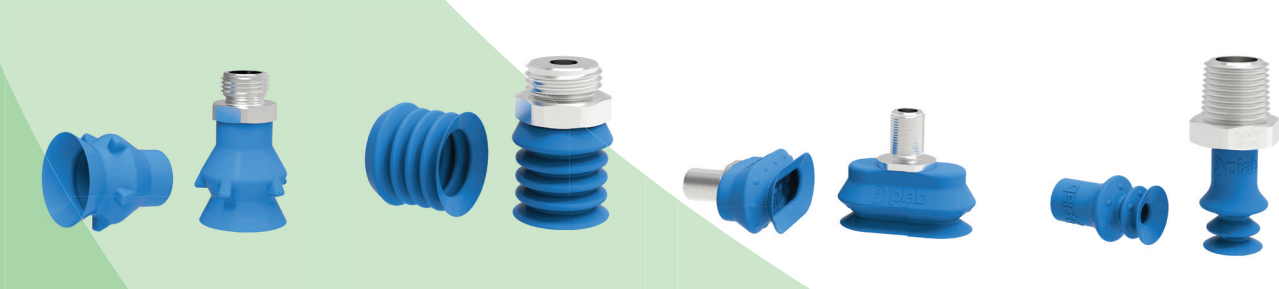




FOOD CONTACT MATERIAL CUPS, DETECTABLE

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 [1.5 to 12 -inHg]. 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

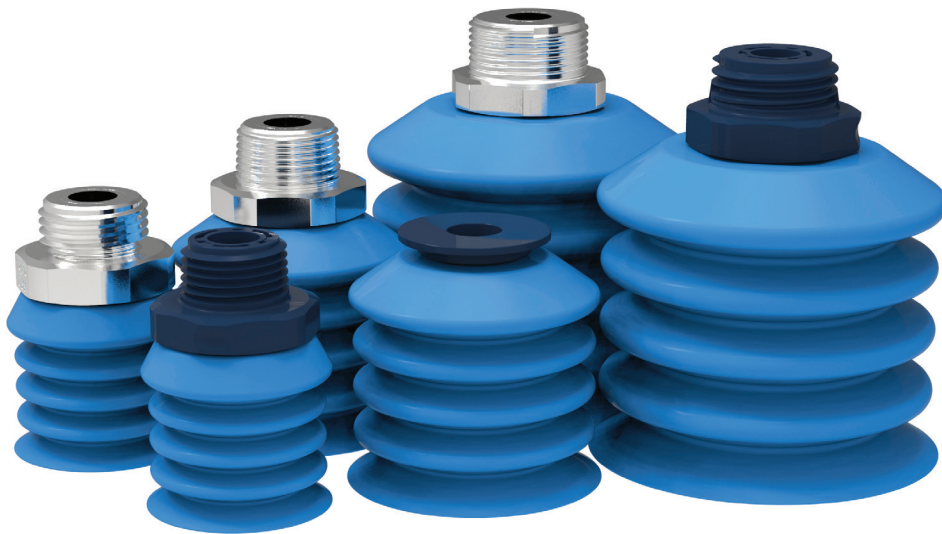


Doy pack



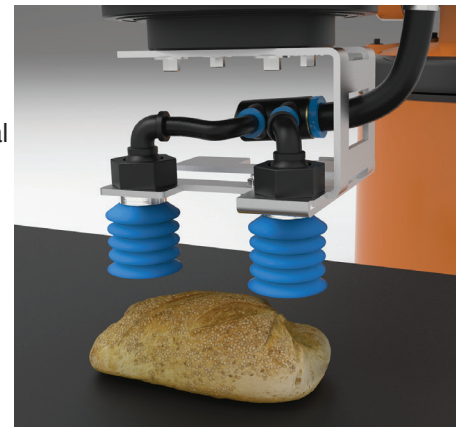
Bread

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, lbf, at vacuum level			Lifting force parallel to the surface, lbf, at vacuum level		
	3 -inHg	6 -inHg	12 -inHg	3 -inHg	6 -inHg	12 -inHg
B-BL30	0.99	1.66	2.77	0.67	0.99	1.87
B-BL40	1.89	3.44	5.78	0.94	2.02	4.36
B-BL60	2.38	5.33	9.70	2.68	4.81	10.8

General specifications

Name	Outer diameter, in	Height, in	Min. curve radius, in	Max. vertical movement, in	Volume, in ³
B-BL30	1.18	1.10	0.43	0.66	0.67
B-BL40	1.67	1.50	0.62	1.10	1.78
B-BL60	2.34	2.10	0.74	1.70	5.01

Available materials

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

Applications

Table shows typical applications for the suction cup. For more detailed information, please visit piab.com.

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

Ordering information

No fitting, NPT thread & retainer clip

Name	No fitting	1/2" NPT male, detectable		3/8" NPT male, detectable		Other, detectable with retainer clip
		Composite	Stainless steel	Composite	Stainless steel	
B-BL30-2	BBL30-2.DS40	BBL30-2.DS40. NT12MDC.00	BBL30-2.DS40. NT12MSS.00	BBL30-2.DS40. NT38MDC.00	BBL30-2.DS40. NT38MSS.00	BBL30-2DS40. RD9XDC.00
B-BL40-2	BBL40-2.DS40	BBL40-2.DS40. NT12MDC.00	BBL40-2.DS40. NT12MSS.00	BBL40-2.DS40. NT38MDC.00	BBL40-2.DS40. NT38MSS.00	BBL40-2.DS40. RD9XDC.00
B-BL60-2	BBL60-2.DS40	BBL60-2.DS40. NT12MDC.00	BBL60-2.DS40. NT12MSS.00	BBL60-2.DS40. NT38MDC.00	BBL60-2.DS40. NT38MSS.00	BBL60-2.DS40. RD9XDC.00

G thread

Name	G1/2" male, detectable		G3/8" male, detectable	
	Composite	Stainless steel	Composite	Stainless steel
B-BL30-2	BBL30-2.DS40. G12MDC.00	BBL30-2.DS40. G12MSS.00	BBL30-2.DS40. G38MDC.00	BBL30-2.DS40. G38MSS.00
B-BL40-2	BBL40-2.DS40. G12MDC.00	BBL40-2.DS40. G12MSS.00	BBL40-2.DS40. G38MDC.00	BBL40-2.DS40. G38MSS.00
B-BL60-2	BBL60-2.DS40. G12MDC.00	BBL60-2.DS40. G12MSS.00	BBL60-2.DS40. G38MDC.00	BBL60-2.DS40. G38MSS.00

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, lbf, at vacuum level			Lifting force parallel to the surface, lbf, at vacuum level		
	3 -inHg	6 -inHg	12 -inHg	3 -inHg	6 -inHg	12 -inHg
F-BX10	0.11	0.20	0.34	0.27	0.29	0.31
F-BX15	0.29	0.61	0.97	0.34	0.63	0.81
F-BX20	0.29	0.61	0.97	0.34	0.63	0.81
F-BX25	0.88	1.55	1.80	0.65	1.03	1.64
F-BX35	1.71	2.90	3.19	1.69	2.05	2.32

General specifications

Name	Outer diameter, in	Height, in	Min. curve radius, in	Max. vertical movement, in	Volume, in ³
F-BX10	0.41	0.75	0.14	0.27	0.02
F-BX15	0.63	0.94	0.22	0.39	0.07
F-BX20	0.83	1.18	0.22	0.39	0.18
F-BX25	1.02	1.46	0.35	0.61	0.31
F-BX35	1.42	1.46	0.52	0.80	0.83

Available materials

Name	Silicone, FCM detectable
F-BX10	●
F-BX15	●
F-BX20	●
F-BX25	●
F-BX35	●

Applications

Table shows typical applications for the suction cup. For more detailed information, please visit piab.com.

Name	Food contact material (FDA, EU standard)
F-BX10	●
F-BX15	●
F-BX20	●
F-BX25	●
F-BX35	●

Ordering information

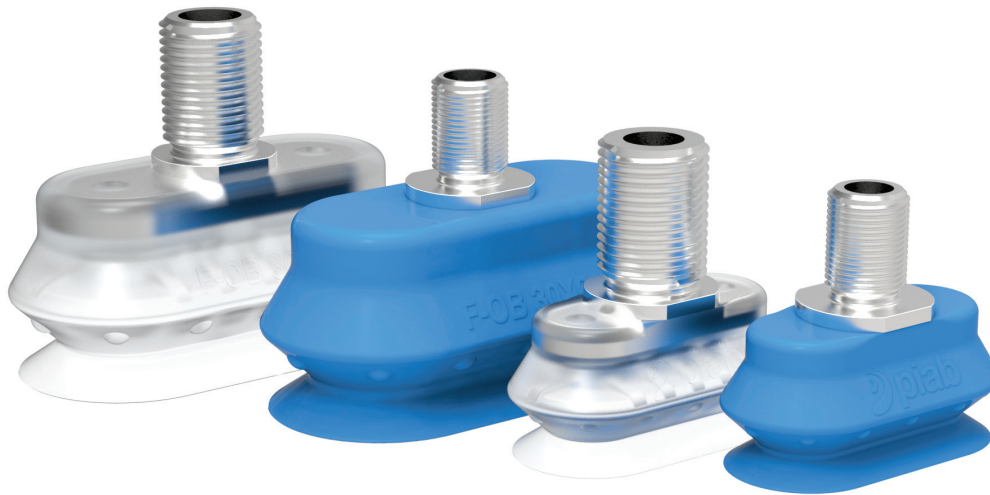
No fitting & NPT thread

Name	No fitting	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	FBX10.DS40	-	-	FBX10.DS40. NT18MDC.00	FBX10.DS40. NT18MSS.00	-	-
F-BX15	FBX15.DS40	FBX15.DS40. NT14MDC.00	FBX15.DS40. NT14MSS.00	FBX15.DS40. NT18MDC.00	FBX15.DS40. NT18MSS.00	-	-
F-BX20	FBX20.DS40	FBX20.DS40. NT14MDC.00	FBX20.DS40. NT14MSS.00	FBX20.DS40. NT18MDC.00	FBX20.DS40. NT18MSS.00	-	-
F-BX25	FBX25.DS40	FBX25.DS40. NT14MDC.00	FBX25.DS40. NT14MSS.00	-	-	FBX25.DS40. NT38MDC.00	FBX25.DS40. NT38MSS.00
F-BX35	FBX35.DS40	FBX35.DS40. NT14MDC.00	FBX35.DS40. NT14MSS.00	-	-	FBX35.DS40. NT38MDC.00	FBX35.DS40. NT38MSS.00

G thread & M thread

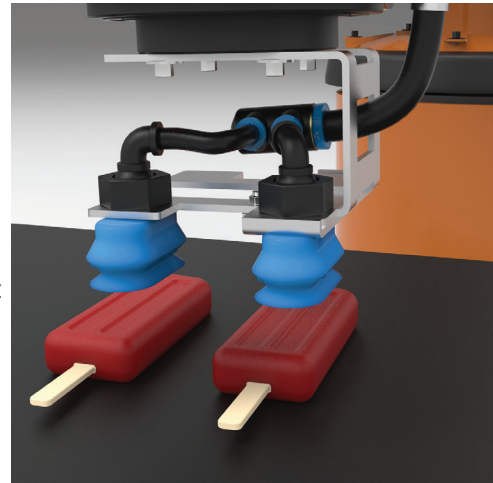
Name	G1/8" male, detectable		G1/4" male, detectable		G3/8" male, detectable		M5 male detectable	
	Composite	Stainless steel	Composite	Stainless steel	Composite	Stainless steel	Composite	Stainless steel
F-BX10	FBX10.DS40. G18MDC.00	FBX10.DS40. G18MSS.00	-	-	-	-	FBX10.DS40. M5MDC.00	FBX10.DS40. M5MSS.00
F-BX15	FBX15.DS40. G18MDC.00	FBX15.DS40. G18MSS.00	FBX15.DS40. G14MDC.00	FBX15.DS40. G14MSS.00	-	-	-	-
F-BX20	FBX20.DS40. G18MDC.00	FBX20.DS40. G18MSS.00	FBX20.DS40. G14MDC.00	FBX20.DS40. G14MSS.00	-	-	-	-
F-BX25	-	-	FBX25.DS40. G14MDC.00	FBX25.DS40. G14MSS.00	FBX25.DS40. G38MDC.00	FBX25.DS40. G38MSS.00	-	-
F-BX35	-	-	FBX35.DS40. G14MDC.00	FBX35.DS40. G14MSS.00	FBX35.DS40. G38MDC.00	FBX35.DS40. G38MSS.00	-	-

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, lbf, at vacuum level			Lifting force parallel to the surface, lbf, at vacuum level		
	3 -inHg	6 -inHg	12 -inHg	3 -inHg	6 -inHg	12 -inHg
F-OB 10x30	0.31	0.54	1.17	0.34	0.52	1.03
F-OB 20x40	0.74	1.55	2.70	0.65	1.35	2.83
F-OB 30x60	1.80	3.87	6.99	1.82	3.01	6.18

General specifications

Name	Length, in	Width, in	Height, in	Min. curve radius, in	Max. vertical movement, in	Volume, in ³
F-OB 10×30	1.22	0.43	0.69	0.16	0.16	0.06
F-OB 20×40	1.61	0.82	1.07–1.15*	0.35	0.30	0.31
F-OB 30×60	2.44	1.26	1.42	0.43	0.43	1.07

*Height range includes fittings.

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.

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	Non-Detectable	Detectable	Non-Detectable
F-OB 10×30	FOB10X30.DS40. G18MSS.00	FOB10X30.SF40. G18MSS.00	–	–
F-OB 20×40	FOB20X40.DS40. G18MSS.00	FOB20X40.SF40. G18MSS.00	FOB20X40.DS40. G14MSS.00	FOB20X40.SF40. G14MSS.00
F-OB 30×60	FOB30X60.DS40. G18MSS.00	FOB30X60.SF40. G18MSS.00	FOB30X60.DS40. G14MSS.00	FOB30X60.SF40. G14MSS.00

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, lbf, at vacuum level			Lifting force parallel to the surface, lbf, at vacuum level			Spherical diameter of test object*, in
	3 -inHg	6 -inHg	12 -inHg	3 -inHg	6 -inHg	12 -inHg	
P-D27	0.72	1.24	1.82	1.71	3.03	4.81	1.10
P-D36	1.01	1.93	4.27	2.74	3.78	6.36	1.50

* Test object used to determine lifting forces.

General specifications

Name	Outer diameter, in	Height, in	Rec. object diameter, in	Volume, in ³
P-D27	1.06	1.24	0.79–1.10	0.40
P-D36	1.41	1.63	1.06–1.50	0.99

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.

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

Ordering information

No fitting & NPT thread

Name	No fitting	1/4" NPT male, detectable		1/8" NPT male, detectable		3/8" NPT male, detectable	
		Composite	Stainless steel	Composite	Stainless steel	Composite	Stainless steel
P-D27	PD27.DS40	PD27.DS40. NT14MDC.00	PD27.DS40. NT14MSS.00	PD27.DS40. NT18MDC.00	PD27.DS40. NT18MSS.00	-	-
P-D36	PD36.DS40	PD36.DS40. NT14MDC.00	PD36.DS40. NT14MSS.00	-	-	PD36.DS40. NT38MDC.00	PD36.DS40. NT38MSS.00

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	PD27.DS40. G14MDC.00	PD27.DS40. G14MSS.00	PD27.DS40. G18MDC.00	PD27.DS40. G18MSS.00	-	-
P-D36	PD36.DS40. G14MDC.00	PD36.DS40. G14MSS.00	-	-	PD36.DS40. G38MDC.00	PD36.DS40. G38MSS.00

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No need to compromise



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