--	--	15.2	--	--
21.026.177.16	F	26	15	5	23	12	--	--	19	--	--
21.037.177.16	F	37	20	7	31	18	--	--	27	--	--
21.053.178.16	F	53	26	10.5	46	25	--	--	39	--	--



Series | Bellows vacuum cups SB

Monoflex bellows cups, 2.5 folds – SP-BX2

Monoflex Bellows cups, 2.5 folds – SP-BX2



Product notes

Bellows vacuum cup with 2.5 folds made of very wear-resistant polyurethane.
Hardness 50° Shore A

Advantage

- > Long service life minimizes machine downtime
- > Good adaptation to product surface
- > High stability and fast resetting allow short cycle times
- > Oil and ozone-resistant
- > Excellent height and angle compensation
- > Filter disc installed between folds from Ø 26 mm optionally available

Ordering notes

- > For versions with a filter disc, please add "-FI" to the material code (e.g. 20.026.148.16-FI)*
- > The filter disc is delivered assembled for diameters of 26 - 53 mm
- > The filter disc is included for diameters ≥ 77 mm

Notes:

Explanation of the type description:

- > SP-BX2 = Series name of the bellows vacuum cup with 2.5 folds
- > -xx = nominal diameter
- > -PUxx = Material / Hardness
- > Example: SP-BX2-15-PU50
bellows vacuum cup with 2.5 folds and a nominal diameter of 15 mm, material Polyurethan 50° Shore A

Technical data

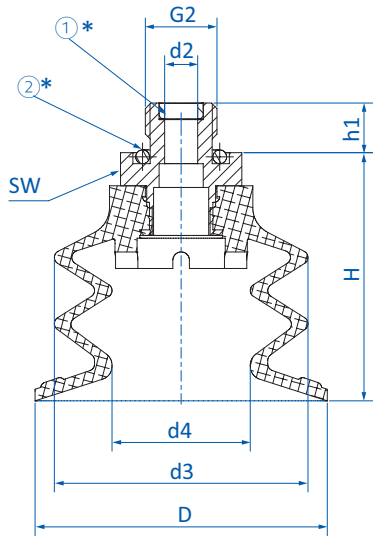
Model / Lip dimensions	Connection thread				↓	Spare cup
	M5-male	M6-male	G1/8-male	G1/8-female		
SP-BX2-10-PU50	20.011.200.22	20.011.201.22	--	--	4,5	21.011.187.22
SP-BX2-15-PU50	20.016.145.22	20.016.146.22	--	--	5,5	21.016.175.22
SP-BX2-20-PU50	--	--	20.021.147.22	--	6,5	21.021.176.22
SP-BX2-25-PU50	--	--	20.026.148.22 (*-FI)	--	8	21.026.177.22 (*-FI)
SP-BX2-35-PU50	--	--	--	20.037.149.22 (*-FI)	14	21.037.177.22 (*-FI)
SP-BX2-50-PU50	--	--	--	20.053.151.22 (*-FI)	19	21.053.178.22 (*-FI)

TyModel / Lip dimensions	Connection thread			↓	Spare cup
	G1/4-male	G3/8-male	G3/8-female		
SP-BX2-35-PU50	20.037.150.22 (*-FI)	--	--	14	21.037.177.22 (*-FI)
SP-BX2-50-PU50	20.053.152.22 (*-FI)	20.053.153.22 (*-FI)	--	19	21.053.178.22 (*-FI)
SP-BX2-75-PU50	--	20.077.154.22 (*-FI)	20.077.155.22 (*-FI)	25	--

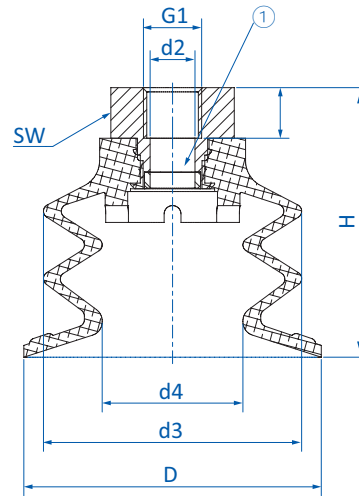
* -FI: inclusive nylon filter in first fold



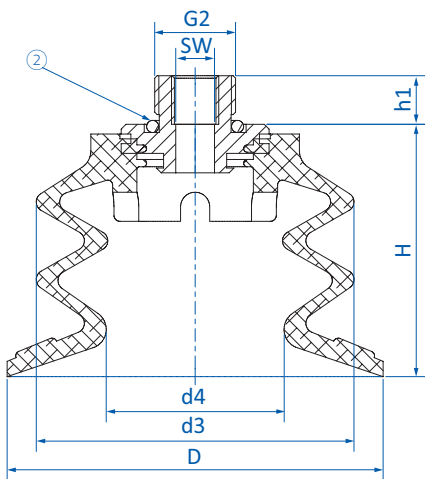
Dimensions



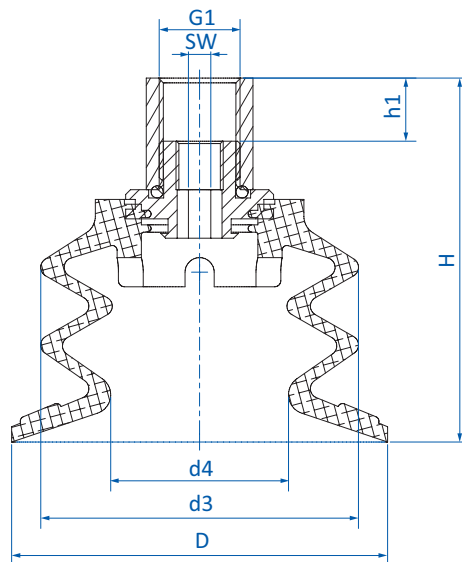
Drawing A



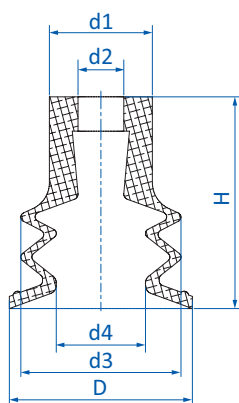
Drawing B



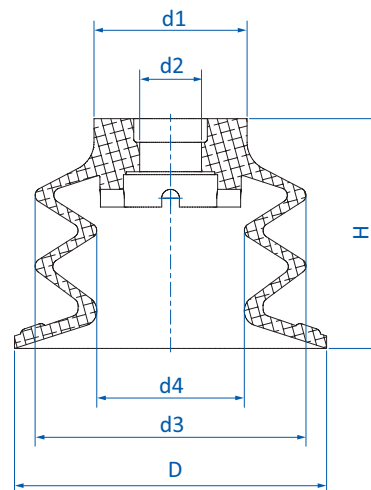
Drawing C



Drawing D



Drawing E



Drawing F

① = Filter screen ② = O-ring * = Size 11 and 16 mm without filter screen and O-ring



Series | Bellows vacuum cups SB

Monoflex bellows cups, 2.5 folds – SP-BX2

Item no.	Drawing	∅ D [mm]	∅ d1 [mm]	∅ d2 [mm]	∅ d3 [mm]	∅ d4 [mm]	G1 (female)	G2 (male)	H	h1 [mm]	SW
Bellows vacuum cups 2.5 folds – SP-BX2 fully assembled with fitting											
20.011.200.22	A	11	--	2.8	11	6.6	--	M5	20.5	5	8
20.011.201.22	A	11	--	2.5	11	6.6	--	M6	21	6	13
20.016.145.22	A	16	--	2.8	14	9	--	M5	24	4	8
20.016.146.22	A	16	--	2.5	14	9	--	M6	23	6	13
20.021.147.22	A	21	--	4	20	12	--	G1/8	20.2	7	13
20.026.148.22	A	26	--	4	23	12	--	G1/8	24	7	13
20.037.149.22	B	37	--	5	31	18	G1/8	M5	34.8	6.3	19
20.037.150.22	A	37	--	5	31	18	--	G1/4	32.8	9	19
20.053.151.22	B	53	--	8	46	25	G1/8	M5	48	9	22
20.053.152.22	A	53	--	6	46	25	--	G1/4	45	9	22
20.053.153.22	A	53	--	6	46	25	--	G3/8	45	10	22
20.077.154.22	C	77.5	--	--	65.5	37	--	G3/8	52	10	8
20.077.155.22	D	77.5	--	--	65.5	37	G3/8	M5	75	13	8
Spare cups											
21.011.187.22	E	11	9.5	3.8	11	6.6	--	--	16.5	--	--
21.016.175.22	E	16	9	4	14	9	--	--	18.5	--	--
21.021.176.22	F	21	11	5	20	12	--	--	15.2	--	--
21.026.177.22	F	26	15	5	23	12	--	--	19	--	--
21.037.177.22	F	37	20	7	31	18	--	--	27	--	--
21.053.178.22	F	53	26	10.5	46	25	--	--	39	--	--



Vinyl bellows cups, 1.5 folds – SBV 1




Product notes

Durable bellows vacuum cups with 1.5 folds from snug-fitting, wear-resistant material.
Very well suited for handling abrasive products such as cardboard.
Flexible material enables low-leakage gripping of highly flexible products such as foil-packaged goods. Connection via plug-in nipple.

Advantage

- > Bellows compensate differences in height and enable good adaptation to curved or uneven product surfaces
- > Flexible, soft lips
- > Long life cycle
- > Cost-effective replacement of worn seals

Technical data

Item no.	Model		Number of folds	Material / Color
23.005.095._*	SBV 1-5	2	1.5	Vinyl (bl)
23.007.112._*	SBV 1-7	2	1.5	Vinyl (bl)
23.013.097._*	SBV 1-13	5	1.5	Vinyl (bl)
23.015.098._*	SBV 1-15	5	1.5	Vinyl (bl)
23.019.109._*	SBV 1-19	8	1.5	Vinyl (bl)
23.020.114._*	SBV 1-20	6	1.5	Vinyl (bl)
23.022.028._*	SBV 1-22	8	1.5	Vinyl (bl)
23.028.113._*	SBV 1-28	9	1.5	Vinyl (bl)
23.030.107._*	SBV 1-30	10.5	1.5	Vinyl (bl)
23.031.192._*	SBV 1-31	6	1.5	Vinyl (bl)
23.035.111._*	SBV 1-35	12	1.5	Vinyl (bl)
23.052.116._*	SBV 1-52	6	1.5	Vinyl (bl)
23.070.060._*	SBV 1-70	20	1.5	Vinyl (bl)

Continued on the next page →

* When ordering please add the appropriate material code to item no.



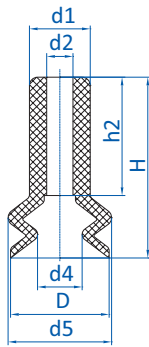
Bellows vacuum cups series

Vinyl bellows cups, 1.5 folds – SBV 1

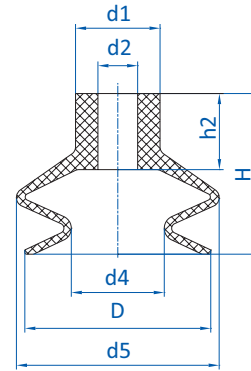
Accessories

Item no.	Suitable fittings					
	M5-male	M6-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
23.005.095._*	270.195	--	--	--	--	--
23.007.112._*	270.001	--	--	--	--	--
23.013.097._*	270.013	270.103	270.003	270.015	--	--
23.015.098._*	270.134	270.104	270.033	270.478	--	--
23.019.109._*	--	--	270.030	270.019	270.274	270.275
23.020.114._*	270.134	270.104	270.033	270.478	--	--
23.022.028._*	270.013	270.103	270.003	270.015	270.194	--
23.028.113._*	270.134	270.104	270.033	270.478	--	--
23.030.107._*	--	270.312/19	270.030	270.019	270.274	270.275
23.031.192._*	--	270.312/19	270.030	270.019	270.274	270.275
23.035.111._*	270.443	--	270.238	270.110	270.534	--
23.052.116._*	--	--	270.132	--	270.208	270.452
23.070.060._*	--	--	--	--	270.184	--

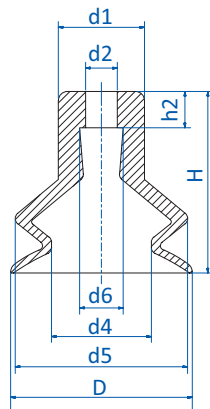
Dimensions



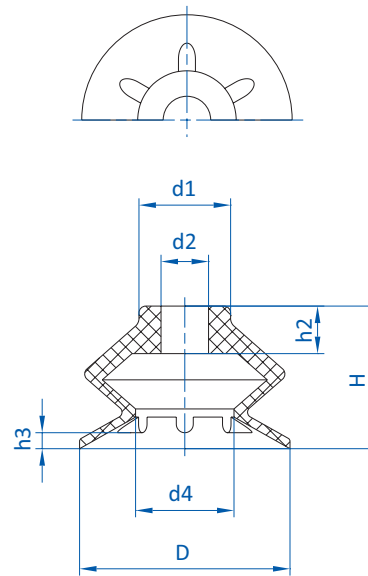
Drawing A



Drawing B



Drawing C

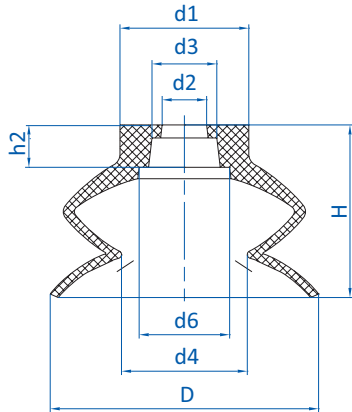


Drawing D

* When ordering please add the appropriate material code to item no.



Dimensions



Drawing E

Item no.	Drawing	$\varnothing D$ [mm]	$\varnothing d1$ [mm]	$\varnothing d2$ [mm]	$\varnothing d3$ [mm]	$\varnothing d4$ [mm]	$\varnothing d5$ [mm]	$\varnothing d6$ [mm]	H [mm]	h2 [mm]	h3 [mm]
23.005.095._*	A	4.5	3	1.5	--	2.5	4	--	13	10	--
23.007.112._*	A	6	3.7	1.6	--	2.5	6.5	--	11	7.5	--
23.013.097._*	B	13	7.7	3.7	--	7.5	12.5	--	14.7	6.7	--
23.015.098._*	B	15.5	9	3.4	--	8.5	17	--	20.7	11.7	--
23.019.109._*	B	19	12.8	7	--	12	19	--	18	7.4	--
23.020.114._*	C	20	9.5	3.5	--	11	19	4.8	20	4	--
23.022.028._*	A	22	10	4.7	--	11	24	--	19	9	--
23.028.113._*	C	28	12.5	3.5	--	13	26	5	21	4	--
23.030.107._*	B	30	13.2	6.4	--	15	29.3	--	22	7	--
23.031.192._*	D	31	13.5	7	--	14.5	--	--	21	7	2.4
23.035.111._*	B	35	17	6	--	20	33	--	30	16	--
23.052.116._*	B	50.8	18.5	9.7	--	30	50	--	40.8	21.2	--
23.070.060._*	E	70	33.6	11.6	16.9	33	--	24.3	45	11.1	--

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups series

Vinyl bellows cups, 2.5 folds – SBV 2

Vinyl bellows cups, 2.5 folds – SBV 2



Product notes

Durable bellows vacuum cups with a long stroke, made of snug-fitting, wear-resistant material.
Very well suited for handling abrasive products such as cardboard.
Flexible material enables low-leakage gripping of highly flexible products such as foil-packaged goods. Connection via plug-in nipple.

Advantage

- > Long vacuum cup lift and good adaptation to curved or uneven product surfaces
- > Flexible, soft lips
- > Long life cycle
- > Cost-effective replacement of worn seals

Technical data

Item no.	Model	↓	Number of folds	Material / Color
21.006.001.*	SBV 2-6	3.5	2.5	Vinyl (bl)
21.010.070.*	SBV 2-10	5	2.5	Vinyl (bl)
21.018.068.*	SBV 2-18	11	2.5	Vinyl (bl)
21.023.066.*	SBV 2-23	9	2.5	Vinyl (bl)
21.029.069.*	SBV 2-29	10	2.5	Vinyl (bl)
21.032.082.*	SBV 2-32	14	2.5	Vinyl (bl)
21.040.027.*	SBV 2-40	16	2.5	Vinyl (bl)
21.050.084.*	SBV 2-50	20	2.5	Vinyl (bl)

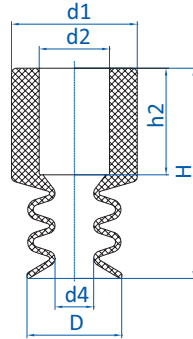
Accessories

Item no.	Suitable fittings						
	M5-male	M6-male	M10-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
21.006.001.*	270.013	270.103	--	270.003	270.015	--	--
21.010.070.*	270.013	270.103	--	270.003	270.015	--	--
21.018.068.*	270.013	270.103	--	270.003	270.015	270.194	--
21.023.066.*	--	--	270.177	--	--	270.451	270.452
21.029.069.*	--	--	--	270.132	270.114	270.043	270.178
21.032.082.*	--	--	270.177	--	--	270.451	270.452
21.040.027.*	--	--	270.177	--	--	270.451	270.452
21.050.084.*	--	--	270.177	--	--	270.451	270.452

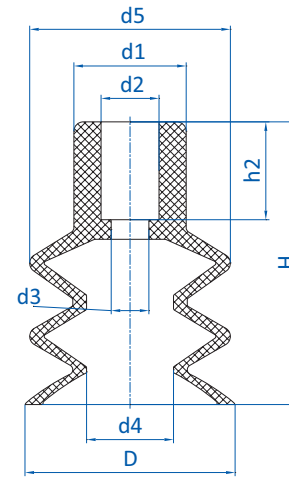
* When ordering please add the appropriate material code to item no.



Dimensions



Drawing B



Drawing A

Item no.	Drawing	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d4 [mm]	H [mm]	h2 [mm]
21.006.001._*	B	6.5	8.5	5	2.5	14	7
21.010.070._*	B	10	10	5	5	15.5	7.5
21.018.068._*	A	19	10	5	9	24	9
21.023.066._*	A	23	17	11	13.5	26	12
21.029.069._*	A	29	15.5	8	12	39	13.5
21.032.082._*	A	32	17	11	19.5	35	14
21.040.027._*	A	40	20	10.5	18.5	53	13.5
21.050.084._*	A	50	19.5	10.5	30	49	13.5

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups series

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

Ordering notes

> Imperial NPT fittings for the US-market available upon request

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

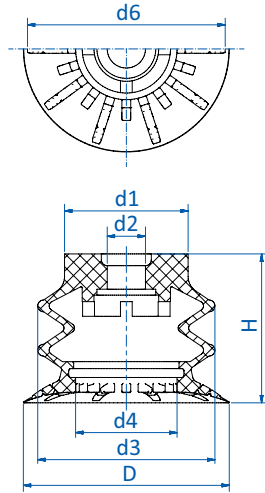
Item no.	Suitable fittings		
	G1/8-female	G1/4-male	G3/8-male
21.035.190.16	270.501-S	270.506-S	270.505-S
21.052.191.16	270.502-S	270.504-S	270.507-S
21.064.192.16	270.502-S	270.504-S	270.507-S

Hardness range





Dimensions



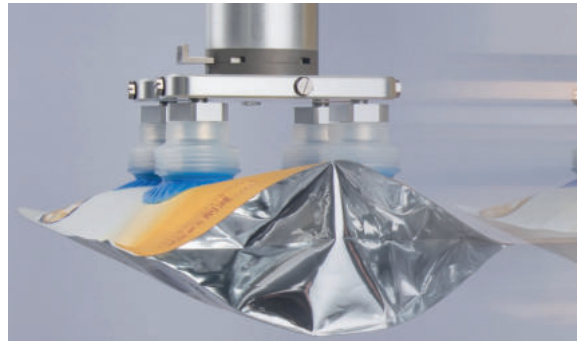
Item no.	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	Ø d6 [mm]	H [mm]
21.035.190.16	35	21	6.5	30	17	34	25.3
21.052.191.16	52	27.5	10.5	40	23	50	30
21.064.192.16	65	35	10.5	52	30	63	39



Bellows vacuum cups series

Bellows cups 3.5 and 5.5folds – SV-BG3

Bellows cups 3.5 and 5.5 folds - SV-BG



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

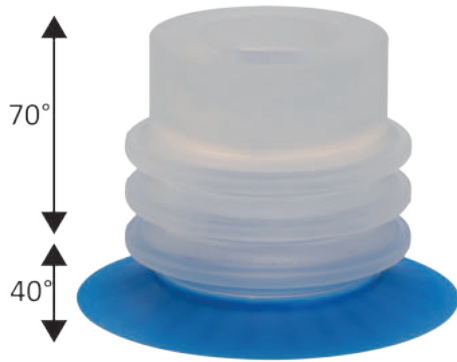
Item no.	Model	Number of folds	Material / Color	Accessories	
				Move-in guard curved	Move-in guard flat
25.030.095.8	SV-BG3-30	6	SI 70°/40° (tr/bl)	78.525-s	78.525-f
25.040.096.8	SV-BG3-40	7	SI 70°/40° (tr/bl)	78.526-s	78.526-f
25.050.097.8	SV-BG3-50	9	SI 70°/40° (tr/bl)	78.527-s	78.527-f
25.030.098.8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



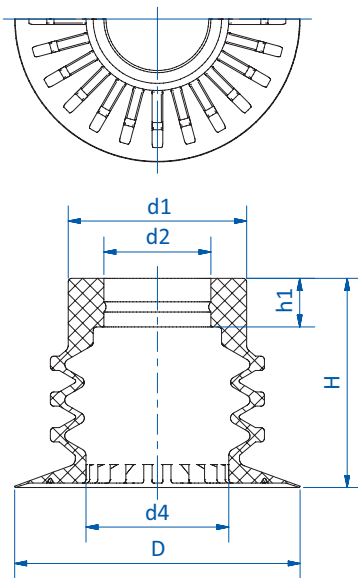
Hardness range



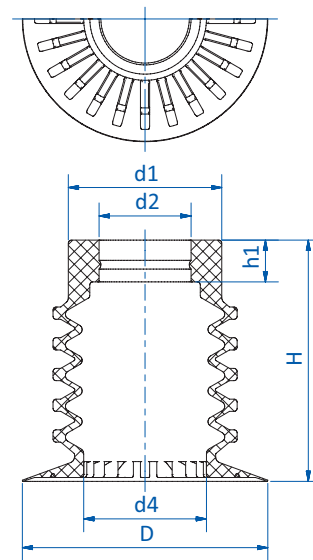
The non-detachable vulcanized, robust bellows area made of silicone 70° Shore A ensures the best possible stability and hold with short cycle times and high acceleration.

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

Continued on the next page →

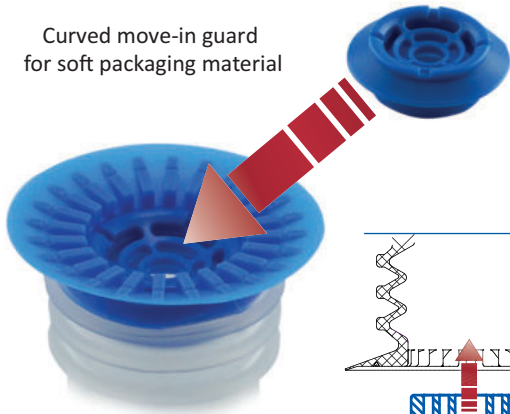


Bellows vacuum cups series

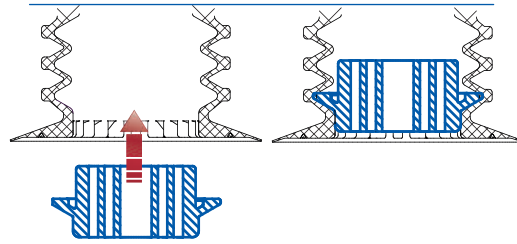
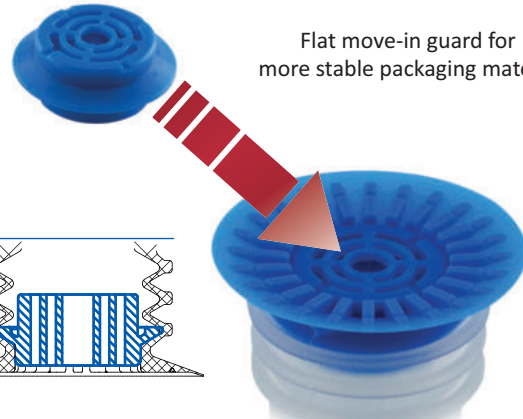
Bellows cups 3.5 and 5.5folds – SV-BG3

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

Curved move-in guard
for soft packaging material



Flat move-in guard for
more stable packaging material



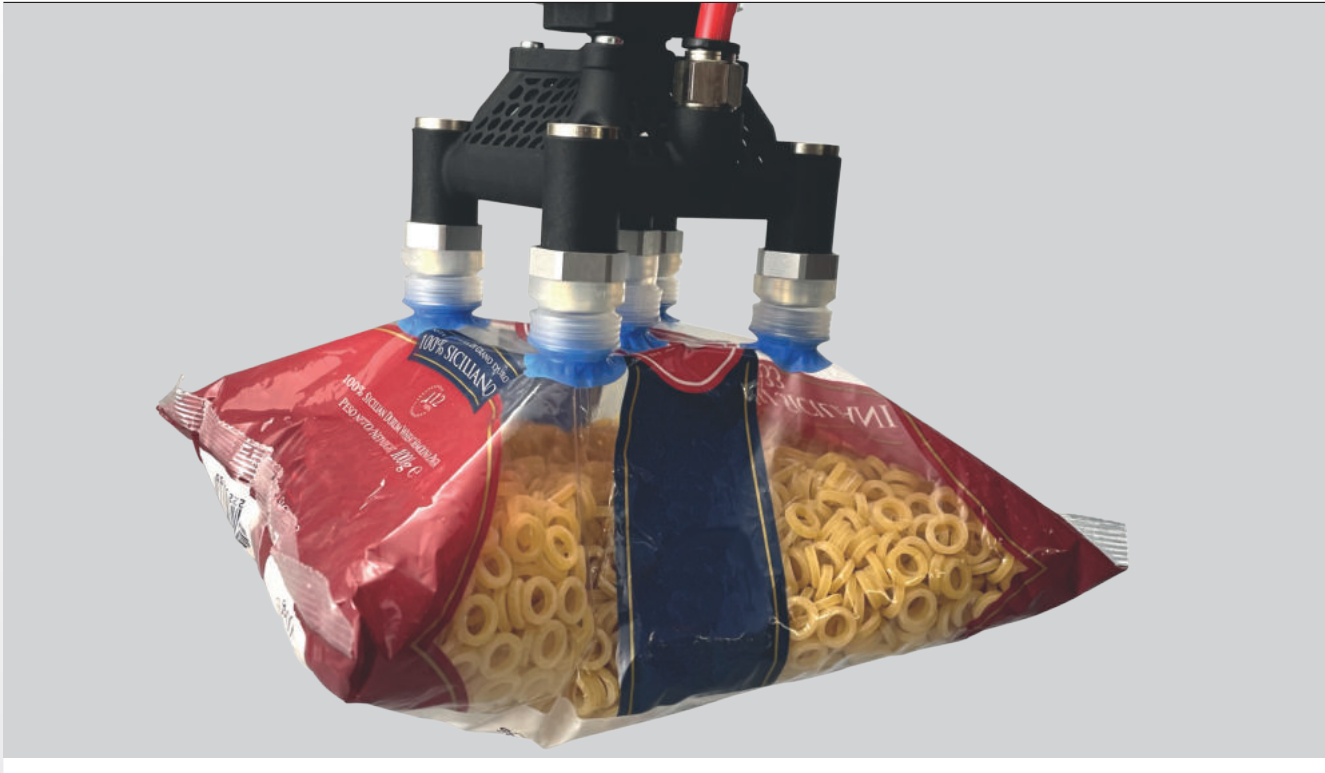
Easy clipping into the lower fold of the vacuum cup

Application example





Application example



Continued on the next page →



Bellows vacuum cups series

Move-in guard for vacuum cups SV-BG

Move-in guard for vacuum cups SV-BG



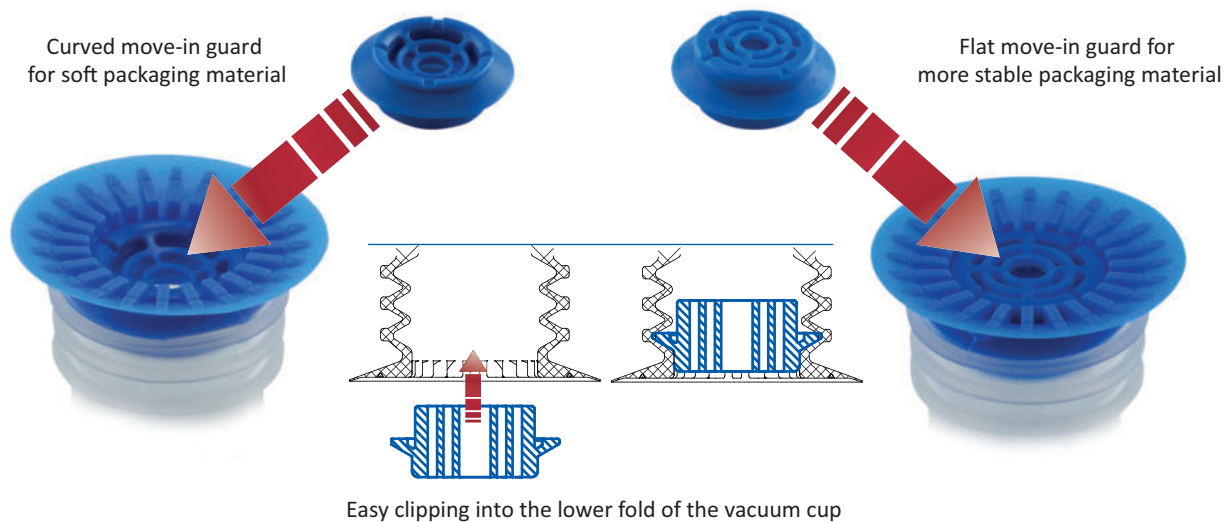
Product notes

- > 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

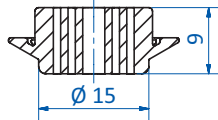
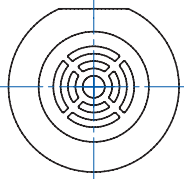
Item no.	Design	Suitable for	Material
78.525-f	flat	SV-BG-30	PP
78.525-s	curved	SV-BG-30	PP
78.526-f	flat	SV-BG-40	PP
78.526-s	curved	SV-BG-40	PP
78.527-f	flat	SV-BG-50	PP
78.527-s	curved	SV-BG-50	PP

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

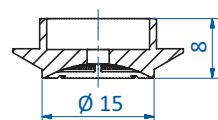
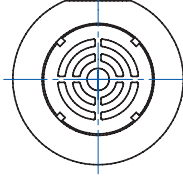




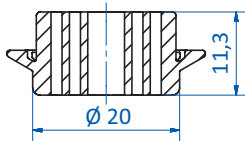
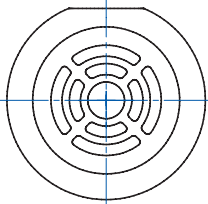
Dimensions



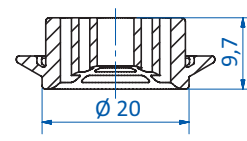
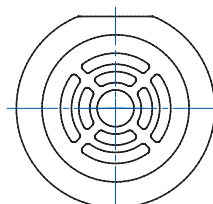
78.525-f



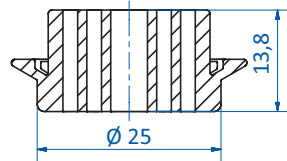
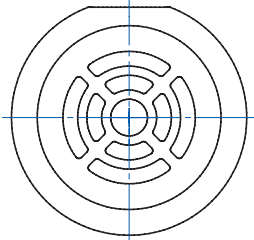
78.525-s



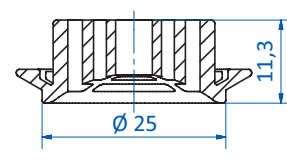
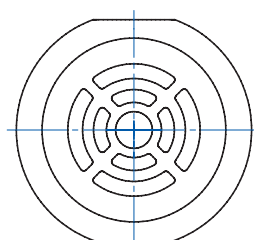
78.526-f



78.526-s



78.527-f



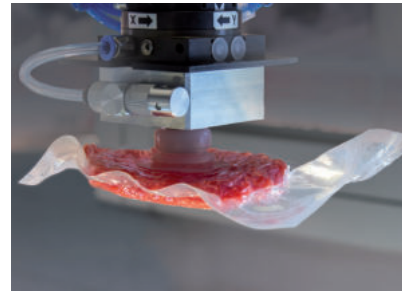
78.527-s



Bellows vacuum cups series

Bellows vacuum cups, 1.5 folds – SBF-A

Bellows vacuum cups, 1.5 folds – SBF-A



Product notes

Bellows vacuum cup with soft, very flexible single sealing lip for handling highly sensitive products with high leveling adjustment. Connection with plugged, or fixed screwed nipple or attachment frame (Ø 80 mm). Compatible "snap-in" spring leveller available.

Advantage

- > Large holding force
- > Fine, flexible sealing lip fits in perfectly with irregularities of the product
- > Cleats for the sealing lip prevent retraction of flexible products (e.g. films)
- > Cost-effective replacement of worn seals
- > High process reliability due to fixed, non-rotating seat of the screw nipple

Technical data

Item no.	Model	Number of folds	Number of folds	Material / Color	Accessories
Rubber sealing lip for attachment to fitting					
23.006.290.*	SBF-A -6	2.3	1.5	NBR (sw), SI (tr), SI-AS (sw)	--
23.008.291.*	SBF-A -8	3	1.5	NBR (sw), SI (tr), SI-AS (sw)	--
23.010.139.*	SBF-A -10	4	1.5	NBR (sw), SI (tr), SI-LE (tr), SI-AS (sw)	--
23.015.292.*	SBF-A -15	4	1.5	NBR (sw), SI (tr), SI-AS (sw)	--
23.020.140.*	SBF-A -20	6	1.5	NBR (sw), SI (tr), SI-LE (tr)	--
23.025.293.*	SBF-A -25	6	1.5	NBR (sw), SI (tr)	--
23.030.141.*	SBF-A -30	8	1.5	NBR (sw), SI (tr), SI-LE (tr)	--
23.040.142.*	SBF-A -40	9.5	1.5	NBR (sw), SI (tr)	--
23.050.143.*	SBF-A -50	11	1.5	NBR (sw), SI (tr)	--
23.080.144.*	SBF-A -80	10	1.5	NBR (sw), SI (tr)	--
Full vacuum cups with receptacle					
22.080.161.*	SBF-A -80	10	1.5	NBR (sw), SI (tr)	23.080.144.*

Accessories

Item no.	Suitable fittings							
	M4-male	M5-male	M6-male	M10-female	G1/8-male	G1/8-female	G1/4-male	G1/4-female
Rubber sealing lip for attachment to fitting								
23.006.290.*	--	270.791	--	--	--	--	--	--
23.008.291.*	--	270.791	--	--	--	--	--	--
23.010.139.*	270.458	270.134	270.104	--	--	--	--	--
23.015.292.*	270.458	270.134	270.104	--	--	--	--	--
23.020.140.*	--	270.311	270.459	--	270.480	270.479	--	--
23.025.293.*	--	270.311	270.459	--	270.480	270.479	--	--
23.030.141.*	--	--	270.460	--	270.482	270.481	270.483	270.484

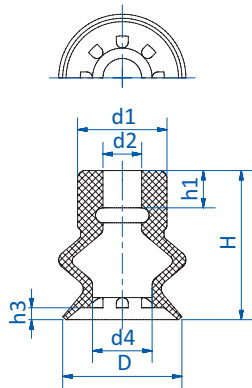
* When ordering please add the appropriate material code to item no.



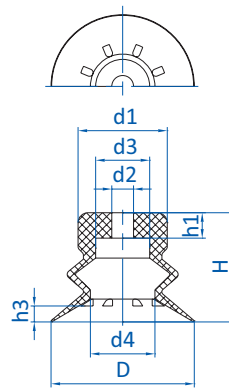
Accessories

Item no.	Suitable fittings							
	M4-male	M5-male	M6-male	M10-female	G1/8-male	G1/8-female	G1/4-male	G1/4-female
23.040.142._*	--	--	270.498	--	270.486	270.485	270.487	270.488
23.050.143._*	--	--	270.499	--	270.490	270.489	270.491	270.492
23.080.144._*	--	--	--	--	--	--	--	--
Full vacuum cups with receptacle								
22.080.161._*	--	--	--	270.088	--	--	--	270.089

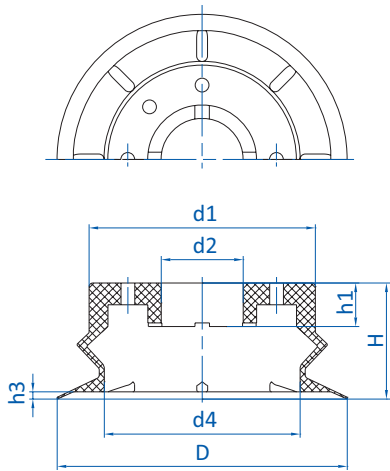
Dimensions



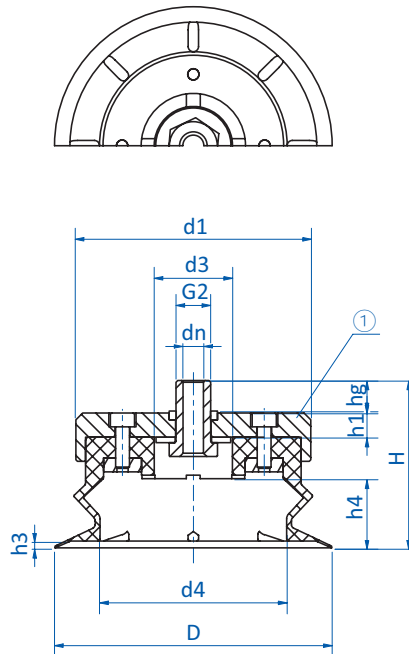
Drawing A



Drawing B



Drawing C



Drawing D

① = Aluminum

Continued on the next page →

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups series

Bellows vacuum cups, 1.5 folds – SBF-A

Item no.	Drawing	∅ D [mm]	∅ d1 [mm]	∅ d2 [mm]	∅ d3 [mm]	∅ d4 [mm]	∅ dn [mm]	G2 (male)	H [mm]	h1 [mm]	h3 [mm]	h4 [mm]	hg [mm]
Rubber sealing lip for attachment to fitting													
23.006.290._*	A	6	6	2.6	--	3	--	--	10	2.5	0.6	--	--
23.008.291._*	A	8	6	2.6	--	4	--	--	10	2.5	0.8	--	--
23.010.139._*	B	10	10	4	6	5	--	--	15.5	3	1	--	--
23.015.292._*	B	15	11	4	6	8	--	--	16	3	1.5	--	--
23.020.140._*	B	20	15	6	10	11	--	--	19	4	2	--	--
23.025.293._*	B	25	17	6	10	11.6	--	--	19	4	2	--	--
23.030.141._*	B	30	17	6	12	14	--	--	23	5	2.8	--	--
23.040.142._*	B	40	25	6	15	18	--	--	30	7	4.4	--	--
23.050.143._*	B	50	30	6	21	21	--	--	32	7	4	--	--
23.080.144._*	C	80	62	23	--	54	--	--	32	12	2	--	--
Full vacuum cups with receptacle													
22.080.161._*	D	80	68	--	23	54	6	M10	48	7	2	20	9

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups, 1.5 folds – SBF-B




Product notes

Bellows vacuum cup, 1.5 folds with soft sealing lip and soft bellows for handling curved or uneven product surfaces. Connection via plug-in nipple. Compatible "snap-in" spring leveller available.




Advantage


- > Bellows compensate height differences
- > Good adaptation to curved or uneven product surfaces
- > Cost-effective replacement of worn seals

Technical data

Item no.	Model		Number of folds	Material / Color
23.006.145.*	SBF-B-6	5	1.5	NBR (sw), SI (tr)
23.008.146.*	SBF-B-8	5	1.5	NBR (sw), SI (tr)
23.010.147.*	SBF-B-10	5	1.5	NBR (sw), SI (tr), SI-LE (tr)
23.015.148.*	SBF-B-15	7	1.5	NBR (sw), SI (tr)
23.020.149.*	SBF-B-20	6	1.5	NBR (sw), SI (tr)

Accessories

Item no.	 Suitable fittings					 Suitable spring leveler (Snap-in)		
	M5-male	M6-male	G1/8-male	G1/8-female	G1/4-male	Spring leveler		Hose outside Ø
23.006.145.*	270.200	--	270.064	270.065	--	50.018	8.5	4
23.008.146.*	270.200	--	270.064	270.065	--	50.018	8.5	4
23.010.147.*	270.200	--	270.064	270.065	--	50.018	8.5	4
23.015.148.*	270.200	--	270.064	270.065	--	50.018	8.5	4
23.020.149.*	270.317	270.103	270.205	270.109	270.194	50.020	8.5	6

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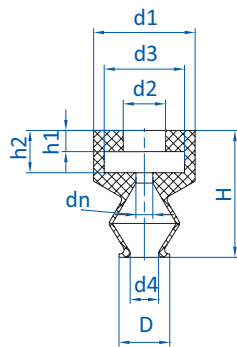
* When ordering please add the appropriate material code to item no.



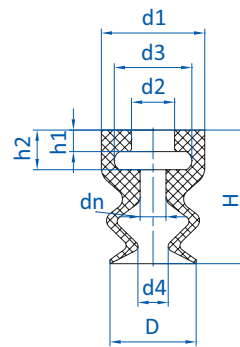
Bellows vacuum cups series

Bellows vacuum cups, 1.5 folds – SBF-B

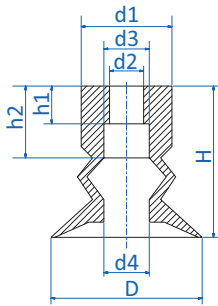
Dimensions



Drawing A



Drawing B



Drawing C

Item no.	Drawing	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	Ø dn [mm]	H [mm]	h1 [mm]	h2 [mm]
23.006.145._*	A	6	12	5	9.5	3.4	2	15	2.5	5
23.008.146._*	B	8	12	5	9	4	2	14.7	2.5	4.5
23.010.147._*	B	10	12	5	9	3.5	3	15.5	2.5	4.5
23.015.148._*	B	15	12	5	9	5.5	3	17	2.5	4.5
23.020.149._*	C	20	12	4.5	6	6	--	20	5	9.5

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups, 4.5 folds – SBF-C



Product notes

Bellows vacuum cup, 4.5 folds, with a very thin, flexible sealing lip and a large stroke. Fine, flexible sealing lip fits in perfectly with irregularities of the product (e.g. groceries packaged in bags).
Connection via screw nipples (hollow bolt + adapter)

Advantage

- > Optimal height and angle compensation
- > Very good fit to irregular products
- > Gentle handling of sensitive products
- > A very safe seat, bolted down with a bracket from the bottom
- > Cost-effective replacement of worn seals

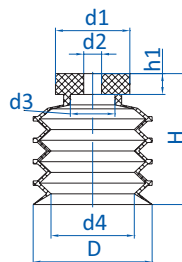
Technical data

Item no.	Model	↓	Number of folds	Material / Color
25.010.044._*	SBF-C-10	4	4.5	NBR (sw), SI (tr)
25.020.045._*	SBF-C-20	10	4.5	NBR (sw), SI (tr)
25.030.046._*	SBF-C-30	14	4.5	NBR (sw), SI (tr)
25.040.047._*	SBF-C-40	19	4.5	NBR (sw), SI (tr)
25.050.048._*	SBF-C-50	26	4.5	NBR (sw), SI (tr)

Accessories

Item no.	Suitable fittings					
	M4-male	M6-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
25.010.044._*	270.458	--	270.009	270.007	--	--
25.020.045._*	--	270.459	270.480	270.479	--	--
25.030.046._*	--	270.460	270.482	270.481	270.483	270.484
25.040.047._*	--	--	270.486	270.485	270.487	270.488
25.050.048._*	--	--	270.490	270.489	270.491	270.492

Dimensions



Item no.	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	H [mm]	h1 [mm]
25.010.044._*	10	10	4	--	6	14.5	3
25.020.045._*	20	15	6	10	14	25	4
25.030.046._*	30	18	6	12	19	38.5	5
25.040.047._*	40	25	6	15	28	44	7
25.050.048._*	50	30	6	19	32	54	7

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups series

Bellows vacuum cups for chocolates – SL-PB

Bellows vacuum cups for chocolates – SL-PB




Product notes

Flat vacuum cups made of FDA-approved silicone for handling delicate products with heavily textured surfaces.




Advantage

- > Gentle handling of the most sensitive surfaces
- > Also suitable for three-dimensional products, e.g. chocolates

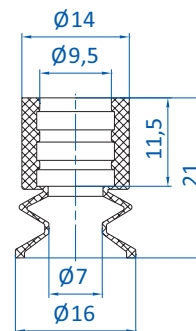
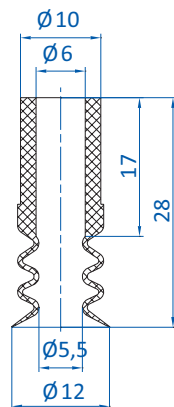
Technical data

Item no.	Model		Material / Color	Number of folds	Hardness [° Shore A]
21.012.079._*	SL-PB-12	7	SI (w), SI-LE (w), SI (tr), SI-LE (tr)	2.5	50, 35
27.016.001._*	SL-PB-16	6	SI (tr), SI-LE (tr)	1.5	50

Accessories

Item no.	 Suitable fittings						 Suitable spring leveler (Snap-in)	
	M5-male	M10-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female	Spring leveler	
21.012.079._*	270.443	--	270.238	270.110	270.534	--	--	--
27.016.001._*	270.244	270.177	--	--	270.451	270.452	50.005	5

Dimensions



Drawing B

* When ordering please add the appropriate material code to item no.



Vacuum cups for baked goods – SL-B



Product notes

Bellows vacuum cups especially suitable for baked goods such as waffles, bread, rolls, pizzas and donuts.

Advantage

- > Large degree of leveling
- > Gentle attachment to the product
- > Good holding strength through optimized lip geometry
- > FDA-compliant

Ordering notes

Matching assembly aid for special fitting 270.419: Item no. 90.007

Technical data

Item no.	Model	Number of folds	Number of folds	Material / Color	Hardness [° Shore A]
21.034.179._*	SL-B-34	12	2.5	SI-LE (tr)	50
25.038.016._*	SL-B-38	24	4.5	SI (tr), SI-LE (tr)	50
27.039.017._*	SL-B-38A	20	5.5	SI (tr) 50° Shore	50
25.040.043._*	SL-B-40	24	4.5	SI (tr) 50° Shore, SI (tr) 30° Shore	50, 30
25.040.058._*	SL-B-40A	25	4.5	SI (bl), SI-LE (bl)	35
21.060.074._*	SL-B-60	12	2.5	SI (tr)	30

Accessories

Item no.	Suitable fittings				
	Without Thread	M6-male	G1/4-male	G1/4-female	G1/2-male
21.034.179._*	--	270.039	--	--	--
25.038.016._*	270.419	--	270.183	270.182	--
27.039.017._*	270.419	--	270.183	270.182	--
25.040.043._*	270.419	--	270.183	270.182	--
25.040.058._*	270.419	--	270.183	270.182	--
21.060.074._*	--	--	--	--	270.372

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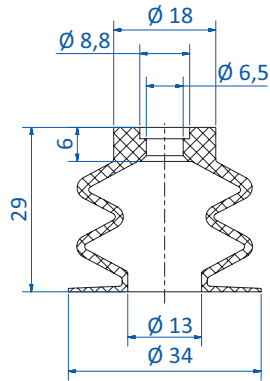
* When ordering please add the appropriate material code to item no.



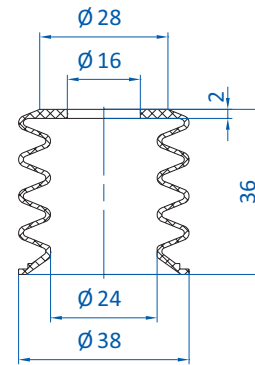
Bellows vacuum cups series

Vacuum cups for baked goods – SL-B

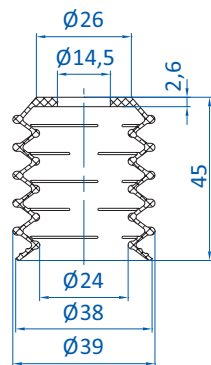
Dimensions



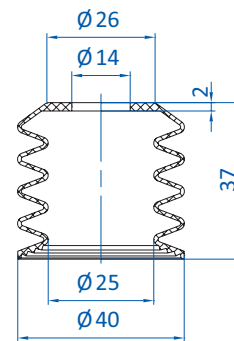
Drawing A



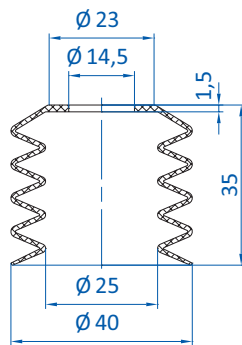
Drawing B



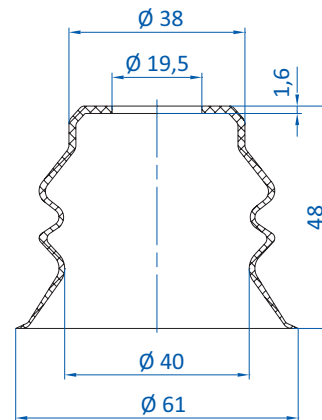
Drawing C



Drawing D



Drawing E



Drawing F

Item no.	Drawing
21.034.179._*	A
25.038.016._*	B
27.039.017._*	C
25.040.043._*	D
25.040.058._*	E
21.060.074._*	F

* When ordering please add the appropriate material code to item no.



Plug-In vacuum cups 2.5 folds – SBP2



Product notes

- > Bellows vacuum cups for direct installation in bores and housings
- > Simple and tool-free exchange
- > Dynamic use on cardboard and packaging
- > Compatible with common vacuum gripping systems
- > Optionally with built-in flow resistance to reduce leakage

Flow resistors available separately

- > 270.730: SW08 = 0.8 mm; POM white
- > 270.731: SW10 = 1.0 mm; POM blue
- > 270.732: SW13 = 1.3 mm; POM black
- > 270.733: SW15 = 1.5 mm; POM white

Notes


Material code and Shore hardness:

- *.2 = SI (tr) Silicone transparent, Shore hardness 55°
- *.8 = SI (w) Silicone white, Shore hardness 35°

Order example:

- 21.020.185.2 = Plug-In vacuum cup single, Shore hardness 55°
- 21.020.185.8-SW08-LE = Plug-In vacuum cup, Shore hardness 35°, with mounted flow resistor 0.8 mm, suitable for food contact

Technical data

Item no.	Model		Free passage Ø [mm]	Suction power to achieve 60 % vacuum [NI/min]	Flow resistor [mm]	Connection	Number of folds
Plug-In vacuum cups without flow resistor							
21.020.185._*	SBP2-20	9	4.3	29	without	Push-In	2.5
21.040.186._*	SBP2-40	20	4.3	29	without	Push-In	2.5
Plug-In vacuum cups with mounted flow resistor 0.8 mm							
21.020.185._*-SW08	SBP2-20	9	0.8	7	0.8	Push-In	2.5
21.040.186._*-SW08	SBP2-40	20	0.8	7	0.8	Push-In	2.5
Plug-In vacuum cups with mounted flow resistor 1 mm							
21.020.185._*-SW10	SBP2-20	9	1	9	1	Push-In	2.5
21.040.186._*-SW10	SBP2-40	20	1	9	1	Push-In	2.5
Plug-In vacuum cups with mounted flow resistor 1.3 mm							
21.020.185._*-SW13	SBP2-20	9	1.3	14	1.3	Push-In	2.5
21.040.186._*-SW13	SBP2-40	20	1.3	14	1.3	Push-In	2.5
Plug-In vacuum cups with mounted flow resistor 1.5 mm							
21.020.185._*-SW15	SBP2-20	9	1.5	17	1.5	Push-In	2.5
21.040.186._*-SW15	SBP2-40	20	1.5	17	1.5	Push-In	2.5

Continued on the next page →

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups series

Plug-In vacuum cups 2.5 folds – SBP2

When ordering please note

Order example:

21.020.185.2 = Plug-In vacuum cup single

21.020.185.2-SW08-LE = Plug-In vacuum cup with mounted flow resistor 0.8 mm, suitable for food contact

21.020.185.2-SW08-LE

LE = Suitable for short-time contact with food

SW08 = 0.8 mm; POM white

SW10 = 1.0 mm; POM blue

SW13 = 1.3 mm; POM black

SW15 = 1.5 mm; POM white

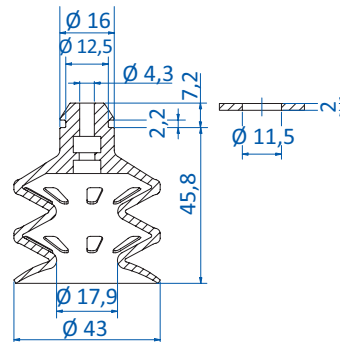
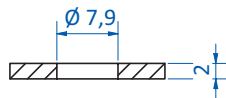
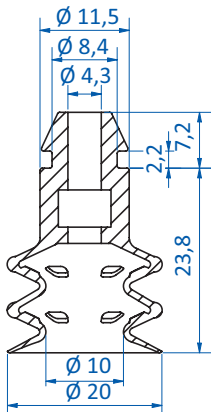


Material code:

*.2 = SI (tr) Silicone transparent, Shore hardness 55°

*.8 = SI (w) Silicone white, shore hardness 35°

Dimensions



* When ordering please add the appropriate material code to item no.



Flow resistor for Plug-In vacuum cups SBP2



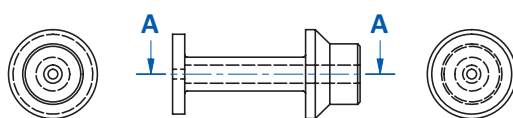
Product notes

- > Flow resistance for direct mounting in the vacuum cup
- > Four different inner diameters for individual application
- > Different colors for easy differentiation
- > Reduces the volume flow in the case of vacuum cups that are not or not fully loaded
- > Enables the energy-saving design of the system
- > Increase of process reliability

Technical data

Item no.	Free passage \varnothing [mm]	Suction power to achieve 60 % vacuum [Nl/min]	Colour	Design	Material	Weight [g]	Suitable for
270.730	0.8	7	white	Plug-In	POM	0.2	SBP2-20 & SBP2-40
270.731	1	9	blue	Plug-In	POM	0.2	SBP2-20 & SBP2-40
270.732	1.3	14	black	Plug-In	POM	0.2	SBP2-20 & SBP2-40
270.733	1.5	17	white	Plug-In	POM	0.2	SBP2-20 & SBP2-40

Dimensions



A - A (4 : 1)

\varnothing dn [mm]	270.730	270.731	270.732	270.733
\varnothing dn [mm]	0,8	1,0	1,3	1,5
6,6				
7,4				
10				
4,5				
15,5				

Application example



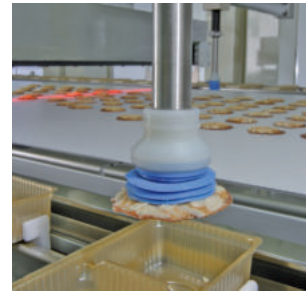
* When ordering please add the appropriate material code to item no.



Bellows vacuum cups series

Bellows vacuum cups, 1.5 and 2.5 folds – SV-SB

Bellows vacuum cups, 1.5 and 2.5 folds – SV-SB



Product notes

Bellows vacuum cups, 1.5 and 2.5 folds, for standard packaging machines. Soft, flexible sealing lip for smooth contact. FDA-compliant materials (SI).

Advantage

> Gentle handling of sensitive products

Technical data

Item no.	Model		Number of folds	Material / Color
Bellows vacuum cups 1.5 bellows – SV-SB1				
23.016.232._*	SV-SB1-16	6	1.5	SI (tr), SI-LE (tr)
23.030.230._*	SV-SB1-30	7	1.5	NR (gr)
Bellows vacuum cups 2.5 bellows – SV-SB2				
21.030.030._*	SV-SB2-30	13	2.5	SI (tr), SI-LE (tr), NR (bl)
21.040.132._*	SV-SB2-40	11	2.5	SI (tr), SI-LE (tr), SI (bl), SI-LE (bl)

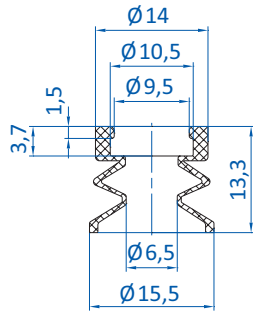
Accessories

Item no.	Suitable fittings					Suitable spring leveler (Snap-in)						
	M5-male	M6-male	M10-male	G1/4-male	G1/4-female	Spring leveler		Spring leveler		Spring leveler		
Bellows vacuum cups 1.5 bellows – SV-SB1												
23.016.232._*	270.311	270.312/19	--	--	--	50.005	5	50.145	11	50.146	30	
23.030.230._*	--	--	270.177	270.451	270.452	--	--	--	--	--	--	
Bellows vacuum cups 2.5 bellows – SV-SB2												
21.030.030._*	--	--	270.177	270.451	270.452	--	--	--	--	--	--	
21.040.132._*	--	--	--	--	--	--	--	--	--	--	--	

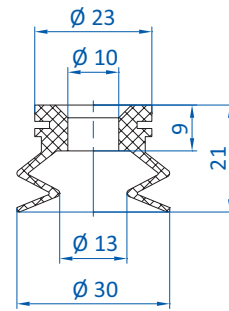
* When ordering please add the appropriate material code to item no.



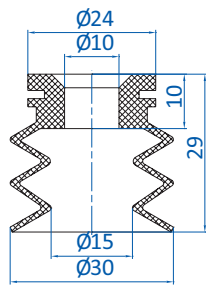
Dimensions



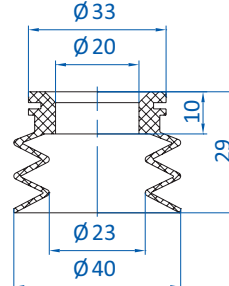
Drawing A



Drawing B



Drawing C



Drawing D

Item no.	Drawing
Bellows vacuum cups 1.5 bellows – SV-SB1	
23.016.232._*	A
23.030.230._*	B
Bellows vacuum cups 2.5 bellows – SV-SB2	
21.030.030._*	C
21.040.132._*	D

* When ordering please add the appropriate material code to item no.



Series | Bellows vacuum cups SB

Bellows vacuum cups with 1.5 folds for dynamic sheet handling - SM-B

Bellows vacuum cups with 1.5 folds for dynamic sheet handling - SM-B



Product Description

Robust, circular NBR bellows vacuum cups, 60° Shore A with vulcanized fitting made of aluminum and large area, multi-part „anti-slip“ cleats. Various connection threads available. PWIS-conform to guideline VDMA 24364 test category A1.

Advantage

- > Internal supports help to prevent deep-drawing or deformation of thin sheets
- > Leak-free suction even with curved surfaces due to flexible sealing lip
- > Fold geometry allows handling of three dimensional shaped sheets
- > Secure fit due to vulcanised connection thread

Technical data

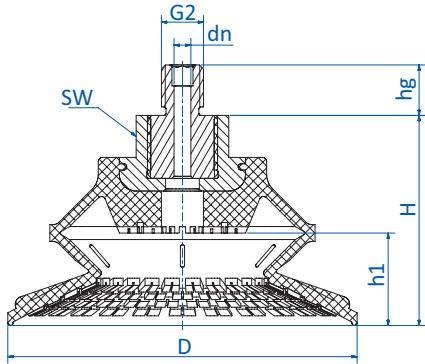
Model / Lip dimensions	Thread (Aluminium)						
	G1/4-male	G1/4-female	G3/8-female	M10-male	M14x1.5-male	Rectangular adapter	
SM-B-22	22.022.222.1	22.022.223.1	22.022.224.1	22.022.225.1	22.022.226.1	22.022.227.1	5.8
SM-B-30	22.030.171.1	22.030.172.1	22.030.173.1	22.030.174.1	22.030.175.1	22.030.176.1	8
SM-B-40	22.040.177.1	22.040.178.1	22.040.179.1	22.040.180.1	22.040.181.1	22.040.182.1	11
SM-B-50	22.050.183.1	22.050.184.1	22.050.185.1	22.050.186.1	22.050.187.1	22.050.188.1	12.5
SM-B-60	22.060.189.1	22.060.190.1	22.060.191.1	22.060.192.1	22.060.193.1	22.060.194.1	16.5
SM-B-80	22.080.195.1	22.080.196.1	22.080.197.1	22.080.198.1	22.080.199.1	22.080.200.1	22
SM-B-100	22.100.201.1	22.100.202.1	22.100.203.1	22.100.204.1	22.100.205.1	22.100.206.1	25
SM-B-125	22.125.207.1	22.125.208.1	22.125.209.1	22.125.210.1	22.125.211.1	22.125.212.1	32

"Anti-Slip" Cleats (SM-B-80)

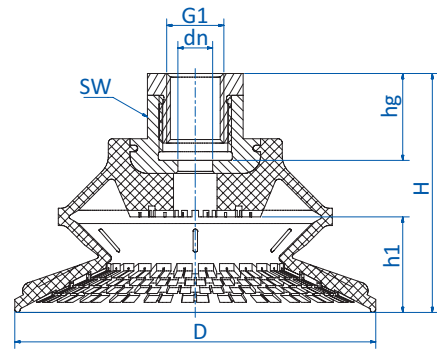




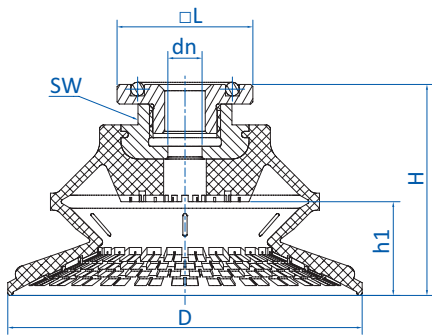
Dimensions



Drawing A



Drawing B



Drawing C



Series | Bellows vacuum cups SB

Bellows vacuum cups with 1.5 folds for dynamic sheet handling - SM-B

Item no.	Drawing	Ø D [mm]	Ø D max.* [mm]	Ø dn [mm]	G1 (female)	G2 (male)	□L [mm]	H [mm]	h1 [mm]	hg [mm]	SW
22.022.222.1	A	22	23.5	4	--	G1/4	--	25	5.8	10	17
22.022.223.1	B	22	23.5	4	G1/4	--	--	25	5.8	12	17
22.022.224.1	B	22	23.5	4	G3/8	--	--	41	5.8	10	17
22.022.225.1	A	22	23.5	4	--	M10	--	25	5.8	12	17
22.022.226.1	A	22	23.5	4	--	M14x1.5	--	25	5.8	12	17
22.022.227.1	C	22	23.5	4	--	--	31.8	28.2	5.8	--	17
22.030.171.1	A	32	34.2	4	--	G1/4	--	28	8	10	17
22.030.172.1	B	32	34.2	4	G1/4	--	--	28	8	12	17
22.030.173.1	B	32	34.2	4	G3/8	--	--	44	8	10	17
22.030.174.1	A	32	34.2	4	--	M10	--	28	8	12	17
22.030.175.1	A	32	34.2	4	--	M14x1.5	--	28	8	12	17
22.030.176.1	C	32	34.2	4	--	--	31.8	30.2	8	--	17
22.040.177.1	A	42	43	4	--	G1/4	--	29	11	10	17
22.040.178.1	B	42	43	4	G1/4	--	--	29	11	12	17
22.040.179.1	B	42	43	4	G3/8	--	--	45	11	10	17
22.040.180.1	A	42	43	4	--	M10	--	29	11	12	17
22.040.181.1	A	42	43	4	--	M14x1.5	--	29	11	12	17
22.040.182.1	C	42	43	4	--	--	31.8	31.2	11	--	17
22.050.183.1	A	52	54	6	--	G1/4	--	37	12.5	10	22
22.050.184.1	B	52	54	6	G1/4	--	--	42	12.5	20	22
22.050.185.1	B	52	54	6	G3/8	--	--	37	12.5	15	22
22.050.186.1	A	52	54	4	--	M10	--	37	12.5	12	22
22.050.187.1	A	52	54	6	--	M14x1.5	--	37	12.5	12	22
22.050.188.1	C	52	54	6	--	--	31.8	36.5	12.5	--	22
22.060.189.1	A	63	65.3	6	--	G1/4	--	41.5	16.5	10	22
22.060.190.1	B	63	65.3	8	G1/4	--	--	46.5	16.5	20	22
22.060.191.1	B	63	65.3	8	G3/8	--	--	41.5	16.5	15	22
22.060.192.1	A	63	65.3	4	--	M10	--	41.5	16.5	12	22
22.060.193.1	A	63	65.3	6	--	M14x1.5	--	41.5	16.5	12	22
22.060.194.1	C	63	65.3	8	--	--	31.8	41	16.5	--	22
22.080.195.1	A	83	86.8	6	--	G1/4	--	50	22	10	22
22.080.196.1	B	83	86.8	8	G1/4	--	--	55	22	20	22
22.080.197.1	B	83	86.8	8	G3/8	--	--	50	22	15	22
22.080.198.1	A	83	86.8	4	--	M10	--	50	22	12	22
22.080.199.1	A	83	86.8	6	--	M14x1.5	--	50	22	12	22
22.080.200.1	C	83	86.8	8	--	--	31.8	49.5	22	--	22
22.100.201.1	A	103	107.2	6	--	G1/4	--	57	25	10	22
22.100.202.1	B	103	107.2	8	G1/4	--	--	62	25	20	22
22.100.203.1	B	103	107.2	8	G3/8	--	--	57	25	15	22
22.100.204.1	A	103	107.2	4	--	M10	--	57	25	12	22
22.100.205.1	A	103	107.2	6	--	M14x1.5	--	57	25	12	22
22.100.206.1	C	103	107.2	8	--	--	31.8	56.5	25	--	22
22.125.207.1	A	128	132.6	6	--	G1/4	--	68	32	10	22
22.125.208.1	B	128	132.6	8	G1/4	--	--	73	32	20	22
22.125.209.1	B	128	132.6	8	G3/8	--	--	68	32	15	22
22.125.210.1	A	128	132.6	4	--	M10	--	68	32	12	22
22.125.211.1	A	128	132.6	6	--	M14x1.5	--	68	32	12	22
22.125.212.1	C	128	132.6	8	--	--	31.8	67.5	32	--	22

* aspirated condition



Bellows vacuum suction plates Softgrip – SBPL-SG




Product notes

Vacuum suction plate with 1.5 folds for gentle handling of heavy but sensitive products (e.g. glass plates). Divided support surfaces prevent deformation of the product and provide a firm grip. Additional safety sealing lip on the support block positions the product orthogonally to the ground.
Connection via an interlocking, snap-in aluminum plate.

Advantage

- > Very careful handling due to soft sealing lip and lightly compressing bellows
- > Cleats provide product support
- > Cost-effective replacement of worn seals

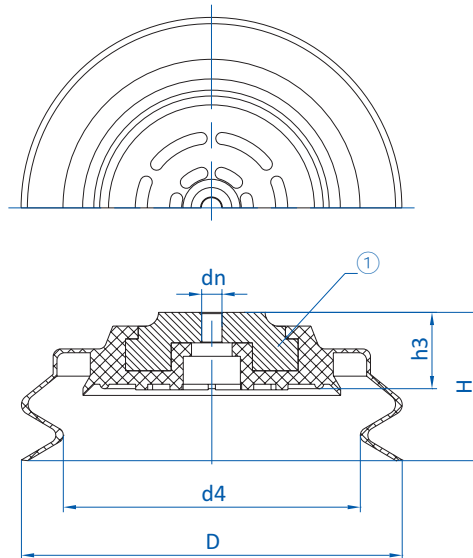
Technical data

Item no.	Model	 ↓	Weight [g]	Material / Color	Number of folds
22.150.109._*	SBPL-SG-150	28	353	NBR (sw)	1.5

Accessories

Spare vacuum cup:
23.150.090.1

Dimensions



① = Aluminum

Item no.	∅ D [mm]	∅ d4 [mm]	∅ dn [mm]	H [mm]	h3 [mm]
22.150.109._*	150	117	8	58	30

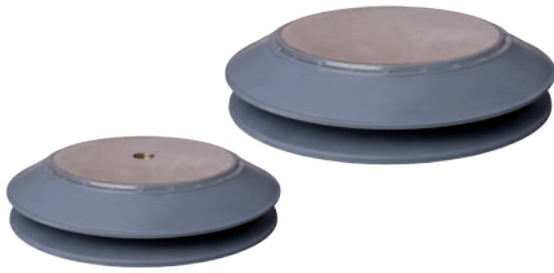
* When ordering please add the appropriate material code to item no.



Bellows vacuum cups series

Bellows vacuum suction plates – SBPL-E

Bellows vacuum suction plates – SBPL-E



Product notes

Vacuum suction plate, 1.5 folds, vulcanized carrier plate made of steel. Soft sealing lip from a low-marking NBR blend and lightly compressing bellows for gentle handling of heavy but sensitive products (e.g. glass plates). Divided support surfaces provide a firm grip for all loads.


Advantage

- > Gentle handling of heavy, sensitive products
- > Good adaptation to both concave and convex surfaces
- > Rubberized support surfaces prevent deformation of workpieces
- > Low-marking

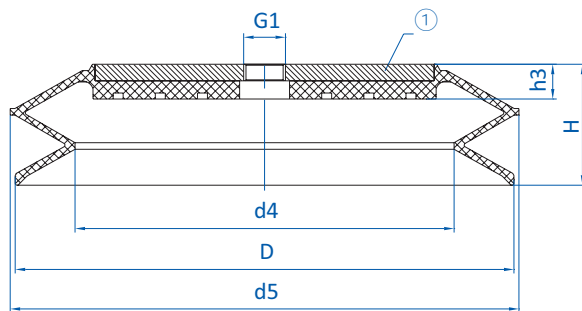
Ordering notes

Customized drilling patterns on request

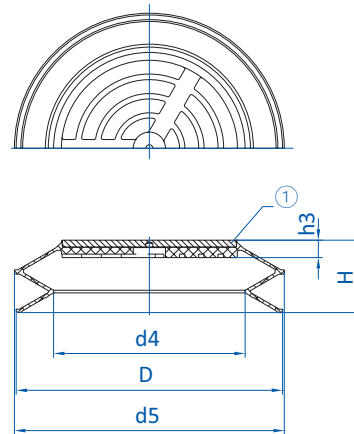
Technical data

Item no.	Model	Connection thread		Weight [g]	Number of folds	Material / Color
22.150.084.*	SBPL-E-150	G1/2-female	32	460	1.5	NBR (gr)
22.200.087.*	SBPL-E-200	G1/2-female	30	860	1.5	NBR (gr)
22.250.088.*	SBPL-E-250	G1/2-female	38	1,900	1.5	NBR (gr)
22.300.091.*	SBPL-E-300	without	60	4,200	1.5	NBR (gr)
22.350.102.*	SBPL-E-350	without	55	4,200	1.5	NBR (gr)

Dimensions



Drawing A

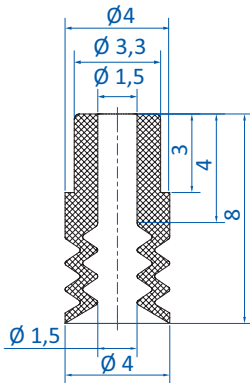


Drawing B

① = Steel

Item no.	Drawing	∅ D [mm]	∅ d4 [mm]	∅ d5 [mm]	G1	H [mm]	h3 [mm]
22.150.084.*	A	150	94	157	G1/2	54	15.5
22.200.087.*	A	200	140	206	G1/2	57	17
22.250.088.*	A	250	190	255	G1/2	61	17.5
22.300.091.*	B	306	220	310	--	83	20
22.350.102.*	B	350	262	350	--	84	21

* When ordering please add the appropriate material code to item no.

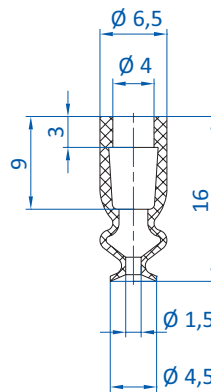


	Connection	
270.427	M3-male	--

Item no.
25.004.087_*

Material
NBR (bl)

1 mm

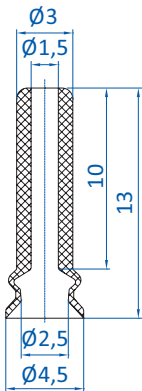


	Connection	
270.134	M5-male	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
23.004.189_*

Material
NBR (sw), SI (tr)

4 mm



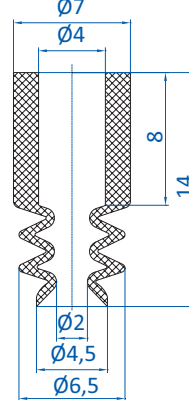
	Connection	
270.195	M5-male	--

Item no.
23.005.095_*

Material
Vinyl (bl)

2 mm

Details and additional sizes available are found on p. 191.



	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

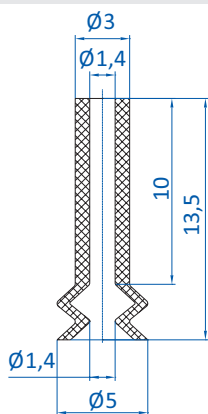
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Item no.
21.004.083_*

Material
SI (tr), SI-LE (tr)

3 mm

Details and additional sizes available are found on p. 159.



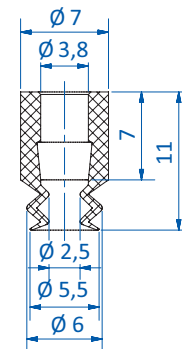
	Connection	
270.195	M5-male	--

Item no.
23.005.181_*

Material
NBR (sw), SI (tr), SI-LE (tr)

2 mm

Details and additional sizes available are found on p. 147.



	Connection	
270.772	M5-male	--

Item no.
23.005.286_*

Material
NBR (sw), SI (tr), Thermalon® (bl)

2 mm

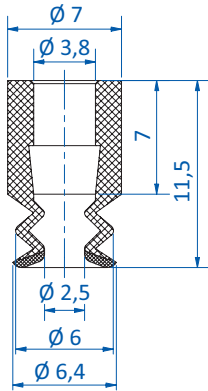
Details and additional sizes available are found on p. 150.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 5 - 6 mm



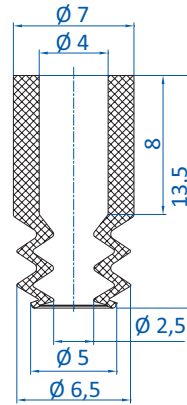
Item no.	Connection	
270.772	M5-male	--

Item no.
23.005.286.19F

Material
Thermalon®-flocked (bl/sw)

3 mm

Details and additional sizes available are found on p. 154.

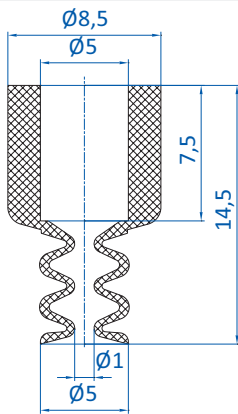


Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
21.005.058._*

Material
NBR (sw), SI (tr)

3 mm

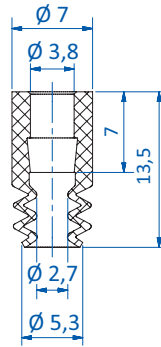


Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

Item no.
21.005.086._*

Material
SI (tr)

3.5 mm



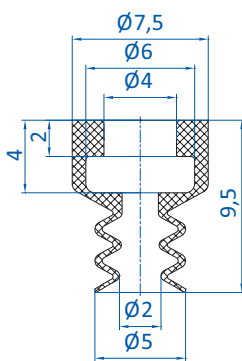
Item no.	Connection	
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
21.005.146._*

Material
NBR (sw), SI (tr), SI-LE (tr),
Thermalon® (bl)

3 mm

Details and additional sizes available are found on p. 162.



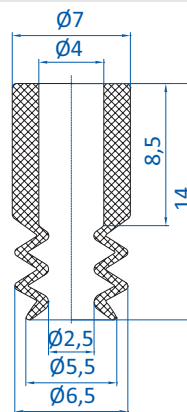
Item no.	Connection	
270.010	M5-male	--
270.005	M5-female	--
270.009	G1/8-male	--
270.007	G1/8-female	--

Item no.
21.005.088._*

Material
NBR (sw), SI (tr)

3 mm

This vacuum cup is also available in the following dimensions: 7 mm



Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

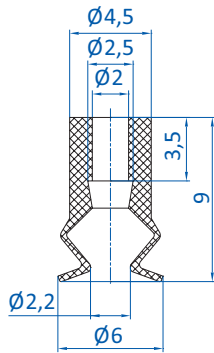
Item no.
21.005.057._*

Material
NBR (g), HNBR (ge), SI (g), SI (tr),
SI-LE (tr), SI-AS (sw), EPDM (gr)

3 mm

Details and additional sizes available are found on p. 159.

* When ordering please add the appropriate material code to item no.

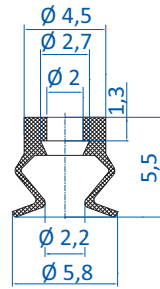


	Connection	
270.153	M5-male	--

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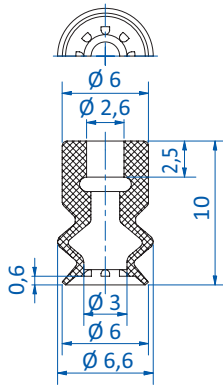
Item no. 23.005.178._*	Material SI (r), SI-LE (r), SI-AS (sw), CR (sw), HNBR (ge)	2 mm
----------------------------------	--	------

Details and additional sizes available are found on p. 174.



	Connection	
270.629	M5-male	--

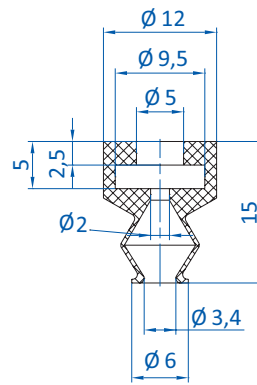
Item no. 23.005.231._*	Material SI (r)	2 mm
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	Connection	
270.791	M5-male	--

Item no. 23.006.290._*	Material NBR (sw), SI (tr), SI-AS (sw)	2.3 mm
----------------------------------	--	--------

Details and additional sizes available are found on p. 204.

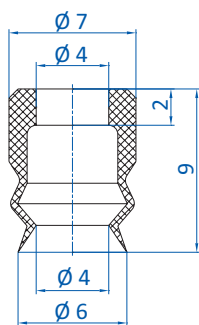


	Connection	
270.200	M5-male	--
270.064	G1/8-male	--
270.065	G1/8-female	--

	Connection	
50.018	8.5 mm	--

Item no. 23.006.145._*	Material NBR (sw), SI (tr)	5 mm
----------------------------------	--------------------------------------	------

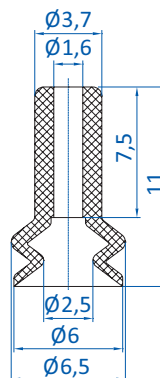
Details and additional sizes available are found on p. 207.



	Connection	
270.010	M5-male	--
270.005	M5-female	--
270.009	G1/8-male	--
270.007	G1/8-female	--
	Connection	
50.330	9 mm	--

Item no. 23.006.161._*	Material SI (tr)	2 mm
----------------------------------	----------------------------	------

This vacuum cup is also available in the following dimensions: 10 mm, 15 mm, 20 mm, 30 mm



	Connection	
270.001	M5-male	--

Item no. 23.007.112._*	Material Vinyl (bl)	2 mm
----------------------------------	-------------------------------	------

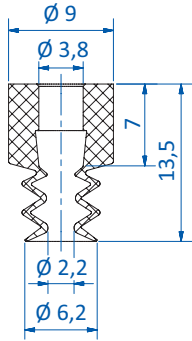
Details and additional sizes available are found on p. 191.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

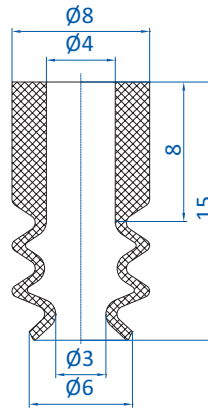
Ø 6 - 7 mm



Item no.	Connection	
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no. 21.007.147.* Material NBR (sw), SI (tr), Thermalon® (bl) 3 mm

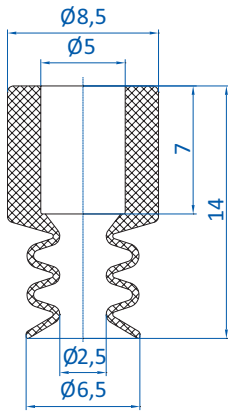
Details and additional sizes available are found on p. 162.



Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no. 21.006.093.* Material NBR (sw), SI (tr), SI-LE (tr) 3 mm

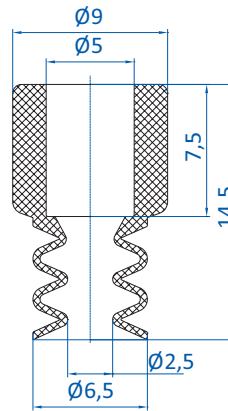
Details and additional sizes available are found on p. 159.



Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

Item no. 21.006.001.* Material Vinyl (bl) 3.5 mm

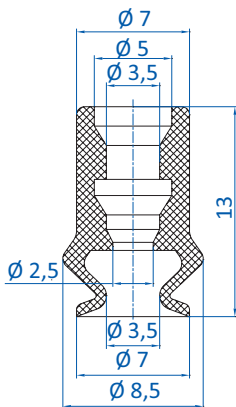
Details and additional sizes available are found on p. 194.



Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

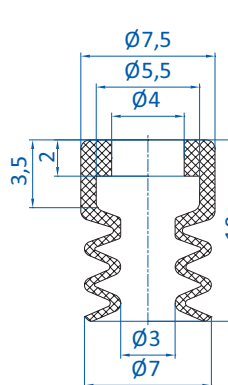
Item no. 21.006.087.* Material NBR (sw), SI (tr), SI-LE (tr) 3.5 mm

Details and additional sizes available are found on p. 159.



Item no.	Connection	
270.399	M5-male	--

Item no. 21.007.096.* Material NBR (sw), SI (tr) 2 mm



Item no.	Connection	
270.010	M5-male	--
270.005	M5-female	--
270.009	G1/8-male	--
270.007	G1/8-female	--

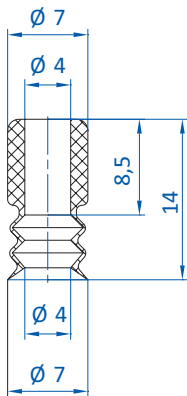
Item no. 21.007.089.* Material NBR (sw), SI (tr), HNBR (ge) 3 mm

This vacuum cup is also available in the following dimensions: 5 mm

* When ordering please add the appropriate material code to item no.

Bellows vacuum cups by size

Ø 7 - 8 mm

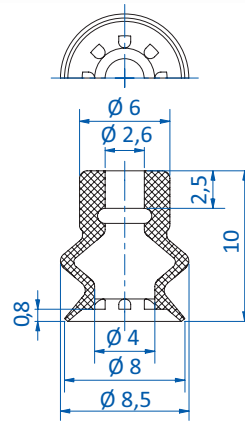


Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
21.007.120.*

Material
SI (tr)

4 mm



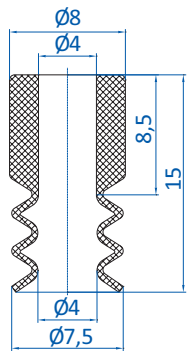
Item no.	Connection	
270.791	M5-male	--

Item no.
23.008.291.*

Material
NBR (sw), SI (tr), SI-AS (sw)

3 mm

Details and additional sizes available are found on p. 204.



Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

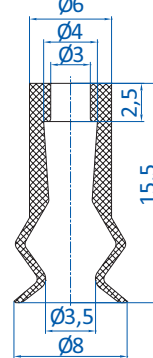
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Item no.
21.008.094.*

Material
NBR (sw), SI (tr), SI-LE (tr)

4 mm

Details and additional sizes available are found on p. 159.

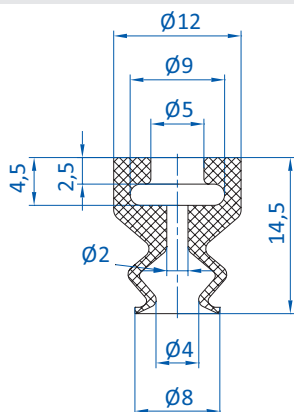


Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--

Item no.
23.008.057.*

Material
SI (tr), SI-LE (tr)

3.5 mm



Item no.	Connection	
270.200	M5-male	--
270.064	G1/8-male	--
270.065	G1/8-female	--

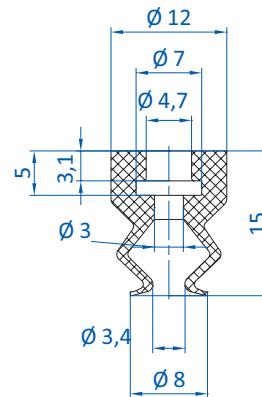
Item no.	Connection	
50.018	8.5 mm	--

Item no.
23.008.146.*

Material
NBR (sw), SI (tr)

5 mm

Details and additional sizes available are found on p. 207.



Item no.	Connection	
270.200	M5-male	--
270.064	G1/8-male	--
270.065	G1/8-female	--

Item no.	Connection	
50.141	9 mm	--
50.018	8.5 mm	--

Item no.
21.008.126.*

Material
SI (r)

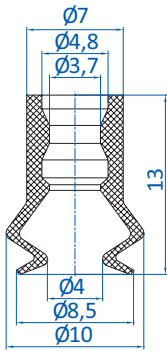
4.5 mm

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 8 - 9 mm

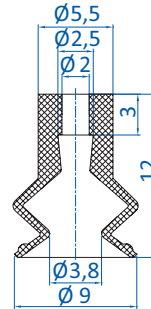


Item no.	Connection	
270.399	M5-male	--

Item no.
23.008.225.*

Material
SI (tr)

3 mm



Item no.	Connection	
270.153	M5-male	--

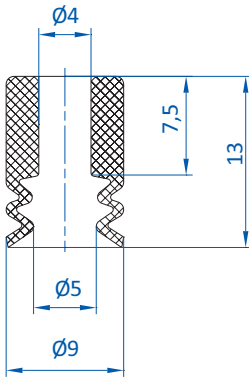
BESTSELLER

Item no.
23.008.166.*

Material
SI (r), SI-LE (r), SI-AS (sw), CR (sw), HNBR (ge)

3.5 mm

Details and additional sizes available are found on p. 174.

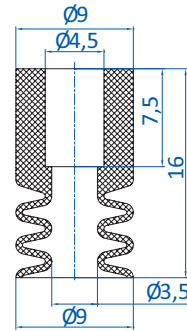


Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
21.009.029.*

Material
PU (bl)

1.5 mm

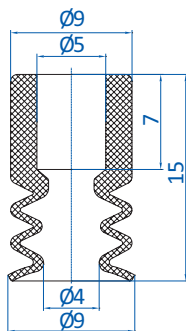


Item no.	Connection	
270.013	M5-male	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

Item no.
21.009.100.*

Material
NBR (sw)

3.5 mm



Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

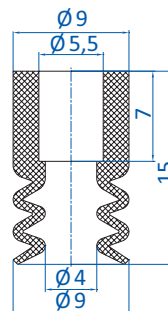
BESTSELLER

Item no.
21.009.002.*

Material
NBR (sw), HNBR (ge), SI (tr), SI-LE (tr), NR (gr), PU (bl)

2 mm

Details and additional sizes available are found on p. 159.



Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

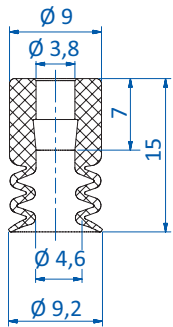
Item no.
21.009.106.*

Material
Vulkollan® (br)

2 mm

Details and additional sizes available are found on p. 171.

* When ordering please add the appropriate material code to item no.

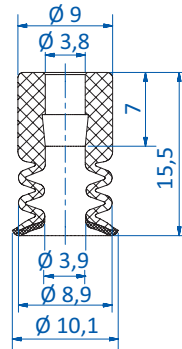


Icon	Connection	
	M5-male	--
	M5-female	--
	M6-male	--
	G1/8-male	--
	G1/8-female	--

Item no.
21.009.148._*

Material
NBR (sw), SI (tr), Thermalon® (bl)

Details and additional sizes available are found on p. 162.

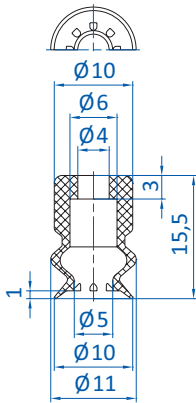


Icon	Connection	
	M5-male	--
	M5-female	--
	M6-male	--
	G1/8-male	--
	G1/8-female	--

Item no.
21.009.148.19F

Material
Thermalon®-flocked (bl/sw)

Details and additional sizes available are found on p. 166.



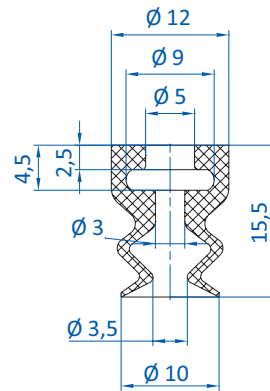
Icon	Connection	
	M4-male	--
	M5-male	--
	M6-male	--

Icon	Icon	
	5.5 mm	--
	6 mm	--
	9.5 mm	--
	15 mm	--
	19.5 mm	--

Item no.
23.010.139._*

Material
NBR (sw), SI (tr), SI-LE (tr), SI-AS (sw)

Details and additional sizes available are found on p. 204.



Icon	Connection	
	M5-male	--
	G1/8-male	--
	G1/8-female	--

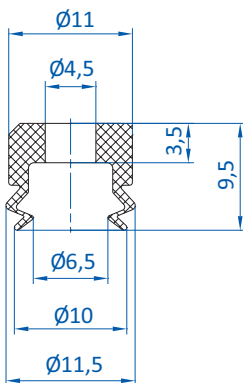
Icon	Icon	
	8.5 mm	--

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Item no.
23.010.147._*

Material
NBR (sw), SI (tr), SI-LE (tr)

Details and additional sizes available are found on p. 207.



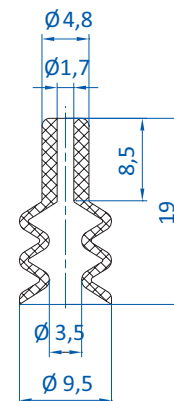
Icon	Connection	
	M5-male	--
	G1/8-male	--
	G1/8-female	--

Icon	Icon	
	9 mm	--

Item no.
23.010.163._*

Material
SI (tr)

This vacuum cup is also available in the following dimensions: 6 mm, 15 mm, 20 mm, 30 mm



Icon	Connection	
	M5-male	--

Item no.
21.010.061._*

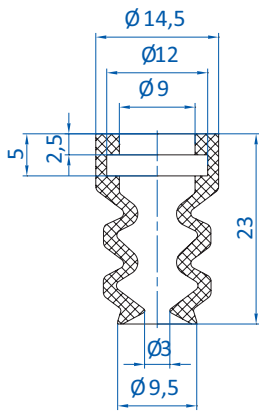
Material
Vinyl (bl)

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 10 mm

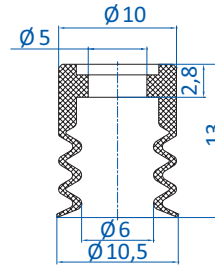


Item no.	Connection	
270.541	G1/8-male	--

Item no.
21.010.071._*

Material
Vinyl (bl)

8 mm



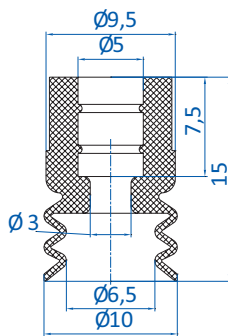
Item no.	Connection	
270.094	M5-male	--
270.095	G1/8-male	--
270.096	G1/8-female	--

Item no.
21.010.005._*

Material
NBR (sw), SI (bl)

4 mm

This vacuum cup is also available in the following dimensions: 15 mm, 18 mm, 24 mm, 30 mm, 40 mm

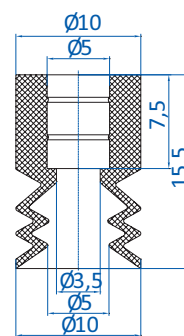


Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

Item no.
21.010.056._*

Material
SI (bl), SI (r)

4 mm



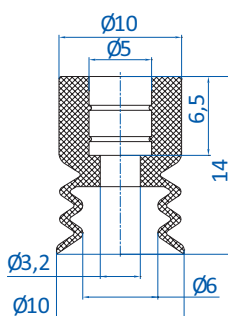
Item no.	Connection	
270.013	M5-male	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

Item no.
21.010.070._*

Material
Vinyl (bl)

5 mm

Details and additional sizes available are found on p. 194.

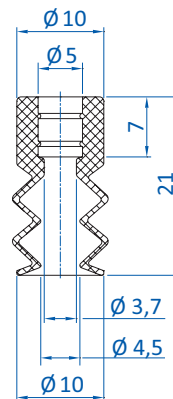


Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

Item no.
21.010.078._*

Material
SI (r), SI (tr), PU (bg)

4 mm



Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

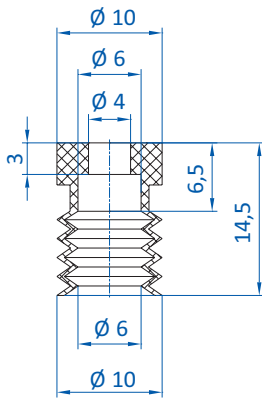
Item no.
21.010.119._*

Material
NBR (sw), SI (tr), SI-LE (tr)

8 mm

Details and additional sizes available are found on p. 159.

* When ordering please add the appropriate material code to item no.



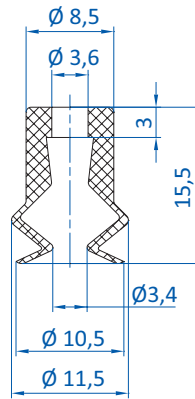
	Connection	
270.458	M4-male	--
270.009	G1/8-male	--
270.007	G1/8-female	--

Item no.
25.010.044.*

Material
NBR (sw), SI (tr)

4 mm

Details and additional sizes available are found on p. 209.

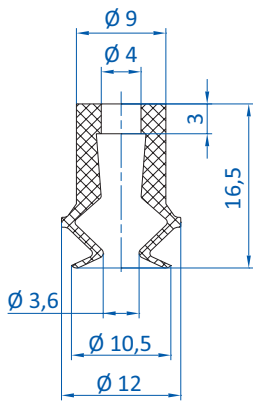


	Connection	
270.134	M5-male	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
23.011.138.*

Material
SI (r)

4 mm

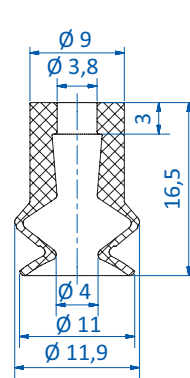


	Connection	
270.134	M5-male	--
270.104	M6-male	--
270.033	G1/8-male	--
270.015	G1/8-female	--

Item no.
23.011.173.*

Material
SI (tr), SI-LE (tr)

3.5 mm



	Connection	
270.134	M5-male	--
270.104	M6-male	--

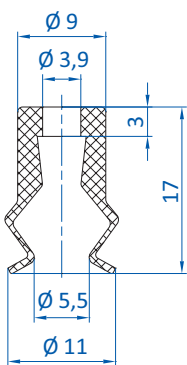
BESTSELLER

Item no.
23.011.295.*

Material
SI (r), SI-LE (r), CR (sw)

4.5 mm

Details and additional sizes available are found on p. 174.

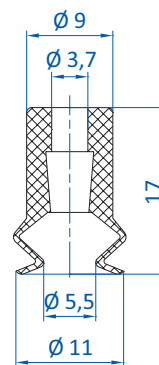


	Connection	
270.134	M5-male	--
270.104	M6-male	--

Item no.
23.011.007.*

Material
SI (tr), PU (bl), CR (sw)

5 mm



	Connection	
270.134	M5-male	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
23.011.131.*

Material
NBR (sw), SI (r)

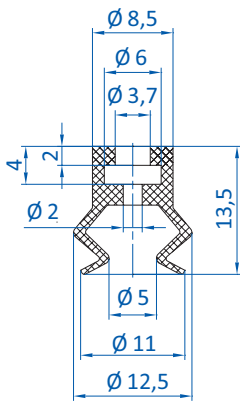
4 mm

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 11 mm



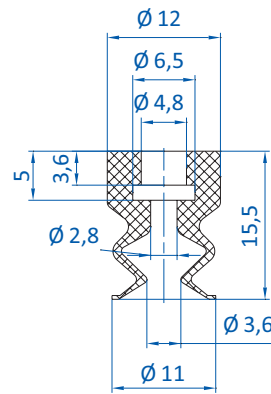
Connection		
270.010	M5-male	--
270.005	M5-female	--
270.009	G1/8-male	--
270.007	G1/8-female	--
50.330	9 mm	--

Item no.
23.010.123.*

Material
NBR (sw), SI (tr), PU (bl)

4 mm

This vacuum cup is also available in the following dimensions: 16 mm, 21 mm, 32 mm, 42 mm, 54 mm

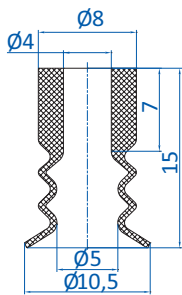


Connection		
270.200	M5-male	--
270.064	G1/8-male	--
270.065	G1/8-female	--

Item no.
21.010.127.*

Material
SI (r)

6 mm

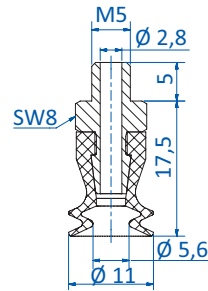


Connection		
270.013	M5-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

Item no.
21.011.095.*

Material
NBR (sw), SI (tr), SI-LE (tr)

5 mm



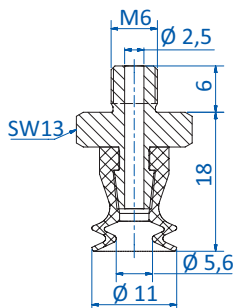
* = Size 11 and 16 mm without filter screen and O-ring

Item no.
22.011.332.*

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)

3 mm

Details and additional sizes available are found on p. 179.



* = Size 11 and 16 mm without filter screen and O-ring

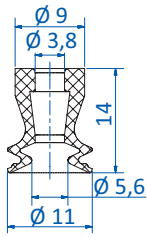
Item no.
22.011.333.*

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)

3 mm

Details and additional sizes available are found on p. 179.

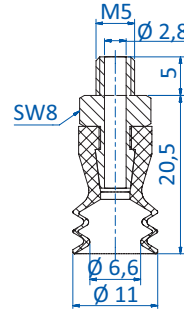
* When ordering please add the appropriate material code to item no.



	Connection	
270.134	M5-male	--
270.104	M6-male	--

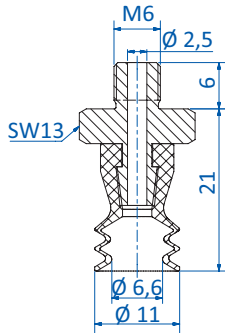
Item no. 23.011.294._*	Material Varioflex® 60°/30° (sw/r), Monoflex 50° (g)	3 mm
----------------------------------	---	------

Details and additional sizes available are found on p. 179.



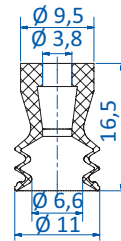
Item no. 20.011.200._*	Material Varioflex® 60°/30° (sw/r), Monoflex 50° (g)	4.5 mm
----------------------------------	---	--------

Details and additional sizes available are found on p. 185.



Item no. 20.011.201._*	Material Varioflex® 60°/30° (sw/r), Monoflex 50° (g)	4.5 mm
----------------------------------	---	--------

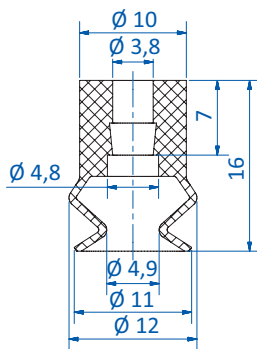
Details and additional sizes available are found on p. 185.



	Connection	
270.134	M5-male	--
270.104	M6-male	--

Item no. 21.011.187._*	Material Varioflex® 60°/30° (sw/r), Monoflex 50° (g)	4.5 mm
----------------------------------	---	--------

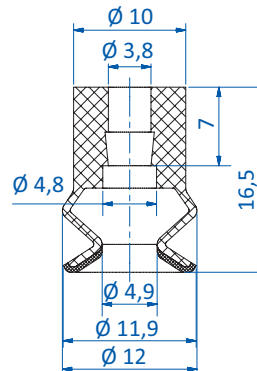
Details and additional sizes available are found on p. 185.



	Connection	
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no. 23.011.234._*	Material NBR (sw), SI (tr), SI-LE (tr), Thermalon® (bl)	5.5 mm
----------------------------------	--	--------

Details and additional sizes available are found on p. 150.



	Connection	
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no. 23.011.234.19F	Material Thermalon®-flocked (bl/sw)	5.5 mm
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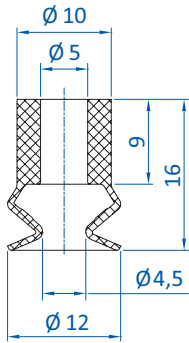
Details and additional sizes available are found on p. 154.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

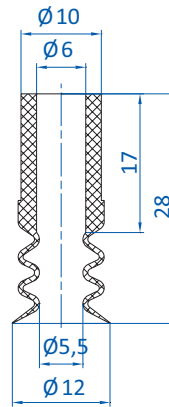
Ø 12 - 13 mm



Connection		
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--
50.037	25 mm	--

Item no. 23.011.008._*	Material NBR (sw), HNBR (ge), SI (tr), SI-LE (tr)	4.5 mm
---	--	--------

Details and additional sizes available are found on p. 147.

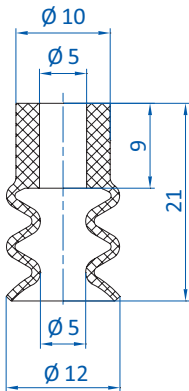


Connection		
270.443	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

FOR HIGHLY STRUCTURED SURFACES (3D)

Item no. 21.012.079._*	Material NBR (sw), SI (w), SI-LE (w), SI (tr), SI-LE (tr)	7 mm
---	--	------

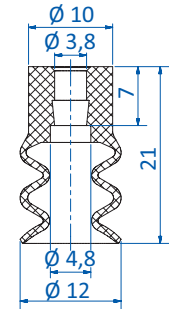
Details and additional sizes available are found on p. 210.



Connection		
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

Item no. 21.012.135._*	Material NBR (sw), HNBR (ge), SI (tr), SI-LE (tr), NR (gr), PU (bl)	7 mm
---	--	------

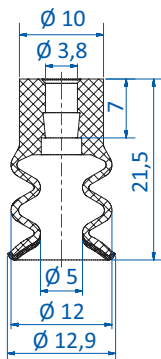
Details and additional sizes available are found on p. 159.



Connection		
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no. 21.012.149._*	Material NBR (sw), SI (tr), Thermalon® (bl)	7 mm
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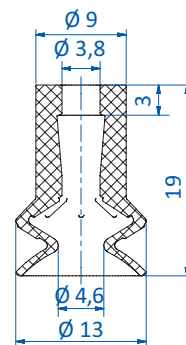
Details and additional sizes available are found on p. 162.



Connection		
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no. 21.012.149.19F	Material Thermalon®-flocked (bl/sw)	7 mm
--	---	------

Details and additional sizes available are found on p. 166.



Connection		
270.134	M5-male	--
270.104	M6-male	--

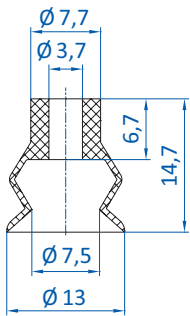
Item no. 23.013.296._*	Material SI (r), SI-LE (r), CR (sw)	5.3 mm
---	---	--------

Details and additional sizes available are found on p. 174.

* When ordering please add the appropriate material code to item no.

Bellows vacuum cups by size

Ø 13 - 14 mm



Item no.	Connection	
270.013	M5-male	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

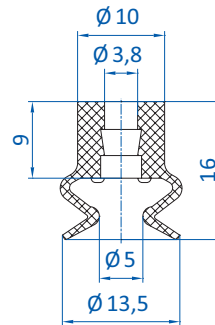
BESTSELLER

Item no.
23.013.097.*

Material
Vinyl (bl)

5 mm

Details and additional sizes available are found on p. 191.



Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

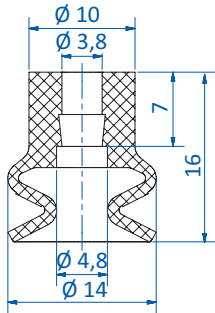
Item no.	Connection	
50.037	25 mm	--

Item no.
23.013.120.*

Material
NBR (sw), SI (tr), SI-LE (tr), NR (gr)

4 mm

Details and additional sizes available are found on p. 147.



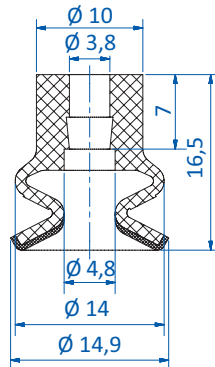
Item no.	Connection	
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
23.014.235.*

Material
NBR (sw), SI (tr), Thermalon® (bl)

5 mm

Details and additional sizes available are found on p. 150.



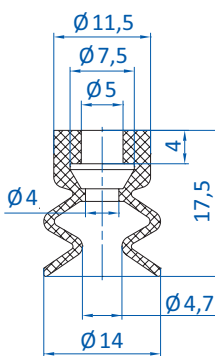
Item no.	Connection	
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
23.014.235.19F

Material
Thermalon®-flocked (bl/sw)

5 mm

Details and additional sizes available are found on p. 154.



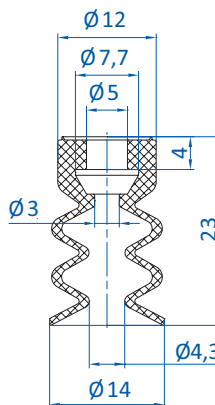
Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

Item no.
23.014.010.*

Material
NBR (sw), SI (r), NR (bg), PU (bl)

8 mm

This vacuum cup is also available in the following dimensions: 24 mm, 40 mm, 60 mm



Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

Item no.
21.014.006.*

Material
NBR (sw), SI (r), SI-LE (r), NR (bg), PU (bl)

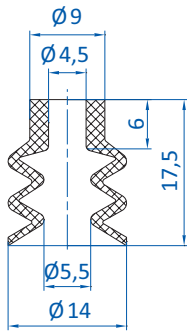
10 mm

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 14 - 15 mm

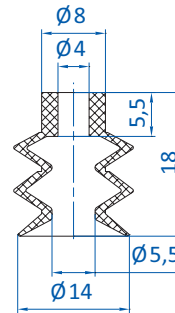


Connection		
270.024	M5-male	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
21.014.046.*

Material
PU (r)

7 mm

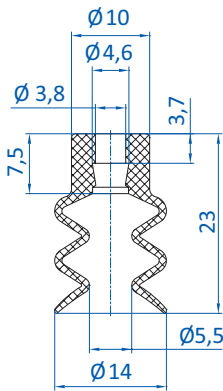


Connection		
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
21.014.053.*

Material
HNBR (ge), SI (tr), SI-LE (tr), CR (sw)

9 mm



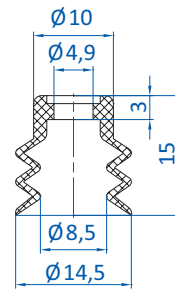
Connection		
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
21.014.133.*

Material
NBR (sw), SI (tr), SI-LE (tr), NR (gr)

11 mm

Details and additional sizes available are found on p. 159.



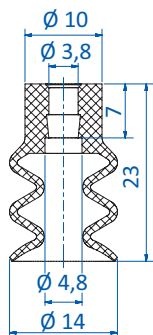
Connection		
270.094	M5-male	--
270.095	G1/8-male	--
270.096	G1/8-female	--

Item no.
21.015.009.*

Material
NBR (sw), SI (tr)

5 mm

This vacuum cup is also available in the following dimensions: 10 mm, 18 mm, 24 mm, 30 mm, 40 mm



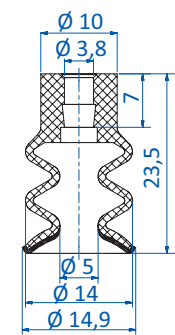
Connection		
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
21.014.150.*

Material
NBR (sw), SI (tr), Thermalon® (bl)

10 mm

Details and additional sizes available are found on p. 162.



Connection		
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

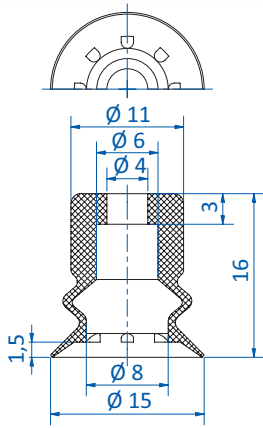
Item no.
21.014.150.19F

Material
Thermalon®-flocked (bl/sw)

10 mm

Details and additional sizes available are found on p. 166.

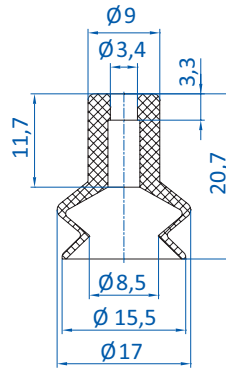
* When ordering please add the appropriate material code to item no.



Item no.	Connection	
270.458	M4-male	--
270.134	M5-male	--
270.104	M6-male	--
<hr/>		
50.127	19.5 mm	--

Item no. 23.015.292.* Material NBR (sw), SI (tr), SI-AS (sw) 4 mm

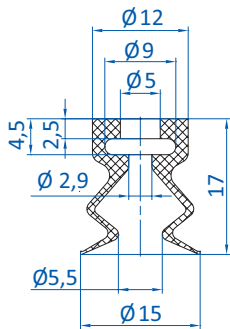
Details and additional sizes available are found on p. 204.



Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no. 23.015.098.* Material Vinyl (bl) 5 mm

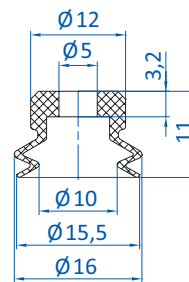
Details and additional sizes available are found on p. 191.



Item no.	Connection	
270.200	M5-male	--
270.064	G1/8-male	--
270.065	G1/8-female	--
<hr/>		
50.018	8.5 mm	--

Item no. 23.015.148.* Material NBR (sw), SI (tr) 7 mm

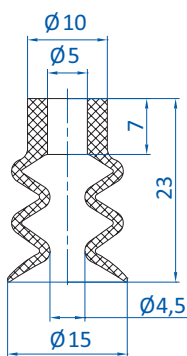
Details and additional sizes available are found on p. 207.



Item no.	Connection	
270.310	M5-male	--
270.493	G1/8-male	--
270.494	G1/8-female	--
<hr/>		
50.330	9 mm	--

Item no. 23.015.164.* Material NBR (sw), SI (tr) 3.5 mm

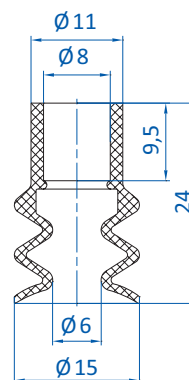
This vacuum cup is also available in the following dimensions: 6 mm, 10 mm, 20 mm, 30 mm



Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

Item no. 21.014.007.* Material NBR (sw), SI (tr), SI-LE (tr), PU (bl) 12 mm

Details and additional sizes available are found on p. 159.



Item no.	Connection	
270.112	G1/8-male	--
270.113	G1/4-male	--

Item no. 21.015.008.* Material NBR (sw), SI (tr) 7 mm

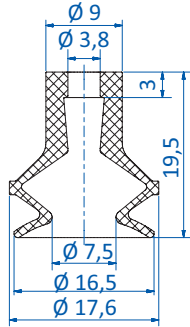
This vacuum cup is also available in the following dimensions: 20 mm, 30 mm

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 16 mm



Item no.	Connection	
270.134	M5-male	--
270.104	M6-male	--

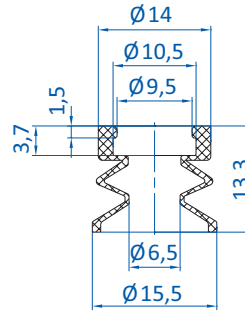
BESTSELLER

Item no.
23.016.297.*

Material
SI (r), SI-LE (r), CR (sw)

6.7 mm

Details and additional sizes available are found on p. 174.



Item no.	Connection	
270.311	M5-male	--
270.312/19	M6-male	--

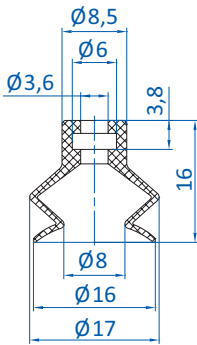
Item no.	Height	
50.005	5 mm	--
50.145	11 mm	--
50.146	30 mm	--

Item no.
23.016.232.*

Material
SI (tr), SI-LE (tr)

6 mm

Details and additional sizes available are found on p. 216.



Item no.	Connection	
270.010	M5-male	--
270.005	M5-female	--
270.009	G1/8-male	--
270.007	G1/8-female	--

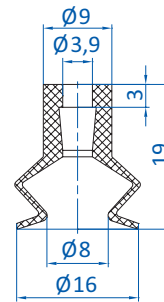
Item no.	Height	
50.330	9 mm	--

Item no.
23.015.122.*

Material
NBR (sw), SI (tr), SI-LE (tr), PU (bl), HNBR (ge)

5 mm

This vacuum cup is also available in the following dimensions: 11 mm, 21 mm, 32 mm, 42 mm, 54 mm

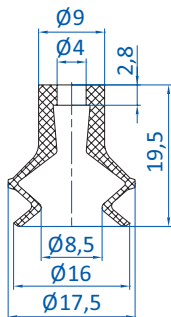


Item no.	Connection	
270.134	M5-male	--
270.104	M6-male	--

Item no.
23.016.015.*

Material
SI (tr), CR (sw)

7 mm

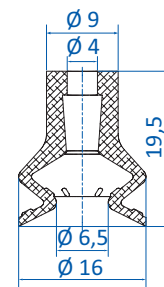


Item no.	Connection	
270.134	M5-male	--
270.104	M6-male	--
270.033	G1/8-male	--
270.015	G1/8-female	--

Item no.
23.016.174.*

Material
SI (tr), SI-LE (tr)

5 mm



Item no.	Connection	
270.134	M5-male	--
270.104	M6-male	--

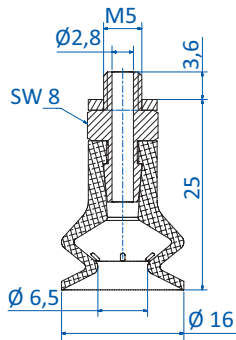
Item no.
23.016.263.*

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)

4.5 mm

Details and additional sizes available are found on p. 179.

* When ordering please add the appropriate material code to item no.

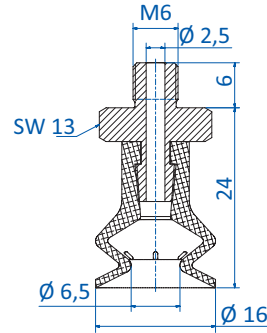


Item no.
22.016.253_*

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)

4.5 mm

Details and additional sizes available are found on p. 179.

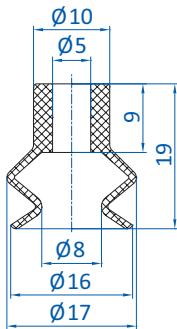


Item no.
22.016.254_*

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)

4.5 mm

Details and additional sizes available are found on p. 179.



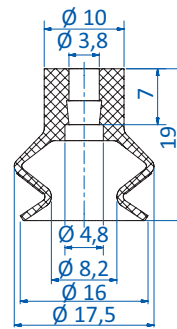
	Connection	
	M5-male	--
	M5-female	--
	M6-male	--
	G1/8-male	--
	G1/8-female	--
		25 mm
		--

Item no.
23.016.016_*

Material
NBR (sw), HNBR (ge), SI (tr),
SI-LE (tr)

6 mm

Details and additional sizes available are found on p. 147.



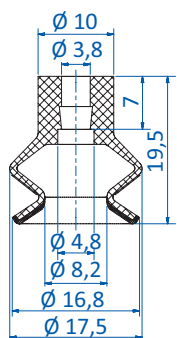
	Connection	
	M5-male	--
	M5-female	--
	M6-male	--
	G1/8-male	--
	G1/8-female	--

Item no.
23.016.236_*

Material
NBR (sw), SI (tr), SI-LE (tr),
Thermalon® (bl)

8.5 mm

Details and additional sizes available are found on p. 150.



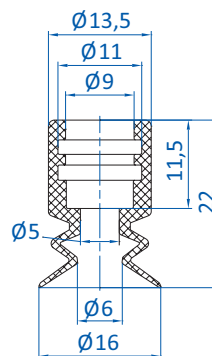
	Connection	
	M5-male	--
	M5-female	--
	M6-male	--
	G1/8-male	--
	G1/8-female	--

Item no.
23.016.236.19F

Material
Thermalon®-flocked (bl/sw)

8.5 mm

Details and additional sizes available are found on p. 154.



	Connection	
	M5-male	--
		5 mm
		11 mm
		30 mm

Item no.
23.016.104_*

Material
Vinyl (bl)

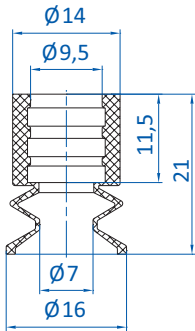
7 mm

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 16 - 17 mm



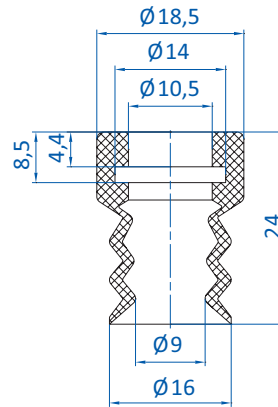
Item no.	Connection	
270.244	M5-male	--
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--
50.005	5 mm	--

Item no.
27.016.001.*

Material
SI (tr), SI-LE (tr), NR (sw)

6 mm

Details and additional sizes available are found on p. 210.



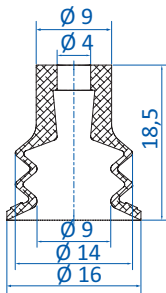
Item no.	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
21.016.072.*

Material
Vinyl (bl)

9 mm

Details and additional sizes available are found on p. 210.



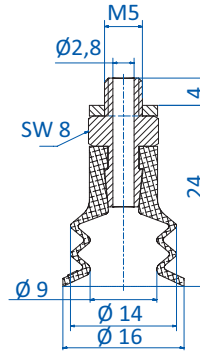
Item no.	Connection	
270.134	M5-male	--
270.104	M6-male	--

Item no.
21.016.175.*

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)

5.5 mm

Details and additional sizes available are found on p. 185.

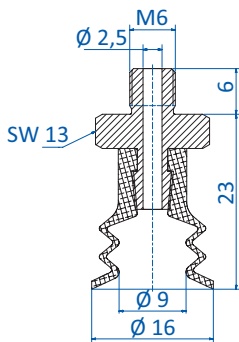


Item no.
20.016.145.*

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)

5.5 mm

Details and additional sizes available are found on p. 185.

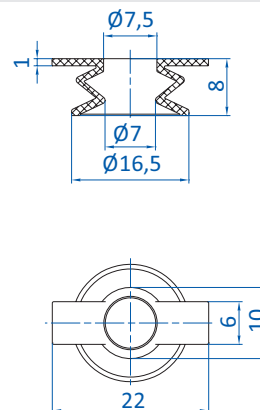


Item no.
20.016.146.*

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)

5.5 mm

Details and additional sizes available are found on p. 185.

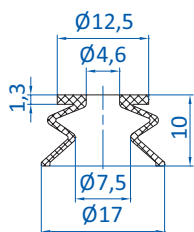


Item no.
23.017.102.*

Material
NR (sw)

5.5 mm

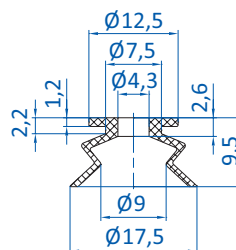
* When ordering please add the appropriate material code to item no.



Item no.
23.017.100._*

Material
NR (br)

6 mm

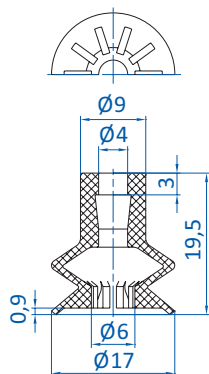


Item no.
23.016.086._*

Material
SI (tr), PU (bg)

6 mm

	Connection	
270.010	M5-male	--
270.005	M5-female	--
270.009	G1/8-male	--
270.007	G1/8-female	--



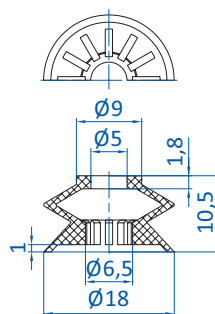
Item no.
23.018.175._*

Material
SI (tr), NR (bl)

5.5 mm

	Connection	
270.134	M5-male	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

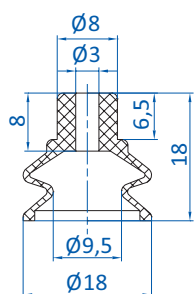
BESTSELLER



Item no.
23.018.183._*

Material
NR (or)

5.5 mm

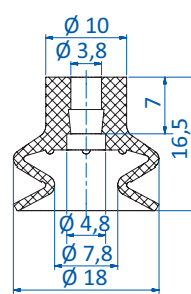


Item no.
23.018.101._*

Material
NR (sw)

6 mm

	Connection	
270.022	M5-male	--
270.347	M5-female	--



Item no.
23.018.237._*

Material
NBR (sw), SI (tr), Thermalon® (bl)

5 mm

	Connection	
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

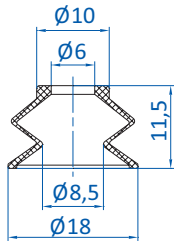
Details and additional sizes available are found on p. 150.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

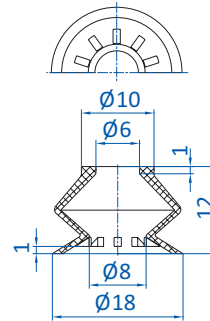
Ø 18 mm



	Connection	
270.105	M6-male	--
270.040	M8-male	--
270.077	G1/8-male	--

Item no.
23.018.019.*

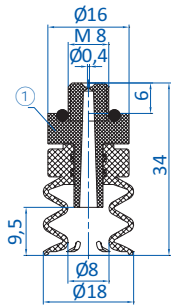
Material
SI (tr), SI-LE (tr), NR (sw), NR (bl) 8 mm



	Connection	
270.105	M6-male	--
270.040	M8-male	--
270.077	G1/8-male	--

Item no.
23.018.082.*

Material
SI (tr), SI-LE (tr), NR (bl), CR (sw) 5.5 mm

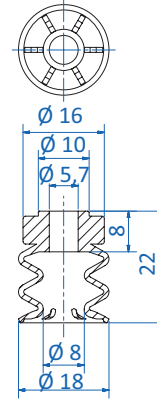


REDUCED LEAKAGE

① = Special fitting with installed orifice Ø 0.4 mm. Material: PA6/
O-ring NBR

Item no.
20.018.125.*

Material
NBR (gr) 9.5 mm

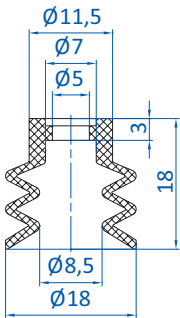


	Connection	
270.443	M5-male	--
270.378	M8-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

Item no.
21.018.118.*

Material
NBR (gr) 10 mm

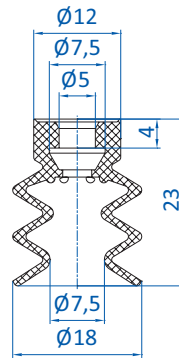
* When ordering please add the appropriate material code to item no.



Connection		
270.013	M5-male	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

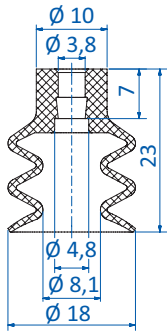
Item no. 21.018.012.* Material NBR (sw), SI (bl) 7 mm

This vacuum cup is also available in the following dimensions: 10 mm, 15 mm, 24 mm, 30 mm, 40 mm



Connection		
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

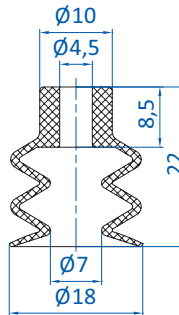
Item no. 21.018.011.* Material NBR (sw), SI (r), NR (bg), PU (bl) 8 mm



Connection		
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no. 21.018.151.* Material NBR (sw), SI (tr), Thermalon® (bl) 10 mm

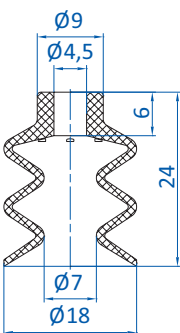
Details and additional sizes available are found on p. 162.



Connection		
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

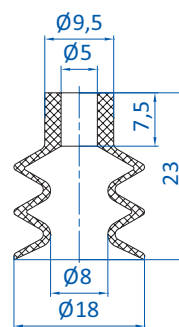
Item no. 21.018.010.* Material NBR (sw), HNBR (ge), SI (tr), SI-LE (tr), PU (bl) 8 mm

Details and additional sizes available are found on p. 159.



Connection		
270.024	M5-male	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no. 21.018.047.* Material PU (g) 12 mm



Connection		
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--
270.194	G1/4-male	--

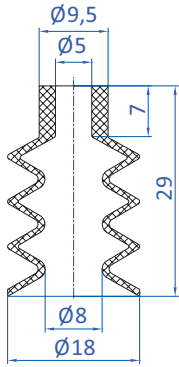
Item no. 21.018.013.* Material NBR (sw), SI (tr), SI-LE (tr), NR (sw) 9 mm

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 18 - 19 mm



Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--
270.194	G1/4-male	--

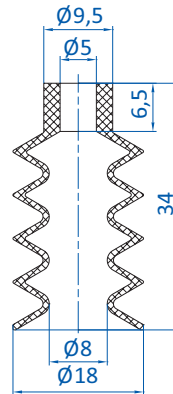
BESTSELLER

Item no.
25.018.031.*

Material
NBR (sw), SI (tr)

12 mm

Details and additional sizes available are found on p. 170.



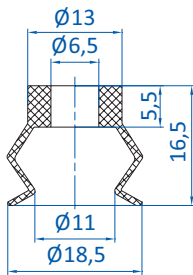
Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--
270.194	G1/4-male	--

Item no.
25.018.032.*

Material
SI (tr), SI-LE (tr)

14 mm

Details and additional sizes available are found on p. 170.



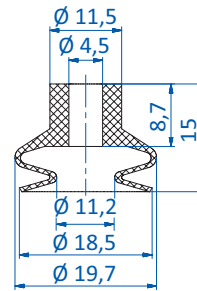
Item no.	Connection	
270.039	M6-male	--
270.063	G1/8-male	--
270.061	G1/8-female	--

Item no.
23.019.021.*

Material
NBR (sw), SI (tr), SI-LE (tr)

8 mm

Details and additional sizes available are found on p. 147.



Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--
270.194	G1/4-male	--

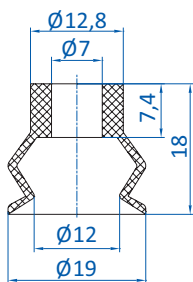
Item no.	Connection	
50.037	25 mm	--

Item no.
23.019.119.*

Material
NBR (sw), SI (tr), SI-LE (tr)

4 mm

Details and additional sizes available are found on p. 147.



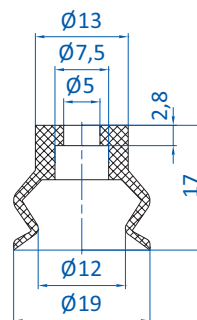
Item no.	Connection	
270.030	G1/8-male	--
270.019	G1/8-female	--
270.274	G1/4-male	--
270.275	G1/4-female	--

Item no.
23.019.109.*

Material
Vinyl (bl)

8 mm

Details and additional sizes available are found on p. 191.



Item no.	Connection	
270.200	M5-male	--
270.064	G1/8-male	--
270.065	G1/8-female	--

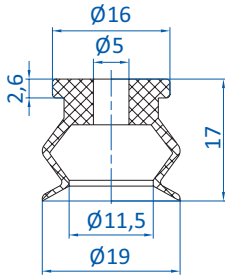
Item no.
23.019.179.*

Material
Vinyl (bl)

7 mm

Details and additional sizes available are found on p. 191.

* When ordering please add the appropriate material code to item no.

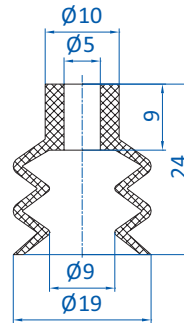


	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

Item no.
23.019.110._*

Material
Vinyl (bl)

8 mm



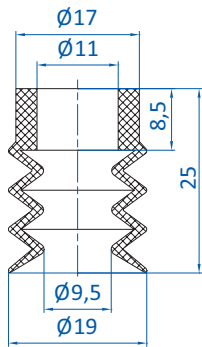
	Connection	
270.013	M5-male	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--
270.194	G1/4-male	--

Item no.
21.018.068._*

Material
Vinyl (bl)

11 mm

Details and additional sizes available are found on p. 194.

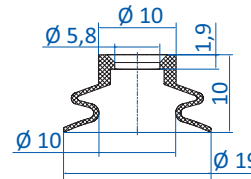


	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
25.019.037._*

Material
Vinyl (bl)

10 mm

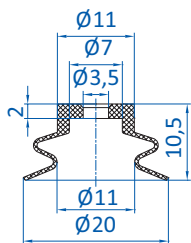


	Connection	
270.200	M5-male	--
270.064	G1/8-male	--
270.065	G1/8-female	--

Item no.
23.019.254._*

Material
SI (tr)

3.5 mm

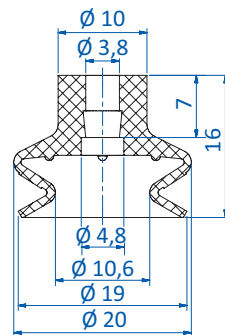


	Connection	
270.310	M5-male	--
270.493	G1/8-male	--
270.494	G1/8-female	--

Item no.
23.020.103._*

Material
NR (bg)

2 mm



	Connection	
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
23.020.238._*

Material
NBR (sw), SI (tr), Thermalon® (bl)

5 mm

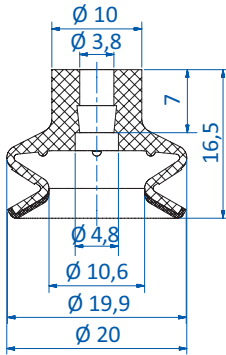
Details and additional sizes available are found on p. 150.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 19 - 20 mm



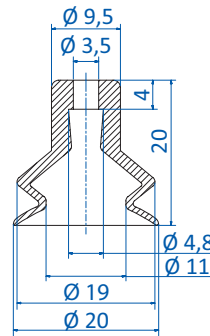
Item no.	Connection	
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
23.020.238.19F

Material
Thermalon®-flocked (bl/sw)

5 mm

Details and additional sizes available are found on p. 154.



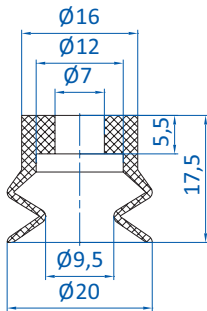
Item no.	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
23.020.114.*

Material
Vinyl (bl)

6 mm

Details and additional sizes available are found on p. 191.



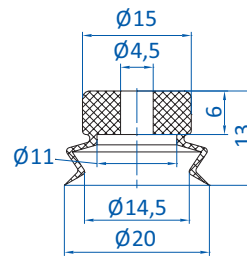
Item no.	Connection	
270.311	M5-male	--
270.312/19	M6-male	--
270.480	G1/8-male	--
270.479	G1/8-female	--

WEAR-RESISTANT

Item no.
23.020.121.*

Material
Tepuflex® (or), Vulkollan® (br)

5 mm



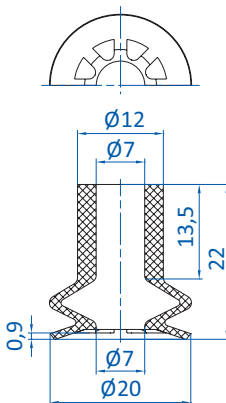
Item no.	Connection	
270.311	M5-male	--
270.063	G1/8-male	--
270.061	G1/8-female	--

Item no.
23.020.154.*

Material
SI (tr)

4 mm

This vacuum cup is also available in the following dimensions: 6 mm, 10 mm, 15 mm, 30 mm

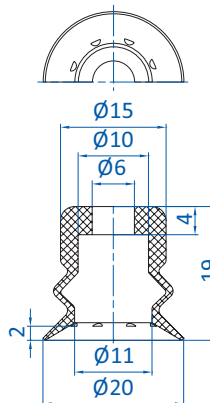


Item no.	Connection	
270.030	G1/8-male	--
270.019	G1/8-female	--
270.113	G1/4-male	--
270.275	G1/4-female	--

Item no.
23.020.133.*

Material
SI (tr)

4 mm



Item no.	Connection	
270.311	M5-male	--
270.459	M6-male	--
270.480	G1/8-male	--
270.479	G1/8-female	--

Item no.	Material	
50.085	6 mm	--
50.128	10 mm	--
50.129	15 mm	--
50.095	19.5 mm	--
50.096	30 mm	--
50.097	39 mm	--
50.098	49.5 mm	--
50.130	19.5 mm	--

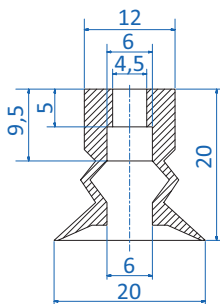
Item no.
23.020.140.*

Material
NBR (sw), SI (tr), SI-LE (tr)

6 mm

Details and additional sizes available are found on p. 204.

* When ordering please add the appropriate material code to item no.



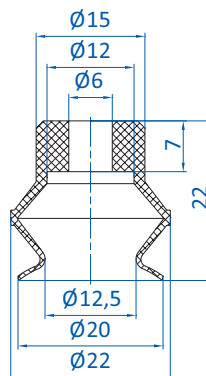
Connection		
	270.317	M5-male --
	270.103	M6-male --
	270.205	G1/8-male --
	270.109	G1/8-female --
	270.194	G1/4-male --
	50.020	8.5 mm --

Item no.
23.020.149._*

Material
NBR (sw), SI (tr)

6 mm

Details and additional sizes available are found on p. 207.



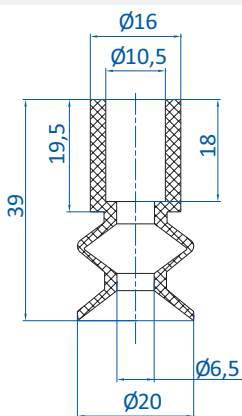
Connection		
	270.312/19	M6-male --
	270.482	G1/8-male --
	270.481	G1/8-female --
	270.483	G1/4-male --
	270.484	G1/4-female --
	50.095	19.5 mm --
	50.096	30 mm --
	50.097	39 mm --
	50.098	49.5 mm --

Item no.
23.020.169._*

Material
Vulkollan® (br)

7 mm

Details and additional sizes available are found on p. 171.

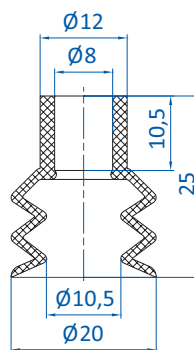


Connection		
	270.177	M10-male --
	270.451	G1/4-male --
	270.452	G1/4-female --

Item no.
23.020.027._*

Material
SI (tr), NR (br)

10 mm



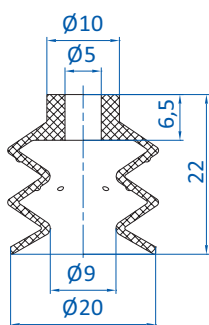
Connection		
	270.112	G1/8-male --
	270.113	G1/4-male --
	270.178	G1/4-female --

Item no.
21.020.014._*

Material
NBR (sw), SI (tr)

10 mm

This vacuum cup is also available in the following dimensions: 15 mm, 30 mm



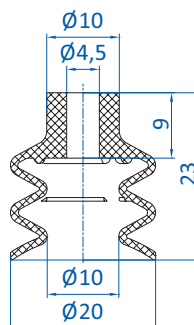
Connection		
	270.443	M5-male --
	270.238	G1/8-male --
	270.110	G1/8-female --
	270.534	G1/4-male --

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Item no.
21.020.015._*

Material
NBR (sw), SI (tr), SI-LE (tr), NR (sw)

11 mm



Connection		
	270.013	M5-male --
	270.005	M5-female --
	270.103	M6-male --
	270.003	G1/8-male --
	270.015	G1/8-female --
	270.194	G1/4-male --

Item no.
21.020.016._*

Material
NBR (sw), HNBR (ge), SI (tr), SI-LE (tr)

9 mm

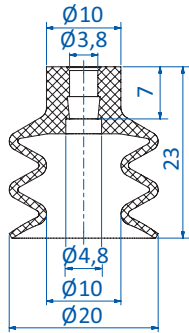
Details and additional sizes available are found on p. 159.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

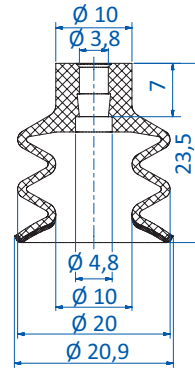
Ø 20 mm



Connection		
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no. 21.020.152.* **Material** NBR (sw), Thermalon® (bl) 10 mm

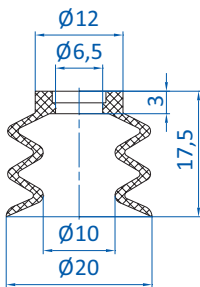
Details and additional sizes available are found on p. 162.



Connection		
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

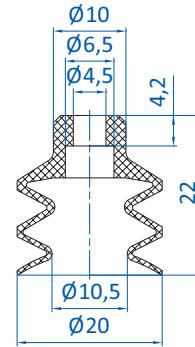
Item no. 21.020.152.19F **Material** Thermalon®-flocked (bl/sw) 10 mm

Details and additional sizes available are found on p. 166.



Connection		
270.039	M6-male	--
270.247	M8-male	--
270.543	G1/8-male	--

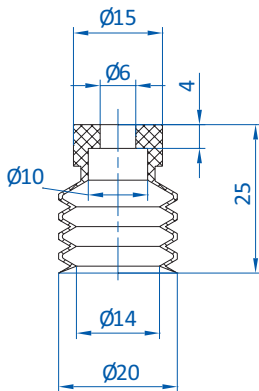
Item no. 21.020.073.* **Material** SI (tr), SI-LE (tr) 9 mm



Connection		
270.024	M5-male	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no. 21.020.090.* **Material** Vulkollan® (br) 8 mm

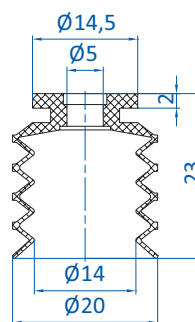
Details and additional sizes available are found on p. 171.



Connection		
270.459	M6-male	--
270.480	G1/8-male	--
270.479	G1/8-female	--

Item no. 25.020.045.* **Material** NBR (sw), SI (tr) 10 mm

Details and additional sizes available are found on p. 209.

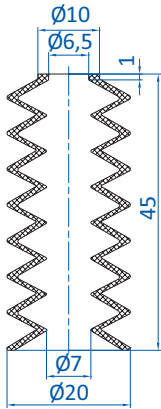


Connection		
270.783-S	NPT1/8-male	--
270.500-S	M5-female	--
270.250	G1/8-male	--
270.503-S	G1/8-male	--

Item no. 25.020.025.* **Material** SI (tr), SI-LE (tr), CR (sw) 16 mm

Details and additional sizes available are found on p. 177.

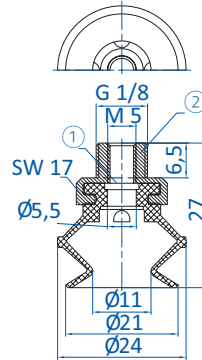
* When ordering please add the appropriate material code to item no.



	Connection	
270.105	M6-male	--
270.040	M8-male	--
270.077	G1/8-male	--

Item no.
25.020.002.*

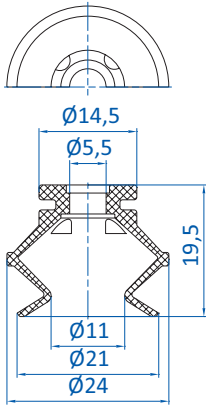
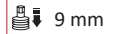
Material
SI (w)



① = Filter screen ② = Aluminum

Item no.
22.020.020.*

Material
Tepuflex® (or), SI (tr), CR (sw)



	Connection	
270.783-S	NPT1/8-male	--
270.500-S	M5-female	--
270.250	G1/8-male	--
270.503-S	G1/8-male	--

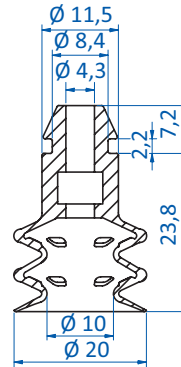
BESTSELLER

Item no.
23.020.026.*

Material
Tepuflex® (or), SI (tr), SI-LE (tr),
CR (sw)

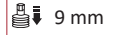


Details and additional sizes available are found on p. 174.

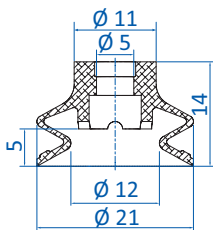


Item no.
21.020.185.*

Material
SI (tr), SI-LE (tr), SI (w), SI-LE (w)



Details and additional sizes available are found on p. 213.



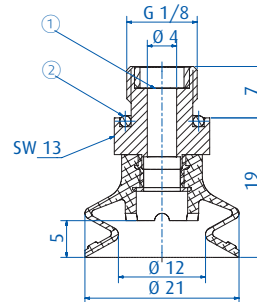
	Connection	
270.783-S	NPT1/8-male	--
270.500-S	M5-female	--
270.503-S	G1/8-male	--

Item no.
23.021.264.*

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)



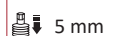
Details and additional sizes available are found on p. 179.



① = Filter screen ② = O-ring

Item no.
22.021.255.*

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)



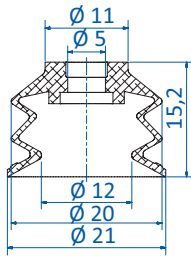
Details and additional sizes available are found on p. 179.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 21 - 22 mm



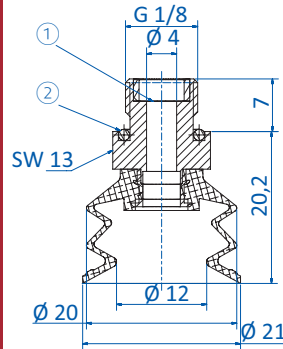
Connection		
270.783-S	NPT1/8-male	--
270.500-S	M5-female	--
270.503-S	G1/8-male	--

Item no.
21.021.176._*

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)

8 mm ↓ 6.5 mm

Details and additional sizes available are found on p. 185.



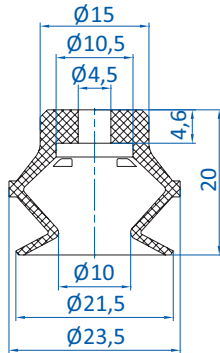
① = Filter screen ② = O-ring

Item no.
20.021.147._*

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)

8 mm ↓ 6.5 mm

Details and additional sizes available are found on p. 185.



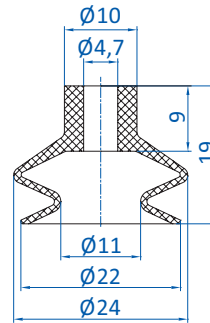
Connection		
270.311	M5-male	--
270.063	G1/8-male	--
270.061	G1/8-female	--

Item no.
23.020.124._*

Material
NBR (sw), SI (tr), SI-LE (tr), PU
(bl), HNBR (ge)

8 mm ↓ 8 mm

This vacuum cup is also available in the following dimensions: 11 mm, 16 mm, 32 mm, 42 mm, 54 mm



Connection		
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--
270.194	G1/4-male	--

50.037	25 mm	--
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BESTSELLER

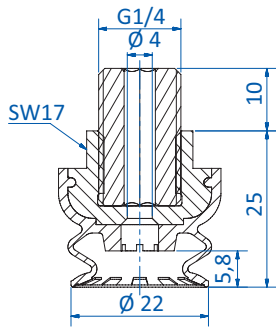
Item no.
23.022.028._*

Material
NBR (sw), SI (tr), SI-LE (tr), Vinyl
(bl)

8 mm ↓ 8 mm

Details and additional sizes available are found on p. 147.

* When ordering please add the appropriate material code to item no.

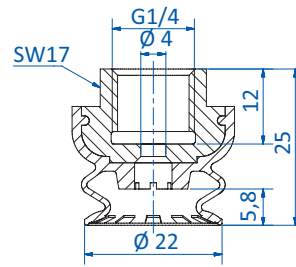


Item no.
22.022.222.*

Material
NBR (bl)

5.8 mm

Details and additional sizes available are found on p. 218.

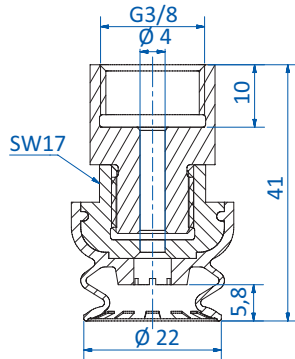


Item no.
22.022.223.*

Material
NBR (bl)

5.8 mm

Details and additional sizes available are found on p. 218.

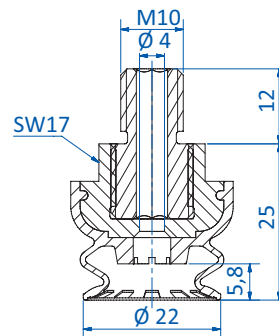


Item no.
22.022.224.*

Material
NBR (bl)

5.8 mm

Details and additional sizes available are found on p. 218.

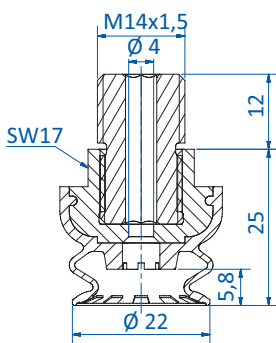


Item no.
22.022.225.*

Material
NBR (bl)

5.8 mm

Details and additional sizes available are found on p. 218.

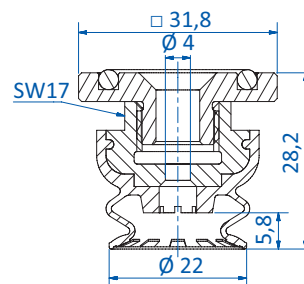


Item no.
22.022.226.*

Material
NBR (bl)

5.8 mm

Details and additional sizes available are found on p. 218.



Item no.
22.022.227.*

Material
NBR (bl)

5.8 mm

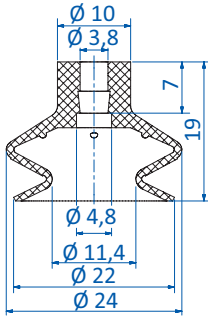
Details and additional sizes available are found on p. 218.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

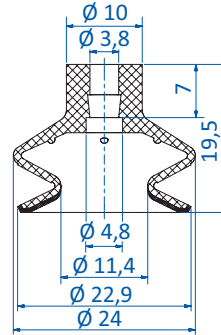
Ø 22 - 24 mm



Item no.	Connection	
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no. 23.022.239_*	Material NBR (sw), SI (tr), Thermalon® (bl)	8 mm
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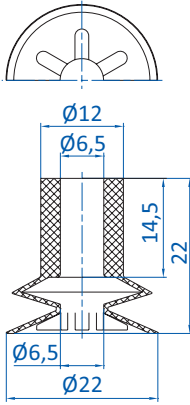
Details and additional sizes available are found on p. 150.



Item no.	Connection	
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

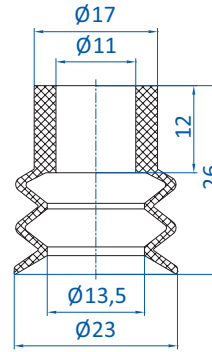
Item no. 23.022.239.19F	Material Thermalon®-flocked (bl/sw)	8 mm
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Details and additional sizes available are found on p. 154.



Item no.	Connection	
270.443	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

Item no. 23.023.099_*	Material NR (br)	5 mm
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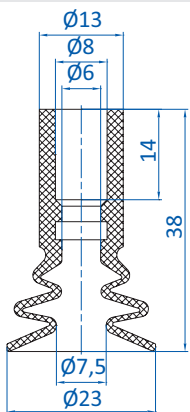


Item no.	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

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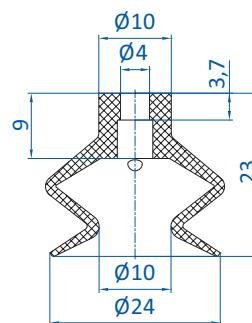
Item no. 21.023.066_*	Material Vinyl (bl)	9 mm
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Details and additional sizes available are found on p. 194.



Item no.	Connection	
270.112	G1/8-male	--
270.114	G1/8-female	--
270.113	G1/4-male	--
270.178	G1/4-female	--

Item no. 21.023.102_*	Material SI (g)	12 mm
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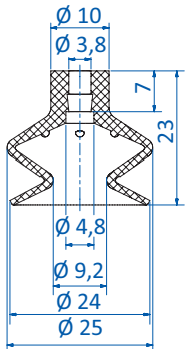
Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--
270.194	G1/4-male	--

50.037	25 mm	--
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Item no. 23.025.137_*	Material NBR (sw), SI (tr), SI-LE (tr), NR (gr)	9 mm
---------------------------------	---	------

Details and additional sizes available are found on p. 147.

* When ordering please add the appropriate material code to item no.

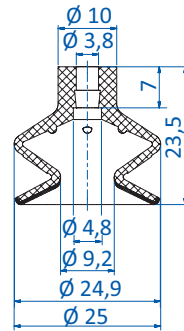


Item no.	Connection	
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
23.025.240._*

Material
NBR (sw), SI (tr), Thermalon® (bl) 12 mm

Details and additional sizes available are found on p. 150.

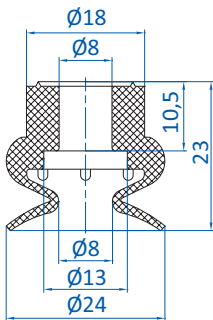


Item no.	Connection	
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
23.025.240.19F

Material
Thermalon®-flocked (bl/sw) 12 mm

Details and additional sizes available are found on p. 154.

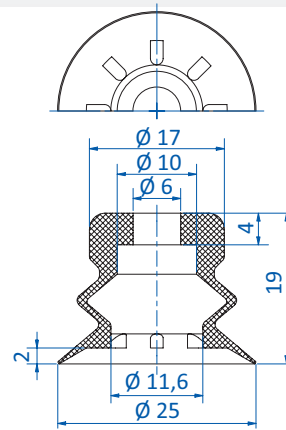


Item no.	Connection	
270.093	G1/8-male	--
270.092	G1/8-female	--
270.249	G1/4-male	--
270.248	G1/4-female	--

Item no.
23.025.030._*

Material
NBR (sw), SI (r), NR (bg) 5 mm

This vacuum cup is also available in the following dimensions: 14 mm, 40 mm, 60 mm



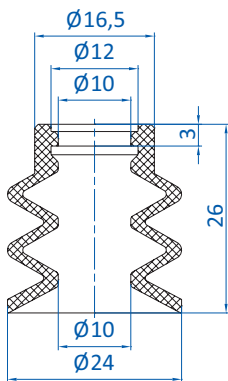
Item no.	Connection	
270.311	M5-male	--
270.459	M6-male	--
270.480	G1/8-male	--
270.479	G1/8-female	--

Item no.	Material	
50.085	6 mm	--
50.086	5.5 mm	--
50.128	10 mm	--
50.129	15 mm	--
50.130	19.5 mm	--
50.095	19.5 mm	--
50.096	30 mm	--
50.097	39 mm	--
50.098	49.5 mm	--

Item no.
23.025.293._*

Material
NBR (sw), SI (tr) 6 mm

Details and additional sizes available are found on p. 204.

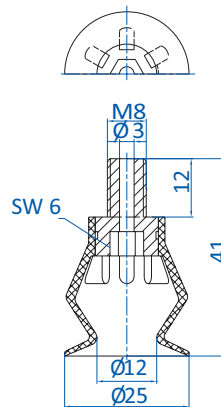


Item no.	Connection	
270.097	G1/4-male	--
270.098	G1/4-female	--

Item no.
21.024.017._*

Material
NBR (sw), SI (tr) 10 mm

This vacuum cup is also available in the following dimensions: 10 mm, 15 mm, 18 mm, 30 mm, 40 mm



Item no.
22.025.029._*

Material
NBR (sw), SI (tr), NR (sw) 11 mm

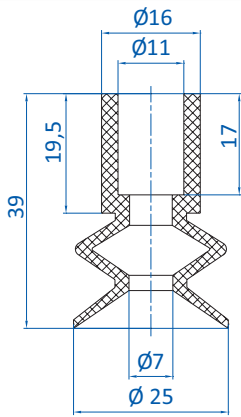
This vacuum cup is also available in the following dimensions: 31 mm, 44 mm

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 25 mm

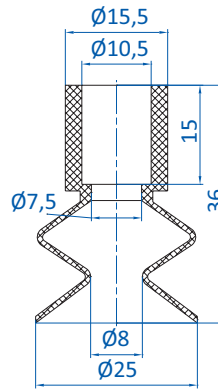


Item no.	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
23.025.032_*

Material
SI (tr), NR (sw)

12 mm

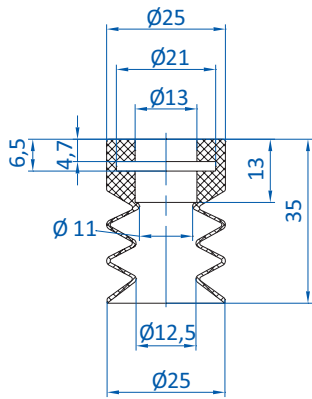


Item no.	Connection	
270.244	M5-male	--
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
23.025.200_*

Material
Vulkollan® (br)

13 mm

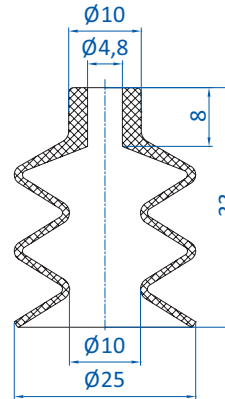


Item no.	Connection	
270.049-1	G1/4-male	--

Item no.
21.025.059_*

Material
SI (tr), SI-LE (tr)

16 mm



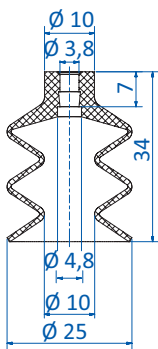
Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--
270.194	G1/4-male	--

Item no.
21.025.060_*

Material
NBR (sw), SI (tr), SI-LE (tr)

19 mm

Details and additional sizes available are found on p. 159.



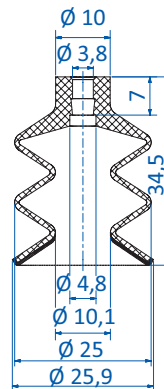
Item no.	Connection	
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
21.025.153_*

Material
NBR (sw), SI (tr), Thermalon® (bl)

20 mm

Details and additional sizes available are found on p. 162.



Item no.	Connection	
270.772	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
21.025.153.19F

Material
Thermalon®-flocked (bl/sw)

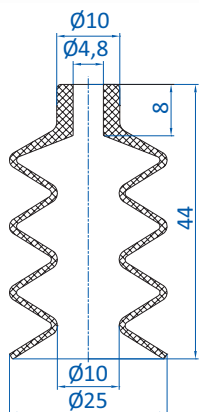
20 mm

Details and additional sizes available are found on p. 166.

* When ordering please add the appropriate material code to item no.

Bellows vacuum cups by size

Ø 25 - 26 mm



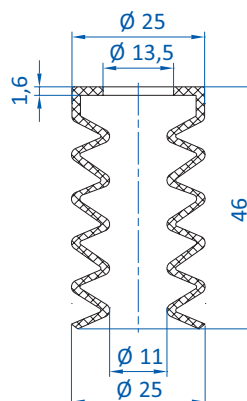
Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--
270.194	G1/4-male	--

Item no.
25.025.005.*

Material
NBR (sw), SI (tr), SI-LE (tr)

24 mm

Details and additional sizes available are found on p. 170.

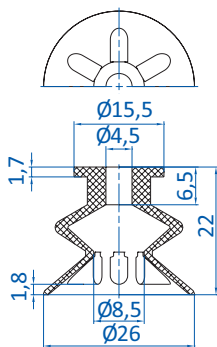


Item no.	Connection	
270.182.U	G1/4-male	--
270.182	G1/4-female	--

Item no.
25.025.004.*

Material
SI (tr), SI-LE (tr)

29 mm

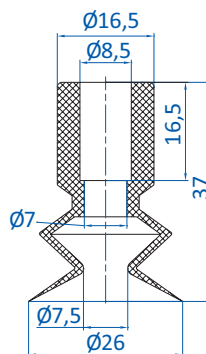


Item no.	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--
270.194	G1/4-male	--

Item no.
23.026.115.*

Material
Vinyl (bl)

8 mm

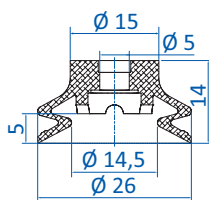


Item no.	Connection	
270.244	M5-male	--
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
23.026.118.*

Material
Vinyl (bl)

12.5 mm



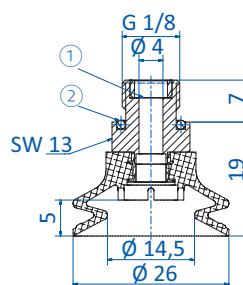
Item no.	Connection	
270.783-S	NPT1/8-male	--
270.500-S	M5-female	--
270.503-S	G1/8-male	--

Item no.
23.026.265.*

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)

5 mm

Details and additional sizes available are found on p. 179.



① = Filter screen ② = O-ring

Item no.
22.026.256.*

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)

5 mm

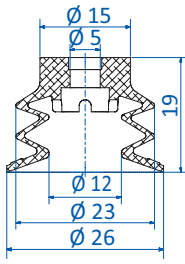
Details and additional sizes available are found on p. 179.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 26 - 29 mm



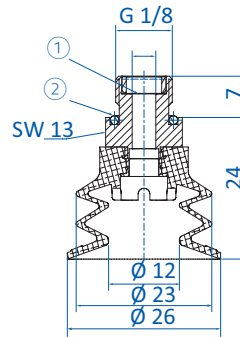
	Connection	
270.783-S	NPT1/8-male	--
270.500-S	M5-female	--
270.503-S	G1/8-male	--

Item no.
21.026.177._* (*-FI)

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)



Details and additional sizes available are found on p. 185.
Ordering notes For version with in bellows inserted filter disc please add "-FI" to material code



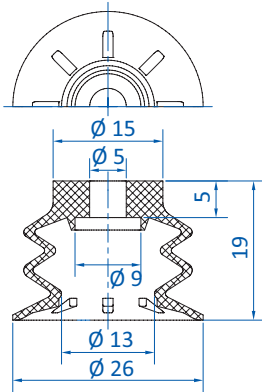
① = Filter screen ② = O-ring

Item no.
20.026.148._* (*-FI)

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)



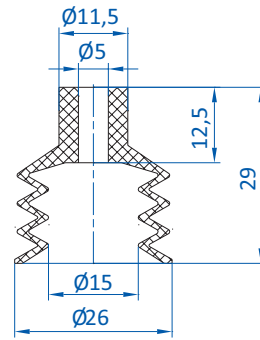
Details and additional sizes available are found on p. 185.
Ordering notes For version with in bellows inserted filter disc please add "-FI" to material code



	Connection	
270.063	G1/8-male	--
270.061	G1/8-female	--

Item no.
21.026.162._*

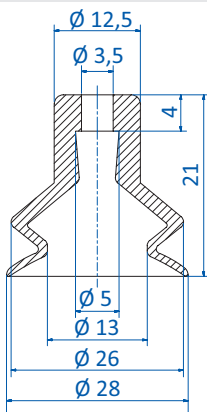
Material
NR (br)



	Connection	
270.013	M5-male	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--
270.194	G1/4-male	--

Item no.
25.025.003._*

Material
SI (tr), SI-LE (tr), NR (sw)



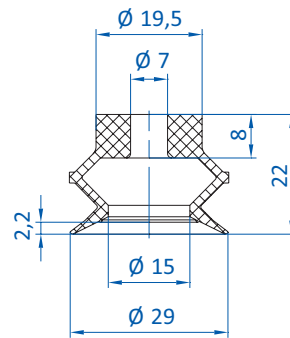
	Connection	
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

Item no.
23.028.113._*

Material
Vinyl (bl)



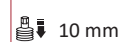
Details and additional sizes available are found on p. 191.



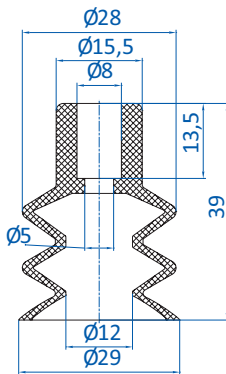
	Connection	
270.030	G1/8-male	--
270.019	G1/8-female	--
270.274	G1/4-male	--
270.275	G1/4-female	--

Item no.
23.030.088._*

Material
NBR (gr), SI (tr), SI-LE (tr), PU (bl)



* When ordering please add the appropriate material code to item no.



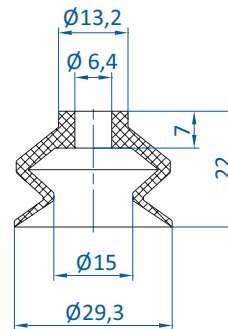
	Connection	
270.132	G1/8-male	--
270.114	G1/8-female	--
270.043	G1/4-male	--
270.178	G1/4-female	--

Item no.
21.029.069_*

Material
Vinyl (bl)

10 mm

Details and additional sizes available are found on p. 194.



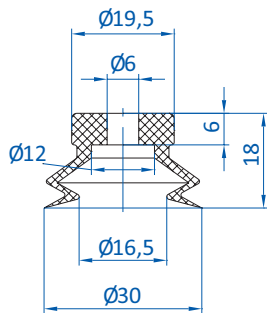
	Connection	
270.312/19	M6-male	--
270.030	G1/8-male	--
270.019	G1/8-female	--
270.274	G1/4-male	--
270.275	G1/4-female	--

Item no.
23.030.107_*

Material
Vinyl (bl)

10.5 mm

Details and additional sizes available are found on p. 191.



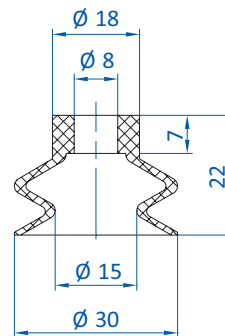
	Connection	
270.312/19	M6-male	--
270.030	G1/8-male	--
270.019	G1/8-female	--
270.483	G1/4-male	--
270.484	G1/4-female	--

Item no.
23.030.155_*

Material
SI (tr)

4.5 mm

This vacuum cup is also available in the following dimensions: 6 mm, 10 mm, 15 mm, 20 mm

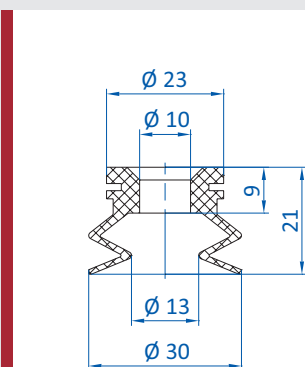


	Connection	
270.255	M8-male	--
270.486	G1/8-male	--
270.485	G1/8-female	--
270.487	G1/4-male	--
270.488	G1/4-female	--

Item no.
23.030.193_*

Material
Vulkollan® (br)

8 mm



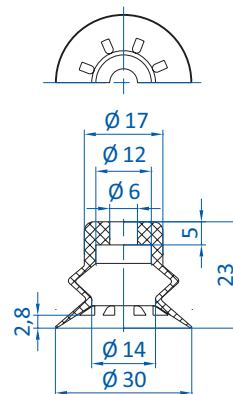
	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
23.030.230_*

Material
NR (gr)

7 mm

Details and additional sizes available are found on p. 216.



	Connection	
270.460	M6-male	--
270.482	G1/8-male	--
270.481	G1/8-female	--
270.483	G1/4-male	--
270.484	G1/4-female	--

Item no.
23.030.141_*

Material
NBR (sw), SI (tr), SI-LE (tr)

8 mm

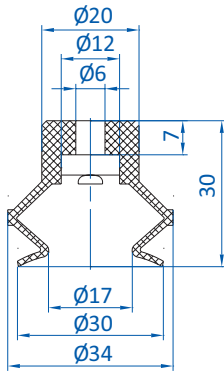
Details and additional sizes available are found on p. 204.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 30 mm



Item no.	Connection	
270.312/19	M6-male	--
270.482	G1/8-male	--
270.481	G1/8-female	--
270.483	G1/4-male	--
270.484	G1/4-female	--

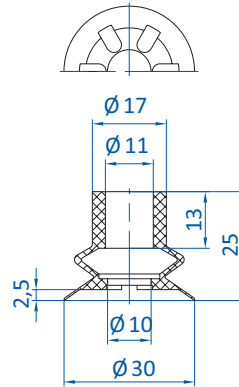
Item no.	Material	
50.095	19.5 mm	--
50.096	30 mm	--
50.097	39 mm	--
50.098	49.5 mm	--

Item no.
23.030.170.*

Material
Vulkollan® (br)

8 mm

Details and additional sizes available are found on p. 171.

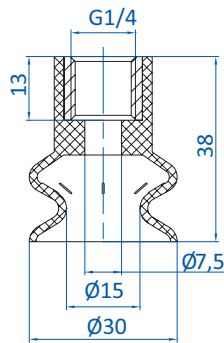


Item no.	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
23.033.134.*

Material
Vinyl (bl)

10 mm

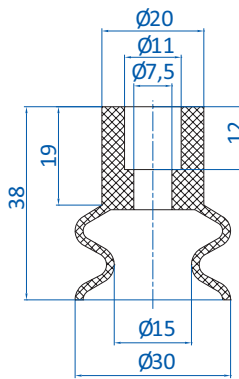


Item no.
22.030.035.*

Material
SI (tr)

16 mm

This vacuum cup is also available in the following dimensions: 40 mm, 44 mm, 50 mm

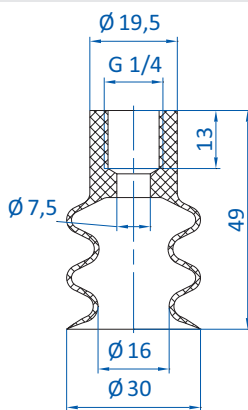


Item no.	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
23.030.038.*

Material
NBR (sw)

16 mm

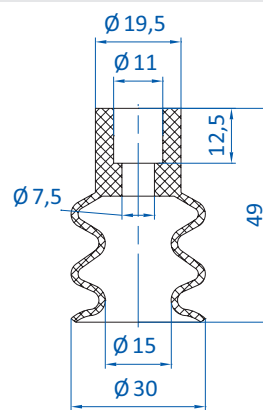


Item no.
20.030.044.*

Material
SI (tr), NR (sw)

19 mm

This vacuum cup is also available in the following dimensions: 40 mm, 50 mm



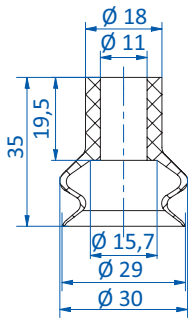
Item no.	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
21.030.021.*

Material
SI (tr), NR (sw), NR (bg)

18 mm

* When ordering please add the appropriate material code to item no.



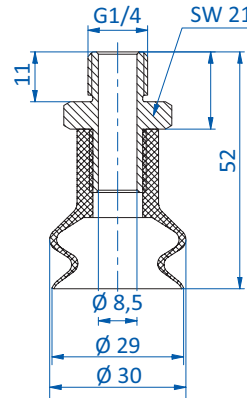
	Connection	
270.630	G1/4-male	--

FLEXIBLE SEALING LIP

Item no.
23.030.247_*

Material
SI (w), SI-LE (w)

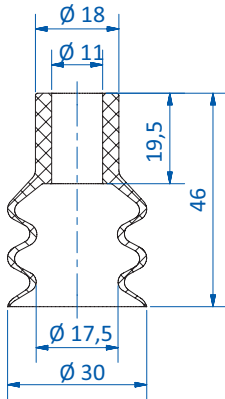
17 mm



Item no.
22.030.215_*

Material
SI (w)

17 mm



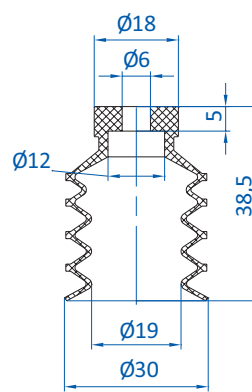
	Connection	
270.630	G1/4-male	--

FLEXIBLE SEALING LIP

Item no.
21.030.159_*

Material
SI (w), SI-LE (w)

17.5 mm



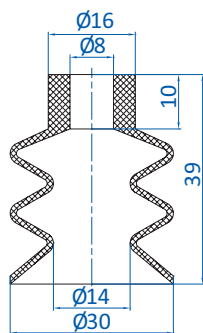
	Connection	
270.460	M6-male	--
270.482	G1/8-male	--
270.481	G1/8-female	--
270.483	G1/4-male	--
270.484	G1/4-female	--

Item no.
25.030.046_*

Material
NBR (sw), SI (tr)

14 mm

Details and additional sizes available are found on p. 209.



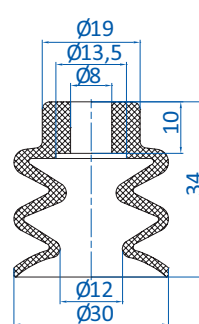
	Connection	
270.315	M6-male	--
270.132	G1/8-male	--
270.114	G1/8-female	--
270.540	G1/4-male	--
270.539	G1/4-female	--

Item no.
21.030.018_*

Material
NBR (sw), SI (r)

18 mm

This vacuum cup is also available in the following dimensions: 15 mm, 20 mm



	Connection	
270.132	G1/8-male	--
270.114	G1/8-female	--
270.208	G1/4-male	--
270.178	G1/4-female	--

Item no.
21.030.019_*

Material
NBR (sw), SI (r), NR (bg), PU (bl)

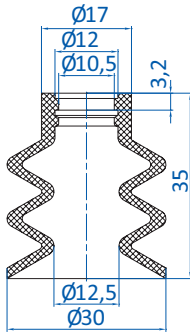
13 mm

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

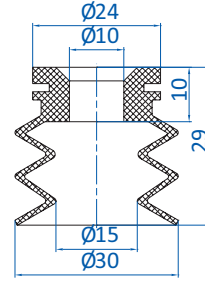
Ø 30 - 31 mm



	Connection	
270.097	G1/4-male	--
270.098	G1/4-female	--

Item no.
21.030.022._* **Material**
NBR (sw), SI (bl) 14 mm

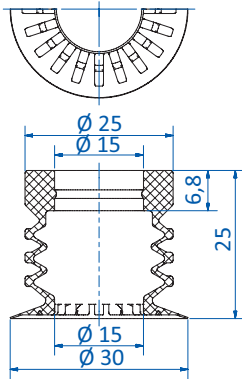
This vacuum cup is also available in the following dimensions: 10 mm, 15 mm, 18 mm, 24 mm, 40 mm



	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
21.030.030._* **Material**
SI (tr), SI-LE (tr), NR (bl) 13 mm

Details and additional sizes available are found on p. 216.

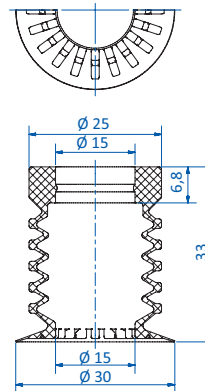


	Connection	
270.776	G1/8-male	--
270.777	G1/4-male	--
270.778	G3/8-male	--

FOR BAG HANDLING

Item no.
25.030.095.8 **Material**
SI 70°/40° (tr/bl) 6 mm

Details and additional sizes available are found on p. 198.
Ordering notes Suitable holders and the move-in guards (p.202), are not included in the scope of delivery, please order separately

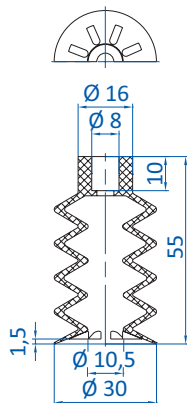


	Connection	
270.776	G1/8-male	--
270.777	G1/4-male	--
270.778	G3/8-male	--

FOR BAG HANDLING

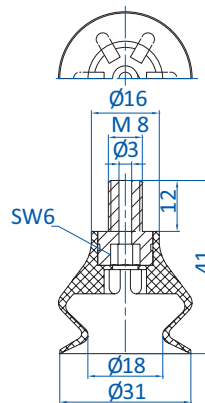
Item no.
25.030.098.8 **Material**
SI 70°/40° (tr/bl) 10 mm

Details and additional sizes available are found on p. 201.
Ordering notes Suitable holders and the move-in guards (p.202), are not included in the scope of delivery, please order separately



	Connection	
270.132	G1/8-male	--
270.114	G1/8-female	--
270.043	G1/4-male	--
270.178	G1/4-female	--

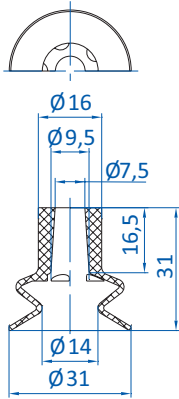
Item no.
25.030.030._* **Material**
NBR (sw), SI (tr) 27 mm



Item no.
22.030.036._* **Material**
NBR (sw), SI (tr), NR (sw) 9 mm

This vacuum cup is also available in the following dimensions: 25 mm, 44 mm

* When ordering please add the appropriate material code to item no.



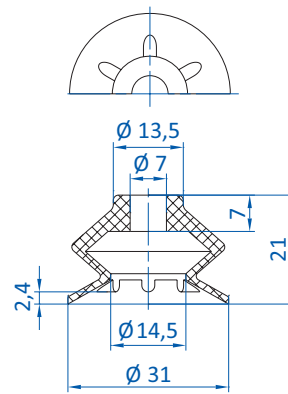
	Connection	
270.132	G1/8-male	--
270.114	G1/8-female	--
270.208	G1/4-male	--
270.178	G1/4-female	--

Item no.
23.030.035_*

Material
NBR (sw), SI (r)

11 mm

This vacuum cup is also available in the following dimensions: 53 mm, 75 mm



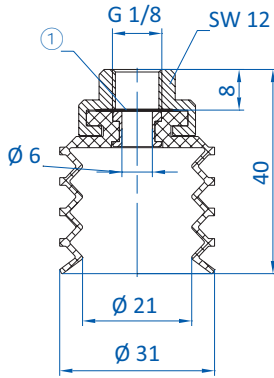
	Connection	
270.312/19	M6-male	--
270.030	G1/8-male	--
270.019	G1/8-female	--
270.274	G1/4-male	--
270.275	G1/4-female	--

Item no.
23.031.192_*

Material
Vinyl (bl)

6 mm

Details and additional sizes available are found on p. 191.

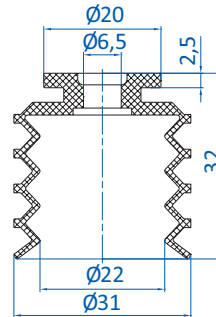


① = Filter screen

Item no.
24.030.039_*

Material
CR (sw)

21 mm



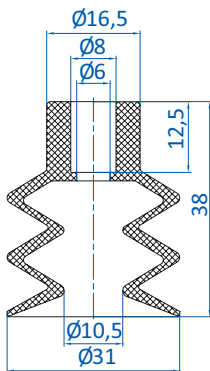
	Connection	
270.781-S	NPSF1/8-female	--
270.786-S	NPT1/4-male	--
270.785-S	NPT3/8-male	--
270.251	G1/8-female	--
270.501-S	G1/8-female	--
270.506-S	G1/4-male	--
270.505-S	G3/8-male	--

Item no.
25.030.026_*

Material
SI (tr), SI-LE (tr), CR (sw)

21 mm

Details and additional sizes available are found on p. 177.

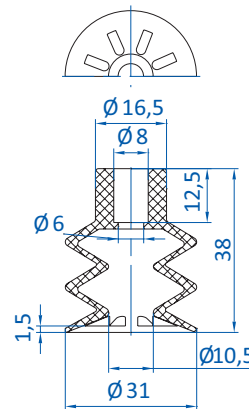


	Connection	
270.132	G1/8-male	--
270.114	G1/8-female	--
270.043	G1/4-male	--
270.178	G1/4-female	--

Item no.
21.030.023_*

Material
SI (tr), SI-LE (tr), NR (sw)

15 mm



	Connection	
270.132	G1/8-male	--
270.114	G1/8-female	--
270.043	G1/4-male	--
270.178	G1/4-female	--

Item no.
27.030.006_*

Material
NBR (sw), SI (tr), NR (sw)

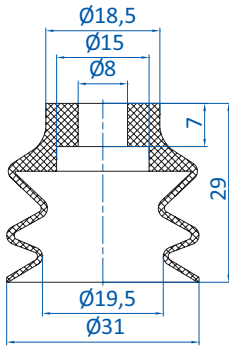
15 mm

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 30 - 32 mm



Connection		
270.255	M8-male	--
270.486	G1/8-male	--
270.485	G1/8-female	--
270.487	G1/4-male	--
270.488	G1/4-female	--

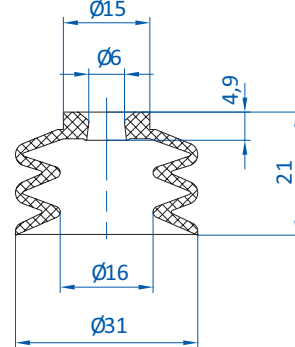
WEAR-RESISTANT

Item no.
21.030.076.*

Material
Vulkollan® (br)

14 mm

Details and additional sizes available are found on p. 171.



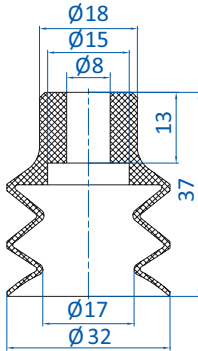
Connection		
270.460	M6-male	--
270.482	G1/8-male	--
270.481	G1/8-female	--
270.483	G1/4-male	--
270.484	G1/4-female	--

Item no.
21.031.048.*

Material
SI (tr), NR (sw)

6 mm

Details and additional sizes available are found on p. 171.



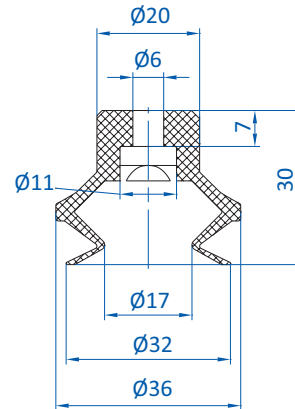
Connection		
270.315	M6-male	--
270.132	G1/8-male	--
270.114	G1/8-female	--
270.190	G1/4-male	--
270.540	G1/4-male	--
270.192	G1/4-female	--
270.539	G1/4-female	--

Item no.
21.032.091.*

Material
Vulkollan® (br)

16 mm

Details and additional sizes available are found on p. 171.



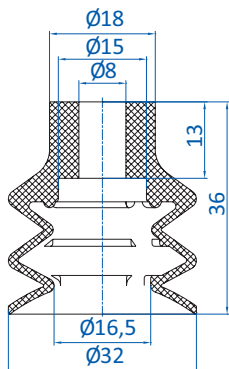
Connection		
270.312/19	M6-male	--
270.030	G1/8-male	--
270.019	G1/8-female	--
270.274	G1/4-male	--
270.275	G1/4-female	--

Item no.
23.030.125.*

Material
NBR (sw), SI (tr), SI-LE (tr), PU (bl), HNBR (ge)

9 mm

This vacuum cup is also available in the following dimensions: 11 mm, 16 mm, 21 mm, 42 mm, 54 mm



Connection		
270.315	M6-male	--
270.196	G1/8-male	--
270.114	G1/8-female	--
270.190	G1/4-male	--
270.192	G1/4-female	--

BESTSELLER

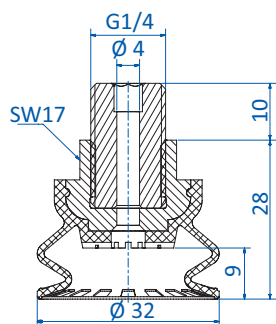
Item no.
21.032.075.*

Material
NBR (sw), HNBR (ge), SI (tr), SI-LE (tr), NR (gr), PU (bl)

13 mm

Details and additional sizes available are found on p. 159.

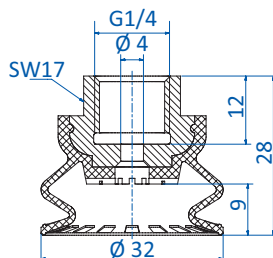
* When ordering please add the appropriate material code to item no.



**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no. 22.030.171.*	Material NBR (bl)	8 mm
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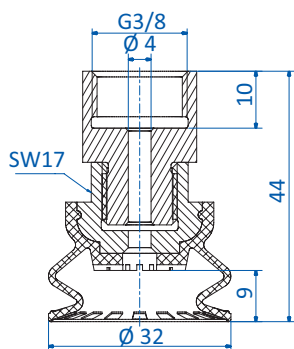
Details and additional sizes available are found on p. 218.



**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no. 22.030.172.*	Material NBR (bl)	8 mm
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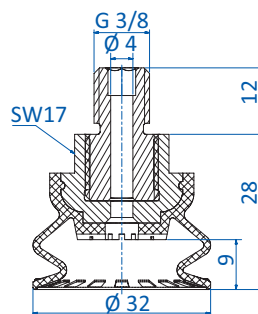
Details and additional sizes available are found on p. 218.



**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no. 22.030.173.*	Material NBR (bl)	8 mm
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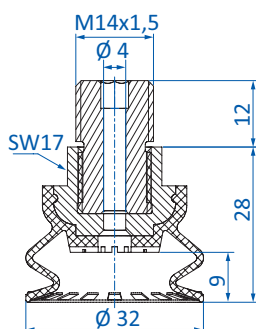
Details and additional sizes available are found on p. 218.



**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no. 22.030.174.*	Material NBR (bl)	8 mm
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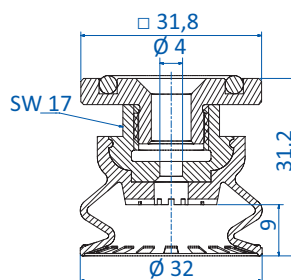
Details and additional sizes available are found on p. 218.



**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no. 22.030.175.*	Material NBR (bl)	8 mm
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Details and additional sizes available are found on p. 218.



**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no. 22.030.176.*	Material NBR (bl)	8 mm
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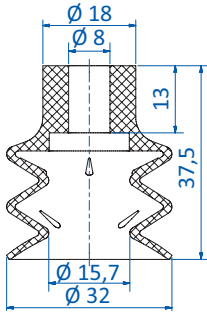
Details and additional sizes available are found on p. 218.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

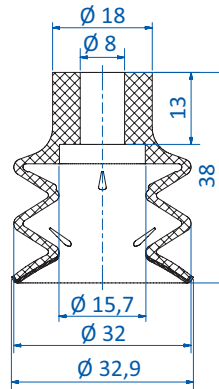
Ø 32 - 33 mm



Connection		
270.315	M6-male	--
270.196	G1/8-male	--
270.114	G1/8-female	--
270.190	G1/4-male	--
270.192	G1/4-female	--

Item no. 21.032.154.*	Material NBR (sw), SI (tr), SI-LE (tr), Thermalon® (bl)	14.5 mm
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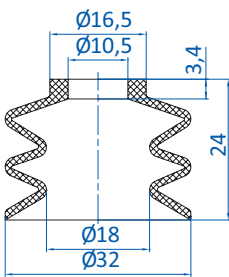
Details and additional sizes available are found on p. 162.



Connection		
270.315	M6-male	--
270.196	G1/8-male	--
270.114	G1/8-female	--
270.190	G1/4-male	--
270.192	G1/4-female	--

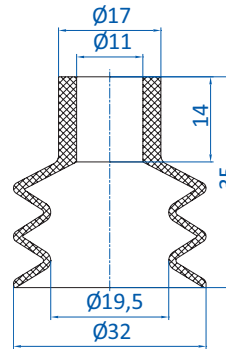
Item no. 21.032.154.19F	Material Thermalon®-flocked (bl/sw)	14.5 mm
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Details and additional sizes available are found on p. 166.



Connection		
270.521	M5-male	--
270.254	M6-male	--
270.256	M8-male	--

Item no. 21.032.067.*	Material Vinyl (bl)	10 mm
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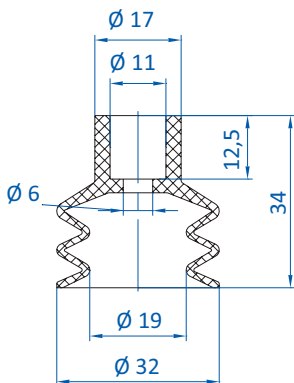


Connection		
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no. 21.032.082.*	Material Vinyl (bl)	14 mm
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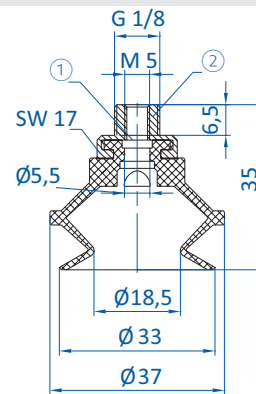
Details and additional sizes available are found on p. 194.

BESTSELLER



Connection		
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

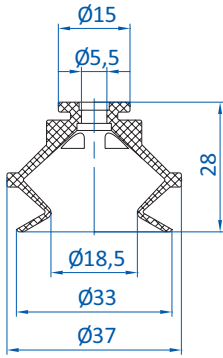
Item no. 21.032.081.*	Material NR (sw)	13 mm
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① = Filter screen ② = Aluminum

Item no. 22.030.033.*	Material Tepuflex® (or), SI (tr), CR (sw)	9 mm
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* When ordering please add the appropriate material code to item no.



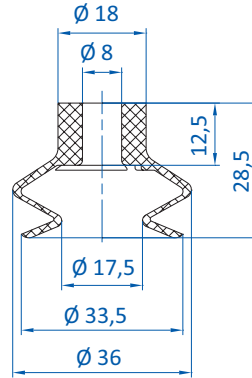
Connection		
270.783-S	NPT1/8-male	--
270.500-S	M5-female	--
270.250	G1/8-male	--
270.503-S	G1/8-male	--

Item no.
23.030.037_*

Material
Tepuflex® (or), SI (tr), SI-LE (tr), CR (sw)

9 mm

Details and additional sizes available are found on p. 174.



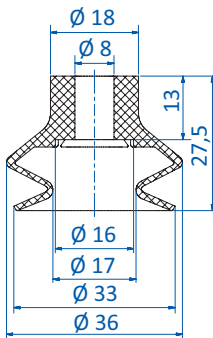
Connection		
270.315	M6-male	--
270.196	G1/8-male	--
270.114	G1/8-female	--
270.190	G1/4-male	--
270.192	G1/4-female	--

Item no.
23.033.039_*

Material
NBR (sw), SI (tr), SI-LE (tr), NR (gr)

12 mm

Details and additional sizes available are found on p. 147.



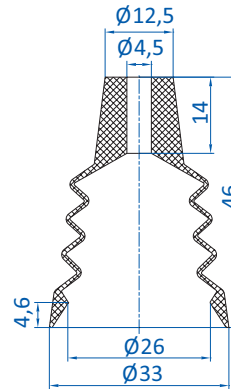
Connection		
270.315	M6-male	--
270.196	G1/8-male	--
270.114	G1/8-female	--
270.190	G1/4-male	--
270.192	G1/4-female	--

Item no.
23.033.241_*

Material
NBR (sw), SI (tr), Thermalon® (bl), Thermalon®-flocked (bl/sw)

11 mm

Details and additional sizes available are found on p. 150.

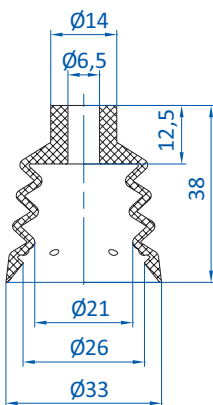


Connection		
270.443	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

Item no.
27.033.017_*

Material
SI (tr)

25 mm

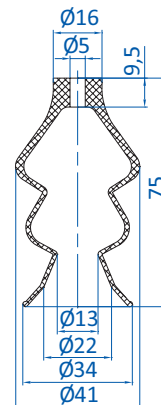


Connection		
270.132	G1/8-male	--
270.114	G1/8-female	--
270.208	G1/4-male	--
270.178	G1/4-female	--

Item no.
27.033.008_*

Material
SI (tr)

16 mm



Connection		
270.443	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

Item no.
27.034.023_*

Material
SI (r)

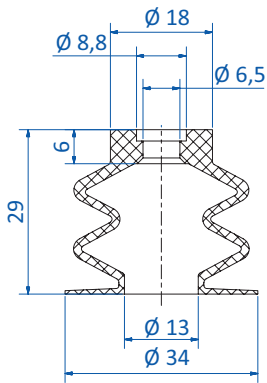
39 mm

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 34 - 35 mm



Item no.	Connection	
270.039	M6-male	--

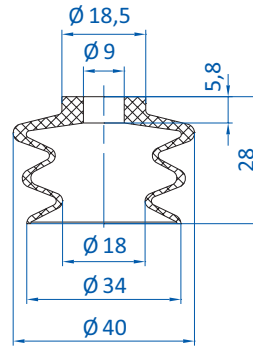
IDEAL FOR WAFERS

Item no.
21.034.179.*

Material
SI-LE (tr)

12 mm

Details and additional sizes available are found on p. 211.



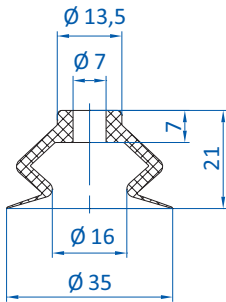
Item no.	Connection	
270.482	G1/8-male	--
270.481	G1/8-female	--
270.483	G1/4-male	--
270.484	G1/4-female	--

Item no.
27.034.003.*

Material
Vulkollan® (br)

18 mm

Details and additional sizes available are found on p. 211.

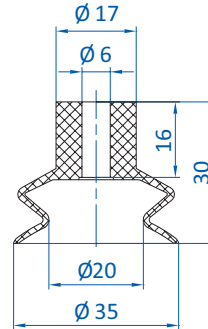


Item no.	Connection	
270.312/19	M6-male	--
270.482	G1/8-male	--
270.481	G1/8-female	--
270.483	G1/4-male	--
270.484	G1/4-female	--

Item no.
23.035.106.*

Material
Vinyl (bl)

14 mm



Item no.	Connection	
270.443	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

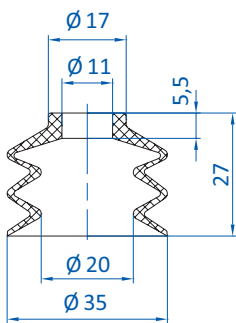
BESTSELLER

Item no.
23.035.111.*

Material
Vinyl (bl)

12 mm

Details and additional sizes available are found on p. 191.

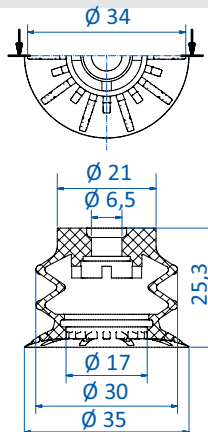


Item no.	Connection	
270.313	M8-male	--
270.177	M10-male	--
270.183	G1/4-male	--
270.182	G1/4-female	--

Item no.
21.035.080.*

Material
Vinyl (bl)

13 mm



Item no.	Connection	
270.781-S	NPSF1/8-female	--
270.786-S	NPT1/4-male	--
270.785-S	NPT3/8-male	--
270.501-S	G1/8-female	--
270.506-S	G1/4-male	--
270.505-S	G3/8-male	--

FOR BAG HANDLING

Item no.
21.035.190.16

Material
Varioflex® 60°/30° (sw/r)

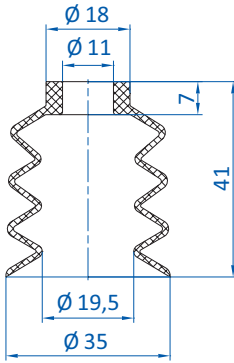
12 mm

Details and additional sizes available are found on p. 196.

* When ordering please add the appropriate material code to item no.

Bellows vacuum cups by size

Ø 35 - 37 mm

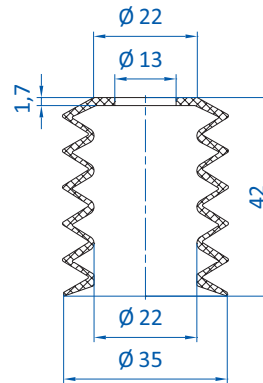


Item no.	Connection	
270.313	M8-male	--
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
25.036.040._*

Material
Vinyl (bl)

20 mm

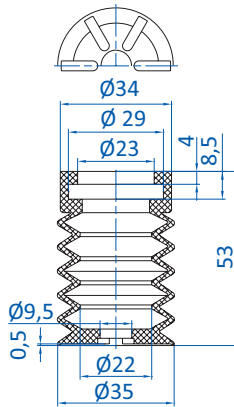


Item no.	Connection	
270.419	Without Thread	--
270.183	G1/4-male	--
270.182	G1/4-female	--

Item no.
25.035.010._*

Material
SI (tr), SI-LE (tr), SI (tr) 30° Shore

26,5 mm

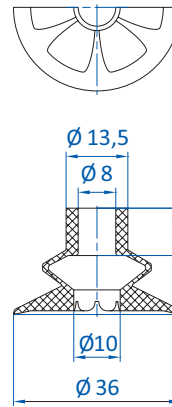


Item no.	Connection	
270.235	G1/8-female	--

Item no.
25.036.041._*

Material
Vinyl (bl)

22 mm

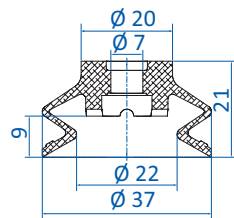


Item no.	Connection	
270.093	G1/8-male	--
270.092	G1/8-female	--
270.249	G1/4-male	--
270.248	G1/4-female	--

Item no.
27.036.011._*

Material
SI (tr), NR (sw)

7 mm



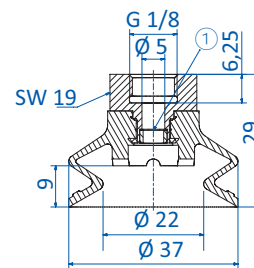
Item no.	Connection	
270.781-S	NPSF1/8-female	--
270.786-S	NPT1/4-male	--
270.785-S	NPT3/8-male	--
270.501-S	G1/8-female	--
270.506-S	G1/4-male	--
270.505-S	G3/8-male	--

Item no.
23.037.266._*

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)

9 mm

Details and additional sizes available are found on p. 179.



① = Filter screen

Item no.
22.037.257._*

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)

9 mm

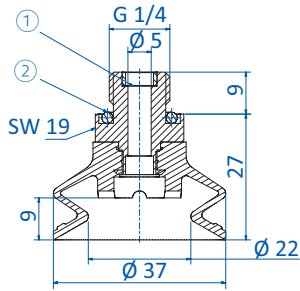
Details and additional sizes available are found on p. 179.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

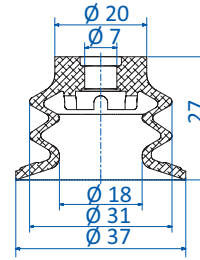
Ø 37 - 0 mm



① = Filter screen ② = O-ring

Item no. 22.037.258.*	Material Varioflex® 60°/30° (sw/r), Monoflex 50° (g)	9 mm
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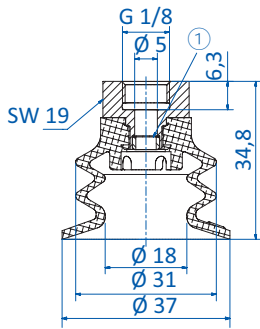
Details and additional sizes available are found on p. 179.



Item no. 21.037.177.* (*-FI)	Material Varioflex® 60°/30° (sw/r), Monoflex 50° (g)	14 mm
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Details and additional sizes available are found on p. 185.
Ordering notes For version with in bellows inserted filter disc please add "-FI" to material code

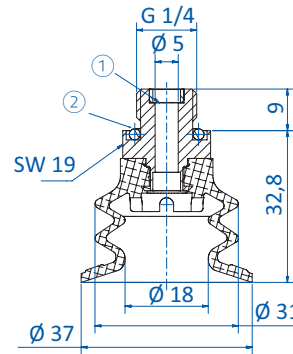
	Connection	
270.781-S	NPSF1/8-female	--
270.786-S	NPT1/4-male	--
270.785-S	NPT3/8-male	--
270.501-S	G1/8-female	--
270.506-S	G1/4-male	--
270.505-S	G3/8-male	--



① = Filter screen

Item no. 20.037.149.* (*-FI)	Material Varioflex® 60°/30° (sw/r), Monoflex 50° (g)	14 mm
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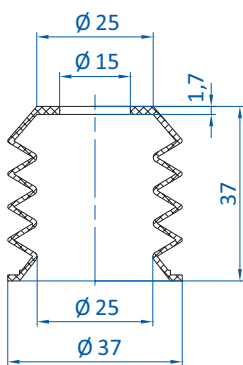
Details and additional sizes available are found on p. 185.
Ordering notes For version with in bellows inserted filter disc please add "-FI" to material code



① = Filter screen

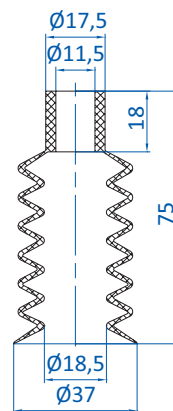
Item no. 20.037.150.* (*-FI)	Material Varioflex® 60°/30° (sw/r), Monoflex 50° (g)	14 mm
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Details and additional sizes available are found on p. 185.
Ordering notes For version with in bellows inserted filter disc please add "-FI" to material code



Item no. 25.037.012.*	Material SI (bl)	19 mm
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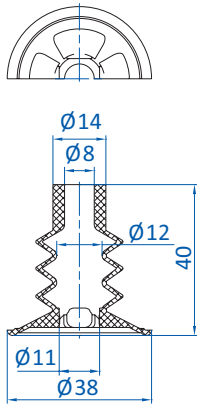
	Connection	
270.419	Without Thread	--
270.183	G1/4-male	--
270.182	G1/4-female	--



Item no. 25.038.039.*	Material Vinyl (bl)	35 mm
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	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

* When ordering please add the appropriate material code to item no.

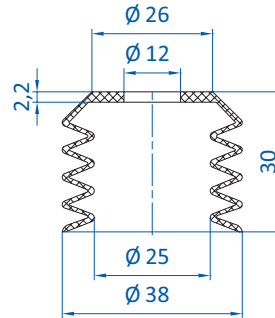


Item no.	Connection	
270.112	G1/8-male	--
270.114	G1/8-female	--
270.113	G1/4-male	--
270.178	G1/4-female	--

Item no.
27.038.012.*

Material
SI (tr), NR (br)

16 mm

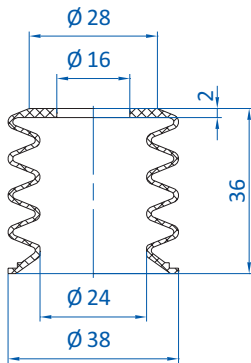


Item no.	Connection	
270.419	Without Thread	--
270.183	G1/4-male	--
270.182	G1/4-female	--

Item no.
25.038.014.*

Material
SI (tr)

18 mm



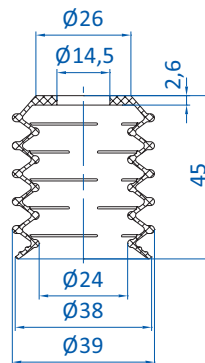
Item no.	Connection	
270.419	Without Thread	--
270.183	G1/4-male	--
270.182	G1/4-female	--

Item no.
25.038.016.*

Material
SI (tr), SI-LE (tr)

24 mm

Details and additional sizes available are found on p. 211.



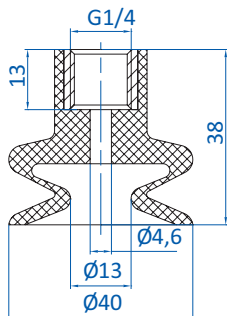
Item no.	Connection	
270.419	Without Thread	--
270.183	G1/4-male	--
270.182	G1/4-female	--

Item no.
27.039.017.*

Material
SI (tr) 50° Shore, SI (tr) 30° Shore

20 mm

Details and additional sizes available are found on p. 211.

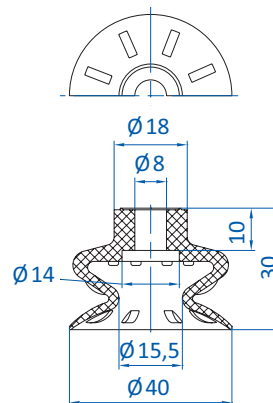


Item no.
22.040.046.*

Material
SI (tr), NR (sw)

7 mm

This vacuum cup is also available in the following dimensions: 30 mm, 44 mm, 50 mm



Item no.	Connection	
270.093	G1/8-male	--
270.092	G1/8-female	--
270.249	G1/4-male	--
270.248	G1/4-female	--

Item no.
23.040.042.*

Material
NBR (sw), SI (r), NR (bg)

13 mm

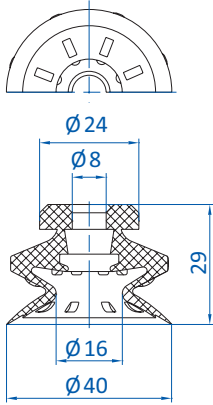
This vacuum cup is also available in the following dimensions: 14 mm, 24 mm, 60 mm

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 40 mm

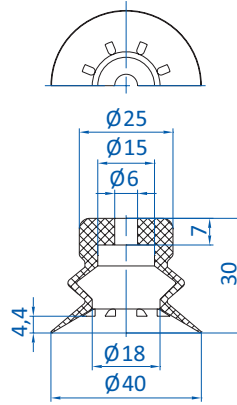


	Connection	
270.515	G1/4-male	--
270.434	G1/4-female	--

Item no.
23.040.223.*

Material
NR (br)

7 mm



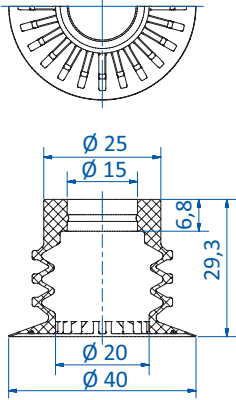
	Connection	
270.498	M6-male	--
270.486	G1/8-male	--
270.485	G1/8-female	--
270.487	G1/4-male	--
270.488	G1/4-female	--

Item no.
23.040.142.*

Material
NBR (sw), SI (tr)

9.5 mm

Details and additional sizes available are found on p. 204.



	Connection	
270.776	G1/8-male	--
270.777	G1/4-male	--
270.778	G3/8-male	--

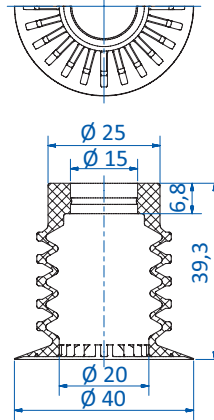
FOR BAG HANDLING

Item no.
25.040.096.8

Material
SI 70°/40° (tr/bl)

7 mm

Details and additional sizes available are found on p. 198.
Ordering notes Suitable holders and the move-in guards (p.202), are not included in the scope of delivery, please order separately



	Connection	
270.776	G1/8-male	--
270.777	G1/4-male	--
270.778	G3/8-male	--

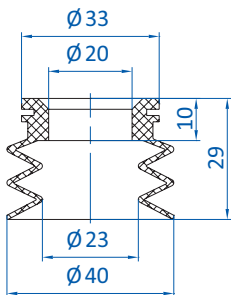
FOR BAG HANDLING

Item no.
25.040.099.8

Material
SI 70°/40° (tr/bl)

12 mm

Details and additional sizes available are found on p. 201.
Ordering notes Suitable holders and the move-in guards (p.202), are not included in the scope of delivery, please order separately

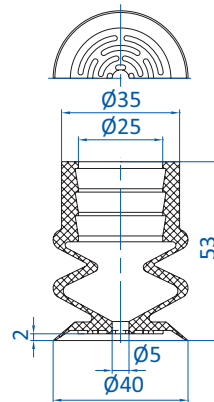


Item no.
21.040.132.*

Material
SI (tr), SI-LE (tr), SI (bl), SI-LE (bl)

11 mm

Details and additional sizes available are found on p. 216.



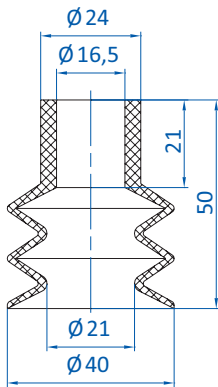
	Connection	
270.438	G1/4-male	--
270.442	G3/8-male	--

Item no.
21.040.141.*

Material
NR (bg)

18 mm

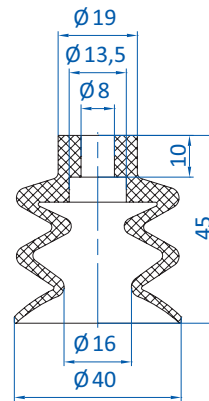
* When ordering please add the appropriate material code to item no.



Item no.	Connection	
270.116	G1/4-female	--

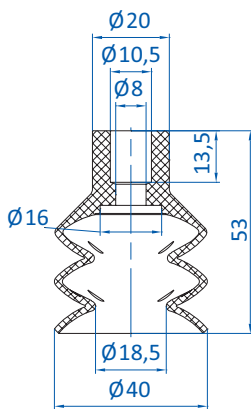
Item no. 21.040.024.*	Material NBR (sw)	18 mm
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This vacuum cup is also available in the following dimensions: 60 mm



Item no.	Connection	
270.093	G1/8-male	--
270.092	G1/8-female	--
270.249	G1/4-male	--
270.248	G1/4-female	--

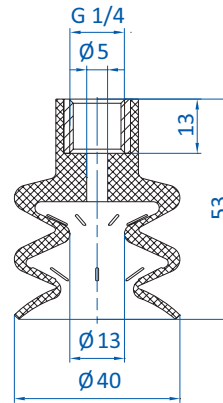
Item no. 21.040.025.*	Material NBR (sw), SI (r), NR (bg), PU (bl)	20 mm
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Item no.	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

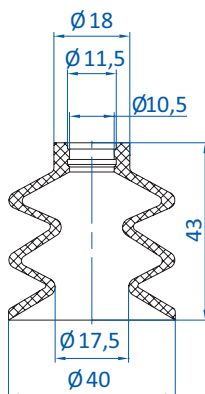
Item no. 21.040.027.*	Material NBR (sw), SI (tr), Vinyl (bl)	16 mm
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Details and additional sizes available are found on p. 194.



Item no. 20.040.054.*	Material NBR (sw), SI (tr)	16 mm
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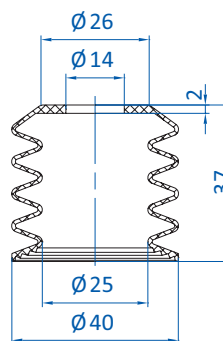
This vacuum cup is also available in the following dimensions: 30 mm, 50 mm



Item no.	Connection	
270.097	G1/4-male	--
270.098	G1/4-female	--

Item no. 21.040.028.*	Material NBR (sw), SI (bl)	20 mm
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This vacuum cup is also available in the following dimensions: 10 mm, 15 mm, 18 mm, 24 mm, 30 mm



Item no.	Connection	
270.419	Without Thread	--
270.183	G1/4-male	--
270.182	G1/4-female	--

Item no. 25.040.043.*	Material SI (tr) 50° Shore, SI (tr) 30° Shore, SI-LE (tr)	24 mm
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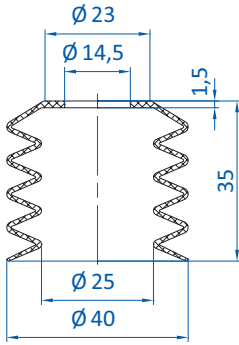
Details and additional sizes available are found on p. 211.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

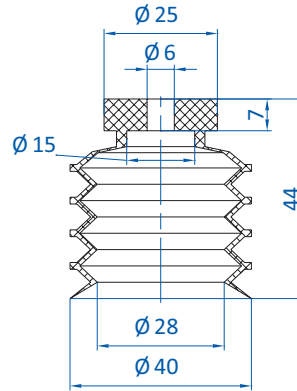
Ø 40 - 41 mm



Connection		
270.419	Without Thread	--
270.183	G1/4-male	--
270.182	G1/4-female	--

Item no. 25.040.058_* **Material** SI (bl), SI-LE (bl) **Ø** 25 mm

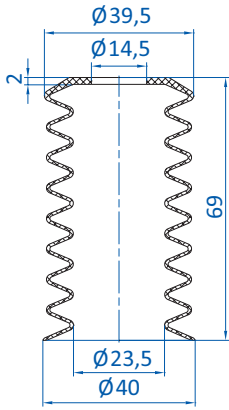
Details and additional sizes available are found on p. 211.



Connection		
270.486	G1/8-male	--
270.485	G1/8-female	--
270.487	G1/4-male	--
270.488	G1/4-female	--

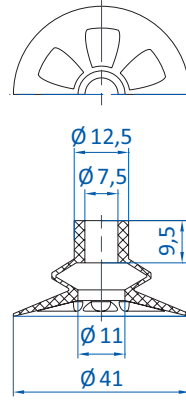
Item no. 25.040.047_* **Material** NBR (sw), SI (tr) **Ø** 19 mm

Details and additional sizes available are found on p. 209.



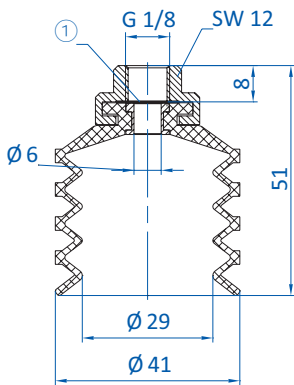
Connection		
270.419	Without Thread	--
270.183	G1/4-male	--
270.182	G1/4-female	--

Item no. 25.040.019_* **Material** SI (tr), SI-LE (tr) **Ø** 40 mm



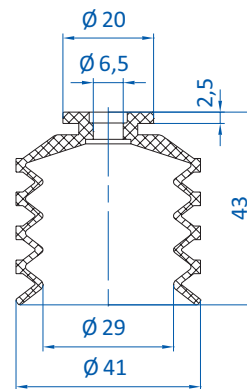
Connection		
270.093	G1/8-male	--
270.092	G1/8-female	--
270.249	G1/4-male	--
270.248	G1/4-female	--

Item no. 23.040.084_* **Material** NBR (sw), SI (tr) **Ø** 9 mm



① = Filter screen

Item no. 24.040.074_* **Material** SI (tr), CR (sw) **Ø** 20 mm

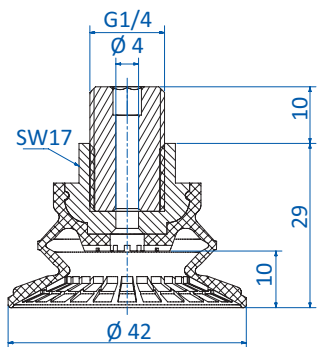


Connection		
270.781-S	NPSF1/8-female	--
270.786-S	NPT1/4-male	--
270.785-S	NPT3/8-male	--
270.251	G1/8-female	--
270.501-S	G1/8-female	--
270.506-S	G1/4-male	--
270.505-S	G3/8-male	--

Item no. 25.040.027_* **Material** SI (tr), SI-LE (tr), CR (sw) **Ø** 20 mm

Details and additional sizes available are found on p. 177.

* When ordering please add the appropriate material code to item no.



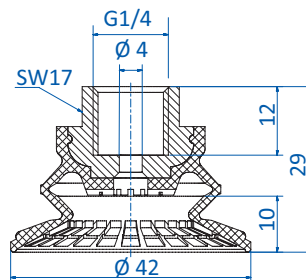
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

**Item no.
22.040.177.***

Material
NBR (bl)

11 mm

Details and additional sizes available are found on p. 218.



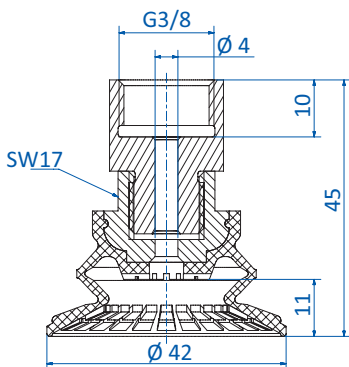
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

**Item no.
22.040.178.***

Material
NBR (bl)

11 mm

Details and additional sizes available are found on p. 218.



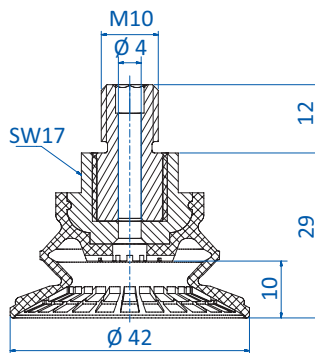
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

**Item no.
22.040.179.***

Material
NBR (bl)

11 mm

Details and additional sizes available are found on p. 218.



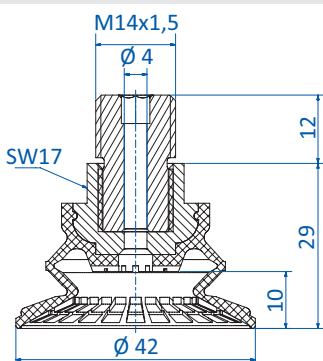
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

**Item no.
22.040.180.***

Material
NBR (bl)

11 mm

Details and additional sizes available are found on p. 218.



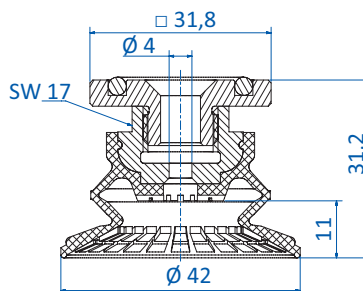
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

**Item no.
22.040.181.***

Material
NBR (bl)

11 mm

Details and additional sizes available are found on p. 218.



**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

**Item no.
22.040.182.***

Material
NBR (bl)

11 mm

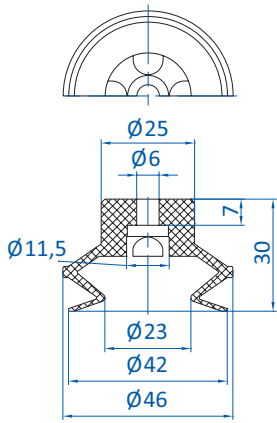
Details and additional sizes available are found on p. 218.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

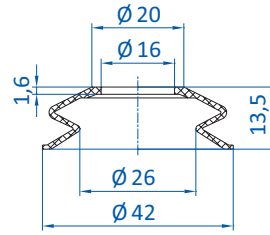
Ø 40 - 42 mm



	Connection	
270.312/19	M6-male	--
270.030	G1/8-male	--
270.019	G1/8-female	--
270.274	G1/4-male	--
270.275	G1/4-female	--

Item no.
23.040.126.* **Material**
NBR (sw), SI (tr), PU (bl) 10 mm

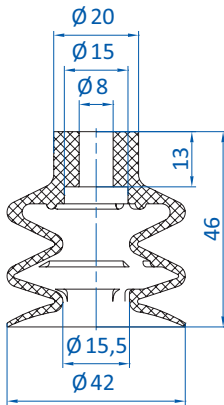
This vacuum cup is also available in the following dimensions: 11 mm, 16 mm, 21 mm, 32 mm, 54 mm



	Connection	
270.419	Without Thread	--
270.182.U	G1/4-male	--
270.182	G1/4-female	--

Item no.
23.042.048.* **Material**
SI (tr), NR (sw), NR (br) 11 mm

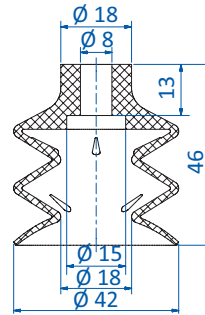
This vacuum cup is also available in the following dimensions: 47 mm



	Connection	
270.315	M6-male	--
270.196	G1/8-male	--
270.114	G1/8-female	--
270.190	G1/4-male	--
270.192	G1/4-female	--

Item no.
21.043.049.* **Material**
NBR (sw), HNBR (ge), SI (tr), SI-LE (tr), NR (gr) 19 mm

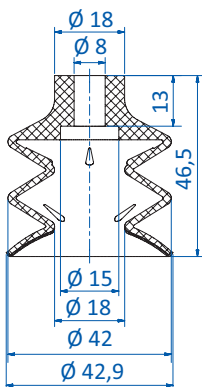
Details and additional sizes available are found on p. 159.



	Connection	
270.315	M6-male	--
270.196	G1/8-male	--
270.114	G1/8-female	--
270.190	G1/4-male	--
270.192	G1/4-female	--

Item no.
21.042.155.* **Material**
NBR (sw), SI (tr), Thermalon® (bl) 22 mm

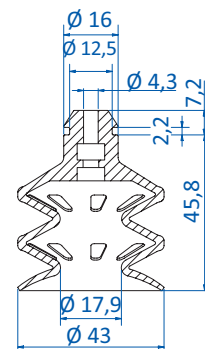
Details and additional sizes available are found on p. 162.



	Connection	
270.315	M6-male	--
270.196	G1/8-male	--
270.114	G1/8-female	--
270.190	G1/4-male	--
270.192	G1/4-female	--

Item no.
21.042.155.19F **Material**
Thermalon®-flocked (bl/sw) 22 mm

Details and additional sizes available are found on p. 166.



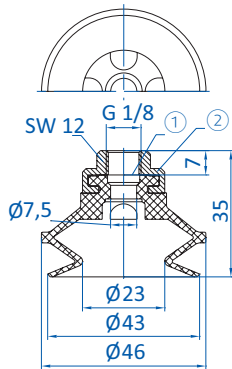
Item no.
21.040.186.* **Material**
SI (tr), SI-LE (tr), SI (w), SI-LE (w) 20 mm

Details and additional sizes available are found on p. 213.

* When ordering please add the appropriate material code to item no.

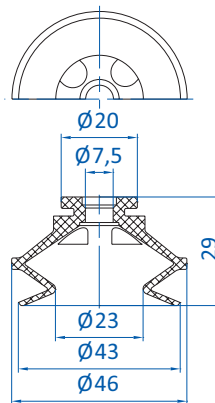
Bellows vacuum cups by size

Ø 43 - 44 mm



① = Filter screen ② = Aluminum

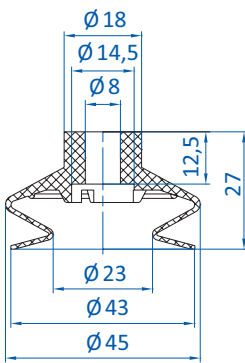
Item no. 22.040.045._*	Material Tepuflex® (or), SI (tr), CR (sw)	9 mm
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	Connection	
270.781-S	NPSF1/8-female	--
270.786-S	NPT1/4-male	--
270.785-S	NPT3/8-male	--
270.251	G1/8-female	--
270.501-S	G1/8-female	--
270.506-S	G1/4-male	--
270.505-S	G3/8-male	--

Item no. 23.040.045._*	Material Tepuflex® (or), SI (tr), CR (sw)	9 mm
----------------------------------	---	------

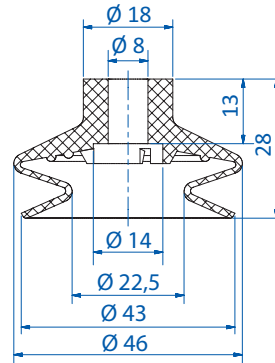
Details and additional sizes available are found on p. 174.



	Connection	
270.315	M6-male	--
270.196	G1/8-male	--
270.114	G1/8-female	--
270.190	G1/4-male	--
270.192	G1/4-female	--

Item no. 23.043.096._*	Material NBR (sw), HNBR (ge), SI (tr), NR (gr)	12 mm
----------------------------------	--	-------

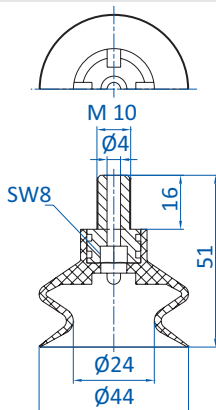
Details and additional sizes available are found on p. 147.



	Connection	
270.315	M6-male	--
270.196	G1/8-male	--
270.114	G1/8-female	--
270.190	G1/4-male	--
270.192	G1/4-female	--

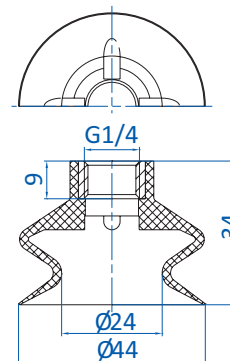
Item no. 23.043.242._*	Material NBR (sw), SI (tr), SI-LE (tr), Thermalon® (bl)	12.5 mm
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Details and additional sizes available are found on p. 150.



Item no. 22.044.054._*	Material SI (tr), NR (sw)	14 mm
----------------------------------	-------------------------------------	-------

This vacuum cup is also available in the following dimensions: 25 mm, 31 mm



Item no. 22.044.034._*	Material SI (tr), NR (sw)	15 mm
----------------------------------	-------------------------------------	-------

This vacuum cup is also available in the following dimensions: 30 mm, 40 mm, 50 mm

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 47 - 50 mm

Connection	
270.182.U	G1/4-male --
270.182	G1/4-female --

Item no.
23.047.246.*

Material
NR (bg)

4 mm

This vacuum cup is also available in the following dimensions: 42 mm

Item no.
25.048.056.*

Material
SI (tr)

25 mm

Connection	
270.213	G1/4-male --

Item no.
23.049.199.*

Material
Vulkollan® (br)

20 mm

Item no.
22.050.058.*

Material
SI (tr), NBR (sw)

12 mm

This vacuum cup is also available in the following dimensions: 30 mm, 40 mm, 44 mm

Connection	
270.177	M10-male --
270.451	G1/4-male --
270.452	G1/4-female --

Item no.
23.050.061.*

Material
SI (tr), NR (sw)

10 mm

Connection	
270.177	M10-male --
270.451	G1/4-male --
270.452	G1/4-female --

Item no.
23.050.135.*

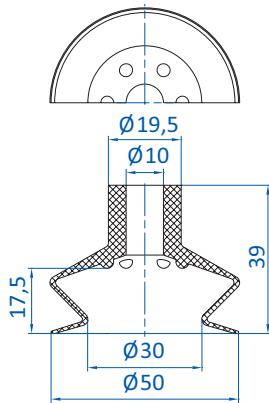
Material
NBR (sw)

10 mm

* When ordering please add the appropriate material code to item no.

Bellows vacuum cups by size

Ø 50 mm

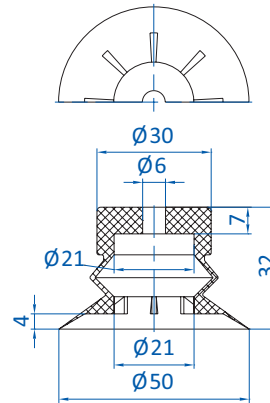


Item no.	Connection	
270.177	M10-male	--
270.044	G1/4-male	--
270.452	G1/4-female	--

Item no.
23.050.188.*

Material
NR (sw)

20 mm



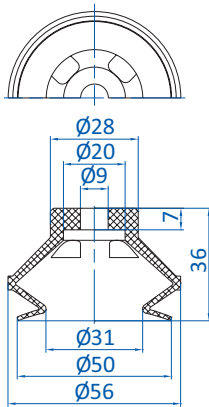
Item no.	Connection	
270.499	M6-male	--
270.490	G1/8-male	--
270.489	G1/8-female	--
270.491	G1/4-male	--
270.492	G1/4-female	--

Item no.
23.050.143.*

Material
NBR (sw), SI (tr)

11 mm

Details and additional sizes available are found on p. 204.



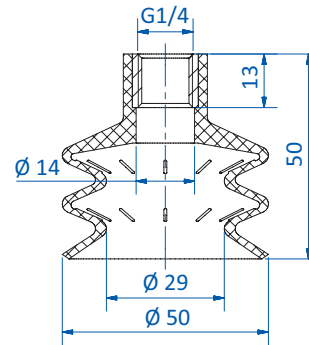
Item no.	Connection	
270.314	M6-male	--
270.490	G1/8-male	--
270.489	G1/8-female	--
270.491	G1/4-male	--
270.492	G1/4-female	--

Item no.
23.050.171.*

Material
Vulkollan® (br)

10 mm

Details and additional sizes available are found on p. 171.

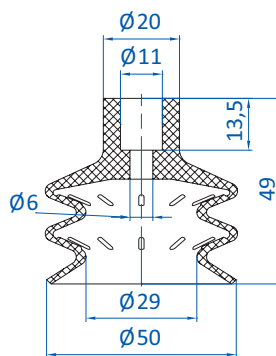


Item no.
20.050.064.*

Material
SI (tr), NR (sw)

18 mm

This vacuum cup is also available in the following dimensions: 30 mm, 40 mm

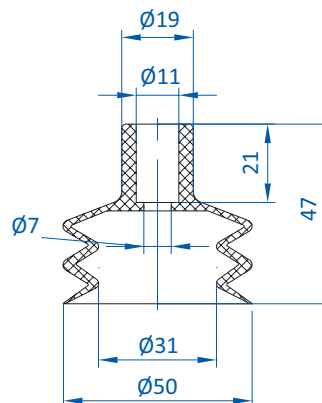


Item no.	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
21.050.031.*

Material
NBR (sw), SI (tr), SI-LE (tr), NR (sw), NR (br)

18 mm



Item no.	Connection	
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
21.050.065.*

Material
Vinyl (bl)

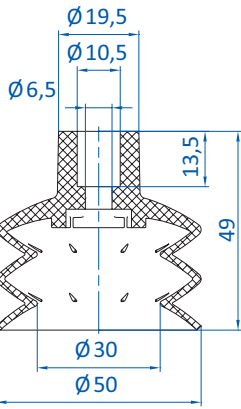
25 mm

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

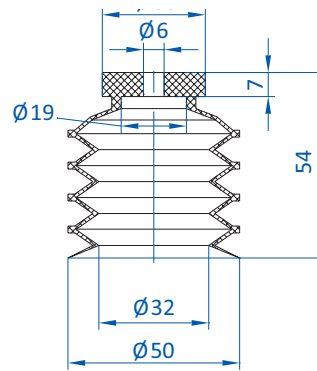
Ø 50 - 51 mm



Connection		
	M10-male	--
	G1/4-male	--
	G1/4-female	--

Item no. 21.050.084_* **Material** Vinyl (bl) 20 mm

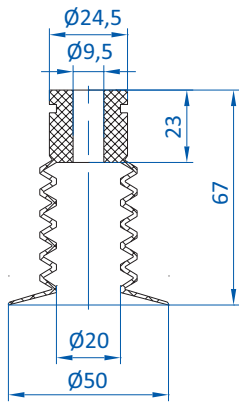
Details and additional sizes available are found on p. 194.



Connection		
	G1/8-male	--
	G1/8-female	--
	G1/4-male	--
	G1/4-female	--

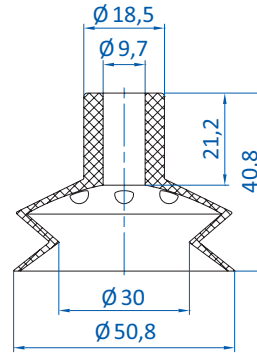
Item no. 25.050.048_* **Material** NBR (sw), SI (tr) 26 mm

Details and additional sizes available are found on p. 209.



Connection		
	M10-male	--
	G1/8-male	--
	G1/4-male	--
	G1/4-female	--

Item no. 25.050.054_* **Material** NBR (sw), SI (tr) 29 mm

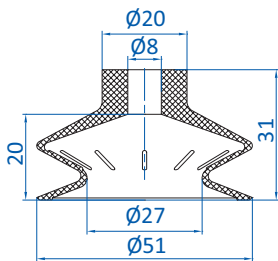


Connection		
	G1/8-male	--
	G1/4-male	--
	G1/4-female	--

BESTSELLER

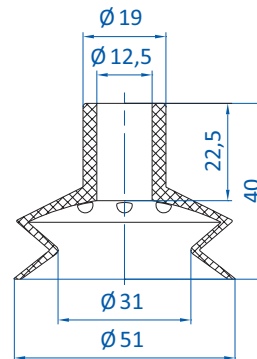
Item no. 23.052.116_* **Material** Vinyl (bl) 6 mm

Details and additional sizes available are found on p. 191.



Connection		
	M6-male	--
	G1/8-male	--
	G1/8-female	--
	G1/4-male	--
	G1/4-female	--

Item no. 23.050.029_* **Material** SI (tr), NR (sw) 10 mm



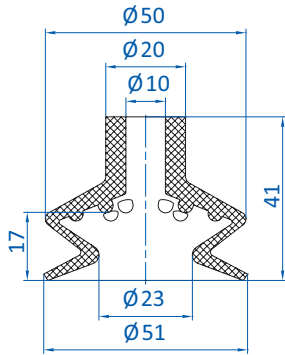
Connection		
	G1/4-male	--

Item no. 23.052.117_* **Material** SI (tr), Vinyl (bl) 6 mm

* When ordering please add the appropriate material code to item no.

Bellows vacuum cups by size

Ø 51 mm

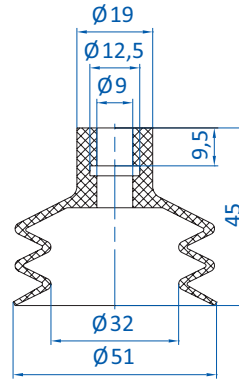


	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
23.050.056_*

Material
NBR (sw), SI (tr), NR (sw)

11 mm



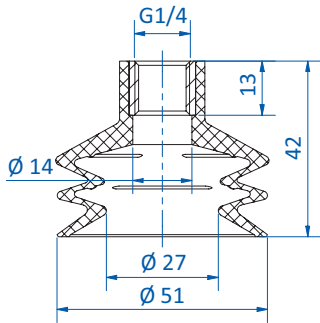
	Connection	
270.132	G1/8-male	--
270.114	G1/8-female	--
270.204	G1/4-male	--
270.324	G1/4-female	--

Item no.
21.051.097_*

Material
Vulkollan® (br)

18 mm

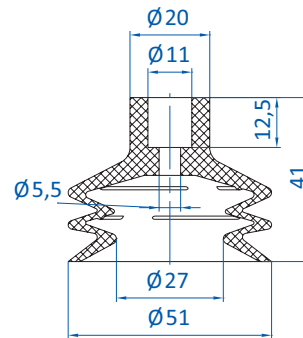
Details and additional sizes available are found on p. 171.



Item no.
20.050.065_*

Material
SI (tr), NR (sw)

8 mm

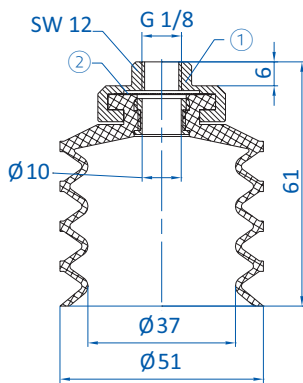


	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

Item no.
21.050.032_*

Material
NBR (sw), SI (tr), NR (sw),
NR (br)

8 mm

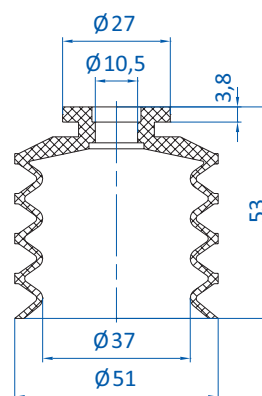


① = Filter screen ② = Aluminum

Item no.
24.050.087_*

Material
SI (tr), CR (sw)

30 mm



	Connection	
270.782-S	NPSF1/8-female	--
270.784-S	NPT1/4-male	--
270.787-S	NPT3/8-male	--
270.252	G1/8-female	--
270.502-S	G1/8-female	--
270.504-S	G1/4-male	--
270.507-S	G3/8-male	--

Item no.
25.050.028_*

Material
SI (tr), SI-LE (tr), CR (sw)

25 mm

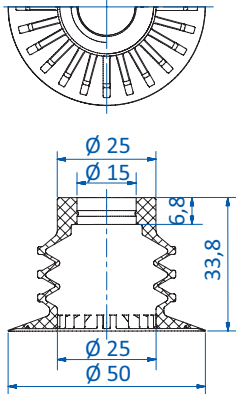
Details and additional sizes available are found on p. 177.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 50 - 52 mm



	Connection	
270.776	G1/8-male	--
270.777	G1/4-male	--
270.778	G3/8-male	--

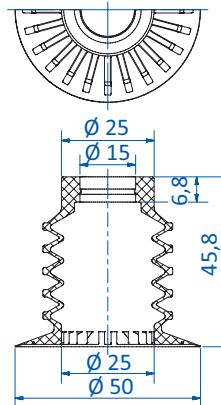
FOR BAG HANDLING

Item no.
25.050.097.8

Material
SI 70°/40° (tr/bl)

9 mm

Details and additional sizes available are found on p. 198.
Ordering notes Suitable holders and the move-in guards (p.202), are not included in the scope of delivery, please order separately



	Connection	
270.776	G1/8-male	--
270.777	G1/4-male	--
270.778	G3/8-male	--

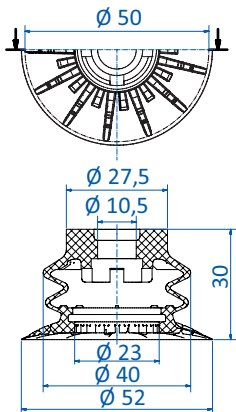
FOR BAG HANDLING

Item no.
25.050.100.8

Material
SI 70°/40° (tr/bl)

15 mm

Details and additional sizes available are found on p. 201.
Ordering notes Suitable holders and the move-in guards (p.202), are not included in the scope of delivery, please order separately



	Connection	
270.782-S	NPSF1/8-female	--
270.784-S	NPT1/4-male	--
270.787-S	NPT3/8-male	--
270.502-S	G1/8-female	--
270.504-S	G1/4-male	--
270.507-S	G3/8-male	--

FOR BAG HANDLING

Item no.
21.052.191.16

Material
Varioflex® 60°/30° (sw/r)

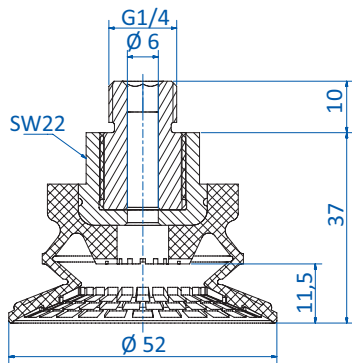
12 mm

Details and additional sizes available are found on p. 196.

* When ordering please add the appropriate material code to item no.

Bellows vacuum cups by size

Ø 52 mm



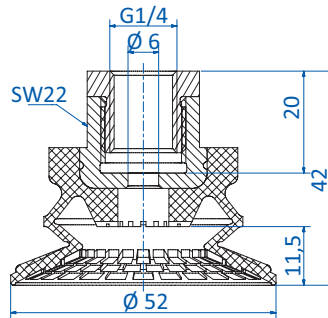
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
22.050.183._*

Material
NBR (bl)

12.5
mm

Details and additional sizes available are found on p. 218.



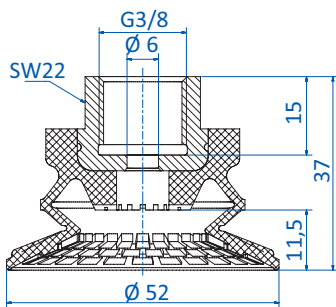
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
22.050.184._*

Material
NBR (bl)

12.5
mm

Details and additional sizes available are found on p. 218.



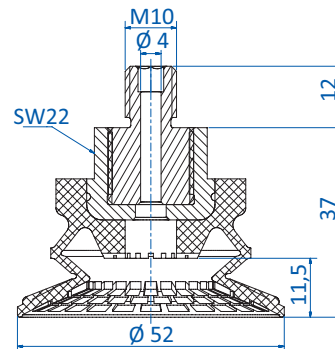
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
22.050.185._*

Material
NBR (bl)

12.5
mm

Details and additional sizes available are found on p. 218.



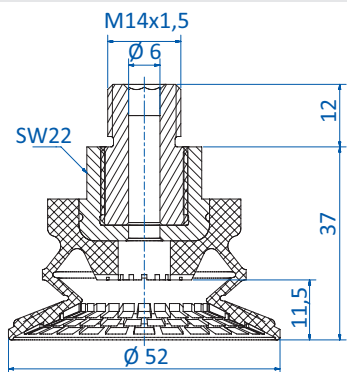
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
22.050.186._*

Material
NBR (bl)

12.5
mm

Details and additional sizes available are found on p. 218.



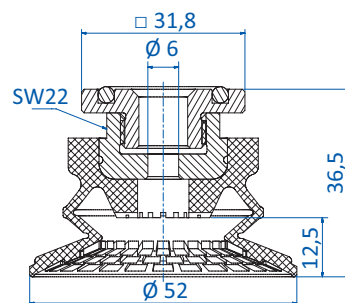
**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
22.050.187._*

Material
NBR (bl)

12.5
mm

Details and additional sizes available are found on p. 218.



**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
22.050.188._*

Material
NBR (bl)

12.5
mm

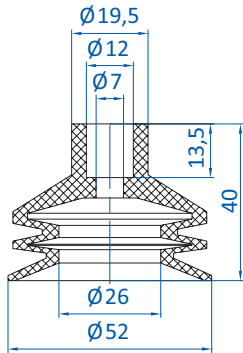
Details and additional sizes available are found on p. 218.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 52 - 53 mm

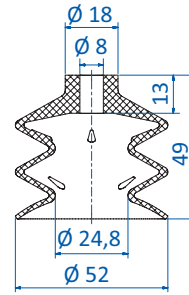


Item no.	Connection	
270.101	G1/4-male	--

Item no.
21.052.033.*

Material
NBR (sw)

12 mm



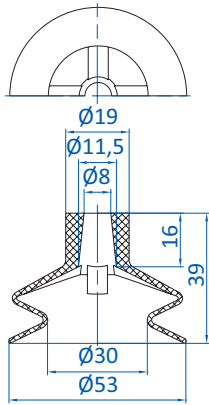
Item no.	Connection	
270.315	M6-male	--
270.196	G1/8-male	--
270.114	G1/8-female	--
270.190	G1/4-male	--
270.192	G1/4-female	--

Item no.
21.052.156.*

Material
NBR (sw), SI (tr), SI-LE (tr),
Thermalon® (bl)

27 mm

Details and additional sizes available are found on p. 162.



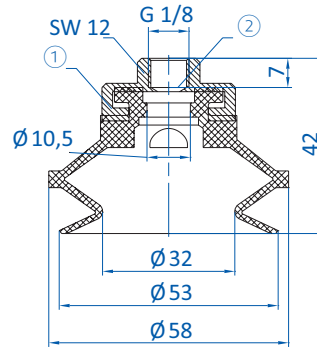
Item no.	Connection	
270.132	G1/8-male	--
270.114	G1/8-female	--
270.208	G1/4-male	--
270.192	G1/4-female	--

Item no.
23.055.058.*

Material
NBR (sw), SI (r)

11 mm

This vacuum cup is also available in the following dimensions: 31 mm, 75 mm

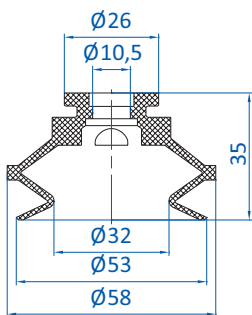


① = Filter screen ② = Aluminum

Item no.
22.050.056.*

Material
Tepuflex® (or), SI (tr), CR (sw)

12 mm



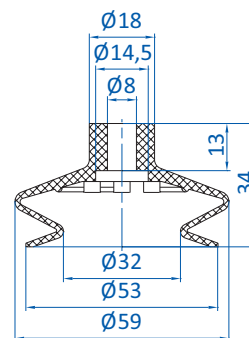
Item no.	Connection	
270.782-S	NPSF1/8-female	--
270.784-S	NPT1/4-male	--
270.787-S	NPT3/8-male	--
270.252	G1/8-female	--
270.502-S	G1/8-female	--
270.504-S	G1/4-male	--
270.507-S	G3/8-male	--

Item no.
23.050.054.*

Material
Tepuflex® (or), SI (tr), SI-LE (tr),
CR (sw)

12 mm

Details and additional sizes available are found on p. 174.



Item no.	Connection	
270.315	M6-male	--
270.196	G1/8-male	--
270.114	G1/8-female	--
270.190	G1/4-male	--
270.192	G1/4-female	--

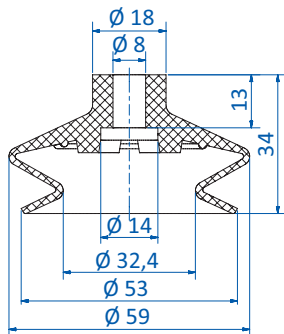
Item no.
23.053.033.*

Material
NBR (sw), SI (tr), SI-LE (tr), NR (gr)

11 mm

Details and additional sizes available are found on p. 147.

* When ordering please add the appropriate material code to item no.



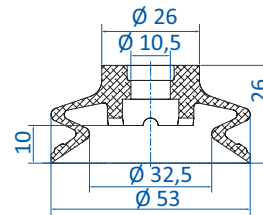
Item no.	Connection	
270.315	M6-male	--
270.196	G1/8-male	--
270.114	G1/8-female	--
270.190	G1/4-male	--
270.192	G1/4-female	--

Item no.
23.053.243.*

Material
NBR (sw), SI (tr), SI-LE (tr),
Thermalon® (bl)

15 mm

Details and additional sizes available are found on p. 150.



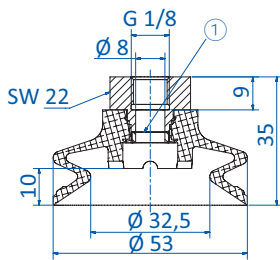
Item no.	Connection	
270.782-S	NPSF1/8-female	--
270.784-S	NPT1/4-male	--
270.787-S	NPT3/8-male	--
270.502-S	G1/8-female	--
270.504-S	G1/4-male	--
270.507-S	G3/8-male	--

Item no.
23.053.267.*

Material
Varioflex® 60°/30° (sw/r)

10 mm

Details and additional sizes available are found on p. 179.



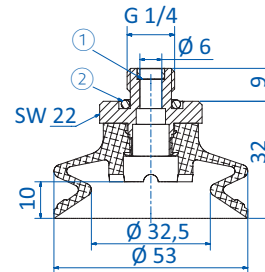
① = Filter screen

Item no.
22.053.259.*

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)

10 mm

Details and additional sizes available are found on p. 179.



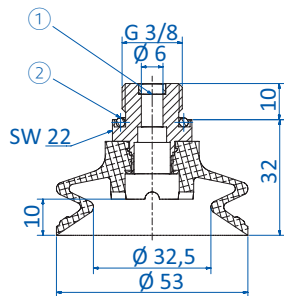
① = Filter screen ② = O-ring

Item no.
22.053.260.*

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)

10 mm

Details and additional sizes available are found on p. 179.



① = Filter screen ② = O-ring

Item no.
22.053.261.*

Material
Varioflex® 60°/30° (sw/r),
Monoflex 50° (g)

10 mm

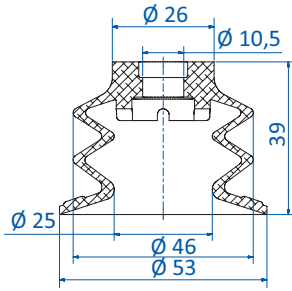
Details and additional sizes available are found on p. 179.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

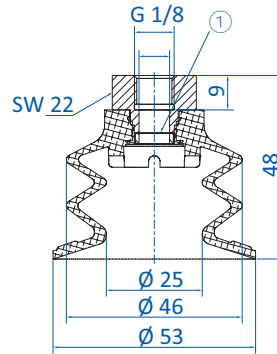
Ø 53 - 56 mm



Connection	
270.782-S	NPSF1/8-female --
270.784-S	NPT1/4-male --
270.787-S	NPT3/8-male --
270.502-S	G1/8-female --
270.504-S	G1/4-male --
270.507-S	G3/8-male --

Item no. 21.053.178._* (*-FI)
Material Varioflex® 60°/30° (sw/r), MonoFlex 50° (g)
 19 mm

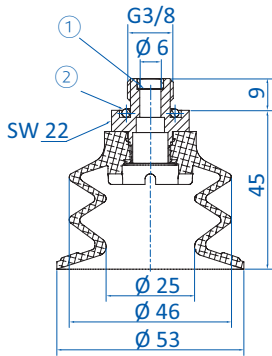
Details and additional sizes available are found on p. 185.
Ordering notes For version with in bellows inserted filter disc please add "-FI" to material code



① = Filter screen

Item no. 20.053.151._* (*-FI)
Material Varioflex® 60°/30° (sw/r), MonoFlex 50° (g)
 19 mm

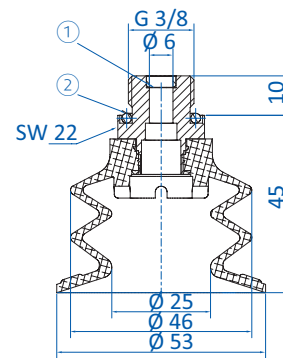
Details and additional sizes available are found on p. 185.
Ordering notes For version with in bellows inserted filter disc please add "-FI" to material code



① = Filter screen ② = O-ring

Item no. 20.053.152._* (*-FI)
Material Varioflex® 60°/30° (sw/r), MonoFlex 50° (g)
 19 mm

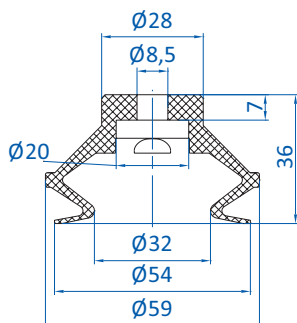
Details and additional sizes available are found on p. 185.
Ordering notes For version with in bellows inserted filter disc please add "-FI" to material code



① = Filter screen ② = O-ring

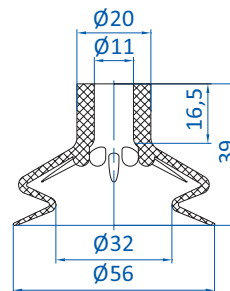
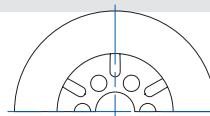
Item no. 20.053.153._* (*-FI)
Material Varioflex® 60°/30° (sw/r), MonoFlex 50° (g)
 19 mm

Details and additional sizes available are found on p. 185.
Ordering notes For version with in bellows inserted filter disc please add "-FI" to material code



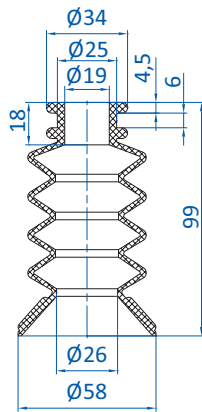
Item no. 23.050.127._*
Material NBR (sw), SI (tr), PU (bl)
 10 mm

This vacuum cup is also available in the following dimensions: 11 mm, 16 mm, 21 mm, 32 mm, 42 mm



Item no. 23.056.150._*
Material SI (tr), SI-LE (tr)
 16 mm

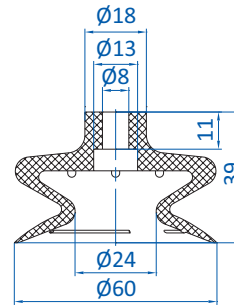
* When ordering please add the appropriate material code to item no.



Item no.
25.058.049_*

Material
Vinyl (bl)

55 mm



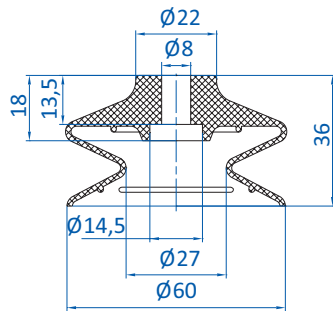
Item no.
23.060.059_*

Material
NBR (sw), SI (r)

15 mm

This vacuum cup is also available in the following dimensions: 14 mm, 24 mm, 40 mm

	Connection	
270.093	G1/8-male	--
270.092	G1/8-female	--
270.249	G1/4-male	--
270.248	G1/4-female	--

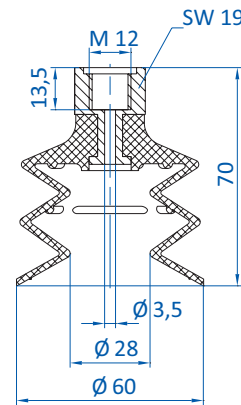


Item no.
23.060.172_*

Material
SI (tr), NR (sw)

12 mm

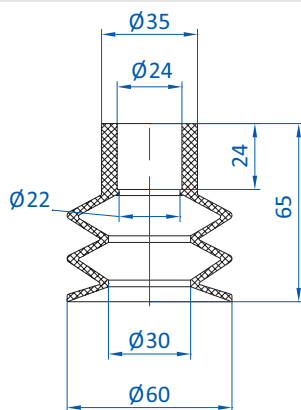
	Connection	
270.281	G1/4-male	--
270.282	G1/4-female	--



Item no.
20.060.101_*

Material
NR (sw)

25 mm

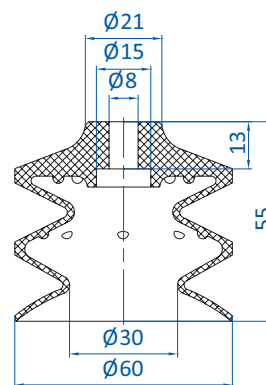


Item no.
21.060.035_*

Material
EPDM (sw), SI (r)

27 mm

This vacuum cup is also available in the following dimensions: 40 mm



Item no.
21.062.092_*

Material
Vulkollan® (br)

25 mm

Details and additional sizes available are found on p. 171.

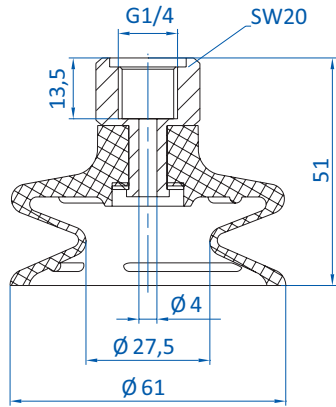
	Connection	
270.315	M6-male	--
270.540	G1/4-male	--
270.539	G1/4-female	--

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

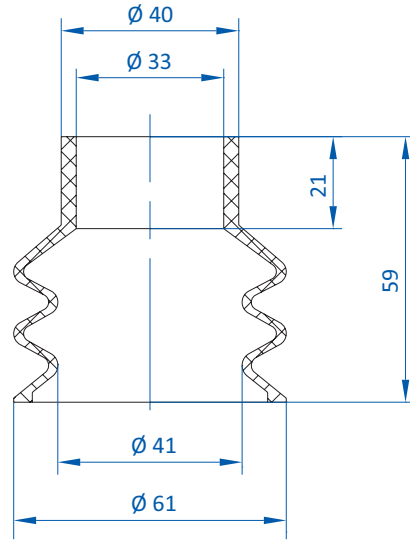
Ø 61 mm



Item no.
22.060.107.*

Material
NR (sw)

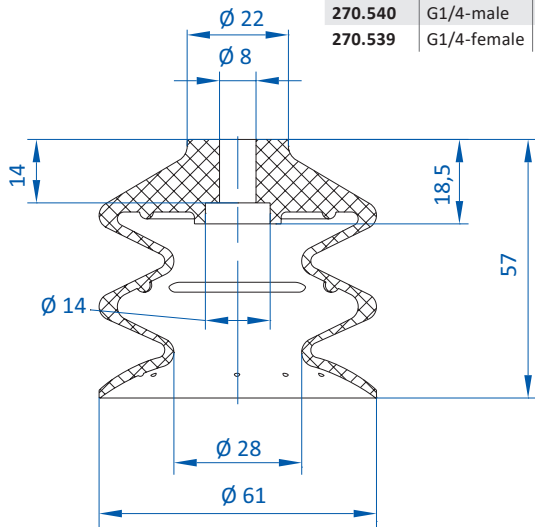
11 mm



Item no.
21.060.038.*

Material
NBR (sw), SI (tr)

25 mm

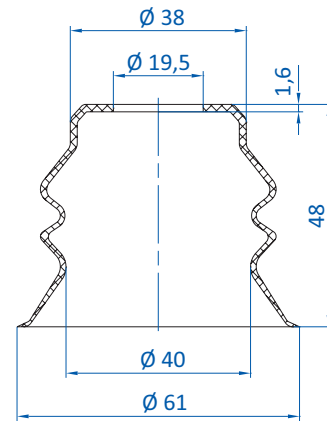


	Connection	
270.315	M6-male	--
270.540	G1/4-male	--
270.539	G1/4-female	--

Item no.
21.060.051.*

Material
SI (tr), NR (sw), HNBR (ge)

25 mm



	Connection	
270.372	G1/2-male	--

Item no.
21.060.074.*

Material
SI (tr)

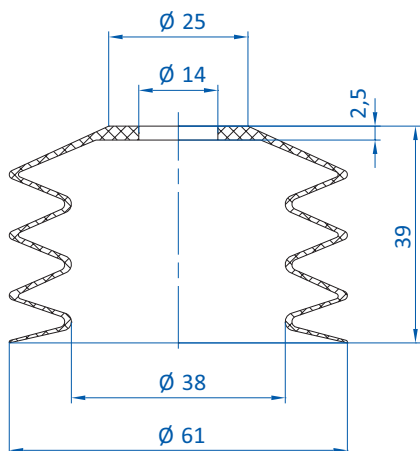
12 mm

Details and additional sizes available are found on p. 211.

* When ordering please add the appropriate material code to item no.



Connection		
	270.183	G1/4-male --
	270.182	G1/4-female --

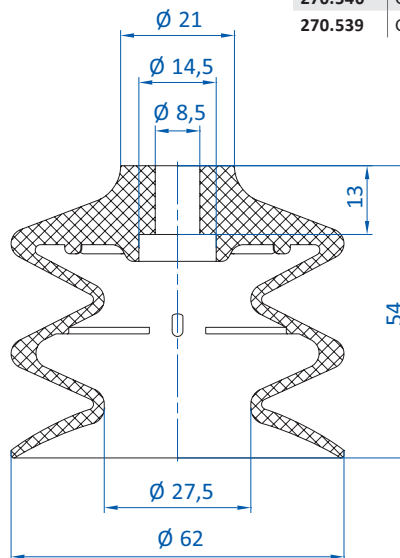


Item no.
25.060.033.*

Material
NBR (sw), SI (br), SI-LE (tr)

16 mm

Connection		
	270.315	M6-male --
	270.540	G1/4-male --
	270.539	G1/4-female --



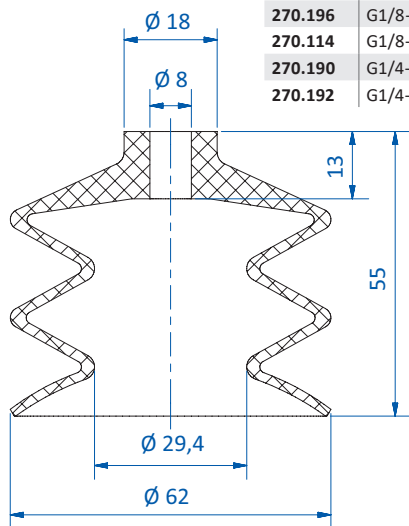
Item no.
21.062.055.*

Material
NBR (sw), SI (tr), SI-LE (tr)

25 mm

Details and additional sizes available are found on p. 159.

Connection		
	270.315	M6-male --
	270.196	G1/8-male --
	270.114	G1/8-female --
	270.190	G1/4-male --
	270.192	G1/4-female --



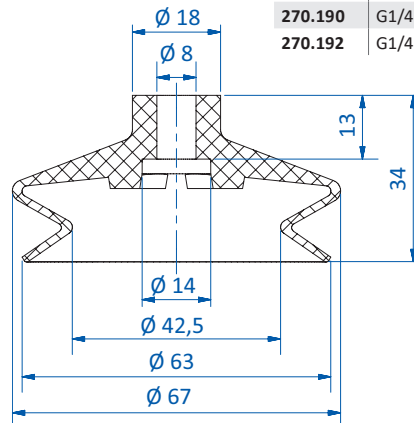
Item no.
21.062.157.*

Material
NBR (sw), SI (tr), SI-LE (tr),
Thermalon® (bl)

31 mm

Details and additional sizes available are found on p. 162.

Connection		
	270.315	M6-male --
	270.196	G1/8-male --
	270.114	G1/8-female --
	270.190	G1/4-male --
	270.192	G1/4-female --



Item no.
23.063.244.*

Material
NBR (sw), SI (tr), Thermalon® (bl)

15 mm

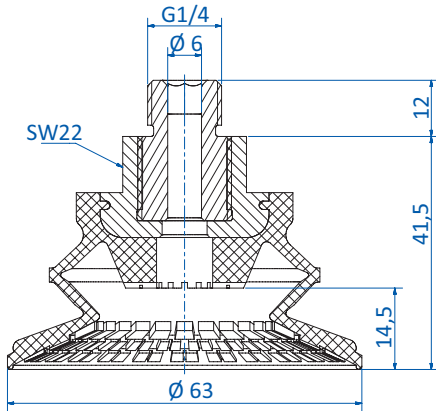
Details and additional sizes available are found on p. 150.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 63 mm



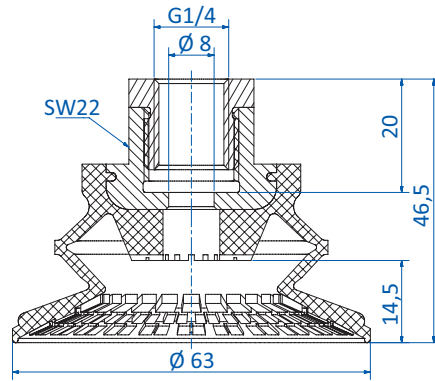
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
22.060.189._*

Material
NBR (bl)

16.5 mm

Details and additional sizes available are found on p. 218.



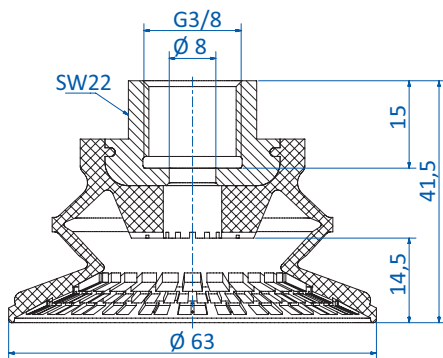
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
22.060.190._*

Material
NBR (bl)

16.5 mm

Details and additional sizes available are found on p. 218.



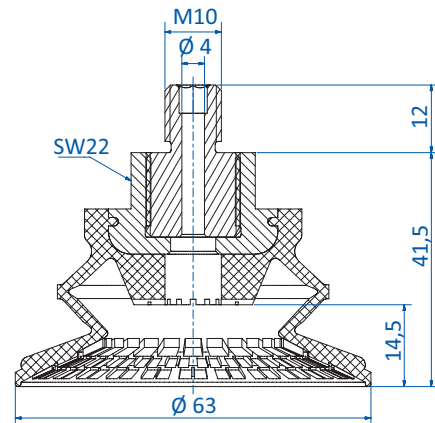
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
22.060.191._*

Material
NBR (bl)

16.5 mm

Details and additional sizes available are found on p. 218.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

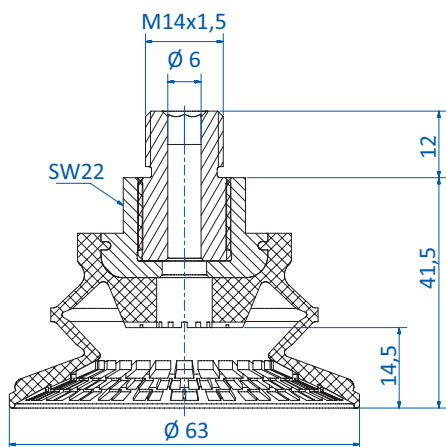
Item no.
22.060.192._*

Material
NBR (bl)

16.5 mm

Details and additional sizes available are found on p. 218.

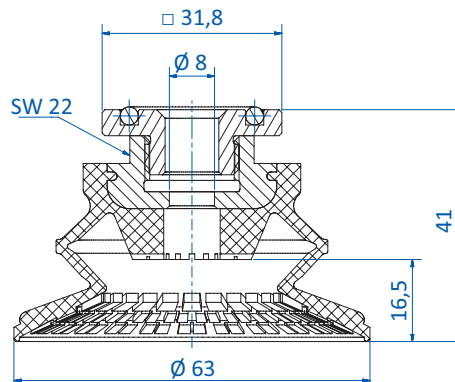
* When ordering please add the appropriate material code to item no.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 22.060.193.*	Material NBR (bl)	16.5 mm
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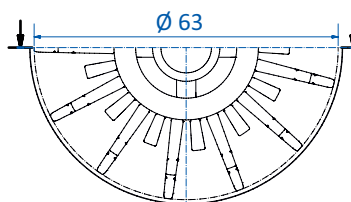
Details and additional sizes available are found on p. 218.



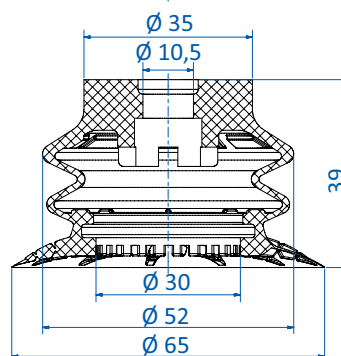
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 22.060.194.*	Material NBR (bl)	16.5 mm
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Details and additional sizes available are found on p. 218.



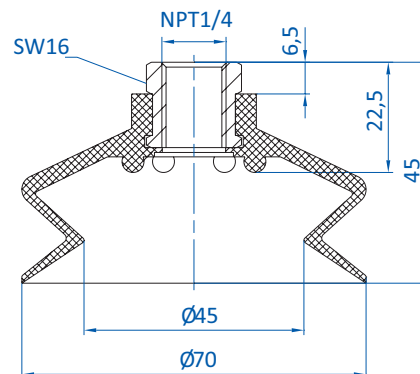
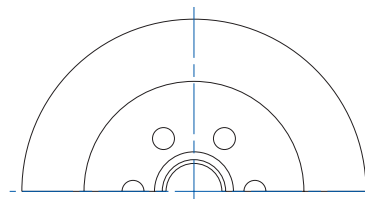
	Connection	
	270.782-S	NPSF1/8-female --
	270.784-S	NPT1/4-male --
	270.787-S	NPT3/8-male --
	270.502-S	G1/8-female --
	270.504-S	G1/4-male --
	270.507-S	G3/8-male --



FOR BAG HANDLING

Item no. 21.064.192.16	Material Varioflex® 60°/30° (sw/r)	15 mm
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Details and additional sizes available are found on p. 196.



Item no. 22.070.127.*	Material Vinyl (bl)	13 mm
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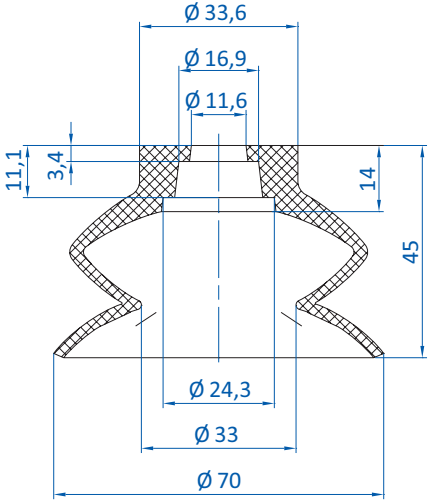
* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

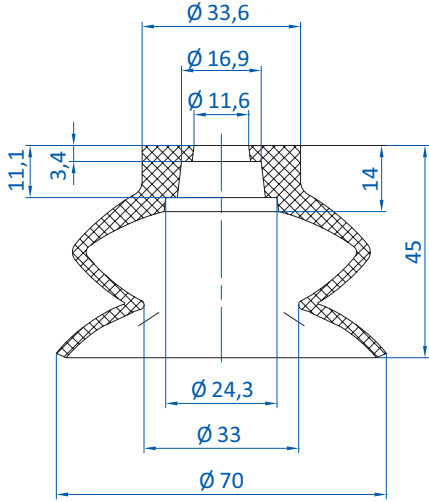
Ø 70 - 75 mm

	Connection	
270.184	G1/4-male	--



Item no. 23.070.060._*	Material NBR (sw), SI (tr), NR (sw)	20 mm
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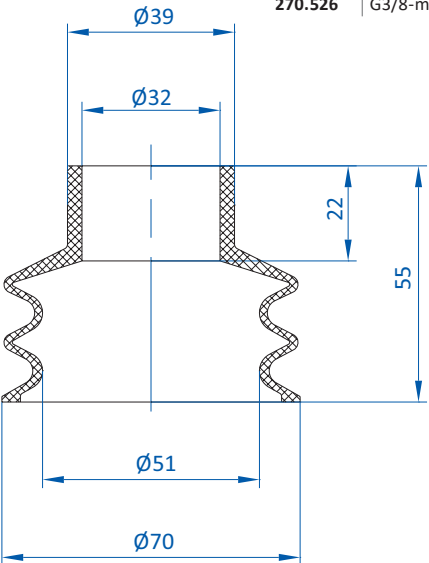
	Connection	
270.184	G1/4-male	--



Item no. 23.070.060._*	Material Vinyl (bl)	20 mm
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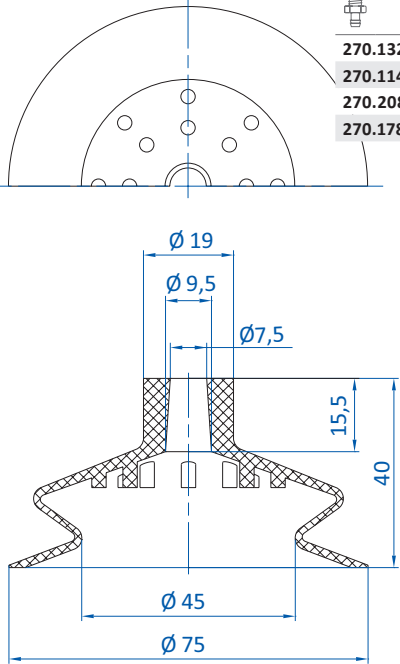
Details and additional sizes available are found on p. 191.

	Connection	
270.526	G3/8-male	--



Item no. 21.070.041._*	Material NR (sw), SI (tr), SI-LE (tr)	17 mm
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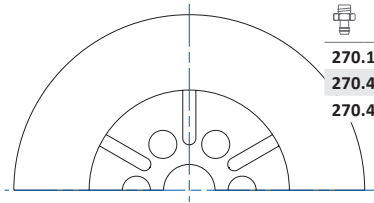
	Connection	
270.132	G1/8-male	--
270.114	G1/8-female	--
270.208	G1/4-male	--
270.178	G1/4-female	--



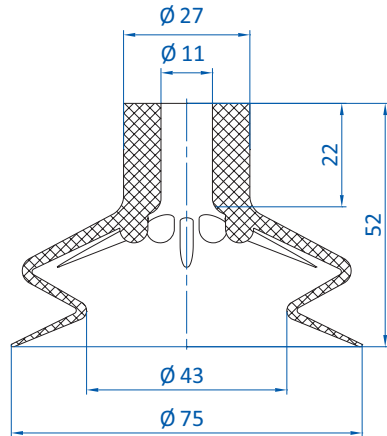
Item no. 23.075.063._*	Material NBR (sw), SI (r)	17 mm
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This vacuum cup is also available in the following dimensions: 31 mm, 53 mm

* When ordering please add the appropriate material code to item no.

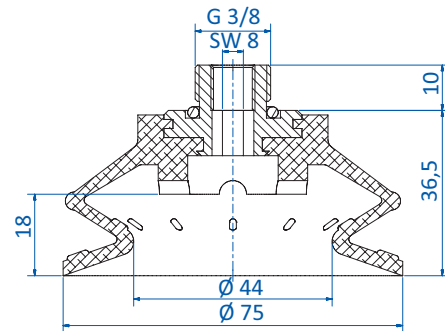


	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--



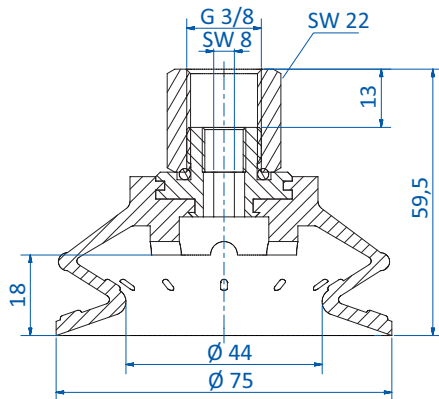
Item no. 23.075.151._*	Material NBR (sw), SI (tr), SI-LE (tr)	20 mm
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Details and additional sizes available are found on p. 147.



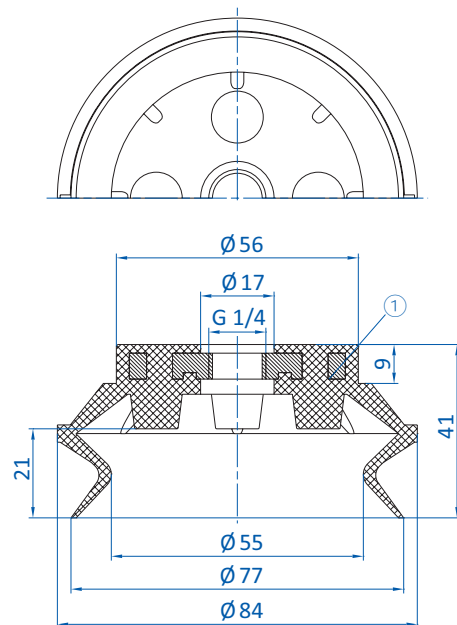
Item no. 22.075.262._*	Material Varioflex® 60°/30° (sw/r), Monoflex 50° (g)	18 mm
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Details and additional sizes available are found on p. 179.



Item no. 22.075.263._*	Material Varioflex® 60°/30° (sw/r)	18 mm
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Details and additional sizes available are found on p. 179.



① = Aluminum

Item no. 23.075.130._*	Material NBR (sw), SI (tr), PU (bl)	21 mm
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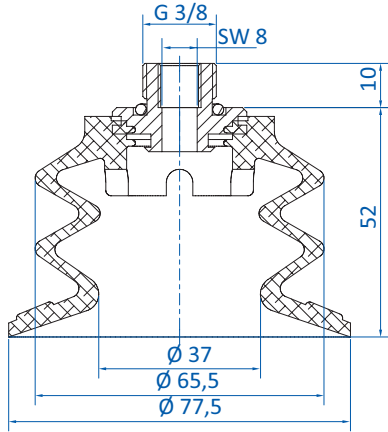
This vacuum cup is also available in the following dimensions: 114 mm, 155 mm

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

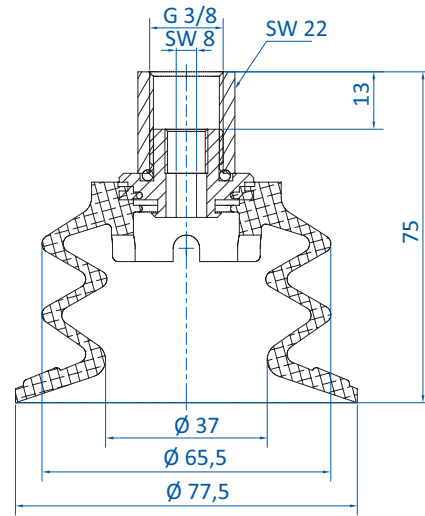
Ø 77 - 80 mm



② = O-ring

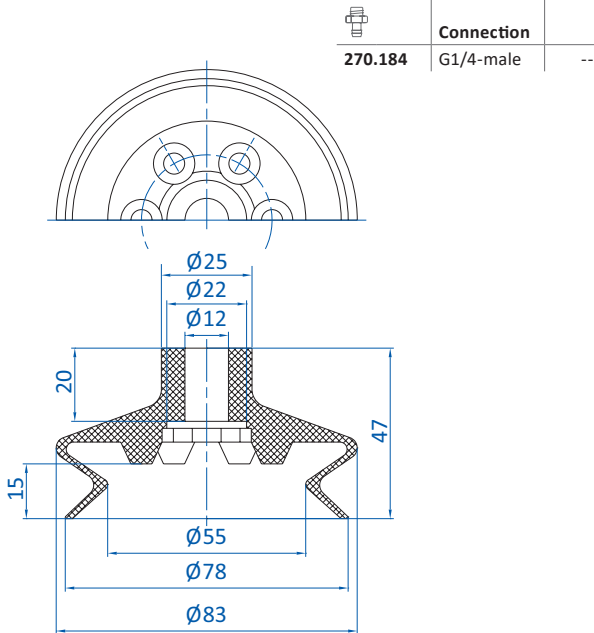
Item no. 20.077.154._* (*-FI)	Material Varioflex® 60°/30° (sw/r), Monoflex 50° (g)	25 mm
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Details and additional sizes available are found on p. 185.
Ordering notes For version with in bellows inserted filter disc please add "-FI" to material code

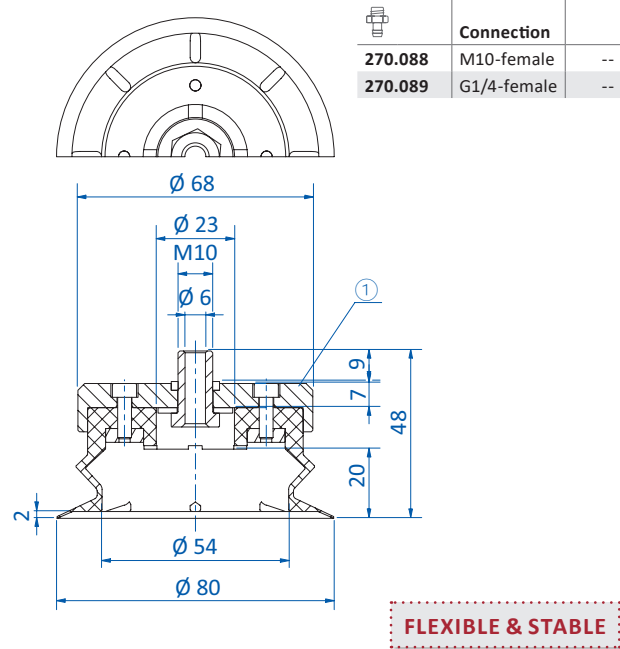


Item no. 20.077.155._* (*-FI)	Material Varioflex® 60°/30° (sw/r), Monoflex 50° (g)	25 mm
---	---	-------

Details and additional sizes available are found on p. 185.
Ordering notes For version with in bellows inserted filter disc please add "-FI" to material code



Item no. 23.078.067._*	Material NBR (sw)	15 mm
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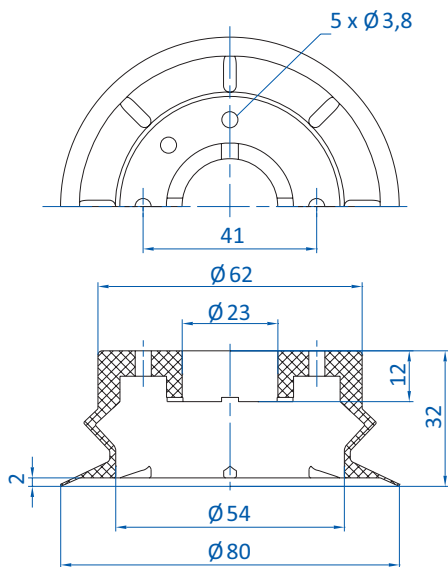
① = Aluminum

Item no. 22.080.161._*	Material NBR (sw), SI (tr)	10 mm
----------------------------------	--------------------------------------	-------

Details and additional sizes available are found on p. 204.

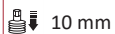
FLEXIBLE & STABLE

* When ordering please add the appropriate material code to item no.



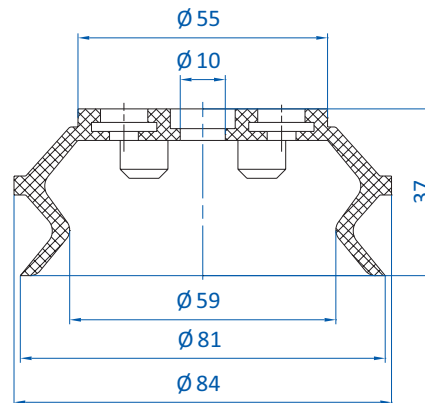
Item no.
23.080.144._*

Material
NBR (sw), SI (tr)



Details and additional sizes available are found on p. 204.

Icon	Connection	
	G1/8-female	--
	G3/8-female	--
	G1/2-female	--

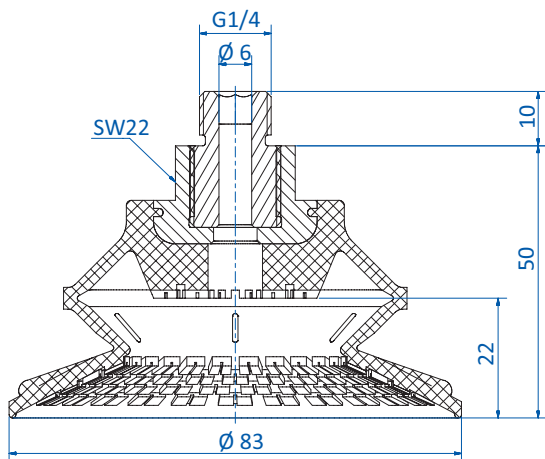


Item no.
23.078.065._*

Material
SI (tr), SI-LE (tr), CR (sw)



Details and additional sizes available are found on p. 174.



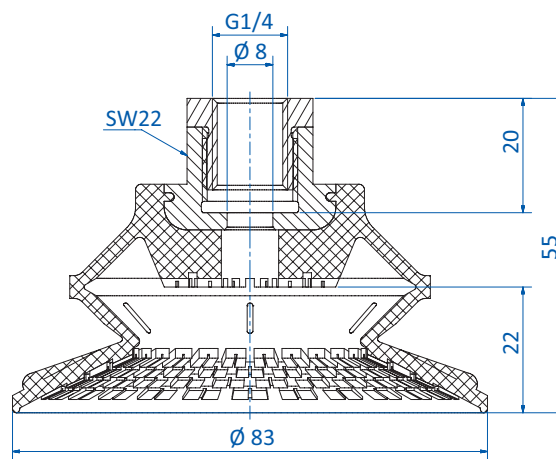
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
22.080.195._*

Material
NBR (bl)



Details and additional sizes available are found on p. 218.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
22.080.196._*

Material
NBR (bl)



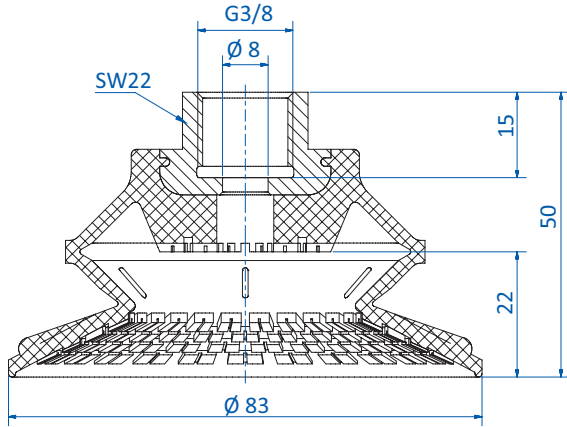
Details and additional sizes available are found on p. 218.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

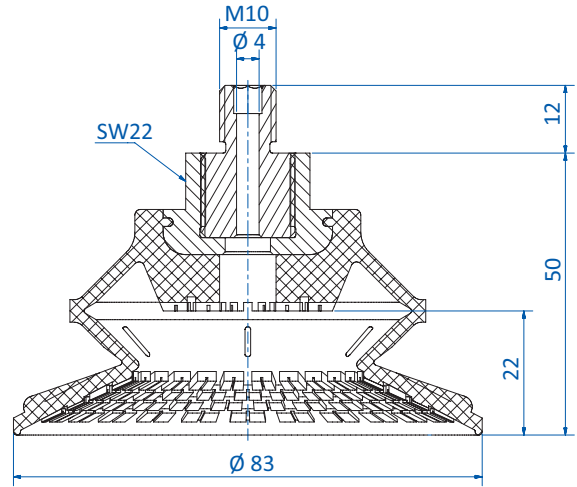
Ø 83 mm



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. **22.080.197._*** Material NBR (bl) 22 mm

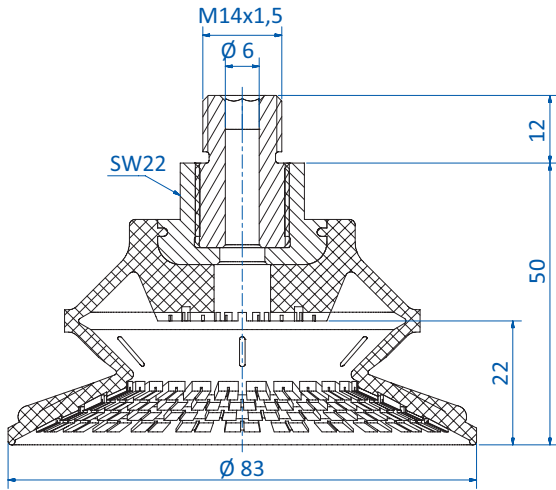
Details and additional sizes available are found on p. 218.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. **22.080.198._*** Material NBR (bl) 22 mm

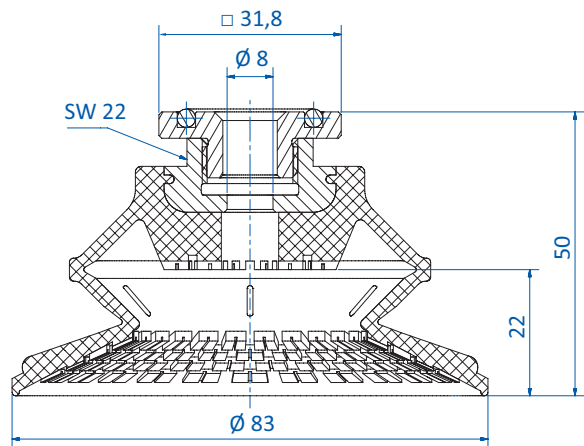
Details and additional sizes available are found on p. 218.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. **22.080.199._*** Material NBR (bl) 22 mm

Details and additional sizes available are found on p. 218.

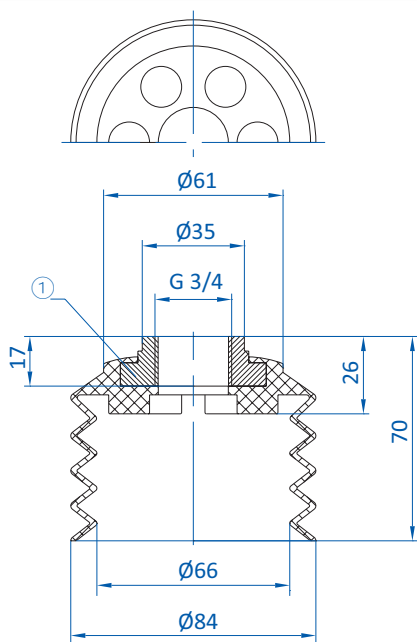


PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. **22.080.200._*** Material NBR (bl) 22 mm

Details and additional sizes available are found on p. 218.

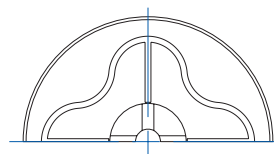
* When ordering please add the appropriate material code to item no.



① = Aluminum

Item no.
25.084.051_*

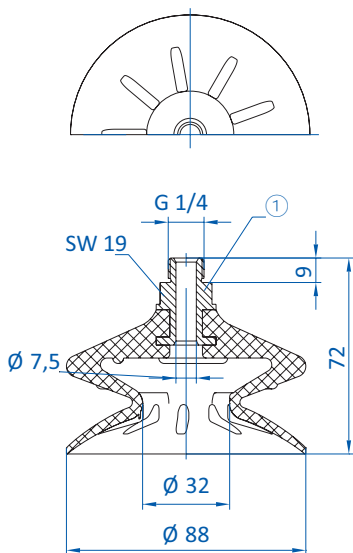
Material
Vinyl (bl)



	Connection	
270.359	G1/4-male	--
270.361	G1/4-female	--

Item no.
23.085.201_*

Material
Vulkollan® (br)



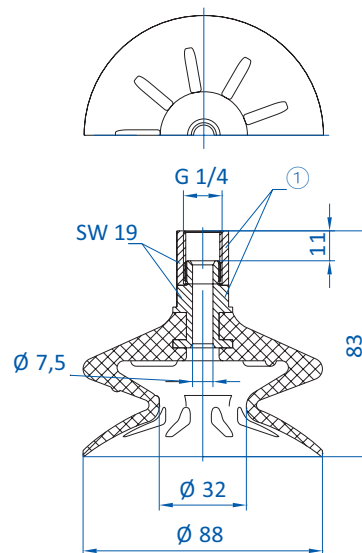
① = Aluminum fitting, vulcanized

Item no.
22.088.158_*

Material
NBR (sw), SI (tr), SI-LE (tr)



Details and additional sizes available are found on p. 147.



① = Aluminum fitting, vulcanized

Item no.
22.088.159_*

Material
NBR (sw), SI (tr), SI-LE (tr)



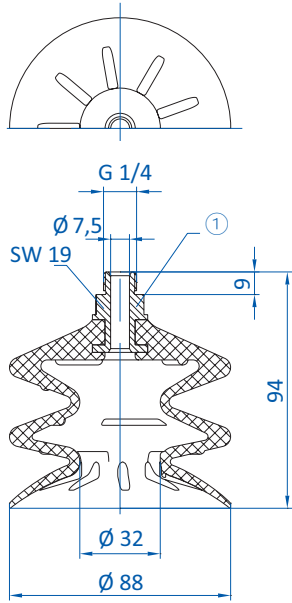
Details and additional sizes available are found on p. 147.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 88 - 92 mm



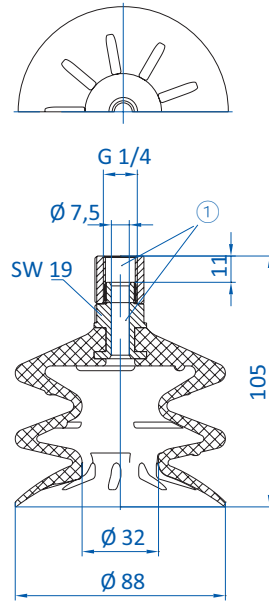
① = Aluminum fitting, vulcanized

Item no.
20.088.123.*

Material
NBR (sw), SI (tr)

36 mm

Details and additional sizes available are found on p. 159.



① = Aluminum fitting, vulcanized

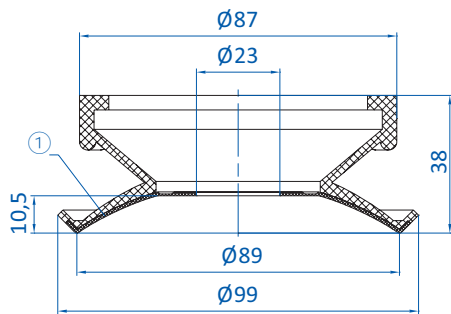
Item no.
20.088.124.*

Material
NBR (sw), SI (tr)

36 mm

Details and additional sizes available are found on p. 159.

Connection
270.400 G3/8-female --



HEAT RESISTANT & LOW MARKING

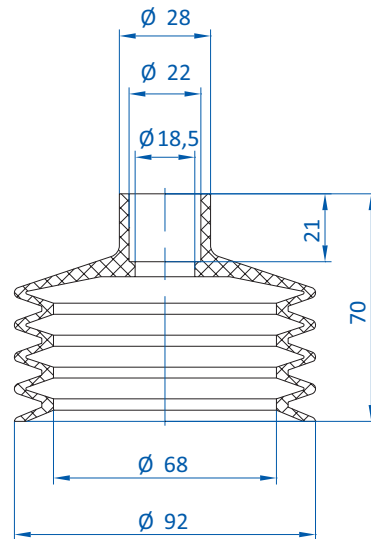
① = Felt pads

Item no.
26.090.001.2F

Material
SI (tr/ge)

17 mm

Details and additional sizes available are found on p. 394.

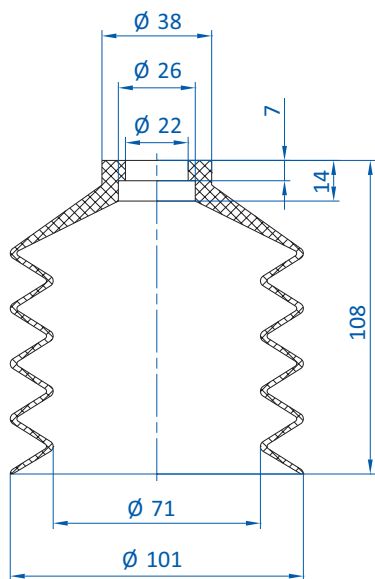


Item no.
25.091.052.*

Material
Vinyl (bl)

32 mm

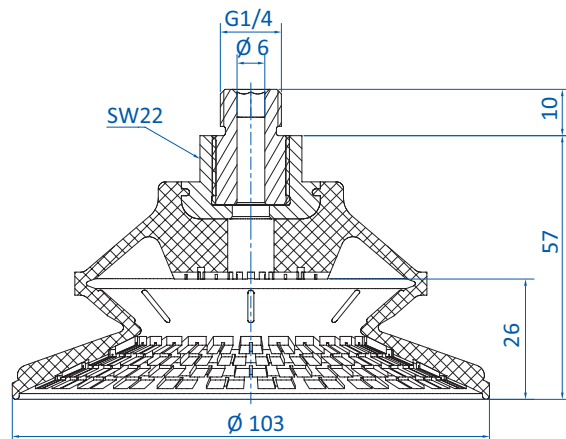
* When ordering please add the appropriate material code to item no.



Item no.
25.102.053._*

Material
Vinyl (bl)

55 mm



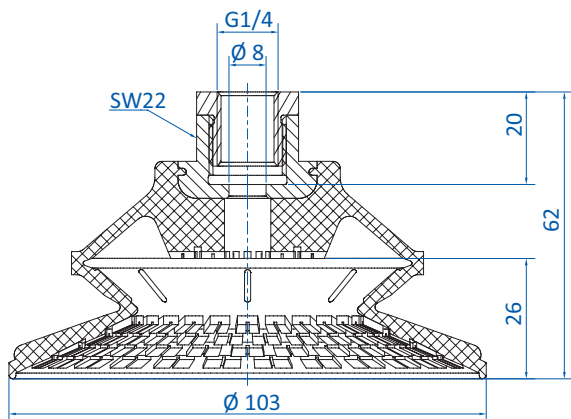
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
22.100.201._*

Material
NBR (bl)

25 mm

Details and additional sizes available are found on p. 218.



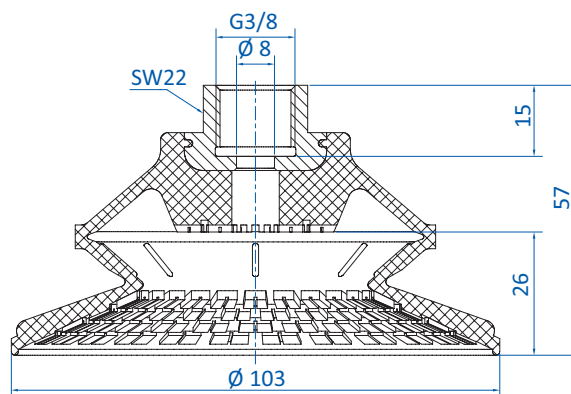
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
22.100.202._*

Material
NBR (bl)

25 mm

Details and additional sizes available are found on p. 218.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
22.100.203._*

Material
NBR (bl)

25 mm

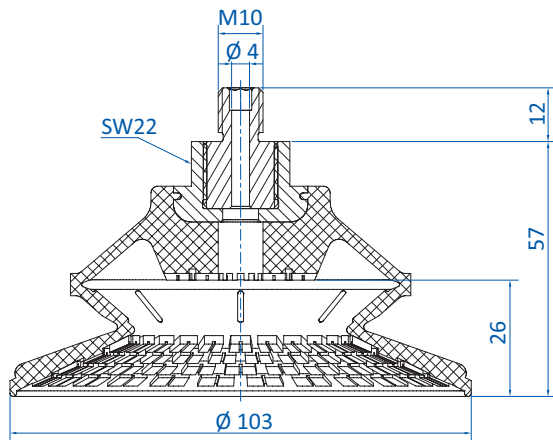
Details and additional sizes available are found on p. 218.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

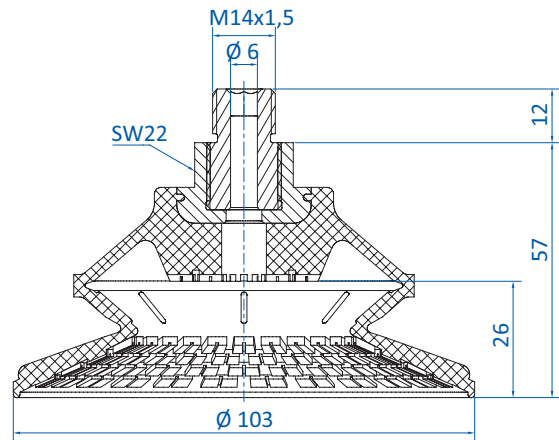
Ø 103 - 115 mm



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. **22.100.204._*** Material NBR (bl) 25 mm

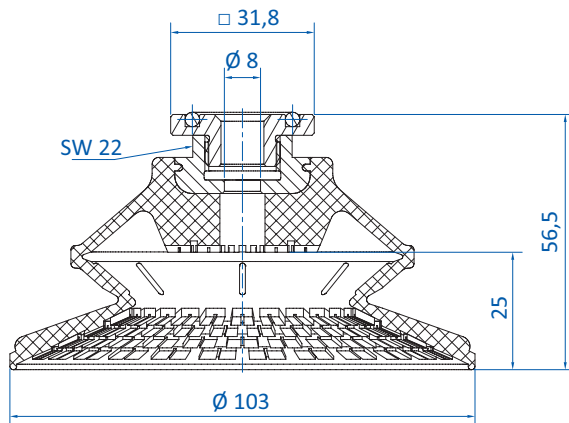
Details and additional sizes available are found on p. 218.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. **22.100.205._*** Material NBR (bl) 25 mm

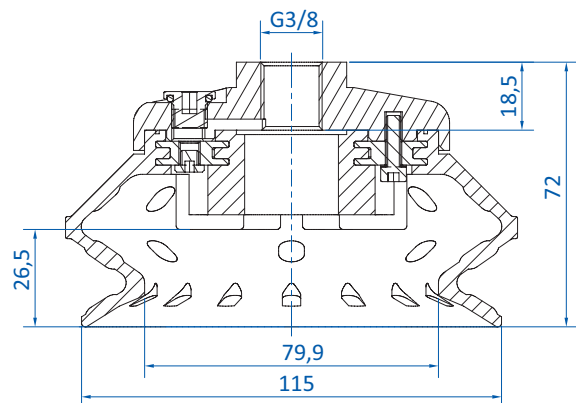
Details and additional sizes available are found on p. 218.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. **22.100.206._*** Material NBR (bl) 25 mm

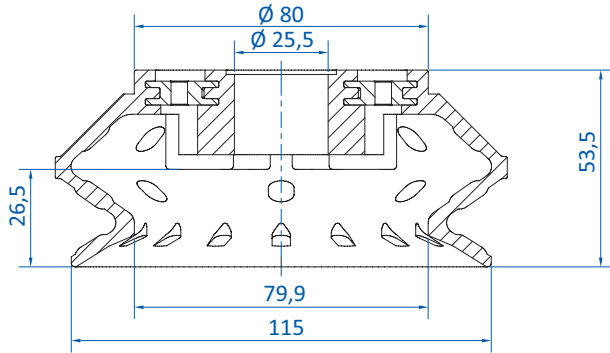
Details and additional sizes available are found on p. 218.



Item no. **22.115.266._*** Material Varioflex® 60°/30° (sw/r) 28 mm

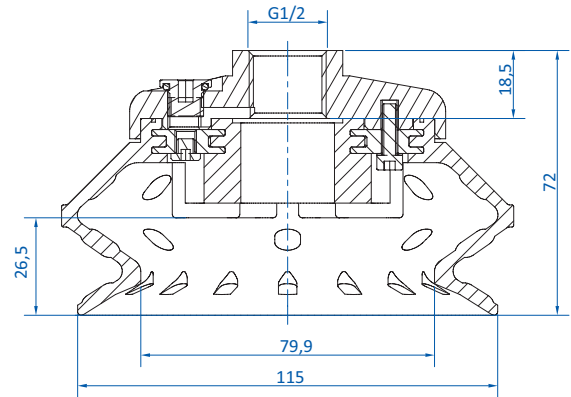
Details and additional sizes available are found on p. 179.

* When ordering please add the appropriate material code to item no.



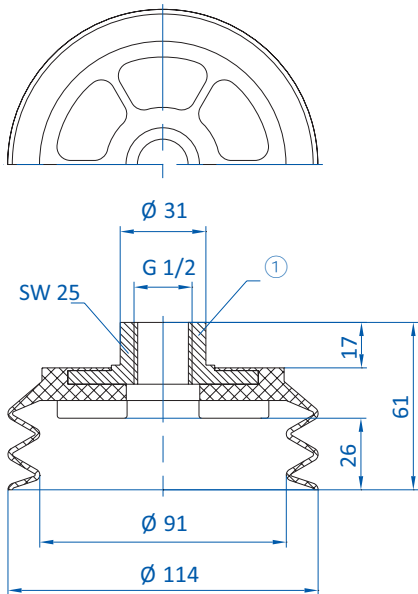
Item no. 23.115.274.*
Material Varioflex® 60°/30° (sw/r)
 28 mm

Details and additional sizes available are found on p. 179.



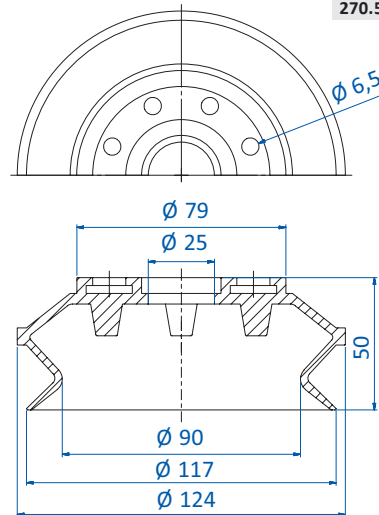
Item no. 22.115.267.*
Material Varioflex® 60°/30° (sw/r)
 28 mm

Details and additional sizes available are found on p. 179.



① = Aluminum

Item no. 20.115.114.*
Material Vinyl (bl)
 27 mm



	Connection	
270.530-S	G3/8-female	--
270.531-S	G1/2-female	--

Item no. 23.117.069.*
Material SI (tr), SI-LE (tr), CR (sw)
 29 mm

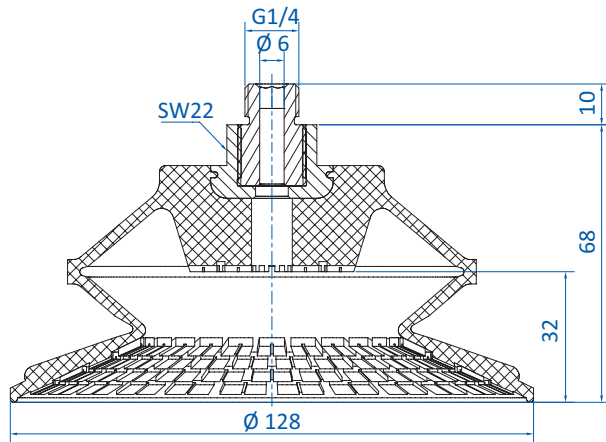
Details and additional sizes available are found on p. 174.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

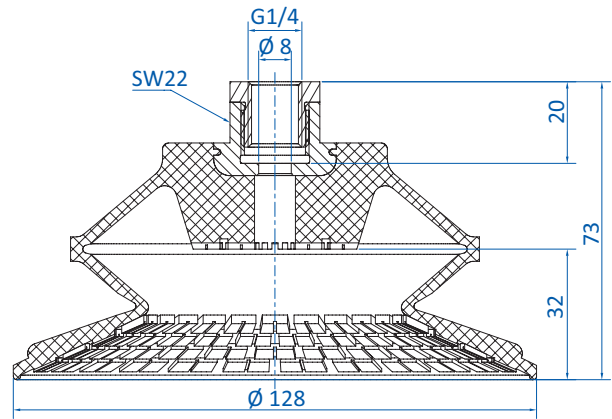
Ø 128 mm



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. **22.125.207._*** Material NBR (bl) 32 mm

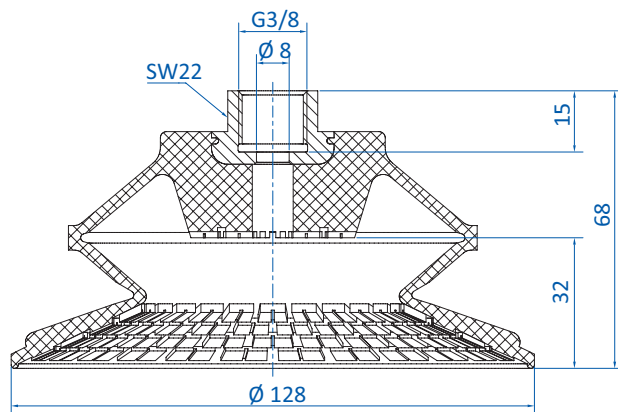
Details and additional sizes available are found on p. 218.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. **22.125.208._*** Material NBR (bl) 32 mm

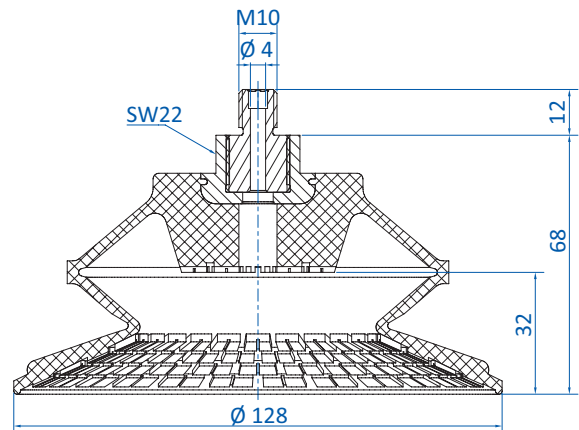
Details and additional sizes available are found on p. 218.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. **22.125.209._*** Material NBR (bl) 32 mm

Details and additional sizes available are found on p. 218.

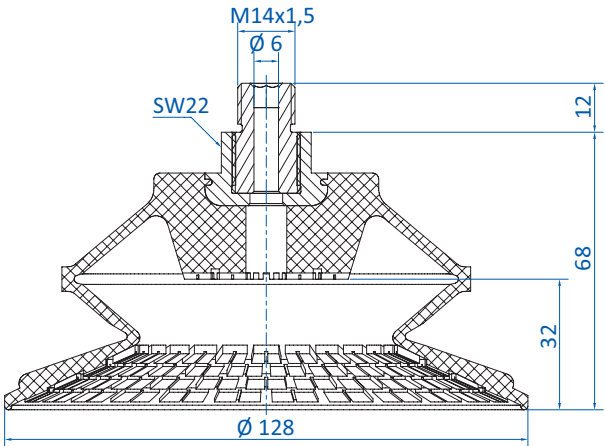


PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. **22.125.210._*** Material NBR (bl) 32 mm

Details and additional sizes available are found on p. 218.

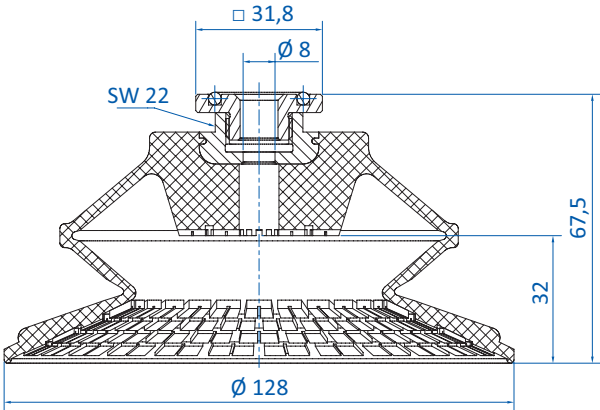
* When ordering please add the appropriate material code to item no.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 22.125.211.*	Material NBR (bl)	32 mm
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Details and additional sizes available are found on p. 218.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 22.125.212.*	Material NBR (bl)	32 mm
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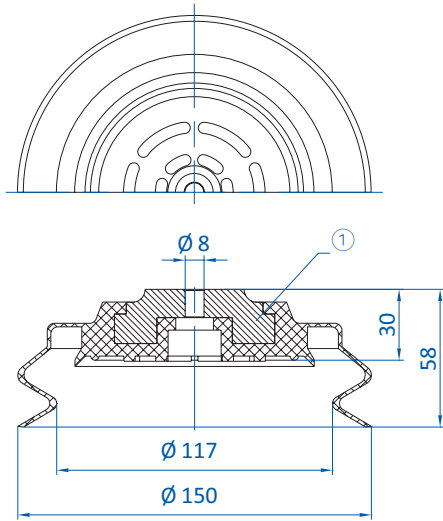
Details and additional sizes available are found on p. 218.

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size

Ø 150 - 151 mm



① = Aluminum

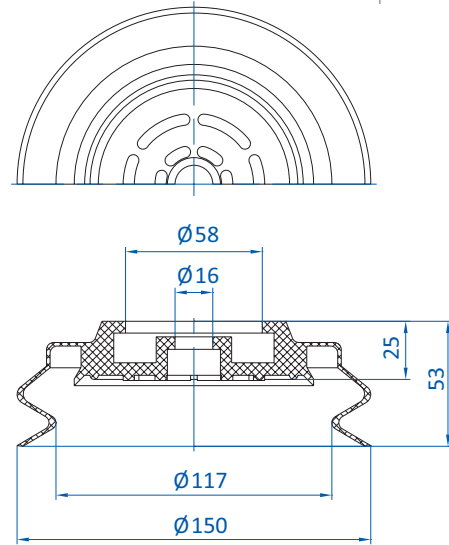
Item no.
22.150.109._*

Material
NBR (sw)



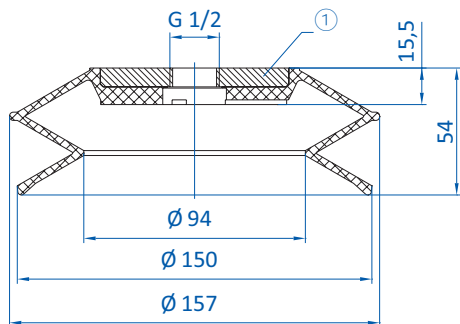
Details and additional sizes available are found on p. 221.

	Connection	
270.270	Without	--



Item no.
23.150.090._*

Material
NBR (sw)



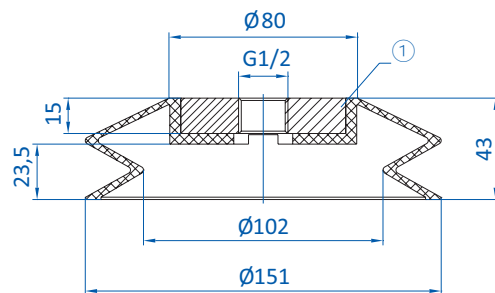
① = Steel

Item no.
22.150.084._*

Material
NBR (gr), NR (br)



Details and additional sizes available are found on p. 222.



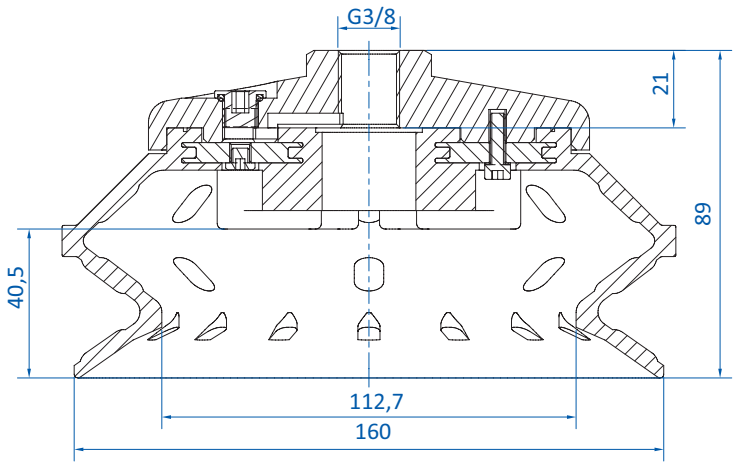
① = Aluminum

Item no.
22.150.020._*

Material
NBR (sw)



* When ordering please add the appropriate material code to item no.

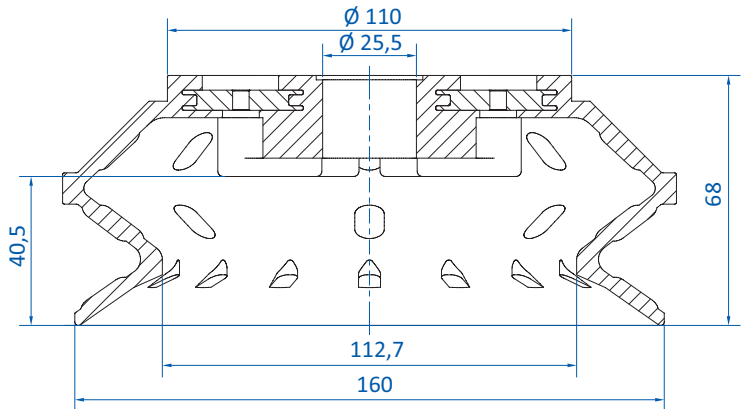


Item no.
22.160.264.*

Material
Varioflex® 60°/30° (sw/r)

40 mm

Details and additional sizes available are found on p. 179.



Item no.
23.160.273.*

Material
Varioflex® 60°/30° (sw/r)

40 mm

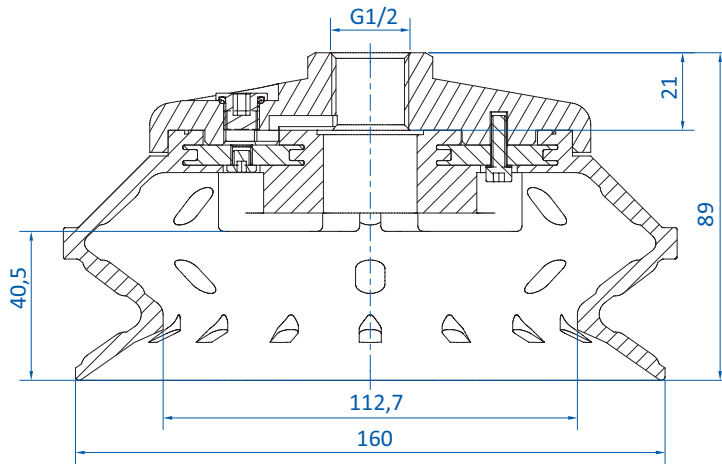
Details and additional sizes available are found on p. 179.

* When ordering please add the appropriate material code to item no.




Bellows vacuum cups by size

Ø 160 - 200 mm

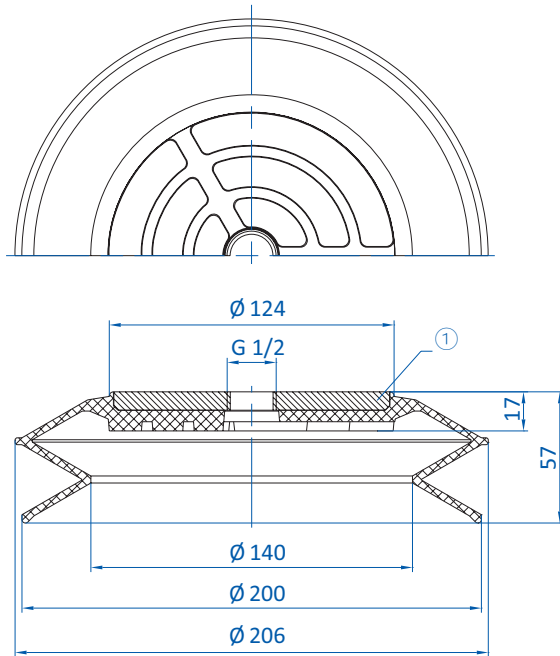


Item no.
22.160.265._*

Material
Varioflex® 60°/30° (sw/r)

 40 mm

Details and additional sizes available are found on p. 179.



① = Steel

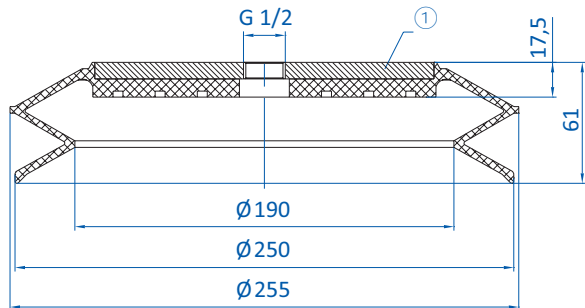
Item no.
22.200.087._*

Material
NBR (gr), NR (br)

 30 mm

Details and additional sizes available are found on p. 222.

* When ordering please add the appropriate material code to item no.



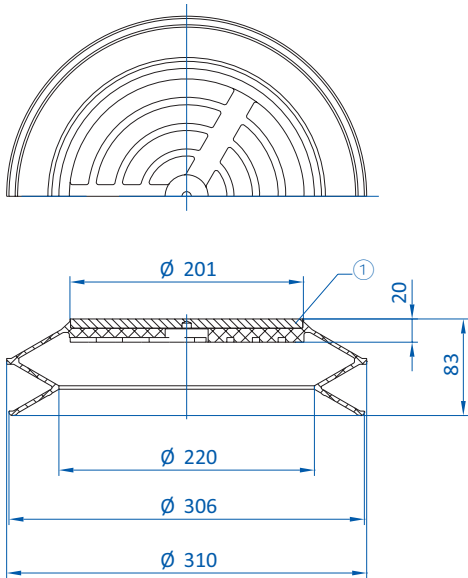
① = Steel

Item no.
22.250.088._*

Material
NBR (gr), SI (tr)

38 mm

Details and additional sizes available are found on p. 222.



① = Steel

Item no.
22.300.091._*

Material
NBR (gr)

60 mm

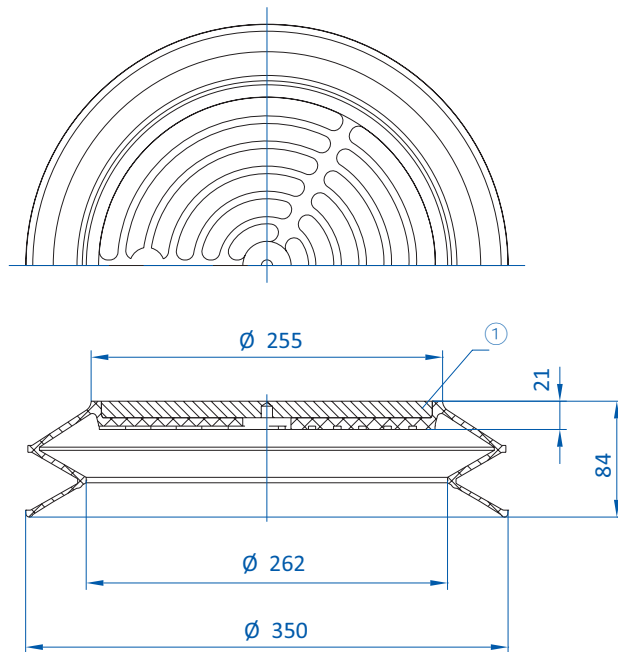
Details and additional sizes available are found on p. 222.
Ordering notes Customized drilling patterns on request

* When ordering please add the appropriate material code to item no.



Bellows vacuum cups by size


Ø 350 mm



① = Steel

Item no.
22.350.102.*

Material
NBR (gr)

 55 mm

Details and additional sizes available are found on p. 222.
Ordering notes Customized drilling patterns on request

* When ordering please add the appropriate material code to item no.

Oval vacuum cups series	308
All oval vacuum cups by size	
up to length 40 mm	338
Length 40 mm to 79 mm	349
Length 80 mm to 99 mm	358
Length 100 mm to 149 mm	367
Length greater than 150 mm	381



Oval vacuum cups series

Oval vacuum cups, flat, universal – SO-FU

Oval vacuum cups, flat, universal – SO-FU



Product notes

Flat vacuum cups in oval design for elongated workpieces where only minimal space is available (e.g. rails, profiles, tubes, bolts, etc.).
Size 100x35 mm reinforced with metal inserts.
Connection via plug-in nipple.


Advantage

- > Significantly increased suction force compared to round vacuum cups of the same width
- > Soft sealing lip also allows adhesion to curved products
- > Cleats help to prevent warping of the product
- > Cost-effective replacement of worn seals

Ordering notes

From size 15x5 mm upward, a gripper clamp (available separately) is recommended to prevent inadvertent rotation.

Technical data

Item no.	Model		Material / Color
132.4x2.001.*	SO-FU-4x2	0.5	NBR (sw), SI (tr), PU (bl)
132.4x2.031.*	SO-FU-4x2A	0.5	NBR (sw), SI (tr), PU (bl)
132.7x4.002.*	SO-FU-7x4	0.8	NBR (sw), SI (tr)
132.7x4.034.*	SO-FU-7x4A	0.8	NBR (sw), SI (tr)
132.12x4.004.*	SO-FU-12x4	0.5	NBR (gr), SI (tr)
132.15x5.008.*	SO-FU-15x5	1	NBR (gr), SI (tr)
132.18x6.012.*	SO-FU-18x6	1	NBR (gr), SI (tr), PU (bl)
132.24x8.016.*	SO-FU-24x8	1	NBR (gr), SI (tr)
132.30x10.018.*	SO-FU-30x10	2	NBR (gr), SI (tr), PU (bl)
132.36x12.019.*	SO-FU-36x12	2	NBR (gr), SI (tr), PU (bl)
132.45x15.020.*	SO-FU-45x15	3	NBR (gr), SI (tr), PU (bl)
132.60x20.022.*	SO-FU-60x20	3	NBR (gr), SI (tr), PU (bl)
132.75x25.023.*	SO-FU-75x25	3	NBR (sw), SI (tr)
132.100x35.26.*	SO-FU-100x35	3	NBR (sw)

Accessories

Clamp

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78.030
78.030
78.032
78.032
78.032
78.033
78.033
78.034
78.034

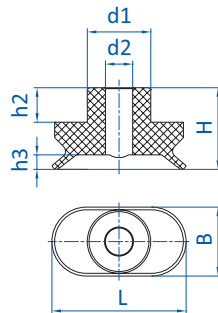
* When ordering please add the appropriate material code to item no.



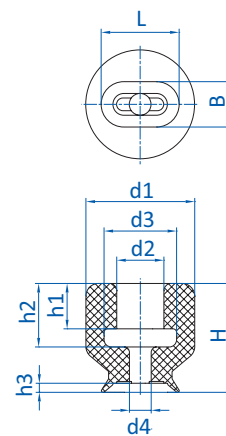
Accessories

Item no.	Suitable fittings								
	M3-male	M4-male	M5-male	M5-female	M6-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
132.4x2.001.*	270.011	--	--	--	--	--	--	--	--
132.4x2.031.*	270.014	270.111	270.300	--	--	--	--	--	--
132.7x4.002.*	270.025	--	--	--	--	--	--	--	--
132.7x4.034.*	270.014	270.111	270.300	--	--	--	--	--	--
132.12x4.004.*	--	--	270.134	270.347	270.104	270.033	270.478	--	--
132.15x5.008.*	--	--	270.094	270.005	--	270.095	270.096	--	--
132.18x6.012.*	--	--	270.094	270.005	--	270.095	270.096	--	--
132.24x8.016.*	--	--	270.094	270.005	--	270.095	270.096	--	--
132.30x10.018.*	--	--	270.094	270.005	--	270.095	270.096	--	--
132.36x12.019.*	--	--	270.094	270.005	--	270.095	270.096	--	--
132.45x15.020.*	--	--	--	--	--	--	--	270.097	270.098
132.60x20.022.*	--	--	--	--	--	--	--	270.097	270.098
132.75x25.023.*	--	--	--	--	--	--	--	270.097	270.098
132.100x35.26.*	--	--	--	--	--	--	--	270.097	270.098

Dimensions



Drawing A



Drawing B

Continued on the next page →

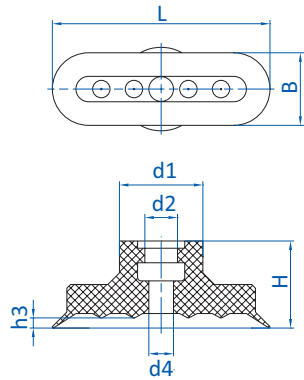
* When ordering please add the appropriate material code to item no.



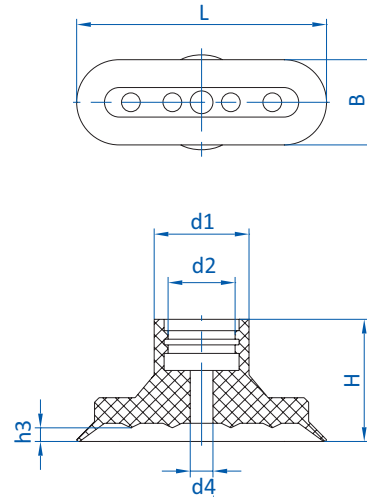
Oval vacuum cups series

Oval vacuum cups, flat, universal – SO-FU

Dimensions



Drawing C



Drawing D

Item no.	Drawing	L [mm]	B [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	H [mm]	h1 [mm]	h2 [mm]	h3 [mm]
132.4x2.001.*	A	5	2.7	2	1	--	--	3	--	1.3	0.5
132.4x2.031.*	B	4.3	2.5	6	2.6	4	1	6	2.5	3.5	0.5
132.7x4.002.*	A	7.5	3.8	3.5	1.5	--	--	4.5	--	1.9	0.8
132.7x4.034.*	B	7.5	4	6	2.4	3	1.4	6	2.3	3	0.7
132.12x4.004.*	B	12	4	8	4	--	1.5	15	--	9.5	1
132.15x5.008.*	C	15	5	9	5	--	2	12	--	--	0.8
132.18x6.012.*	C	18	6	9	4.5	--	2	12	--	--	1.3
132.24x8.016.*	C	24	8	11.5	4.5	--	3	12	--	--	1.3
132.30x10.018.*	C	30	10	11.5	4.5	--	3.4	12	--	--	1.4
132.36x12.019.*	C	36	12	12	5	--	4	12	--	--	1.2
132.45x15.020.*	D	44	15	16.5	12	--	4	22	--	--	2.4
132.60x20.022.*	D	60	20	16.5	11.5	--	4	22	--	--	2.2
132.75x25.023.*	D	75	25	17.5	11	--	3.5	22	--	--	3
132.100x35.26.*	D	100	35	17.5	11.5	--	8	22	--	--	3.1

* When ordering please add the appropriate material code to item no.



Universal oval vacuum cups, 2.5 folds – SO-BU



Product notes

Bellows vacuum cups in oval design for elongated workpieces where only minimal space is available (e.g., rails, profiles, tubes, bolts, etc.). The reinforcement wires fitted into the folds helps prevent collapse at excessive vacuum levels. Connection via plug-in nipple.


Advantage

- > Significantly increased suction force compared to round vacuum cups of the same width
- > Bellows compensate for height differences
- > Soft sealing lip also allows adhesion to curved products

Ordering notes

For fastening, the use of a gripper clamp (available separately) is recommended to prevent inadvertent rotation

Technical data


Item no.	Model		Number of folds	Material / Color
138.25x8.002._*	SO-BU-25x8	6	2.5	NBR (gr), SI (tr)
138.45x15.003._*	SO-BU-45x15	8	2.5	NBR (gr), SI (tr)
138.75x25.004._*	SO-BU-75x25	11	2.5	NBR (gr), SI (tr)

Accessories

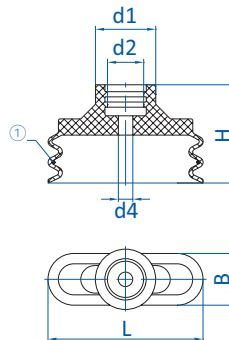
Clamp

78.031
78.033
78.034

Accessories

Item no.	 Suitable fittings					
	M5-male	M5-female	G1/8-male	G1/8-female	G1/4-male	G1/4-female
138.25x8.002._*	270.094	270.005	270.095	270.096	--	--
138.45x15.003._*	--	--	--	--	270.097	270.098
138.75x25.004._*	--	--	--	--	270.097	270.098

Dimensions



① = Wire strap stiffening

Item no.	L [mm]	B [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d4 [mm]	H [mm]
138.25x8.002._*	25	8	10	4.5	2	18.5
138.45x15.003._*	45	15	17.5	10.5	4	29
138.75x25.004._*	75	25	17.5	10.5	6	35

* When ordering please add the appropriate material code to item no.

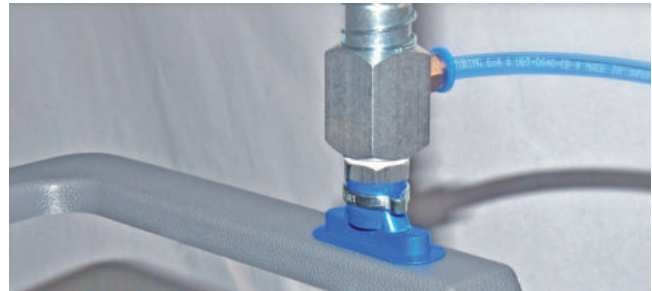


Oval vacuum cups series

High-temperature Thermalon® oval cups – SKT-O

High-temperature Thermalon® oval cups – SKT-O

UP TO 160 °C (320 °F) & MINIMUM MARKING



Product notes

Oval vacuum cups for smooth surfaces suitable for removing hot plastic parts to be painted from an injection molding machine. Thermalon® is a material mixture specially optimized for the plastics industry with a hardness of 60° Shore A. Connection via plug-in nipple.

Advantage

- > Extremely low-marking
- > Free of silicone and other paint-wetting-impairment substances (PWIS)
- > Significantly increased suction force compared to round vacuum cups of the same width
- > Soft sealing lip also allows adhesion to curved products

Ordering notes

From size 24x8 mm upward, a gripper clamp (available separately) is recommended to prevent inadvertent rotation.

Technical data

Item no.	Model	↓	Material / Color	Usage temperature [°C (°F)]
132.4x2.079.19	SKT-O-4x2	0.4	Thermalon® (bl)	0 - 160 (32 - 320)
132.7x4.080.19	SKT-O-7x4	0.5	Thermalon® (bl)	0 - 160 (32 - 320)
132.15x5.081.19	SKT-O-15x5	0.6	Thermalon® (bl)	0 - 160 (32 - 320)
132.18x6.082.19	SKT-O-18x6	1	Thermalon® (bl)	0 - 160 (32 - 320)
132.24x8.083.19	SKT-O-24x8	1	Thermalon® (bl)	0 - 160 (32 - 320)
132.30x10.084.19	SKT-O-30x10	1	Thermalon® (bl)	0 - 160 (32 - 320)
132.45x15.085.19	SKT-O-45x15	2	Thermalon® (bl)	0 - 160 (32 - 320)
132.60x20.086.19	SKT-O-60x20	2.5	Thermalon® (bl)	0 - 160 (32 - 320)

Accessories

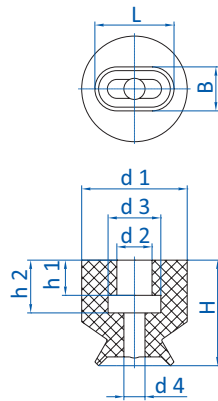
Clamp

Accessories

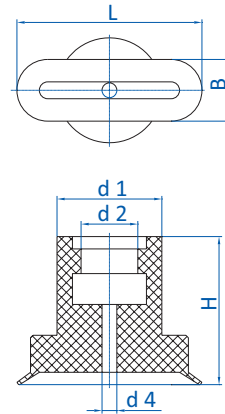
Item no.	Suitable fittings						
	M3-male	M4-male	M5-male	G1/8-male	G1/8-female	G1/4-male	G1/4-female
132.4x2.079.19	270.014	270.111	270.300	--	--	--	--
132.7x4.080.19	270.014	270.111	270.300	--	--	--	--
132.15x5.081.19	--	--	270.094	270.095	270.096	--	--
132.18x6.082.19	--	--	270.094	270.095	270.096	--	--
132.24x8.083.19	--	--	270.094	270.095	270.096	--	--
132.30x10.084.19	--	--	270.094	270.095	270.096	--	--
132.45x15.085.19	--	--	--	--	--	270.097	270.098
132.60x20.086.19	--	--	--	--	--	270.097	270.098



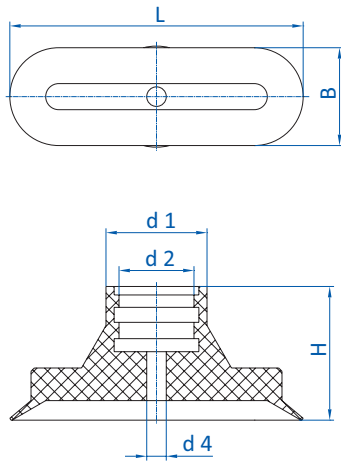
Dimensions



Drawing A



Drawing B



Drawing C

Item no.	Drawing	L [mm]	B [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	H [mm]
132.4x2.079.19	A	4.5	2.5	6	2	3	1.2	6
132.7x4.080.19	A	7	3.5	6	2	3	1.4	6
132.15x5.081.19	B	15	5	8.5	4.6	--	1.2	12
132.18x6.082.19	B	18	6	8.5	4.6	--	1.5	12
132.24x8.083.19	B	24	8	11.5	5.5	--	1.5	12
132.30x10.084.19	B	30	10	11.5	5.5	--	2.5	12
132.45x15.085.19	C	45	15	15.5	11.5	--	3	21
132.60x20.086.19	C	60	20	15.5	11.5	--	4	21



Oval vacuum cups series

High-temperature HNBR oval cups – SKH-O

High-temperature HNBR oval cups – SKH-O

UP TO 160 °C (320 °F) & MINIMUM MARKING



Product notes

Oval vacuum cups for smooth surfaces suitable for removing hot plastic parts to be painted from an injection molding machine. Connection via plug-in nipple.

Advantage

- > Free of silicone and other paint-wetting-impairment substances (PWIS)
- > Minimum marking
- > Significantly increased suction force compared to round vacuum cups of the same width
- > Soft sealing lip also allows adhesion to curved products

Ordering notes

From size 15x5 mm upward, a gripper clamp (available separately) is recommended to prevent inadvertent rotation

Technical data

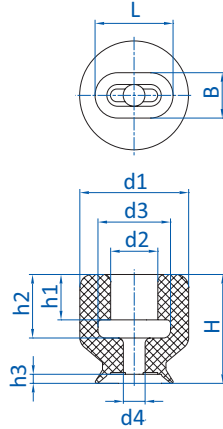
Item no.	Model	Nipple	Material / Color	Usage temperature [°C (°F)]	Accessories
132.4x2.031.14	SKH-O-4x2A	0.5	HNBR (ge)	0 - 160 (32 - 320)	Clamp
132.7x4.034.14	SKH-O-7x4	0.8	HNBR (ge)	0 - 160 (32 - 320)	--
132.15x5.067.14	SKH-O-15x5	1	HNBR (ge)	0 - 160 (32 - 320)	78.030
132.24x8.066.14	SKH-O-24x8	1	HNBR (ge)	0 - 160 (32 - 320)	78.032
132.36x12.068.14	SKH-O-36x12	2	HNBR (ge)	0 - 160 (32 - 320)	78.032
132.45x15.064.14	SKH-O-45x15	3	HNBR (ge)	0 - 160 (32 - 320)	78.033

Accessories

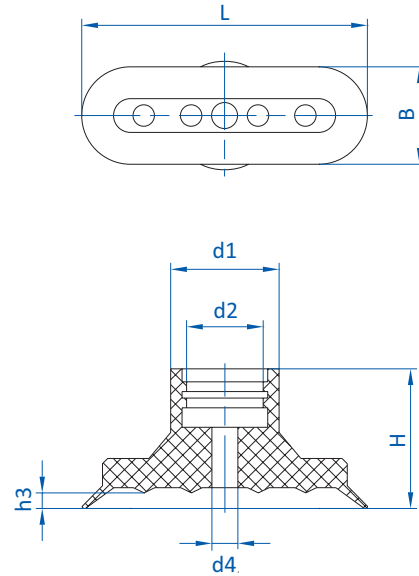
Item no.	Suitable fittings					
	M3-male	M4-male	M5-male	G1/8-male	G1/4-male	G1/4-female
132.4x2.031.14	270.014	270.111	270.300	--	--	--
132.7x4.034.14	270.014	270.111	270.300	--	--	--
132.15x5.067.14	--	--	--	270.431	--	--
132.24x8.066.14	--	--	--	270.431	--	--
132.36x12.068.14	--	--	--	270.431	--	--
132.45x15.064.14	--	--	--	--	270.097	270.098



Dimensions



Drawing A



Drawing B

Item no.	Drawing	L [mm]	B [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	Ø d4 [mm]	H [mm]	h1 [mm]	h2 [mm]	h3 [mm]
132.4x2.031.14	A	4.3	2.5	6	2.6	4	1	6	2.5	3.5	0.5
132.7x4.034.14	A	7.5	4	6	2.4	3	1.4	6	2.3	3	0.7
132.15x5.067.14	B	15	5	8	5	--	1.3	12	--	--	0.8
132.24x8.066.14	B	24	8.5	12.5	5	--	3	13	--	--	1.5
132.36x12.068.14	B	36	12	12	5	--	4	12	--	--	1.6
132.45x15.064.14	B	44	15	16.5	12	--	4	22	--	--	2.4



Oval vacuum cups series

Vinyl oval bellows cups – SO-BV

Vinyl oval bellows cups – SO-BV



Product notes

Durable oval vacuum cup with height adjustment made of snug-fitting, wear-resistant material. Very well suited for handling abrasive products such as cardboard. Flexible material enables low-leakage gripping of highly flexible products such as foil-packaged goods. Connection via plug-in nipple or vulcanized carrier plate.


Advantage

- > Significantly increased suction force compared to round vacuum cups of the same width
- > Bellows compensates for differences in height and enables good adaptation to curved or uneven product surfaces
- > Flexible, soft lips
- > Long life cycle

Technical data

Item no.	Model		Number of folds	Material / Color
138.35x28.001.*	SO-BV-35x28	9	2.5	Vinyl (bl)
138.35x28.048.*	SO-BV-35x28A	9	2.5	Vinyl (bl)
138.45x28.013.*	SO-BV-45x28	9	2.5	Vinyl (bl)
130.97x55.126.*	SO-BV-100x55	11	1.5	Vinyl (bl)

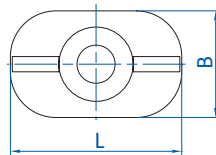
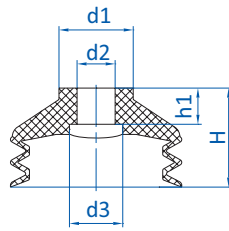
Accessories

Item no.	 Suitable fittings		
	M10-male	G1/4-male	G1/4-female
138.35x28.001.*	270.177	270.451	270.452
138.35x28.048.*	270.177	270.451	270.452
138.45x28.013.*	270.177	270.451	270.452
130.97x55.126.*	--	--	--

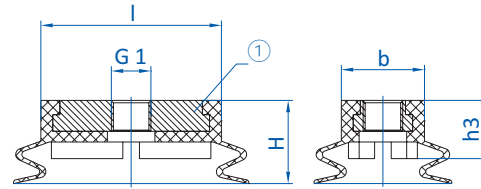
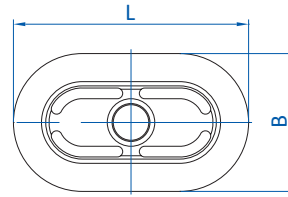
* When ordering please add the appropriate material code to item no.



Dimensions



Drawing A



Drawing B

① = Aluminum

Item no.	Drawing	L [mm]	B [mm]	b [mm]	∅ d1 [mm]	∅ d2 [mm]	∅ d3 [mm]	G1	H [mm]	h1 [mm]	h3 [mm]
138.35x28.001.*	A	35	28	--	19.5	10	14	--	24	8.5	--
138.35x28.048.*	A	35	28	--	19.5	10	14	--	26	8.5	--
138.45x28.013.*	A	45	28	--	19.5	10	14	--	26	9.5	--
130.97x55.126.*	B	99	58	35	--	--	--	G3/8	35	--	25

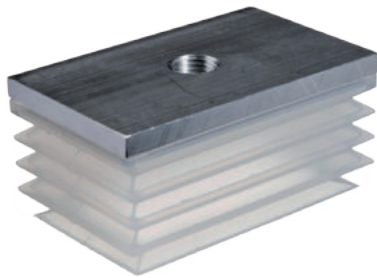
* When ordering please add the appropriate material code to item no.



Oval vacuum cups series

Rectangular bellows vacuum cups – SV-RB

Rectangular bellows vacuum cups – SV-RB



Product notes

Bellows vacuum cups in rectangular design made of FDA-compliant material (SI). Particularly suitable for film-packaged products and filled pouches. Also available with wire stiffening. Connection via an interlocking snap-in carrier plate.


Advantage

- > Large suction surface due to rectangular design
- > Bellows compensate differences in height and enable good adaptation to curved or uneven product surfaces
- > Gentle attachment to the product
- > Good fit for irregularities and bellows thanks to soft sealing lip


Ordering notes

Optional: Wire strap reinforcement available.
When ordering, please add “-VERS” to item number

Technical data

Item no.	Model		Number of folds	Material / Color	Accessories
Bellows vacuum cups, 2.5 folds, for cylindrical products					
201.79x29.002._*	SV-RB-79x29	16	2.5	SI (tr), SI (tr) vers	Wire strap reinforcement: X 0020
Bellows vacuum cups, 2.5 folds, with flat sealing lip					
209.52x25.006._*	SV-RB-52x25	13	2.5	SI (tr), SI (tr) vers	X 0022
209.60x29.001._*	SV-RB-60x29	13	2.5	NBR (sw), NBR (sw) vers, SI (tr), SI-LE (tr), SI (tr) vers, SI-LE (tr) vers	X 0024
Bellows vacuum cups, 3.5 folds, with thinly tapering, flexible sealing lip					
209.80x30.003._*	SV-RB-80x30	20	3.5	SI (tr), SI-LE (tr), SI (tr) vers, SI-LE (tr) vers	X 0020
209.80x40.004._*	SV-RB-80x40	20	3.5	SI (tr), SI-LE (tr), SI (tr) vers, SI-LE (tr) vers	X 0023
209.80x50.005._*	SV-RB-80x50	20	3.5	SI (tr), SI-LE (tr), SI (tr) vers, SI-LE (tr) vers	X 0041

Accessories

Item no.	 Suitable fittings	
	G1/8-female	G1/4-female
Bellows vacuum cups, 2.5 folds, for cylindrical products		
201.79x29.002._*	--	270.392
Bellows vacuum cups, 2.5 folds, with flat sealing lip		
209.52x25.006._*	270.508	--
209.60x29.001._*	--	270.509
Bellows vacuum cups, 3.5 folds, with thinly tapering, flexible sealing lip		
209.80x30.003._*	--	270.392
209.80x40.004._*	--	270.510

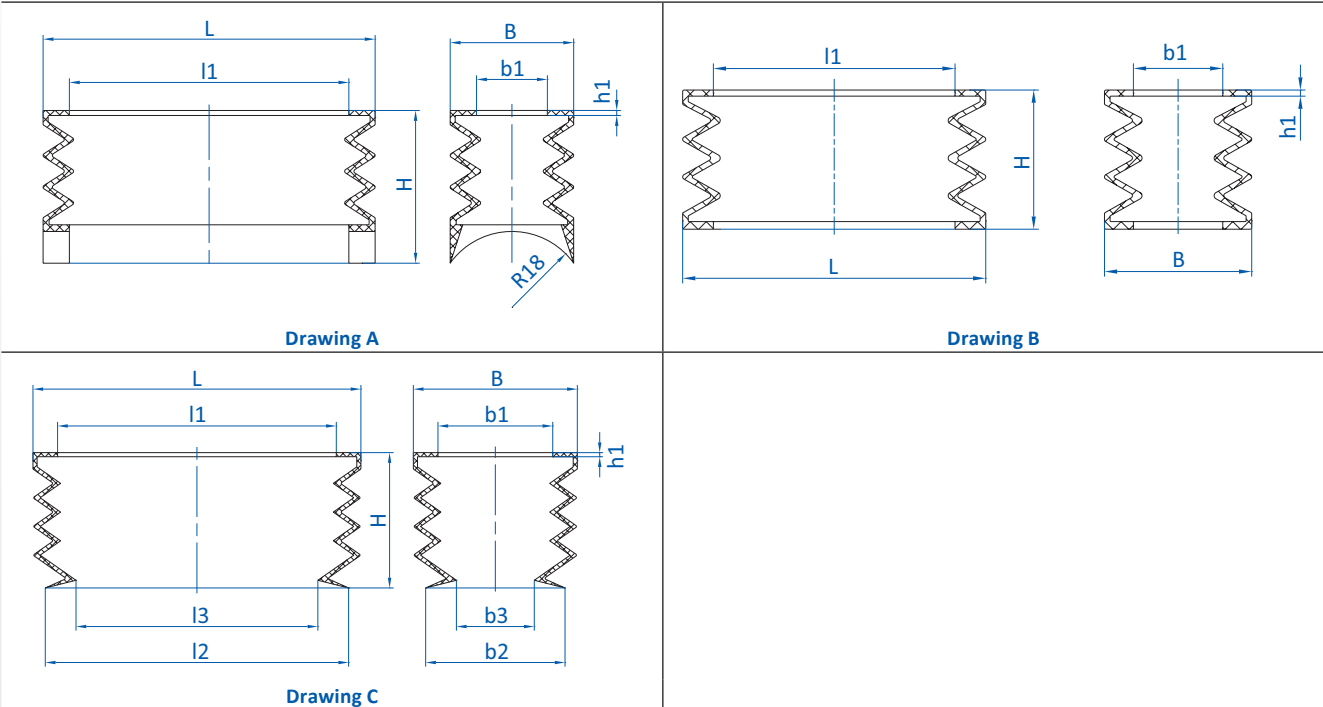
* When ordering please add the appropriate material code to item no.



Accessories

	Suitable fittings	
Item no.	G1/8-female	G1/4-female
209.80x50.005._*	--	270.511

Dimensions



Item no.	Drawing	L [mm]	B [mm]	l1 [mm]	l2 [mm]	l3 [mm]	b1 [mm]	b2 [mm]	b3 [mm]	H [mm]	h1 [mm]
Bellows vacuum cups, 2.5 folds, for cylindrical products											
201.79x29.002._*	A	80	30	67	--	--	17	--	--	37	1.2
Bellows vacuum cups, 2.5 folds, with flat sealing lip											
209.52x25.006._*	B	53	26	40	--	--	13	--	--	28	1.2
209.60x29.001._*	B	60	29	48	--	--	17.5	--	--	27	1.2
Bellows vacuum cups, 3.5 folds, with thinly tapering, flexible sealing lip											
209.80x30.003._*	C	81	31	69	75	60	18	25	9	34	1.6
209.80x40.004._*	C	80	40	68	74	59	28	34	19	33	1
209.80x50.005._*	C	80	50	67	74	57	37	44	27	33	1.6

* When ordering please add the appropriate material code to item no.



Oval flat vacuum cups for dynamic handling of oily and dry metal sheets – SM-OF



EXCEPTIONALLY LONG LIFETIME

Product notes

Robust, oval NBR flat vacuum cups, 60° Shore A with vulcanized fittings made of aluminum.
Large area, multi-part anti-slip cleats.
Various connection threads available.
PWIS-conform to guideline VDMA 24364 test category A1.

Advantage

- > Exceptionally long lifetime – maximizes number of cycles and thus significantly reduces the costs of operation
- > Slip-free handling of oily and dry metal sheets due to anti-slip cleats. Good absorption of shear forces
- > Internal supports prevent deep drawing or deformation of thin sheets
- > Leak-free suction even with curved surfaces due to flexible sealing lip
- > Ideally suited for use in constricted spaces

Technical data

Model / Lip dimensions	Thread (Aluminium)						
	G1/4-male	G1/4-female	G3/8-female	M10-male	M14x1.5-male	Rectangular adapter	
SM-OF-55x16	130.55x16.140.1	130.55x16.141.1	130.55x16.142.1	130.55x16.143.1	130.55x16.144.1	130.55x16.145.1	3
SM-OF-65x20	130.65x20.146.1	130.65x20.147.1	130.65x20.148.1	130.65x20.149.1	130.65x20.150.1	130.65x20.151.1	3
SM-OF-95x30	130.95x30.152.1	130.95x30.153.1	130.95x30.154.1	130.95x30.155.1	130.95x30.156.1	130.95x30.157.1	3
SM-OF-85x40	130.85x40.158.1	130.85x40.159.1	130.85x40.160.1	130.85x40.161.1	130.85x40.162.1	130.85x40.163.1	4
SM-OF-105x50	130.105x50.164.1	130.105x50.165.1	130.105x50.166.1	130.105x50.167.1	130.105x50.168.1	130.105x50.169.1	5
SM-OF-125x60	130.125x60.170.1	130.125x60.171.1	130.125x60.172.1	130.125x60.173.1	130.125x60.174.1	130.125x60.175.1	6
SM-OF-145x70	130.145x70.176.1	130.145x70.177.1	130.145x70.178.1	130.145x70.179.1	130.145x70.180.1	130.145x70.181.1	7

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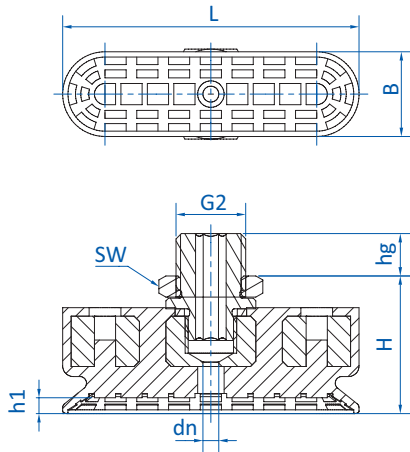


Oval vacuum cups series

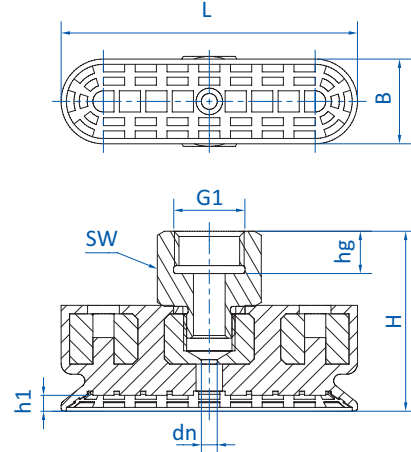
Oval flat vacuum cups for dynamic handling of oily and dry metal sheets – SM-OF

* aspirated condition

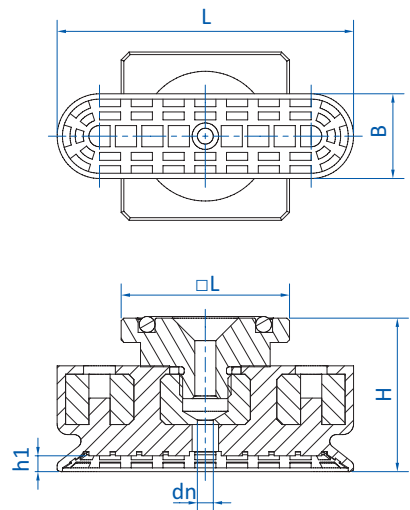
Dimensions



Drawing A



Drawing B



Drawing C

Item no.	Dra-wing	G1 (female)	G2 (male)	L [mm]	L max.* [mm]	B [mm]	B max.* [mm]	dn	□L [mm]	H [mm]	h1 [mm]	hg [mm]	SW
130.55x16.140.1	A	--	G1/4	56	58.7	16	19.2	SW5	--	26	3	8	17
130.55x16.141.1	B	G1/4	--	56	58.7	16	19.2	∅ 6 mm	--	34	3	8	17
130.55x16.142.1	B	G3/8	--	56	58.7	16	19.2	∅ 6 mm	--	34	3	8	22
130.55x16.143.1	A	--	M10	56	58.7	16	19.2	SW5	--	26	3	12	17
130.55x16.144.1	A	--	M14x1.5	56	58.7	16	19.2	SW5	--	28	3	12	22
130.55x16.145.1	C	--	--	56	58.7	16	19.2	∅ 4 mm	31.8	29	3	--	--
130.65x20.146.1	A	--	G1/4	66	68.8	23	25.7	SW5	--	18	3	8	17
130.65x20.147.1	B	G1/4	--	66	68.8	23	25.7	∅ 6 mm	--	26	3	8	17
130.65x20.148.1	B	G3/8	--	66	68.8	23	25.7	∅ 6 mm	--	26	3	8	22
130.65x20.149.1	A	--	M10	66	68.8	23	25.7	SW5	--	18	3	12	17



Item no.	Drawing	G1 (female)	G2 (male)	L [mm]	L max.* [mm]	B [mm]	B max.* [mm]	dn	□L [mm]	H [mm]	h1 [mm]	hg [mm]	SW
130.65x20.150.1	A	--	M14x1.5	66	68.8	23	25.7	SW5	--	20	3	12	22
130.65x20.151.1	C	--	--	66	68.8	23	25.7	∅ 4 mm	31.8	21	3	--	--
130.95x30.152.1	A	--	G1/4	96	100.4	32	35.2	SW5	--	19	3	8	17
130.95x30.153.1	B	G1/4	--	96	100.4	32	35.2	∅ 6 mm	--	27	3	8	17
130.95x30.154.1	B	G3/8	--	96	100.4	32	35.2	∅ 6 mm	--	27	3	8	22
130.95x30.155.1	A	--	M10	96	100.4	32	35.2	SW5	--	19	3	12	17
130.95x30.156.1	A	--	M14x1.5	96	100.4	32	35.2	SW5	--	21	3	12	22
130.95x30.157.1	C	--	--	96	100.4	32	35.2	∅ 4 mm	31.8	22	3	--	--
130.85x40.158.1	A	--	G1/4	86	89.9	40	44	SW5	--	20	4	8	17
130.85x40.159.1	B	G1/4	--	86	89.9	40	44	∅ 6 mm	--	28	4	8	17
130.85x40.160.1	B	G3/8	--	86	89.9	40	44	∅ 6 mm	--	28	4	8	22
130.85x40.161.1	A	--	M10	86	89.9	40	44	SW5	--	20	4	12	17
130.85x40.162.1	A	--	M14x1.5	86	89.9	40	44	SW5	--	22	4	12	22
130.85x40.163.1	C	--	--	86	89.9	40	44	∅ 4 mm	31.8	23	4	--	--
130.105x50.164.1	A	--	G1/4	106	111.2	50	55.2	SW6	--	22	5	8	17
130.105x50.165.1	B	G1/4	--	106	111.2	50	55.2	∅ 8 mm	--	30	5	8	17
130.105x50.166.1	B	G3/8	--	106	111.2	50	55.2	∅ 8 mm	--	30.5	5	9	22
130.105x50.167.1	A	--	M10	106	111.2	50	55.2	SW5	--	22	5	12	17
130.105x50.168.1	A	--	M14x1.5	106	111.2	50	55.2	SW6	--	24	5	12	22
130.105x50.169.1	C	--	--	106	111.2	50	55.2	∅ 6 mm	31.8	25	5	--	--
130.125x60.170.1	A	--	G1/4	126	132	60	66	SW6	--	24	6	8	17
130.125x60.171.1	B	G1/4	--	126	132	60	66	∅ 8 mm	--	32	6	8	17
130.125x60.172.1	B	G3/8	--	126	132	60	66	∅ 8 mm	--	32.5	6	9	22
130.125x60.173.1	A	--	M10	126	132	60	66	SW5	--	24	6	12	17
130.125x60.174.1	A	--	M14x1.5	126	132	60	66	SW6	--	26	6	12	22
130.125x60.175.1	C	--	--	126	132	60	66	∅ 6 mm	31.8	27	6	--	--
130.145x70.176.1	A	--	G1/4	146	154	70	77.7	SW6	--	25	7	8	17
130.145x70.177.1	B	G1/4	--	146	154	70	77.7	∅ 8 mm	--	33	7	8	17
130.145x70.178.1	B	G3/8	--	146	154	70	77.7	∅ 8 mm	--	33.5	7	9	22
130.145x70.179.1	A	--	M10	146	154	70	77.7	SW5	--	25	7	12	17
130.145x70.180.1	A	--	M14x1.5	146	154	70	77.7	SW6	--	27	7	12	22
130.145x70.181.1	C	--	--	146	154	70	77.7	∅ 6 mm	31.8	28	7	--	--



Oval vacuum cups series

Oval bellow vacuum cups with 1.5 folds for dynamic handling of oily and dry metal sheets – SM-OB

Oval bellow vacuum cups with 1.5 folds for dynamic handling of oily and dry metal sheets – SM-OB



EXCEPTIONALLY LONG LIFETIME

Product notes

Robust, oval NBR bellows vacuum cups, 60° Shore A with vulcanized fittings made of aluminum.
Large area, multi-part anti-slip cleats.
Various connection threads available.
PWIS-conform to guideline VDMA 24364 test category A1.

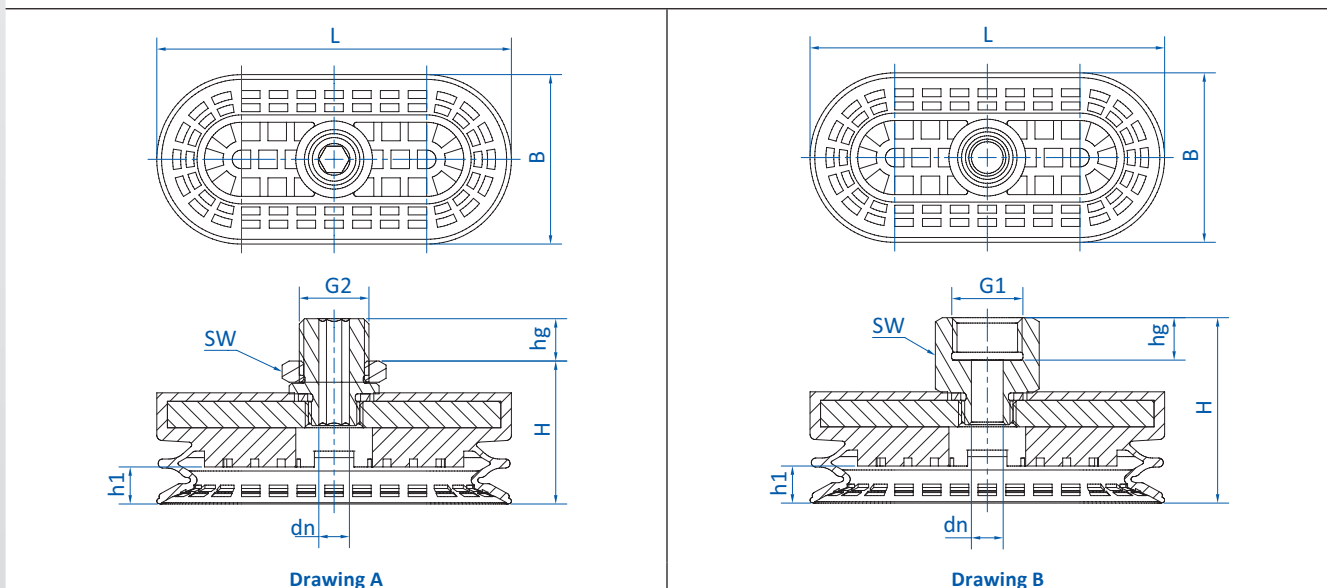
Advantage

- > Exceptionally long lifetime – maximizes number of cycles and thus significantly reduces the cost of operation
- > Slip-free handling of oily and dry metal sheets due to anti-slip cleats
- > Good absorption of shear forces
- > Internal supports prevent deep drawing or deformation of thin sheets
- > Leak-free suction even with curved surfaces due to flexible sealing lip
- > Ideally suited for use in constricted spaces
- > Bellow geometry allows handling of three dimensional shaped sheets and ensures good attenuation when placed on a workpiece

Technical data

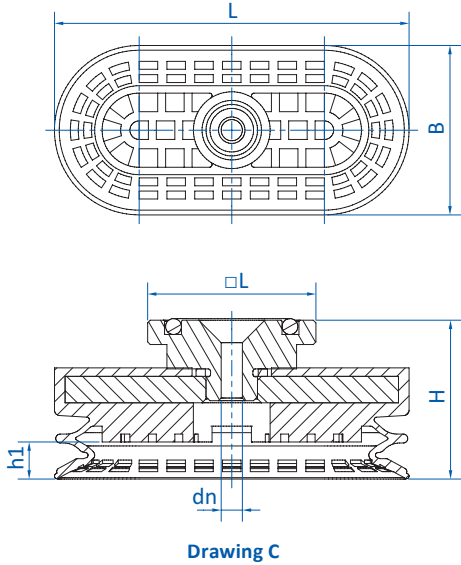
Model / Lip dimensions	Thread (Aluminium)						
	G1/4-male	G1/4-female	G3/8-female	M10-male	M14x1.5-male	Rectangular adapter	
SM-OB-65x30	138.65x30.023.1	138.65x30.024.1	138.65x30.025.1	138.65x30.026.1	138.65x30.027.1	138.65x30.028.1	7
SM-OB-85x40	138.85x40.029.1	138.85x40.030.1	138.85x40.031.1	138.85x40.032.1	138.85x40.033.1	138.85x40.034.1	9
SM-OB-115x55	138.115x55.035.1	138.115x55.036.1	138.115x55.037.1	138.115x55.038.1	138.115x55.039.1	138.115x55.040.1	13
SM-OB-145x70	138.145x70.041.1	138.145x70.042.1	138.145x70.043.1	138.145x70.044.1	138.145x70.045.1	138.145x70.046.1	16.5

Dimensions





Dimensions



* = Details see "Additional sizes"

Item no.	Drawing	G1 (female)	G2 (male)	L [mm]	L max.* [mm]	B [mm]	B max.* [mm]	dn	□L [mm]	H [mm]	h1 [mm]	hg [mm]	SW
138.65x30.023.*	A	--	G1/4	67	69.3	32	35	SW5	--	27	7	8	17
138.65x30.024.*	B	G1/4	--	67	69.3	32	35	∅ 6 mm	--	35	7	8	17
138.65x30.025.*	B	G3/8	--	67	69.3	32	35	∅ 6 mm	--	35	7	8	22
138.65x30.026.*	A	--	M10	67	69.3	32	35	∅ 5 mm	--	27	7	12	17
138.65x30.027.*	A	--	M14x1.5	67	69.3	32	35	SW5	--	29	7	12	22
138.65x30.028.*	C	--	--	67	69.3	32	35	∅ 4 mm	31.8	30	7	--	--
138.85x40.029.*	A	--	G1/4	87	90	42	46.4	SW5	--	30	9	8	17
138.85x40.030.*	B	G1/4	--	87	90	42	46.4	∅ 6 mm	--	38	9	8	17
138.85x40.031.*	B	G3/8	--	87	90	42	46.4	∅ 6 mm	--	38	9	8	22
138.85x40.032.*	A	--	M10	87	90	42	46.4	SW5	--	30	9	12	17
138.85x40.033.*	A	--	M14x1.5	87	90	42	46.4	SW5	--	32	9	12	22
138.85x40.034.*	C	--	--	87	90	42	46.4	∅ 4 mm	31.8	33	9	--	--
138.115x55.035.*	A	--	G1/4	118	121	57	60	SW6	--	35	13	8	17
138.115x55.036.*	B	G1/4	--	118	121	57	60	∅ 8 mm	--	43	13	8	17
138.115x55.037.*	B	G3/8	--	118	121	57	60	∅ 8 mm	--	43.5	13	9	22
138.115x55.038.*	A	--	M10	118	121	57	60	SW5	--	35	13	12	17
138.115x55.039.*	A	--	M14x1.5	118	121	57	60	SW6	--	37	13	12	22
138.115x55.040.*	C	--	--	118	121	57	60	∅ 6 mm	31.8	38	13	--	--
138.145x70.041.*	A	--	G1/4	148	150	72	77.8	SW6	--	39	16.5	8	17
138.145x70.042.*	B	G1/4	--	148	150	72	77.8	∅ 8 mm	--	47	16.5	8	17
138.145x70.043.*	B	G3/8	--	148	150	72	77.8	∅ 8 mm	--	47.5	16.5	9	22
138.145x70.044.*	A	--	M10	148	150	72	77.8	SW5	--	39	16.5	12	17
138.145x70.045.*	A	--	M14x1.5	148	150	72	77.8	SW6	--	41	16.5	12	22
138.145x70.046.*	C	--	--	148	150	72	77.8	∅ 6 mm	31.8	42	16.5	--	--



Oval vacuum cups series

Oval bell shaped vacuum cups for for dynamic handling of strongly curved metal sheets – SM-OG

Oval bell shaped vacuum cups for for dynamic handling of strongly curved metal sheets – SM-OG



ESPECIALLY FOR STRONGLY CURVED SURFACES



Product notes

Flexible, oval NBR bell shaped cup, 60° Shore A with vulcanized fitting made of aluminum for best adaptation to strongly curved metal sheets. Large area "anti-slip" cleats, various connection threads available. PWIS-conform to guideline VDMA 24364 test category A1.

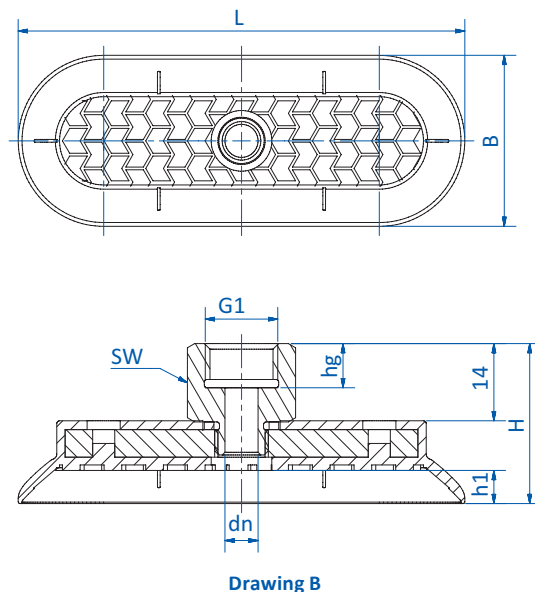
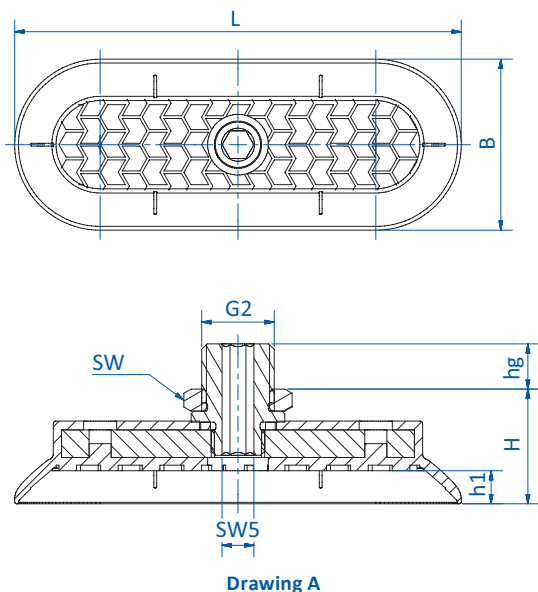
Advantage

- > Reliable, non-slip handling of oily sheets due to "anti-slip" cleats. Good absorption of lateral forces.
- > Ideally suited for use in constricted spaces
- > Supports help to prevent deep-drawing or deformation of thin sheets
- > Leak-free suction even with strongly curved surfaces due to very flexible sealing lip
- > Vulcanized connection thread ensures a secure fit

Technical data

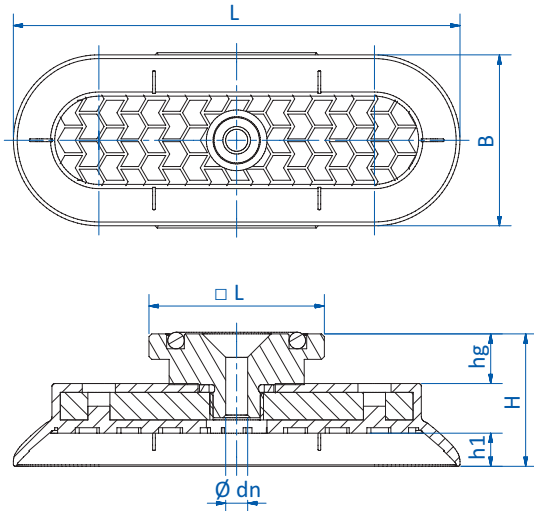
Model / Lip dimensions	Thread (Aluminum)				Volume [cm ³]	Gripping force* [N]	
	G1/4-male	G1/4-female	G3/8-female	Rectangular adapter			
SM-OG-60x20	130.60x20.197.1	130.60x20.192.1	130.60x20.200.1	130.60x20.203.1	4.97	60	5
SM-OG-80x30	130.80x30.198.1	130.80x30.194.1	130.80x30.201.1	130.80x30.204.1	10.22	118	6
SM-OG-95x40	130.95x40.199.1	130.95x40.196.1	130.95x40.202.1	130.95x40.205.1	15.81	172	6

Dimensions





Dimensions



Drawing C

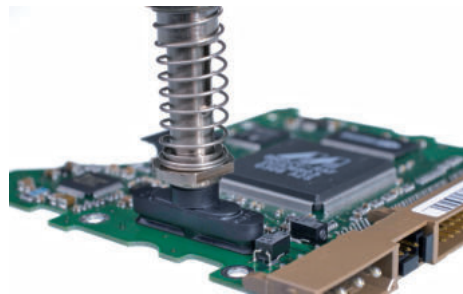
Item no.	Drawing	Ø dn [mm]	G1 (female)	G2 (male)	□L [mm]	L [mm]	L max.* [mm]	B [mm]	B max.* [mm]	H [mm]	h1 [mm]	hg [mm]	SW
130.60x20.197.*	A	5	--	G1/4	--	61.5	67	21	27	28	5	8	17
130.60x20.192.*	B	6	G1/4	--	--	61.5	67	21	27	28	5	8	17
130.60x20.200.*	B	6	G3/8	--	--	61.5	67	21	27	28	5	8	22
130.60x20.203.*	C	4	--	--	31.8	61.5	67	21	27	23	5	--	--
130.80x30.198.*	A	5	--	G1/4	--	81	87	31	36.7	29	6	8	17
130.80x30.194.*	B	6	G1/4	--	--	81	87	31	36.7	29	6	8	17
130.80x30.201.*	B	6	G3/8	--	--	81	87	31	36.7	29	6	8	22
130.80x30.204.*	C	4	--	--	31.8	81	87	31	36.7	24	6	--	--
130.95x40.199.*	A	5	--	G1/4	--	95.5	102	40.5	46.5	29	6	8	17
130.95x40.196.*	B	6	G1/4	--	--	95.5	102	40.5	46.5	29	6	8	17
130.95x40.202.*	B	6	G3/8	--	--	95.5	102	40.5	46.5	29	6	8	22
130.95x40.205.*	C	4	--	--	31.8	95.5	102	40.5	46.5	27	6	--	--



Oval vacuum cups series

Oval vacuum cups, flat – SO-E

Oval vacuum cups, flat – SO-E



Product notes

Small flat vacuum cups in oval design for elongated workpieces where only minimal space is available (e.g. semiconductors, carrier plates, etc.). Connection via an interlocking snap-in plug-in nipple.

Advantage

- > Significantly increased suction force compared to round vacuum cups of the same width
- > Optimum bending strength due to elongated carrier plate in the plug-in nipple
- > Secured against rotation
- > Cost-effective replacement of worn seals


Ordering notes

The cups are delivered fully assembled with fitting.

Notes:

Material NBR-AS (anti-static): 65° ShoreA; volume resistance = 200 Ohm·cm

Technical data

Item no.	Model	Connection thread		Material / Color
130.10x4.115.*	SO-E-10x4	M5-male	0.9	NBR (sw), NBR-AS (sw), SI (tr)
130.10x4.068.*	SO-E-10x4	M6-male	0.9	NBR (sw), NBR-AS (sw), SI (tr)
130.10x5.116.*	SO-E-10x5	M5-male	0.9	NBR (sw), NBR-AS (sw), SI (tr)
130.10x5.071.*	SO-E-10x5	M6-male	0.9	NBR (sw), NBR-AS (sw), SI (tr)
130.10x6.117.*	SO-E-10x6	M5-male	0.9	NBR (sw), NBR-AS (sw), SI (tr)
130.10x6.073.*	SO-E-10x6	M6-male	0.9	NBR (sw), NBR-AS (sw), SI (tr)
130.20x4.118.*	SO-E-20x4	M5-male	0.9	NBR (sw), NBR-AS (sw), SI (tr)
130.20x4.069.*	SO-E-20x4	M6-male	0.9	NBR (sw), NBR-AS (sw), SI (tr)
130.20x5.119.*	SO-E-20x5	M5-male	0.9	NBR (sw), NBR-AS (sw), SI (tr)
130.20x5.081.*	SO-E-20x5	M6-male	0.9	NBR (sw), NBR-AS (sw)
130.20x6.120.*	SO-E-20x6	M5-male	0.9	NBR (sw), NBR-AS (sw), SI (tr)
130.20x6.074.*	SO-E-20x6	M6-male	0.9	NBR (sw), NBR-AS (sw), SI (tr)
130.20x8.121.*	SO-E-20x8	M5-male	0.9	NBR (sw), NBR-AS (sw), SI (tr)
130.20x8.076.*	SO-E-20x8	M6-male	0.9	NBR (sw), NBR-AS (sw), SI (tr)
130.30x5.123.*	SO-E-30x5	M5-male	0.9	NBR (sw), NBR-AS (sw), SI (tr)
130.30x5.072.*	SO-E-30x5	M6-male	0.9	NBR (sw), NBR-AS (sw), SI (tr)
130.30x6.124.*	SO-E-30x6	M5-male	0.9	NBR (sw), NBR-AS (sw), SI (tr)
130.30x6.075.*	SO-E-30x6	M6-male	0.9	NBR (sw), NBR-AS (sw), SI (tr)
130.30x8.125.*	SO-E-30x8	M5-male	0.9	NBR (sw), NBR-AS (sw), SI (tr)
130.30x8.077.*	SO-E-30x8	M6-male	0.9	NBR (sw), NBR-AS (sw), SI (tr)

Accessories





Spare vacuum cup:

132.10x4.003.*
132.10x4.003.*
132.10x5.007.*
132.10x5.007.*
132.10x6.011.*
132.10x6.011.*
132.20x4.005.*
132.20x4.005.*
132.20x5.009.*
132.20x5.009.*
132.20x6.013.*
132.20x6.013.*
132.20x8.015.*
132.20x8.015.*
132.30x5.010.*
132.30x5.010.*
132.30x6.014.*
132.30x6.014.*
132.30x8.017.*
132.30x8.017.*

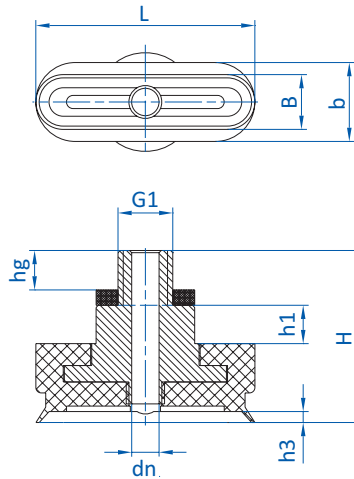
* When ordering please add the appropriate material code to item no.



Accessories

Item no.	Spring leveler		Hose outside Ø	Spring leveler		Hose outside Ø	Spring leveler		Hose outside Ø	Spring leveler		Hose outside Ø
130.10x4.115.*	50.152	10	--	50.153	20	--	--	--	--	--	--	--
130.10x4.068.*	50.095	19.5	6	50.096	30	6	50.097	39	6	50.098	49.5	6
130.10x5.116.*	50.152	10	--	50.153	20	--	--	--	--	--	--	--
130.10x5.071.*	50.095	19.5	6	50.096	30	6	50.097	39	6	50.098	49.5	6
130.10x6.117.*	50.152	10	--	50.153	20	--	--	--	--	--	--	--
130.10x6.073.*	50.095	19.5	6	50.096	30	6	50.097	39	6	50.098	49.5	6
130.20x4.118.*	50.152	10	--	50.153	20	--	--	--	--	--	--	--
130.20x4.069.*	50.095	19.5	6	50.096	30	6	50.097	39	6	50.098	49.5	6
130.20x5.119.*	50.152	10	--	50.153	20	--	--	--	--	--	--	--
130.20x5.081.*	50.095	19.5	6	50.096	30	6	50.097	39	6	50.098	49.5	6
130.20x6.120.*	50.152	10	--	50.153	20	--	--	--	--	--	--	--
130.20x6.074.*	50.095	19.5	6	50.096	30	6	50.097	39	6	50.098	49.5	6
130.20x8.121.*	50.152	10	--	50.153	20	--	--	--	--	--	--	--
130.20x8.076.*	50.095	19.5	6	50.096	30	6	50.097	39	6	50.098	49.5	6
130.30x5.123.*	50.152	10	--	50.153	20	--	--	--	--	--	--	--
130.30x5.072.*	50.095	19.5	6	50.096	30	6	50.097	39	6	50.098	49.5	6
130.30x6.124.*	50.152	10	--	50.153	20	--	--	--	--	--	--	--
130.30x6.075.*	50.095	19.5	6	50.096	30	6	50.097	39	6	50.098	49.5	6
130.30x8.125.*	50.152	10	--	50.153	20	--	--	--	--	--	--	--
130.30x8.077.*	50.095	19.5	6	50.096	30	6	50.097	39	6	50.098	49.5	6

Dimensions



Item no.	L [mm]	B [mm]	b [mm]	Ø dn [mm]	G1	H [mm]	h1 [mm]	h3 [mm]	hg [mm]
130.10x4.115.*	10	4.6	7	2.5	M5	15.5	3.5	1	3.6
130.10x4.068.*	10	4.6	7	2	M6	15.5	3.5	1	4
130.10x5.116.*	10	5	7	2.5	M5	15.5	3.5	1	3.6
130.10x5.071.*	10	5	7	2	M6	15.5	3.5	1	4

Continued on the next page →

* When ordering please add the appropriate material code to item no.



Oval vacuum cups series

Oval vacuum cups, flat – SO-E

Item no.	L [mm]	B [mm]	b [mm]	Ø dn [mm]	G1	H [mm]	h1 [mm]	h3 [mm]	hg [mm]
130.10x6.117.*	10	6	7	2.5	M5	15.5	3.5	1	3.6
130.10x6.073.*	10	6	7	2	M6	15.5	3.5	1	4
130.20x4.118.*	20	4.3	7	2.5	M5	15.5	3.5	1	3.6
130.20x4.069.*	20	4.3	7	2	M6	15.5	3.5	1	4
130.20x5.119.*	20	5	7	2.5	M5	15.5	3.5	1	3.6
130.20x5.081.*	20	5	7	2	M6	15.5	3.5	1	4
130.20x6.120.*	20	6	7	2.5	M5	15.5	3.5	1	3.6
130.20x6.074.*	20	6	7	2	M6	15.5	3.5	1	4
130.20x8.121.*	20	8	8	2.5	M5	15.5	3.5	1	3.6
130.20x8.076.*	20	8	8	2	M6	15.5	3.5	1	4
130.30x5.123.*	30	5	7	2.5	M5	15.5	3.5	1	3.6
130.30x5.072.*	30	5	7	2	M6	15.5	3.5	1	4
130.30x6.124.*	30	6	7	2.5	M5	15.5	3.5	1	3.6
130.30x6.075.*	30	6	7	2	M6	15.5	3.5	1	4
130.30x8.125.*	30	8	8	2.5	M5	15.5	3.5	1	3.6
130.30x8.077.*	30	8	8	2	M6	15.5	3.5	1	4

* When ordering please add the appropriate material code to item no.



Oval vacuum cups for cylindrical products – SO-Z



Product notes

Oval vacuum cup for cylindrical products such as pins, needles, tubes, etc.
Connection via plug-in nipple, hollow screw (SO-Z-10-18) or direct plug-in to the machine (SO-Z-4-10).

Advantage

- > Significantly greater suction force over normal oval vacuum cups due to three-dimensional oval suction lip contour partially encompassing the workpiece
- > Cost-effective replacement of worn seals

Technical data

Item no.	Model	Suitable for cylindrical products with Ø [mm]	Material / Color
201.10x3.005._*	SO-Z-2-4	2 - 4	NBR (sw), SI (tr)
201.10x6.006._*	SO-Z-3-7	3 - 7.5	NBR (sw), SI (tr)
132.15x7.073._*	SO-Z-4-10	4 - 10	SI (r)
201.12x9.007._*	SO-Z-6-13	6 - 13	NBR (sw), SI (tr)
9.23x11.036._*	SO-Z-10-18	10 - 18	SI (tr)

Accessories

Item no.	Suitable fittings		
	M5-male	G1/8-male	G1/8-female
201.10x3.005._*	270.300	--	--
201.10x6.006._*	270.300	--	--
132.15x7.073._*	--	--	--
201.12x9.007._*	270.300	--	--
9.23x11.036._*	270.310	270.493	270.494

Continued on the next page →

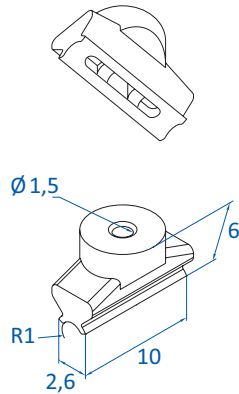
* When ordering please add the appropriate material code to item no.



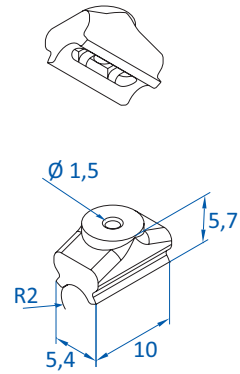
Oval vacuum cups series

Oval vacuum cups for cylindrical products – SO-Z

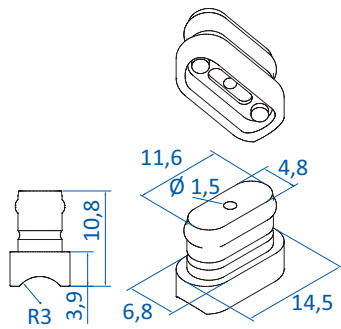
Dimensions



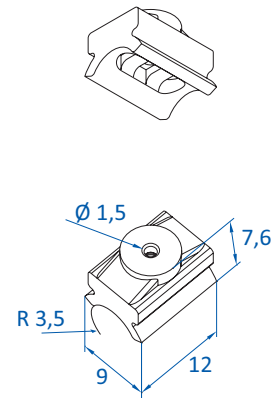
Drawing A



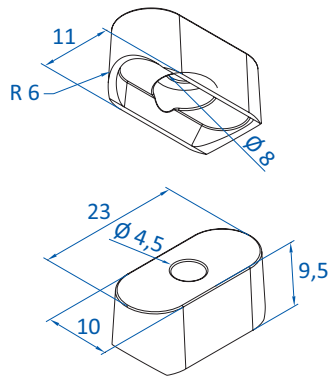
Drawing B



Drawing C



Drawing D



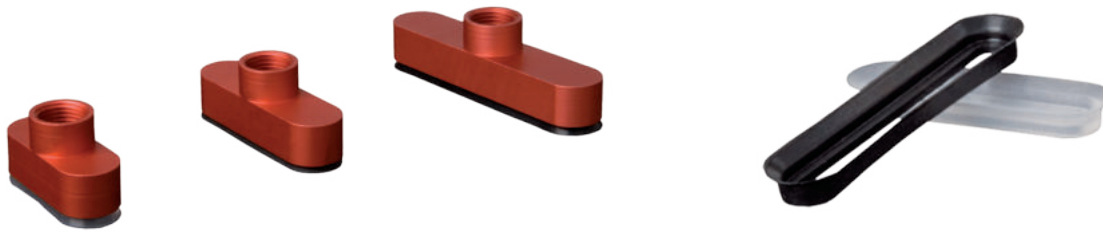
Drawing E

Item no.	Drawing	L [mm]	B [mm]
201.10x3.005.*	A	10	2.6
201.10x6.006.*	B	10	5.4
132.15x7.073.*	C	14.5	6.8
201.12x9.007.*	D	12	9
9.23x11.036.*	E	23	10

* When ordering please add the appropriate material code to item no.



Oval vacuum cups, flat – SO-C




Product notes

Flat vacuum cups in oval design for elongated workpieces where only minimal space is available (e.g. rails, profiles, tubes, bolts, etc.). Vacuum chamber housing of anodized aluminum. Rubber sealing lip is fixed by a screwed rubber clamping plate.

Advantage

- > Significantly increased suction force compared to round vacuum cups of the same width
- > Warp-resistant aluminum housing
- > Cost-effective replacement of worn seals

Technical data

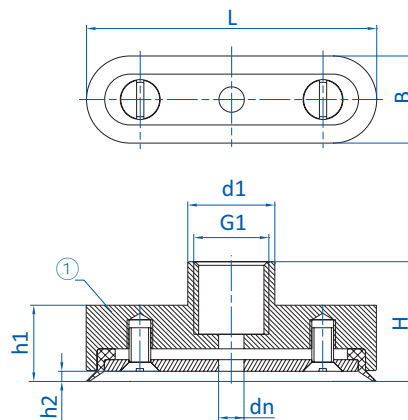
Item no.	Model	Connection thread		Material / Color
130.30x12.057.*	SO-C-30x12	G1/8-female	1	SI (tr), NR (sw)
130.40x12.058.*	SO-C-40x12	G1/8-female	1	SI (tr), NR (sw)
130.55x12.082.*	SO-C-55x12	G1/8-female	1	NBR (sw), SI (tr), NR (sw)

Accessories

Spare sealing lip

132.30x12.025.*
132.40x12.027.*
132.55x12.029.*

Dimensions



① = Aluminum

Item no.	L [mm]	B [mm]	Ø d1 [mm]	Ø dn [mm]	G1	H [mm]	h1 [mm]	h2 [mm]
130.30x12.057.*	30	12	12	3.5	G1/8	16.5	10	1.3
130.40x12.058.*	40	12	12	3.5	G1/8	16.5	10	1.4
130.55x12.082.*	55	12	12	3.5	G1/8	16.5	10	1.5

* When ordering please add the appropriate material code to item no.



Oval vacuum cups series

Oval vacuum suction plates for textured surfaces – SOPL-R

Oval vacuum suction plates for textured surfaces – SOPL-R




Product notes

Oval vacuum cups for handling both rough surfaces and smooth, markedly uneven products.
Connection via vulcanized aluminum plate.

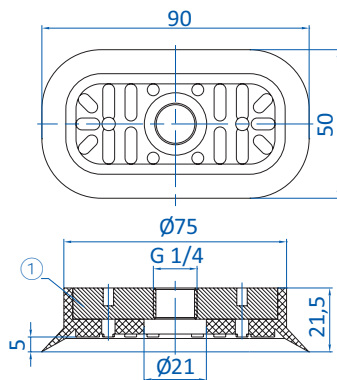
Advantage

- > Leak-free gripping of difficult product surfaces thanks to extremely flexible, thinly tapered sealing lip
- > Cleats help prevent warping of the product
- > Optimum process reliability due to vulcanized backing plate, as well as additional internal safety sealing lip (190x90 mm and 120x65 mm)

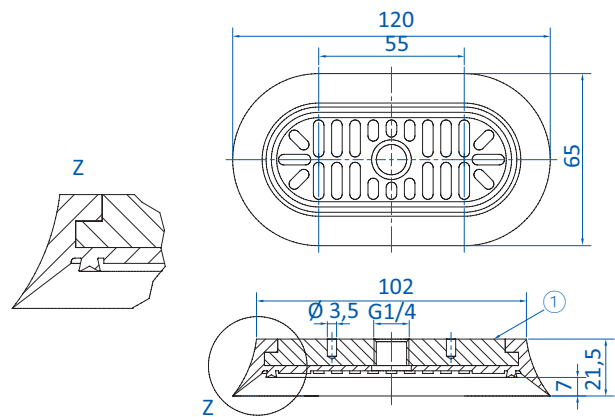
Technical data

Item no.	Model	Connection thread	Material / Color		Weight [g]
130.90x50.113.4	SOPL-R-90x50	G1/4-female	NR (bg)	5	72
9.120x65.088.4	SOPL-R-120x65	G1/4-female	NR (bg)	7	131
9.190x90.061.4-AL	SOPL-R-190x90	G1/4-female	NR (bg)	5.5	295

Dimensions



Drawing A

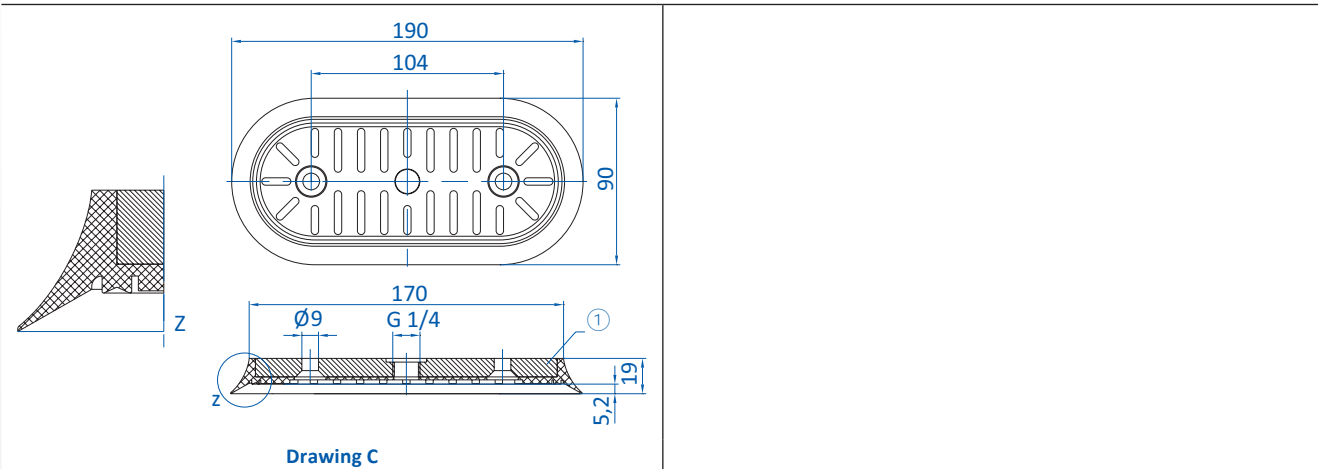


Drawing B

① = Aluminum



Dimensions



① = Aluminum

Item no.	Drawing	L [mm]	B [mm]
130.90x50.113.4	A	90	50
9.120x65.088.4	B	120	65
9.190x90.061.4-AL	C	190	90



Oval vacuum cups series

Oval vacuum suction plates – SOPL-S

Oval vacuum suction plates – SOPL-S



Product notes

Oval vacuum cups, vulcanized, on a carrier plate of steel for the handling of long, narrow products such as strips, profiles or frames. Rubberized support surfaces prevent deformation of the product and increase lateral stability.


Advantage

- > High suction force on a small footprint
- > Low-marking
- > High process reliability due to vulcanized carrier plate
- > Individual machine connection possible

Ordering notes

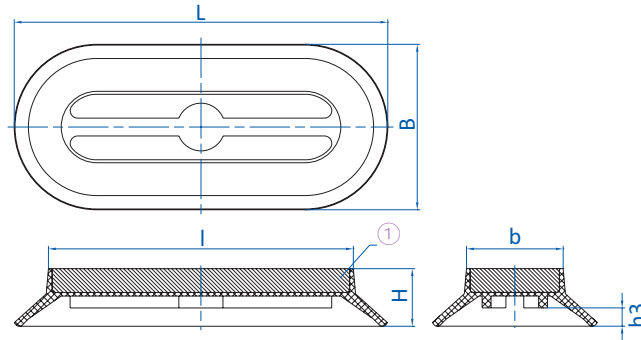
Customized drilling patterns available on request for Series SOPL-S

Technical data

Item no.	Model	Material / Color		Weight [g]	Support surfaces
9.200x40.010.1gr	SOPL-S-200x40	NBR (gr)	9	140	lengthwise
9.110x40.009.1	SOPL-S-110x40	NBR (gr)	9	122	lengthwise
9.125x55.012.1	SOPL-S-125x55	NBR (gr)	9	320	lengthwise
9.150x55.013.1	SOPL-S-150x55	NBR (gr)	7	255	lengthwise
9.200x55.014.1	SOPL-S-200x55	NBR (gr)	7	538	lengthwise
9.300x55.019.1	SOPL-S-300x55	NBR (gr)	8	902	lengthwise
9.370x70.022.1	SOPL-S-370x70	NBR (gr)	10	1,895	lengthwise
9.200x100.015.1	SOPL-S-200x100	NBR (gr)	8	595	lengthwise
9.280x100.017.1	SOPL-S-280x100	NBR (gr)	10	1,880	lengthwise
9.430x180.024.1gr	SOPL-S-430x180	NBR (gr)	6	3,720	selective
9.450x130.025.1	SOPL-S-450x130	NBR (gr)	6	2,660	crosswise
9.580x180.029.1	SOPL-S-580x180	NBR (gr)	10	3,500	lengthwise



Dimensions



① = Steel

Item no.	L [mm]	B [mm]	I [mm]	b [mm]	H [mm]	h3 [mm]
9.200x40.010.1gr	195	36	176	15	19	6
9.110x40.009.1	113	43	87	17	19	8.5
9.125x55.012.1	126	56	103	33	19	6
9.150x55.013.1	151	56	128	33	19	6
9.200x55.014.1	200	55	178	33	19	6.3
9.300x55.019.1	300	55	227	33	19	6
9.370x70.022.1	378	82	349	53	26	9
9.200x100.015.1	190	90	161	61	22	8.5
9.280x100.017.1	278	100	250	72	25	9
9.430x180.024.1gr	430	180	402	158	20	6
9.450x130.025.1	449	131	420	102	20	6.5
9.580x180.029.1	579	179	570	150	25	9



Oval vacuum cups by size

Connection	
270.011	M3-male

Item no.
132.4x2.001.*

Material
NBR (sw), SI (tr), PU (bl)

0.5 mm

Details and additional sizes available are found on p. 308.

Connection	
270.014	M3-male
270.111	M4-male
270.300	M5-male

Item no.
132.4x2.031.*

Material
NBR (sw), HNBR (ge), SI (tr), PU (bl)

0.5 mm

Details and additional sizes available are found on p. 308.

Connection	
270.014	M3-male
270.111	M4-male
270.300	M5-male

Item no.
132.4x2.079.19

Material
Thermalon® (bl)

0.4 mm

Details and additional sizes available are found on p. 312.

Connection	
270.025	M3-male

Item no.
132.7x4.002.*

Material
NBR (sw), SI (tr)

0.8 mm

Details and additional sizes available are found on p. 308.

Connection	
270.014	M3-male
270.111	M4-male
270.300	M5-male

Item no.
132.7x4.034.*

Material
NBR (sw), HNBR (ge), SI (tr)

0.8 mm

BESTSELLER

Details and additional sizes available are found on p. 308.

Connection	
270.014	M3-male
270.111	M4-male
270.300	M5-male

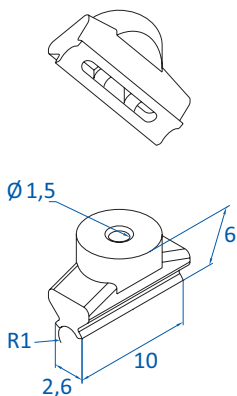
Item no.
132.7x4.080.19

Material
Thermalon® (bl)

0.5 mm

Details and additional sizes available are found on p. 312.

* When ordering please add the appropriate material code to item no.

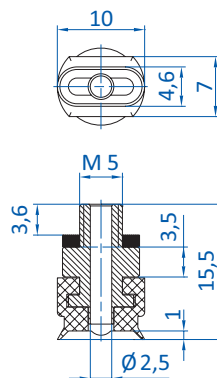


Item no.	Connection	
270.300	M5-male	--

FOR CYLINDRICAL PRODUCTS DIAMETER 2 - 4 MM

Item no. 201.10x3.005._*	Material NBR (sw), SI (tr)	0 mm
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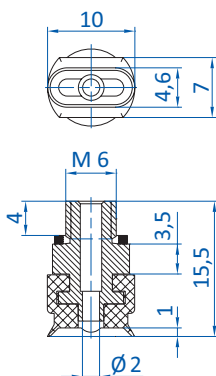
Details and additional sizes available are found on p. 331.



Item no.	Connection	
50.152	10 mm	--
50.153	20 mm	--

Item no. 130.10x4.115._*	Material NBR (sw), NBR-AS (sw), SI (tr)	0.9 mm
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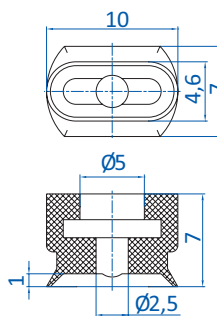
Details and additional sizes available are found on p. 328.



Item no.	Connection	
50.095	19.5 mm	--
50.096	30 mm	--
50.097	39 mm	--
50.098	49.5 mm	--

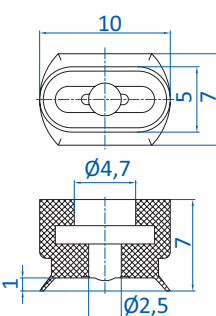
Item no. 130.10x4.068._*	Material NBR (sw), NBR-AS (sw), SI (tr)	0.9 mm
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Details and additional sizes available are found on p. 328.



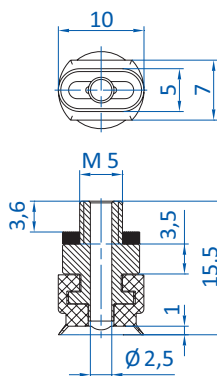
Item no.	Connection	
270.463	M5-male	--
270.339	M6-male	--

Item no. 132.10x4.003._*	Material NBR (sw), NBR-AS (sw), SI (tr)	0.9 mm
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Item no.	Connection	
270.463	M5-male	--
270.339	M6-male	--

Item no. 132.10x5.007._*	Material NBR (sw), NBR-AS (sw), SI (tr)	0.9 mm
------------------------------------	---	--------



Item no.	Connection	
50.152	10 mm	--
50.153	20 mm	--

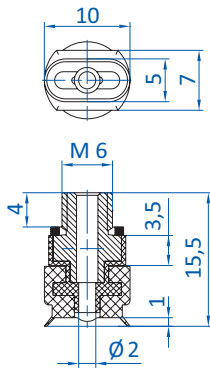
Item no. 130.10x5.116._*	Material NBR (sw), NBR-AS (sw), SI (tr)	0.9 mm
------------------------------------	---	--------

Details and additional sizes available are found on p. 328.

* When ordering please add the appropriate material code to item no.



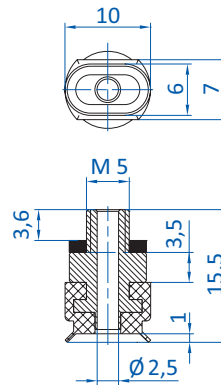
Oval vacuum cups by size



Item no.	Height	Material
50.095	19.5 mm	--
50.096	30 mm	--
50.097	39 mm	--
50.098	49.5 mm	--

Item no. 130.10x5.071.* Material NBR (sw), NBR-AS (sw), SI (tr) 0.9 mm

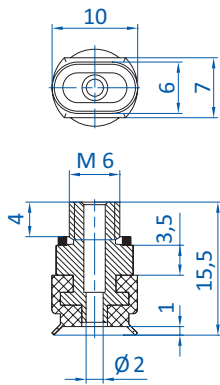
Details and additional sizes available are found on p. 328.



Item no.	Height	Material
50.152	10 mm	--
50.153	20 mm	--

Item no. 130.10x6.117.* Material NBR (sw), NBR-AS (sw), SI (tr) 0.9 mm

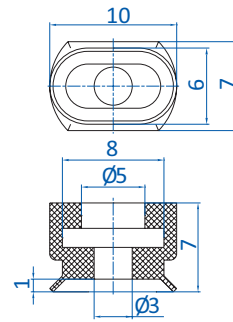
Details and additional sizes available are found on p. 328.



Item no.	Height	Material
50.095	19.5 mm	--
50.096	30 mm	--
50.097	39 mm	--
50.098	49.5 mm	--

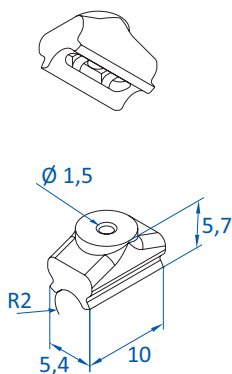
Item no. 130.10x6.073.* Material NBR (sw), NBR-AS (sw), SI (tr) 0.9 mm

Details and additional sizes available are found on p. 328.



Item no.	Connection	Material
270.463	M5-male	--
270.339	M6-male	--

Item no. 132.10x6.011.* Material NBR (sw), NBR-AS (sw), SI (tr) 0.9 mm

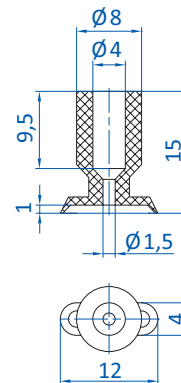


Item no.	Connection	Material
270.300	M5-male	--

FOR CYLINDRICAL PRODUCTS DIAMETER 3 - 7.5 MM

Item no. 201.10x6.006.* Material NBR (sw), SI (tr) 0 mm

Details and additional sizes available are found on p. 331.

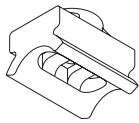


Item no.	Connection	Material
270.134	M5-male	--
270.347	M5-female	--
270.104	M6-male	--
270.033	G1/8-male	--
270.478	G1/8-female	--

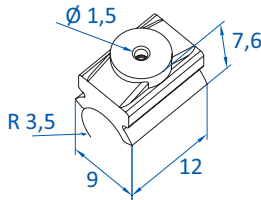
Item no. 132.12x4.004.* Material NBR (gr), SI (tr) 0.5 mm

Details and additional sizes available are found on p. 308.

* When ordering please add the appropriate material code to item no.



	Connection	
270.300	M5-male	--



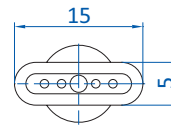
FOR CYLINDRICAL PRODUCTS DIAMETER 6 - 13 MM

Item no.
201.12x9.007._*

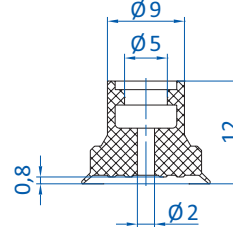
Material
NBR (sw), SI (tr)

0 mm

Details and additional sizes available are found on p. 331.



	Connection	
270.094	M5-male	--
270.005	M5-female	--
270.095	G1/8-male	--
270.096	G1/8-female	--



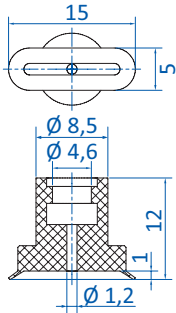
Item no.
132.15x5.008._*

Material
NBR (gr), SI (tr)

1 mm

Details and additional sizes available are found on p. 308.

Ordering notes Use of a gripper clamp (available separately) recommended.



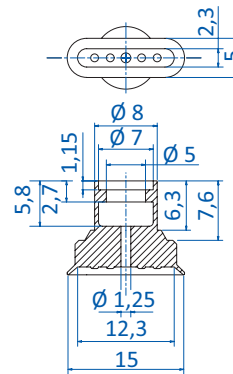
	Connection	
270.094	M5-male	--
270.095	G1/8-male	--
270.096	G1/8-female	--

Item no.
132.15x5.081.19

Material
Thermalon® (bl)

0.6 mm

Details and additional sizes available are found on p. 312.



	Connection	
270.431	G1/8-male	--

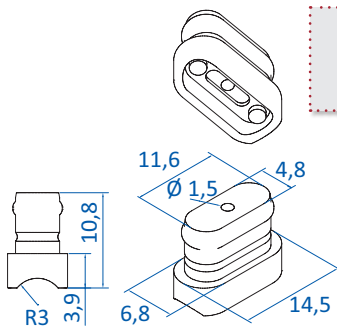
Item no.
132.15x5.067.14

Material
HNBR (ge)

1 mm

Details and additional sizes available are found on p. 314.

Ordering notes Use of a gripper clamp (available separately) recommended.



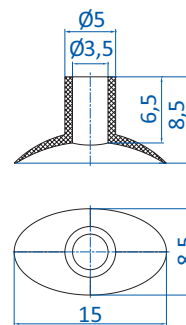
FOR CYLINDRICAL PRODUCTS DIAMETER 4 - 10 MM

Item no.
132.15x7.073._*

Material
SI (r)

0 mm

Details and additional sizes available are found on p. 331.



	Connection	
270.536	M5-male	--

Item no.
132.15x8.5.33._*

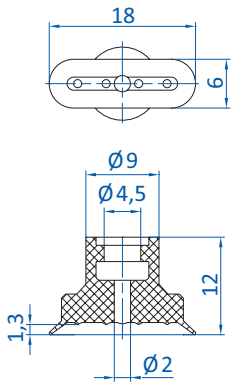
Material
NR (sw)

2 mm

* When ordering please add the appropriate material code to item no.



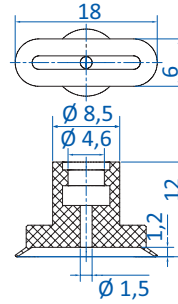
Oval vacuum cups by size



Item no.	Connection	
270.094	M5-male	--
270.005	M5-female	--
270.095	G1/8-male	--
270.096	G1/8-female	--

Item no. 132.18x6.012.* Material NBR (gr), SI (tr), PU (bl) 1 mm

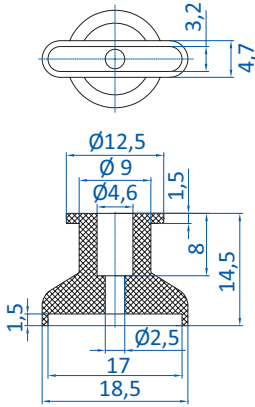
Details and additional sizes available are found on p. 308.
Ordering notes Use of a gripper clamp (available separately) recommended.



Item no.	Connection	
270.094	M5-male	--
270.095	G1/8-male	--
270.096	G1/8-female	--

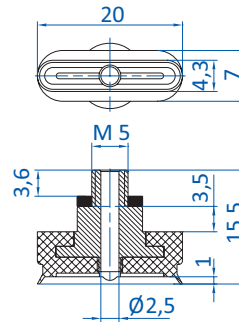
Item no. 132.18x6.082.19 Material Thermalon® (bl) 1 mm

Details and additional sizes available are found on p. 312.



Item no.	Connection	
270.013	M5-male	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--

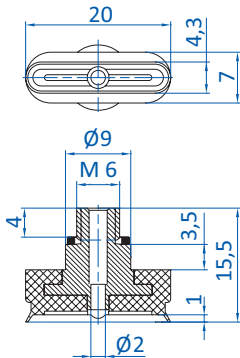
Item no. 132.19x5.044.* Material Vinyl (bl) 0 mm



Item no.	Connection	
50.152	10 mm	--
50.153	20 mm	--

Item no. 130.20x4.118.* Material NBR (sw), NBR-AS (sw), SI (tr) 0.9 mm

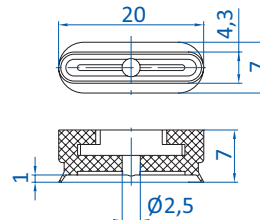
Details and additional sizes available are found on p. 328.



Item no.	Connection	
50.095	19.5 mm	--
50.096	30 mm	--
50.097	39 mm	--
50.098	49.5 mm	--

Item no. 130.20x4.069.* Material NBR (sw), NBR-AS (sw), SI (tr) 0.9 mm

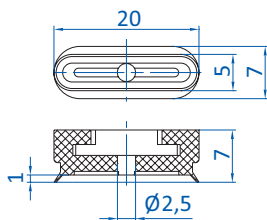
Details and additional sizes available are found on p. 328.



Item no.	Connection	
270.464	M5-male	--
270.340	M6-male	--

Item no. 132.20x4.005.* Material NBR (sw), NBR-AS (sw), SI (tr) 0.9 mm

* When ordering please add the appropriate material code to item no.

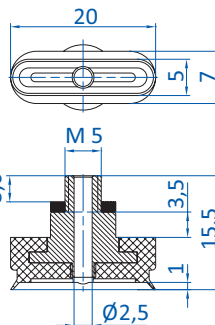


	Connection	
270.464	M5-male	--
270.340	M6-male	--

Item no.
132.20x5.009_*

Material
NBR (sw), NBR-AS (sw), SI (tr)

0.9 mm



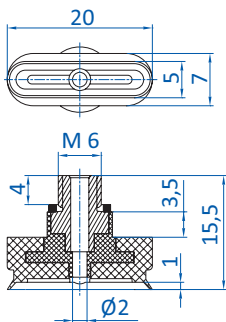
50.152	10 mm	--
50.153	20 mm	--

Item no.
130.20x5.119_*

Material
NBR (sw), NBR-AS (sw), SI (tr)

0.9 mm

Details and additional sizes available are found on p. 328.



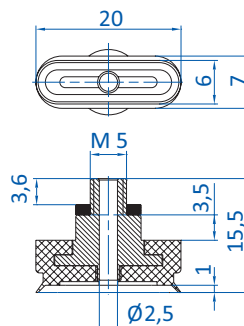
50.095	19.5 mm	--
50.096	30 mm	--
50.097	39 mm	--
50.098	49.5 mm	--

Item no.
130.20x5.081_*

Material
NBR (sw), NBR-AS (sw)

0.9 mm

Details and additional sizes available are found on p. 328.



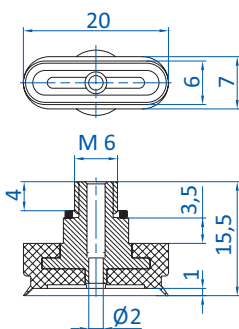
50.152	10 mm	--
50.153	20 mm	--

Item no.
130.20x6.120_*

Material
NBR (sw), NBR-AS (sw), SI (tr)

0.9 mm

Details and additional sizes available are found on p. 328.



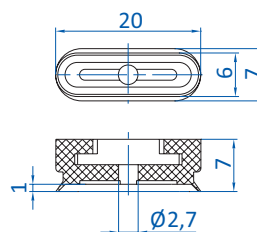
50.095	19.5 mm	--
50.096	30 mm	--
50.097	39 mm	--
50.098	49.5 mm	--

Item no.
130.20x6.074_*

Material
NBR (sw), NBR-AS (sw), SI (tr)

0.9 mm

Details and additional sizes available are found on p. 328.



	Connection	
270.464	M5-male	--
270.340	M6-male	--

Item no.
132.20x6.013_*

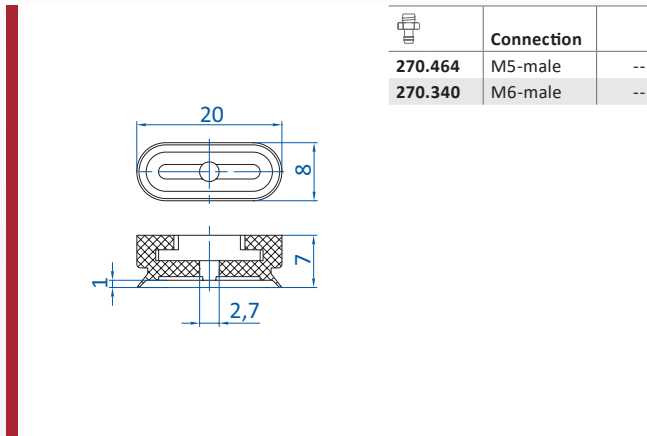
Material
NBR (sw), NBR-AS (sw), SI (tr)

0.9 mm

* When ordering please add the appropriate material code to item no.

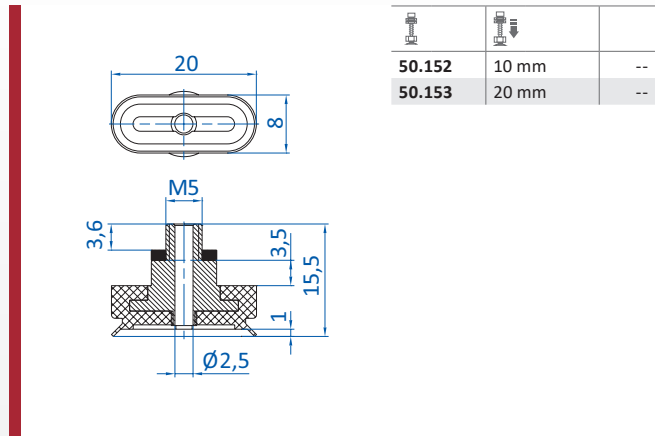


Oval vacuum cups by size



Item no.	Connection	
270.464	M5-male	--
270.340	M6-male	--

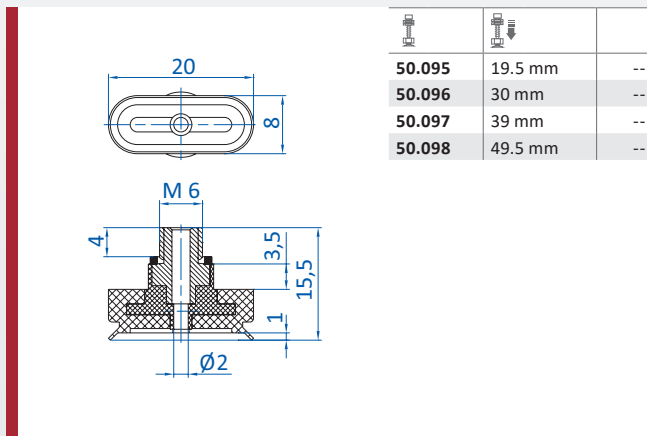
Item no. 132.20x8.015.* Material: NBR (sw), NBR-AS (sw), SI (tr) | Thickness: 0.9 mm



Item no.	Connection	
50.152	10 mm	--
50.153	20 mm	--

Item no. 130.20x8.121.* Material: NBR (sw), NBR-AS (sw), SI (tr) | Thickness: 0.9 mm

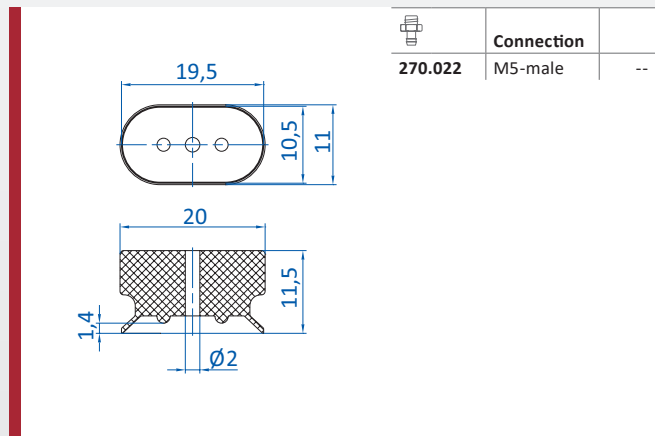
Details and additional sizes available are found on p. 328.



Item no.	Connection	
50.095	19.5 mm	--
50.096	30 mm	--
50.097	39 mm	--
50.098	49.5 mm	--

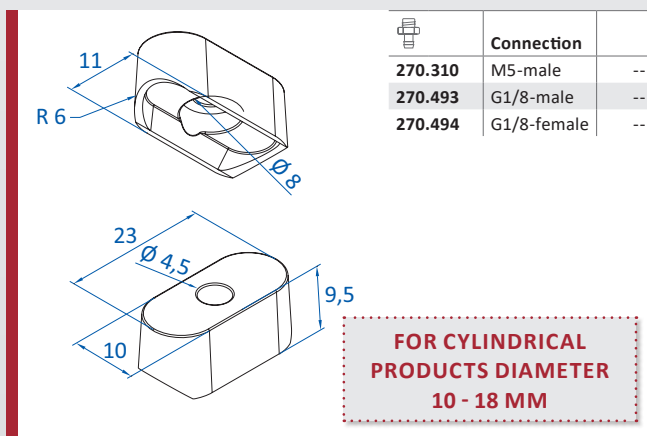
Item no. 130.20x8.076.* Material: NBR (sw), NBR-AS (sw), SI (tr) | Thickness: 0.9 mm

Details and additional sizes available are found on p. 328.



Item no.	Connection	
270.022	M5-male	--

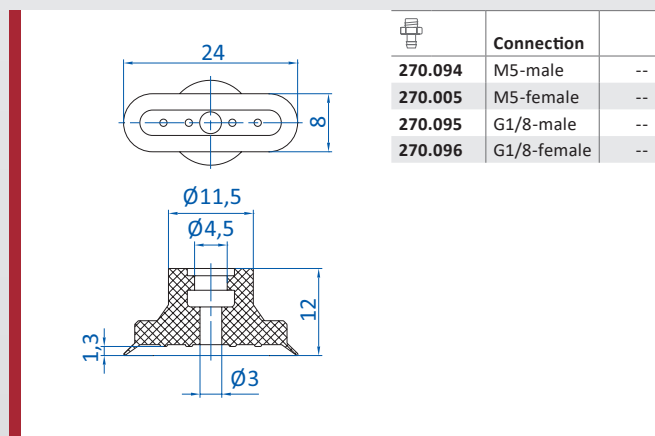
Item no. 132.20x11.077.* Material: SI (tr) | Thickness: 1.5 mm



Item no.	Connection	
270.310	M5-male	--
270.493	G1/8-male	--
270.494	G1/8-female	--

Item no. 9.23x11.036.* Material: SI (tr) | Thickness: 0 mm

Details and additional sizes available are found on p. 331.

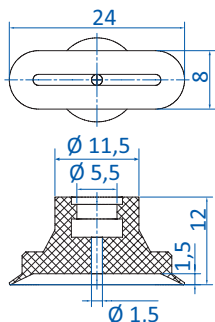


Item no.	Connection	
270.094	M5-male	--
270.005	M5-female	--
270.095	G1/8-male	--
270.096	G1/8-female	--

Item no. 132.24x8.016.* Material: NBR (gr), SI (tr) | Thickness: 1 mm

Details and additional sizes available are found on p. 308. **Ordering notes** Use of a gripper clamp (available separately) recommended.

* When ordering please add the appropriate material code to item no.



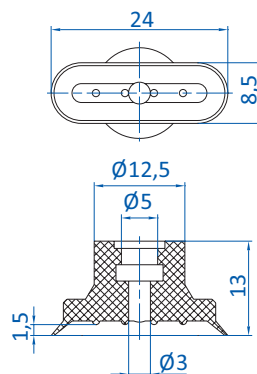
	Connection	
270.094	M5-male	--
270.095	G1/8-male	--
270.096	G1/8-female	--

Item no.
132.24x8.083.19

Material
Thermalon® (bl)

1 mm

Details and additional sizes available are found on p. 312.
Ordering notes Use of a gripper clamp (available separately) recommended.



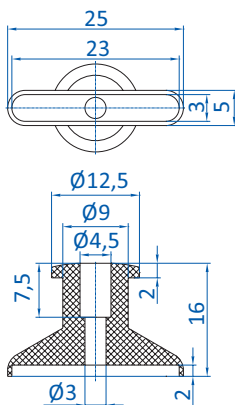
	Connection	
270.431	G1/8-male	--

Item no.
132.24x8.066.14

Material
HNBR (ge)

1 mm

Details and additional sizes available are found on p. 314.
Ordering notes Use of a gripper clamp (available separately) recommended.



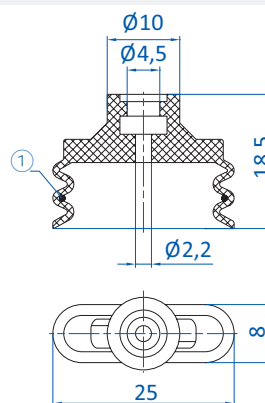
	Connection	
270.013	M5-male	--
270.005	M5-female	--
270.103	M6-male	--
270.003	G1/8-male	--
270.015	G1/8-female	--
270.194	G1/4-male	--

Item no.
132.25x5.045.*

Material
Vinyl (bl)

0 mm

Details and additional sizes available are found on p. 311.
Ordering notes Use of a gripper clamp (available separately) recommended.



	Connection	
270.094	M5-male	--
270.005	M5-female	--
270.095	G1/8-male	--
270.096	G1/8-female	--

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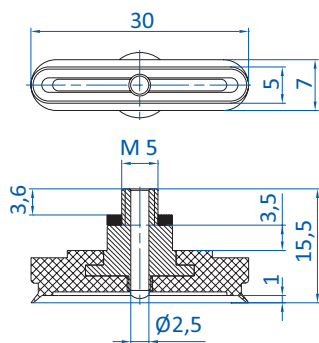
① = Wire strap stiffening

Item no.
138.25x8.002.*

Material
NBR (gr), SI (tr)

6 mm

Details and additional sizes available are found on p. 311.
Ordering notes Use of a gripper clamp (available separately) recommended.



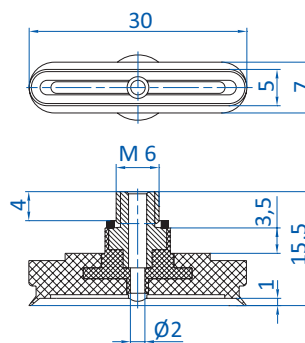
50.152	10 mm	--
50.153	20 mm	--

Item no.
130.30x5.123.*

Material
NBR (sw), NBR-AS (sw), SI (tr)

0.9 mm

Details and additional sizes available are found on p. 328.



50.095	19.5 mm	--
50.096	30 mm	--
50.097	39 mm	--
50.098	49.5 mm	--

Item no.
130.30x5.072.*

Material
NBR (sw), NBR-AS (sw), SI (tr)

0.9 mm

Details and additional sizes available are found on p. 328.

* When ordering please add the appropriate material code to item no.



Oval vacuum cups by size

Item no.	Connection	
270.464	M5-male	--
270.340	M6-male	--

Item no.	Material	Weight
132.30x5.010_*	NBR (sw), NBR-AS (sw), SI (tr)	0.9 mm

Item no.	Connection	
50.152	10 mm	--
50.153	20 mm	--

Item no.	Material	Weight
130.30x6.124_*	NBR (sw), NBR-AS (sw), SI (tr)	0.9 mm

Details and additional sizes available are found on p. 328.

Item no.	Connection	
50.095	19.5 mm	--
50.096	30 mm	--
50.097	39 mm	--
50.098	49.5 mm	--

Item no.	Material	Weight
130.30x6.075_*	NBR (sw), NBR-AS (sw), SI (tr)	0.9 mm

Details and additional sizes available are found on p. 328.

Item no.	Connection	
270.464	M5-male	--
270.340	M6-male	--

Item no.	Material	Weight
132.30x6.014_*	NBR (sw), NBR-AS (sw), SI (tr)	0.9 mm

Item no.	Connection	
270.464	M5-male	--
270.340	M6-male	--

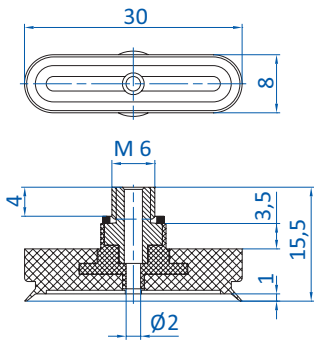
Item no.	Material	Weight
132.30x8.017_*	NBR (sw), NBR-AS (sw), SI (tr)	0.9 mm

Item no.	Connection	
50.152	10 mm	--
50.153	20 mm	--

Item no.	Material	Weight
130.30x8.125_*	NBR (sw), NBR-AS (sw), SI (tr)	0.9 mm

Details and additional sizes available are found on p. 328.

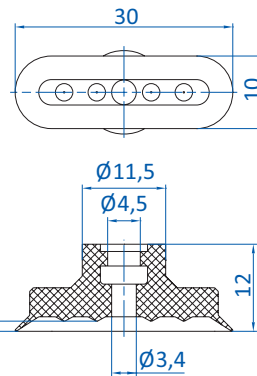
* When ordering please add the appropriate material code to item no.



Item no.	Height	...
50.095	19.5 mm	--
50.096	30 mm	--
50.097	39 mm	--
50.098	49.5 mm	--

Item no. 130.30x8.077.* Material: NBR (sw), NBR-AS (sw), SI (tr) | Thickness: 0.9 mm

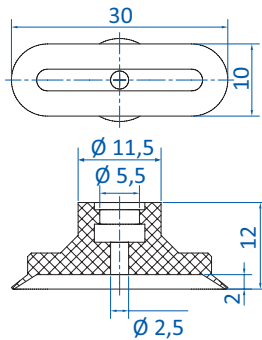
Details and additional sizes available are found on p. 328.



Item no.	Connection	...
270.094	M5-male	--
270.005	M5-female	--
270.095	G1/8-male	--
270.096	G1/8-female	--

Item no. 132.30x10.018.* Material: NBR (gr), SI (tr), PU (bl) | Thickness: 2 mm

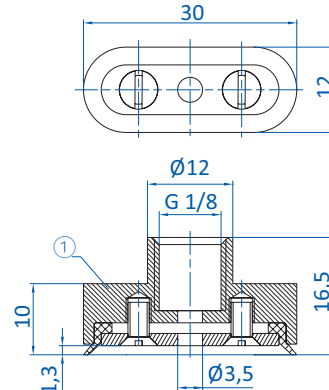
Details and additional sizes available are found on p. 308.
Ordering notes Use of a gripper clamp (available separately) recommended.



Item no.	Connection	...
270.094	M5-male	--
270.095	G1/8-male	--
270.096	G1/8-female	--

Item no. 132.30x10.084.19 Material: Thermalon® (bl) | Thickness: 1 mm

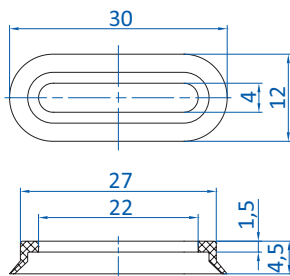
Details and additional sizes available are found on p. 312.
Ordering notes Use of a gripper clamp (available separately) recommended.



① = Aluminum

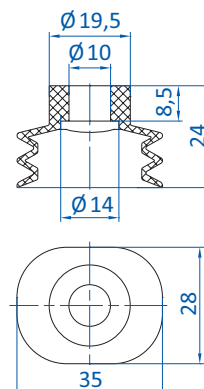
Item no. 130.30x12.057.* Material: SI (tr), NR (sw) | Thickness: 1 mm

Details and additional sizes available are found on p. 333.



Item no.	Connection	...
270.439	G1/8-female	--

Item no. 132.30x12.025.* Material: SI (tr), NR (sw) | Thickness: 1 mm



Item no.	Connection	...
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

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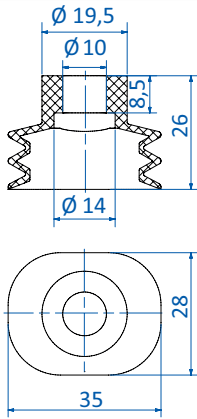
Item no. 138.35x28.001.* Material: Vinyl (bl) | Thickness: 9 mm

Details and additional sizes available are found on p. 316.

* When ordering please add the appropriate material code to item no.



Oval vacuum cups by size



	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

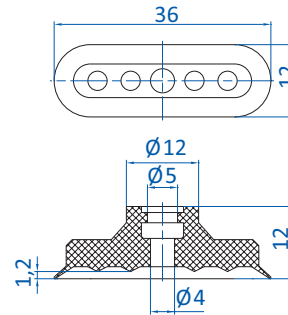
BESTSELLER

Item no.
138.35x28.048._*

Material
Vinyl (bl)

9 mm

Details and additional sizes available are found on p. 316.



	Connection	
270.094	M5-male	--
270.005	M5-female	--
270.095	G1/8-male	--
270.096	G1/8-female	--

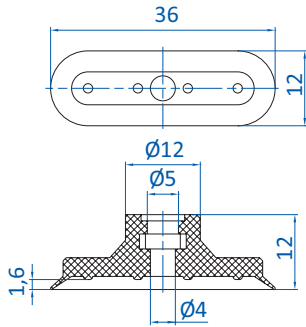
Item no.
132.36x12.019._*

Material
NBR (gr), SI (tr), PU (bl)

2 mm

Details and additional sizes available are found on p. 308.

Ordering notes Use of a gripper clamp (available separately) recommended.



	Connection	
270.431	G1/8-male	--

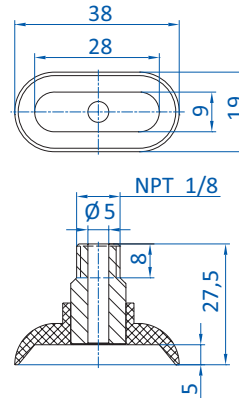
Item no.
132.36x12.068.14

Material
HNBR (ge)

2 mm

Details and additional sizes available are found on p. 314.

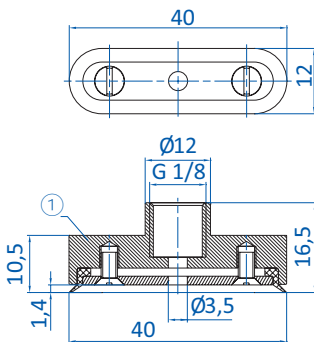
Ordering notes Use of a gripper clamp (available separately) recommended.



Item no.
130.38x19.085._*

Material
Vinyl (bl)

0 mm



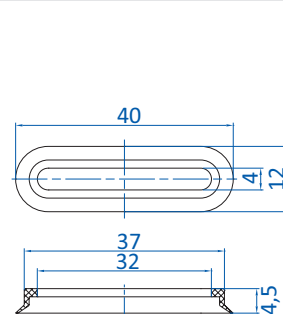
① = Aluminum

Item no.
130.40x12.058._*

Material
SI (tr), NR (sw)

1 mm

Details and additional sizes available are found on p. 333.



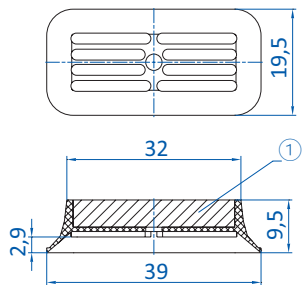
	Connection	
270.440	G1/8-female	--

Item no.
132.40x12.027._*

Material
SI (tr), NR (sw)

1 mm

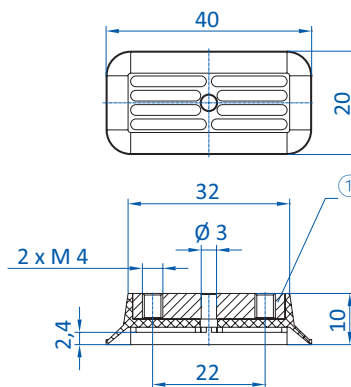
* When ordering please add the appropriate material code to item no.



① = Steel

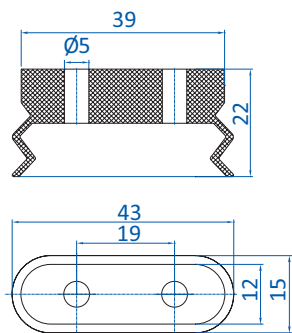
Item no. 9.40x20.041_*	Material NBR (gr), SI (tr)	2 mm
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Ordering notes Customized drilling patterns on request



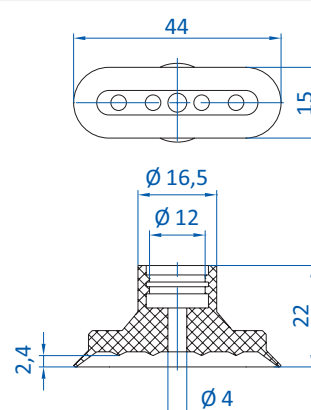
① = Steel

Item no. 9.40x20.057_*	Material SI (tr)	2 mm
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	Connection	
270.013	M5-male	--

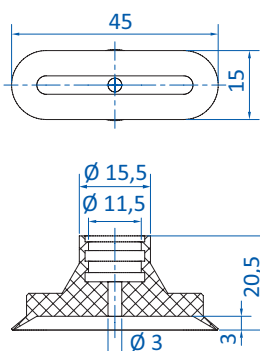
Item no. 138.43x15.001_*	Material Vinyl (bl)	8 mm
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	Connection	
270.097	G1/4-male	--
270.098	G1/4-female	--

Item no. 132.45x15.020_*	Material NBR (gr), SI (tr), PU (bl)	3 mm
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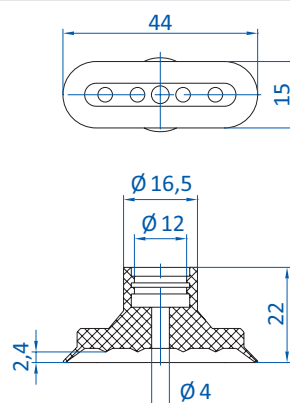
Details and additional sizes available are found on p. 308.
Ordering notes Use of a gripper clamp (available separately) recommended.



	Connection	
270.097	G1/4-male	--
270.098	G1/4-female	--

Item no. 132.45x15.085.19	Material Thermalon® (bl)	2 mm
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Details and additional sizes available are found on p. 312.
Ordering notes Use of a gripper clamp (available separately) recommended.



	Connection	
270.097	G1/4-male	--
270.098	G1/4-female	--

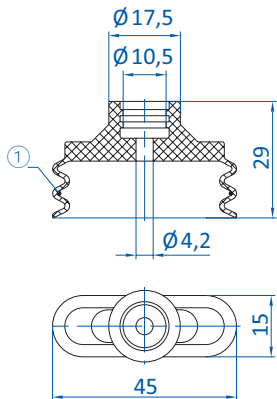
Item no. 132.45x15.064.14	Material HNBR (ge)	3 mm
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Details and additional sizes available are found on p. 314.
Ordering notes Use of a gripper clamp (available separately) recommended.

* When ordering please add the appropriate material code to item no.



Oval vacuum cups by size

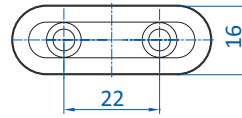


	Connection	
270.097	G1/4-male	--
270.098	G1/4-female	--

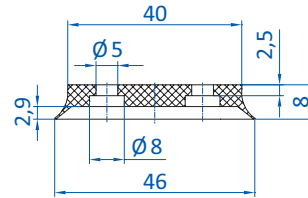
① = Wire strap stiffening

Item no.
138.45x15.003._* **Material**
NBR (gr), SI (tr) 8 mm

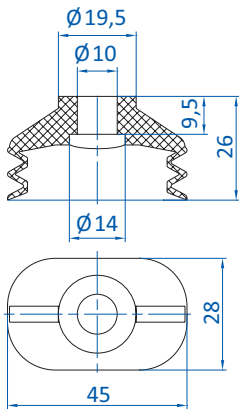
Details and additional sizes available are found on p. 311.
Ordering notes Use of a gripper clamp (available separately) recommended.



	Connection	
270.310	M5-male	--
270.493	G1/8-male	--
270.494	G1/8-female	--



Item no.
9.45x15.038._* **Material**
NBR (sw), SI (tr), SI-LE (tr) 3 mm

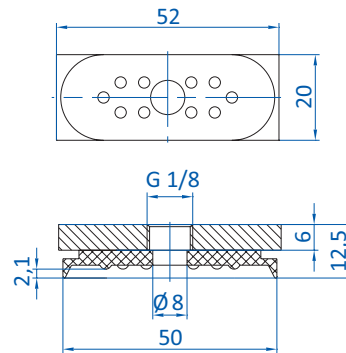


	Connection	
270.177	M10-male	--
270.451	G1/4-male	--
270.452	G1/4-female	--

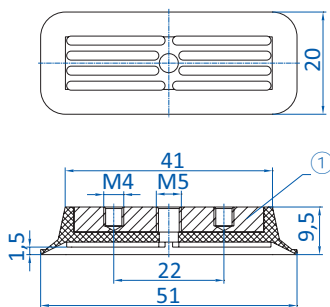
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Item no.
138.45x28.013._* **Material**
Vinyl (bl) 9 mm

Details and additional sizes available are found on p. 316.

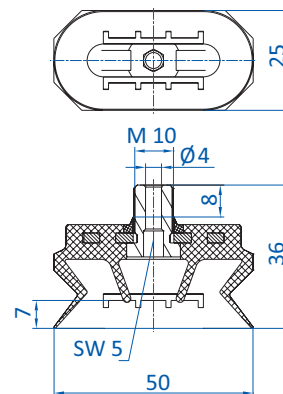


Item no.
130.50x20.102._* **Material**
NBR (gr) 3 mm



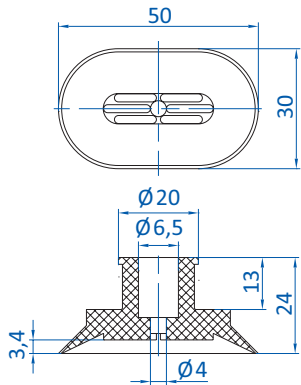
① = Aluminum

Item no.
9.50x20.034._* **Material**
NBR (gr), SI (tr) 2 mm



Item no.
130.50x25.094._* **Material**
NBR (sw), SI (tr) 8 mm

* When ordering please add the appropriate material code to item no.

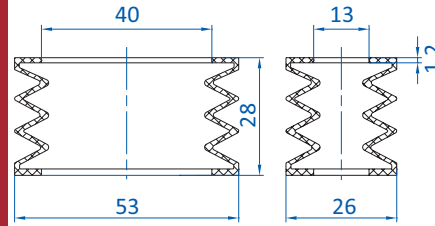


	Connection	
270.443	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

Item no.
132.50x30.030.*

Material
NBR (gr), SBR (br)

5 mm



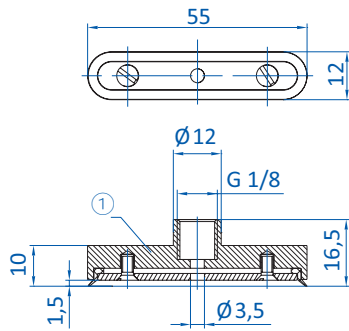
	Connection	
270.508	G1/8-female	--

Item no.
209.52x25.006.*

Material
SI (tr), SI (tr) vers

13 mm

Details and additional sizes available are found on p. 318.
Ordering notes On request, available with wire reinforcement



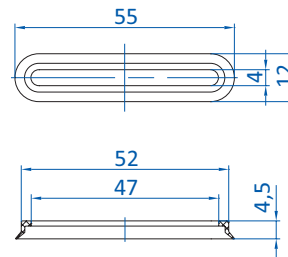
① = Aluminum

Item no.
130.55x12.082.*

Material
NBR (sw), SI (tr), NR (sw)

1 mm

Details and additional sizes available are found on p. 333.



	Connection	
270.441	G1/8-female	--

Item no.
132.55x12.029.*

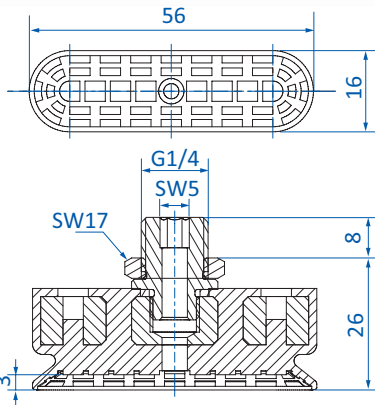
Material
NBR (sw), SI (tr), NR (sw)

1 mm

* When ordering please add the appropriate material code to item no.



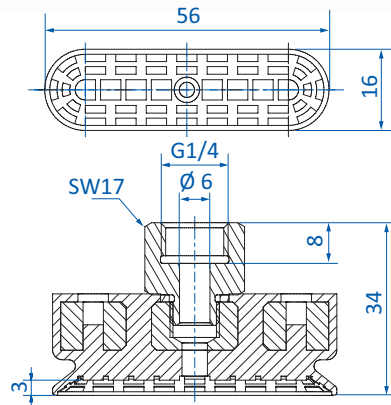
Oval vacuum cups by size



**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
130.55x16.140.* **Material**
NBR (bl) 3 mm

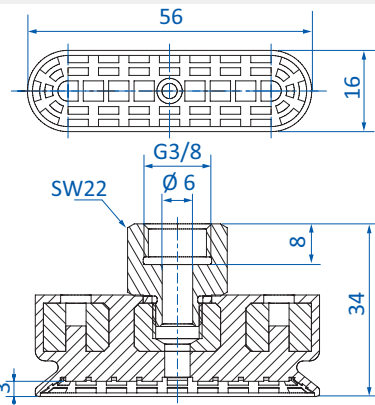
Details and additional sizes available are found on p. 321.



**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
130.55x16.141.* **Material**
NBR (bl) 3 mm

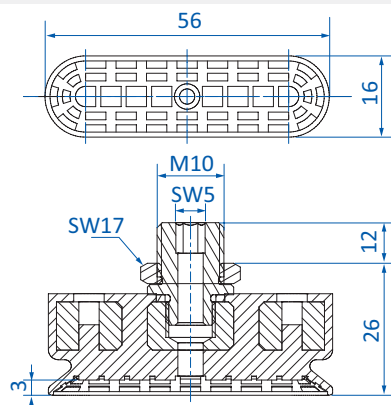
Details and additional sizes available are found on p. 321.



**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
130.55x16.142.* **Material**
NBR (bl) 3 mm

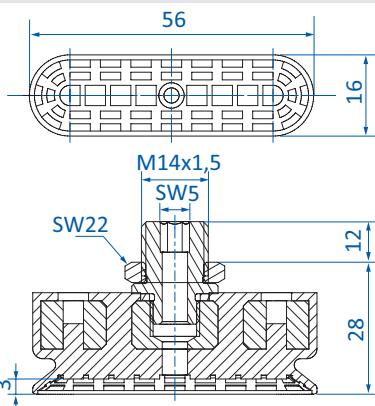
Details and additional sizes available are found on p. 321.



**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
130.55x16.143.* **Material**
NBR (bl) 3 mm

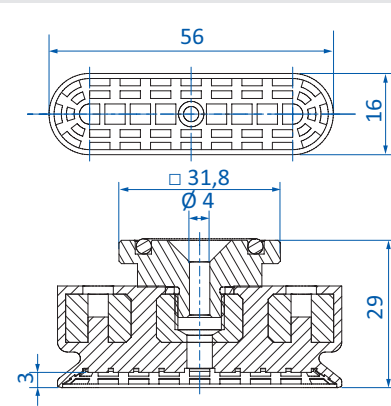
Details and additional sizes available are found on p. 321.



**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
130.55x16.144.* **Material**
NBR (bl) 3 mm

Details and additional sizes available are found on p. 321.

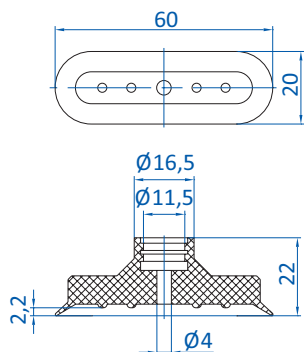


**PARTICULARLY
SUITABLE FOR OILY
SHEET METAL**

Item no.
130.55x16.145.* **Material**
NBR (bl) 3 mm

Details and additional sizes available are found on p. 321.

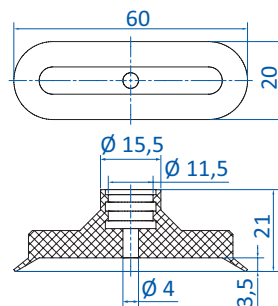
* When ordering please add the appropriate material code to item no.



	Connection	
270.097	G1/4-male	--
270.098	G1/4-female	--

Item no.
132.60x20.022.* **Material**
NBR (gr), SI (tr), PU (bl) 3 mm

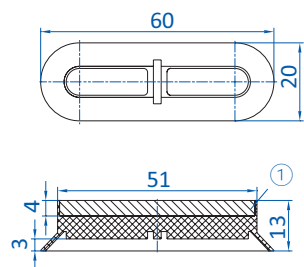
Details and additional sizes available are found on p. 308.
Ordering notes Use of a gripper clamp (available separately) recommended.



	Connection	
270.097	G1/4-male	--
270.098	G1/4-female	--

Item no.
132.60x20.086.19 **Material**
Thermalon® (bl) 2.5 mm

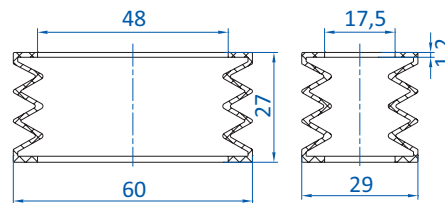
Details and additional sizes available are found on p. 312.
Ordering notes Use of a gripper clamp (available separately) recommended.



① = Steel

Item no.
9.60x20.003.* **Material**
SBR (sw), NR (bg) 4 mm

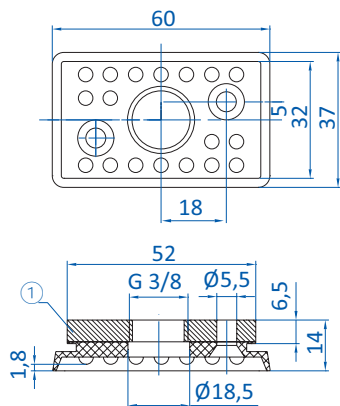
Ordering notes Customized drilling patterns on request



	Connection	
270.509	G1/4-female	--

Item no.
209.60x29.001.* **Material**
NBR (sw), NBR (sw) vers, SI (tr),
SI-LE (tr), SI (tr) vers, SI-LE (tr) vers 13 mm

Details and additional sizes available are found on p. 318.
Ordering notes On request, available with wire reinforcement



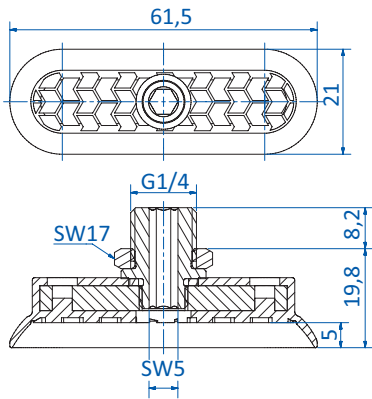
① = Aluminum

Item no.
130.60x38.091.* **Material**
NBR (gr) 2 mm

* When ordering please add the appropriate material code to item no.



Oval vacuum cups by size



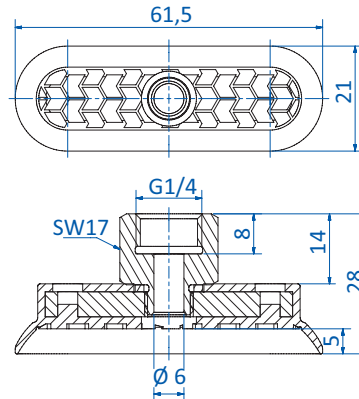
FOR STRONGLY CURVED METAL SHEETS

Item no.
130.60x20.197.*

Material
NBR (bl)

5 mm

Details and additional sizes available are found on p. 326.



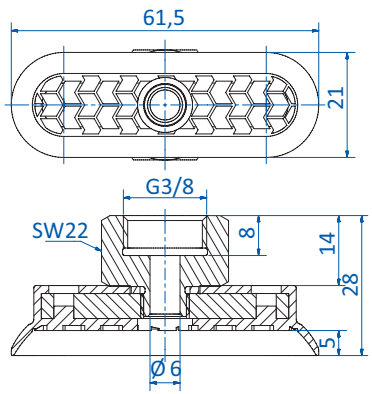
FOR STRONGLY CURVED METAL SHEETS

Item no.
130.60x20.192.*

Material
NBR (bl)

5 mm

Details and additional sizes available are found on p. 326.



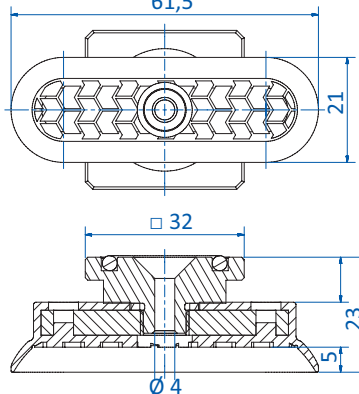
FOR STRONGLY CURVED METAL SHEETS

Item no.
130.60x20.200.*

Material
NBR (bl)

5 mm

Details and additional sizes available are found on p. 326.



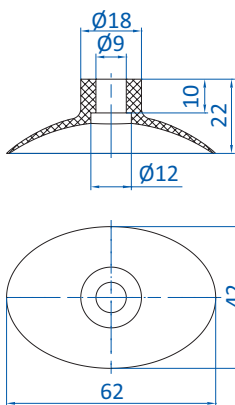
FOR STRONGLY CURVED METAL SHEETS

Item no.
130.60x20.203.*

Material
NBR (bl)

5 mm

Details and additional sizes available are found on p. 326.

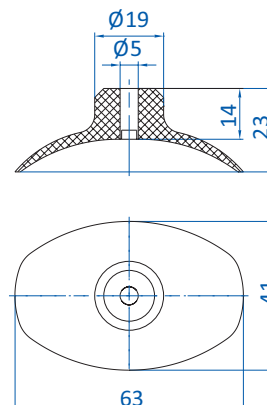


PERFECT FOR SOAPS

Item no.
130.62x42.111.*

Material
Vulkollan® (br)

7 mm



PERFECT FOR SOAPS

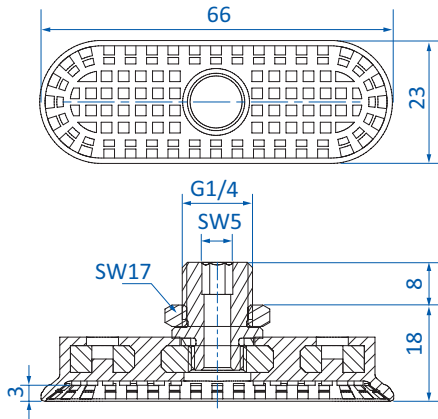
Item no.
132.60x42.052.*

Material
SI (g)

8 mm

	Connection	
270.443	M5-male	--
270.238	G1/8-male	--
270.110	G1/8-female	--
270.534	G1/4-male	--

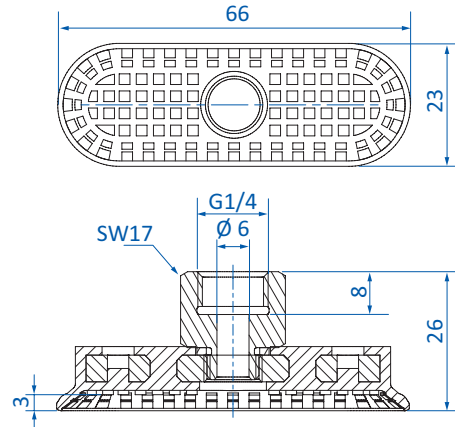
* When ordering please add the appropriate material code to item no.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 130.65x20.146.*	Material NBR (bl)	3 mm
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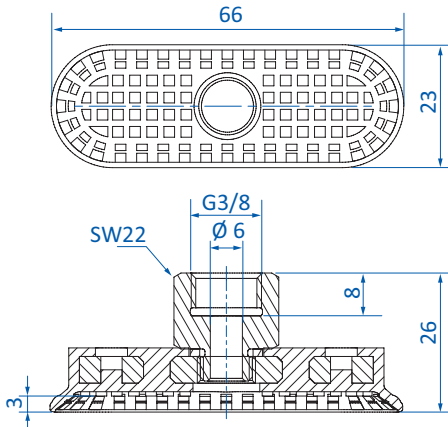
Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 130.65x20.147.*	Material NBR (bl)	3 mm
------------------------------------	-----------------------------	------

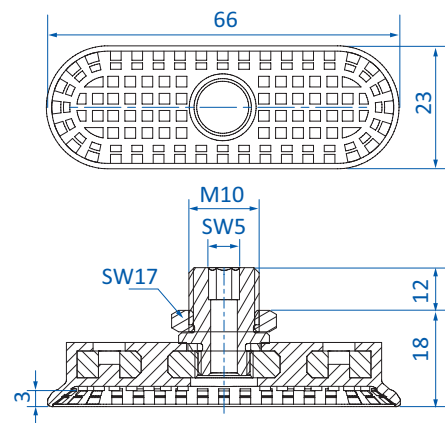
Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 130.65x20.148.*	Material NBR (bl)	3 mm
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Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

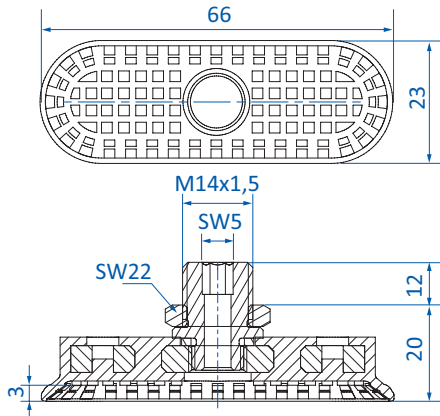
Item no. 130.65x20.149.*	Material NBR (bl)	3 mm
------------------------------------	-----------------------------	------

Details and additional sizes available are found on p. 321.

* When ordering please add the appropriate material code to item no.



Oval vacuum cups by size



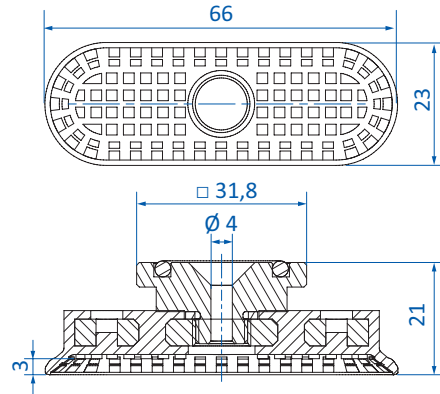
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
130.65x20.150._*

Material
NBR (bl)



Details and additional sizes available are found on p. 321.



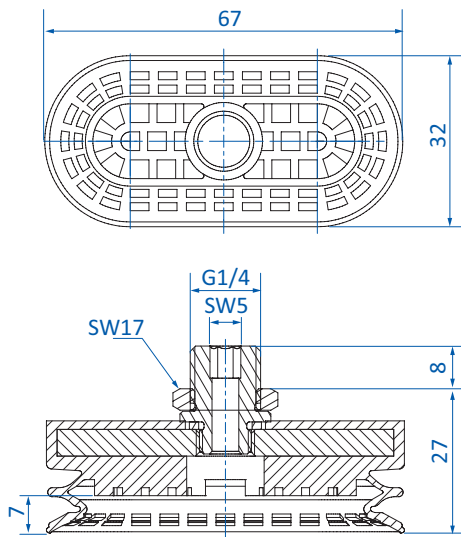
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
130.65x20.151._*

Material
NBR (bl)



Details and additional sizes available are found on p. 321.



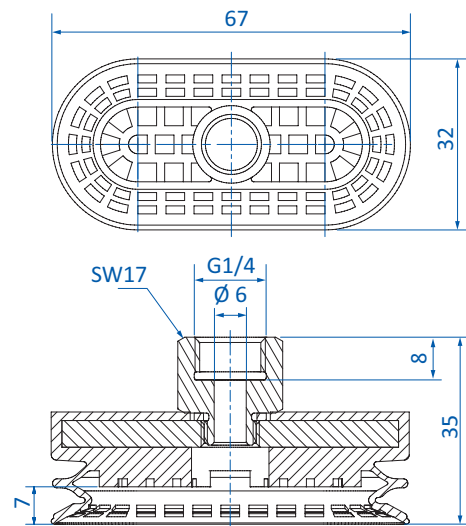
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
138.65x30.023._*

Material
NBR (bl)



Details and additional sizes available are found on p. 324.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

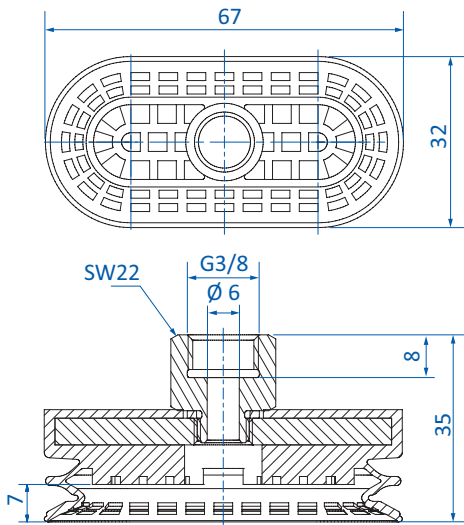
Item no.
138.65x30.024._*

Material
NBR (bl)



Details and additional sizes available are found on p. 324.

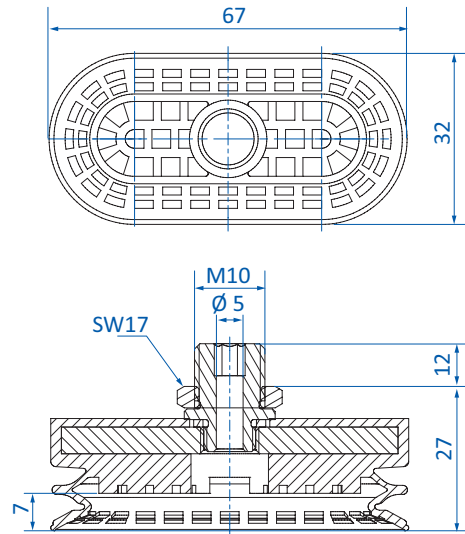
* When ordering please add the appropriate material code to item no.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 138.65x30.025.* Material NBR (bl) 7 mm

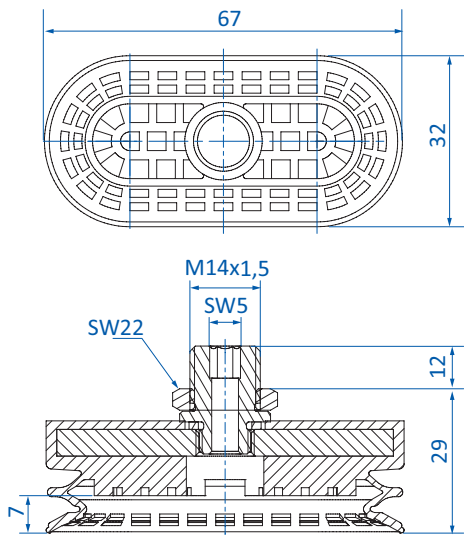
Details and additional sizes available are found on p. 324.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 138.65x30.026.* Material NBR (bl) 7 mm

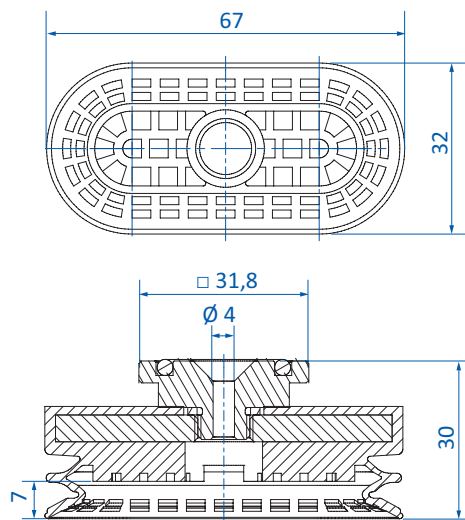
Details and additional sizes available are found on p. 324.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 138.65x30.027.* Material NBR (bl) 7 mm

Details and additional sizes available are found on p. 324.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

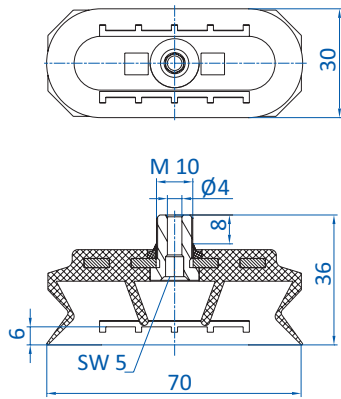
Item no. 138.65x30.028.* Material NBR (bl) 7 mm

Details and additional sizes available are found on p. 324.

* When ordering please add the appropriate material code to item no.



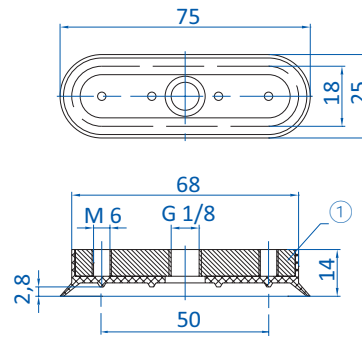
Oval vacuum cups by size



Item no.
130.70x30.095._*

Material
NBR (sw)

8 mm

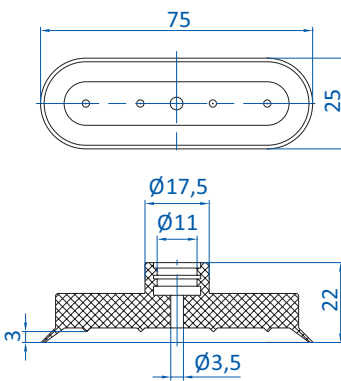


① = Aluminum

Item no.
130.75x25.080._*

Material
NBR (sw), SI (r)

3 mm



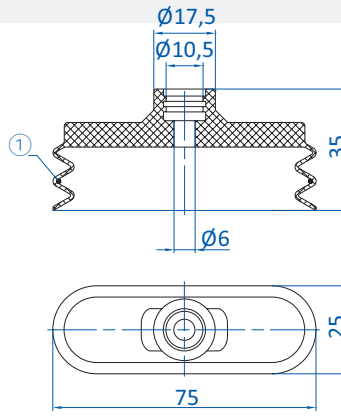
Item no.	Connection	
270.097	G1/4-male	--
270.098	G1/4-female	--

Item no.
132.75x25.023._*

Material
NBR (sw), SI (tr)

3 mm

Details and additional sizes available are found on p. 308.
Ordering notes Use of a gripper clamp (available separately) recommended.



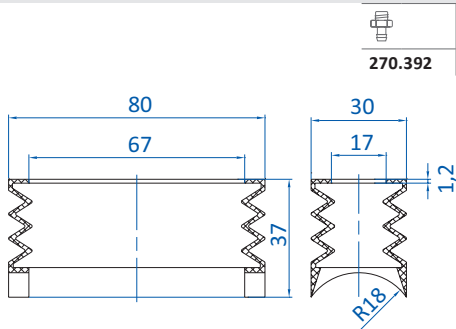
① = Wire strap stiffening

Item no.
138.75x25.004._*

Material
NBR (gr), SI (tr)

11 mm

Details and additional sizes available are found on p. 311.
Ordering notes Use of a gripper clamp (available separately) recommended.



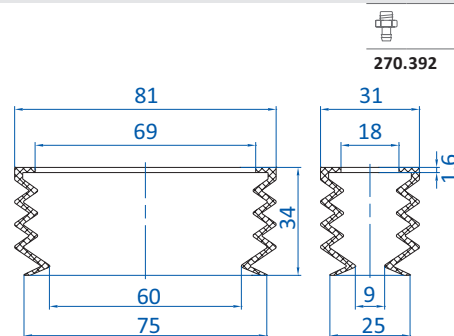
Item no.	Connection	
270.392	G1/4-female	--

Item no.
201.79x29.002._*

Material
SI (tr), SI (tr) vers

16 mm

Details and additional sizes available are found on p. 318.
Ordering notes On request, available with wire reinforcement



Item no.	Connection	
270.392	G1/4-female	--

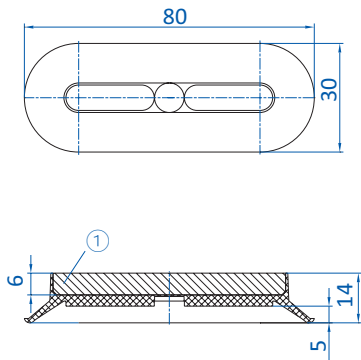
Item no.
209.80x30.003._*

Material
SI (tr), SI-LE (tr), SI (tr) vers,
SI-LE (tr) vers


20 mm


Details and additional sizes available are found on p. 318.
Ordering notes On request, available with wire reinforcement

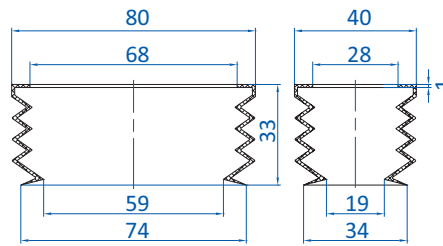
* When ordering please add the appropriate material code to item no.




① = Aluminum


Item no. 9.80x30.004.*	Material NR (br)	 5 mm
Ordering notes Customized drilling patterns on request		

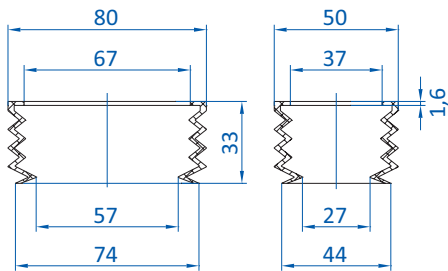
	Connection	
270.510	G1/4-female	--




Item no. 209.80x40.004.*	Material SI (tr), SI-LE (tr), SI (tr) vers, SI-LE (tr) vers	 20 mm
Ordering notes On request, available with wire reinforcement		

Details and additional sizes available are found on p. 318.

	Connection	
270.511	G1/4-female	--



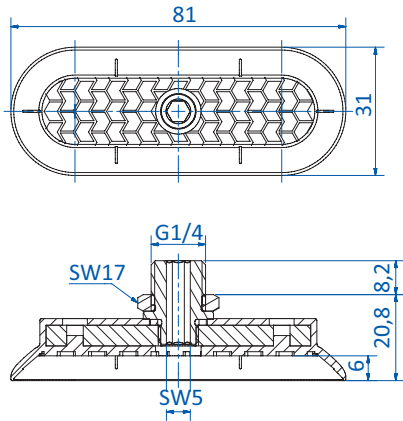
Item no. 209.80x50.005.*	Material SI (tr), SI-LE (tr), SI (tr) vers, SI-LE (tr) vers	 20 mm
Ordering notes On request, available with wire reinforcement		

Details and additional sizes available are found on p. 318.

* When ordering please add the appropriate material code to item no.



Oval vacuum cups by size



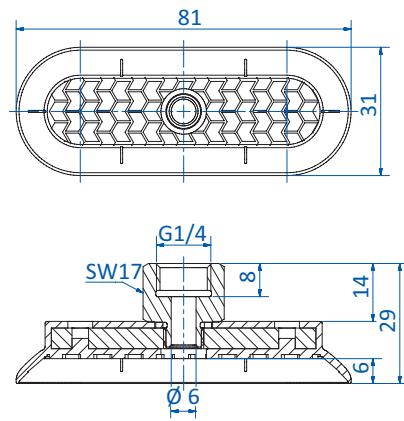
FOR STRONGLY CURVED METAL SHEETS

Item no.
130.80x30.198._*

Material
NBR (bl)

6 mm

Details and additional sizes available are found on p. 326.



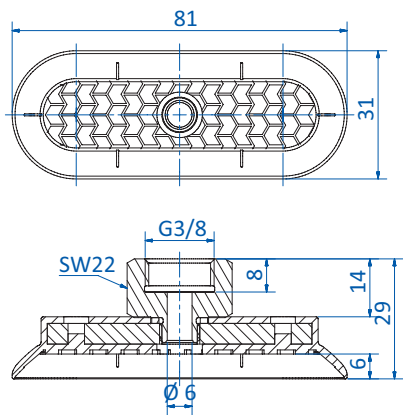
FOR STRONGLY CURVED METAL SHEETS

Item no.
130.80x30.194._*

Material
NBR (bl)

6 mm

Details and additional sizes available are found on p. 326.



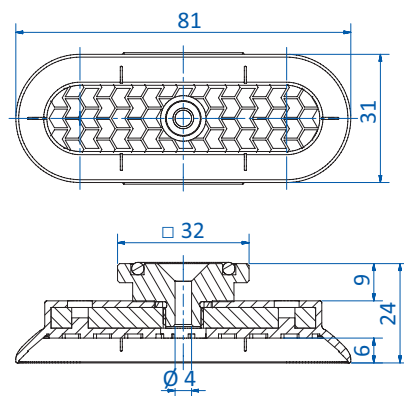
FOR STRONGLY CURVED METAL SHEETS

Item no.
130.80x30.201._*

Material
NBR (bl)

6 mm

Details and additional sizes available are found on p. 326.



FOR STRONGLY CURVED METAL SHEETS

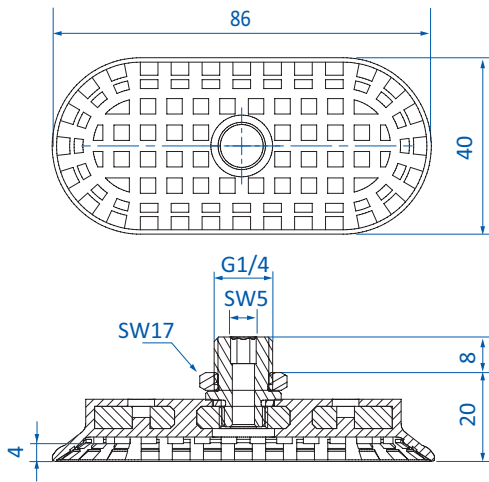
Item no.
130.80x30.204._*

Material
NBR (bl)

6 mm

Details and additional sizes available are found on p. 326.

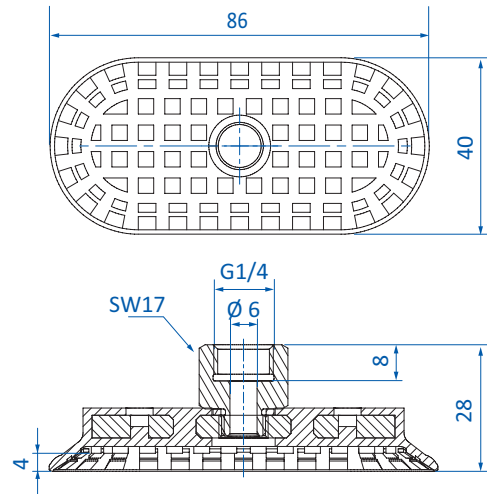
* When ordering please add the appropriate material code to item no.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 130.85x40.158.* **Material** NBR (bl) 4 mm

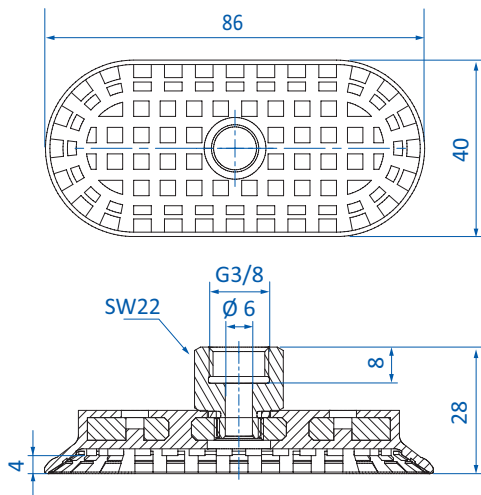
Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 130.85x40.159.* **Material** NBR (bl) 4 mm

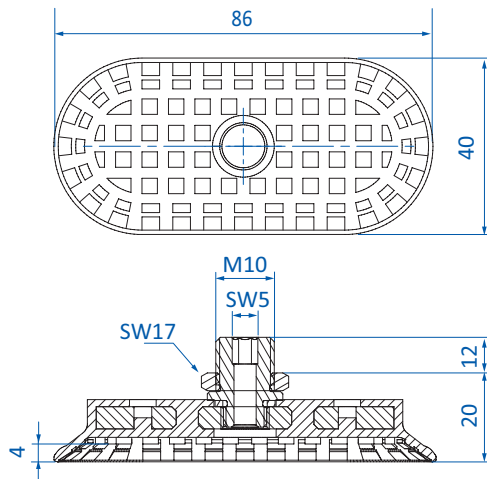
Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 130.85x40.160.* **Material** NBR (bl) 4 mm

Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

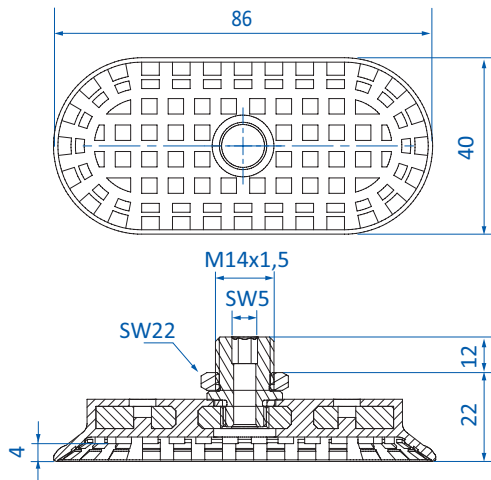
Item no. 130.85x40.161.* **Material** NBR (bl) 4 mm

Details and additional sizes available are found on p. 321.

* When ordering please add the appropriate material code to item no.



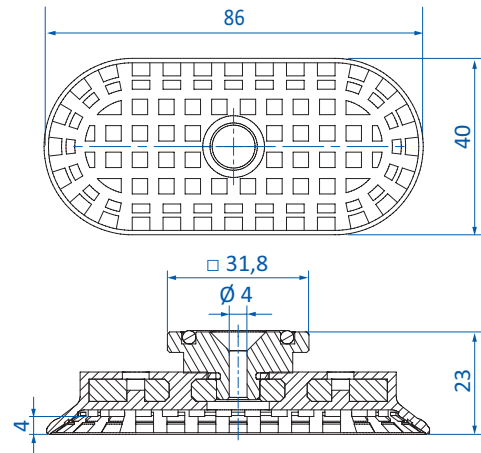
Oval vacuum cups by size



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. **130.85x40.162._*** Material NBR (bl) 4 mm

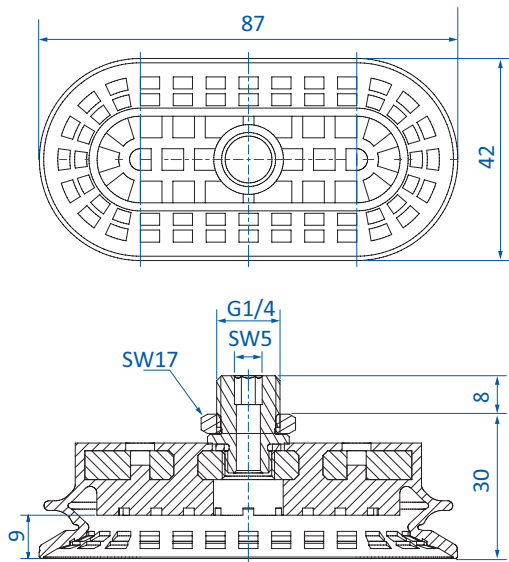
Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. **130.85x40.163._*** Material NBR (bl) 4 mm

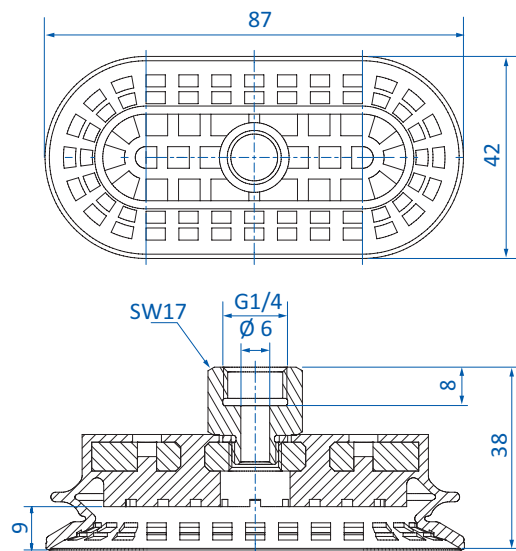
Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. **138.85x40.029._*** Material NBR (bl) 9 mm

Details and additional sizes available are found on p. 324.

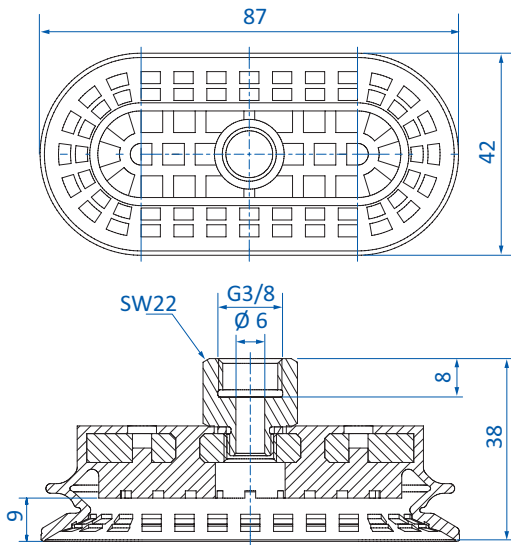


PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. **138.85x40.030._*** Material NBR (bl) 9 mm

Details and additional sizes available are found on p. 324.

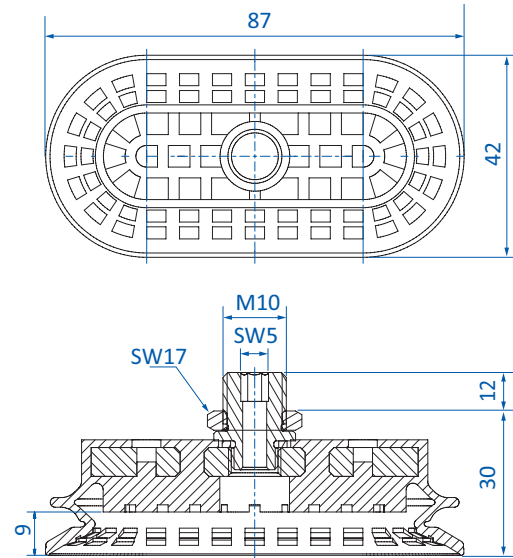
* When ordering please add the appropriate material code to item no.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 138.85x40.031.*
Material NBR (bl)
 9 mm

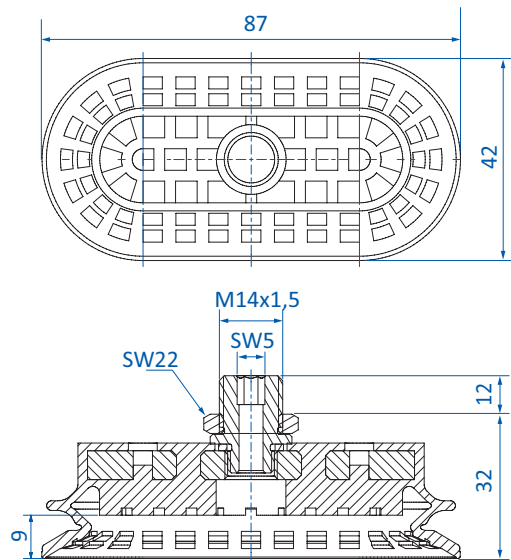
Details and additional sizes available are found on p. 324.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 138.85x40.032.*
Material NBR (bl)
 9 mm

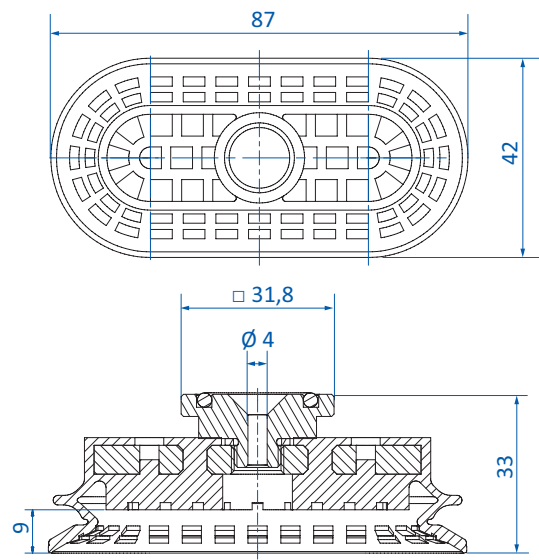
Details and additional sizes available are found on p. 324.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 138.85x40.033.*
Material NBR (bl)
 9 mm

Details and additional sizes available are found on p. 324.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

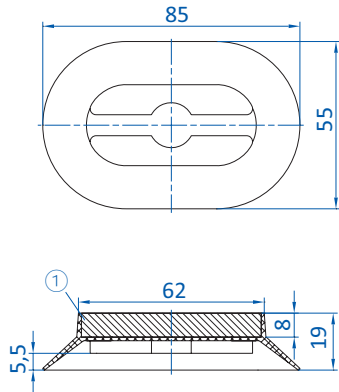
Item no. 138.85x40.034.*
Material NBR (bl)
 9 mm

Details and additional sizes available are found on p. 324.

* When ordering please add the appropriate material code to item no.



Oval vacuum cups by size



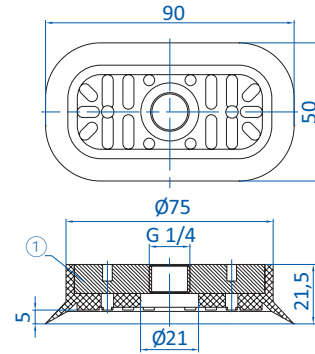
① = Aluminum

Item no.
9.85x55.006._*

Material
NBR (gr), NR (bg)

7 mm

Ordering notes Customized drilling patterns on request



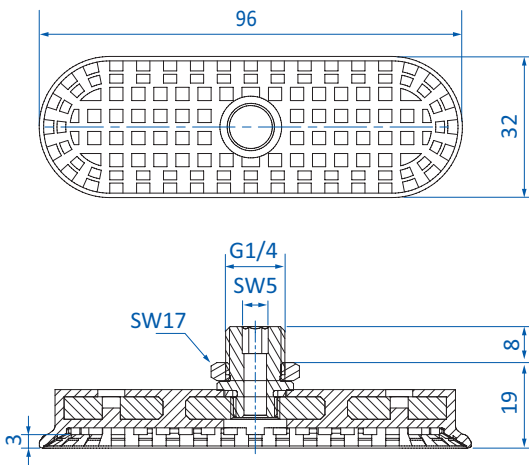
① = Aluminum

Item no.
130.90x50.113.4

Material
NR (bg)

5 mm

Details and additional sizes available are found on p. 334.



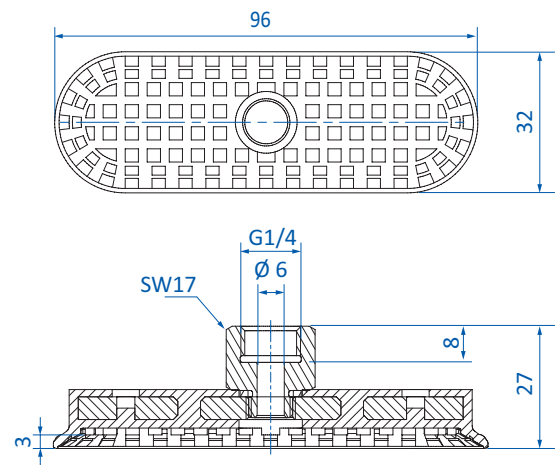
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
130.95x30.152._*

Material
NBR (bl)

3 mm

Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

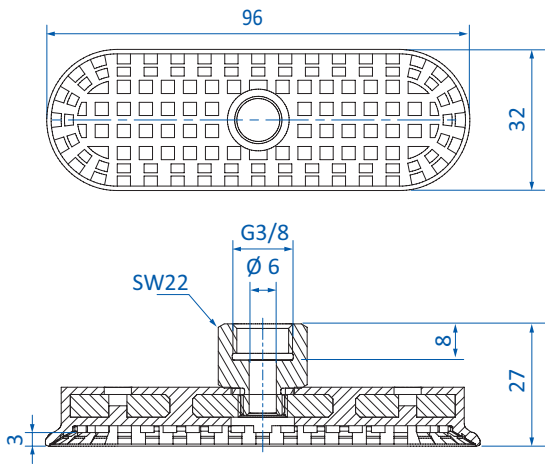
Item no.
130.95x30.153._*

Material
NBR (bl)

3 mm

Details and additional sizes available are found on p. 321.

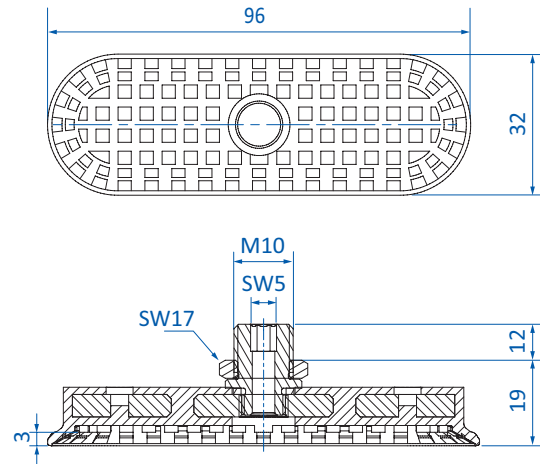
* When ordering please add the appropriate material code to item no.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 130.95x30.154._*	Material NBR (bl)	3 mm
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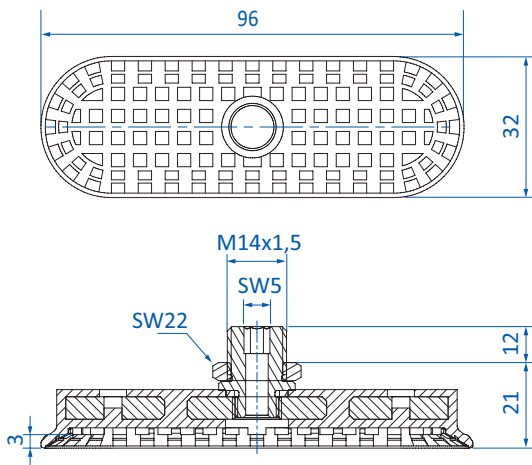
Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 130.95x30.155._*	Material NBR (bl)	3 mm
-------------------------------------	-----------------------------	------

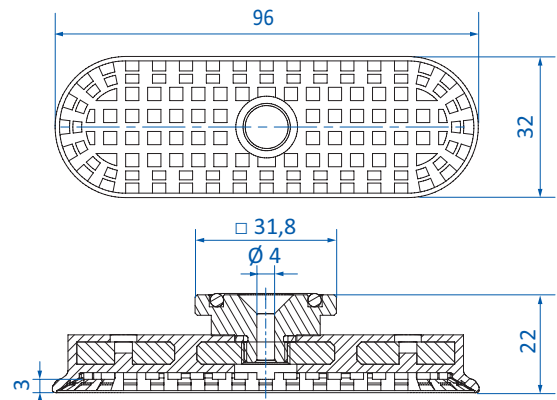
Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 130.95x30.156._*	Material NBR (bl)	3 mm
-------------------------------------	-----------------------------	------

Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

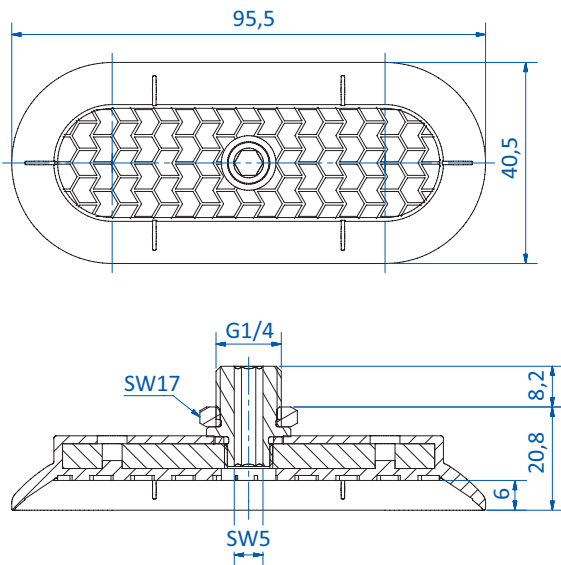
Item no. 130.95x30.157._*	Material NBR (bl)	3 mm
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Details and additional sizes available are found on p. 321.

* When ordering please add the appropriate material code to item no.



Oval vacuum cups by size



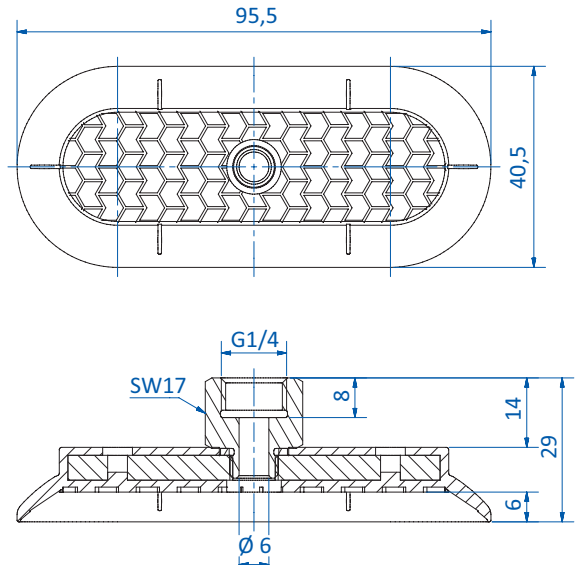
FOR STRONGLY CURVED METAL SHEETS

Item no.
130.95x40.199._*

Material
NBR (bl)

6 mm

Details and additional sizes available are found on p. 326.



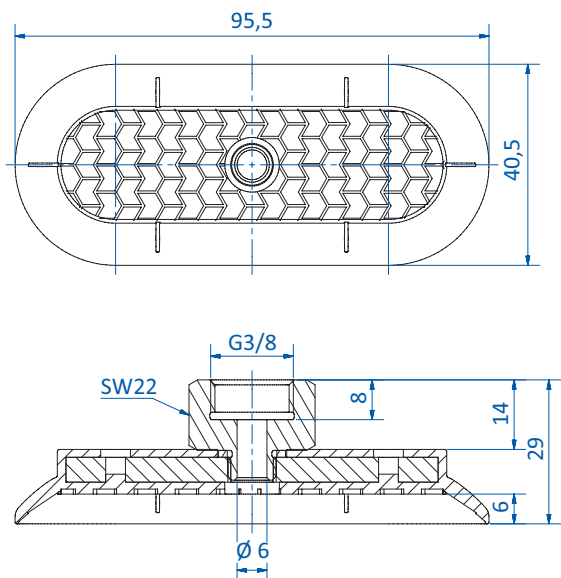
FOR STRONGLY CURVED METAL SHEETS

Item no.
130.95x40.196._*

Material
NBR (bl)

6 mm

Details and additional sizes available are found on p. 326.



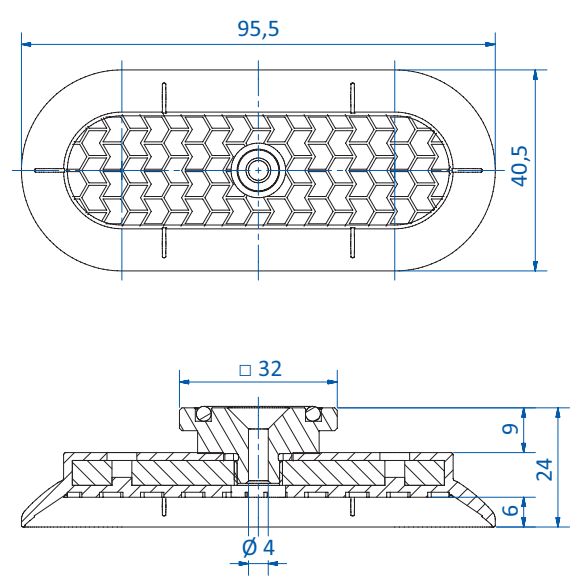
FOR STRONGLY CURVED METAL SHEETS

Item no.
130.95x40.202._*

Material
NBR (bl)

6 mm

Details and additional sizes available are found on p. 326.



FOR STRONGLY CURVED METAL SHEETS

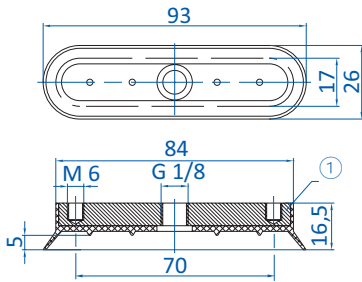
Item no.
130.95x40.205._*

Material
NBR (bl)

6 mm

Details and additional sizes available are found on p. 326.

* When ordering please add the appropriate material code to item no.

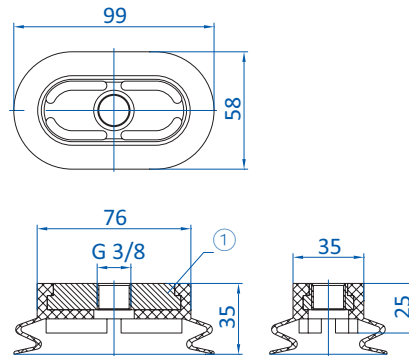


① = Aluminum

Item no.
130.96x27.036._*

Material
SI (r)

6 mm



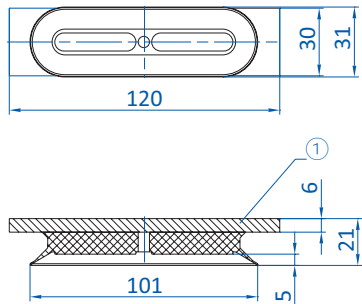
① = Aluminum

Item no.
130.97x55.126._*

Material
Vinyl (bl)

11 mm

Details and additional sizes available are found on p. 316.



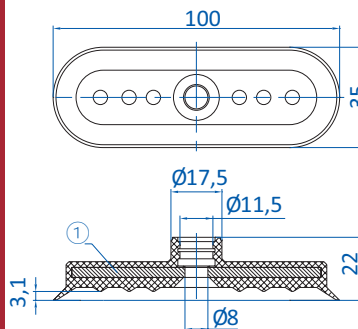
① = Steel

Item no.
9.100x30.007._*

Material
NBR (gr)

5 mm

Ordering notes Customized drilling patterns on request



① = Aluminum

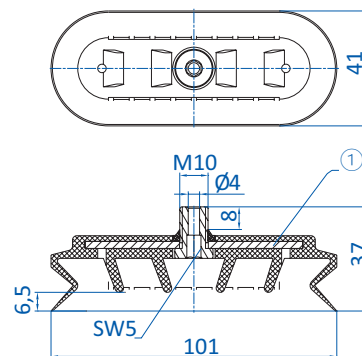
Item no.
132.100x35.26._*

Material
NBR (sw)

3 mm

Details and additional sizes available are found on p. 308.
Ordering notes Use of a gripper clamp (available separately) recommended.

	Connection	
270.097	G1/4-male	--
270.098	G1/4-female	--



① = Steel

Item no.
130.100x40.096._*

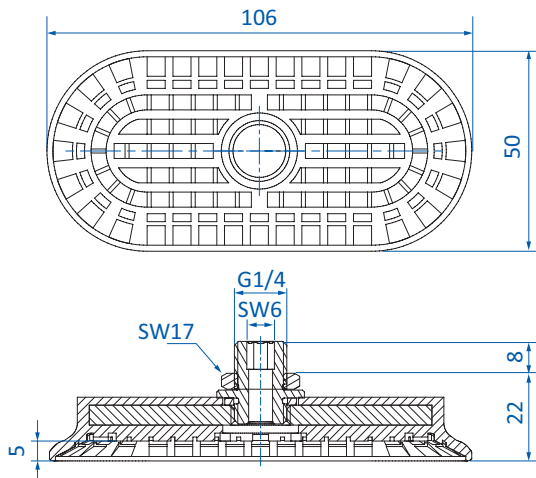
Material
NBR (sw)

8 mm

* When ordering please add the appropriate material code to item no.



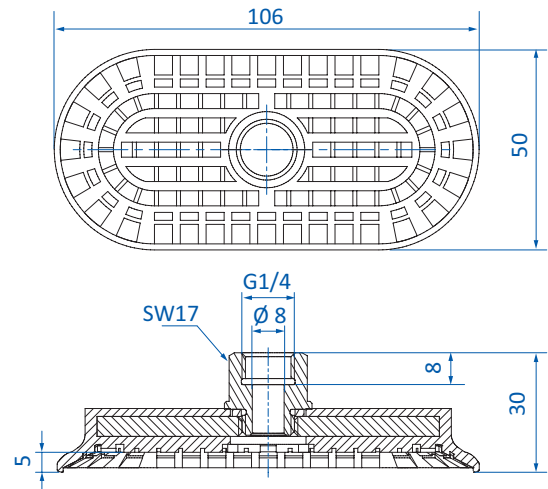
Oval vacuum cups by size



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. **130.105x50.164._*** Material NBR (bl) 5 mm

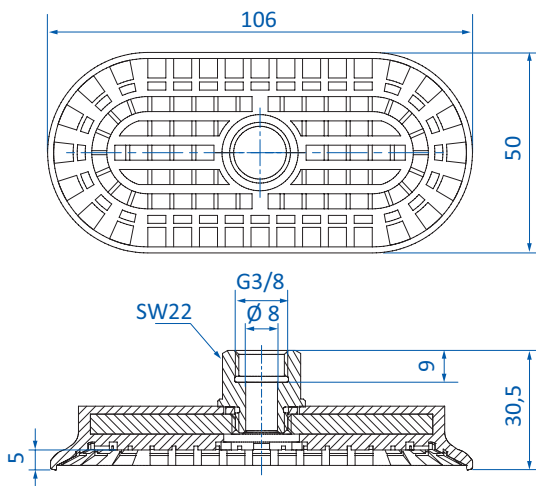
Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. **130.105x50.165._*** Material NBR (bl) 5 mm

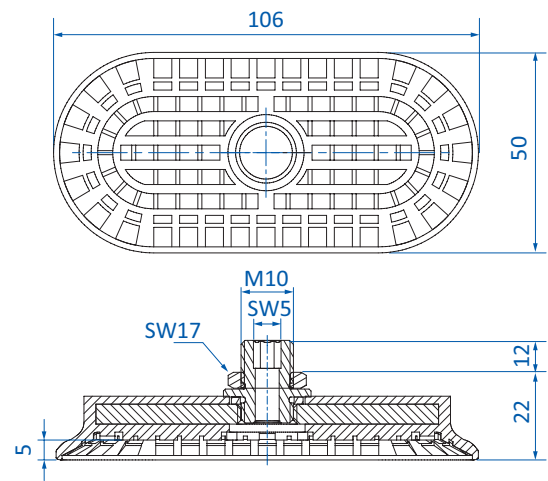
Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. **130.105x50.166._*** Material NBR (bl) 5 mm

Details and additional sizes available are found on p. 321.

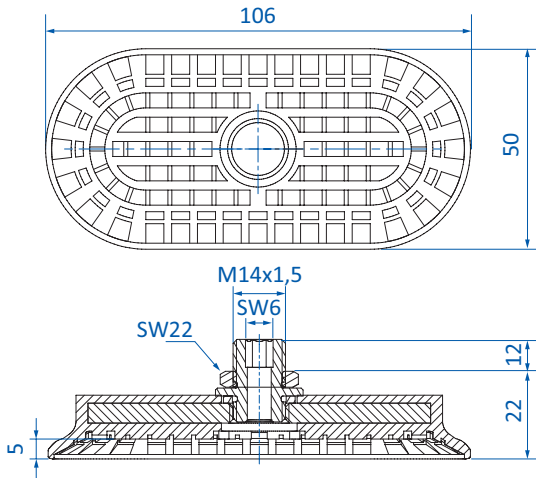


PARTICULARLY SUITABLE FOR OILY SHEET METAL


Item no. **130.105x50.167._*** Material NBR (bl) 5 mm

Details and additional sizes available are found on p. 321.

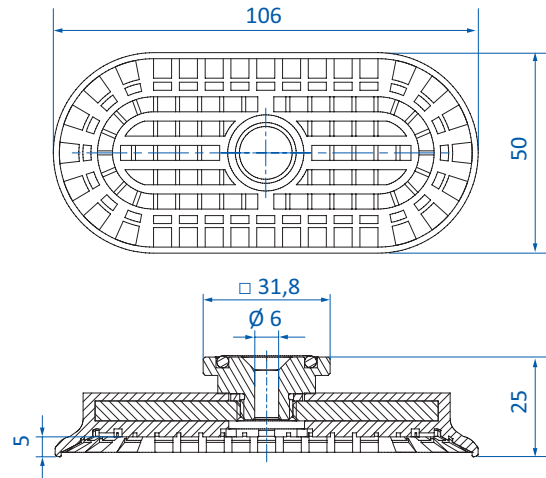
* When ordering please add the appropriate material code to item no.




PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
130.105x50.168._* **Material**
NBR (bl)  5 mm

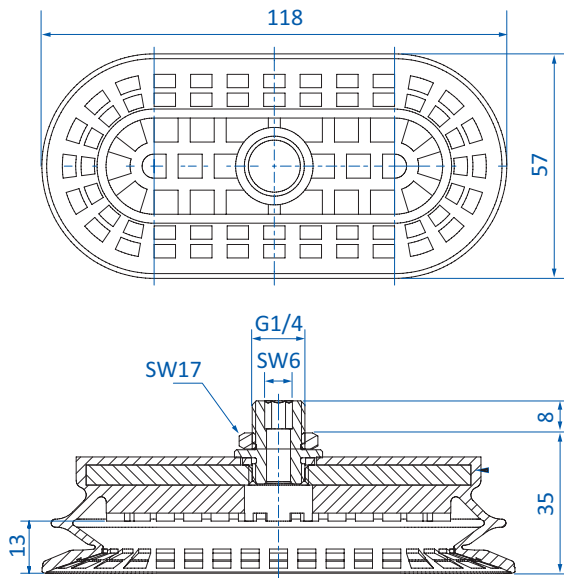
Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
130.105x50.169._* **Material**
NBR (bl)  5 mm

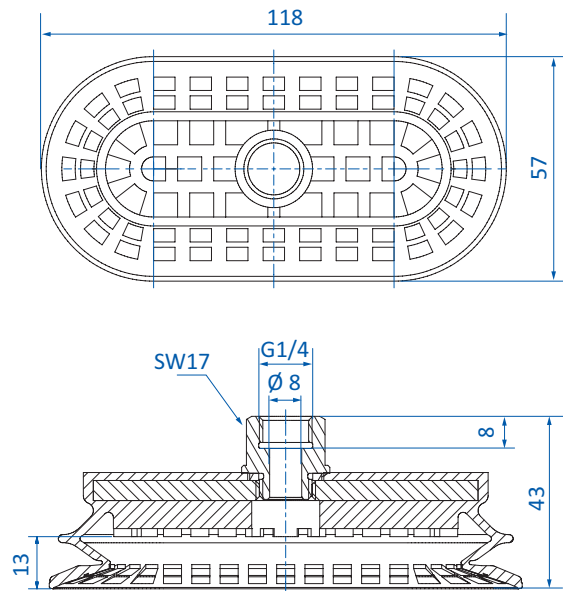
Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
138.115x55.035._* **Material**
NBR (bl)  13 mm

Details and additional sizes available are found on p. 324.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

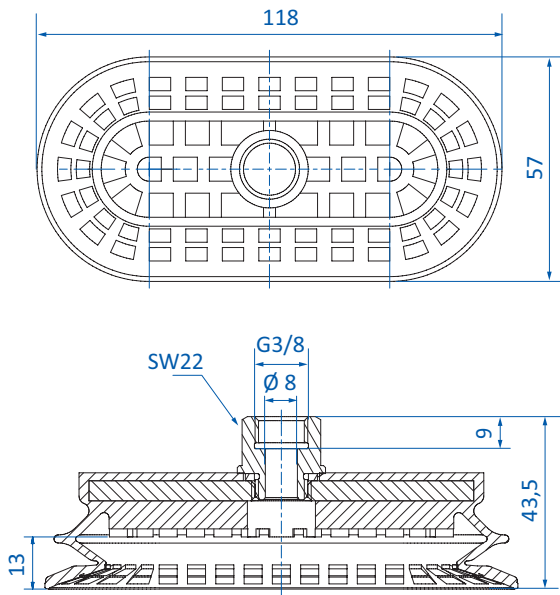
Item no.
138.115x55.036._* **Material**
NBR (bl)  13 mm

Details and additional sizes available are found on p. 324.

* When ordering please add the appropriate material code to item no.



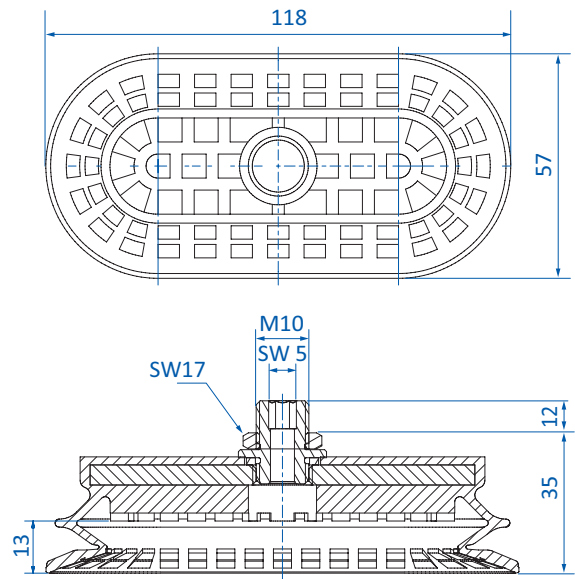
Oval vacuum cups by size



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
138.115x55.037._* **Material**
NBR (bl) 13 mm

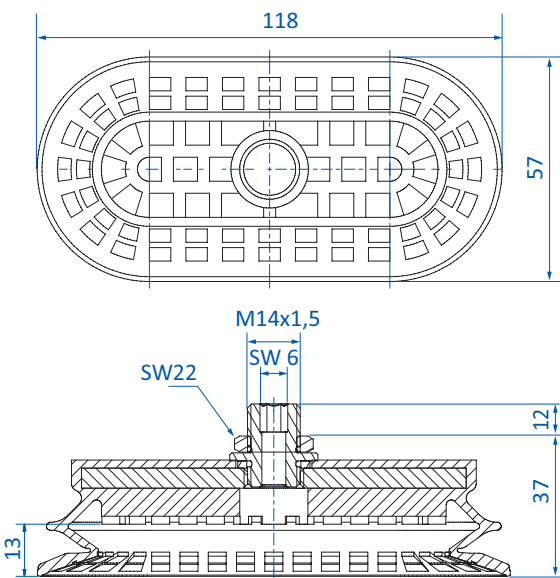
Details and additional sizes available are found on p. 324.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
138.115x55.038._* **Material**
NBR (bl) 13 mm

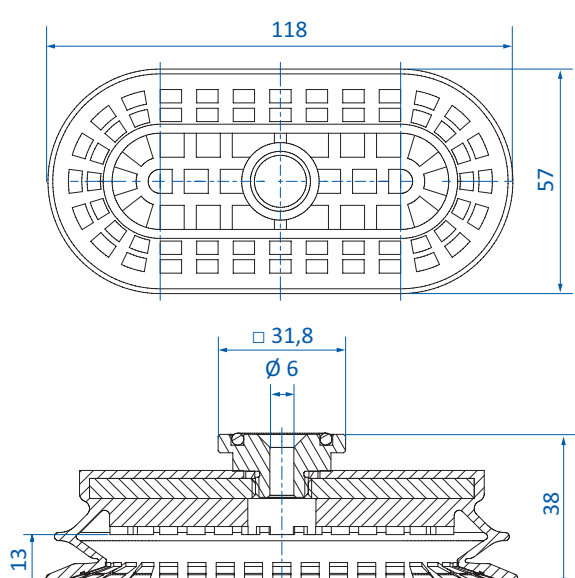
Details and additional sizes available are found on p. 324.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
138.115x55.039._* **Material**
NBR (bl) 13 mm

Details and additional sizes available are found on p. 324.

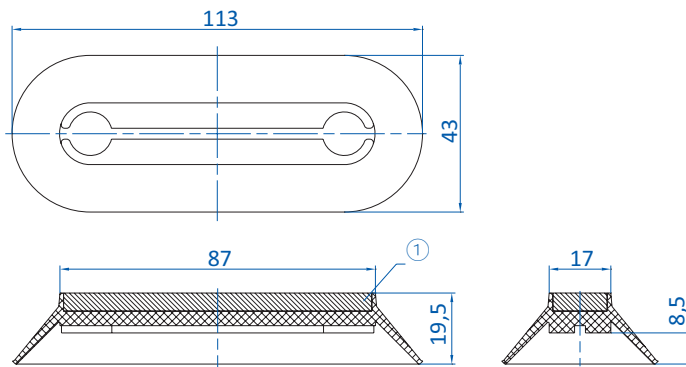


PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
138.115x55.040._* **Material**
NBR (bl) 13 mm

Details and additional sizes available are found on p. 324.

* When ordering please add the appropriate material code to item no.



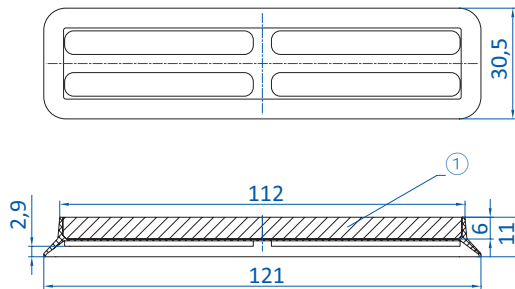
① = Steel

Item no.
9.110x40.009.1

Material
NBR (gr), NR (br)

9 mm

Details and additional sizes available are found on p. 336.



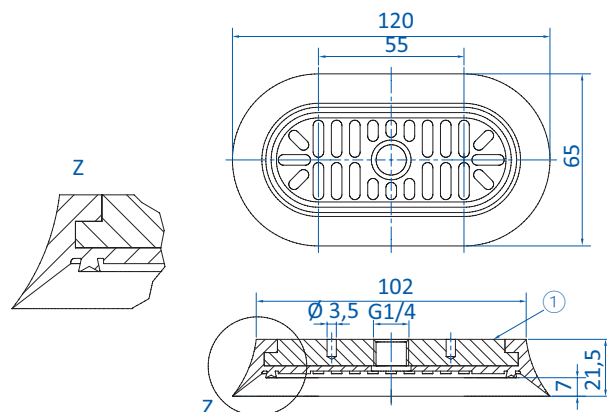
① = Steel

Item no.
9.120x30.062.*

Material
NBR (gr)

3 mm

Ordering notes Customized drilling patterns on request



① = Aluminum

Item no.
9.120x65.088.4

Material
NR (bg)

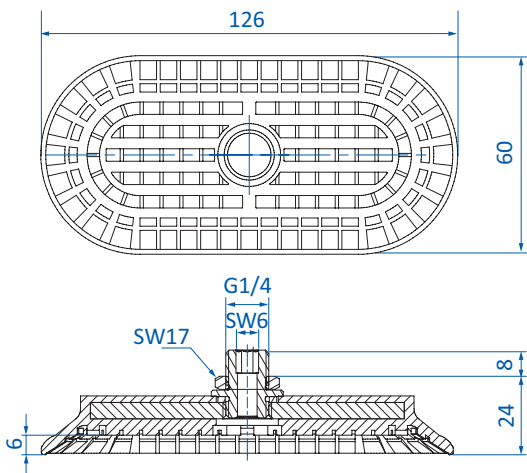
7 mm

Details and additional sizes available are found on p. 334.

* When ordering please add the appropriate material code to item no.



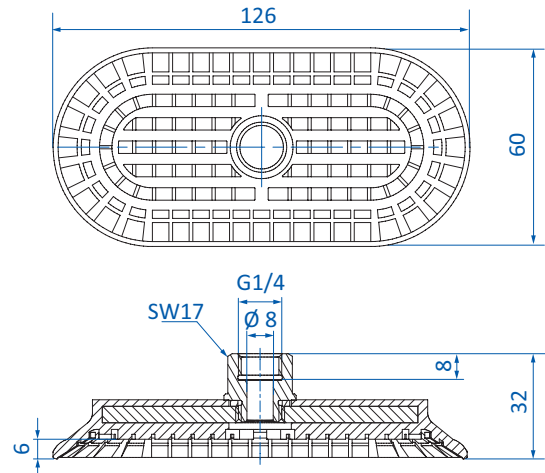
Oval vacuum cups by size



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
130.125x60.170._* **Material**
NBR (bl) 6 mm

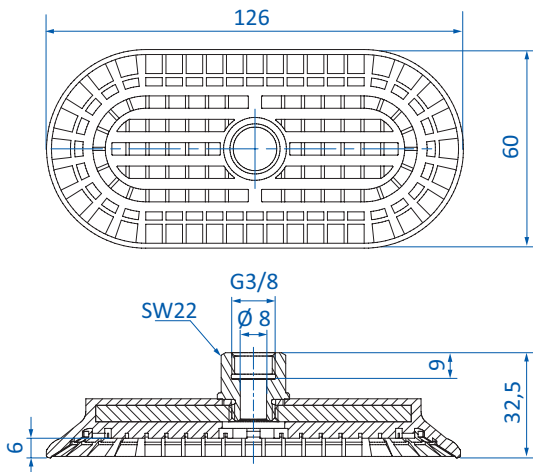
Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
130.125x60.171._* **Material**
NBR (bl) 6 mm

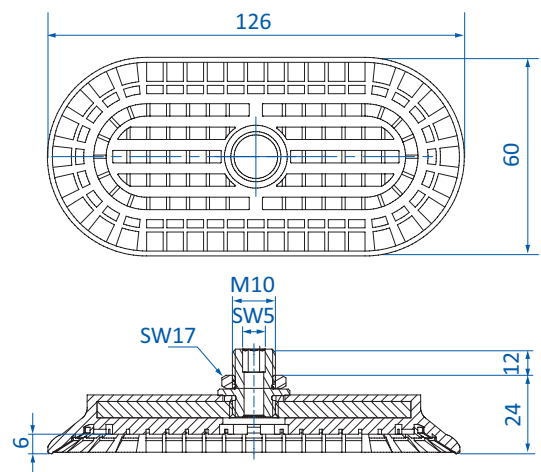
Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
130.125x60.172._* **Material**
NBR (bl) 6 mm

Details and additional sizes available are found on p. 321.

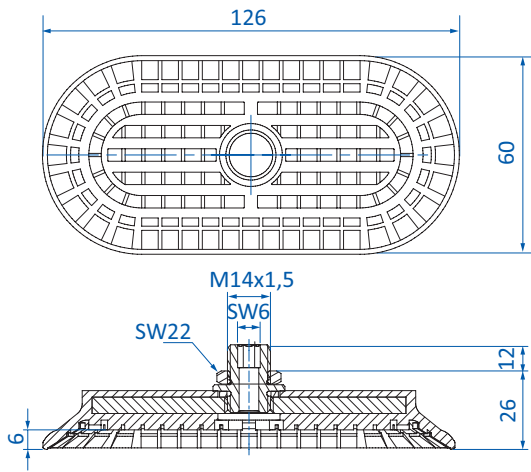


PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
130.125x60.173._* **Material**
NBR (bl) 6 mm

Details and additional sizes available are found on p. 321.

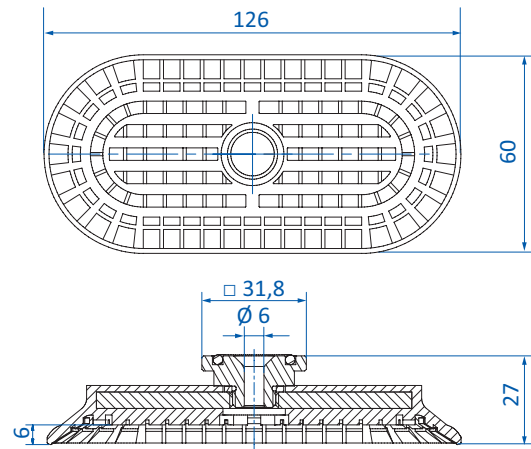
* When ordering please add the appropriate material code to item no.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no. 130.125x60.174.*	Material NBR (bl)	6 mm
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Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

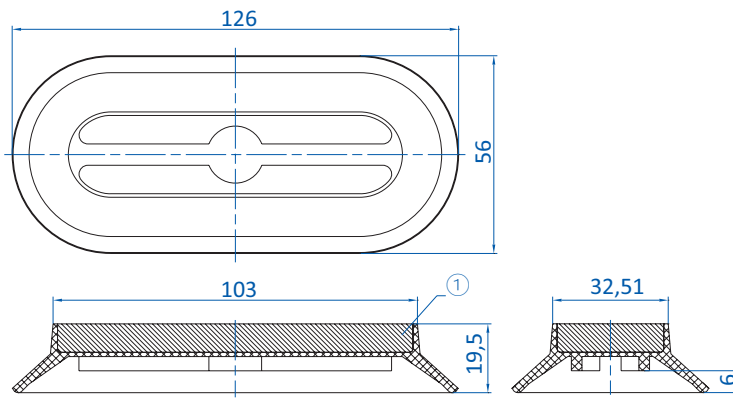
Item no. 130.125x60.175.*	Material NBR (bl)	6 mm
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Details and additional sizes available are found on p. 321.

* When ordering please add the appropriate material code to item no.



Oval vacuum cups by size



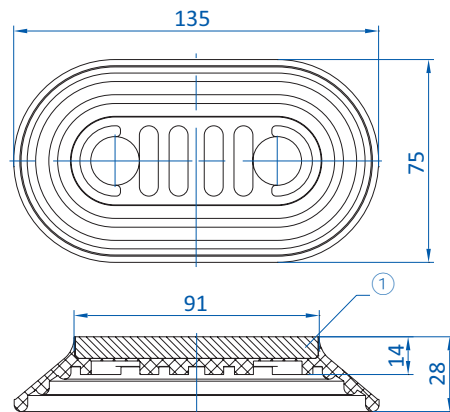
① = Steel

Item no.
9.125x55.012.1

Material
NBR (gr), NR (br)

9 mm

Details and additional sizes available are found on p. 336.
Ordering notes Customized drilling patterns on request



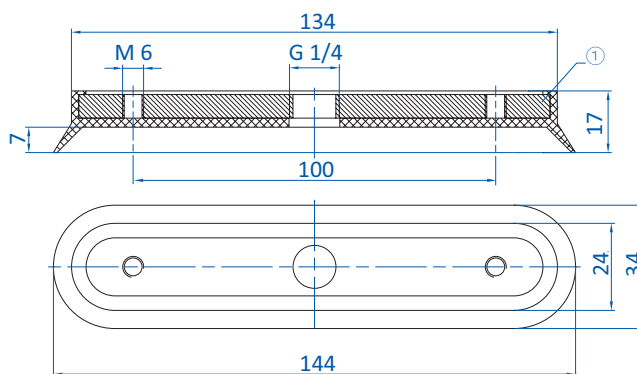
① = Steel

Item no.
9.135x75.066.*

Material
SBR (sw)

12 mm

Ordering notes Customized drilling patterns on request
Notes: Especially well-suited for rough surfaces



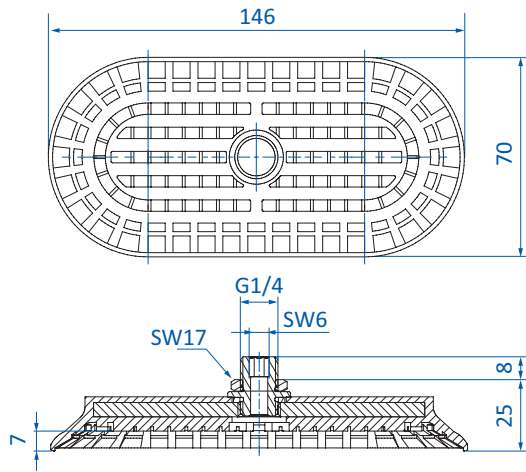
① = Aluminum

Item no.
130.145x34.55.*

Material
NBR (sw), SI (r)

7 mm

* When ordering please add the appropriate material code to item no.



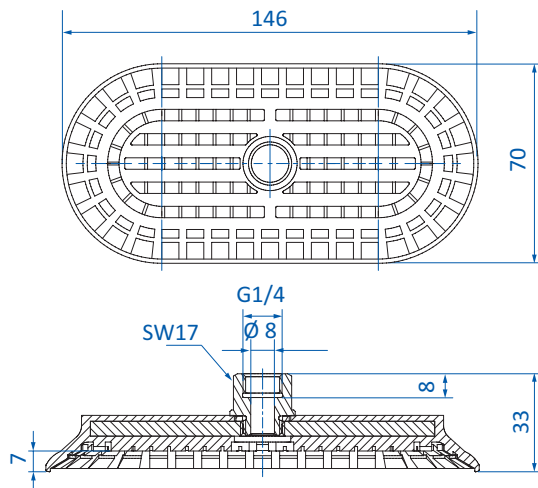
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
130.145x70.176.*

Material
NBR (bl)

7 mm

Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
130.145x70.177.*

Material
NBR (bl)

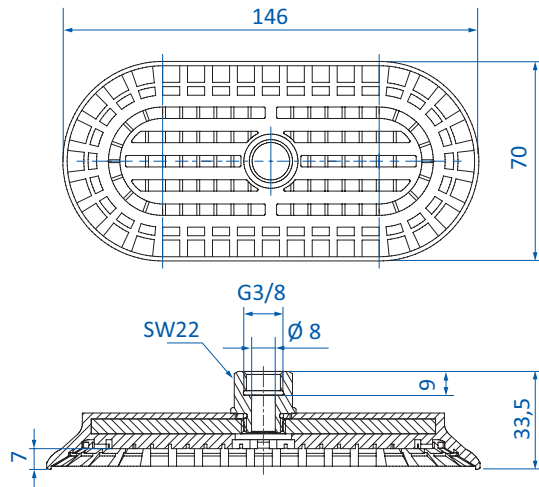
7 mm

Details and additional sizes available are found on p. 321.

* When ordering please add the appropriate material code to item no.



Oval vacuum cups by size



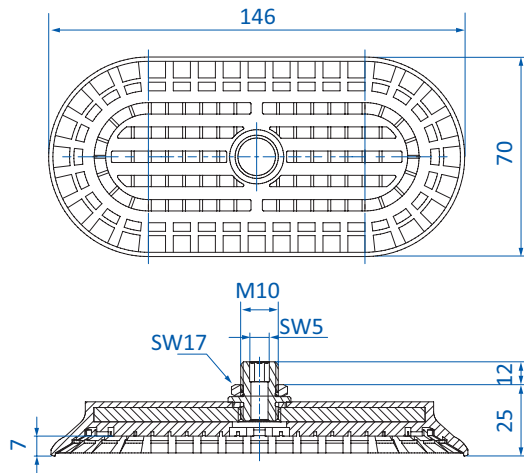
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
130.145x70.178._*

Material
NBR (bl)

7 mm

Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

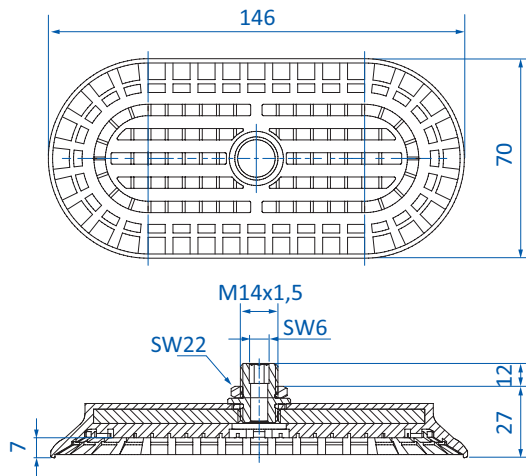
Item no.
130.145x70.179._*

Material
NBR (bl)

7 mm

Details and additional sizes available are found on p. 321.

* When ordering please add the appropriate material code to item no.



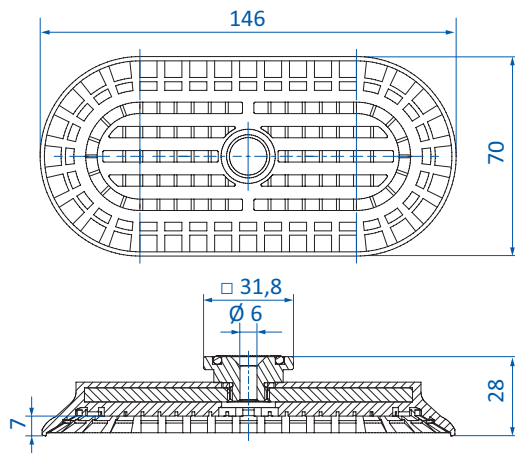
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
130.145x70.180.*

Material
NBR (bl)

7 mm

Details and additional sizes available are found on p. 321.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
130.145x70.181.*

Material
NBR (bl)

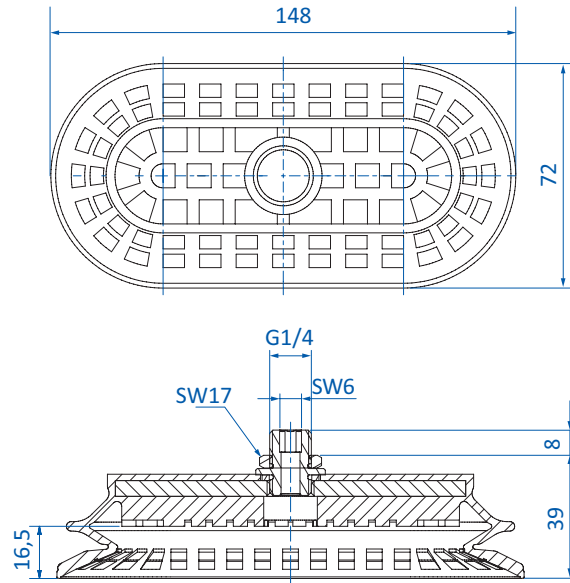
7 mm

Details and additional sizes available are found on p. 321.

* When ordering please add the appropriate material code to item no.



Oval vacuum cups by size



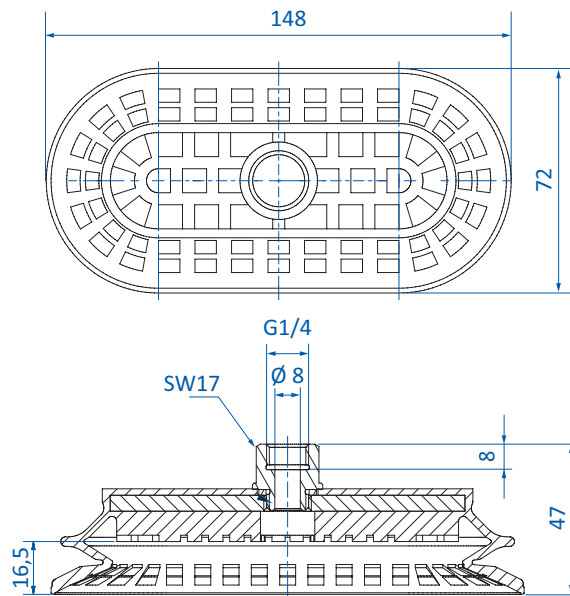
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
138.145x70.041.*

Material
NBR (bl)

16.5
mm

Details and additional sizes available are found on p. 324.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

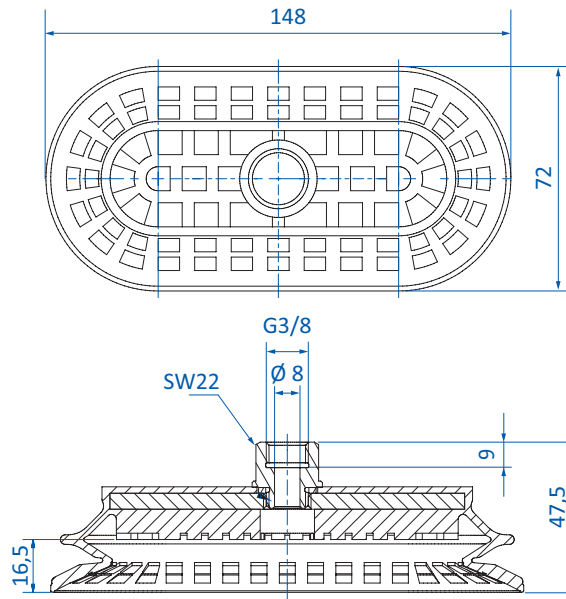
Item no.
138.145x70.042.*

Material
NBR (bl)

16.5
mm

Details and additional sizes available are found on p. 324.

* When ordering please add the appropriate material code to item no.



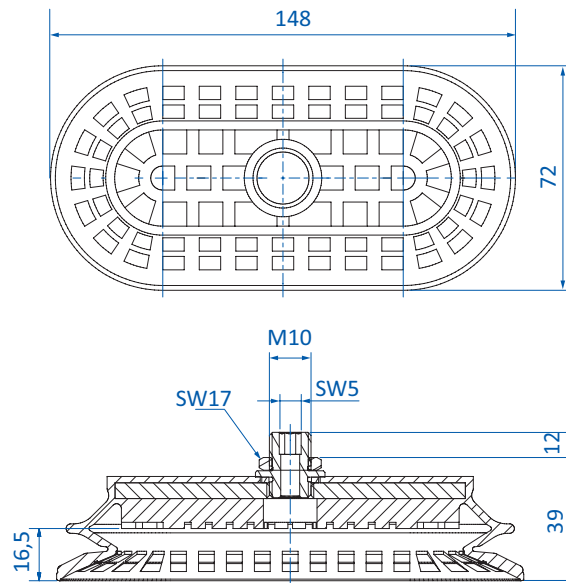
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
138.145x70.043.*

Material
NBR (bl)

16.5 mm

Details and additional sizes available are found on p. 324.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
138.145x70.044.*

Material
NBR (bl)

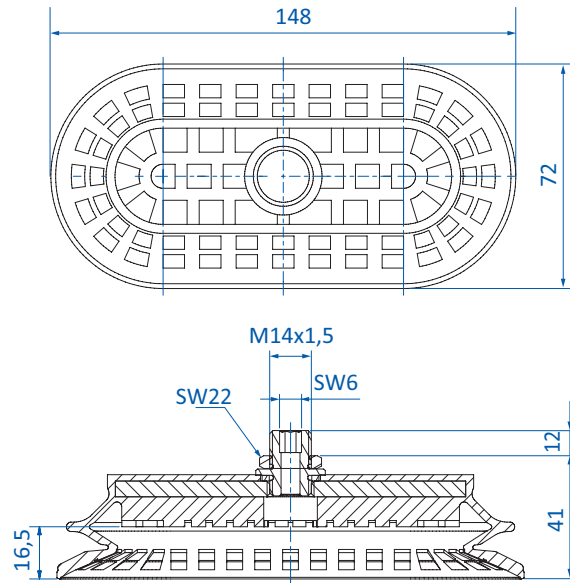
16.5 mm

Details and additional sizes available are found on p. 324.

* When ordering please add the appropriate material code to item no.



Oval vacuum cups by size



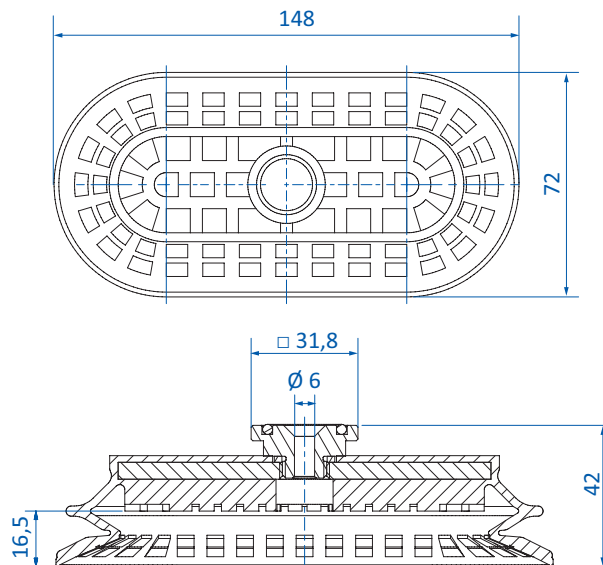
PARTICULARLY SUITABLE FOR OILY SHEET METAL

Item no.
138.145x70.045._*

Material
NBR (bl)

 16.5
mm

Details and additional sizes available are found on p. 324.



PARTICULARLY SUITABLE FOR OILY SHEET METAL

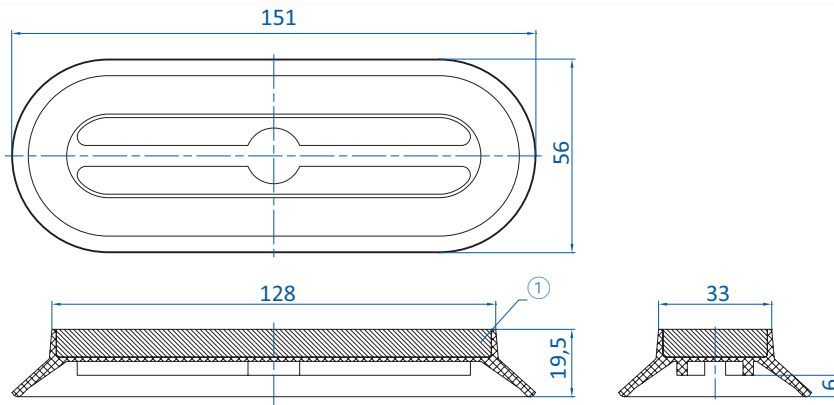
Item no.
138.145x70.046._*

Material
NBR (bl)

 16.5
mm

Details and additional sizes available are found on p. 324.

* When ordering please add the appropriate material code to item no.



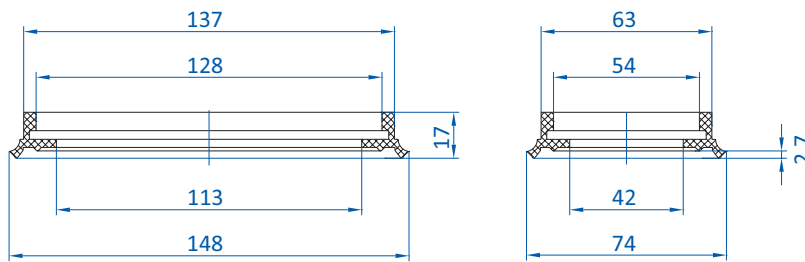
① = Steel

Item no.
9.150x55.013.1

Material
NBR (gr)

7 mm

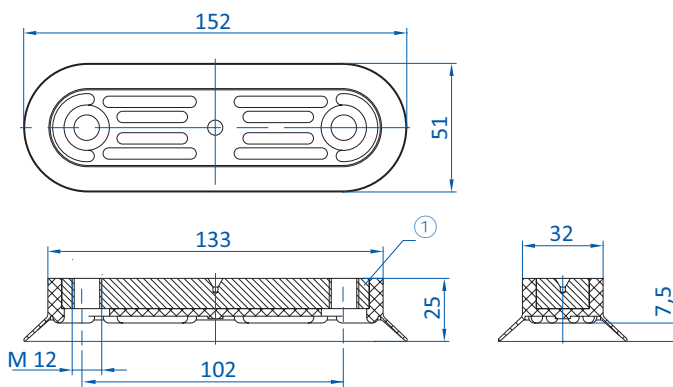
Details and additional sizes available are found on p. 336.
Ordering notes Customized drilling patterns on request



Item no.
216.150x75.3.*

Material
NBR (sw)

1.5 mm



① = Aluminum

Item no.
130.152x51.092.*

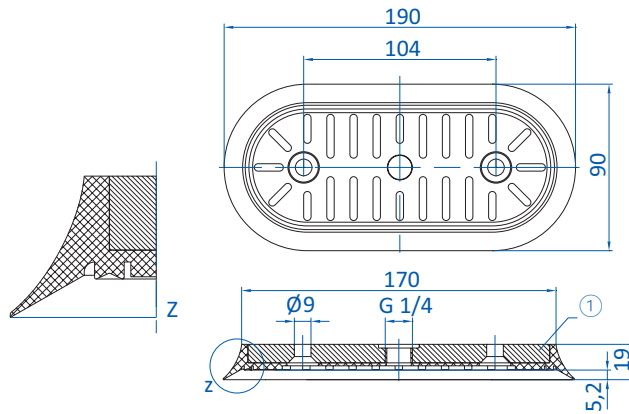
Material
Vinyl (bl)

7 mm

* When ordering please add the appropriate material code to item no.



Oval vacuum cups by size



BESTSELLER

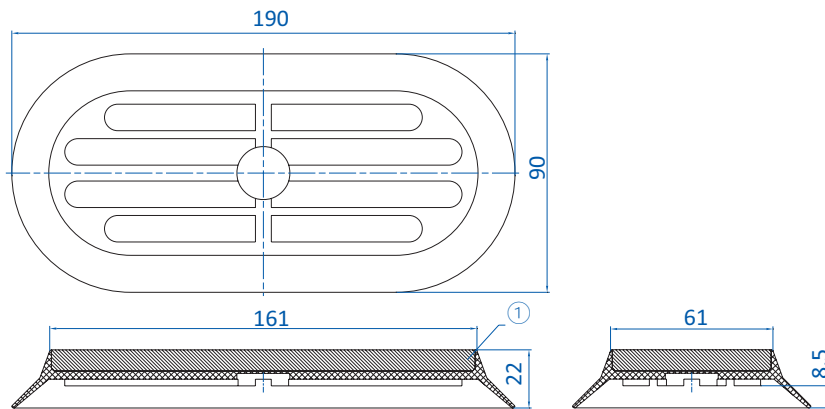
① = Aluminum

Item no.
9.190x90.061.4-AL

Material
NR (bg)

5.5 mm

Details and additional sizes available are found on p. 334.



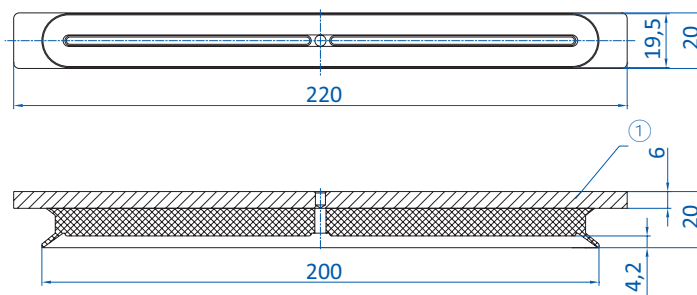
① = Steel

Item no.
9.200x100.015.1

Material
NBR (gr), SBR (sw)

8 mm

Details and additional sizes available are found on p. 336.



① = Steel

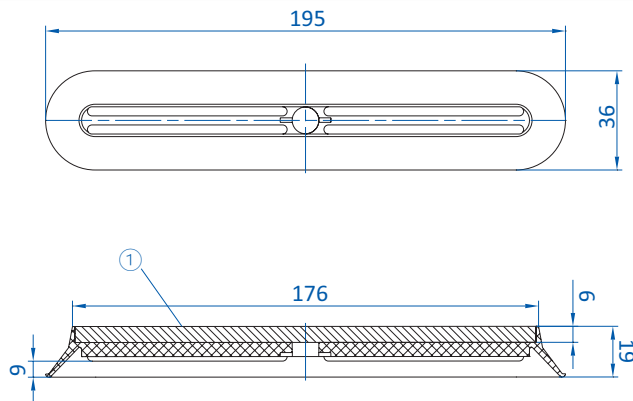
Item no.
9.200x20.063.*

Material
NBR (gr)

5 mm

Ordering notes Customized drilling patterns on request

* When ordering please add the appropriate material code to item no.



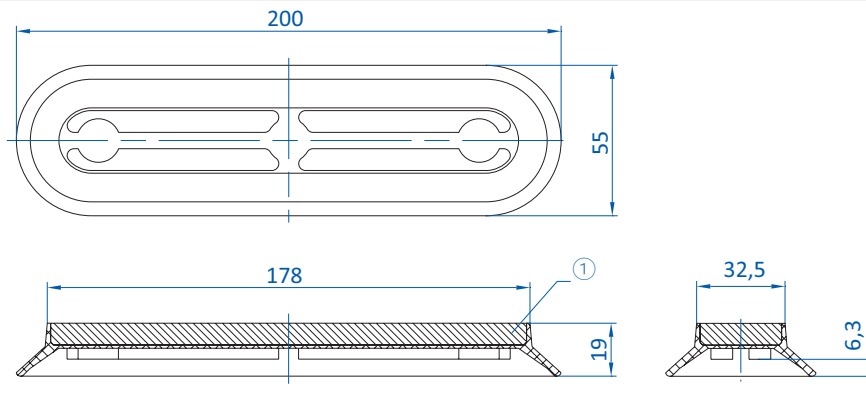
① = Steel

Item no.
9.200x40.010.1gr

Material
SBR (br), NBR (gr)

9 mm

Details and additional sizes available are found on p. 336.
Ordering notes Customized drilling patterns on request



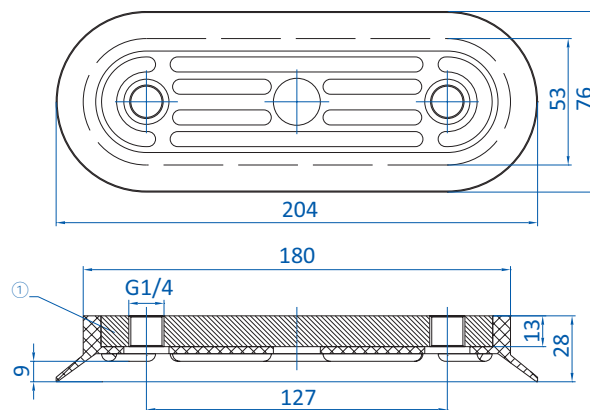
① = Steel

Item no.
9.200x55.014.1

Material
NBR (gr)

7 mm

Details and additional sizes available are found on p. 336.
Ordering notes Customized drilling patterns on request



① = Aluminum

Item no.
130.204x76.86._*

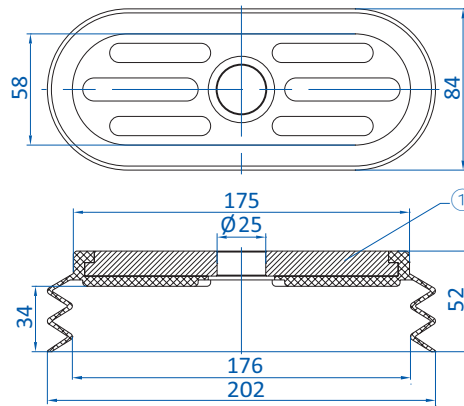
Material
Vinyl (bl)

8 mm

* When ordering please add the appropriate material code to item no.



Oval vacuum cups by size

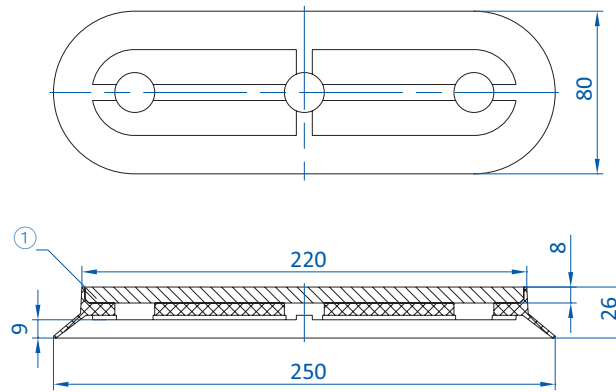


① = Aluminum

Item no.
137.205x82.1._*

Material
Vinyl (bl)

25 mm



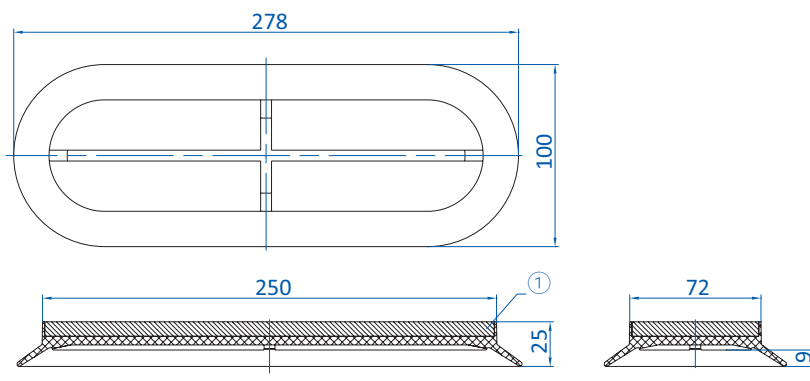
① = Steel

Item no.
9.250x80.033._*

Material
NBR (gr), SBR (br)

10 mm

Ordering notes Customized drilling patterns on request



① = Steel

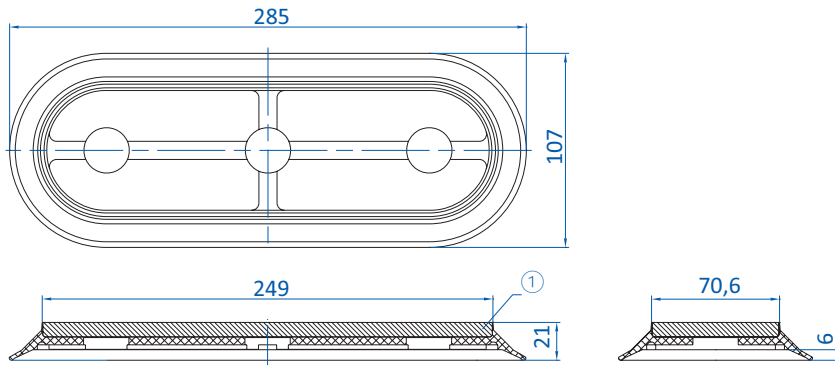
Item no.
9.280x100.017.1

Material
NBR (gr)

10 mm

Details and additional sizes available are found on p. 336.

* When ordering please add the appropriate material code to item no.



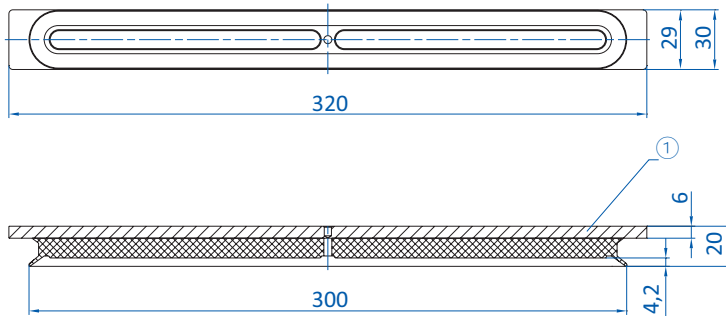
① = Steel

Item no.
9.280x107.070_*

Material
SBR (br)

6 mm

Ordering notes Customized drilling patterns on request



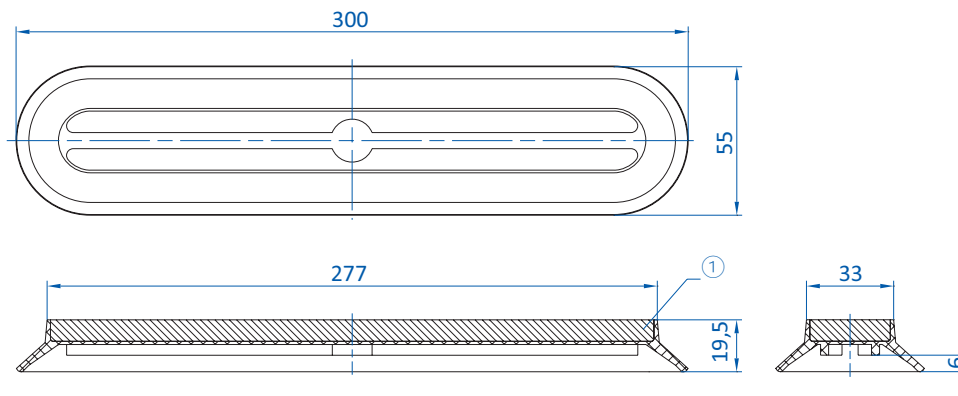
① = Steel

Item no.
9.300x30.069_*

Material
NBR (gr)

5 mm

Ordering notes Customized drilling patterns on request



① = Steel

Item no.
9.300x55.019.1

Material
NBR (gr)

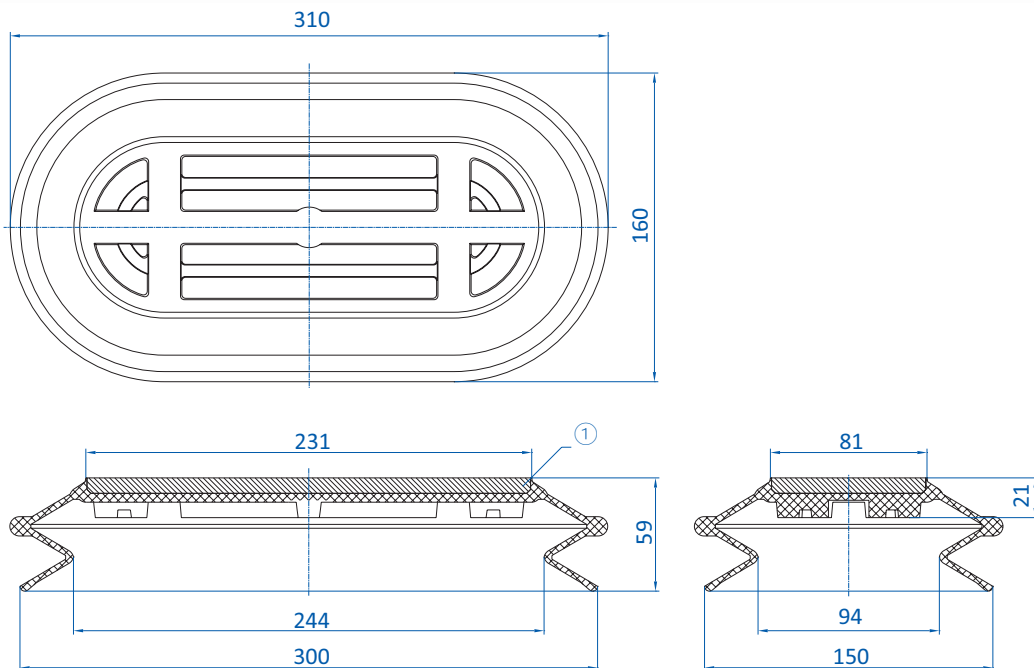
8 mm

Details and additional sizes available are found on p. 336.
Ordering notes Customized drilling patterns on request

* When ordering please add the appropriate material code to item no.



Oval vacuum cups by size



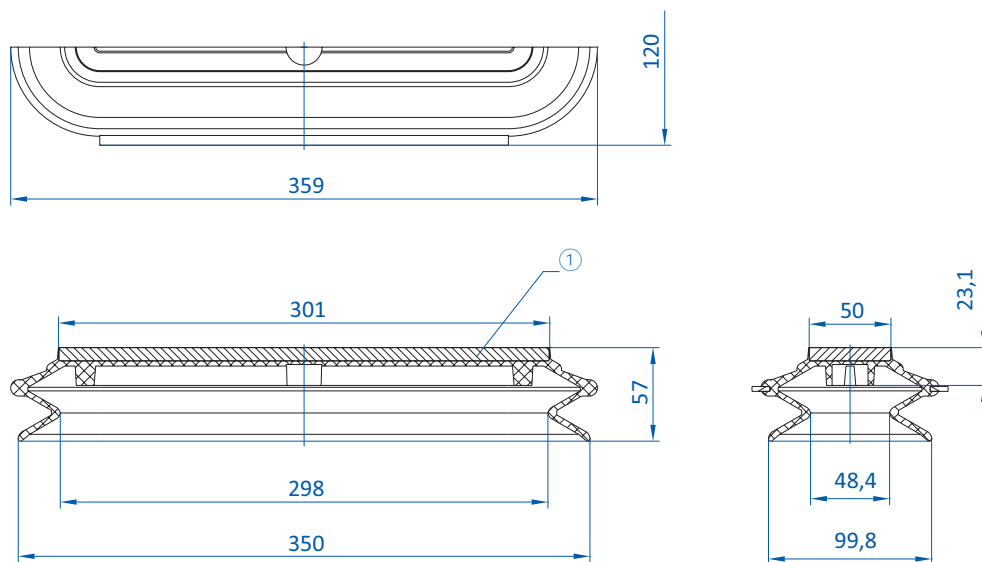
① = Steel

Item no.
138.300x150.007.*

Material
NBR (gr)

39 mm

Ordering notes Customized drilling patterns on request



① = Steel

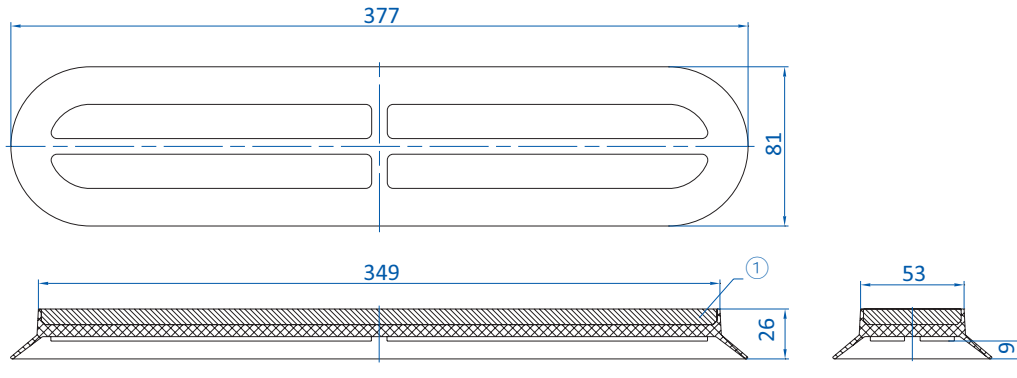
Item no.
138.350x100.009.*

Material
NBR (gr)

39 mm

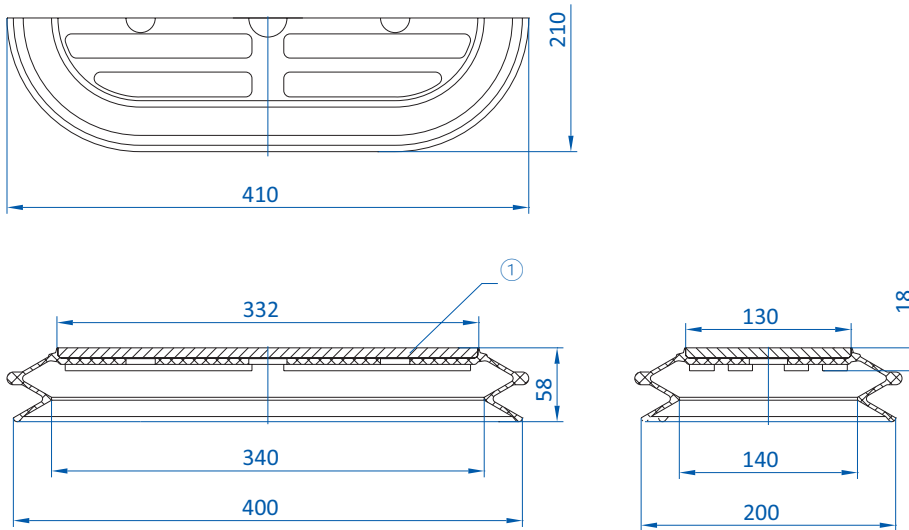
Ordering notes Customized drilling patterns on request

* When ordering please add the appropriate material code to item no.



① = Steel

Item no. 9.370x70.022.1	Material NBR (gr), SBR (br)	10 mm	Details and additional sizes available are found on p. 336. Ordering notes Version with aluminum carrier: 9.370x70.023.*
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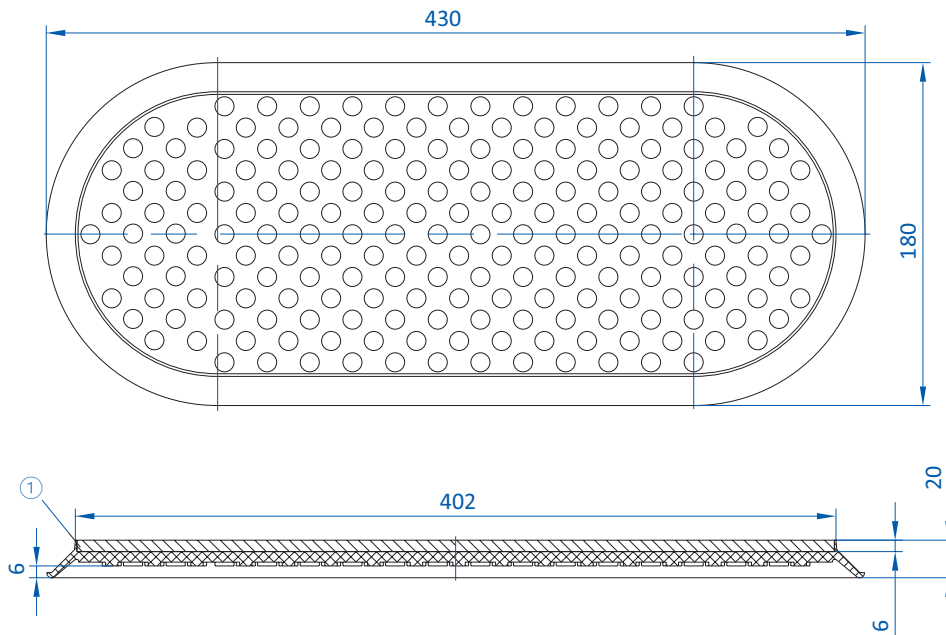
① = Steel

Item no. 138.400x200.011.*	Material NBR (gr)	39 mm	Ordering notes Customized drilling patterns on request
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* When ordering please add the appropriate material code to item no.



Oval vacuum cups by size



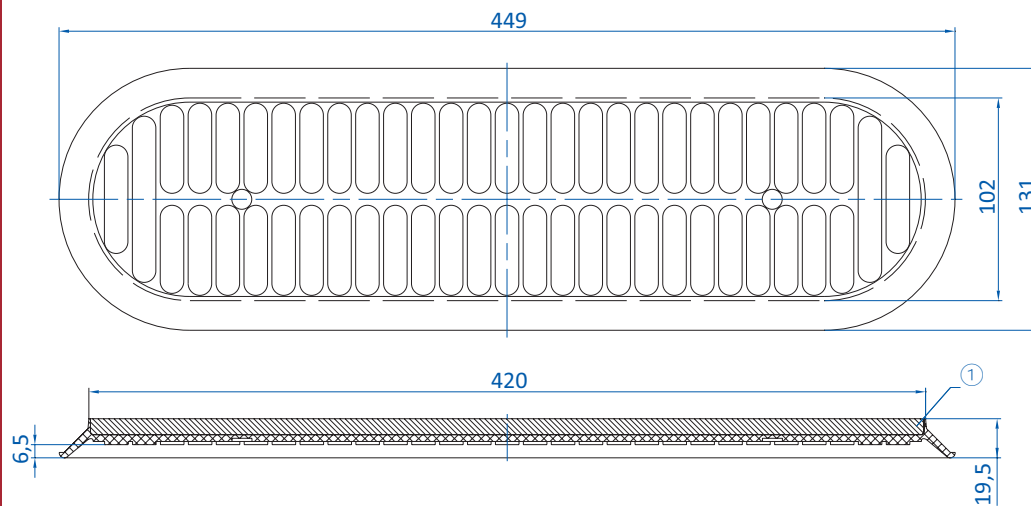
① = Steel

Item no.
9.430x180.024.1gr

Material
NBR (gr)

6 mm

Details and additional sizes available are found on p. 336.
Ordering notes Customized drilling patterns on request



① = Steel

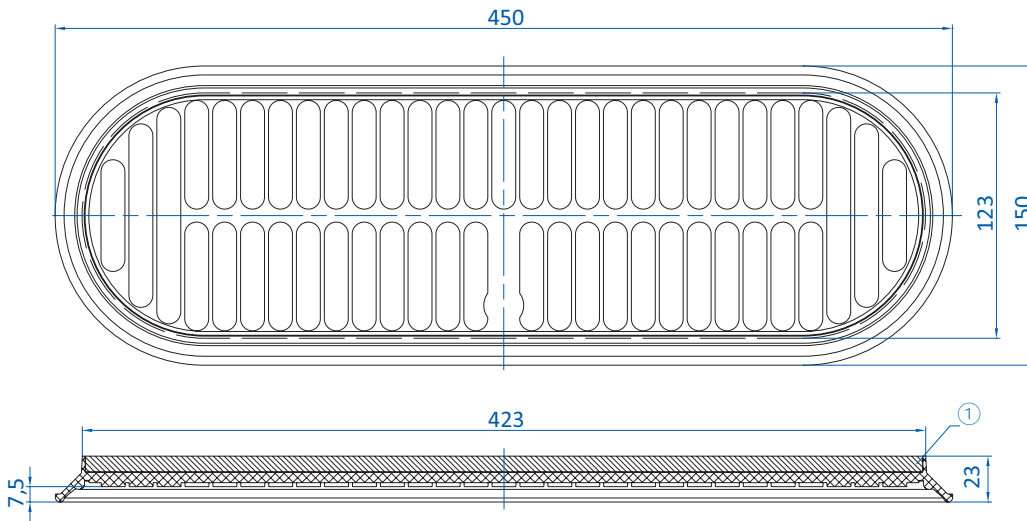
Item no.
9.450x130.025.1

Material
NBR (gr)

6 mm

Details and additional sizes available are found on p. 336.
Ordering notes Customized drilling patterns on request

* When ordering please add the appropriate material code to item no.



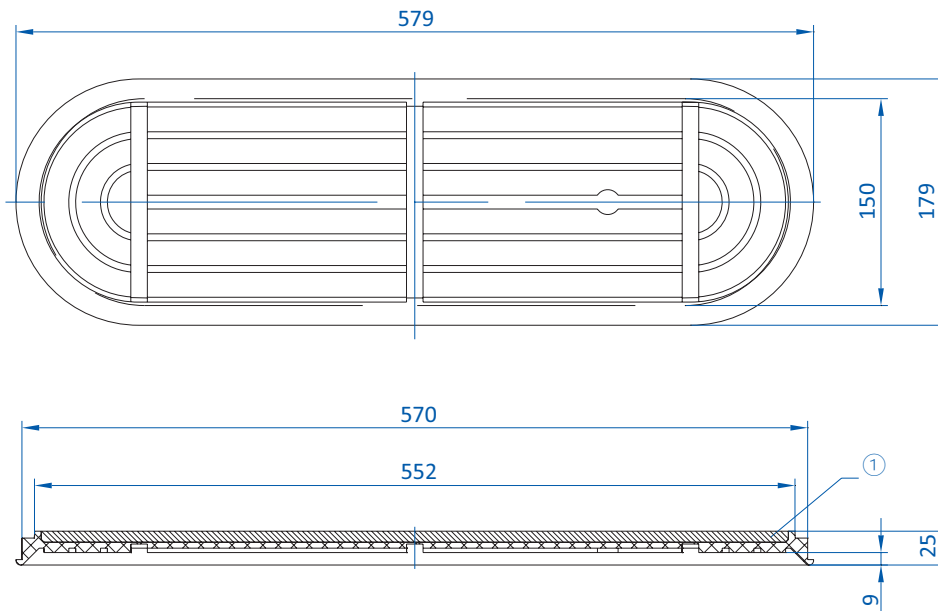
① = Steel

Item no.
9.450x150.026._*

Material
NBR (gr)

9 mm

Ordering notes Customized drilling patterns on request



① = Steel

Item no.
9.580x180.029._*

Material
NBR (gr), SBR (br)

10 mm

Ordering notes Customized drilling patterns on request

* When ordering please add the appropriate material code to item no.

Vacuum tweezers	392
High temperature vacuum cups with felt pad	394
Hand grippers	396



Special vacuum cups

Vacuum tweezers

Vacuum tweezers



Product notes

Compressed air- or vacuum-operated special tool for assembly of small parts

VTA-Set:

Vacuum tweezers with built-in ejector, without valve and with air vent. To pick up the object, close the air vent with the fingertip and release to place the object.

VTB-Set:

Vacuum tweezers with built-in ejector, compressed air valve and built-in silencer – hence, very low-noise. The built-in compressed air valve is used to switch on the vacuum only when needed.

VTA-Set-1:

Vacuum tweezers without ejector and with air vent. To pick up the object, close the air vent with the fingertip and release to place the object.

Ordering notes

The sets contains:

- > Vacuum tweezers, spiral tubing, one of each size vacuum cup (Silicone) Ø 2, 4, 6 and 8 mm
- > Curved adapter for vacuum cups Ø 2 and 4 mm
- > Curved adapter for vacuum cups Ø 6 and 8 mm

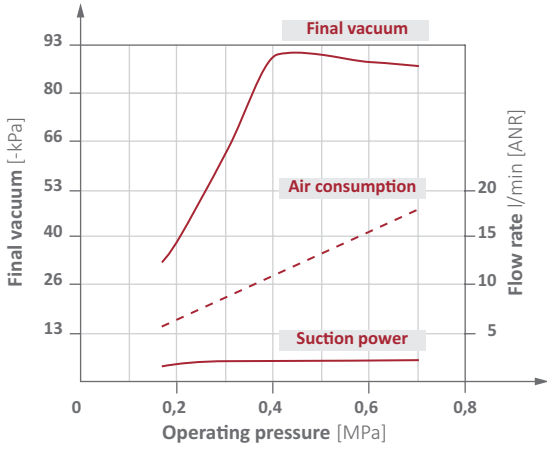
Technical data

Item no.	Operating principle	Design	Operating pressure [bar (psi)]	Final vacuum [%]	Operating temperature [°C (°F)]	Weight [g]	Accessories
VTA-Set	operated with compressed air	without valve	1.5 - 7 (21.8 - 101.5)	90	0 - 60 (32 - 140)	22	Adapter straight for vacuum cups Ø 2, 4 mm: VPZ-2-S Adapter straight for vacuum cups Ø 6, 8 mm: VPZ-6-S Spare vacuum cup NBR Ø 2, 4, 6, 8 mm: VT-NBR-Set Mounting bracket: EIL.05-HO
VTB-Set	operated with compressed air	with valve	1.5 - 7 (21.8 - 101.5)	90	0 - 60 (32 - 140)	16	Adapter for vacuum cups – bended Ø 2, 4 mm: VPZ-2 Adapter for vacuum cups – bended Ø 6, 8 mm: VPZ-6 Spare vacuum cup NBR Ø 2, 4, 6, 8 mm: VT-NBR-Set Mounting bracket: EIL.05-HO
VTA-Set-1	Vacuum-operated	with air vent	--	--	0 - 60 (32 - 140)	22	Adapter for vacuum cups – bended Ø 2, 4 mm: VPZ-2 Adapter for vacuum cups – bended Ø 6, 8 mm: VPZ-6 Spare vacuum cup NBR Ø 2, 4, 6, 8 mm: VT-NBR-Set Mounting bracket: EIL.05-HO

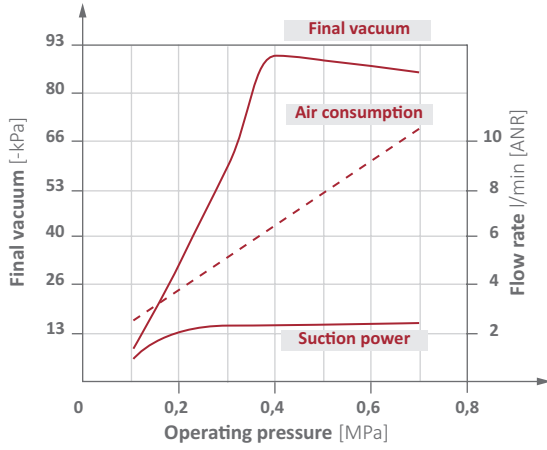


*= Values depend on vacuum generator

Diagrams



VTA-Set



VTB-Set



Special vacuum cups

High temperature vacuum cups with felt pad – SX-F



HEAT RESISTANT & LOW MARKING

Product notes

Almost mark-free special vacuum cup for high temperature requirements, e.g. in the glass industry. Special felt pad vulcanized to elastomer carrier. Migration of silicone particles is prevented by vapour-deposited aluminum layer. Connection up to \varnothing 70 mm by means of plug-in nipple, from \varnothing 90 mm with bolted bracket plate.


Advantage

- > Temperature-resistant up to 500 °C (932 °F) (SI)
- > Almost mark-free
- > Cost-effective replacement of worn seals


Notes:

There is a small leak at first use resulting from the texture of the special felt, but after a brief period of use this will be significantly reduced by the thickening of the felt layer.

Technical data

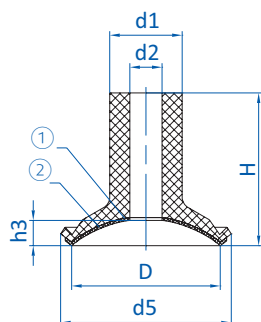
Item no.	Model	 Weight [g]	Max. operating temperature [°C (°F)]	Material / Color	Number of folds
26.025.009.2F	SX-F-25	2 6	500 (932)	SI (tr/ge)	--
26.037.010.2F	SX-F-40	3 10	500 (932)	SI (tr/ge)	--
26.070.011.2F	SX-F-70	7 24	500 (932)	SI (tr/ge)	--
26.090.001.2F	SX-F-90	17 80	500 (932)	SI (tr/ge)	1.5

Accessories

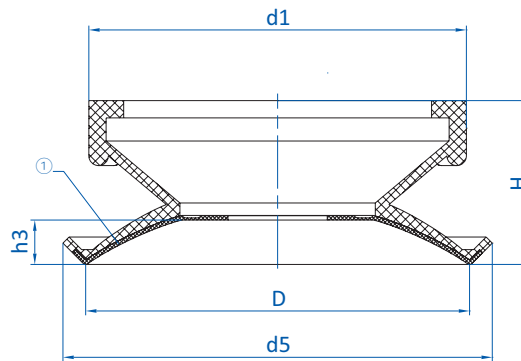
Item no.	 Suitable fittings				
	G1/8-male	G1/8-female	G1/4-male	G1/4-female	G3/8-female
26.025.009.2F	270.132	270.114	270.208	270.178	--
26.037.010.2F	270.132	270.114	270.208	270.178	--
26.070.011.2F	270.132	270.114	270.208	270.178	--
26.090.001.2F	--	--	--	--	270.400



Dimensions



Drawing A



Drawing B

① = Felt pads ② = For silicone vacuum cups: Silicone blocker through evaporated aluminum layer

Item no.	Drawing	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]	Ø d5 [mm]	H [mm]	h3 [mm]
26.025.009.2F	A	24	16	8	29	36	3.3
26.037.010.2F	A	37	18	8	42	38	6.5
26.070.011.2F	A	67	21	8	71	36	8
26.090.001.2F	B	89	87	--	99	38	10.5



Special vacuum cups

Hand grippers – SX-G

Hand grippers – SX-G



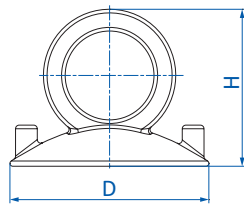
Product notes

Sturdy gripper for the manual handling of flat, smooth products.
No vacuum source required. Simple handling.
Release of the product via a release button.

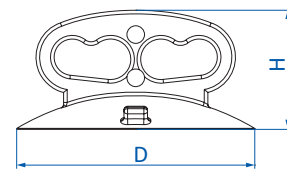
Technical data

Item no.	Model	Tearing force [kg]	Material / Color
64.001.V	SX-G-55	14	Vinyl (sw)
64.002.V	SX-G-65	19	Vinyl (sw)
64.003.V	SX-G-75	22	Vinyl (sw)
64.004.1	SX-G-125	25	NBR (sw)
64.005.V	SX-G-130	28	Vinyl (sw)

Dimensions



Drawing A



Drawing B

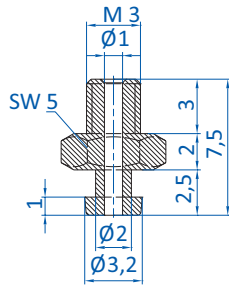
Item no.	Drawing	Ø D [mm]	H [mm]
64.001.V	A	54	42
64.002.V	A	66	48
64.003.V	B	82	42
64.004.1	B	115	63
64.005.V	B	121	65

Standard fittings M3	398
Standard fittings M4 and M5	399
Standard fittings M6	403
Standard fittings M8	406
Standard fittings M10	407
Standard fittings G1/8	408
Standard fittings G1/4	416
Standard fittings G3/8	425
Standard fittings G1/2	427
Standard fittings without thread	428
Standard fittings NPSF and NPT	429
Carrier plates for vacuum cups	431
Spring leveler	433
Lifting cylinders	448
Joints	454
Filter discs	457
Rings and clamps	458
Connectors	460



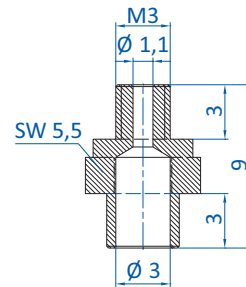
Vacuum cups accessories | Fittings

M3-male



Technical data

	Thread G1
Item no.	M3-male
270.014	

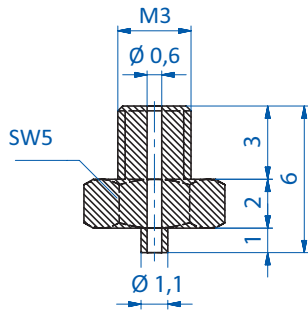


Technical data

	Thread G1
Item no.	M3-male
270.427	

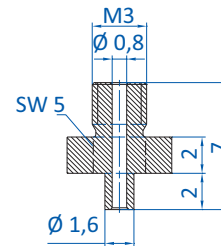
Notes:

Vacuum cup is plugged into the borehole of the fitting



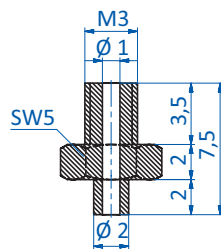
Technical data

	Thread G1
Item no.	M3-male
270.026	



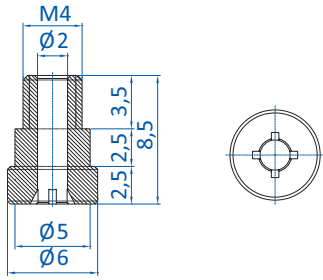
Technical data

	Thread G1
Item no.	M3-male
270.011	



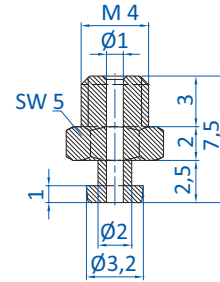
Technical data

	Thread G1
Item no.	M3-male
270.025	



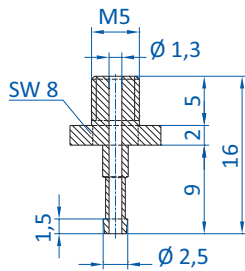
Technical data

Item no.	Thread G1
270.458	M4-male



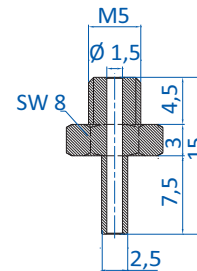
Technical data

Item no.	Thread G1
270.111	M4-male



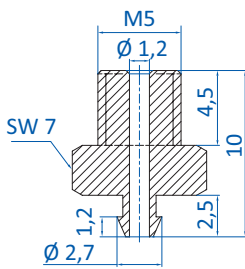
Technical data

Item no.	Thread G1
270.195	M5-male



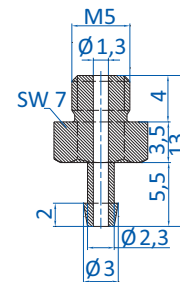
Technical data

Item no.	Thread G1
270.001	M5-male



Technical data

Item no.	Thread G1
270.629	M5-male



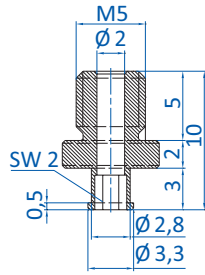
Technical data

Item no.	Thread G1
270.153	M5-male



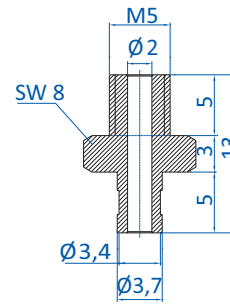
Vacuum cups accessories | Fittings

M5-male



Technical data

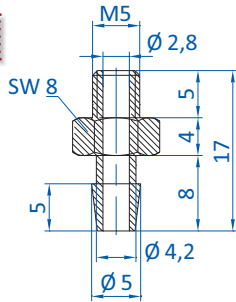
Item no.	Thread G1
270.283	M5-male



Technical data

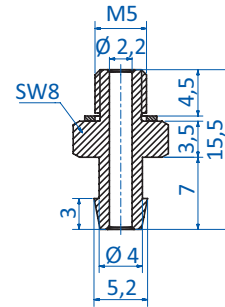
Item no.	Thread G1
270.536	M5-male

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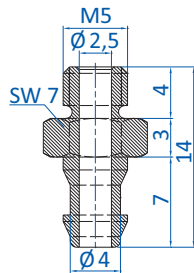
Technical data

Item no.	Thread G1
270.134	M5-male



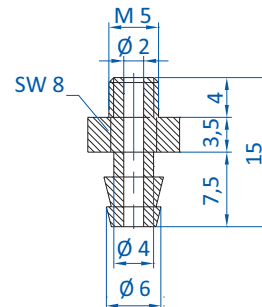
Technical data

Item no.	Thread G1
270.772	M5-male



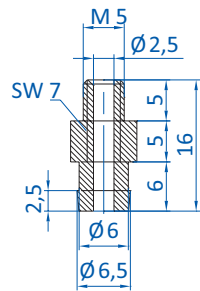
Technical data

Item no.	Thread G1
270.399	M5-male



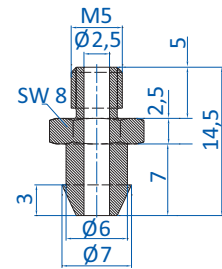
Technical data

Item no.	Thread G1
270.024	M5-male



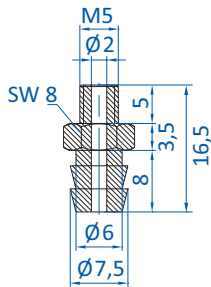
Technical data

Item no.	Thread G1
270.013	M5-male



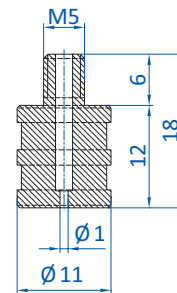
Technical data

Item no.	Thread G1
270.317	M5-male



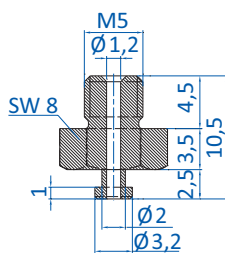
Technical data

Item no.	Thread G1
270.443	M5-male



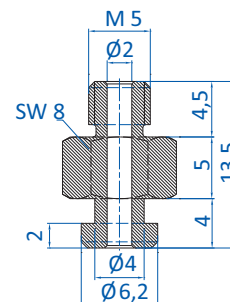
Technical data

Item no.	Thread G1
270.244	M5-male



Technical data

Item no.	Thread G1
270.300	M5-male



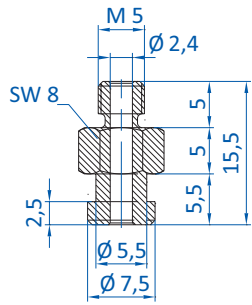
Technical data

Item no.	Thread G1
270.010	M5-male



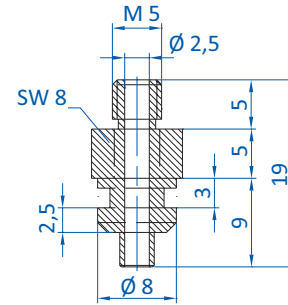
Vacuum cups accessories | Fittings

M5-male



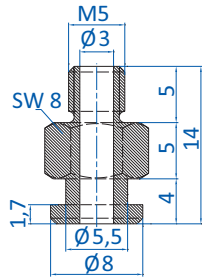
Technical data

Item no.	Thread G1
270.094	M5-male



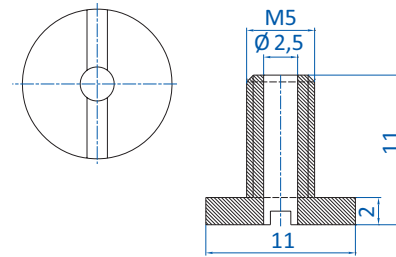
Technical data

Item no.	Thread G1
270.037	M5-male



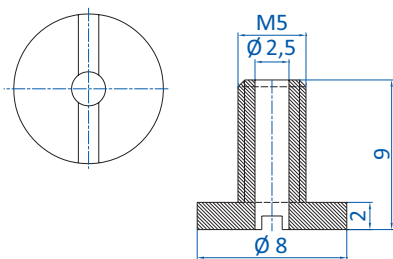
Technical data

Item no.	Thread G1
270.200	M5-male



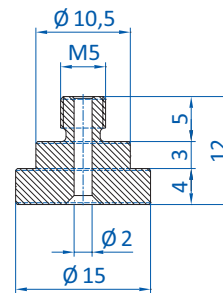
Technical data

Item no.	Thread G1
270.311	M5-male



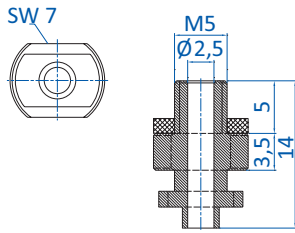
Technical data

Item no.	Thread G1
270.310	M5-male



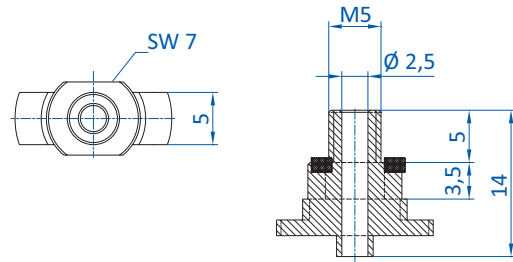
Technical data

Item no.	Thread G1
270.521	M5-male



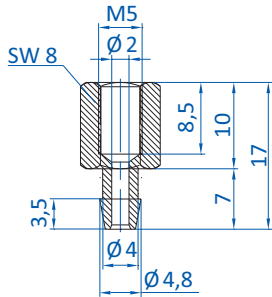
Technical data

Item no.	Thread G1
270.463	M5-male



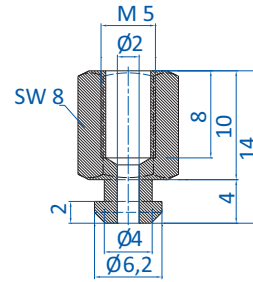
Technical data

Item no.	Thread G1
270.464	M5-male



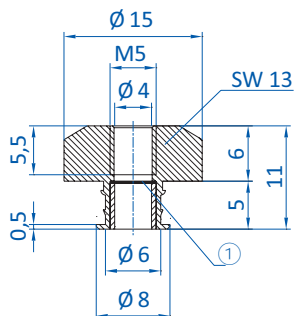
Technical data

Item no.	Thread G1
270.347	M5-female



Technical data

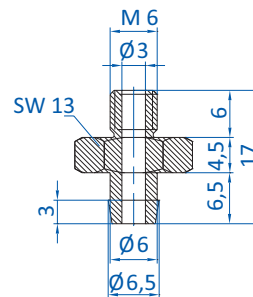
Item no.	Thread G1
270.005	M5-female



① = Filter screen

Technical data

Item no.	Thread G1
270.500-S	M5-female



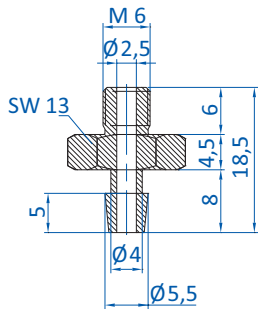
Technical data

Item no.	Thread G1
270.103	M6-male



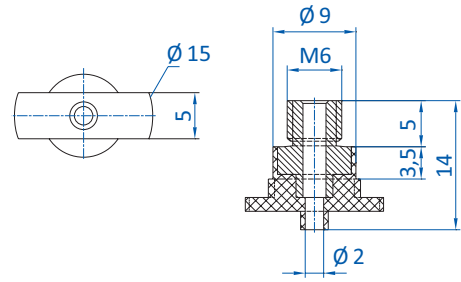
Vacuum cups accessories | Fittings

M6-male



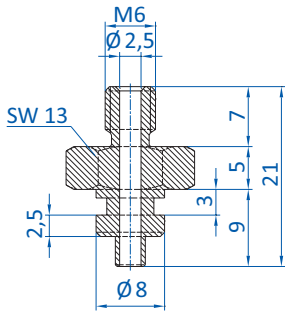
Technical data

Item no.	Thread G1
270.104	M6-male



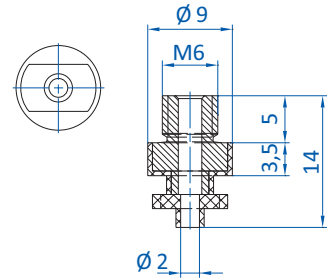
Technical data

Item no.	Thread G1
270.340	M6-male



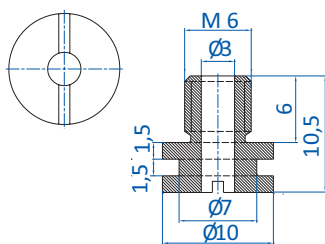
Technical data

Item no.	Thread G1
270.373	M6-male



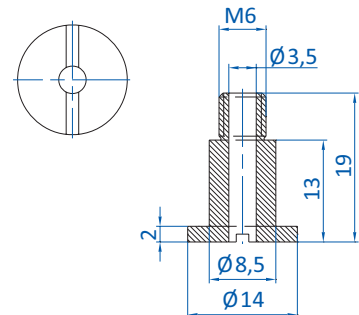
Technical data

Item no.	Thread G1
270.339	M6-male



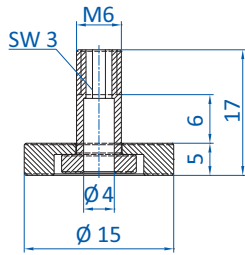
Technical data

Item no.	Thread G1
270.105	M6-male



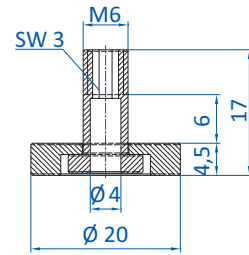
Technical data

Item no.	Thread G1
270.315	M6-male



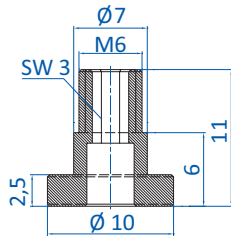
Technical data

Item no.	Thread G1
270.498	M6-male



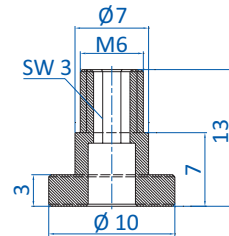
Technical data

Item no.	Thread G1
270.499	M6-male



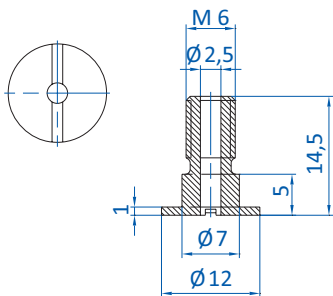
Technical data

Item no.	Thread G1
270.459	M6-male



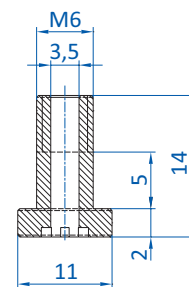
Technical data

Item no.	Thread G1
270.460	M6-male



Technical data

Item no.	Thread G1
270.039	M6-male



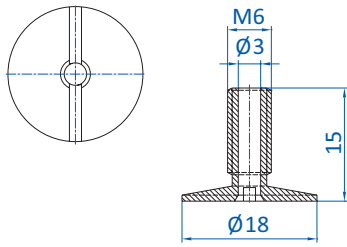
Technical data

Item no.	Thread G1
270.312/19	M6-male



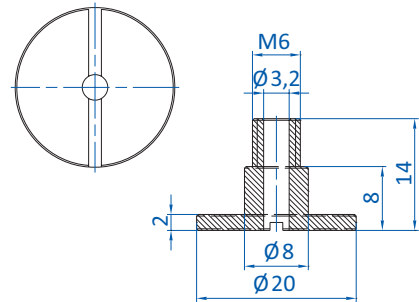
Vacuum cups accessories | Fittings

M6-male | M8-male



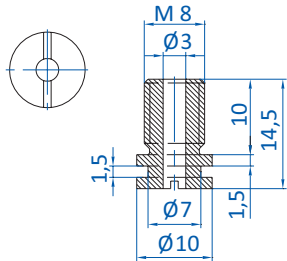
Technical data

Thread G1	
Item no.	M6-male
270.254	



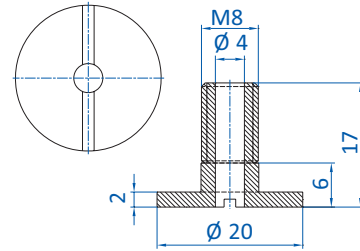
Technical data

Thread G1	
Item no.	M6-male
270.314	



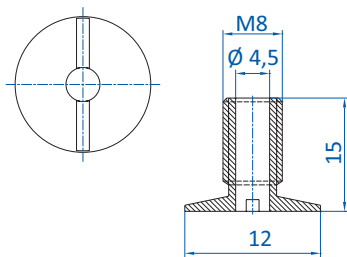
Technical data

Thread G1	
Item no.	M8-male
270.040	



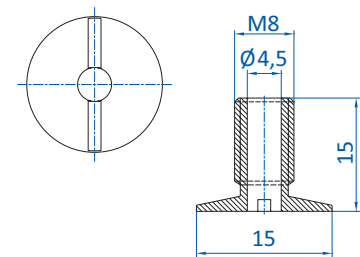
Technical data

Thread G1	
Item no.	M8-male
270.313	



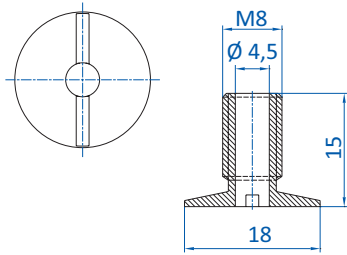
Technical data

Thread G1	
Item no.	M8-male
270.247	



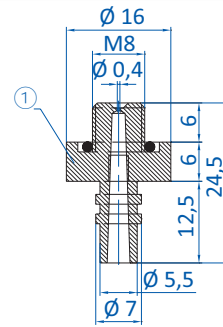
Technical data

Thread G1	
Item no.	M8-male
270.255	



Technical data

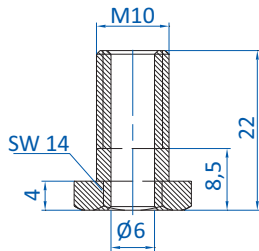
Item no.	Thread G1
270.256	M8-male



① = Material: PA6

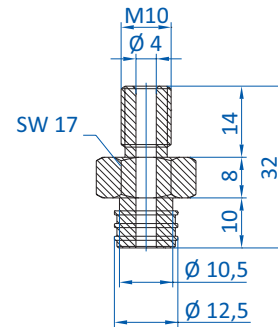
Technical data

Item no.	Thread G1
270.378	M8-male



Technical data

Item no.	Thread G1
270.462	M10-male



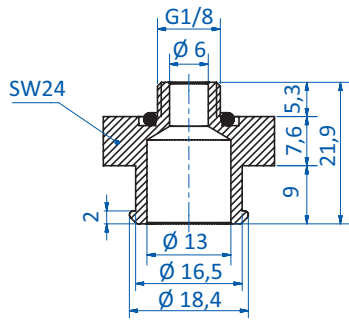
Technical data

Item no.	Thread G1
270.177	M10-male



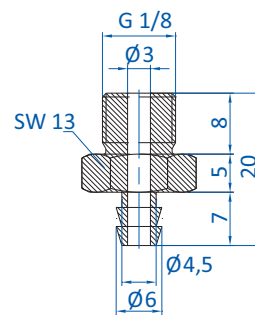
Vacuum cups accessories | Fittings

G1/8-male



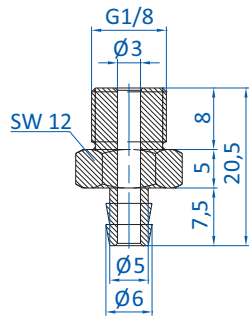
Technical data

Item no.	Thread G1
270.776	G1/8-male



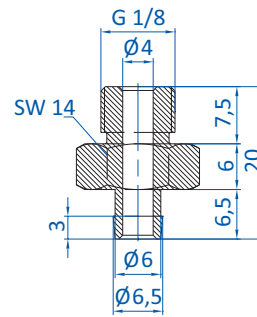
Technical data

Item no.	Thread G1
270.033	G1/8-male



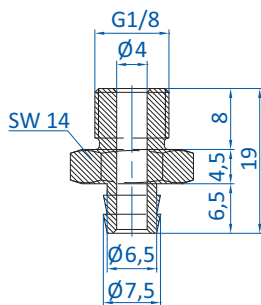
Technical data

Item no.	Thread G1
270.205	G1/8-male



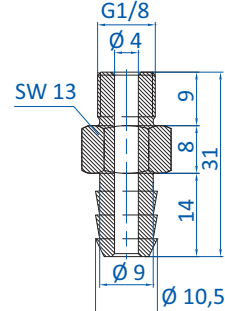
Technical data

Item no.	Thread G1
270.003	G1/8-male



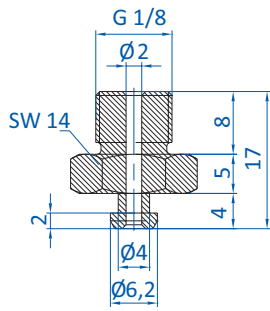
Technical data

Item no.	Thread G1
270.238	G1/8-male



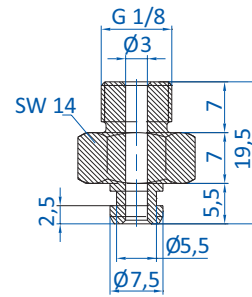
Technical data

Item no.	Thread G1
270.132	G1/8-male



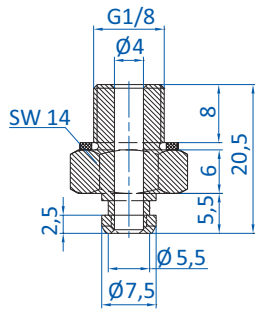
Technical data

Item no.	Thread G1
270.009	G1/8-male



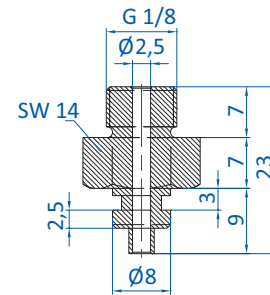
Technical data

Item no.	Thread G1
270.095	G1/8-male



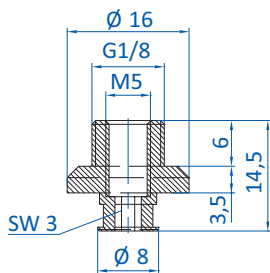
Technical data

Item no.	Thread G1
270.431	G1/8-male



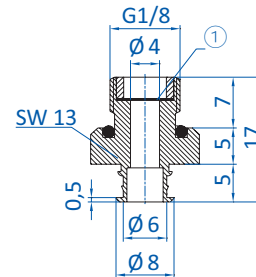
Technical data

Item no.	Thread G1
270.085	G1/8-male



Technical data

Item no.	Thread G1
270.250	G1/8-male



① = Filter screen

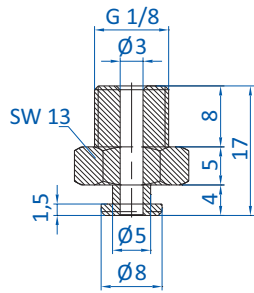
Technical data

Item no.	Thread G1
270.503-S	G1/8-male



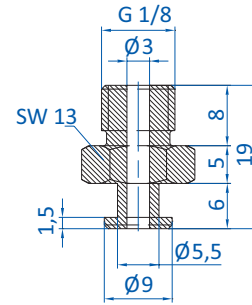
Vacuum cups accessories | Fittings

G1/8-male



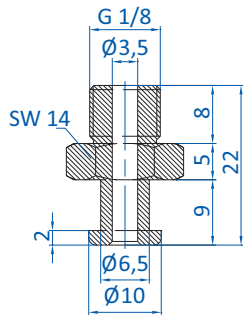
Technical data

Thread G1	
Item no.	
270.064	G1/8-male



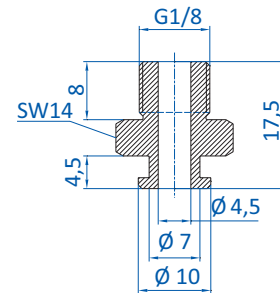
Technical data

Thread G1	
Item no.	
270.063	G1/8-male



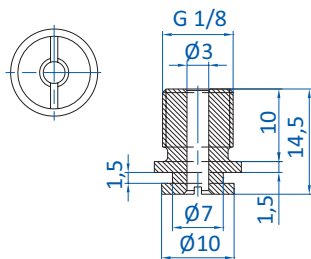
Technical data

Thread G1	
Item no.	
270.030	G1/8-male



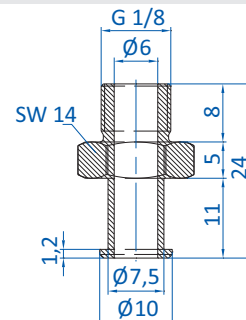
Technical data

Thread G1	
Item no.	
270.543	G1/8-male



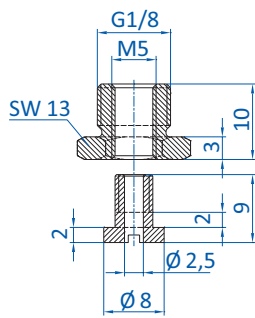
Technical data

Thread G1	
Item no.	
270.077	G1/8-male



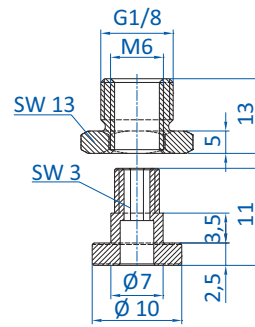
Technical data

Thread G1	
Item no.	
270.112	G1/8-male



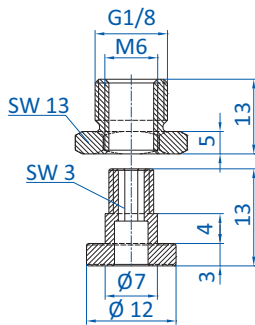
Technical data

Item no.	Thread G1
270.493	G1/8-male



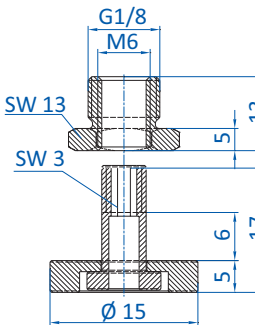
Technical data

Item no.	Thread G1
270.480	G1/8-male



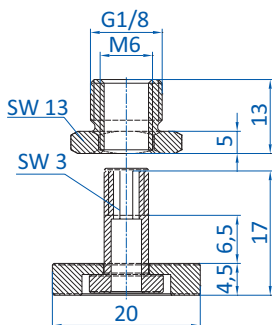
Technical data

Item no.	Thread G1
270.482	G1/8-male



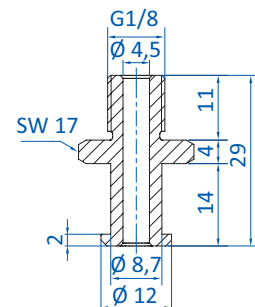
Technical data

Item no.	Thread G1
270.486	G1/8-male



Technical data

Item no.	Thread G1
270.490	G1/8-male



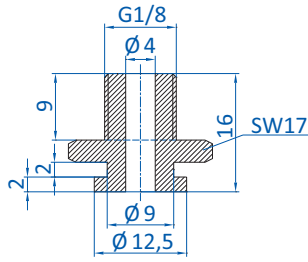
Technical data

Item no.	Thread G1
270.196	G1/8-male



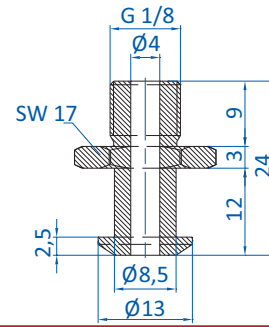
Vacuum cups accessories | Fittings

G1/8-male | G1/8-female



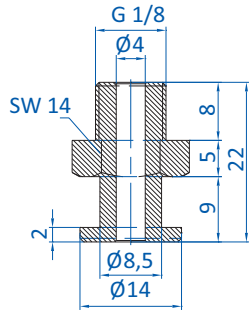
Technical data

	Thread G1
Item no.	
270.541	G1/8-male



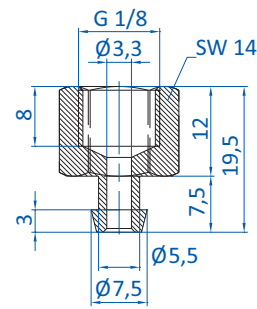
Technical data

	Thread G1
Item no.	
270.093	G1/8-male



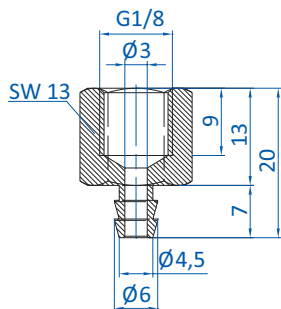
Technical data

	Thread G1
Item no.	
270.012	G1/8-male



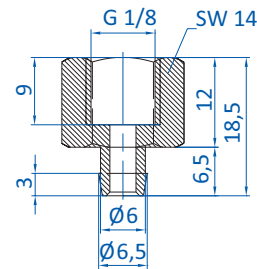
Technical data

	Thread G1
Item no.	
270.109	G1/8-female



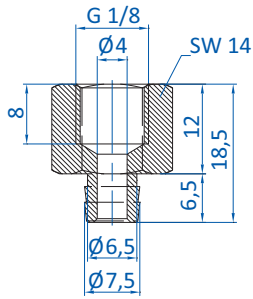
Technical data

	Thread G1
Item no.	
270.478	G1/8-female



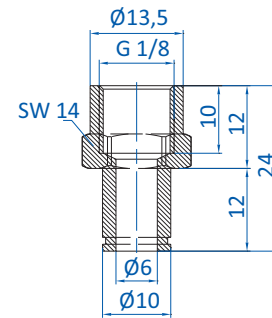
Technical data

	Thread G1
Item no.	
270.015	G1/8-female



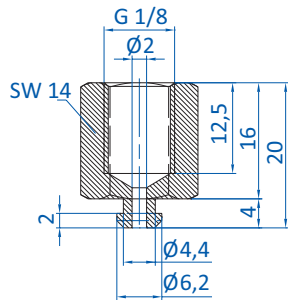
Technical data

Item no.	Thread G1
270.110	G1/8-female



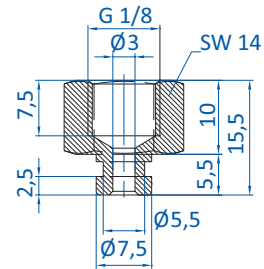
Technical data

Item no.	Thread G1
270.114	G1/8-female



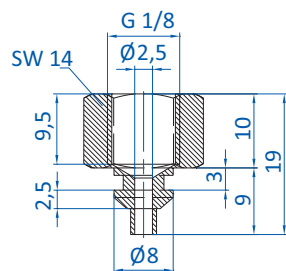
Technical data

Item no.	Thread G1
270.007	G1/8-female



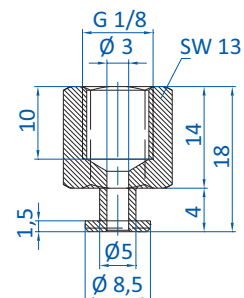
Technical data

Item no.	Thread G1
270.096	G1/8-female



Technical data

Item no.	Thread G1
270.086	G1/8-female



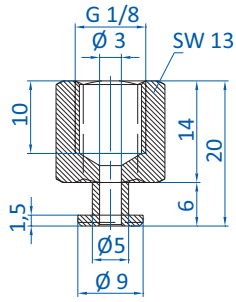
Technical data

Item no.	Thread G1
270.065	G1/8-female



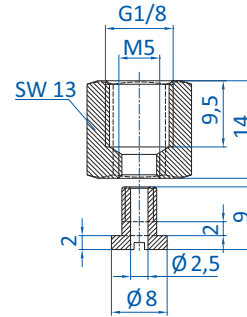
Vacuum cups accessories | Fittings

G1/8-female



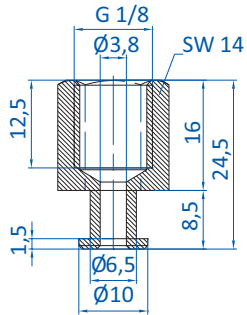
Technical data

Item no.	Thread G1
270.061	G1/8-female



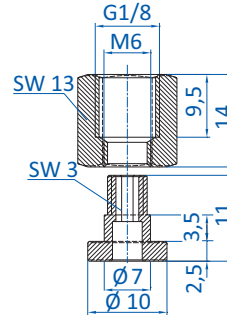
Technical data

Item no.	Thread G1
270.494	G1/8-female



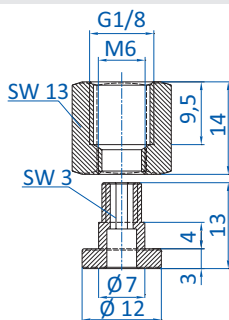
Technical data

Item no.	Thread G1
270.019	G1/8-female



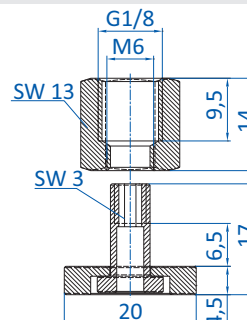
Technical data

Item no.	Thread G1
270.479	G1/8-female



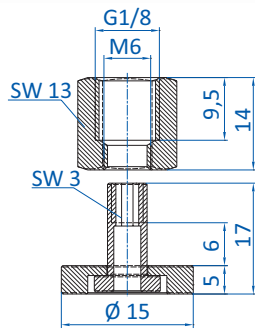
Technical data

Item no.	Thread G1
270.481	G1/8-female



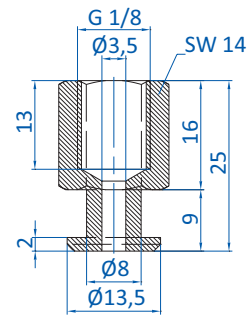
Technical data

Item no.	Thread G1
270.489	G1/8-female



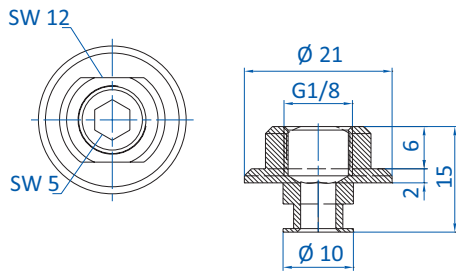
Technical data

Item no.	Thread G1
270.485	G1/8-female



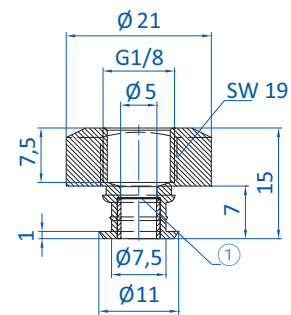
Technical data

Item no.	Thread G1
270.020	G1/8-female



Technical data

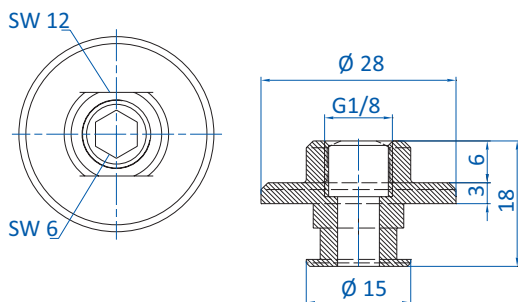
Item no.	Thread G1
270.251	G1/8-female



① = Filter screen

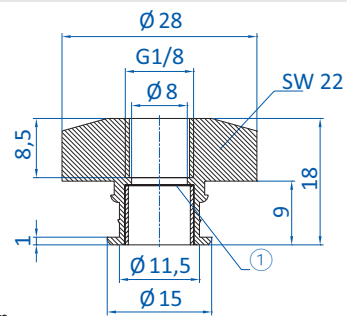
Technical data

Item no.	Thread G1
270.501-S	G1/8-female



Technical data

Item no.	Thread G1
270.252	G1/8-female



① = Filter screen

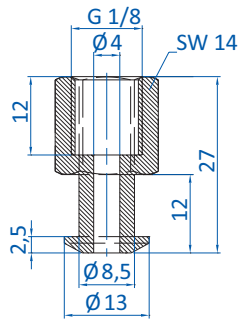
Technical data

Item no.	Thread G1
270.502-S	G1/8-female



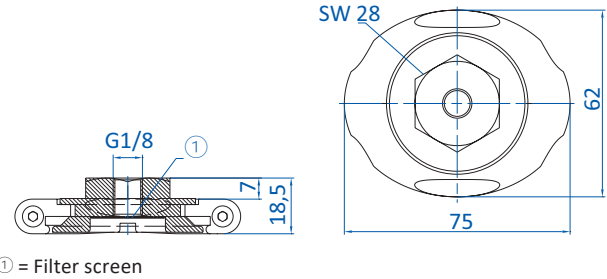
Vacuum cups accessories | Fittings

G1/8-female | G1/4-male



Technical data

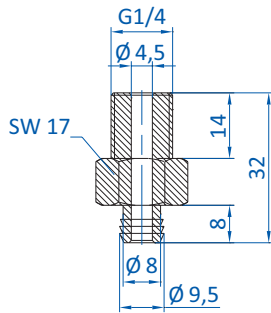
Item no.	Thread G1
270.092	G1/8-female



① = Filter screen

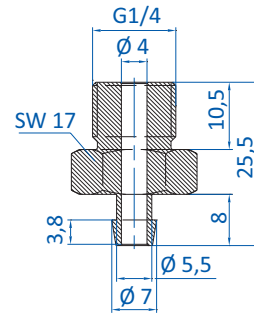
Technical data

Item no.	Thread G1
270.527-S	G1/8-female



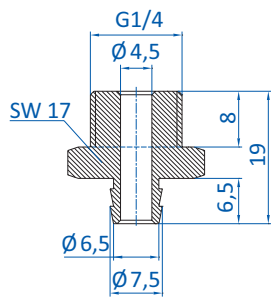
Technical data

Item no.	Thread G1
270.043	G1/4-male



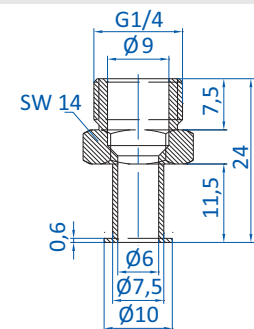
Technical data

Item no.	Thread G1
270.194	G1/4-male



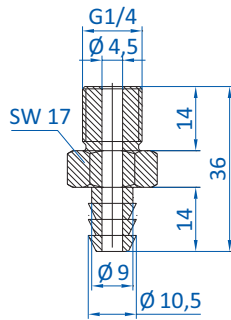
Technical data

Item no.	Thread G1
270.534	G1/4-male



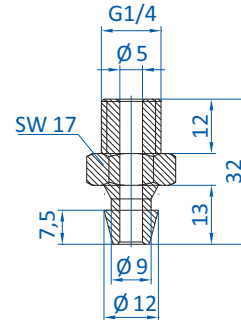
Technical data

Item no.	Thread G1
270.113	G1/4-male



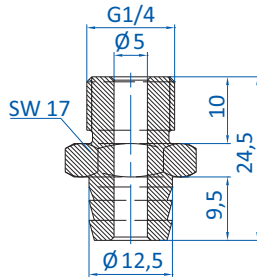
Technical data

Item no.	Thread G1
270.208	G1/4-male



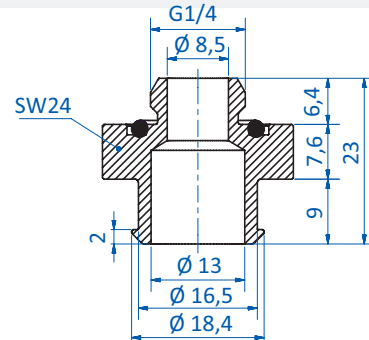
Technical data

Item no.	Thread G1
270.515	G1/4-male



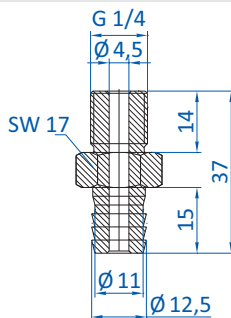
Technical data

Item no.	Thread G1
270.451	G1/4-male



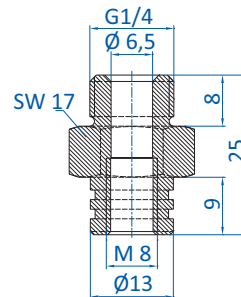
Technical data

Item no.	Thread G1
270.777	G1/4-male



Technical data

Item no.	Thread G1
270.044	G1/4-male



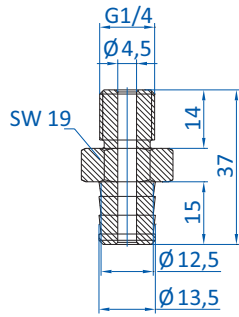
Technical data

Item no.	Thread G1
270.097	G1/4-male



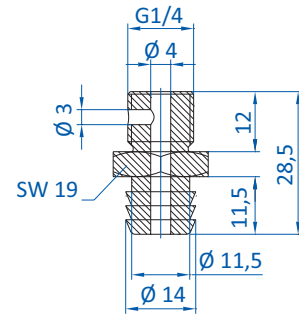
Vacuum cups accessories | Fittings

G1/4-male



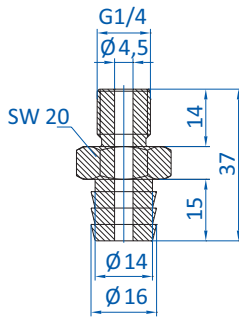
Technical data

Item no.	270.049-1
Thread G1	G1/4-male



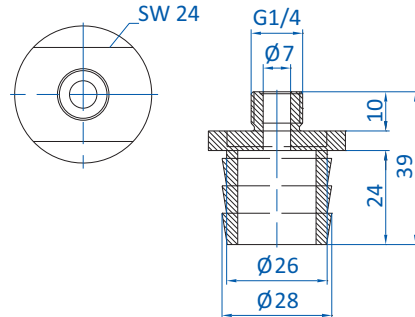
Technical data

Item no.	270.101
Thread G1	G1/4-male



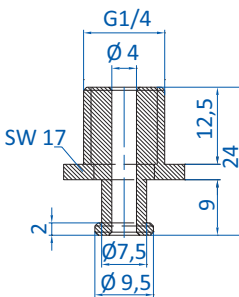
Technical data

Item no.	270.207
Thread G1	G1/4-male



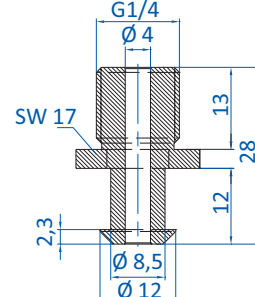
Technical data

Item no.	270.438
Thread G1	G1/4-male



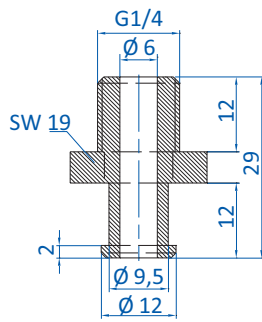
Technical data

Item no.	270.274
Thread G1	G1/4-male



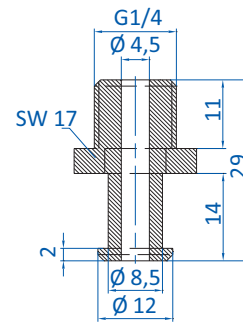
Technical data

Item no.	270.249
Thread G1	G1/4-male



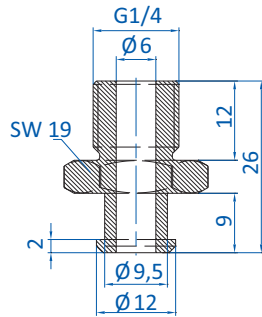
Technical data

Item no.	Thread G1
270.204	G1/4-male



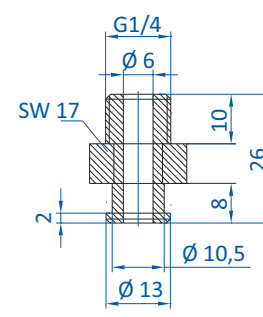
Technical data

Item no.	Thread G1
270.190	G1/4-male



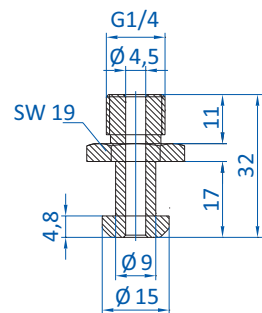
Technical data

Item no.	Thread G1
270.034	G1/4-male



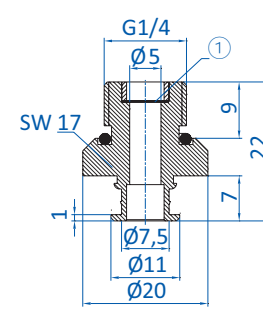
Technical data

Item no.	Thread G1
270.213	G1/4-male



Technical data

Item no.	Thread G1
270.281	G1/4-male



① = Filter screen

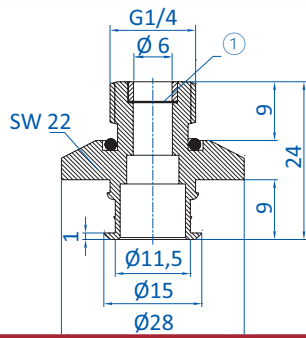
Technical data

Item no.	Thread G1
270.506-S	G1/4-male



Vacuum cups accessories | Fittings

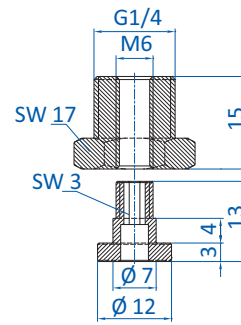
G1/4-male



① = Filter screen

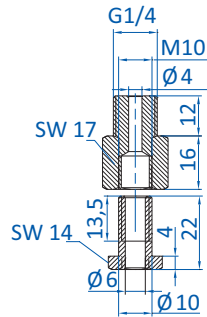
Technical data

Item no.	Thread G1
270.504-S	G1/4-male



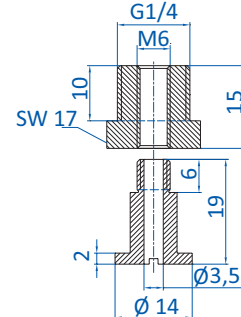
Technical data

Item no.	Thread G1
270.483	G1/4-male



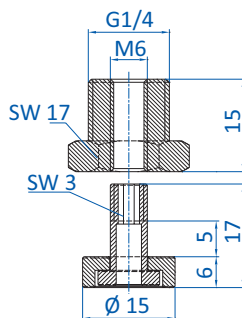
Technical data

Item no.	Thread G1
270.514	G1/4-male



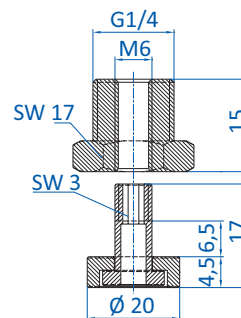
Technical data

Item no.	Thread G1
270.540	G1/4-male



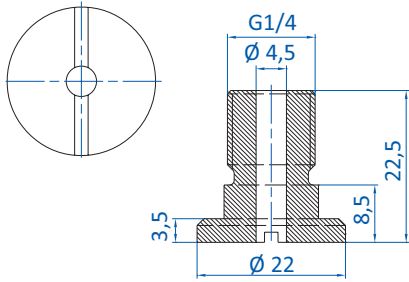
Technical data

Item no.	Thread G1
270.487	G1/4-male



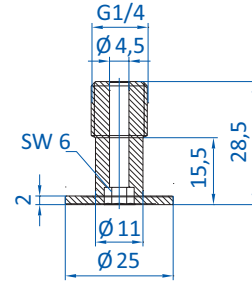
Technical data

Item no.	Thread G1
270.491	G1/4-male



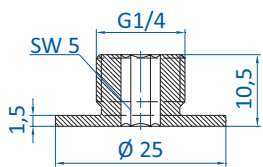
Technical data

Item no.	Thread G1
270.210	G1/4-male



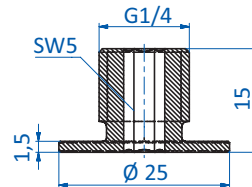
Technical data

Item no.	Thread G1
270.176	G1/4-male



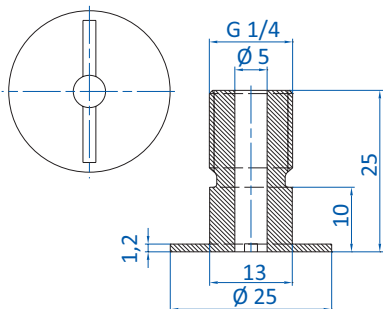
Technical data

Item no.	Thread G1
270.182.U	G1/4-male



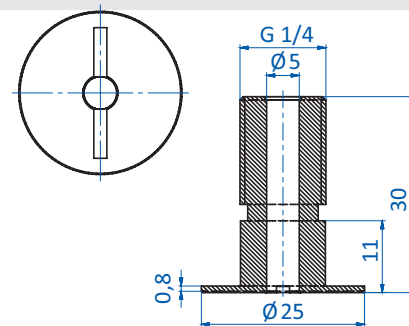
Technical data

Item no.	Thread G1
270.183	G1/4-male



Technical data

Item no.	Thread G1
270.042	G1/4-male



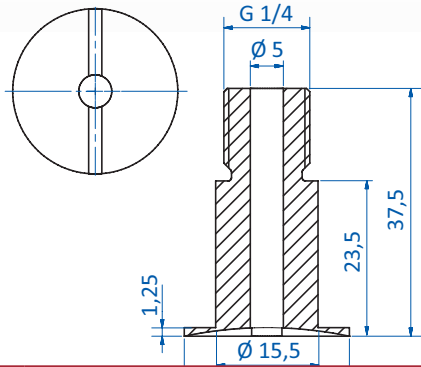
Technical data

Item no.	Thread G1
270.184	G1/4-male



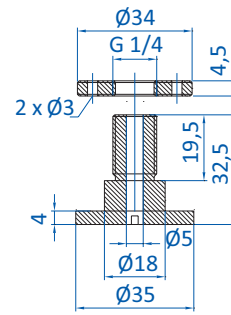
Vacuum cups accessories | Fittings

G1/4-male | G1/4-female



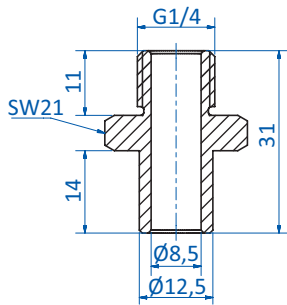
Technical data

Item no.	Thread G1
270.216	G1/4-male



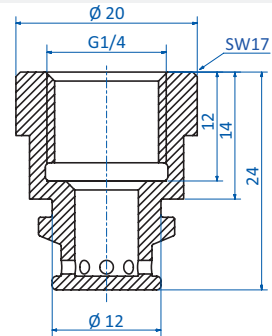
Technical data

Item no.	Thread G1
270.100	G1/4-male



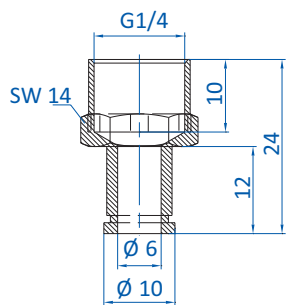
Technical data

Item no.	Thread G1
270.630	G1/4-male



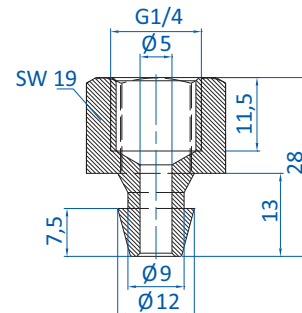
Technical data

Item no.	Thread G1
270.729	G1/4-female



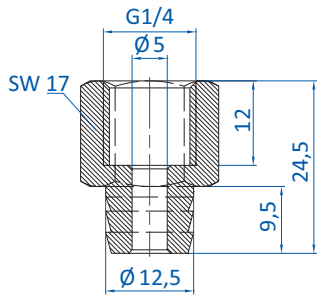
Technical data

Item no.	Thread G1
270.178	G1/4-female



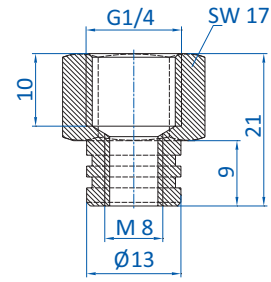
Technical data

Item no.	Thread G1
270.434	G1/4-female



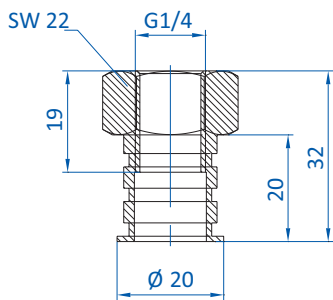
Technical data

Item no.	Thread G1
270.452	G1/4-female



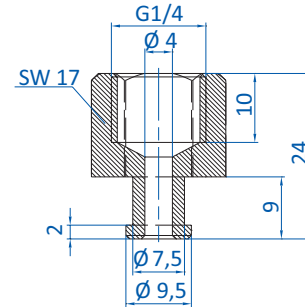
Technical data

Item no.	Thread G1
270.098	G1/4-female



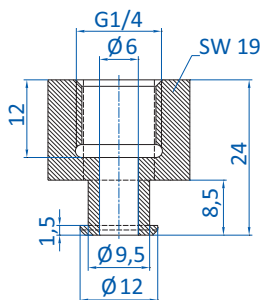
Technical data

Item no.	Thread G1
270.116	G1/4-female



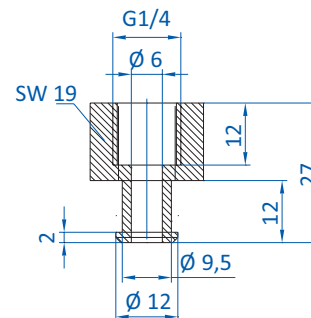
Technical data

Item no.	Thread G1
270.275	G1/4-female



Technical data

Item no.	Thread G1
270.038	G1/4-female



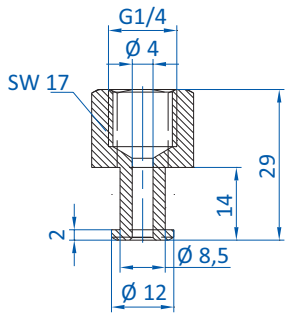
Technical data

Item no.	Thread G1
270.324	G1/4-female



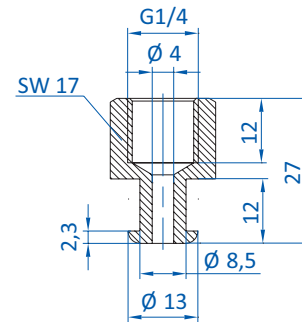
Vacuum cups accessories | Fittings

G1/4-female



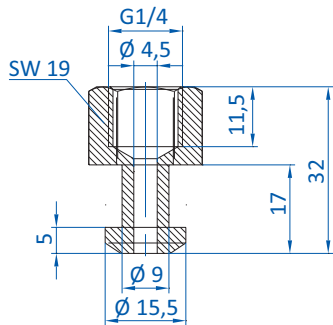
Technical data

Item no.	Thread G1
270.192	G1/4-female



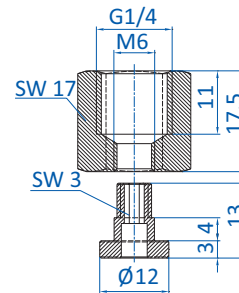
Technical data

Item no.	Thread G1
270.248	G1/4-female



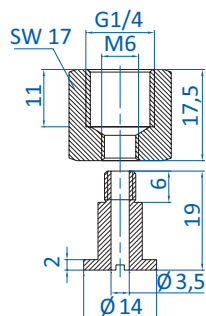
Technical data

Item no.	Thread G1
270.282	G1/4-female



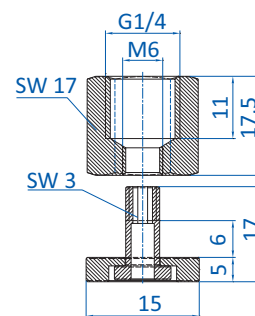
Technical data

Item no.	Thread G1
270.484	G1/4-female



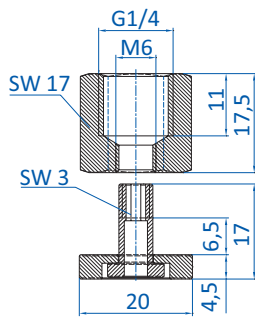
Technical data

Item no.	Thread G1
270.539	G1/4-female



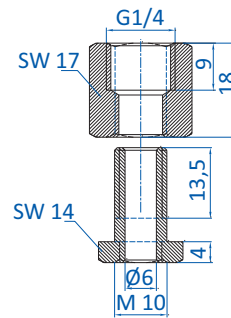
Technical data

Item no.	Thread G1
270.488	G1/4-female



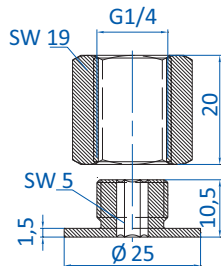
Technical data

	Thread G1
Item no.	
270.492	G1/4-female



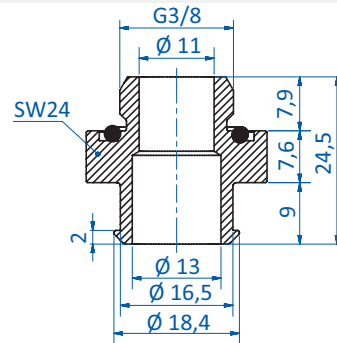
Technical data

	Thread G1
Item no.	
270.513	G1/4-female



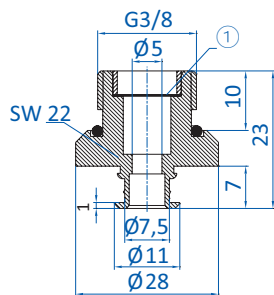
Technical data

	Thread G1
Item no.	
270.182	G1/4-female



Technical data

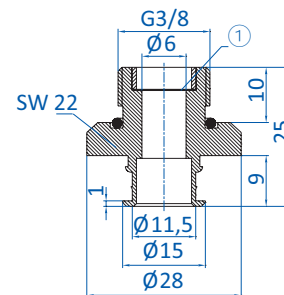
	Thread G1
Item no.	
270.778	G3/8-male



① = Filter screen

Technical data

	Thread G1
Item no.	
270.505-S	G3/8-male



① = Filter screen

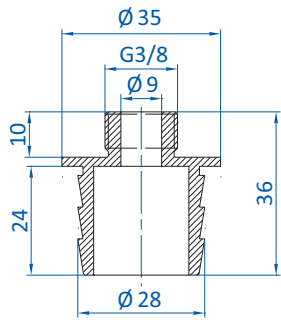
Technical data

	Thread G1
Item no.	
270.507-S	G3/8-male



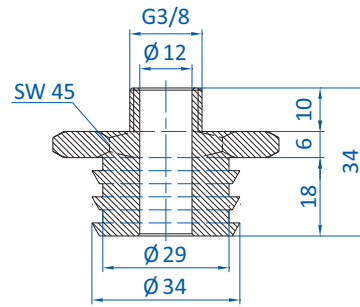
Vacuum cups accessories | Fittings

G3/8-male | G3/8-female



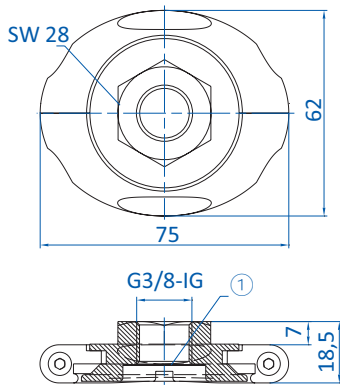
Technical data

Item no.	Thread G1
270.442	G3/8-male



Technical data

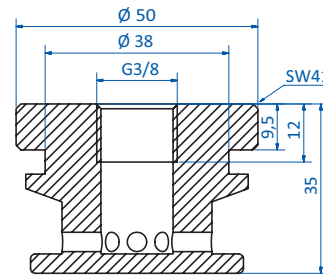
Item no.	Thread G1
270.526	G3/8-male



① = Filter screen

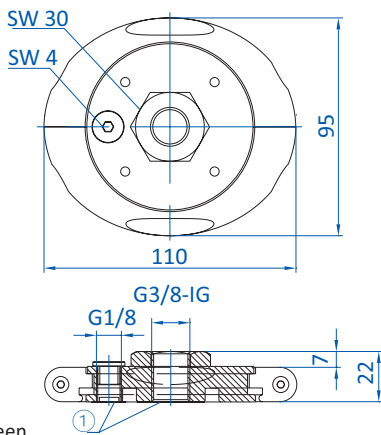
Technical data

Item no.	Thread G1
270.528-S	G3/8-female



Technical data

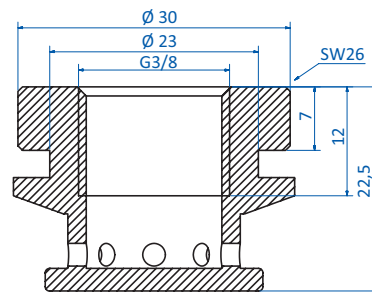
Item no.	Thread G1
270.750	G3/8-female



① = Filter screen

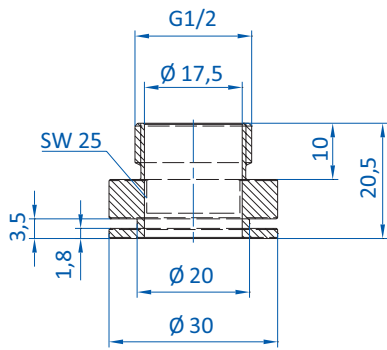
Technical data

Item no.	Thread G1
270.530-S	G3/8-female



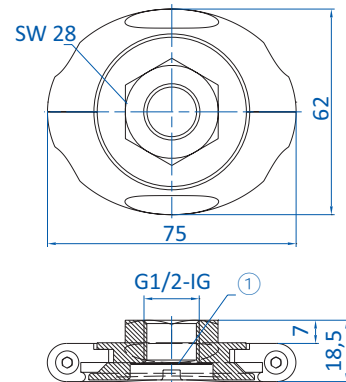
Technical data

Item no.	Thread G1
270.725	G3/8-female



Technical data

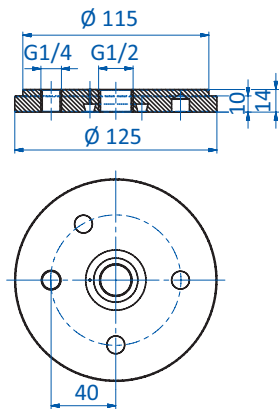
Item no.	Thread G1
270.372	G1/2-male



① = Filter screen

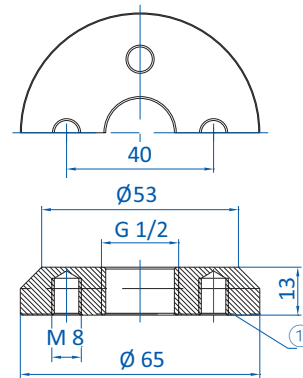
Technical data

Item no.	Thread G1
270.529-S	G1/2-female



Technical data

Item no.	Connection thread
270.380	G1/2-female



① = Aluminum

Technical data

Item no.	Thread G1
270.056	G1/2-female

Ordering notes

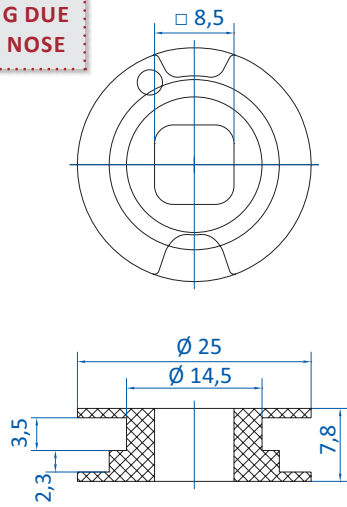
4x screw M8x16 included in delivery



Vacuum cups accessories | Fittings

Without Thread

EASY MOUNTING DUE
TO ABRADABLE NOSE

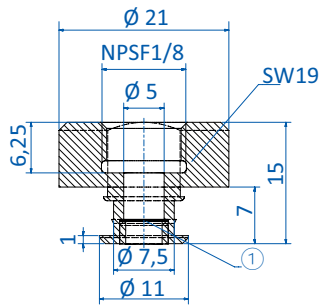


Technical data

Item no.	Thread G1
270.419	Without Thread

Ordering notes

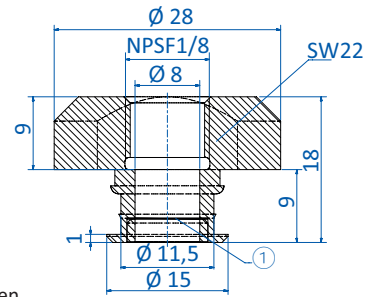
Suitable mounting aid: Item no. 90.007



① = Filter screen

Technical data

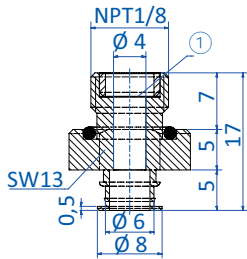
Item no.	Thread G1
270.781-S	NPSF1/8-female



① = Filter screen

Technical data

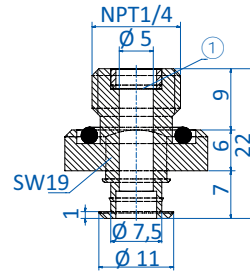
Item no.	Thread G1
270.782-S	NPSF1/8-female



① = Filter screen

Technical data

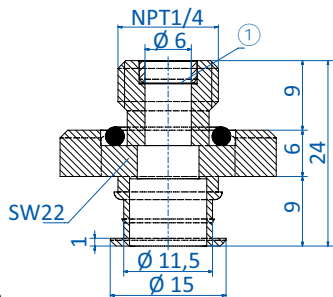
Item no.	Thread G1
270.783-S	NPT1/8-male



① = Filter screen

Technical data

Item no.	Thread G1
270.786-S	NPT1/4-male



① = Filter screen

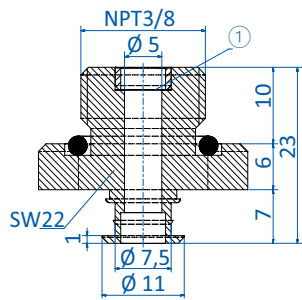
Technical data

Item no.	Thread G1
270.784-S	NPT1/4-male



Vacuum cups accessories | Fittings

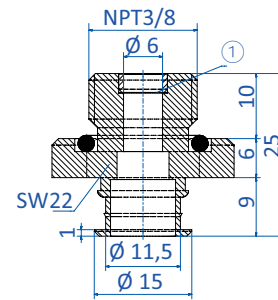
NPT3/8-male



① = Filter screen

Technical data

Item no.	Thread G1
270.785-S	NPT3/8-male



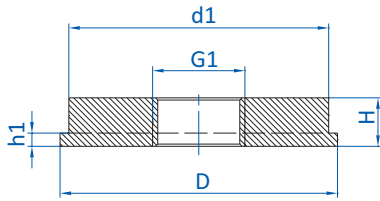
① = Filter screen

Technical data

Item no.	Thread G1
270.787-S	NPT3/8-male



Carrier plates SZ-NIP-T



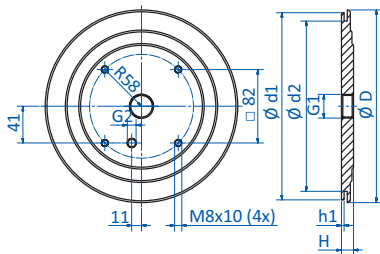
Technical data

Item no.	Thread G1
270.233	G1/8-female
270.234	G1/8-female
270.235	G1/8-female
270.289	G1/8-female
270.179	G1/4-female
270.262	G1/8-female
270.284	G1/4-female
270.338	M12x1.75-female
270.180	G1/4-female
270.158	G1/8-female
270.264	G1/4-female
270.286	G1/2-female
270.224	G1/4-female
270.167	G3/8-female
270.266	G1/2-female
270.164	G1/8-female
270.171	G1/4-female
270.173	G3/8-female
270.268	G1/2-female
270.335	G1/2-female

Dimensions

G1	H [mm]	h1 [mm]	Ø D [mm]	Ø d1 [mm]
G1/8	6	3.1	17.5	14.9
G1/8	6	3	21	17.5
G1/8	5.5	2.1	28.5	25
G1/8	10	3	29	20
G1/4	20	14.5	43	32
G1/8	10	3	44	40
G1/4	10	3	44	40
M12x1.75	10	3	55	45
G1/4	20	14	60	50
G1/8	11	3	63	59
G1/4	11	3	63	59
G1/2	11	3	63	59
G1/4	11	3	92	88
G3/8	11	3	92	88
G1/2	11	3	92	88
G1/8	11	3	95	88
G1/4	15	4	127	120
G3/8	15	4	127	120
G1/2	15	4	127	120
G1/2	20	14	160	150

Carrier plates SZ-NIP-T



Technical data

Item no.	Thread G1
270.076	G3/4-female

Dimensions

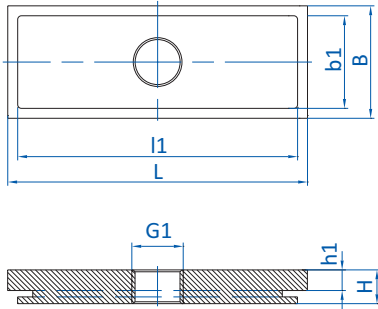
G1	G2	H [mm]	h1 [mm]	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]
G3/4	G1/8	13.5	3	315	309	285



Vacuum cups accessories | Fittings

Carrier plates SZ-NIP-T

Carrier plates SZ-NIP-T



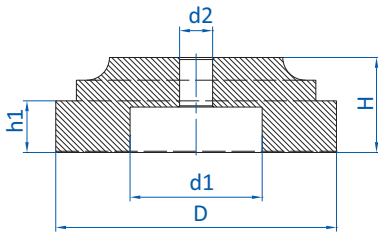
Technical data

Item no.	Thread G1
270.508	G1/8-female
270.509	G1/4-female
270.392	G1/4-female
270.510	G1/4-female
270.511	G1/4-female

Dimensions

G1	L [mm]	l1 [mm]	B [mm]	b1 [mm]	H [mm]	h1 [mm]
G1/8	52	48	25	22	9	5.5
G1/4	60	56	29	25	9	5.5
G1/4	80	75	30	25	9	5.5
G1/4	80	75	40	35	9	5.5
G1/4	80	75	50	44	9	5.5

Carrier plates SZ-NIP-T



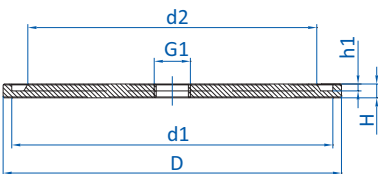
Technical data

Item no.	Thread G1
270.270	Without

Dimensions

H [mm]	h1 [mm]	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]
23	12.5	68	32	8

Carrier plates SZ-NIP-T



Technical data

Item no.	Thread G1
270.415	Without
270.236	G1/2-female
270.535	Without

Dimensions

H [mm]	h1 [mm]	Ø D [mm]	Ø d1 [mm]	Ø d2 [mm]
8	4.8	95	86	62
8	4	196	186	167
10	5	237	227	198



Non-rotating internal spring levelers – smooth body



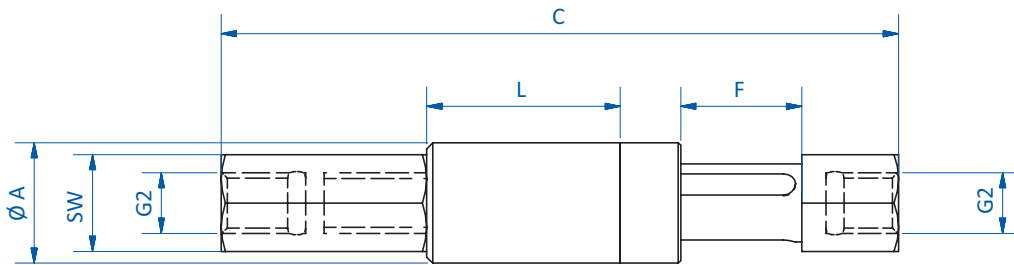
Product notes

- > Free moving and high-load capability with ball guide technology
- > Clampable smooth body
- > Body and rod made of anodized aluminum

Technical data

Item no.	Thread suction side G2	Stroke [mm]	Non-rotating	Weight [g]
GR03.1010	M5-female	10	Yes	7
GR03.1025	M5-female	25	Yes	11
GR03.1420	G1/8-female	20	Yes	23
GR03.1435	G1/8-female	35	Yes	35
GR03.2025	G1/8-female	25	Yes	54
GR03.2050	G1/8-female	50	Yes	80

Dimensions



Item no.	Ø A [mm]	C [mm]	L [mm]	G2	F [mm]	SW
GR03.1010	10	56	16	M5	10	8
GR03.1025	10	90.5	35.5	M5	25	8
GR03.1420	14	98.5	31.5	G1/8	20	12
GR03.1435	14	133.5	51.5	G1/8	35	12
GR03.2025	20	110	41	G1/8	25	16
GR03.2050	20	167.5	73.5	G1/8	50	16



Vacuum cups accessories | Spring leveler

Non-rotating internal spring levelers – threaded body

Non-rotating internal spring levelers – threaded body



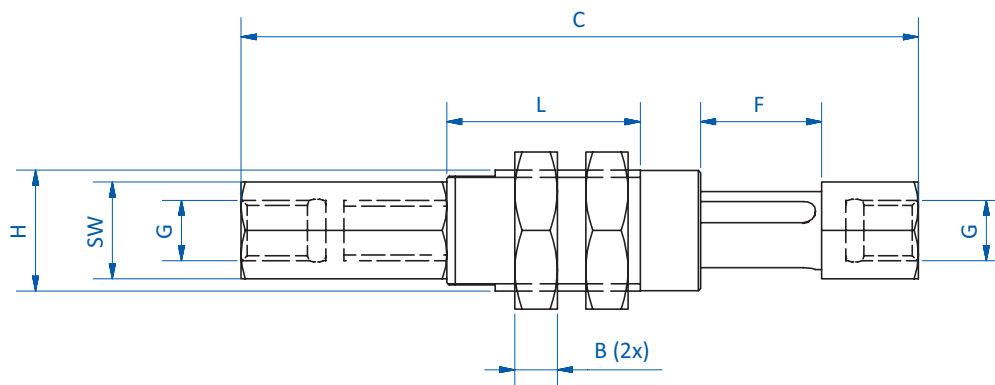
Product notes

- > Free moving and high-load capability with ball guide technology
- > Flexible mounting via threaded body
- > Body and rod made of anodized aluminum

Technical data

Item no.	Thread suction side G2	Stroke [mm]	Non-rotating	Weight [g]
GR03.1010T	M5-female	10	Yes	11
GR03.1025T	M5-female	25	Yes	13
GR03.1210T	M5-female	10	Yes	15
GR03.1225T	M5-female	25	Yes	20
GR03.1620T	G1/8-female	20	Yes	35
GR03.1635T	G1/8-female	35	Yes	45
GR03.2025T	G1/4-female	25	Yes	63
GR03.2050T	G1/4-female	50	Yes	90
GR03.2540T	G3/8-female	40	Yes	170
GR03.2580T	G3/8-female	80	Yes	235

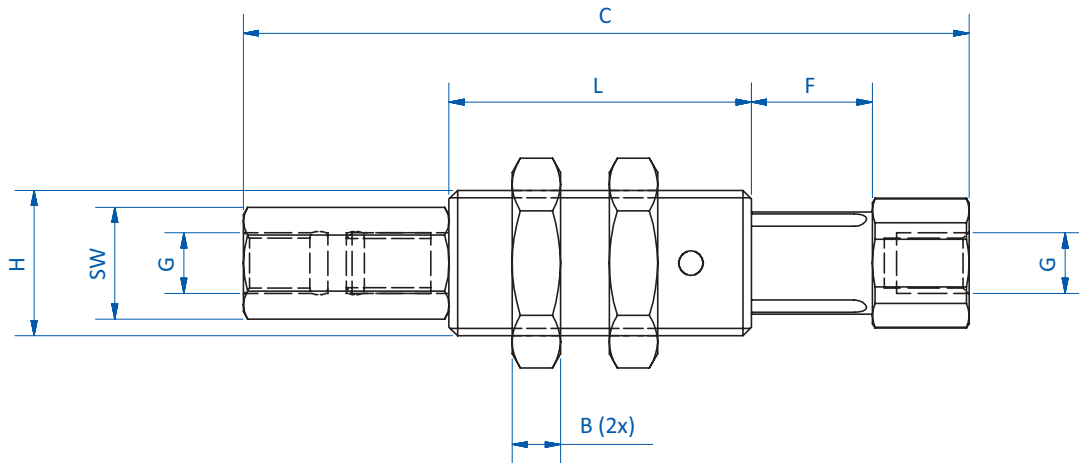
Dimensions



GR03.1010T | GR03.1025T



Dimensions



GR03.1210T | GR03.1225T | GR03.1620T | GR03.1635T | GR03.2025T | GR03.2050T | GR03.2540T | GR03.2580T

Item no.	H	B [mm]	C [mm]	L [mm]	G	F [mm]	SW
GR03.1010T	M10x1	3.5	56	16	M5	10	8
GR03.1025T	M10x1	3.5	90.5	35.5	M5	25	8
GR03.1210T	M12x1	4	60	25	M5	10	8
GR03.1225T	M12x1	4	94	44	M5	25	8
GR03.1620T	M16x1	5	98.5	38.5	G1/8	20	12
GR03.1635T	M16x1	5	135	58.5	G1/8	36.5	12
GR03.2025T	M20x1.5	6	113	50	G1/4	25	16
GR03.2050T	M20x1.5	6	170.5	82.5	G1/4	50	16
GR03.2540T	M25x1.5	8	159	71	G3/8	40	22
GR03.2580T	M25x1.5	8	249	121	G3/8	80	22



Vacuum cups accessories | Spring leveler

Standard spring levelers with threaded connection – SZ-NIV-S

Standard spring levelers with threaded connection – SZ-NIV-S



Product notes

- > Compensate for height differences
- > Soft attachment for sensitive products
- > Leveling as standard version
- > Vacuum connection on top, vacuum channel via spring leveler
- > Also available non-rotating (M5-female)

Notes

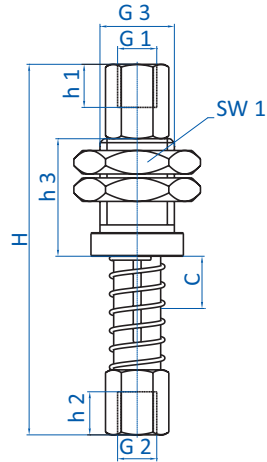
- > Recommendation: for the best possible service life do not exceed max. stroke indicated

Technical data

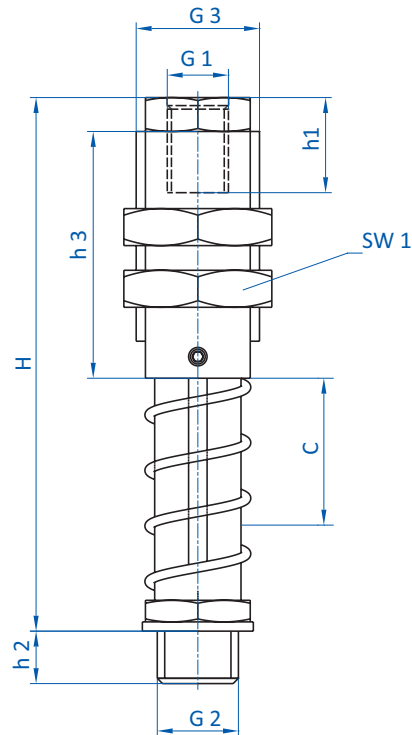
Item no.	Model	Thread suction side G2	Thread fixing bushes G3	Stroke C [mm]	Spring rate [N/mm]	Max. spring force [N]	Spring pre-load [N]	Non-rotating	Weight [g]	Suitable mounting bracket
50.158	SZ-NIV-S-M5-IG-5	M5-female	G1/8-male	5	0.393	4	2	No	17	GR02.230
50.149	SZ-NIV-S-M5-IG-10	M5-female	G1/8-male	10	0.361	5.8	2.2	No	18	GR02.230
50.152	SZ-NIV-S-M5-IG-10-VS	M5-female	G1/8-male	10	0.361	5.5	1.9	Yes	19	GR02.230
50.150	SZ-NIV-S-M5-IG-20	M5-female	G1/8-male	18	0.227	4.3	0.3	No	20	GR02.230
50.153	SZ-NIV-S-M5-IG-20-VS	M5-female	G1/8-male	20	0.227	4.8	0.3	Yes	21	GR02.230
50.230	SZ-NIV-S-G1/8-AG-15	G1/8-male	M16x1-male	15	0.211	6.5	3.3	No	94	GR02.231
50.160	SZ-NIV-S-G1/8-AG-25	G1/8-male	M16x1-male	25	0.231	8.7	2.9	No	94	GR02.231
50.162	SZ-NIV-S-G1/8-AG-50	G1/8-male	M16x1-male	50	0.156	9.7	1.9	No	110	GR02.231
50.164	SZ-NIV-S-G1/4-AG-25	G1/4-male	M20x1.5-male	25	0.65	18.3	2	No	136	GR02.232
50.166	SZ-NIV-S-G1/4-AG-75	G1/4-male	M20x1.5-male	75	0.245	19.4	1.1	No	195	GR02.232



Dimensions



50.158 | 50.149 | 50.152 | 50.150 | 50.153



50.230 | 50.160 | 50.162 | 50.164 | 50.166

Item no.	H [mm]	h1 [mm]	h2 [mm]	h3 [mm]	SW1	G1 (female)	G2 (male)	G2 (female)	G3 (male)	C [mm]
50.158	43	5.5	6.2	15	14	M5	--	M5	G1/8	5
50.149	47	5.5	6.2	15	14	M5	--	M5	G1/8	10
50.152	47	5.5	6.2	15	14	M5	--	M5	G1/8	10
50.150	59	5.5	6.2	15	14	M5	--	M5	G1/8	20
50.153	59	5.5	6.2	15	14	M5	--	M5	G1/8	20
50.230	72	8	6.5	30	22	G1/8	G1/8	--	M16x1	15
50.160	85	8.5	8.5	30	22	G1/8	G1/8	--	M16x1	25
50.162	116	8.5	6.5	30	22	G1/8	G1/8	--	M16x1	50
50.164	95	15	9	40	24	G1/8	G1/4	--	M20x1.5	25
50.166	153	15	10.5	40	24	G1/8	G1/4	--	M20x1.5	75



Vacuum cups accessories | Spring leveler

Spring levelers with internal spring and threaded connection – SZ-NIV-I

Spring levelers with internal spring and threaded connection – SZ-NIV-I

BESTSELLER



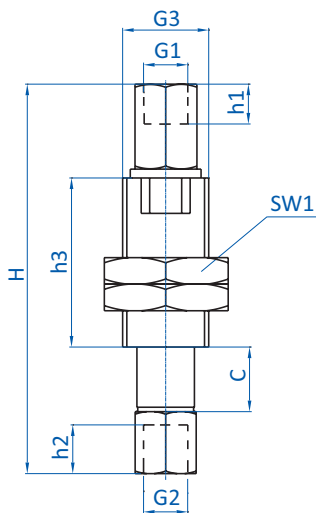
Product notes

- > Compensate for height differences
- > Soft attachment for sensitive products
- > With internal spring protected from dirt and with spring deflection limiter
- > Vacuum connection on top, vacuum channel via spring leveler

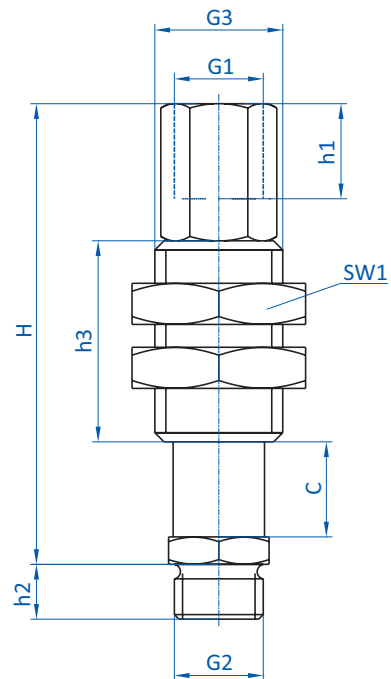
Technical data

Item no.	Model	Thread suction side G2	Thread fixing bushes G3	Stroke C [mm]	Spring rate [N/mm]	Max. spring force [N]	Spring pre-load [N]	Weight [g]	Suitable mounting bracket
50.120	SZ-NIV-I-M5-IG-7	M5-female	G1/8-male	7	0.606	6	1.8	17	GR02.230
50.123	SZ-NIV-I-G1/8-AG-8	G1/8-male	M14x1.5-male	8	0.097	2.6	1.8	42	--
50.124	SZ-NIV-I-G1/8-AG-20	G1/8-male	M16x1-male	19	0.482	12.8	3.7	73	GR02.231

Dimensions



50.120



50.123 | 50.124

Item no.	H [mm]	h1 [mm]	h2 [mm]	h3 [mm]	SW1	G1 (female)	G2 (female)	G2 (male)	G3 (male)	C [mm]
50.120	44	4.3	5	19	14	M5	M5	--	G1/8	7
50.123	50	10	6	22	19	G1/8	--	G1/8	M14x1.5	8
50.124	73	12	5.6	35	21	G1/8	--	G1/8	M16x1	20



Heavy-duty spring levelers – SZ-NIV-HD

HEAVY-DUTY DESIGN



Product notes

- > Compensate for height differences
- > Soft attachment for sensitive products
- > Long life even under the toughest conditions
- > Leveling with stainless steel shaft and high-quality bearings
- > Vacuum connection on top, vacuum channel via spring leveler
- > Optionally also available non-rotating

Notes

- > Recommendation: for the best possible service life do not exceed max. stroke indicated

Technical data

Item no.	Model	Thread suction side G2	Stroke C [mm]	Spring rate [N/mm]	Max. spring force [N]	Spring pre-load [N]	Non-rotating	Weight [g]	Suitable mounting bracket
50.315	SZ-NIV-HD-G1/8-AG-15	G1/8-male	15	0.221	5.4	2.1	No	83	GR02.231
50.310	SZ-NIV-HD-G1/8-AG-15-VS	G1/8-male	15	0.221	6.6	3.3	Yes	83	GR02.231
50.316	SZ-NIV-HD-G1/8-AG-25	G1/8-male	25	0.193	6.8	2	No	89	GR02.231
50.311	SZ-NIV-HD-G1/8-AG-25-VS	G1/8-male	25	0.193	5.8	1	Yes	89	GR02.231
50.317	SZ-NIV-HD-G1/8-AG-50	G1/8-male	50	0.097	6.7	1.8	No	104	GR02.231
50.312	SZ-NIV-HD-G1/8-AG-50-VS	G1/8-male	50	0.097	7.6	2.8	Yes	104	GR02.231
50.345	SZ-NIV-HD-G1/4-AG-25	G1/4-male	25	0.711	22.9	5.2	No	134	GR02.232
50.340	SZ-NIV-HD-G1/4-AG-25-VS	G1/4-male	25	0.711	22.1	4.3	Yes	134	GR02.232
50.346	SZ-NIV-HD-G1/4-AG-50	G1/4-male	50	0.452	24.5	1.9	No	160	GR02.232
50.341	SZ-NIV-HD-G1/4-AG-50-VS	G1/4-male	50	0.452	23.9	1.3	Yes	160	GR02.232
50.347	SZ-NIV-HD-G1/4-AG-75	G1/4-male	75	0.262	22.3	2.6	No	186	GR02.232
50.342	SZ-NIV-HD-G1/4-AG-75-VS	G1/4-male	75	0.262	24	4.4	Yes	186	GR02.232
50.350	SZ-NIV-HD-G3/8-AG-25	G3/8-male	25	3.828	95.6	19.1	No	410	--
50.353	SZ-NIV-HD-G3/8-AG-25-VS	G3/8-male	25	3.828	95.4	18.9	Yes	406	--
50.351	SZ-NIV-HD-G3/8-AG-75	G3/8-male	75	1.072	113.4	33	No	531	--
50.354	SZ-NIV-HD-G3/8-AG-75-VS	G3/8-male	75	1.072	124.5	44.1	Yes	525	--
50.360	SZ-NIV-HD-G1/2-AG-25	G1/2-male	25	3.828	95.1	18.5	No	419	--
50.363	SZ-NIV-HD-G1/2-AG-25-VS	G1/2-male	25	3.828	105.9	29.3	Yes	416	--
50.361	SZ-NIV-HD-G1/2-AG-75	G1/2-male	75	1.436	113.8	6.1	No	548	--
50.364	SZ-NIV-HD-G1/2-AG-75-VS	G1/2-male	75	1.436	121.7	14	Yes	540	--
50.366	SZ-NIV-HD-M12-AG-25	M12-male	25	0.711	22.9	5.2	No	150	GR02.232
50.367	SZ-NIV-HD-M12-AG-25-VS	M12-male	25	0.711	22.1	4.3	Yes	150	GR02.232
50.368	SZ-NIV-HD-M12-AG-50	M12-male	50	0.452	24.5	1.9	No	176	GR02.232
50.369	SZ-NIV-HD-M12-AG-50-VS	M12-male	50	0.452	23.9	1.3	Yes	176	GR02.232

Continued on the next page →



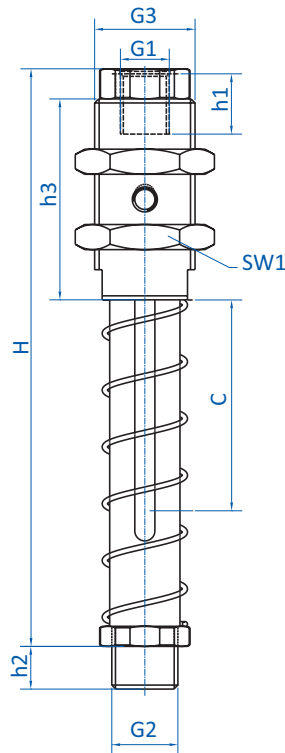
Vacuum cups accessories | Spring leveler

Heavy-duty spring levelers – SZ-NIV-HD

Technical data

Item no.	Model	Thread suction side G2	Stroke C [mm]	Spring rate [N/mm]	Max. spring force [N]	Spring pre-load [N]	Non-rotating	Weight [g]	Suitable mounting bracket
50.370	SZ-NIV-HD-M12-AG-75	M12-male	75	0.262	22.3	2.6	No	202	GR02.232
50.371	SZ-NIV-HD-M12-AG-75-VS	M12-male	75	0.262	24	4.4	Yes	202	GR02.232
50.372	SZ-NIV-HD-M16-AG-25	M16-male	20	3.828	95.6	19.1	No	451	--
50.373	SZ-NIV-HD-M16-AG-25-VS	M16-male	20	3.828	95.4	18.9	Yes	447	--
50.374	SZ-NIV-HD-M16-AG-75	M16-male	75	1.072	113.4	33	No	572	--
50.375	SZ-NIV-HD-M16-AG-75-VS	M16-male	75	1.072	124.5	44.1	Yes	566	--

Dimensions



Item no.	H [mm]	h1 [mm]	h2 [mm]	h3 [mm]	SW1	G1 (female)	G2 (male)	G3 (male)	C [mm]
50.315	72	8	8	30	22	G1/8	G1/8	M16x1	15
50.310	72	8	8	30	22	G1/8	G1/8	M16x1	15
50.316	85	8	8	30	22	G1/8	G1/8	M16x1	25
50.311	85	8	8	30	22	G1/8	G1/8	M16x1	25
50.317	116	8	8	30	22	G1/8	G1/8	M16x1	50
50.312	116	8	8	30	22	G1/8	G1/8	M16x1	50
50.345	85.5	12	8.5	40	24	G1/8	G1/4	M20x1.5	25
50.340	85.5	12	8.5	40	24	G1/8	G1/4	M20x1.5	25
50.346	115	12	8.5	40	24	G1/8	G1/4	M20x1.5	50
50.341	115	12	8.5	40	24	G1/8	G1/4	M20x1.5	50
50.347	144.5	12	8.5	40	24	G1/8	G1/4	M20x1.5	75
50.342	144.5	12	8.5	40	24	G1/8	G1/4	M20x1.5	75
50.350	104	14	12	53	36	G3/8	G3/8	M30x1.5	25
50.353	104	14	12	53	36	G3/8	G3/8	M30x1.5	25

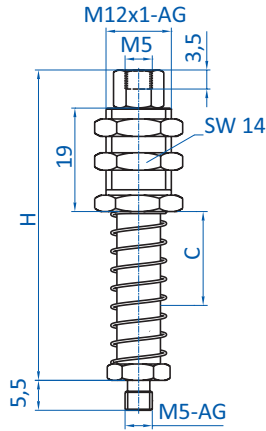


Item no.	H [mm]	h1 [mm]	h2 [mm]	h3 [mm]	SW1	G1 (female)	G2 (male)	G3 (male)	C [mm]
50.351	175	14	12	53	36	G3/8	G3/8	M30x1.5	75
50.354	175	14	12	53	36	G3/8	G3/8	M30x1.5	75
50.360	104	14	12	53	36	G3/8	G1/2	M30x1.5	25
50.363	104	14	12	53	36	G3/8	G1/2	M30x1.5	25
50.361	175	14	12	53	36	G3/8	G1/2	M30x1.5	75
50.364	175	14	12	53	36	G3/8	G1/2	M30x1.5	75
50.366	97.5	12	10	40	24	G1/8	M12	M20x1.5	25
50.367	97.5	12	10	40	24	G1/8	M12	M20x1.5	25
50.368	127	12	10	40	24	G1/8	M12	M20x1.5	50
50.369	127	12	10	40	24	G1/8	M12	M20x1.5	50
50.370	156.5	12	10	40	24	G1/8	M12	M20x1.5	75
50.371	156.5	12	10	40	24	G1/8	M12	M20x1.5	75
50.372	119	14	10	53	36	G3/8	M16	M30x1.5	25
50.373	119	14	10	53	36	G3/8	M16	M30x1.5	25
50.374	190	14	10	53	36	G3/8	M16	M30x1.5	75
50.375	190	14	10	53	36	G3/8	M16	M30x1.5	75



Vacuum cups accessories | Spring leveler

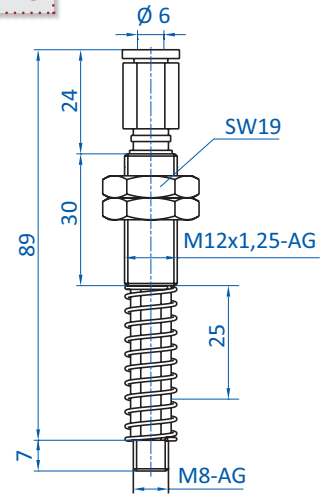
Spring levelers with thread connection



Technical data

Item no.	Thread suction side G2	Stroke C [mm]	Non-rotating	Thread fixing bushes G3	Weight [g]	C [mm]	H [mm]
50.121	M5-male	10	No	M12x1-male	28	10	47
50.122	M5-male	20	No	M12x1-male	31	20	57

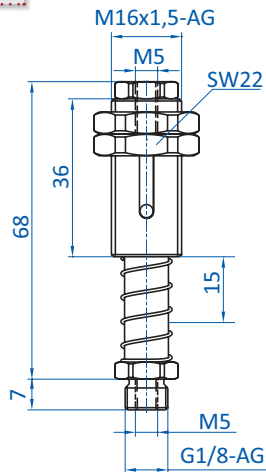
NON-ROTATING



Technical data

Item no.	Thread suction side G2	Stroke C [mm]	Non-rotating	Thread fixing bushes G3	Weight [g]
50.054	M8-male	25	Yes	M12x1.25-male	83

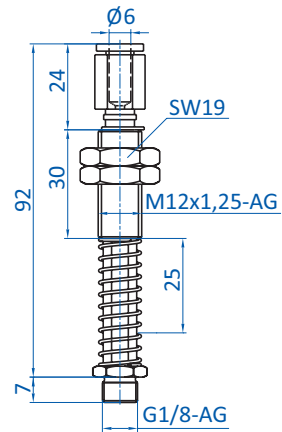
NON-ROTATING



Technical data

Item no.	Thread suction side G2	Stroke C [mm]	Non-rotating	Thread fixing bushes G3	Weight [g]
50.066	G1/8-male	15	Yes	M16x1.5-male	70

NON-ROTATING

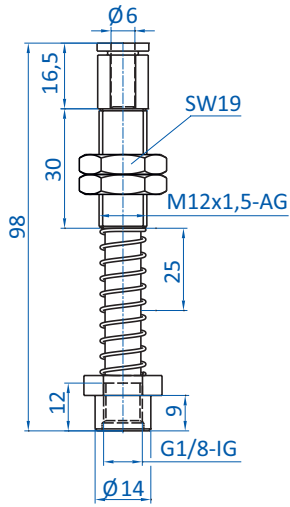


Technical data

Item no.	Thread suction side G2	Stroke C [mm]	Non-rotating	Thread fixing bushes G3	Weight [g]
50.055	G1/8-male	25	Yes	M12x1.25-male	64

Notes:

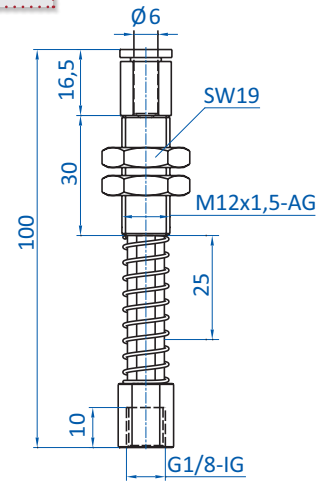
with plastic slide bearings



Technical data

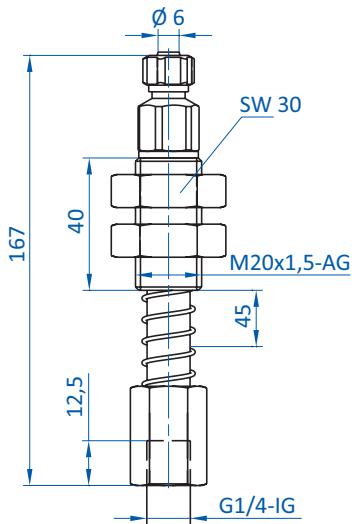
Item no.	Thread suction side G2	Stroke C [mm]	Non-rotating	Thread fixing bushes G3	Weight [g]
50.021	G1/8-female	25	No	M12x1.5-male	75

NON-ROTATING



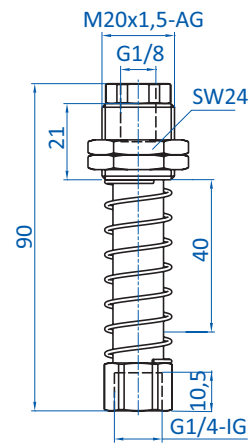
Technical data

Item no.	Thread suction side G2	Stroke C [mm]	Non-rotating	Thread fixing bushes G3	Weight [g]
50.056	G1/8-female	25	Yes	M12x1.5-male	63



Technical data

Item no.	Thread suction side G2	Stroke C [mm]	Non-rotating	Thread fixing bushes G3	Weight [g]
50.106	G1/4-female	45	No	M20x1.5-male	250



Technical data

Item no.	Thread suction side G2	Stroke C [mm]	Non-rotating	Thread fixing bushes G3	Weight [g]
50.050	G1/4-female	40	No	M20x1.5-male	122



Vacuum cups accessories | Spring leveler

Spring levelers for direct vacuum cup mounting – internal spring – SZ-NIV-DI

Spring levelers for direct vacuum cup mounting – internal spring – SZ-NIV-DI



Product notes

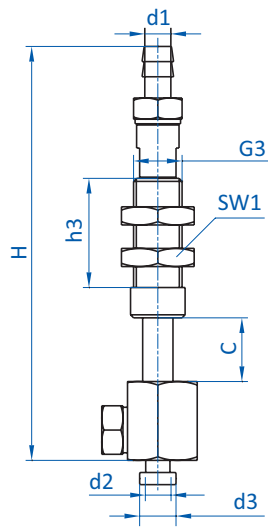
- > Direct mounting of the spring leveler on the vacuum cup, no additional fitting required
- > With internal spring protected from dirt and with spring deflection limiter
- > Compensate for height differences
- > Soft attachment for sensitive products
- > Vacuum connection on top, vacuum channel via spring leveler

Technical data

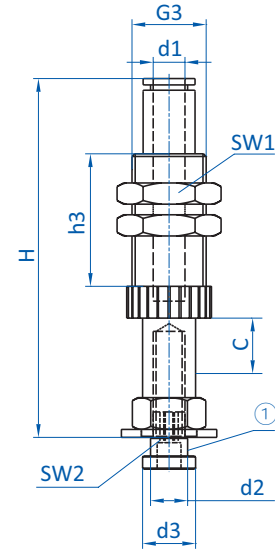
Item no.	Thread suction side G2	Thread fixing bushes G3	Stroke C [mm]	Spring rate [N/mm]	Max. spring force [N]	Spring pre-load [N]	Non-rotating	Hose inner diameter [mm]	Hose outer diameter [mm]	Design	Weight [g]	Suitable mounting bracket
50.330	Without (Snap-in)	M8x0.75	9	0.037	0.6	0.2	No	4	--	--	19	--
50.103	Without (Snap-in)	M14x1-male	5.5	0.36	6.4	4.4	Yes	--	6	--	34	--
50.104	Without (Snap-in)	M14x1-male	6	0.388	6.5	4.2	Yes	--	4	--	33	--
50.125	Without (Snap-in)	M14x1-male	9.5	0.286	5.3	2.6	Yes	--	6	--	36	--
50.126	Without (Snap-in)	M14x1-male	15	1.933	5.2	1.9	Yes	--	6	--	41	--
50.127	Without (Snap-in)	M14x1-male	19.5	0.147	3.9	1	Yes	--	6	--	48	--
50.085	Without (Snap-in)	M14x1-male	6	0.89	13.7	0.3	Yes	--	6	--	36	--
50.086	Without (Snap-in)	M14x1-male	5.5	0.706	11.5	7.6	Yes	--	4	--	36	--
50.128	Without (Snap-in)	M14x1-male	10	0.534	8.7	3.4	Yes	--	6	--	36	--
50.129	Without (Snap-in)	M14x1-male	15	0.452	6.9	0.1	Yes	--	6	--	41	--
50.130	Without (Snap-in)	M14x1-male	19.5	0.325	8.1	1.8	Yes	--	6	--	48	--
50.018	Without (Snap-in)	M16x1-male	8.5	0.141	2.3	1.1	No	--	4	Plastic corpus	21	GR02.231
50.020	Without (Snap-in)	M16x1-male	8.5	0.157	2.3	0.9	No	--	6	Plastic corpus	23	GR02.231



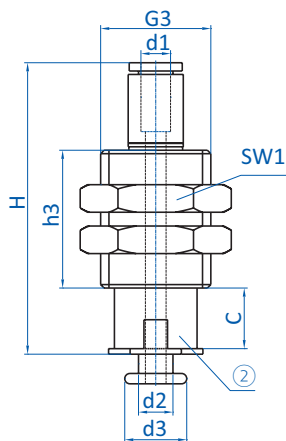
Dimensions



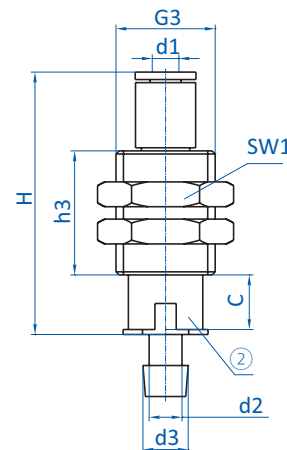
50.330



50.103 | 50.104 | 50.125 | 50.126 | 50.127 |
50.085 | 50.086 | 50.128 | 50.129 | 50.130



50.018



50.020

① = Mounting screw ② = Plastic body

Item no.	Ø d1 [mm]	Ø d2 [mm]	d2	Ø d3 [mm]	G3	H [mm]	h3 [mm]	SW1	SW2	C [mm]
50.330	4.3	4	--	6	M8x0.75	68	18	12	--	10
50.103	6	--	M4	6.3	M14x1	52	20	17	+	6
50.104	4	--	M4	6.3	M14x1	52	20	17	+	6
50.125	6	5	--	6	M14x1	56	20	17	3	10
50.126	6	5	--	6	M14x1	67	25	17	3	15
50.127	6	5	--	6	M14x1	83	34	17	3	20
50.085	6	7	--	10	M14x1	52	20	17	3	6
50.086	4	7	--	10	M14x1	52	20	17	3	6
50.128	6	7	--	10	M14x1	58	20	17	3	10
50.129	6	7	--	10	M14x1	68	25	17	3	15
50.130	6	7	--	10	M14x1	83	34	17	3	20
50.018	4	5	--	8.7	M16x1	45	20	19	--	8.5
50.020	6	5	--	7.3	M16x1	42.5	20	19	--	8.5



Vacuum cups accessories | Spring leveler

Spring levelers for direct vacuum cup mounting – spring open – SZ-NIV-DA

Spring levelers for direct vacuum cup mounting – spring open – SZ-NIV-DA



Series 1

Series 2

Product notes

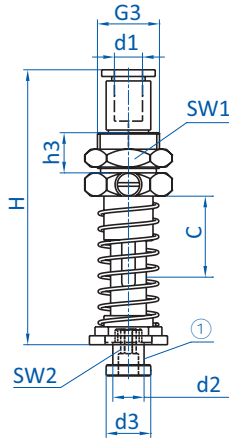
- > Direct mounting of the spring leveler on the vacuum cup, no additional fitting required
- > Compensate for height differences
- > Soft attachment for sensitive products
- > Leveling with an open spring

Technical data

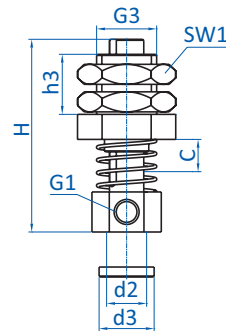
Item no.	Series	Thread suction side G2	Thread fixing bushes G3	Stroke C [mm]	Spring rate [N/mm]	Max. spring force [N]	Spring pre-load [N]	Non-rotating	Hose outside ϕ [mm]	Hose inner diameter [mm]	Weight [g]
50.095	1	Without (Snap-in)	M14x1-male	19.5	0.165	4.5	1.3	Yes	6	--	51
50.096	1	Without (Snap-in)	M14x1-male	30	2.984	2.7 - 0.2	0.2	Yes	6	--	57
50.097	1	Without (Snap-in)	M14x1-male	39	0.078	3.9	0.8	Yes	6	--	62
50.098	1	Without (Snap-in)	M14x1-male	49.5	0.066	3.8	0.5	Yes	6	--	67
50.141	2	Without (Snap-in)	M10x1-male	9	0.475	4.8	0.5	No	--	--	12
50.005	2	Without (Snap-in)	M12-male	5	0.165	2	1.2	No	--	--	23
50.145	2	Without (Snap-in)	M12-male	11	0.083	3.071	0.581	No	--	--	39
50.037	2	Without (Snap-in)	M12x1.5-male	25	0.503	12.8	0.2	No	--	4	69
50.146	2	Without (Snap-in)	M12-male	30	0.075	2.45	0.525	No	--	--	46



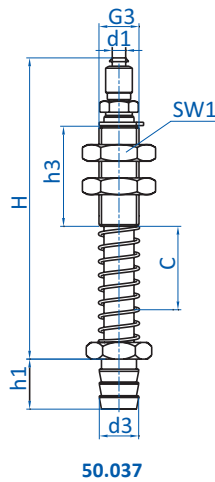
Dimensions



50.095 | 50.096 | 50.097 | 50.098



50.141 | 50.005 | 50.145 | 50.146



50.037

① = Mounting screw M6

Item no.	Ø d1 [mm]	Ø d2 [mm]	Ø d3 [mm]	G1	G3	H [mm]	h1 [mm]	h3 [mm]	SW1	SW2	C [mm]
50.095	6	7	10	--	M14x1	61	--	9	17	3	20
50.096	6	7	10	--	M14x1	75	--	9	17	3	30
50.097	6	7	10	--	M14x1	87	--	9	17	3	40
50.098	6	7	10	--	M14x1	100	--	9	17	3	50
50.141	--	5	7	M5	M10x1	40	--	12	14	--	8
50.005	--	8	11	M5	M12	43	--	16	19	--	5
50.145	--	8	11	M5	M12	44	--	15	17	--	10
50.037	4	--	5.5	--	M12x1.5	89	7	30	19	--	25
50.146	--	8	11	M5	M12	68	--	15	17	--	30



Vacuum cups accessories | Lifting cylinders

Vacuum lifting cylinders – operated by compressed air, for flat suction picking

Vacuum lifting cylinders – operated by compressed air, for flat suction picking

For flat suction picking, e.g. for vacuum cup series SFU-F Ø 4 - 15 mm



Product notes

- > Stacking and destacking of workpieces
- > Vacuum generation by compressed air using an integrated ejector
- > Lifting cylinder extended during idle state
- > Cycle time independent of stroke and weight
- > Vacuum cups can be found in chapter vacuum cups series, flat vacuum cups SFU-F Ø 4 - 15 mm and bellows vacuum cups SBF-B Ø 6 - 15 mm

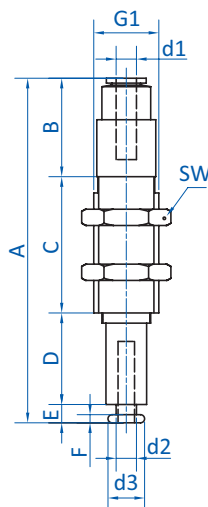
Note

- > Minimize rotating load or load on the ejector and shaft parts from the transverse direction. These can shorten the service life of the lifting cylinder.

Technical data

Item no.	Stroke [mm]	Lifting force [N]	Operating pressure [bar (psi)]	Vacuum level [mbar (inHg)]	Cycles [1/min]	Weight [g]	Suitable mounting bracket
55.100	5	3.5 - 5	3.5 - 4.5 (50.8 - 65.3)	-700 (-20.7)	50	33	GR02.231
55.102	10	3.5 - 5	3.5 - 4.5 (50.8 - 65.3)	-700 (-20.7)	50	36	GR02.231
55.104	20	3.5 - 5	3.5 - 4.5 (50.8 - 65.3)	-700 (-20.7)	50	41	GR02.231
55.106	30	3.5 - 5	3.5 - 4.5 (50.8 - 65.3)	-700 (-20.7)	50	45	GR02.231
55.108	5	3.5 - 5	3.5 - 4.5 (50.8 - 65.3)	-700 (-20.7)	50	32	GR02.231
55.110	10	3.5 - 5	3.5 - 4.5 (50.8 - 65.3)	-700 (-20.7)	50	45	GR02.231
55.112	20	3.5 - 5	3.5 - 4.5 (50.8 - 65.3)	-700 (-20.7)	50	52	GR02.231
55.114	30	3.5 - 5	3.5 - 4.5 (50.8 - 65.3)	-700 (-20.7)	50	45	GR02.231

Dimensions



Vacuum cups accessories | Lifting cylinders

Vacuum lifting cylinders – operated by compressed air, for flat suction picking



Item no.	A [mm]	B [mm]	C [mm]	D [mm]	d1 [mm]	d2 [mm]	d3 [mm]	E [mm]	F [mm]	G1	SW
55.100	54.2	23.5	22	5	4	5.2	8.7	4.5	2	M16x1	19
55.102	64.2	23.5	27	10	4	5.2	8.7	4.5	2	M16x1	19
55.104	85	23.5	37	20	4	5.2	8.7	4.5	2	M16x1	19
55.106	105	23.5	47	30	4	5.2	8.7	4.5	2	M16x1	19
55.108	56.5	25	22	5	6	5.2	8.7	4.5	2	M16x1	19
55.110	63.5	25	27	10	6	5.2	8.7	4.5	2	M16x1	19
55.112	85	25	37	20	6	5.2	8.7	4.5	2	M16x1	19
55.114	106.5	25	47	30	6	5.2	8.7	4.5	2	M16x1	19



Vacuum cups accessories | Lifting cylinders

Vacuum lifting cylinders, for high suction picking – operated by compressed air

Vacuum lifting cylinders, for high suction picking – operated by compressed air

For high suction picking, e.g. for vacuum cup series SFU-F Ø 20 - 40 mm



Product notes

- > Stacking and destacking of workpieces
- > Vacuum generation by compressed air using an integrated ejector
- > Lifting cylinder extended during idle state
- > Cycle time independent of stroke and weight
- > Vacuum cups can be found in chapter vacuum cups series, flat vacuum cups SFU-F Ø 20 - 40 mm and bellows vacuum cups SBF-B Ø 20 mm

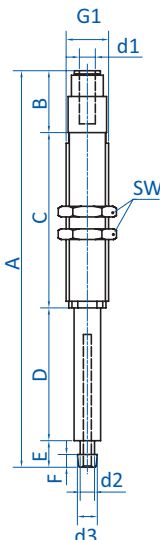
Note

- > Minimize rotating load or load on the ejector and shaft parts from the transverse direction. These can shorten the service life of the lifting cylinder.

Technical data

Item no.	Stroke [mm]	Lifting force [N]	Operating pressure [bar (psi)]	Vacuum level [mbar (inHg)]	Cycles [1/min]	Weight [g]	Suitable mounting bracket
55.101	5	3.5 - 5	3.5 - 4.5 (50.8 - 65.3)	-700 (-20.7)	50	33	GR02.231
55.103	10	3.5 - 5	3.5 - 4.5 (50.8 - 65.3)	-700 (-20.7)	50	36	GR02.231
55.105	20	3.5 - 5	3.5 - 4.5 (50.8 - 65.3)	-700 (-20.7)	50	41	GR02.231
55.107	30	3.5 - 5	3.5 - 4.5 (50.8 - 65.3)	-700 (-20.7)	50	46	GR02.231
55.109	5	3.5 - 5	3.5 - 4.5 (50.8 - 65.3)	-700 (-20.7)	50	33	GR02.231
55.111	10	3.5 - 5	3.5 - 4.5 (50.8 - 65.3)	-700 (-20.7)	50	36	GR02.231
55.113	20	3.5 - 5	3.5 - 4.5 (50.8 - 65.3)	-700 (-20.7)	50	41	GR02.231
55.115	30	3.5 - 5	3.5 - 4.5 (50.8 - 65.3)	-700 (-20.7)	50	46	GR02.231
55.120	50	3.5 - 5	3.5 - 4.5 (50.8 - 65.3)	-700 (-20.7)	50	56	GR02.231

Dimensions





Item no.	G1	A [mm]	B [mm]	C [mm]	D [mm]	d1 [mm]	d2 [mm]	d3 [mm]	E [mm]	F [mm]	SW
55.101	M16x1	60.5	23.5	22	5	4	5	7.5	10	5	19
55.103	M16x1	70.5	23.5	27	10	4	5	7.5	10	5	19
55.105	M16x1	90.5	23.5	37	20	4	5	7.5	10	5	19
55.107	M16x1	110.5	23.5	47	30	4	5	7.5	10	5	19
55.109	M16x1	62	25	22	5	6	5	7.5	10	5	19
55.111	M16x1	72	25	27	10	6	5	7.5	10	5	19
55.113	M16x1	92	25	37	20	6	5	7.5	10	5	19
55.115	M16x1	112	25	47	30	6	5	7.5	10	5	19
55.120	M16x1	151	25	67	50	6	5	7.5	10	5	19



Vacuum cups accessories | Lifting cylinders

Lifting cylinders – vacuum-operated

Lifting cylinders – vacuum-operated

Torsionally rigid



55.000 | 55.001 | 55.004



55.002

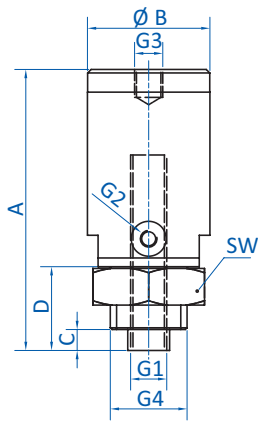
Product notes

- > Picking-up and stacking flat and sensitive objects such as e.g. signs, cards, paper, veneers
- > Suitable for short cycle times
- > Robust aluminum housing, Hartcoat® treated
- > Non-rotating piston rod
- > Low-noise version
- > 55.002: stacking and lifting of metal sheet and heavy parts
- > Not suitable for workpieces permeable to air
- > Customized sizes on request

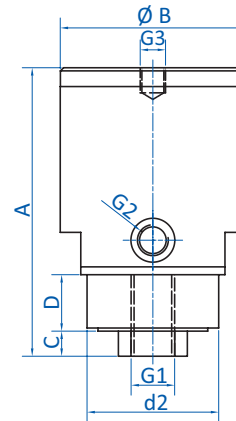
Technical data

Item no.	Stroke [mm]	Volume flow at 80 % vacuum [Nl/min]	Lifting force at 80 % vacuum [N]	Cycle time (extend-suction-lift) [s]	Operating temperature [°C (°F)]	Weight [g]
55.000	17	15	3	0.3	5 - 80 (41 - 176)	39
55.001	25	35	7	0.4	5 - 80 (41 - 176)	111
55.002	30	35	50	1.4	5 - 80 (41 - 176)	331
55.004	40	35	7	0.8	5 - 80 (41 - 176)	138

Dimensions



55.000 | 55.001 | 55.004



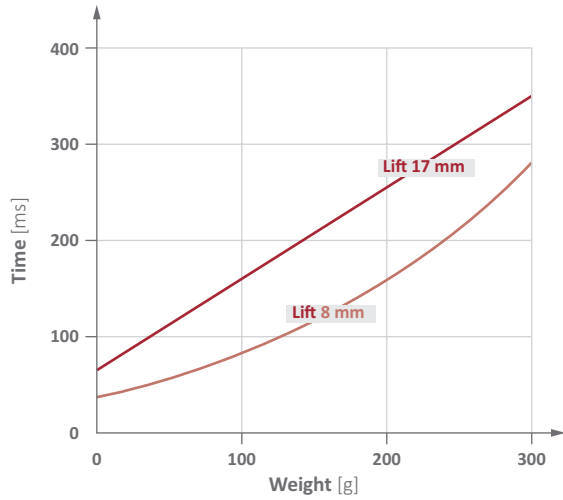
55.002

Item no.	G1	G2	G3	G4	A [mm]	Ø B [mm]	C [mm]	D [mm]	d2 [mm]	SW
55.000	M5	M5	M6	M16x1.5	55.5	24	4	16	--	19
55.001	G1/8	M5	M8	M22x1.5	78	35	6	22	--	27
55.002	G1/4	G1/4	M10	--	92	59	8	18	42	--
55.004	G1/8	G1/8	M8	M22x1.5	99	35	9	24	--	27



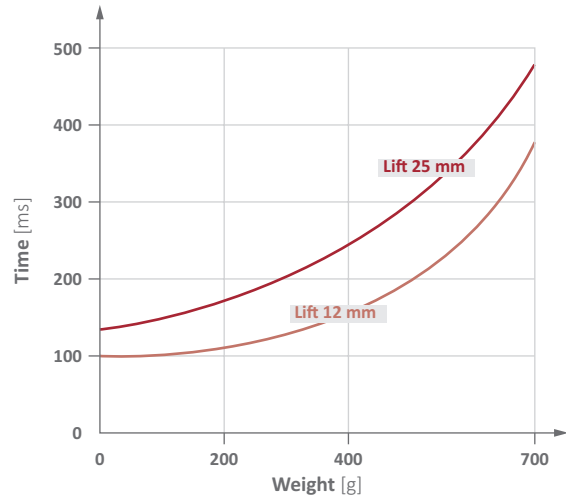
Diagrams

> Double stroke lifting time against weight



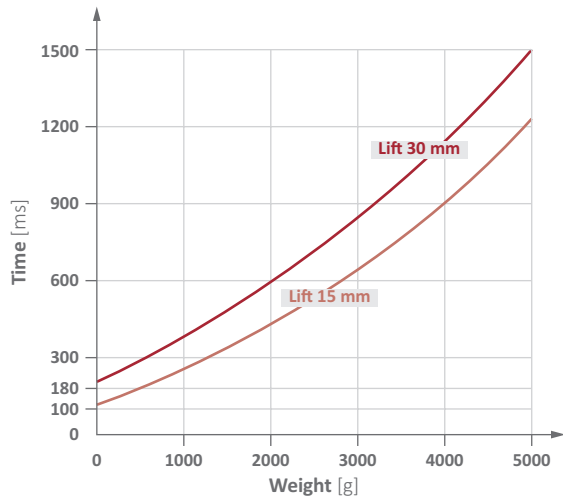
55.000

> Double stroke lifting time against weight



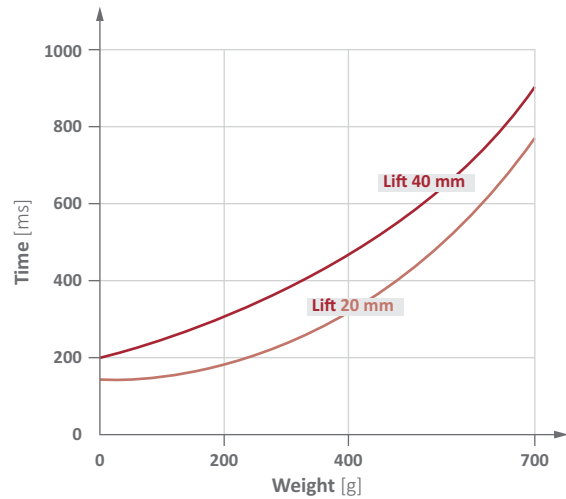
55.001

> Double stroke lifting time against weight



55.002

> Double stroke lifting time against weight



55.004



Vacuum cups accessories | Joints

G threaded ball joints – SZ-GKG

G threaded ball joints – SZ-GKG



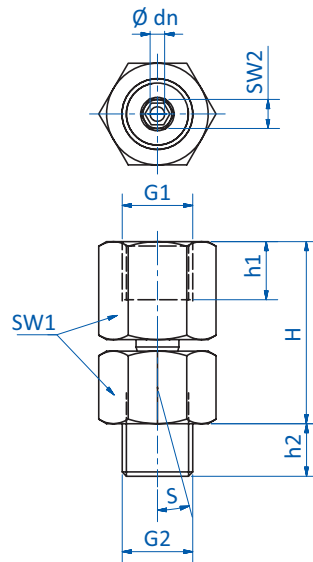
Product notes

- > Universal articulating mount for vacuum cups allows compensation for sloping product surfaces
- > Angle compensation for sagging products, such as sheet goods
- > Version: Ball and socket with O-ring seal

Technical data

Item no.	Thread	Pivoting range S [°]	Lifting force [N]	Weight [g]
270.072	G1/8	2x15	300	26
270.073/1	G1/4	2x15	1,500	49
270.075	G1/2	2x15	2,500	116

Dimensions



Item no.	G1	G2	H [mm]	h1 [mm]	h2 [mm]	Ø dn [mm]	SW1	SW2	S [°]
270.072	G1/8	G1/8	25	8.5	7	2	14	4	2x15
270.073/1	G1/4	G1/4	37	11	10	3.5	19	8	2x15
270.075	G1/2	G1/2	38.5	14	11.5	4	24	6	2x15



Metric threaded ball joints – SZ-GKM



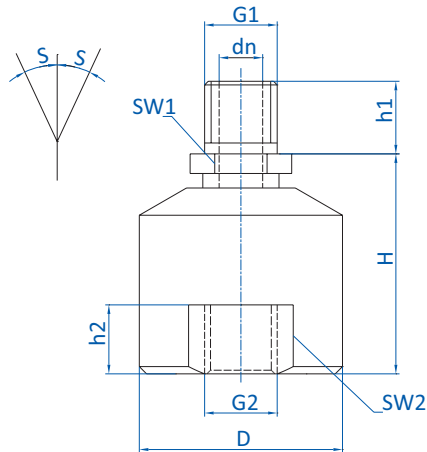
Product notes

- > Universal articulating mount for vacuum cups allows compensation for sloping product surfaces
- > Angle compensation for sagging products, such as sheet goods
- > Version: Ball and socket with O-ring seal

Technical data

Item no.	Thread	Pivoting range S [°]	Weight [g]
270.185	M4	2x15	9
270.186	M6	2x15	20
270.187	M10	2x15	58

Dimensions



Item no.	G1	G2	H [mm]	h1 [mm]	h2 [mm]	Ø D [mm]	Ø dn [mm]	SW1	SW2	S [°]
270.185	M4	M4	19	4	7	15	2	4	--	2x15
270.186	M6	M6	23	6	6.5	20	3	7	--	2x15
270.187	M10	M10	30	10	9.5	28	6	12	24	2x15



Vacuum cups accessories | Joints

Rubber joints – SZ-GG

Rubber joints – SZ-GG



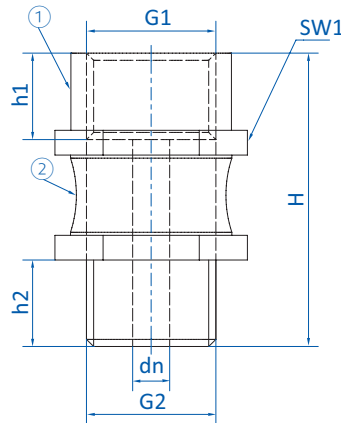
Product notes

- > Universal articulating mount for vacuum cups allows compensation for sloping product surfaces
- > Angle compensation for sagging products, such as sheet goods
- > Automatic reset of the vacuum cup to normal position
- > Version: Rubber-metal connection with vacuum channel

Technical data

Item no.	Thread	Pivoting range S [°]	Lifting force [N]	Ambient air temperature [°C (°F)]	Weight [g]
270.771	G1/4	2x12	750	0 - 70 (32 - 158)	30
270.203	G1/2	2x12	3,000	0 - 70 (32 - 158)	100

Dimensions



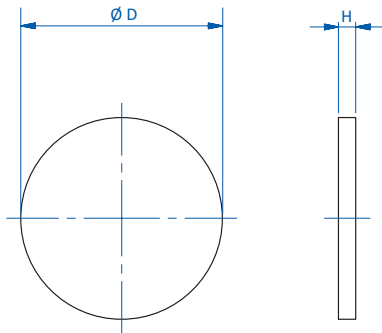
① = Steel ② = Rubber

Item no.	Ø dn [mm]	G1	G2	H [mm]	h1 [mm]	h2 [mm]	SW1
270.771	3	G1/4	G1/4	39	12	12	17
270.203	6	G1/2	G1/2	47.5	14	14	27



Filter discs – SZ-FI

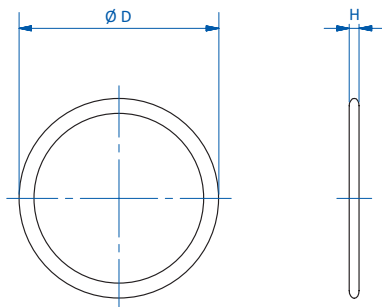
For insertion into vacuum cup fold



Technical data			Dimensions	
Item no.	Material	Usage temperature [°C (°F)]	H [mm]	Ø D [mm]
78.200	HDPE white	-40 - 80 (-40 - 176)	1.5	17.5
78.201	HDPE white	-40 - 80 (-40 - 176)	1.5	28
78.202	HDPE white	-40 - 80 (-40 - 176)	1.5	38.5
78.203	HDPE white	-40 - 80 (-40 - 176)	1.5	48
78.204	HDPE white	-40 - 80 (-40 - 176)	1.5	70.5
78.206	HDPE white	-40 - 80 (-40 - 176)	1.5	147

Filter discs – SZ-FIN

For insertion into vacuum cup fold

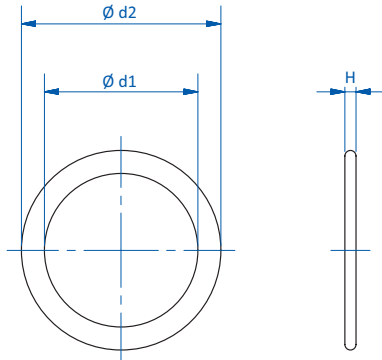


Technical data			Dimensions	
Item no.	Material	Usage temperature [°C (°F)]	H [mm]	Ø D [mm]
78.214	Nylon canvas/TPE	-40 - 50 (-40 - 122)	1	20
78.215	Nylon canvas/TPE	-40 - 50 (-40 - 122)	1.6	26
78.216	Nylon canvas/TPE	-40 - 50 (-40 - 122)	3	40
78.217	Nylon canvas/TPE	-40 - 50 (-40 - 122)	3	58



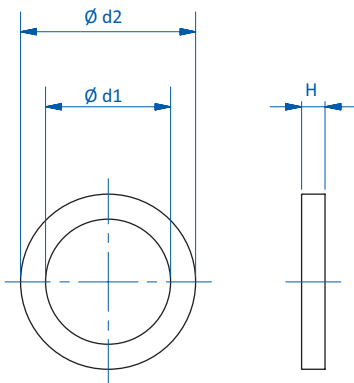
Reinforcement rings – SZ-STAB

For stabilizing bellows vacuum cups



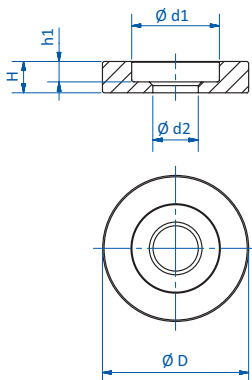
Technical data		Dimensions		
Item no.	Material	H [mm]	$\varnothing d_1$ [mm]	$\varnothing d_2$ [mm]
78.000	PA6	1	13.5	17.5
78.001	PA6	1.1	22	26.5
78.002	PA6	1.2	30	35.5
78.003	PA6	1.5	36	45.5

Retaining rings – SZ-HR



Technical data		Dimensions		
Item no.	Material	H [mm]	$\varnothing d_1$ [mm]	$\varnothing d_2$ [mm]
78.011	TPU	1.9	9.7	14
78.012	TPU	2.5	13	20
78.013	TPU	3.2	19	26

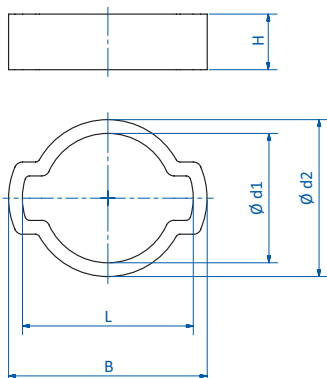
Adapter plates – SZ-ASC



Technical data		Dimensions				
Item no.	Material	H [mm]	h_1 [mm]	$\varnothing D$ [mm]	$\varnothing d_1$ [mm]	$\varnothing d_2$ [mm]
78.080	Aluminum	5	3.5	15	11	6.2
78.081	Aluminum	4.3	2.8	20	12	6.2
78.082	Aluminum	7	4	28	23	10.2



Gripper clamps for vacuum cups – SZ-KS



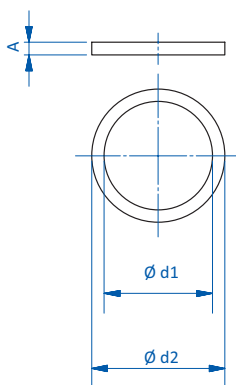
Technical data

Item no.	ø range [mm]	Material
78.030	7 - 9	Steel galvanized
78.031	9 - 11	Steel galvanized
78.032	11 - 13	Steel galvanized
78.033	15 - 18	Steel galvanized
78.034	17 - 20	Steel galvanized

Dimensions

B [mm]	L [mm]	H [mm]	ø d1 [mm]	ø d2 [mm]
14.3	12.3	4	9.3	11.3
16.2	14.2	3	11.3	13.3
19	17	4	13.3	15.3
25.3	22.9	4	18.3	20.7
27.1	24.7	4	20.3	22.7

Sealing rings – SZ-DR



Technical data

Item no.	For outside thread	Material
78.052	M5	Rigid PVC white
78.053	G1/8	Rigid PVC white
78.054	G1/4	Rigid PVC white
78.051	G3/8	Rigid PVC white
78.055	G1/2	Rigid PVC white
78.056	G3/4	Rigid PVC white

Dimensions

A [mm]	ø d1 [mm]	ø d2 [mm]
1	5.4	7.9
2	10.3	13.5
2	13.3	18
2	17.5	21.3
2	21.2	27.9
2	26.8	33

Ordering notes

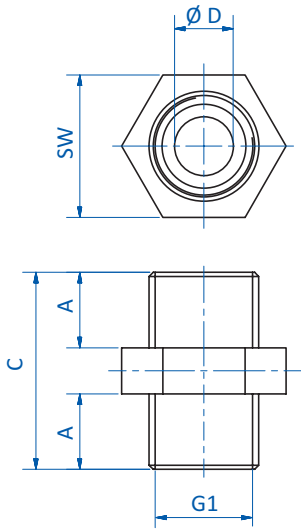
1 packing unit = 100 pieces



Vacuum cups accessories

Connectors

Double nipples, equal thread – SZ-GA-MM



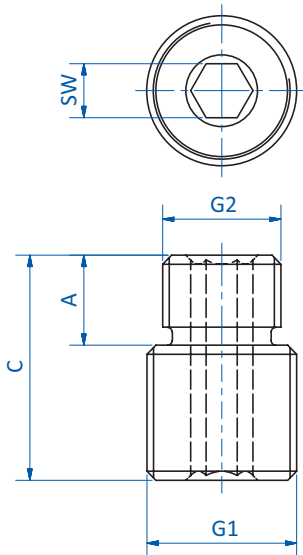
Technical data

Item no.	Material
270.420	Brass
270.059	Brass
270.120	Brass
270.121	Nickel-plated brass
270.122	Brass
270.123	Brass
270.124	Brass
270.125	Brass
270.126	Brass
270.127	Brass

Dimensions

G1 (male)	A [mm]	C [mm]	ϕD [mm]	SW
M5	5	13	2.5	7
G1/8	7	18	5	14
G1/4	9	23.5	7	17
G3/8	9	23	11	19
G1/2	12	30	13	24
G3/4	16	40	18	32
G1	13.5	32.5	25	34
G1 1/4	16	39	34	42
G1 1/2	16.5	40	40	50
G2	18	44.5	51	60

Reducing bushes with hex socket – SZ GA- MMI



Technical data

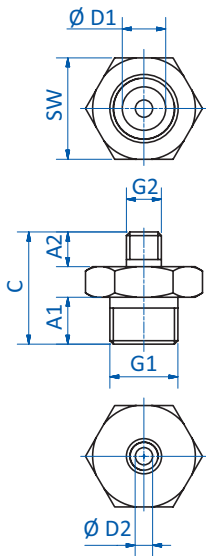
Item no.	Material
270.561	Aluminum
270.562	Aluminum
270.563	Aluminum
270.564	Aluminum
270.565	Aluminum
270.566	Aluminum

Dimensions

G1 (male)	G2 (male)	A [mm]	C [mm]	SW
G3/8	G1/4	10	25	6
G3/8	M10	12	27	5
G3/8	M14	12	27	6
G1/4	G1/4	--	22	5
G1/4	M10	12	24	5
G1/4	M14	11	24	5



Reducing nipples – SZ-GA-RMM



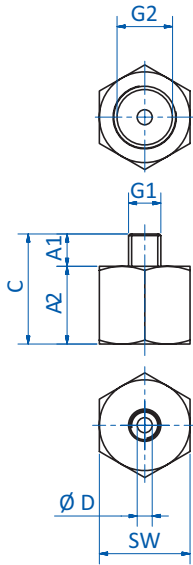
Technical data		Dimensions							
Item no.	Material	G1 (male)	G2 (male)	A1 [mm]	A2 [mm]	C [mm]	D1 [mm]	D2 [mm]	SW
270.280	Nickel-plated brass	G1/8	M5	6.5	4.8	15.5	6	2.4	14
270.279	Aluminum	G1/8	M6	9	7	21	3	3	14
270.131	Brass	G1/8	M8	7	6	18	4	4	14
270.107	Aluminum	G1/8	M12	7.5	8.5	21	5.6	5.6	17
270.227	Brass	G1/4	M5	9	5	19	7.5	2.5	17
270.320	Aluminum	G1/4	M10	10	10	25	5.5	5.5	17
270.108	Aluminum	G1/4	M12	8	8	21	5.5	5.5	17
270.181	Nickel-plated brass	G1/4	G1/8	9	8	22	4	4	17
270.297	Nickel-plated brass	G1/2	G1/4	10.5	9	23.3	15	8	24
270.323	Nickel-plated brass	G1/2	G3/8	10	9	24	15	11	24
270.138	Nickel-plated brass	G3/4	G1/2	11.5	10	27	20	15	30
270.148	Nickel-plated brass	G1	G3/4	13	11	30	25.5	20	36



Vacuum cups accessories

Connectors

Reducing bushings male/female – SZ-GA-MF



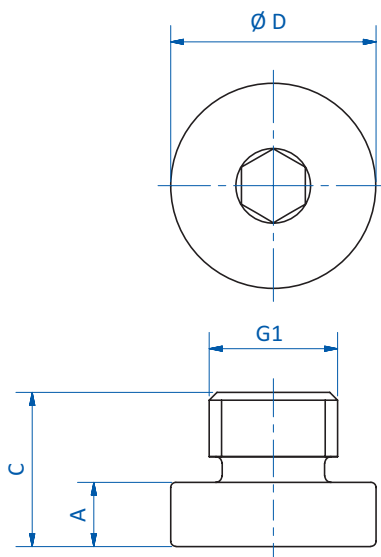
Technical data

Item no.	Material
270.423	Nickel-plated brass
270.079	Brass
270.576	Steel galvanized
270.577	Steel galvanized
270.302	Nickel-plated brass
270.303	Nickel-plated brass
270.334	Nickel-plated brass
270.304	Aluminum
270.090	Brass
270.088	Aluminum
270.245	Brass
270.078	Brass
270.567	Aluminum
270.560	Aluminum
270.229	Brass
270.230	Brass
270.102	Brass
270.600	Brass
270.601	Brass
270.604	Brass
270.605	Brass

Dimensions

G1 (male)	G2 (female)	A1 [mm]	A2 [mm]	C [mm]	Ø D [mm]	SW
M5	M5	4	7	11	2	8
M5	G1/8	5	12	17	2.3	14
M12	G1/4	10	12	22	6.5	17
M16	G3/8	10	15	25	10	24
G1/8	M5	6	4	10	--	14
G1/8	M6	8	5	13	--	13
G1/8	G1/4	6	13.5	19.5	5.4	17
G1/4	M6	10	5	15	--	17
G1/4	M10	5.7	4	11.5	--	19
G1/4	M10	12	16	28	4	17
G1/4	G1/8	9	4	13	--	17
G1/4	G1/4	10	18	28	7.5	17
G1/4	G3/8	11	16	27	4	20
G3/8	G1/4	11	5	16	--	22
G1/2	G1/4	12	6	18	--	24
G1/2	G3/8	12	6	18	--	24
G3/4	G3/8	12	6	18	--	32
G1	G1/2	15	6	21	--	36
G1	G3/4	15	6	21	--	36
G1 1/2	G1	16	8	24	--	50
G1 1/4	G1	16	7	23	--	43

Blanking plugs with O-ring seal – SZ-SCV



Technical data

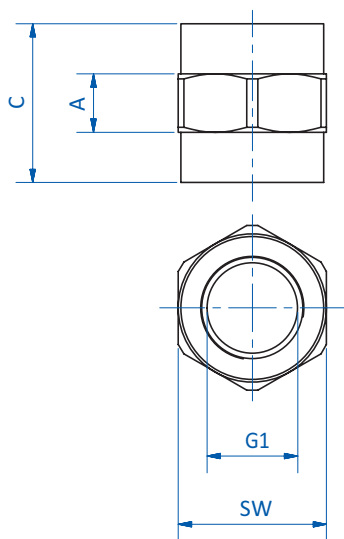
Item no.	Material
77.000	Nickel-plated brass
77.009	Nickel-plated brass
77.008	Nickel-plated brass
77.010	Nickel-plated brass
77.007	Nickel-plated brass

Dimensions

G1 (male)	A [mm]	C [mm]	Ø D [mm]
M5	2	6	8
G1/8	3	11	17
G1/4	3	9.5	14
G3/8	3.5	12.5	20
G1/2	3.5	13.5	25



Threaded bushes – SZ-GA-FF



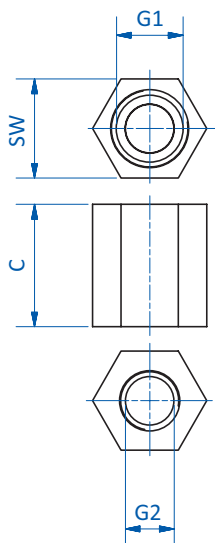
Technical data

Item no.	Material
270.343	Nickel-plated brass
270.182.O	Aluminum
270.130.O	Aluminum
270.579	Aluminum

Dimensions

G1 (female)	A [mm]	C [mm]	SW
G1/8	5.5	15	14
G1/4	20	20	19
G1/2	32	32	30
G3/8	23	23	22

Reducing bushes – SZ-GA-RFF



Technical data

Item no.	Material
270.306	Aluminum
270.307	Aluminum
270.308	Aluminum
270.089	Aluminum
270.228	Nickel-plated brass

Dimensions

G1 (female)	G2 (female)	C [mm]	SW
G1/8	M5	14	13
G1/8	M6	14	13
G1/4	M6	17.5	17
G1/4	M10	21	17
G3/8	G1/4	21.5	22

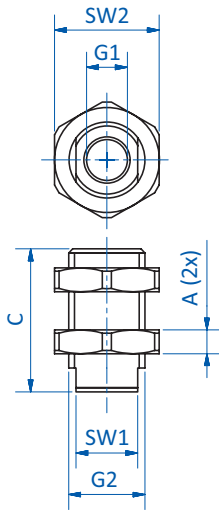


Vacuum cups accessories

Connectors

Bulkhead connectors – SZ-SVS

Allow for height adjustment during vacuum cup installation



Technical data

Item no.	Material bushing	Material screw nut
270.518	Stainless steel	Steel galvanized
270.519	Stainless steel	Steel galvanized

Dimensions

G1 (female)	G2 (male)	A [mm]	C [mm]	SW1	SW2
G1/8	M16	5	30	13	22
G1/4	M20	5	30	--	24

Average values for vacuum cups in standard applications

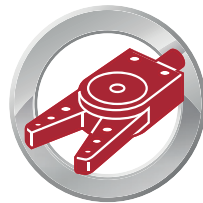
Vacuum cup diameter [mm]	Effective diameter approx. [mm]	Effective suction surface approx. [cm ²]	Theoretical holding force 20 % vacuum [N]	Theoretical holding force 60 % vacuum [N]	Theoretical holding force 80 % vacuum [N]	Volume flat approx. [cm ³]	Volume folds approx. [cm ³]	Recommended internal tubing diameter approx. [mm]
1	0.80	0.0050	0.01	0.03	0.04	0.001	0.05	2
2	1.60	0.0201	0.04	0.12	0.16	0.001	0.05	2
3	2.40	0.0452	0.09	0.27	0.36	0.002	0.05	2
4	3.20	0.0804	0.16	0.48	0.64	0.003	0.05	2
5	4.00	0.1257	0.25	0.75	1.01	0.005	0.1	2
6	5.17	0.2101	0.42	1.26	1.68	0.008	0.1	2
7	6.03	0.2860	0.57	1.72	2.29	0.015	0.1	2
8	6.90	0.3736	0.75	2.24	2.99	0.03	0.2	2
9	7.76	0.4728	0.95	2.84	3.78	0.05	0.2	2
10	8.62	0.5837	1.17	3.50	4.67	0.07	0.5	4
11	9.48	0.7063	1.41	4.24	5.65	0.1	0.5	4
12	10.34	0.8405	1.68	5.04	6.72	0.1	1	4
13	11.21	0.9864	1.97	5.92	7.89	0.2	1	4
14	12.07	1.1440	2.29	6.86	9.15	0.3	1	4
15	12.93	1.3133	2.63	7.88	10.51	0.4	3	4
16	13.79	1.4942	2.99	8.97	11.95	0.5	3	4
17	14.66	1.6868	3.37	10.12	13.49	0.5	3	4
18	15.52	1.8911	3.78	11.35	15.13	0.6	3	4
19	16.38	2.1071	4.21	12.64	16.86	0.7	5	4
20	17.24	2.3347	4.67	14.01	18.68	0.8	5	4
25	21.55	3.6480	7.30	21.89	29.18	1.3	5	4
30	25.86	5.2531	10.51	31.52	42.02	1.3	5	4
35	30.17	7.1501	14.30	42.90	57.20	2.7	10	4
40	34.48	9.3389	18.68	56.03	74.71	3.8	10	4
45	38.79	11.8195	23.64	70.92	94.56	5	20	4
50	43.10	14.5920	29.18	87.55	116.74	7	20	6
60	51.72	21.0124	42.02	126.07	168.10	10	30	6
70	60.34	28.6003	57.20	171.60	228.80	20	50	6
80	68.97	37.3554	74.71	224.13	298.84	25	60	6
90	77.59	47.2780	94.56	283.67	378.22	30	100	6
100	86.21	58.3679	116.74	350.21	466.94	40	200	9
125	107.76	91.1998	182.40	547.20	729.60	80	300	9
150	129.31	131.3277	262.66	787.97	1,050.62	180	500	9
175	150.86	178.7516	357.50	1,072.51	1,430.01	250	650	12
200	172.41	233.4715	466.94	1,400.83	1,867.77	430	800	12
250	215.52	364.7992	729.60	2,188.80	2,918.39	500	1,600	12
300	258.62	525.3109	1,050.62	3,151.87	4,202.49	600	2,000	12
350	301.72	715.0065	1,430.01	4,290.04	5,720.05	1,500	3,000	12
400	344.83	933.8860	1,867.77	5,603.32	7,471.09	2,000	5,000	12
500	431.03	1,459.1969	2,918.39	8,755.18	11,673.58	4,000	x	16
600	517.24	2,101.2436	4,202.49	12,607.46	16,809.95	6,500	x	16

The information provided above consists of average values for smooth, dry product surfaces without a safety factor. The application, shape of the vacuum cup and product qualities (e.g. surface texture or air permeability) may result in deviations.



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