

# Suction Cups For Food Contact

# BONDY

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# FOOD CONTACT MATERIAL CUPS, DETECTABLE

Excellent grip on food objects with irregular surfaces.  
Designed for high speeds and fast accelerations.



Increase the lifetime of your cups by 400%!

## Our Mission

The Piab mission is to increase productivity for industrial customers and provide energy saving solutions by promoting our superior technology universally.



## Features and benefits

The demand for direct food contact cups is constantly growing. Piab is proud to introduce 13 new suction cups made of food contact silicone, the majority made of a detectable material. The cups are specially designed for confectionery, bread, bakery and also flow-packs (ovals). They will provide you an excellent grip on food objects with irregular surfaces, even at high speeds and fast accelerations.

When handling food materials, it is important to be able to work at low vacuum levels, as high vacuum levels will destroy the object. These cups will show an excellent grip at low vacuum levels (5 to 40 -kPA). This will also make them suitable to work with 1-stage side channel blowers that are very common in these kind of applications.

As the uptime and cost of ownership is critical for many customers, the material used is a high-end silicone for a very long lasting lifetime. It has proven to prolong the lifetime by 3-4 times over a conventional food cup.

The material used meets the requirements of the industry. Hence, the material is made of FDA approved material and EU compliant material (e.g. FDA 21 CFR 177.2600 and EU 1935/2004). The goal is to have a broad program of suction cups to pick directly on different food (food contact material, FCM). Some variations of the cups are also made of detectable material, both the fitting and rubber parts.

Another dimension to increase the uptime is to minimize the downtime for cleaning. The design of the cups and fittings are made to a 100% hygienic design according to all food standards that make them very easy to clean. No dust/dirt pockets. The fittings are also available in a stainless steel option (316L) if there is a need to clean with caustic soda.



Pralines



Doy pack



Bread

# Bread and bakery cup (B-BL)



Cups of food contact materials (FCM) suitable for handling bread and pastries. In addition to threaded separable stainless steel and plastic fittings, all cups are available with a retainer clip which will fit standard bread depanners. The BBL cups can handle great differences in levels due to long bellows. Not suitable to use with deep vacuum levels.

- The material is silicone material which complies FDA and EU regulations e.g. FDA 21 CFR 177.2600 and EU 1935/2004.
- Long lasting high-end silicone material.
- A low percentage metal additive (Fe) is mixed with the rubber material to make it detectable.
- Suitable for bakeries for use with handling seeded product.
- Suitable for level adjustment.
- Available with males threaded food grade, detectable plastic fittings or acid proof stainless steel fittings. The fittings are separable.
- Additional fitting option – retainer clip for standard belts used for bread de-panner.
- Easy to clean with hygienic design. No dust/dirt pockets.
- Low vacuum level needed to collapse bellows. Reduces risk for damaging the handled bakery product.



## Lifting forces

Name	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level		
	10 -kPa	20 -kPa	40 -kPa	10 -kPa	20 -kPa	40 -kPa
B-BL30	4.4	7.4	12.3	3.0	4.4	8.3
B-BL40	8.4	15.3	25.7	4.2	9.0	19.4
B-BL60	10.6	23.7	43.1	11.9	21.4	47.9

## General specifications

Name	Outer diameter, mm	Height, mm	Min. curve radius, mm	Max. vertical movement, mm	Volume, cm <sup>3</sup>
B-BL30	30	28	10.8	16.8	11
B-BL40	42.5	38	15.8	27.9	29.1
B-BL60	60	52.6	18.7	43.0	82.1

## Available materials

Name	Silicone, detectable, FCM
B-BL30	●
B-BL40	●
B-BL60	●

## Applications

Table shows typical applications for the suction cup. For more detailed information, please visit [piab.com](http://piab.com).

Name	Food contact material (FDA, EU standard)
B-BL30	●
B-BL40	●
B-BL60	●

## Ordering information

### No fitting

Name	Detectable
B-BL30-2	0206373
B-BL40-2	0202850
B-BL60-2	0206374

### NPT thread & retainer clip

Name	1/2" NPT male, detectable		3/8" NPT male, detectable		Other, detectable with retainer clip
	Composite	Stainless steel	Composite	Stainless steel	
B-BL30-2	0207098	0207095	0207099	0207094	0207100
B-BL40-2	0207108	0207104	0207107	0207103	0207109
B-BL60-2	0207118	0207113	0207117	0207112	0207119

### G thread

Name	G1/2" male, detectable		G3/8" male, detectable	
	Composite	Stainless steel	Composite	Stainless steel
B-BL30-2	0207096	0207093	0207097	0207092
B-BL40-2	0207106	0207102	0207105	0207101
B-BL60-2	0207115	0207111	0207114	0207110

# Food bellows cups (F-BX)



The 2½ bellows F-BX cups of food contact materials (FCM) have a “funnel” shape design with very thin lips, but, with stable body/bellows. That allows for excellent grip on different food parts with irregular surfaces and different heights, even at fast speeds and accelerations. F-BX is suitable for frozen food as well as raw food.

- The material is silicone material which complies FDA and EU regulations e.g. FDA 21 CFR 177.2600 and EU 1935/2004.
- Long lasting high-end silicone material.
- A low percentage metal additive (Fe) is mixed with the rubber material to make it detectable.
- Suitable for frozen and raw food.
- Excellent grip on food with irregular surfaces and different heights, even at fast speeds and accelerations.
- Available with male threaded food grade, detectable plastic fittings or acid proof stainless steel fittings.
- Easy to clean with hygienic design. No dust/dirt pockets.
- Low vacuum level needed to collapse bellows. Reduces risk for damaging the handled food product.



## Lifting forces

Name	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level		
	10 -kPa	20 -kPa	40 -kPa	10 -kPa	20 -kPa	40 -kPa
F-BX10	0.5	0.9	1.5	1.2	1.3	1.4
F-BX15	1.3	2.7	4.3	1.5	2.8	3.6
F-BX20	1.3	2.7	4.3	1.5	2.8	3.6
F-BX25	3.9	6.9	8	2.9	4.6	7.3
F-BX35	7.6	12.9	14.2	7.5	9.1	10.3

## General specifications

Name	Outer diameter, mm	Height, mm	Min. curve radius, mm	Max. vertical movement, mm	Volume, cm <sup>3</sup>
F-BX10	10.5	19	3.6	6.8	0.33
F-BX15	16	24	5.5	9.8	1.13
F-BX20	21	30	5.5	9.8	2.9
F-BX25	26	37	9	15.5	5.1
F-BX35	36	37	13.3	20.2	13.6

## Available materials

Name	Silicone, FCM detectable
FBX10	●
FBX15	●
FBX20	●
FBX25	●
FBX35	●

## Applications

Table shows typical applications for the suction cup. For more detailed information, please visit [piab.com](http://piab.com).

Name	Food contact material (FDA, EU standard)
FBX10	●
FBX15	●
FBX20	●
FBX25	●
FBX35	●

## Ordering information

### No fitting

Name	Detectable
F-BX10	0206202
F-BX15	0206203
F-BX20	0206204
F-BX25	0206205
F-BX35	0206206

### NPT thread

Name	1/4" NPT male, detectable		1/8" NPT male, detectable		3/8" NPT male, detectable	
	Composite	Stainless steel	Composite	Stainless steel	Composite	Stainless steel
F-BX10	–	–	0207054	0207051	–	–
F-BX15	0207062	0207058	0207061	0207057	–	–
F-BX20	0207070	0207066	0207069	0207065	–	–
F-BX25	0207077	0207073	–	–	0207078	0207074
F-BX35	0207085	0207081	–	–	0207086	0207082

### G thread & M thread

Name	G1/8" male, detectable		G1/4" male, detectable		G3/8" male, detectable		M5 male detectable	
	Composite	Stainless steel	Composite	Stainless steel	Composite	Stainless steel	Composite	Stainless steel
F-BX10	0207053	0207050	–	–	–	–	0207052	0207049
F-BX15	0207059	0207055	0207060	0207056	–	–	–	–
F-BX20	0207067	0207063	0207068	0207064	–	–	–	–
F-BX25	–	–	0207075	0207071	0207076	0207072	–	–
F-BX35	–	–	0207083	0207079	0207084	0207080	–	–

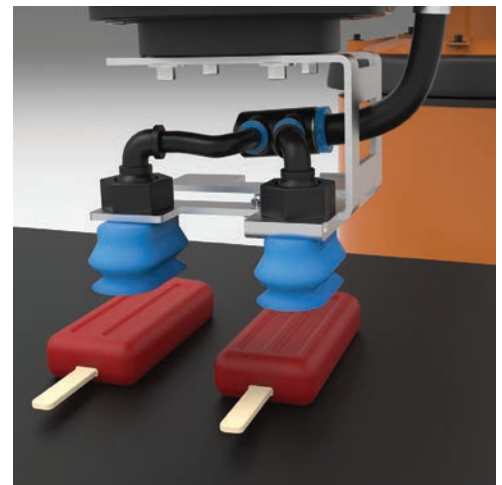


## Food oval bellows (F-OB)



The small oval bellows cups of food contact material (FCM) are suitable for handling of long and narrow packages when maximum lifting force is desired. They are appropriate for soft, curved surfaces and when level compensation is desired. The F-OB cups are a good choice for products in plastic flow-packs and stick-packs, for example candy bars and mini ketchup packages. The oval cups (F-OB) are also available in transparent food contact silicone (non-detectable), which is the best option for picking flow-packs.

- The material is silicone material which complies FDA and EU regulations e.g. FDA 21 CFR 177.2600 and EU 1935/2004.
- Long lasting high-end silicone material.
- Available in two versions; A low percentage metal additive (Fe) is mixed with the rubber material to make it detectable or transparent color without pigment (non-detectable).
- Suitable for frozen and raw food.
- Excellent grip on oblong parts with irregular surfaces and different heights, even at fast speeds and accelerations.
- Available with male threaded and integrated acid proof stainless steel fittings.
- Easy to clean with hygienic design. No dust/dirt pockets.
- Low vacuum level needed to collapse bellows. Reduces risk for damaging the handled food product.



### Lifting forces

Name	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level		
	10 -kPa	20 -kPa	40 -kPa	10 -kPa	20 -kPa	40 -kPa
F-OB 10x30	1.4	2.4	5.2	1.5	2.3	4.6
F-OB 20x40	3.3	6.9	12	2.9	6	12.6
F-OB 30x60	8	17.2	31.1	8.1	13.4	27.5

## General specifications

Name	Length, mm	Width, mm	Build height, mm	Min. curve radius, mm	Max. vertical movement, mm	Volume, cm <sup>3</sup>
F-OB 10×30	31	11	17.4	4	4	1
F-OB 20×40	40.8	20.8	29.2	9	7.6	5
F-OB 30×60	62	32	36	11	10.9	17.5

## Available materials

Name	Silicone, detectable, FCM	Silicone, FCM
F-OB 10×30	●	●
F-OB 20×40	●	●
F-OB 30×60	●	●

## Applications

Table shows typical applications for the suction cup. For more detailed information, please visit [piab.com](https://piab.com).

Name	Food contact material (FDA, EU standard)
F-OB 10×30	●
F-OB 20×40	●
F-OB 30×60	●

## Ordering information

### G thread

Name	G1/8" male, stainless steel		G1/4" male, stainless steel	
	Detectable		Detectable	
F-OB 10×30	0205912	0207044	–	–
F-OB 20×40	0205918	0207046	0205915	0207045
F-OB 30×60	0205920	0207047	0205923	0207048

## Praline cup (P-D)



The deep cups of food contact materials (FCM) are suitable for handling pralines and confectionery such as chocolates. The deep design with thin and long lip is excellent for curved and/or irregular surfaces found on pralines. Can get a good grip over corners. Not suitable for flat surfaces.

- The material is silicone material which complies FDA and EU regulations e.g. FDA 21 CFR 177.2600 and EU 1935/2004.
- Long lasting high-end silicone material.
- A low percentage metal additive (Fe) is mixed with the rubber material to make it detectable.
- Suitable for chocolates, such as pralines.
- Available with male threaded food grade, detectable plastic fittings or acid proof stainless steel fittings.
- Easy to clean with hygienic design. No dust/dirt pockets.



### Lifting forces

Name	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Spherical diameter of test object, mm
	10 -kPa	20 -kPa	40 -kPa	10 -kPa	20 -kPa	40 -kPa	
P-D27	3.2	5.5	8.1	7.6	13.5	21.4	28
P-D36	4.5	8.6	19	12.2	16.8	28.3	38

### General specifications

Name	Outer diameter, mm	Height, mm	Rec. object diameter, mm	Volume, cm <sup>3</sup>
P-D27	26.9	31.5	Ø20–28	6.6
P-D36	35.8	41.3	Ø27–38	16.2

## Available materials

Name	Silicone, detectable, FCM
P-D27	●
P-D36	●

## Applications

Table shows typical applications for the suction cup. For more detailed information, please visit [piab.com](http://piab.com).

Name	Food contact material (FDA, EU standard)
P-D27	●
P-D36	●

## Ordering information

### No fitting

Name	Detectable
P-D27	0206371
P-D36	0206372

### NPT thread

Name	1/4" NPT male, detectable		1/8" NPT male, detectable		1/8" NPT male, detectable	
	Composite	Stainless steel	Composite	Stainless steel	Composite	Stainless steel
P-D27	0207027	0207023	0207028	0207024	–	–
P-D36	0207035	0207031	–	–	0207036	0207032

### G thread

Name	G1/4" male, detectable		G1/8" male, detectable		G3/8" male, detectable	
	Composite	Stainless steel	Composite	Stainless steel	Composite	Stainless steel
P-D27	0207025	0207021	0207026	0207022	–	–
P-D36	0207033	0207029	–	–	0207034	0207030

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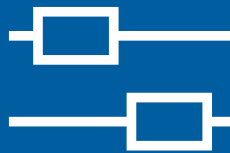
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