



BARNES

VACUUM AUTOMATION DIVISION - GGC

2022 -2023

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Vacuum Automation Division

GIMATIC

Gimatic designs and builds bespoke solutions for its customers' applications.

What makes a company competitive is its continuous desire to grow. Gimatic has demonstrated this again by investing in the industrial vacuum sector, which therefore allows to provide its customers with complete gripping solutions, with advanced control systems and high quality components.

Market

- Packaging
- Wood
- Glass
- Metal Sheet
- Automotive
- Plastic
- Ceramics
- Electronics
- Marble

Why Vacuum?



Positioning

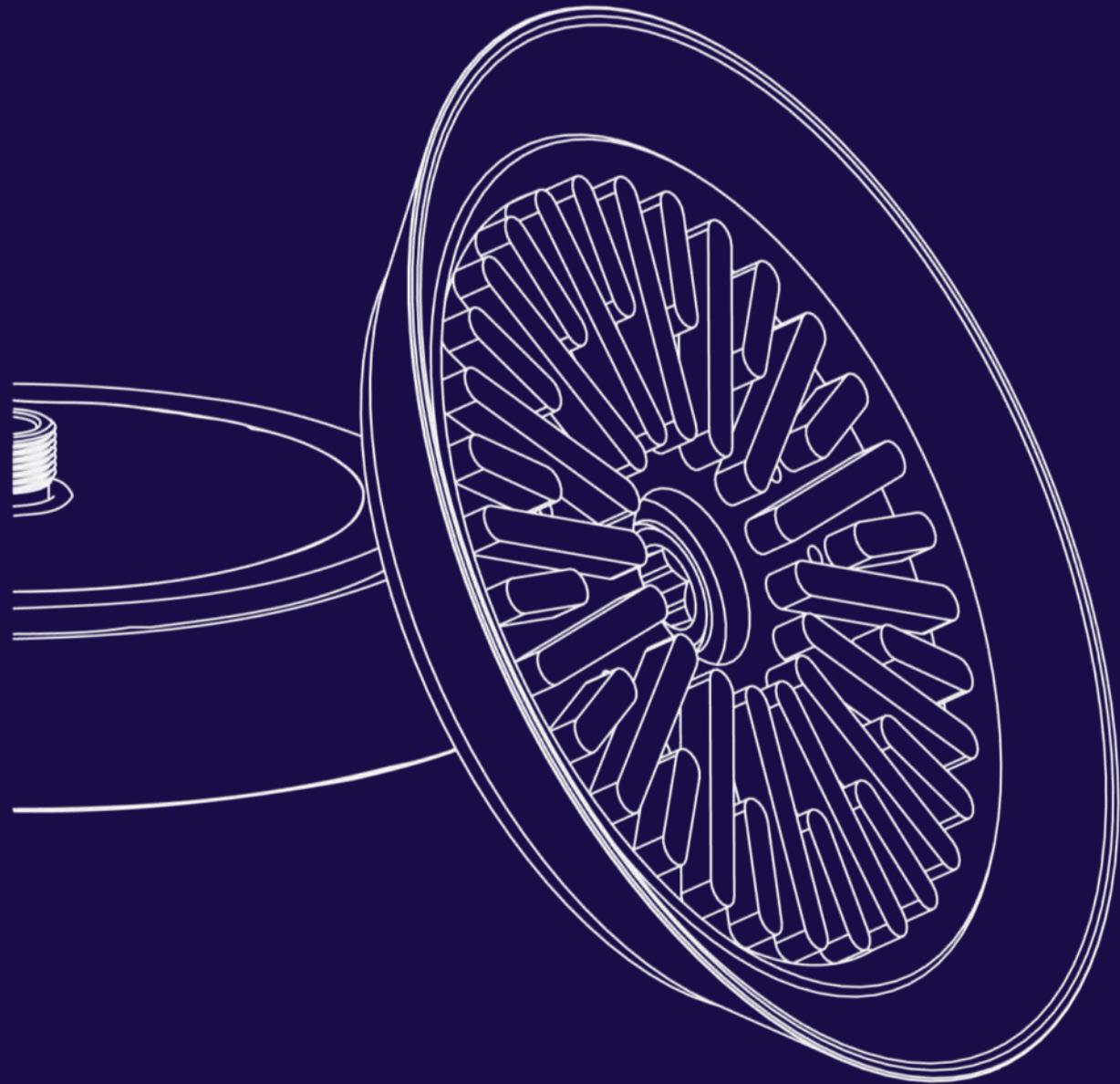
- Premium positioning
- Covering applications that competitors doesn't satisfy
- Innovative leader
- Offer complete gripping solutions
- Strengthen the Gimatic brand around the world

The vacuum open the doors to the other Gimatic divisions



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GIMATIC SUCTION CUPS



Suction Cups

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Each Gimatic suction cup has specific characteristics and different performances

SUCTION CUPS:

- 900 new models/size of suction cups in our stock

KEY FACTORS:

- In house technology
- Proprietary molds
- All fittings with hexagon
- Lifting force and wear resistance testing
- Products fight sheet VS competitors
- Engineered products
- Competitive price

Materials available:

Silicone and Silicone FDA; HNBR; NBR; EPDM; Polyurethane

Shape available:

Flat; Flat with cleats, Bellow, Rectangular, Multi-bellow

Market coverage:

Packaging; Plastic; Metal sheet; Wood; Glass; Automotive



Suction Cups VG.B- VG.BSFO

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VG.B & VG.BSFO

The suction cups with 1.5 bellows are the most used suction cups in the vacuum sector. VG.B suction cups are available in Red Silicone, Transparent Silicone certified FDA, NBR and HNBR.



VG.B

Technical Features:

- Suitable for standard applications with flat and slightly curved surfaces: sheet metal, glass, slightly porous materials and food products without wrapping in the FDA version
- Materials: NBR, HNBR, red silicone, FDA silicone
- Available sizes: 6, 9, 11, 16, 22, 33, 42, 53, 77 mm



VG.BSFO

Technical Features:

- Ideal for handling porous and irregular surfaces
- High adaptability on unpolished wooden panels, corrugated and non-slip sheets
- Materials: FDA silicone with mark free or EPDM foam ring
- Available sizes: 6, 9, 11, 16, 22, 33, 42, 53 mm



Suction Cups VG.BSFO

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VG.BSFO

Suction cups Polyurethane with 1.5 bellows

Rings in EPDM foam and FDA-compliant silicone foam

- Ideal to handle porous and corrugated surfaces
- High adhesion to rough wood panels and corrugated sheet metal
- EPDM: thickness 8 and 10 mm for diameters 20, 30, 40 and 50 mm
- FDA-compliant silicone: 2 mm thickness for diameters of 15, 20, 30, 40 and 50 mm
- The version in FDA-compliant silicone is mark-free

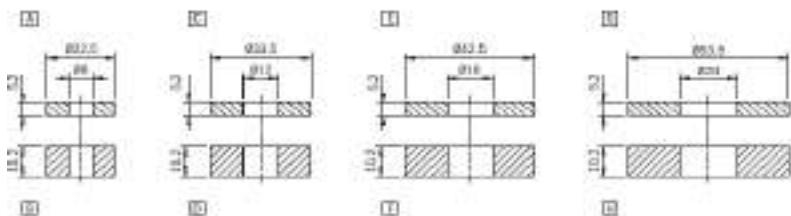


Technical features

Material	Color	Temperature range
EPDM	Black	-40 + 120 °C
Silicone	White	-55 + 130 °C

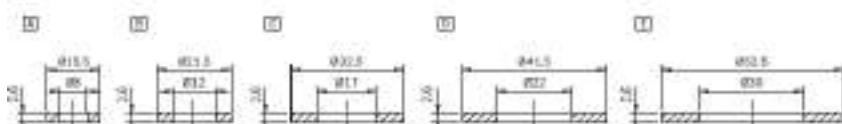
Identification codes

Drawing	Articulation code	Ring in EPDM foam	Order code
A	VG.FOAM.2-1	Ring in EPDM foam for suction cups, diameter 20 mm, thickness 8 mm	0600061
B	VG.FOAM.2-10	Ring in EPDM foam for suction cups, diameter 20 mm, thickness 10 mm	0600062
C	VG.FOAM.3-5	Ring in EPDM foam for suction cups, diameter 30 mm, thickness 8 mm	0600063
D	VG.FOAM.3-10	Ring in EPDM foam for suction cups, diameter 30 mm, thickness 10 mm	0600064
E	VG.FOAM.4-5	Ring in EPDM foam for suction cups, diameter 40 mm, thickness 8 mm	0600065
F	VG.FOAM.4-10	Ring in EPDM foam for suction cups, diameter 40 mm, thickness 10 mm	0600066
G	VG.FOAM.5-5	Ring in EPDM foam for suction cups, diameter 50 mm, thickness 8 mm	0600067
H	VG.FOAM.5-10	Ring in EPDM foam for suction cups, diameter 50 mm, thickness 10 mm	0600068



Identification codes

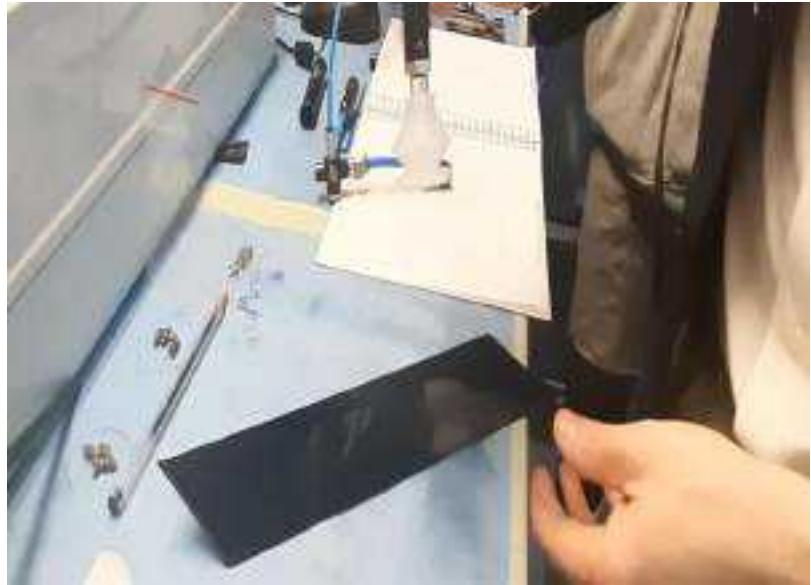
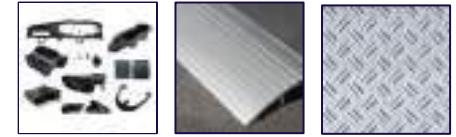
Drawing	Articulation code	Ring in FDA-compliant silicone foam	Order code
A	VG.FOAM.SI.15-2	Silicone foam for suction cups, diameter 15 mm, thickness 2 mm	0600069
B	VG.FOAM.SI.20-2	Silicone foam for suction cups, diameter 20 mm, thickness 2 mm	0600070
C	VG.FOAM.SI.30-2	Silicone foam for suction cups, diameter 30 mm, thickness 2 mm	0600071
D	VG.FOAM.SI.40-2	Silicone foam for suction cups, diameter 40 mm, thickness 2 mm	0600072
E	VG.FOAM.SI.50-2	Silicone foam for suction cups, diameter 50 mm, thickness 2 mm	0600073



Suction Cups VG.BSFO

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VG.BSFO
Movie



MARK FREE



IRREGULAR SURFACE



POROUS SURFACE



Suction Cups VG.U – VG.CF

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VG.U

The VG.U universal suction cups have been developed for handling objects with flat or slightly curved surfaces.



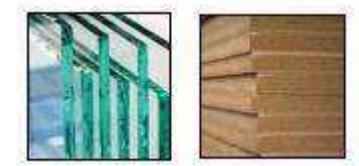
Technical Features:

- Suitable for standard application, with flat surface in the plastics industry
- Materials: NBR, HNBR, Red Silicone, Transparent FDA Silicone
- Available sizes: 6, 9, 11, 16, 22, 33, 42, 53 mm



VG. CF

The internal texture of the VG.CF suction cups and the flat shape allow to work in applications with lifting force parallel to the surface. High stability and ability to work with high horizontal forces.



Technical Features:

- Suitable for handling plastic parts, dry metalsheet and corrugated cardboard, excellent stability, internal reinforcements that increase friction and avoid deformations.
- Materials: Red Silicone, NBR, HNBR
- Available sizes: 16, 22, 27, 33, 42, 53, 77, 112, 152 mm



Suction Cups VG.BP – VG.GX

Carton applications

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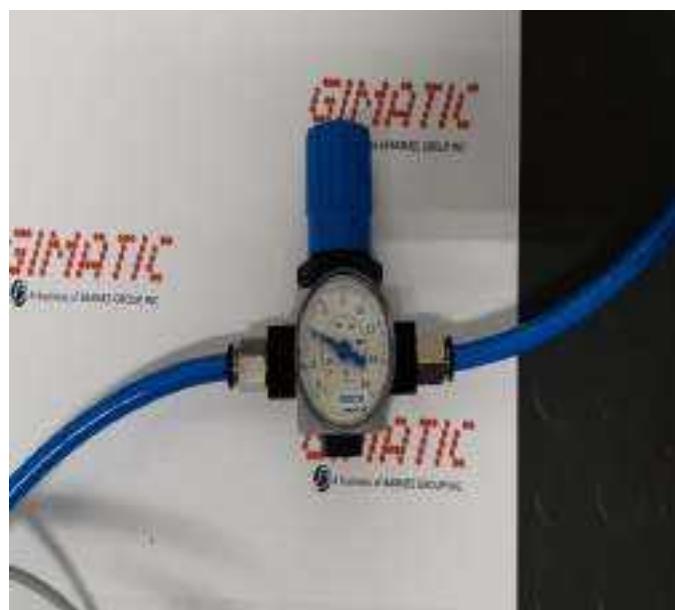
VG.BP – VG.GX

The suction cups made of polyurethane are robust and elastic at the same time, providing exceptional wear resistance. The low elastic memory of this material guarantees the repeatability of the behavior of the suction cups during its life.



Technical Features:

- Excellent grip on corrugated, porous or non-sealing surfaces such as cardboard, plastic parts and composite materials with irregular surfaces
- Available with 50 ° Shore hardness in green color
- Available with 30/70 ° Shore hardness
- The two-color version has two different hardnesses
- Available sizes: 10; 15; 20; 25; 35; 52; 75 mm
- Future sizes: 110; 150; 200 mm



- ❖ PU 30/70 Shore
- ❖ Feed pressure: 4 bar
- ❖ Vacuum level: -50kPa
- ❖ Vacuum cartridge: EJ-MEDIUM-HF



- ❖ EPDM Shore
- ❖ Feed pressure: 4 bar
- ❖ Vacuum level: -10kPa
- ❖ Vacuum cartridge: EJ-MEDIUM-HF



VG.BP200 for handling synthetic marble

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Suction Cups VG.IS

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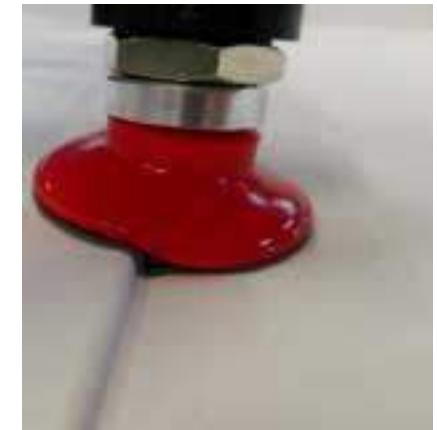
VG.IS – Irregular surface

Suction cups Polyurethane with 1.5 bellows



Technical Features:

- Ideal for handling rough and uneven surfaces
- Thin and flexible lip; major adaptability respect standard polyurethane suction cups
- In grip the suction cup behaves like a flat suction cup - greater stability
- External and internal reinforcement
- Polyurethane material with double hardness 30/60 Shore
- Good wear resistance
- Available sizes: 20; 25; 35; 45 ; 55 and 70 mm



Suction Cups VG.LB

Wood Applications

VG.LB

The VG.LB are ideal for compensating high differences level. Suitable for handling non-flat pieces with concave and convex surfaces.

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Technical Features:

- Ideal for applications in the plastics industry and for separate thin sheets (paper; wood)
- Material: NBR, HNBR, FDA Silicone
- Available sizes: 6, 9, 11, 16, 22, 33, 42, 53 mm



Suction Cups VG.LB

Wood Applications

Wooden beans

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Suction Cups VG.MB

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VG.MB

The VG.MB are equipped with internal supports that helps to prevent the drawing or deformation of thin sheet metal. Leak-free suction even with curved surfaces thanks to the flexible sealing lip. Ideal for the automotive, glass and sheet metal sectors.



Technical Features:

- Ideal for handling oiled sheets in stamping processes
- Suitable for applications where any material contamination must be avoided (PWIS)
- Bellows suction cups in NBR, 60 Shore with vulcanized fittings
- Suitable for handling flat and slightly curved surfaces thanks to the large lip.



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Competitors



Competitors



Suction Cups VG.MF

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VG.MF

The VG.MF suction cups are also made of polyurethane but in the friction version (high friction).

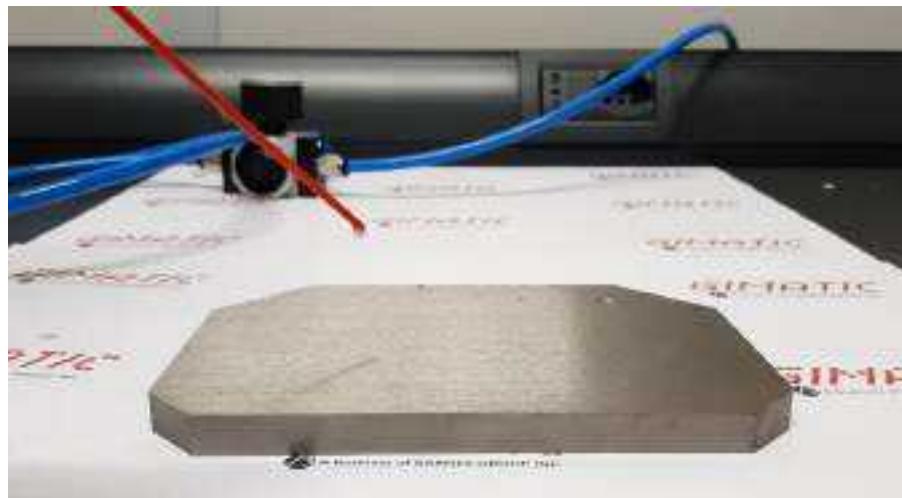
They are ideal for handling oiled surfaces, such as in metal forming processes in the automotive industry.

The best performance is achieved when the amount of oil is greater than 1 gram per square meter, which is the normal amount of lubricant used in this process in the automotive industry.



Technical Features:

- Hardness: 40 Shore
- Suitable for handling flat oiled sheets
- Special tessellation that increases friction
- Available sizes: 20, 30, 60, 80, 100, 120



Suction Cups for Packaging Applications

VG.FP – VG.BC-SBC – VG.BPG-LPG

In packaging applications you can find different types of bags and snacks, each suction cup has different specifications and gripping characteristics

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VG.FP

The VG.FP multi bellows suction cups are ideal for packaging applications, for handling packaged / unpackaged food (FDA version).

- Flow pack; snacks and bars
- Materials: Red Silicone, Silicone FDA Transparent
- 4,5 Bellows
- Available sizes : 15, 20, 30, 40



VG.BC

The VG.BC and VG.SBC suction cups, have a reinforced bellows and a long and thin lip, ideal for handling bags that are difficult to handle.

- Handling bags, packets of biscuits, frozen package
- Materials: Red Silicone FDA 4.5 bellows
- Sizes available: 40, 50; 63



VG.SBC



VG.BPG

The VG.LPG and VG.BPG will be our future suction cups ideal for handling different type of pouches and bags with irregular surface.

- Hardness: 40 Shore
- Manipulation of flowpack bags
- Internal support
- Material: Silicone FDA
- 4 Size: 30 – 41 – 48 - 55



VG.LPG



Handling Bags of Potatoes

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Suction Cups for Packaging Applications

VG.BPG

Handling chips bags

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Handling not packaged biscuits

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Handling sweet bags

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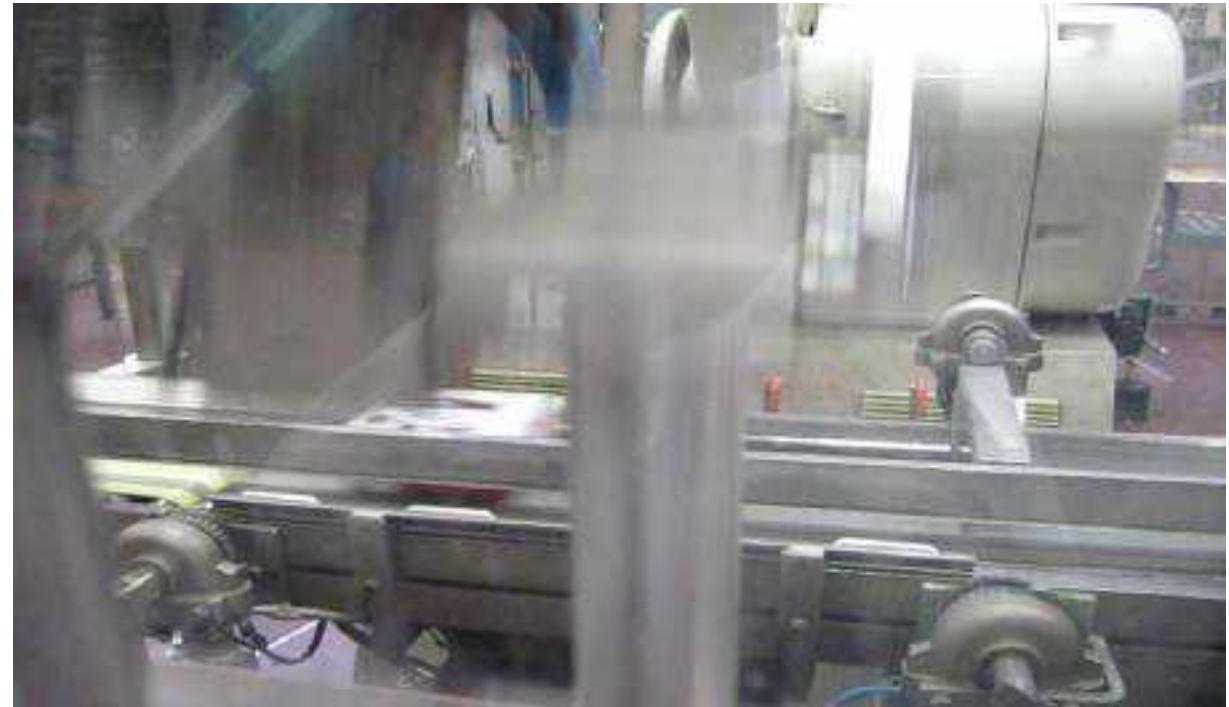


Suction Cups for Packaging Applications

VG.BC-SBC

Movie: Bags of brioche and biscuits

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Suction Cups for Packaging Applications

VG.BPG

Handling food products

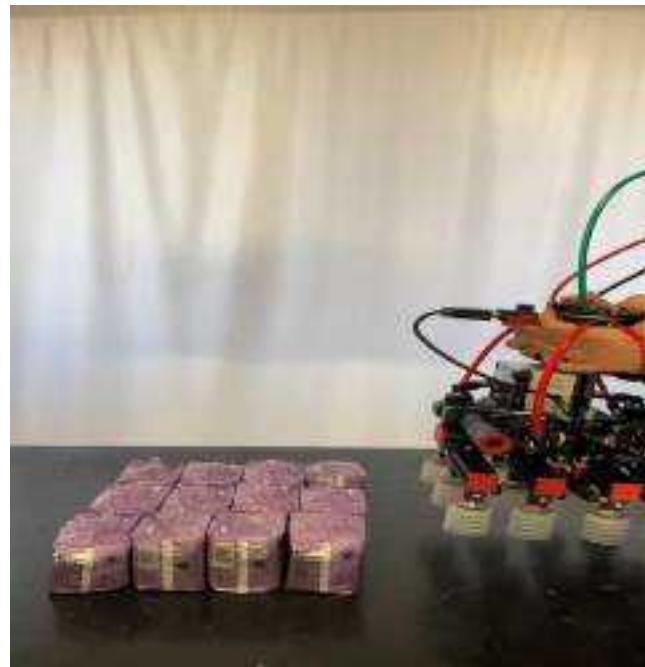
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EOAT and Vacuum Components

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■ Vacuum pump with light weigh and suction cups
Compleate gripping solutions



Suction Cups VG.BLO

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VG.BLO – 40x90mm

Suction cups Polyurethane with 4.5 bellows

Technical Features:

- Suitable for long, narrow and bent surfaces, for example bottles, pipes or sharply bent sheet parts.
- Ideal also for handling doypack pouches with difference level.
- Reinforcement plates gives stability to the suction cup.



1.5 Bellow 30 Shore

Plus

- Internal rounded inserts to avoid deformation of the suction cup and ensure greater grip stability
- Future standard product in the vacuum catalog

*List price will be released soon



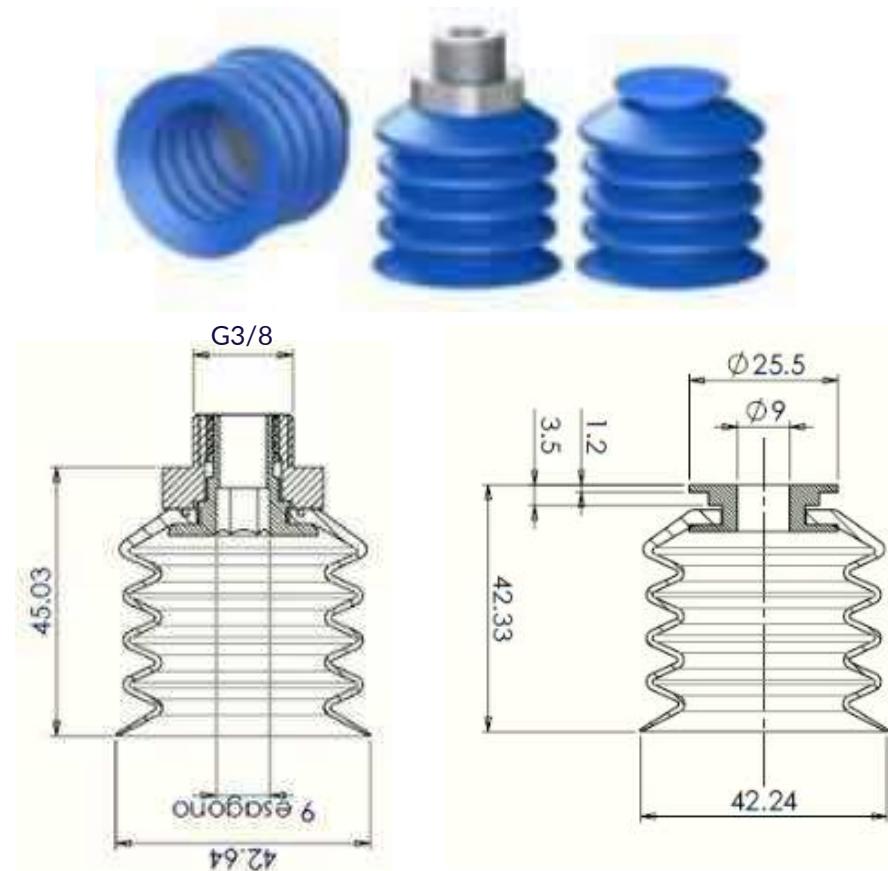
Suction Cups VG.BDT

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VG.BDT - Detectable suction cups

Technical Features:

- To make the material detectable, a small quantity of metallic additive is added to the rubber.
- Ideal for handling products with seeds in bakeries, frozen food and unpacked sweet products.
- Available in detectable version with plastic clip for attachment to the demoulders or male thread fittings acid-resistant stainless steel for food use. The stainless steel fittings is separable.
- The material is FDA compliant silicone, (FDA 21 CFR 177.2600), to European regulation (EC) No. 1935/2004.
- Dimension available: 40 mm



Suction Cups VG.BR – VG.LBR

VG.BR – VG.LBR

The VG.BR and VG.LBR rectangular suction cups are recommended for handling long and narrow snacks. Suitable for limited height compensation in the version with 2.5 bellows.

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Technical Features:

- Hardness: 50 Shore
- Manipulation of oblong snacks, crackers, bars, cosmetic vials
- Rectangular shape 1.5 and 2.5 Bellows – soft and flexible lip
- Material: PU 50
- 4 Sizei: 2x (20x45 mm) 2x (30x55 mm)



Suction Cups VG.B.SFO

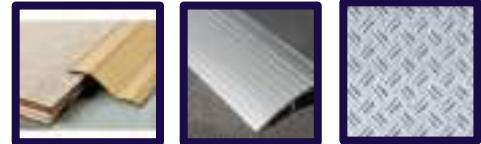
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VG.B.SFO EPDM - HNBR

The VG.B.SFO (bellow silicon foam) are 1.5 bellows suction cups with silicon foam ring

Developed for two mainly reason:

- 1) Huge opportunity EOAT applications (plastic; automotive)
- 2) Replace Coval suction cups, currently leader for this type of suction cups



Technical Features:

The new VG.B.SFO are ideal for:

- Sawn wood, sheet metal, flat surfaces with micro holes.
- Any rough surfaces for which the suction cups' lips do not seal
- High adaptability on unpolished wooden panels, corrugated and non-slip metal sheets.
- The rigid bellows guarantees high stability, the foam ring allows to reduce the size of the vacuum generator on porous surfaces.



Why in EPDM and HNBR material?

- More strong bellow
- Gimatic solutions
- Aggressive price in EPDM version
- The part in contact with the object to be handled remains in anti-halo silicone



Suction Cups VG.FO

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VG.FO

Specifically designed for opening bags, the VG suction cups. VG.FO have a thin lip which is also ideal for handling thin films.

Technical Features:

- Thin lip and texture design prevent sensitive objects / sheets from being aspirated in and damaged, providing increased lifting force
- Materials: FDA silicone
- Available sizes: 26, 33 mm



Cloth handling of airbags



Bags plastic opening



Suction Cups VG.XG

VG.XG

The VG-XG (extreme grip) are outstanding for picking different objects tricky to handle – For primarily Logistics, Ware-housing, E-commerce and Re-cycling applications.

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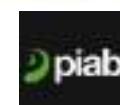
Technical Features:

- Three sizes (40 ; 50; 60)
- Polyurethane 65/30 °Shore
- Rigid bellows and very thin and flexible lip
- Multi-purpose suction cup with extreme gripping capabilities on any surface
- Excellent for handling difficult bags, pouches and medical bags



VG.XG (Extreme grip)

Exceptional sealing capabilities at lower vacuum levels. Less vacuum flow needed, even on difficult objects. Energy Savings



GINATIC

VACUUM PUMPS

