

# Multibellows family (BX/BL)



This family is designed for height differences, slightly curved planes and uneven surfaces. Applications such as bag handling, cardboard, high temperature or if the need is specifically to touch a food item as they are also available in material that complies with the FDA (FDA 21 CFR 177.2600) and meets EU's regulation EU 1935/2004.

## Lifting forces

	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level		
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa
BX10P	1	2.3	3.7	—	—	—
BX15P	2/3*	4/5*	4.5/6*	—	—	—
BX20P	4.5/4.8*	7/7*	9.5/11*	—	—	—
BX25P	8/9*	13/14*	17/18*	5/7*	10/11*	12/14*
BX35P	12/15*	20/25*	28/30*	11/14*	19/23*	26/28*
BX52P	32/35*	56/59*	75/80*	25/27*	44/49*	54/56*
BX75P	62/70*	110/120*	141/166*	39/50*	83/114*	116/150*
BX110P	158/181*	306/365*	346/424*	140/158*	230/244*	260/293*
BL20-2	0.32/3.2**	0.62/6.2**	—	—	—	—
BL30-2	0.64/6.4**	1.6/16**	—	—	—	—
BL40-2	1.1/11**	2.2/22**	—	—	—	—
BL50-2	1.7/17**	4.3/43**	—	—	—	—
BL30-3P	10	22	28	9	10	16
BL40-3P	20	43	55	13	24	36
BL50-3P	24	60	75	22	49	60
BL30-4	8***	—	—	—	—	—
BL40-4	10	15	22	9	16	26
BL50-4	8	25	—	—	—	—
BL30-5	8	9	—	—	—	—
BL40-5	13	15	—	—	—	—
BL50-5	8	25	—	—	—	—
B-BL40-2	1.1/11**	2.2/22**	—	—	—	—
B-BL40-2 FDA, detectable	15.6	34.1	45.2	—	—	—

\* PU30°/PU60° / PU60°, \*\* With reinforcement ring, \*\*\* The suction cup is not intended for deeper vacuum levels than 20 -kPa.

## General specifications

	Outer diameter, mm	Height, mm	Min. curve radius, mm	Max. vertical movement, mm	Volume, cm <sup>3</sup>
BX10P	11	16.5	4/6*	4.5	0.56
BX15P	16	18.5	5.5/6*	5.5	0.92
BX20P	21	15.2	10/8.5*	7.5	1.16
BX25P	26	19	6/8*	8.5	3
BX35P	37	26.8	10	14	10
BX52P	53	39	32	19	30
BX75P	77.5	51.7	23	26	80
BX110P	113.7	74	55	39	230
BL20-2	20	22.9	4	13	4
BL30-2	30	32.5	8	20	10
BL40-2	40	42.4	11	33	27
BL50-2	50	53	13	34	53
BL30-3P	30	35.5	6	14	14
BL40-3P	40	42.4	13	21	27
BL50-3P	48	53	16	26	54
BL30-4	30.5	16.5	20	19	4.1
BL40-4	40.1	39.8	15	18	15
BL50-4	50.3	53	30	22	35
BL30-5	30.5	36.5	17	11	8.55
BL40-5	40	40	22	20	14
BL50-5	50	53	30	18	26
B-BL40-2	42.5	38	11	33	27
B-BL40-2 FDA, detectable	42.5	38	11	22	29

\* PU30°/PU60° / PU60°.

## Available materials

	Chloroprene, CR	HNBR	PU30°/PU60°	PU60°	PU30°/PU70°	Silicone, SIL	Silicone FDA EU, SIL FDA	Silicone FDA EU detectable, SIL FDA DET
BX10P			●	●				
BX15P			●	●				
BX20P			●	●				
BX25P			●	●				
BX35P			●	●				
BX52P			●	●				
BX75P			●	●				
BX110P			●	●				
BL20-2	●	●				●	●	
BL30-2	●					●	●	
BL40-2	●					●	●	
BL50-2	●					●	●	
BL30-3P					●			

	Chloroprene, CR	HNBR	PU30°/PU60°	PU60°	PU30°/PU70°	Silicone, SIL	Silicone FDA EU, SIL FDA	Silicone FDA EU detectable, SIL FDA DET
BL40-3P					●			
BL50-3P					●			
BL30-4						●	●	
BL40-4						●	●	
BL50-4						●	●	
BL30-5						●	●	
BL40-5						●	●	
BL50-5						●	●	
B-BL40-2							●	
B-BL40-2 FDA, detectable								●

### Material resistance

For more material information go to page 23.

### Applications

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

	Dry sheet metal	Bag handling	Corrugated / cardboard	FDA EU-standard compliant	FDA EU detectable	Mark Free	Plastic injection molded parts
BX10P	●		●			●	●
BX15P	●		●			●	●
BX20P	●		●			●	●
BX25P	●		●			●	●
BX35P	●		●			●	●
BX52P	●		●			●	●
BX75P	●		●			●	●
BX110P	●		●			●	●
BL20-2		●		●		●	
BL30-2		●		●			
BL40-2		●		●			
BL50-2		●		●			
BL30-3P		●					
BL40-3P		●					
BL50-3P		●					
BL30-4		●		●			
BL40-4		●		●			
BL50-4		●		●			
BL30-5		●		●			
BL40-5		●		●			
BL50-5		●		●			

	Dry sheet metal	Bag handling	Corrugated / cardboard	FDA EU-standard compliant	FDA EU detectable	Mark Free	Plastic injection molded parts
B-BL40-2				●			
B-BL40-2 FDA, detectable					●		

## Fittings

For a table of possible fittings to use go to page 80, for technical information on all fittings visit [piab.com](https://piab.com).

## Ordering information

For a complete list of available cups and combinations with further information visit [piab.com](https://piab.com). On our webpage you will also be able to find dimensional drawings, CAD-drawings and much more. Register to receive full access to all resources available.

# Suction cups/grippers DURAFLEX® Single and dual

## BX10P



- ▶ Suitable for level adjustment and for uneven and porous surfaces such as cardboard, etc.
- ▶ In the two-coloured suction cup the bellows and the sealing lip are of different hardnesses, which makes the suction cup strong and stable and, at the same time, soft and flexible.
- ▶ DURAFLEX® suction cups manufactured in a specially developed material that features the elasticity of rubber and wear resistance of polyurethane.
- ▶ The material DURAFLEX® is mark free.

### Lifting forces & Technical data

Material	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
PU30°/60°	1	2.3	3.7	—	—	—	0.56	4.0	4.5	1
PU60°	1	2.3	3.7	—	—	—	0.56	6.0	4.5	1

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Polyurethane, PU30	Yellow transparent	30	10–50
Polyurethane, PU60	Green transparent	60	10–50

### Material resistance

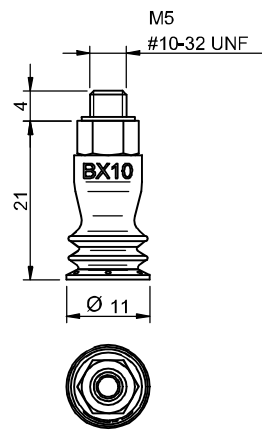
Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Ethanol	Methanol	Oxidation
Excellent	Excellent	Excellent	Fair**	Fair	Fair**	Fair	Poor	Poor

\*\*Please contact Piab.

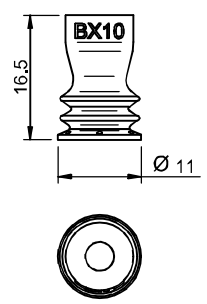
# Suction cups/grippers DURAFLEX® Single and dual

## Ordering information

Description	Art. No.
Suction cup BX10P Polyurethane 30/60, M5 male	0122869
Suction cup BX10P Polyurethane 60, M5 male	0122967



Rubber parts	Art. No.
Suction cup BX10P Polyurethane 30/60	0118329
Suction cup BX10P Polyurethane 60	0122966



Fittings	Art. No.
Fitting M5 male, 10-15	3107030

## BX15P



- ▶ Suitable for level adjustment and for uneven and porous surfaces such as cardboard, etc.
- ▶ In the two-coloured suction cup the bellows and the sealing lip are of different hardnesses, which makes the suction cup strong and stable and, at the same time, soft and flexible.
- ▶ DURAFLEX® suction cups manufactured in a specially developed material that features the elasticity of rubber and wear resistance of polyurethane.
- ▶ The material DURAFLEX® is mark free.

### Lifting forces & Technical data

Material	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
PU30°/60°	2.0	4.0	4.5	—	—	—	0.92	5.5	5.5	1.15
PU60°	2.0	6.0	6.0	—	—	—	0.92	6.0	5.5	1.14

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Polyurethane, PU30	Yellow transparent	30	10–50
Polyurethane, PU60	Green transparent	60	10–50

### Material resistance

Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Ethanol	Methanol	Oxidation
Excellent	Excellent	Excellent	Fair**	Fair	Fair**	Fair	Poor	Poor

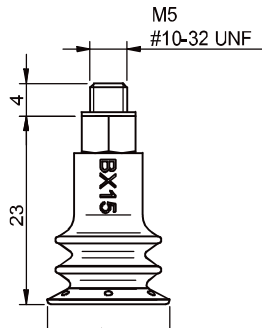
\*\*Please contact Piab.

# Suction cups/grippers DURAFLEX® Single and dual

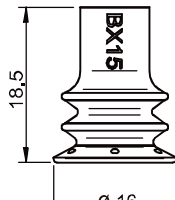


## Ordering information

Complete suction cups	Art. No.
Suction Cup BX15P Polyurethane 30/60, M5 male	0124344
Suction Cup BX15P Polyurethane 60, M5 male	0124345



Rubber parts	Art. No.
Suction cup BX15P Polyurethane 30/60	0118505
Suction cup BX15P Polyurethane 60	0124237



Fittings	Art. No.
Fitting M5 male, 10-15	3107030



## BX20P



### Suction cup with 2½ bellows

- ▶ Suitable for level adjustment and for uneven and porous surfaces such as cardboard, etc.
- ▶ In the two-coloured suction cup the bellows and the sealing lip are of different hardnesses, which makes the suction cup strong and stable and, at the same time, soft and flexible.
- ▶ DURAFLEX® suction cups manufactured in a specially developed material that features the elasticity of rubber and wear resistance of polyurethane.
- ▶ The material DURAFLEX® is mark free.

### Lifting forces & Technical data

Material	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
PU30°/60°	4.8	7.0	11.0	—	—	—	1.16	8.5	6.5	1.43
PU60°	4.5	7.0	9.5	—	—	—	1.16	10.0	6.5	1.43

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Polyurethane, PU30	Yellow transparent	30	10–50
Polyurethane, PU60	Green transparent	60	10–50

### Material resistance

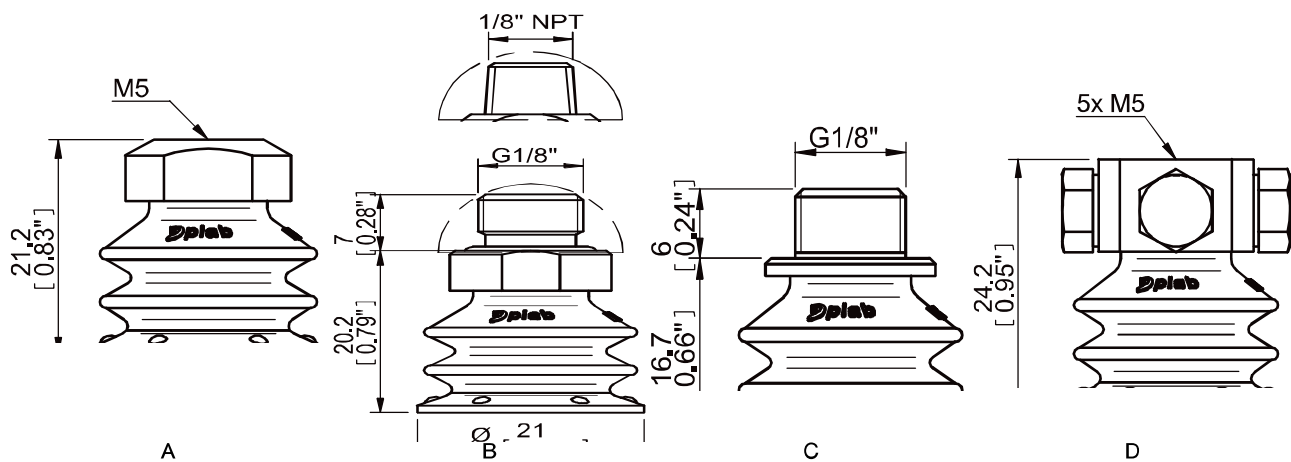
Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Ethanol	Methanol	Oxidation
Excellent	Excellent	Excellent	Fair**	Fair	Fair**	Fair	Poor	Poor

\*\*Please contact Piab.

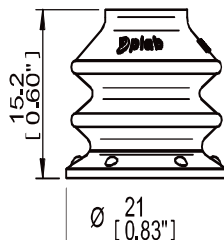
# Suction cups/grippers DURAFLEX® Single and dual

## Ordering information

Complete suction cups		Art. No.
A	Suction cup BX20P Polyurethane 30/60, M5 female	0125104
B	Suction cup BX20P Polyurethane 30/60, G1/8" male	0125108
C	Suction cup BX20P Polyurethane 30/60, G1/8" male / M5 female	0125105
C	Suction cup BX20P Polyurethane 30/60, G1/8" male / M5 female, with dual flow control valve	0125106
D	Suction cup BX20P Polyurethane 30/60, 5xM5 female	0125107
A	Suction cup BX20P Polyurethane 60, M5 female	0125109
B	Suction cup BX20P Polyurethane 60, G1/8" male	0125112
C	Suction cup BX20P Polyurethane 60, G1/8" male / M5 female	0125110
D	Suction cup BX20P Polyurethane 60, 5xM5 female	0125111



Rubber parts		Art. No.
Suction cup BX20P Polyurethane 30/60		0118507
Suction cup BX20P Polyurethane 60		0124249



Fittings		Art. No.
Fitting M5 female		3250003
Fitting G1/8" male, with mesh filter		3250085
Fitting 1/8" NPT male, with mesh filter		3250088
Fitting G1/8" male/M5 female, with mesh filter		0101152
Fitting G1/8" male/M5 female, with dual flow control valve		3251004
Fitting 5xM5 female		0100260

For further information and dimensioned drawings, see section Suction cups/grippers Fittings.

## BX25P



### Suction cup with 2½ bellows

- ▶ Suitable for level adjustment and for uneven and porous surfaces such as cardboard, etc.
- ▶ In the two-coloured suction cup the bellows and the sealing lip are of different hardnesses, which makes the suction cup strong and stable and, at the same time, soft and flexible.
- ▶ DURAFLEX® suction cups manufactured in a specially developed material that features the elasticity of rubber and wear resistance of polyurethane.
- ▶ The material DURAFLEX® is mark free.

### Lifting forces & Technical data

Material	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
PU30°/60°	8.0	13.0	18.0	5.0*	10.0*	12.0*	3.0	6.0	8.5	3
PU60°	9.0	14.0	18.0	7.0*	11.0*	15.0*	3.0	8.0	8.5	3

\*The suction cup is not intended for handling shear lifts. The values are given as a dimensioning guide to be used when, e.g., the acceleration/retardation causes shear forces.

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Polyurethane, PU30	Yellow transparent	30	10–50
Polyurethane, PU60	Green transparent	60	10–50

### Material resistance

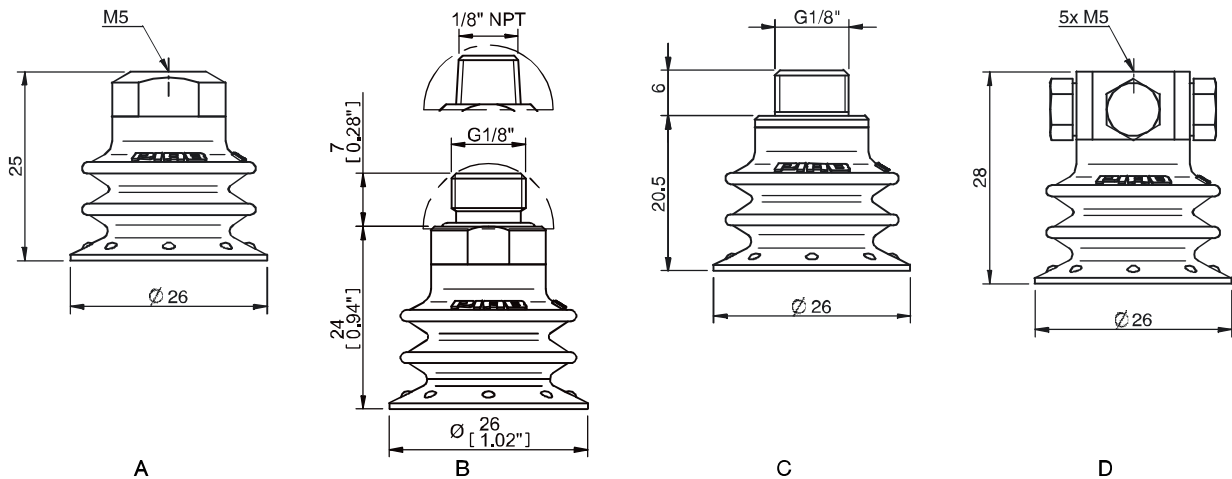
Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Ethanol	Methanol	Oxidation
Excellent	Excellent	Excellent	Fair**	Fair	Fair**	Fair	Poor	Poor

\*\*Please contact Piab.

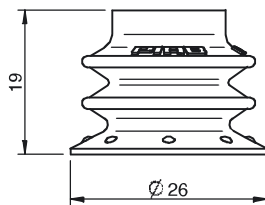
# Suction cups/grippers DURAFLEX® Single and dual

## Ordering information

Complete suction cups		Art. No.
A	Suction cup BX25P Polyurethane 30/60 with filter, M5 female	0109404
B	Suction cup BX25P Polyurethane 30/60 with filter, G1/8" male	0114131
C	Suction cup BX25P Polyurethane 30/60 with filter, G1/8" male / M5 female	0109402
C	Suction cup BX25P Polyurethane 30/60 with filter, G1/8" male / M5 female, with dual flow control valve	0109403
D	Suction cup BX25P Polyurethane 30/60 with filter, 5xM5 female	0109405
A	Suction cup BX25P Polyurethane 60 with filter, M5 female	0109400
B	Suction cup BX25P Polyurethane 60 with filter, G1/8" male	0114149
C	Suction cup BX25P Polyurethane 60 with filter, G1/8" male / M5 female	0109398
D	Suction cup BX25P Polyurethane 60 with filter, 5xM5 female	0109401



Rubber parts	Art. No.
Suction cup BX25P Polyurethane 30/60	0109006
Suction cup BX25P Polyurethane 30/60, with filter	0109312
Suction cup BX25P Polyurethane 60	0108240
Suction cup BX25P Polyurethane 60, with filter	0109397



Fittings	Art. No.
Fitting M5 female	3250003
Fitting M5 female, with dual flow control valve	3251001
Fitting G1/8" male, with mesh filter	3250085
Fitting G1/8" male/M5 female	3250004
Fitting G1/8" male/M5 female, with dual flow control valve	3251004
Fitting 5xM5 female	0100260
Fitting 5xM5 female, with dual flow control valve	3251005

For further information and dimensioned drawings, see section Suction cups/grippers Fittings.

Spare Part	Material	Temperature range °C	Art. No.
Suction cup filter BX25P, 10 pcs	Polyester/TPE	-40-90	0201000

## BX35P



### Suction cup with 2½ bellows

- ▶ Suitable for level adjustment and for uneven and porous surfaces such as cardboard, etc.
- ▶ In the two-coloured suction cup the bellows and the sealing lip are of different hardnesses, which makes the suction cup strong and stable and, at the same time, soft and flexible.
- ▶ DURAFLEX® suction cups manufactured in a specially developed material that features the elasticity of rubber and wear resistance of polyurethane.
- ▶ The material DURAFLEX® is mark free.

### Lifting forces & Technical data

Material	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
PU30°/60°	12.0	20.0	28	14.0*	27*	34*	10.0	10.0	14.0	8.0
PU60°	15.0	25	30	22.0*	30*	36*	10.0	10.0	14.0	8.0

\*The suction cup is not intended for handling shear lifts. The values are given as a dimensioning guide to be used when, e.g., the acceleration/retardation causes shear forces.

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Polyurethane, PU30	Yellow transparent	30	10–50
Polyurethane, PU60	Green transparent	60	10–50

### Material resistance

Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Ethanol	Methanol	Oxidation
Excellent	Excellent	Excellent	Fair**	Fair	Fair**	Fair	Poor	Poor

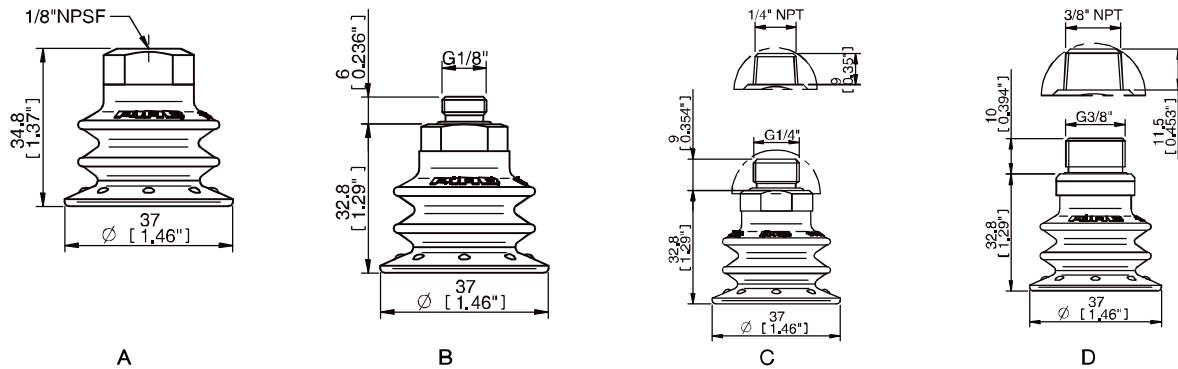
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# Suction cups/grippers DURAFLEX® Single and dual

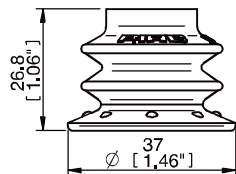


## Ordering information

	Complete suction cups	Art. No.
A	Suction cup BX35P Polyurethane 30/60 with filter, 1/8" NPSF female	0106604
A	Suction cup BX35P Polyurethane 30/60 with filter, 1/8" NPSF female, with dual flow control valve	0106605
B	Suction cup BX35P Polyurethane 30/60 with filter, G1/8" male, with mesh filter	9912151
C	Suction cup BX35P Polyurethane 30/60 with filter, G1/4" male, with mesh filter	0114449
C	Suction cup BX35P Polyurethane 30/60 with filter, 1/4" NPT male, with mesh filter	0107563
C	Suction cup BX35P Polyurethane 30/60 with filter, 1/4" NPT male, with dual flow control valve	9909193
D	Suction cup BX35P Polyurethane 30/60 with filter, G3/8" male, with mesh filter	0107377
D	Suction cup BX35P Polyurethane 30/60 with filter, G3/8" male, mesh filter, dual flow control valve	0107378
D	Suction cup BX35P Polyurethane 30/60 with filter, 3/8" NPT male, with mesh filter	9906975
D	Suction cup BX35P Polyurethane 30/60 with filter, 3/8" NPT male, with dual flow control valve	9909194
A	Suction cup BX35P Polyurethane 60 with filter, 1/8" NPSF female	0107561
A	Suction cup BX35P Polyurethane 60 with filter, 1/8" NPSF female, with dual flow control valve	0107562
B	Suction cup BX35P Polyurethane 60 with filter, G1/8" male, with mesh filter	9912152
C	Suction cup BX35P Polyurethane 60 with filter, 1/4" NPT male, with mesh filter	0107567
C	Suction cup BX35P Polyurethane 60 with filter, 1/4" NPT male, with dual flow control valve	9909190
D	Suction cup BX35P Polyurethane 60 with filter, G3/8" male, with mesh filter	0107379
D	Suction cup BX35P Polyurethane 60 with filter, G3/8" male, with mesh filter and dual flow control valve	0107380
D	Suction cup BX35P Polyurethane 60 with filter, 3/8" NPT male, with mesh filter	9909187
D	Suction cup BX35P Polyurethane 60 with filter, 3/8" NPT male, with dual flow control valve	9909191



Rubber parts	Art. No.
Suction cup BX35P Polyurethane 30/60, with filter	0106619
Suction cup BX35P Polyurethane 60, with filter	0107376
Suction cup BX35P, Polyurethane 30/60	0106292
Suction cup BX35P, Polyurethane 60	0107477



Fittings	Art. No.
Fitting 1/8" NPSF female, 30-40	3250005
Fitting 1/8" NPSF female, 30-40, with dual flow control valve	3251006
Fitting G1/8" male, 40, with mesh filter	0200714
Fitting G1/4" male, 30-40, with mesh filter	3250091
Fitting 1/4" NPT male, with mesh filter	3250093
Fitting 1/4" NPT male, with dual flow control valve	3251008
Fitting G3/8" male, 30-40, with mesh filter	3250086
Fitting G3/8" male, 30-40, with mesh and dual flow control valve	3251009
Fitting 3/8" NPT male, with mesh filter	3250089
Fitting 3/8" NPT male, with dual flow control valve	3251010

For further information and dimensioned drawings, see section Suction cups/grippers Fittings.

Spare Part	Material	Temperature range °C	Art. No.
Suction cup filter BX35P, 10 pcs	Polyester/TPE	-40-90	0201001

# Suction cups/grippers DURAFLEX® Single and dual

## BX52P



### Suction cup with 2½ bellows

- ▶ Suitable for level adjustment and for uneven and porous surfaces such as cardboard, etc.
- ▶ In the two-coloured suction cup the bellows and the sealing lip are of different hardnesses, which makes the suction cup strong and stable and, at the same time, soft and flexible.
- ▶ DURAFLEX® suction cups manufactured in a specially developed material that features the elasticity of rubber and wear resistance of polyurethane.
- ▶ The material DURAFLEX® is mark free.

### Lifting forces & Technical data

Material	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
PU30°/60°	32	56	75	28*	44*	54*	30	32	19.0	24
PU60°	37	59	80	27*	49*	56*	30	32	19.0	24

\*The suction cup is not intended for handling shear lifts. The values are given as a dimensioning guide to be used when, e.g., the acceleration/retardation causes shear forces.

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Polyurethane, PU30	Yellow transparent	30	10–50
Polyurethane, PU60	Green transparent	60	10–50

### Material resistance

Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Ethanol	Methanol	Oxidation
Excellent	Excellent	Excellent	Fair**	Fair	Fair**	Fair	Poor	Poor

\*\*Please contact Piab.

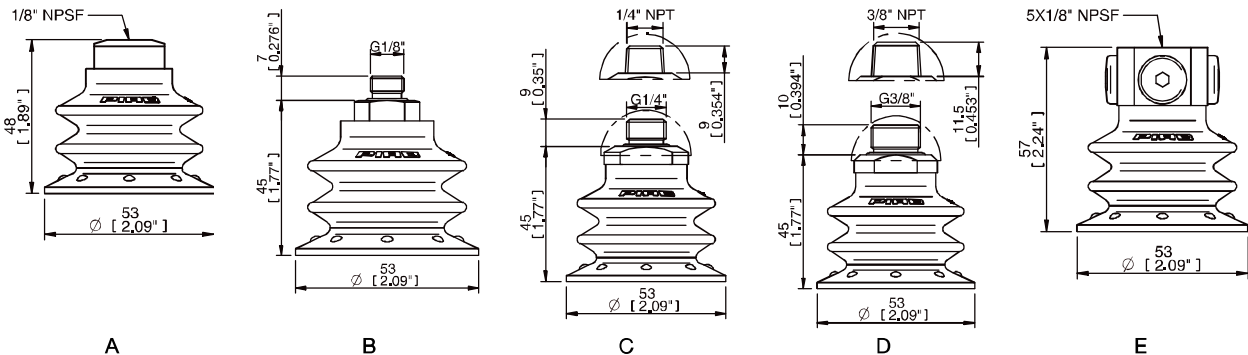
### Ordering information

	Complete suction cups	Art. No.
A	Suction cup BX52P Polyurethane 30/60 with filter, 1/8" NPSF female	0104727
A	Suction cup BX52P Polyurethane 30/60 with filter, 1/8" NPSF female, with mesh filter	0106044
A	Suction cup BX52P Polyurethane 30/60 with filter, 1/8" NPSF female, with dual flow control valve	0106019
B	Suction cup BX52P Polyurethane 30/60 with filter, G1/8" male, with mesh filter	9912153
C	Suction cup BX52P Polyurethane 30/60 with filter, G1/4" male, with mesh filter	0106045
C	Suction cup BX52P Polyurethane 30/60 with filter, G1/4" male, with dual flow control valve	0106739
C	Suction cup BX52P Polyurethane 30/60 with filter, 1/4" NPT male, with mesh filter	0106047
C	Suction cup BX52P Polyurethane 30/60 with filter, 1/4" NPT male, with dual flow control valve	9908595
D	Suction cup BX52P Polyurethane 30/60 with filter, G3/8" male, with mesh filter	0106740
D	Suction cup BX52P Polyurethane 30/60 with filter, G3/8" male, with dual flow control valve	0106741
D	Suction cup BX52P Polyurethane 30/60 with filter, 3/8" NPT male, with mesh filter	0107515
D	Suction cup BX52P Polyurethane 30/60 with filter, 3/8" NPT male, with dual flow control valve	9908596
E	Suction cup BX52P Polyurethane 30/60 with filter, 5x1/8" NPSF female	0106046
E	Suction cup BX52P Polyurethane 30/60 with filter, 5x1/8" NPSF female, with dual flow control valve	0106742
A	Suction cup BX52P Polyurethane 60 with filter, 1/8" NPSF female	0107383
A	Suction cup BX52P Polyurethane 60 with filter, 1/8" NPSF female, with mesh filter	0107382
B	Suction cup BX52P Polyurethane 60 with filter, G1/8" male, with mesh filter	9912154
C	Suction cup BX52P Polyurethane 60 with filter, G1/4" male, with mesh filter	0107385

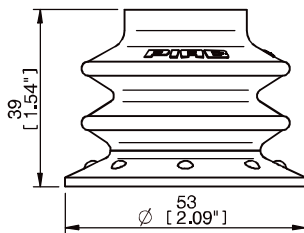
# Suction cups/grippers DURAFLEX® Single and dual



Complete suction cups		Art. No.
C	Suction cup BX52P Polyurethane 60 with filter, G1/4" male, with dual flow control valve	0107386
C	Suction cup BX52P Polyurethane 60 with filter, 1/4" NPT male, with mesh filter	0107391
C	Suction cup BX52P Polyurethane 60 with filter, 1/4" NPT male, with dual flow control valve	9908593
D	Suction cup BX52P Polyurethane 60 with filter, G3/8" male, with mesh filter	0107387
D	Suction cup BX52P Polyurethane 60 with filter, G3/8" male, with dual flow control valve	0107388
D	Suction cup BX52P Polyurethane 60 with filter, 3/8" NPT male, with mesh filter	0107516
D	Suction cup BX52P Polyurethane 60 with filter, 3/8" NPT male, with dual flow control valve	9908594
E	Suction cup BX52P Polyurethane 60 with filter, 5x1/8" NPSF female	0107389
E	Suction cup BX52P Polyurethane 60 with filter, 5x1/8" NPSF female, with dual flow control valve	0107390



Rubber parts		Art. No.
Suction cup BX52P Polyurethane 30/60, with filter		0104729
Suction cup BX52P Polyurethane 60, with filter		0108039
Suction cup BX52P Polyurethane 30/60		0104529
Suction cup BX52P Polyurethane 60		0107381



Fittings		Art. No
Fitting 1/8" NPSF female, 50		3250017
Fitting 1/8" NPSF female, 50, with mesh filter		0101154
Fitting 1/8" NPSF female, 50, with dual flow control valve		3251012
Fitting G1/8" male, 50, with mesh filter		0200715
Fitting G1/4" male, 50, with mesh filter		3250092
Fitting G1/4" male, with mesh filter and dual flow control valve		3251013
Fitting 1/4" NPT male, with mesh filter		3250094
Fitting 1/4" NPT male, with dual flow control valve		3251014
Fitting G3/8" male, 50, with mesh filter		3250087
Fitting G3/8" male, 50, with mesh filter and dual flow control valve		3251015
Fitting 3/8" NPT male, with mesh filter		3250090
Fitting 3/8" NPT male, with dual flow control valve		3251016
Fitting 5x1/8" NPSF female, 50		0100262
Fitting 5x1/8" NPSF female, 50, with dual flow control valve		3251017

For further information and dimensioned drawings, see section Suction cups/grippers Fittings.

Spare Part	Material	Temperature range °C	Art. No.
Suction cup filter BX52P, 10 pcs	Polyester/TPE	-40-90	0201002



## BX75P



### Suction cup with 2½ bellows

- ▶ Suitable for level adjustment and for uneven and porous surfaces such as cardboard, etc.
- ▶ In the two-coloured suction cup the bellows and the sealing lip are of different hardnesses, which makes the suction cup strong and stable and, at the same time, soft and flexible.
- ▶ DURAFLEX® suction cups manufactured in a specially developed material that features the elasticity of rubber and wear resistance of polyurethane.
- ▶ The material DURAFLEX® is mark free.

### Lifting forces & Technical data

Material	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
PU30°/60°	62	110	141	39*	83*	116*	80	23.0	26	71
PU60°	80	120	166	78*	114*	150*	80	23.0	26	71

\*The suction cup is not intended for handling shear lifts. The values are given as a dimensioning guide to be used when, e.g., the acceleration/retardation causes shear forces.

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Polyurethane, PU30	Yellow transparent	30	10–50
Polyurethane, PU60	Green transparent	60	10–50

### Material resistance

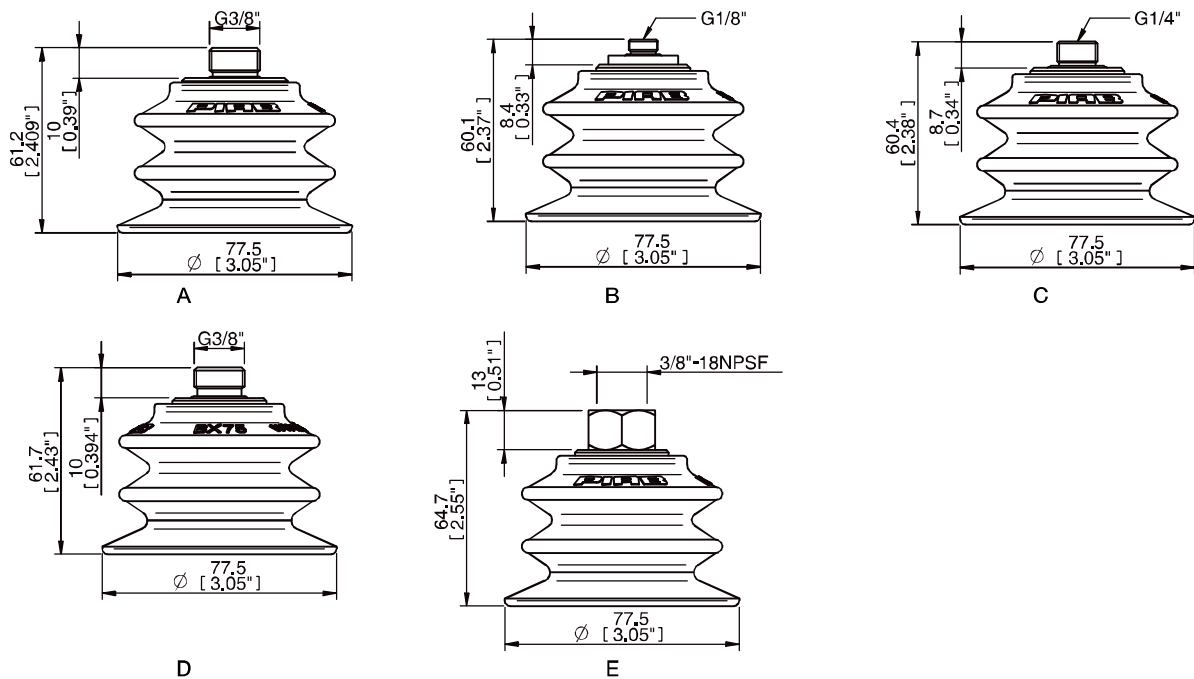
Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Ethanol	Methanol	Oxidation
Excellent	Excellent	Excellent	Fair**	Fair	Fair**	Fair	Poor	Poor

\*\*Please contact Piab.

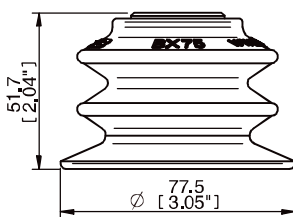
# Suction cups/grippers DURAFLEX® Single and dual

## Ordering information

Complete suction cups		Art. No.
A	Suction cup BX75P Polyurethane 30/60, G3/8" male / 1/8" NPSF female	0106293
A	Suction cup BX75P Polyurethane 30/60 with filter, G3/8" male / 1/8" NPSF female	0106606
B	Suction cup BX75P Polyurethane 30/60 with filter, thread insert G1/8" male	0201082
B	Suction cup BX75P Polyurethane 60 with filter, thread insert G1/8" male	0201083
C	Suction cup BX75P Polyurethane 30/60 with filter, thread insert G1/4" male	0201073
C	Suction cup BX75P Polyurethane 60 with filter, thread insert G1/4" male	0201074
D	Suction cup BX75P Polyurethane 30/60 with filter, thread insert G3/8" male	0107151
D	Suction cup BX75P Polyurethane 60 with filter, thread insert G3/8" male	0107149
E	Suction cup BX75P Polyurethane 30/60 with filter, 3/8" NPSF female	0108794
E	Suction cup BX75P Polyurethane 60 with filter, 3/8" NPSF female	0108795



Rubber parts		Art. No.
Suction cup BX75P Polyurethane 30/60 with filter, for thread insert		0107145
Suction cup BX75P Polyurethane 60 with filter, for thread insert		0107150



Fittings		Art. No.
Thread insert G1/8" male, with O-ring and mesh filter		0200716
Thread insert G1/4" male, with O-ring and mesh filter		0201077
Thread insert G3/8" male, with O-ring		0106797

For further information and dimensioned drawings, see section Suction cups/grippers Fittings.

Spare Part	Material	Temperature range °C	Art. No.
Suction cup filter BX75P, 10 pcs	Polyester/TPE	-40-90	0201003

## BX110P



### Suction cup with 2½ bellows

- ▶ Suitable for level adjustment and for uneven and porous surfaces such as cardboard, etc.
- ▶ In the two-coloured suction cup the bellows and the sealing lip are of different hardnesses, which makes the suction cup strong and stable and, at the same time, soft and flexible.
- ▶ DURAFLEX® suction cups manufactured in a specially developed material that features the elasticity of rubber and wear resistance of polyurethane.
- ▶ The material DURAFLEX® is mark free.

### Lifting forces & Technical data

Material	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
PU30°/60°	158	306	346	83*	258*	260*	230	55	39	237
PU60°	181	426	424	158*	244*	293*	230	55	39	237

\*The suction cup is not intended for handling shear lifts. The values are given as a dimensioning guide to be used when, e.g., the acceleration/retardation causes shear forces.

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Polyurethane, PU30	Yellow transparent	30	10–50
Polyurethane, PU60	Green transparent	60	10–50

### Material resistance

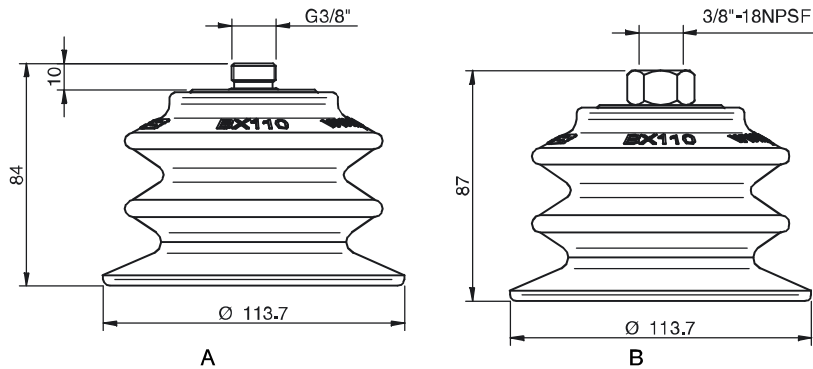
Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Ethanol	Methanol	Oxidation
Excellent	Excellent	Excellent	Fair**	Fair	Fair**	Fair	Poor	Poor

\*\*Please contact Piab.

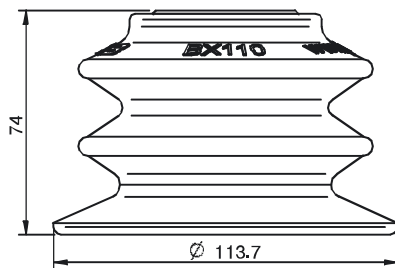
# Suction cups/grippers DURAFLEX® Single and dual

## Ordering information

Complete suction cups		Art. No.
A	Suction cup BX110P Polyurethane 30/60 with filter, thread insert G3/8" male	0108273
B	Suction cup BX110P Polyurethane 30/60 with filter, 3/8" NPSF female	0108403
A	Suction cup BX110P Polyurethane 60 with filter, thread insert G3/8" male	0108341
B	Suction cup BX110P Polyurethane 60 with filter, 3/8" NPSF female	0108404



Rubber parts		Art. No.
Suction cup BX110P Polyurethane 30/60		0107093
Suction cup BX110P Polyurethane 30/60, with filter		0108164
Suction cup BX110P Polyurethane 60, with filter		0108340



Fittings		Art. No.
Thread insert G3/8" male, with O-ring		0106797

For further information and dimensioned drawings, see section Suction cups/grippers Fittings.

Spare Part	Material	Temperature range °C	Art. No.
Suction cup filter BX110P, 10 pcs	Polyester/TPE	-40-90	0201004

## BL20-2



### Suction cup with long bellows

- ▶ Suitable for level adjustment.
- ▶ Lifting movement to separate small and thin objects.
- ▶ Less suitable when the lifting force is parallel to the surface of the object.

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
0.32/3.2*	0.62/6.2*	—	—	—	—	4.0	4.0	13	3

\*Lifting force with reinforcement rings.

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	60	-40–110
Silicone, SIL	Red	50	-40–200

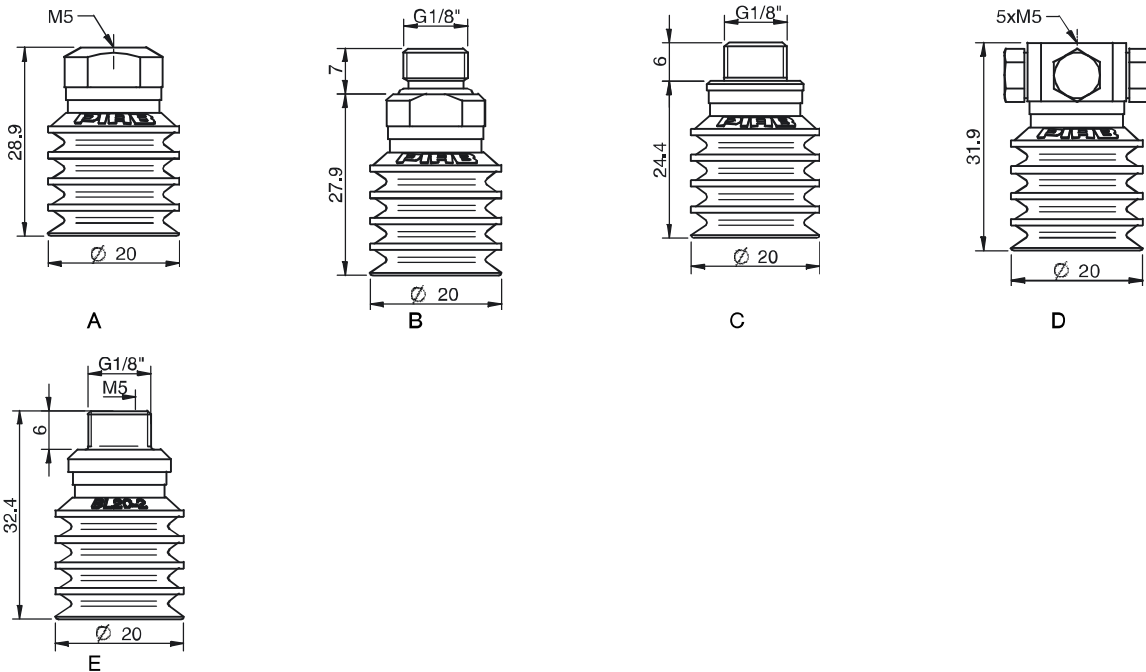
### Material resistance

Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Chloroprene, CR	Excellent	Fair	Good	Good	Fair	Poor	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

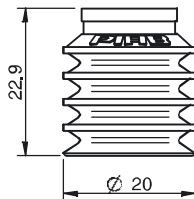
### Ordering information

	Complete suction cups	Art. No.
A	Suction cup BL20-2 Chloroprene, M5 female	0101193
B	Suction cup BL20-2 Chloroprene, G1/8" male, with mesh filter	0101194
B	Suction cup BL20-2 Chloroprene, G1/8" male, with mesh filter and dual flow control valve	0101200
C	Suction cup BL20-2 Chloroprene, G1/8" male/M5 female, with mesh filter	0101198
C	Suction cup BL20-2 Chloroprene, G1/8" male/M5 female, with dual flow control valve	0101202
D	Suction cup BL20-2 Chloroprene, 5xM5 female	0101197
A	Suction cup BL20-2 Silicone, M5 female	0101204
A	Suction cup BL20-2 Silicone, M5 female, with dual flow control valve	0101210
B	Suction cup BL20-2 Silicone, G1/8" male, with mesh filter	0101205
B	Suction cup BL20-2 Silicone, G1/8" male, with mesh filter and dual flow control valve	0101211
C	Suction cup BL20-2 Silicone, G1/8" male/M5 female, with mesh filter	0101209
D	Suction cup BL20-2 Silicone, 5xM5 female	0101208
E	Suction cup BL20-2 Chloroprene, G1/8" male/M5 female, PA	0109844
E	Suction cup BL20-2 Silicone, G1/8" male/M5 female, PA	0110339

# Suction cups/grippers Silicone Bag



Rubber parts	Art. No.
Suction cup BL20-2 Chloroprene	0101115
Suction cup BL20-2 Silicone	0101116



Fittings	Art. No.
Fitting M5 female	3250003
Fitting M5 female, with dual flow control valve	3251001
Fitting G1/8" male, with mesh filter	3250085
Fitting G1/8" male, with mesh filter and dual flow control valve	3251002
Fitting G1/8" male/M5 female, with mesh filter	0101152
Fitting G1/8" male/M5 female, with dual flow control valve	3251004
Fitting 5xM5 female	0100260
Fitting 5xM5 female, with dual flow control valve	3251005
Fitting G1/8" male/M5 female, PA	3150196

For further information and dimensioned drawings, see section Suction cups/grippers Fittings.

Spare Part	Material	Temperature range °C	Art. No.
Reinforcement ring for BL20-2, 4x	Polyamide, PA	-40-110	3150071

## BL30-2



### Suction cup with long bellows

- ▶ Suitable for level adjustment.
- ▶ Lifting movement to separate small and thin objects.
- ▶ Less suitable when the lifting force is parallel to the surface of the object.

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
0.64/6.4*	1.6/16.0*	—	—	—	—	10	8	20	7

\*Lifting force with reinforcement rings.

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	60	-40-110
Silicone, SIL	Red	50	-40-200

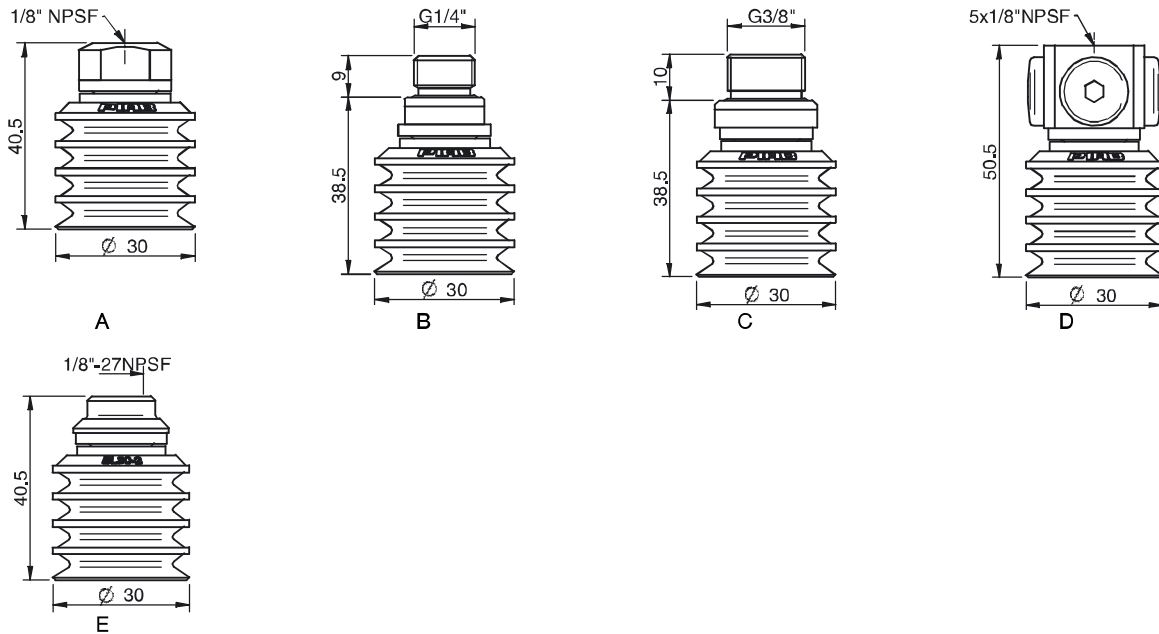
### Material resistance

Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Chloroprene, CR	Excellent	Fair	Good	Good	Fair	Poor	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

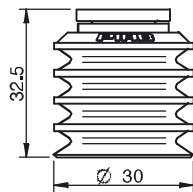
### Ordering information

	Complete suction cups	Art. No.
A	Suction cup BL30-2 Chloroprene, 1/8" NPSF female, with mesh filter	0101501
A	Suction cup BL30-2 Chloroprene, 1/8" NPSF female, with dual flow control valve	0101502
B	Suction cup BL30-2 Chloroprene, G1/4" male, with mesh filter	0101496
B	Suction cup BL30-2 Chloroprene, G1/4" male, with mesh filter and dual flow control valve	0101503
C	Suction cup BL30-2 Chloroprene, G3/8" male, with mesh filter	0101498
A	Suction cup BL30-2 Silicone, 1/8" NPSF female, with mesh filter	0101514
A	Suction cup BL30-2 Silicone, 1/8" NPSF female, with dual flow control valve	0101515
B	Suction cup BL30-2 Silicone, G1/4" male, with mesh filter	0101509
B	Suction cup BL30-2 Silicone, G1/4" male, with mesh filter and dual flow control valve	0101516
C	Suction cup BL30-2 Silicone, G3/8" male, with mesh filter	0101511
D	Suction cup BL30-2 Silicone, 5x1/8" NPSF female	0101513
E	Suction cup BL30-2 Chloroprene, 1/8" NPSF female, PA	0110951
E	Suction cup BL30-2 Silicone, 1/8" NPSF female, PA	0110340

# Suction cups/grippers Silicone Bag



Rubber parts	Art. No.
Suction cup BL30-2 Chloroprene	0101117
Suction cup BL30-2 Silicone	0101118



Fittings	Art. No
Fitting 1/8" NPSF female, 30-40, with mesh filter	0101153
Fitting 1/8" NPSF female, 30-40, with dual flow control valve	3251006
Fitting G1/4" male, 30-40, with mesh filter	3250091
Fitting G1/4" male, 30-40, with mesh filter and dual flow control valve	3251007
Fitting G3/8" male, 30-40, with mesh filter	3250086
Fitting G3/8" male, 30-40, with mesh and dual flow control valve	3251009
Fitting 5x1/8" NPSF female, 30-40	0100261
Fitting 5x1/8" NPSF female, 30-40, with dual flow control valve	3251011
Fitting 1/8" NPSF female, 30-40, PA	3150197

For further information and dimensioned drawings, see section Suction cups/grippers Fittings.

Spare Part	Material	Temperature range °C	Art. No.
Reinforcement ring for BL30-2, 4x	Polyamide, PA	-40-110	3150072



## BL40-2



### Suction cup with long bellows

- ▶ Suitable for level adjustment.
- ▶ Lifting movement to separate small and thin objects.
- ▶ Less suitable when the lifting force is parallel to the surface of the object.

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
1.1/11.0*	2.2/22.0*	—	—	—	—	27	11	33	10

\*Lifting force with reinforcement rings.

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	60	-40–110
Silicone, SIL	Red	50	-40–200

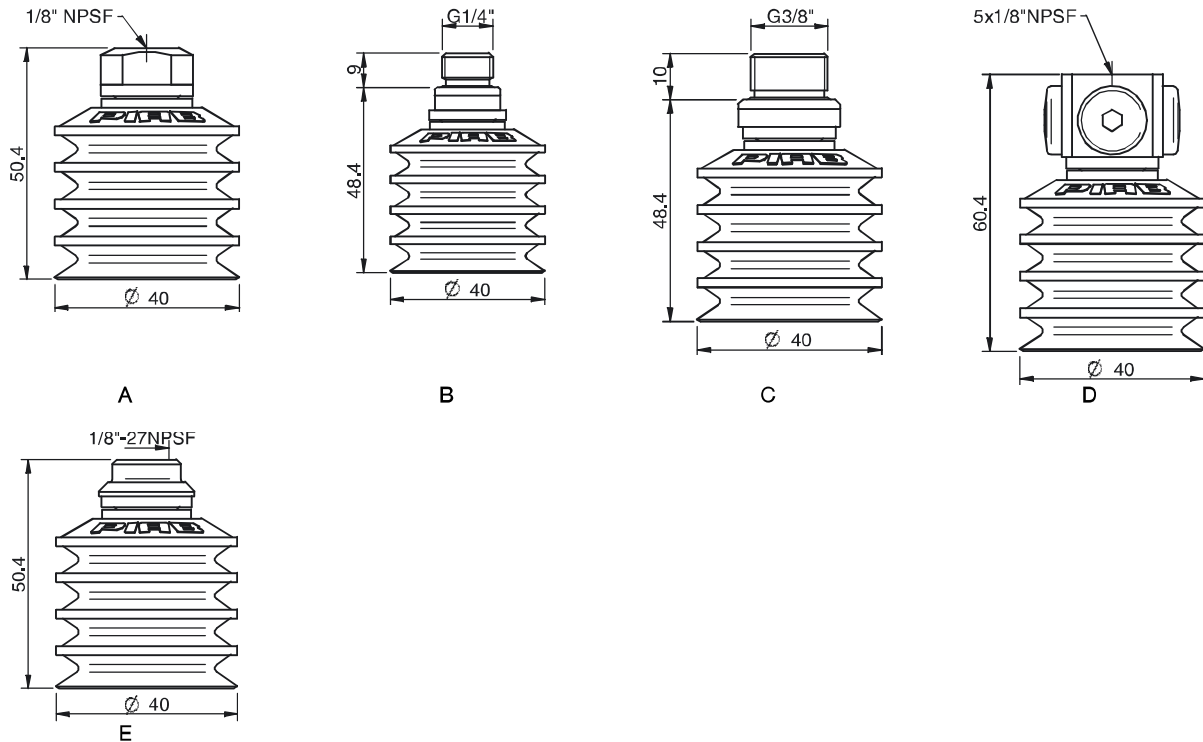
### Material resistance

Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Chloroprene, CR	Excellent	Fair	Good	Good	Fair	Poor	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

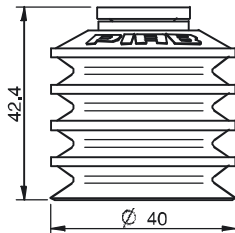
### Ordering information

	Complete suction cups	Art. No.
A	Suction cup BL40-2 Chloroprene, 1/8" NPSF female, with mesh filter	0101527
B	Suction cup BL40-2 Chloroprene, G1/4" male, with mesh filter	0101522
B	Suction cup BL40-2 Chloroprene, G1/4" male, with mesh filter and dual flow control valve	0101529
C	Suction cup BL40-2 Chloroprene, G3/8" male, with mesh filter	0101524
D	Suction cup BL40-2 Chloroprene, 5x1/8" NPSF female	0101526
D	Suction cup BL40-2 Chloroprene, 5x1/8" NPSF female, with dual flow control valve	0101533
A	Suction cup BL40-2 Silicone, 1/8" NPSF female, with mesh filter	0101540
B	Suction cup BL40-2 Silicone, G1/4" male, with mesh filter	0101535
B	Suction cup BL40-2 Silicone, G1/4" male, with mesh filter and dual flow control valve	0101542
C	Suction cup BL40-2 Silicone, G3/8" male, with mesh filter	0101537
D	Suction cup BL40-2 Silicone, 5x1/8" NPSF female	0101539
E	Suction cup BL40-2 Chloroprene, 1/8" NPSF female, PA	0110946
E	Suction cup BL40-2 Silicone, 1/8" NPSF female, PA	0110341

# Suction cups/grippers Silicone Bag



Rubber parts	Art. No.
Suction cup BL40-2 Chloroprene	0101119
Suction cup BL40-2 Silicone	0101120



Fittings	Art. No
Fitting 1/8" NPSF female, 30–40, with mesh filter	0101153
Fitting 1/8" NPSF female, 30–40, with dual flow control valve	3251006
Fitting G1/4" male, 30–40, with mesh filter	3250091
Fitting G1/4" male, 30–40, with mesh filter and dual flow control valve	3251007
Fitting G3/8" male, 30–40, with mesh filter	3250086
Fitting G3/8" male, 30–40, with mesh and dual flow control valve	3251009
Fitting 5x1/8" NPSF female, 30–40	0100261
Fitting 5x1/8" NPSF female, 30–40, with dual flow control valve	3251011
Fitting 1/8" NPSF female, 30–40, PA	3150197

For further information and dimensioned drawings, see section Suction cups/grippers Fittings.

Spare Part	Material	Temperature range °C	Art. No.
Reinforcement ring for BL40-2 & B-BL40-2, 4x	Polyamide, PA	-40–110	3150073

## BL50-2



### Suction cup with long bellows

- ▶ Suitable for level adjustment.
- ▶ Lifting movement to separate small and thin objects.
- ▶ Less suitable when the lifting force is parallel to the surface of the object.

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
1.7/17.0*	4.3/43*	—	—	—	—	53	13	34	20.0

\*Lifting force with reinforcement rings.

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	60	-40-110
Silicone, SIL	Red	50	-40-200

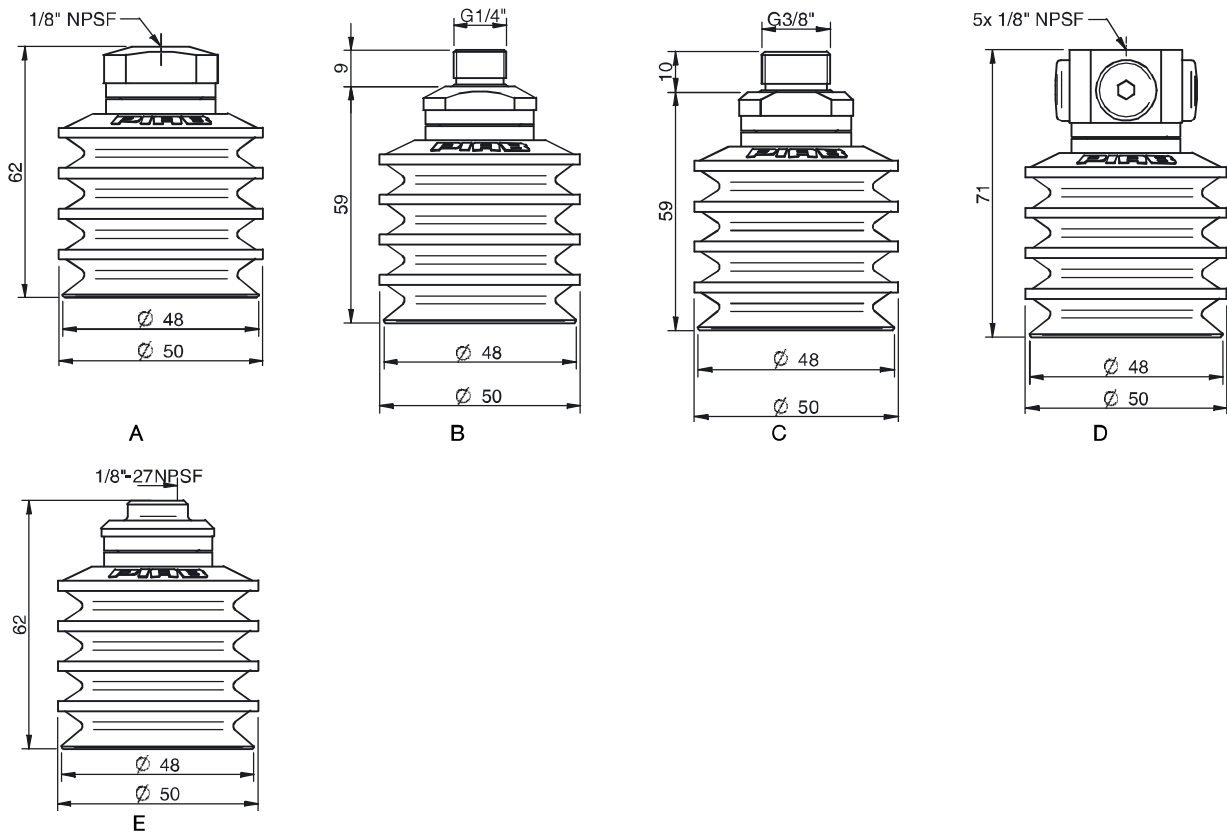
### Material resistance

Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Chloroprene, CR	Excellent	Fair	Good	Good	Fair	Poor	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

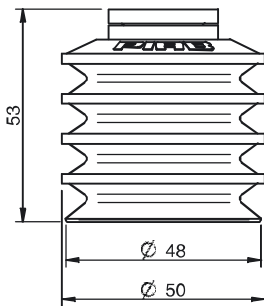
### Ordering information

	Complete suction cups	Art. No.
A	Suction cup BL50-2 Chloroprene, 1/8" NPSF female, with mesh filter	0101701
A	Suction cup BL50-2 Chloroprene, 1/8" NPSF female, with dual flow control valve	0101702
B	Suction cup BL50-2 Chloroprene, G1/4" male, with mesh filter	0101696
B	Suction cup BL50-2 Chloroprene, G1/4" male, with mesh filter and dual flow control valve	0101703
C	Suction cup BL50-2 Chloroprene, G3/8" male, with mesh filter	0101698
C	Suction cup BL50-2 Chloroprene, G3/8" male, with mesh filter and dual flow control valve	0101705
D	Suction cup BL50-2 Chloroprene, 5x1/8" NPSF female	0101700
A	Suction cup BL50-2 Silicone, 1/8" NPSF female, with mesh filter	0101714
A	Suction cup BL50-2 Silicone, 1/8" NPSF female, with dual flow control valve	0101715
B	Suction cup BL50-2 Silicone, G1/4" male, with mesh filter	0101709
C	Suction cup BL50-2 Silicone, G3/8" male, with mesh filter	0101711
E	Suction cup BL50-2 Chloroprene, 1/8" NPSF female, PA	0110958
E	Suction cup BL50-2 Silicone, 1/8" NPSF female, PA	0110342

# Suction cups/grippers Silicone Bag



Rubber parts	Art. No.
Suction cup BL50-2 Chloroprene	0101121
Suction cup BL50-2 Silicone	0101122



Fittings	Art. No
Fitting 1/8" NPSF female, 50, with mesh filter	0101154
Fitting 1/8" NPSF female, 50, with dual flow control valve	3251012
Fitting G1/4" male, 50, with mesh filter	3250092
Fitting G1/4" male, with mesh filter and dual flow control valve	3251013
Fitting G3/8" male, 50, with mesh filter	3250087
Fitting G3/8" male, 50, with mesh filter and dual flow control valve	3251015
Fitting 5x1/8" NPSF female, 50	0100262
Fitting 5x1/8" NPSF female, 50, with dual flow control valve	3251017
Fitting 1/8" NPSF female, 50, PA	3150198

For further information and dimensioned drawings, see section Suction cups/grippers Fittings.

Spare Part	Material	Temperature range °C	Art. No.
Reinforcement ring for BL50-2, 4x	Polyamide, PA	-40-110	3150074

## BL30-4



### Suction cup with long bellows and long lip

- ▶ Long and flexible bellow
- ▶ Long and thin lip
- ▶ High flow fitting
- ▶ Working area = lip diameter
- ▶ Wide temperature range (-40°C to +200°C)

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
8.0	—	—	—	—	—	4.1	20	19	5

*The suction cup is not intended for deeper vacuum levels than 20 -kPa.*

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL	Red	40	-40-200

### Material resistance

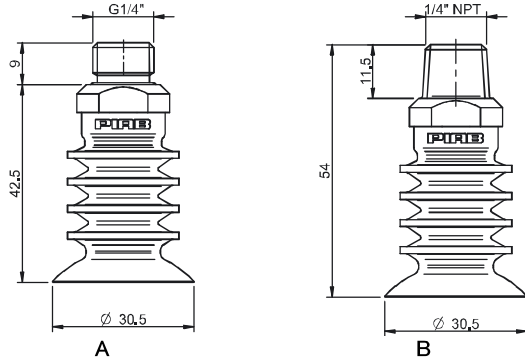
Material	Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

# Suction cups/grippers Silicone Bag

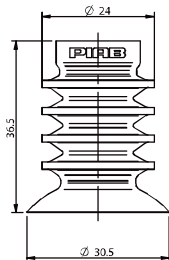


## Ordering information

	Complete suction cups	Art. No.
A	Suction cup BL30-4 Silicone, G1/4" male	0118369
B	Suction cup BL30-4 Silicone, 1/4" NPT male	0118371



Rubber parts		Art. No.
Suction cup BL30-4 Silicone		0116971



Fittings		Art. No.
Fitting G1/4" male, bag		0118793
Fitting 1/4" NPT male, bag		0118794

Spare Part	Material	Temperature range °C	Art. No.
Reinforcement ring for BL20-2, 4x	Polyamide, PA	-40-110	3150071

## BL40-4



### Suction cup with long bellows and long lip

- ▶ Long and flexible bellow
- ▶ Long and thin lip
- ▶ High flow fitting
- ▶ Working area = lip diameter
- ▶ Wide temperature range (-40°C to +200°C)

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
10	15	22	9*	16*	26*	15	15	18	8

\*The suction cup is not intended for handling shear lifts. The values are given as a dimensioning guide to be used when, e.g., the acceleration/retardation causes shear forces.

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL	Red	40	-40-200

### Material resistance

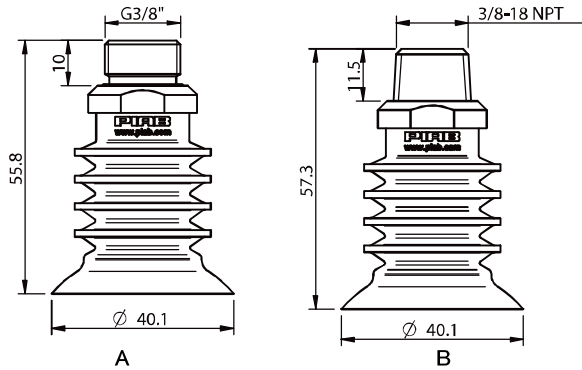
Material	Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

# Suction cups/grippers Silicone Bag

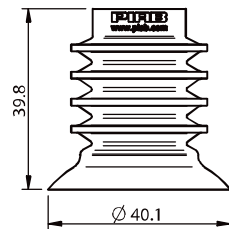


## Ordering information

	Complete suction cup	Art. No.
A	Suction cup BL40-4 Silicone, G3/8" male	0116993
B	Suction cup BL40-4 Silicone, 3/8" NPT male	0116996



Rubber part		Art. No.
Suction cup BL40-4 Silicone		0114848



Fittings		Art. No.
Fitting G3/8" male, bag		0112662
Fitting 3/8" NPT male, bag		0112692

For further information and dimensioned drawings, see section Suction cups/grippers Fittings.

Spare Part	Material	Temperature range °C	Art. No.
Reinforcement ring for BL30-2, 4x	Polyamide, PA	-40-110	3150072



## BL50-4



### Features

- ▶ Good sealing properties
- ▶ Suitable for bags with fragile content e.g. snacks and cookies and lifting frozen food
- ▶ Suitable for level compensation
- ▶ High flow fitting

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
8	25	—	—	—	—	35	30	22	25

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL	Red	40	-40-200

### Material resistance

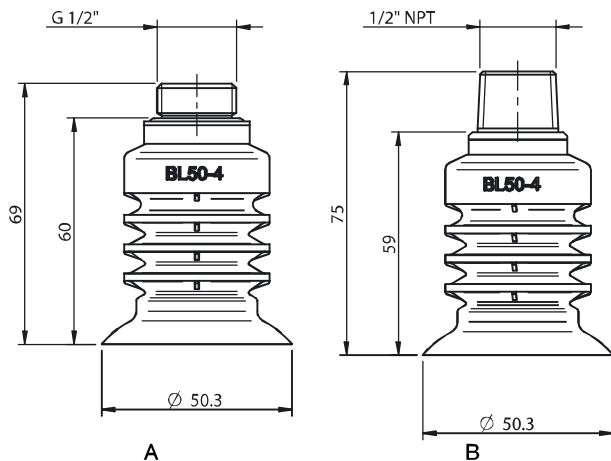
Material	Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

# Suction cups/grippers Silicone Bag

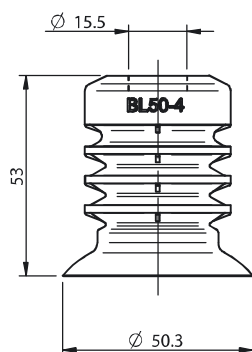


## Ordering information

	Complete suction cup	Art. No.
A	Suction cup BL50-4 Silicone, G1/2" male	0120543
B	Suction cup BL50-4 Silicone, 1/2" NPT male	0120544



	Rubber parts	Art. No.
	Suction cup BL50-4 Silicone	0117612



	Description	Art. No.
	Fitting G1/2" male, bag	0113117
	Fitting 1/2" NPT male, bag	0113140

## BL30-5



### Suction cup specially optimised for difficult bag handling

- ▶ High initial flow, with re-enforced bellows and long, thin lip
- ▶ Suitable for handling difficult-to-handle bags, e.g., bags filled with liquid, frozen food, and for heavy bags
- ▶ Suitable working temperature is -40–200 °C
- ▶ Suitable for level compensation

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level		Volume	Min. curve radius	Max. vertical movement	Weight rubber part
20 -kPa	60 -kPa	cm	mm	mm	g
8	9	8.55	17	11	14.5

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL	Red	40	-40–200

### Material resistance

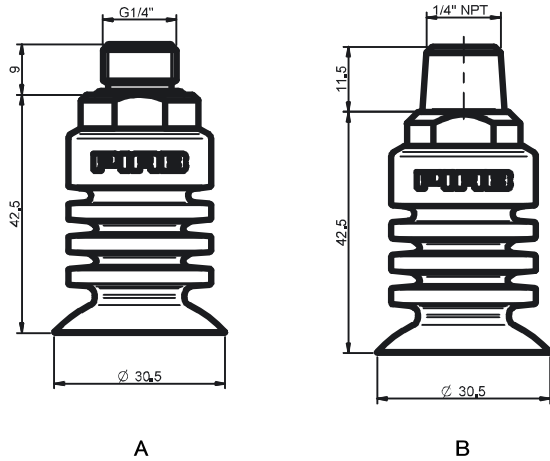
Material	Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

# Suction cups/grippers Silicone Bag

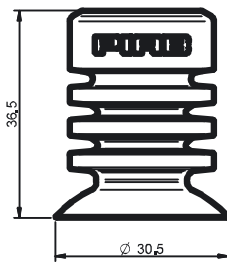


## Ordering information

Complete suction cups		Art. No.
A	Suction cup BL30-5 Silicone, G1/4" male	0124515
B	Suction cup BL30-5 Silicone, 1/4" NPT male	0124516



Rubber part		Art. No.
Suction cup BL30-5 Silicone		0121519



Fittings		Art. No.
Fitting G1/4" male, bag		0118793
Fitting 1/4" NPT male, bag		0118794

## BL40-5



### Suction cup specially optimised for difficult bag handling

- ▶ High initial flow, with re-enforced bellows and long, thin lip
- ▶ Suitable for handling difficult-to-handle bags, e.g., bags filled with liquid, frozen food, and for heavy bags
- ▶ Suitable working temperature is -40–200 °C
- ▶ Suitable for level compensation

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level		Volume	Min. curve radius	Max. vertical movement	Weight rubber part
20 -kPa	60 -kPa	cm <sup>3</sup>	mm	mm	g
13	15	14	22	20	10

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL	Red	40	-40-200

### Material resistance

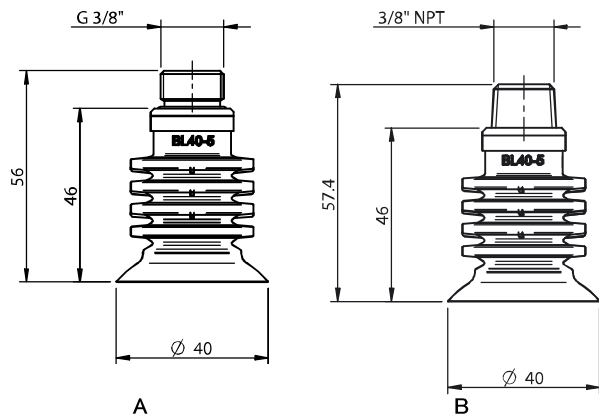
Material	Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

# Suction cups/grippers Silicone Bag

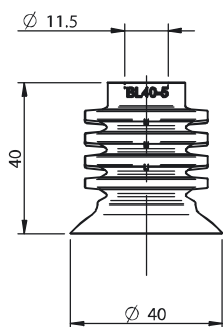


## Ordering information

	Complete suction cups	Art. No.
A	Suction cup BL40-5 Silicone, G3/8" male	0120576
B	Suction cup BL40-5 Silicone, 3/8" NPT male	0120577



	Rubber part	Art. No.
	Suction cup BL40-5 Silicone	0117611



	Fittings	Art. No.
	Fitting G3/8" male, bag	0112662
	Fitting 3/8" NPT male, bag	0112692

## BL50-5



### Suction cup specially optimised for difficult bag handling

- ▶ High initial flow, with re-enforced bellows and long, thin lip.
- ▶ Suitable for handling difficult-to-handle bags, e.g., bags filled with liquid, frozen food, and for heavy bags.
- ▶ Suitable working temperature is -40–200 °C.
- ▶ Suitable for level compensation.

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
8	25	—	—	—	—	26	30	18	29

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL	Red	40	-40–200

### Material resistance

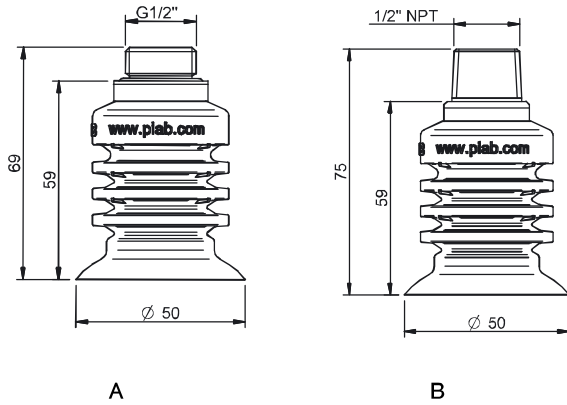
Material	Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

# Suction cups/grippers Silicone Bag

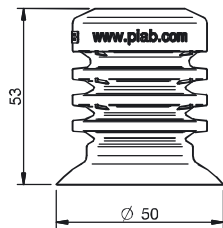


## Ordering information

	Complete suction cups	Art. No.
A	Suction cup BL50-5 Silicone, G1/2" male	0122961
B	Suction cup BL50-5 Silicone, 1/2" NPT male	0122962



Rubber part	Art. No.
Suction cup BL50-5 Silicone	0121520



Description	Art. No.
Fitting G1/2" male, bag	0113117
Fitting 1/2" NPT male, bag	0113140



## BL20-2 FDA



### Suction cup with long bellows

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for level adjustment.
- ▶ Lifting movement to separate small and thin objects.
- ▶ Less suitable when the lifting force is parallel to the surface of the object.

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
0.32/3.2*	0.62/6.2*	—	—	—	—	4.0	4.0	13	3

\*Lifting force with reinforcement rings.

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

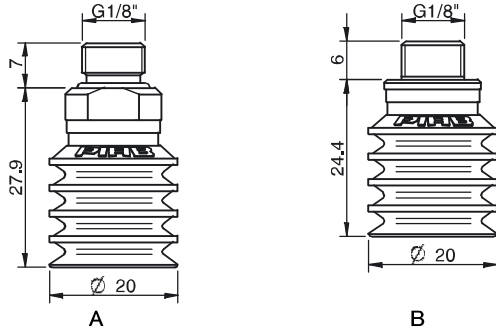
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

# Suction cups/grippers FDA

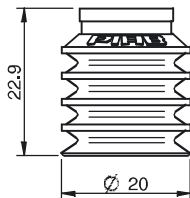


## Ordering information

	Complete suction cups	Art. No.
A	Suction cup BL20-2 Silicone FDA, G1/8" male, with mesh filter	9909637
B	Suction cup BL20-2 Silicone FDA, G1/8" male/M5 female, with mesh filter	9909716



	Rubber parts	Art. No.
	Suction cup BL20-2 Silicone FDA	0200412



	Fittings	Art. No.
	Fitting G1/8" male, with mesh filter	3250085
	Fitting G1/8" male/M5 female, with mesh filter	0101152

For further information and dimensioned drawings, see section Suction cups/grippers Fittings.

Spare Part	Material	Temperature range °C	Art. No.
Reinforcement ring for BL20-2, 4x	Polyamide, PA	-40-110	3150071

## BL30-2 FDA



### Suction cup with long bellows

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for level adjustment.
- ▶ Lifting movement to separate small and thin objects.
- ▶ Less suitable when the lifting force is parallel to the surface of the object.

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
0.64/6.4*	1.6/16.0*	—	—	—	—	10	8	20	7

\*Lifting force with reinforcement rings.

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

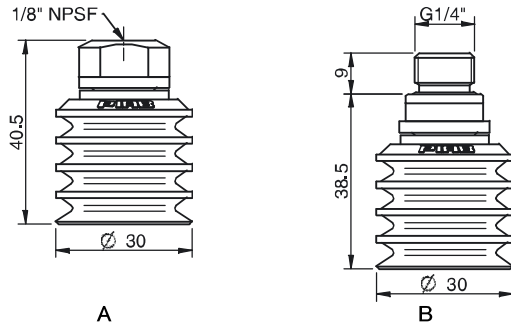
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

# Suction cups/grippers FDA

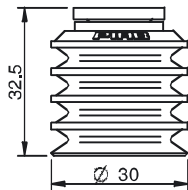


## Ordering information

	Complete suction cups	Art. No.
A	Suction cup BL30-2 Silicone FDA, 1/8" NPSF female, with mesh filter	9909641
B	Suction cup BL30-2 Silicone FDA, G1/4" male, with mesh filter	9909639



	Rubber parts	Art. No.
	Suction cup BL30-2 Silicone FDA	0200411



	Fittings	Art. No.
	Fitting 1/8" NPSF female, 30-40, with mesh filter	0101153
	Fitting G1/4" male, 30-40, with mesh filter	3250091

For further information and dimensioned drawings, see section Suction cups/grippers Fittings.

Spare Part	Material	Temperature range °C	Art. No.
Reinforcement ring for BL30-2, 4x	Polyamide, PA	-40-110	3150072

## BL30-4 FDA



### Suction cup with long bellows and long lip

- ▶ The silicone material complies with FDA 21 CFR 177.2600
- ▶ Long and flexible bellow
- ▶ Long and thin lip
- ▶ High flow fitting
- ▶ Working area = lip diameter
- ▶ Wide temperature range (-40°C to +200°C)

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
8.0	—	—	—	—	—	4.1	20	19	5

*The suction cup is not intended for deeper vacuum levels than 20 -kPa.*

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	40	-40-200

### Material resistance

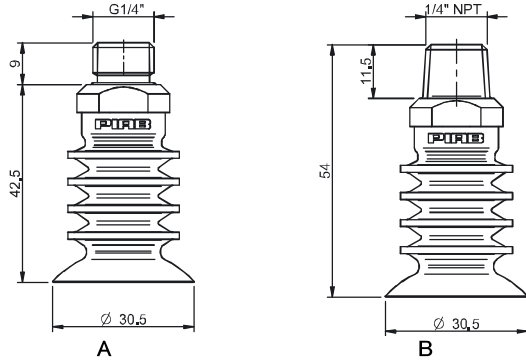
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

# Suction cups/grippers FDA

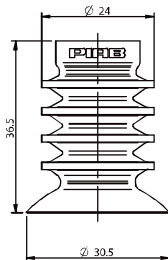


## Ordering information

Complete suction cups		Art. No.
A	Suction cup BL30-4 Silicone FDA, G1/4" male	9909645
B	Suction cup BL30-4 Silicone FDA, 1/4" NPT male	9909646



Rubber parts		Art. No.
Suction cup BL30-4 Silicone FDA		0200436



Fittings		Art. No.
Fitting G1/4" male, bag		0118793
Fitting 1/4" NPT male, bag		0118794

Spare Part	Material	Temperature range °C	Art. No.
Reinforcement ring for BL20-2, 4x	Polyamide, PA	-40-110	3150071

## BL30-5 FDA



### Suction cup specially optimised for difficult bag handling

- ▶ The silicone material complies with FDA 21 CFR 177.2600
- ▶ High initial flow, with re-enforced bellows and long, thin lip
- ▶ Suitable for handling difficult-to-handle bags, e.g., bags filled with liquid, frozen food, and for heavy bags
- ▶ Suitable working temperature is -40–200 °C
- ▶ Suitable for level compensation

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level		Volume	Min. curve radius	Max. vertical movement	Weight rubber part
20 -kPa	60 -kPa	cm <sup>3</sup>	mm	mm	g
8	9	8.55	17	11	14.5

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	40	-40–200

### Material resistance

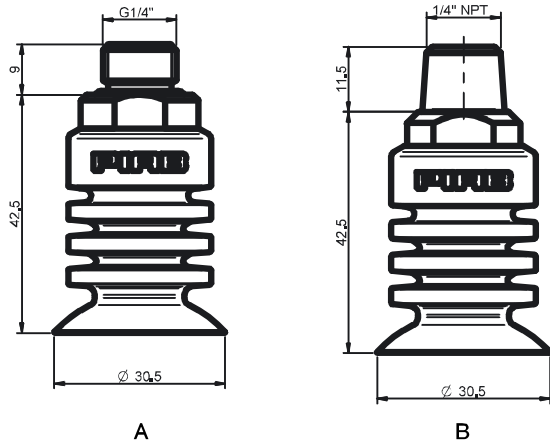
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

# Suction cups/grippers FDA

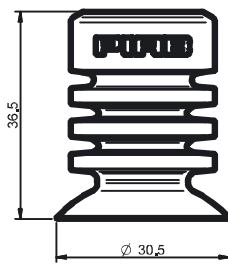


## Ordering information

Complete suction cups		Art. No.
A	Suction cup BL30-5 Silicone FDA, G1/4" male	9909651
B	Suction cup BL30-5 Silicone FDA, 1/4" NPT male	9909652



Rubber part	Art. No.
Suction cup BL30-5 Silicone FDA	0200239



Fittings	Art. No.
Fitting G1/4" male, bag	0118793
Fitting 1/4" NPT male, bag	0118794



## BL40-2 FDA



### Suction cup with long bellows

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for level adjustment.
- ▶ Lifting movement to separate small and thin objects.
- ▶ Less suitable when the lifting force is parallel to the surface of the object.

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
1.1/11.0*	2.2/22.0*	—	—	—	—	27	11	33	10

\*Lifting force with reinforcement rings.

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

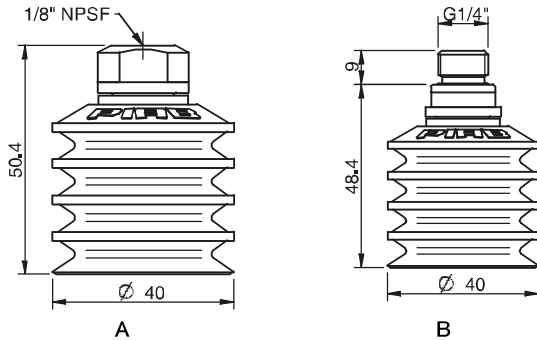
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

# Suction cups/grippers FDA

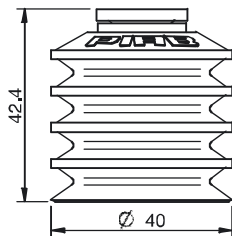


## Ordering information

	Complete suction cups	Art. No.
A	Suction cup BL40-2 Silicone FDA, 1/8" NPSF female, with mesh filter	9909643
B	Suction cup BL40-2 Silicone FDA, G1/4" male, with mesh filter	9909642



	Rubber parts	Art. No.
	Suction cup BL40-2 Silicone FDA	0200415



	Fittings	Art. No.
	Fitting 1/8" NPSF female, 30-40, with mesh filter	0101153
	Fitting G1/4" male, 30-40, with mesh filter	3250091

For further information and dimensioned drawings, see section Suction cups/grippers Fittings.

Spare Part	Material	Temperature range °C	Art. No.
Reinforcement ring for BL40-2 & B-BL40-2, 4x	Polyamide, PA	-40-110	3150073

## BL40-4 FDA



### Suction cup with long bellows and long lip

- ▶ The silicone material complies with FDA 21 CFR 177.2600
- ▶ Long and flexible bellow
- ▶ Long and thin lip
- ▶ High flow fitting
- ▶ Working area = lip diameter
- ▶ Wide temperature range (-40°C to +200°C)

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume	Min. curve radius	Max. vertical movement	Weight rubber part
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa	cm <sup>3</sup>	mm	mm	g
10	15	22	9*	16*	26*	15	15	18	8

\*The suction cup is not intended for handling shear lifts. The values are given as a dimensioning guide to be used when, e.g., the acceleration/retardation causes shear forces.

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	40	-40-200

### Material resistance

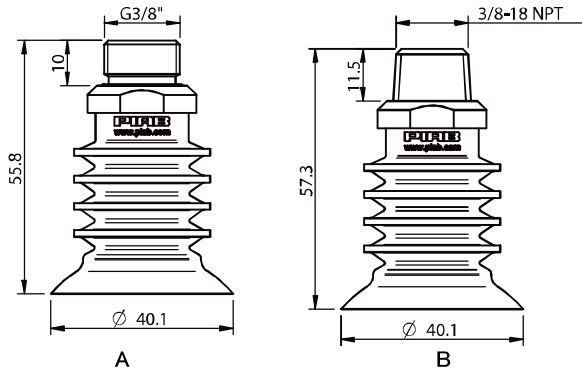
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

# Suction cups/grippers FDA

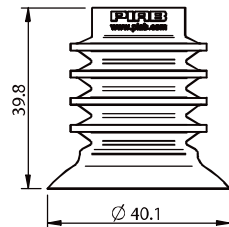


## Ordering information

	Complete suction cup	Art. No.
A	Suction cup BL40-4 Silicone FDA, G3/8" male	9909647
B	Suction cup BL40-4 Silicone FDA, 3/8" NPT male	9909648



Rubber part	Art. No.
Suction cup BL40-4 Silicone FDA	0200337



Fittings	Art. No.
Fitting G3/8" male, bag	0112662
Fitting 3/8" NPT male, bag	0112692

For further information and dimensioned drawings, see section Suction cups/grippers Fittings.

Spare Part	Material	Temperature range °C	Art. No.
Reinforcement ring for BL30-2, 4x	Polyamide, PA	-40-110	3150072

## BL40-5 FDA



### Suction cup specially optimised for difficult bag handling

- ▶ The silicone material complies with FDA 21 CFR 177.2600
- ▶ High initial flow, with re-enforced bellows and long, thin lip
- ▶ Suitable for handling difficult-to-handle bags, e.g., bags filled with liquid, frozen food, and for heavy bags
- ▶ Suitable working temperature is -40–200 °C
- ▶ Suitable for level compensation

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level		Volume	Min. curve radius	Max. vertical movement	Weight rubber part
20 -kPa	60 -kPa	cm <sup>3</sup>	mm	mm	g
13	15	14	22	20	10

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	40	-40–200

### Material resistance

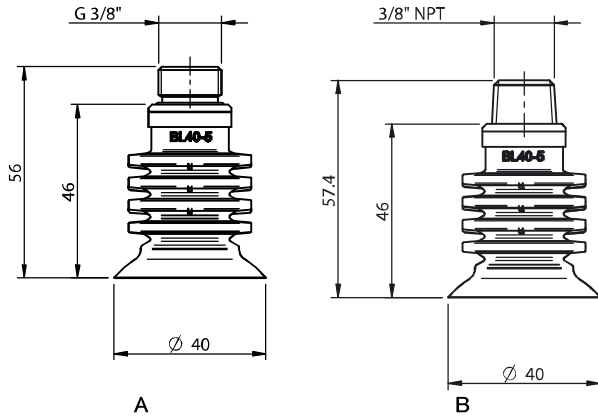
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

# Suction cups/grippers FDA

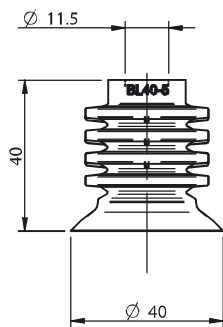


## Ordering information

Complete suction cups		Art. No.
A	Suction cup BL40-5 Silicone FDA, G3/8" male	9909653
B	Suction cup BL40-5 Silicone FDA, 3/8" NPT male	9909654



Rubber part		Art. No.
Suction cup BL40-5 Silicone FDA		0200237



Fittings		Art. No.
Fitting G3/8" male, bag		0112662
Fitting 3/8" NPT male, bag		0112692

## BL50-2 FDA



### Suction cup with long bellows

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for level adjustment.
- ▶ Lifting movement to separate small and thin objects.
- ▶ Less suitable when the lifting force is parallel to the surface of the object.

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
1.7/17.0*	4.3/43*	—	—	—	—	53	13	34	20.0

\*Lifting force with reinforcement rings.

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

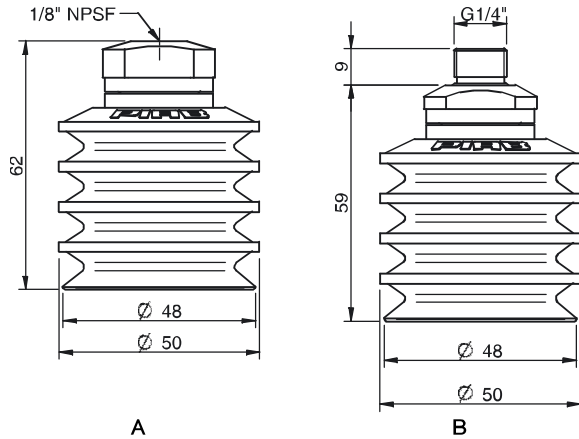
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

# Suction cups/grippers FDA

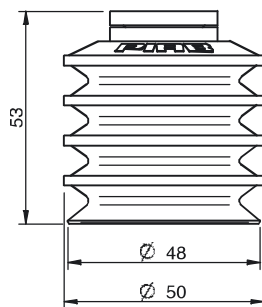


## Ordering information

	Complete suction cups	Art. No.
A	Suction cup BL50-2 Silicone FDA, 1/8" NPSF female, with mesh filter	9909644
B	Suction cup BL50-2 Silicone FDA, G1/4" male, with mesh filter	9909616



	Rubber parts	Art. No.
	Suction cup BL50-2 Silicone FDA	0200416



	Fittings	Art. No.
	Fitting 1/8" NPSF female, 50, with mesh filter	0101154
	Fitting G1/4" male, 50, with mesh filter	3250092

For further information and dimensioned drawings, see section Suction cups/grippers Fittings.

Spare Part	Material	Temperature range °C	Art. No.
Reinforcement ring for BL50-2, 4x	Polyamide, PA	-40-110	3150074



## BL50-4 FDA



### Features

- ▶ The silicone material complies with FDA 21 CFR 177.2600
- ▶ Good sealing properties
- ▶ Suitable for bags with fragile content e.g. snacks and cookies and lifting frozen food
- ▶ Suitable for level compensation
- ▶ High flow fitting

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
8	25	—	—	—	—	35	30	22	25

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	40	-40–200

### Material resistance

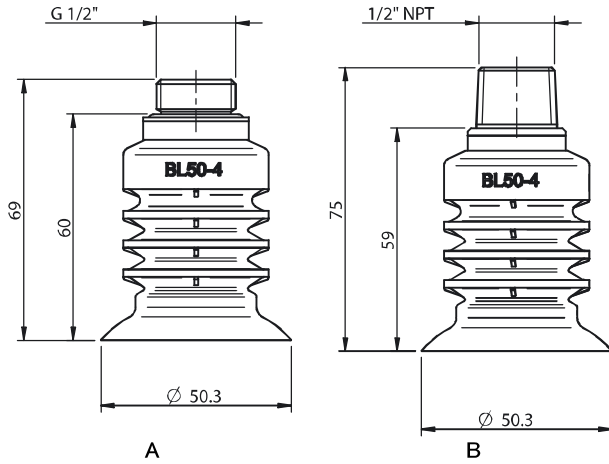
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

# Suction cups/grippers FDA

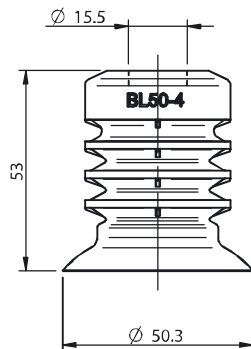


## Ordering information

Complete suction cup		Art. No.
A	Suction cup BL50-4 Silicone FDA, G1/2" male	9909649
B	Suction cup BL50-4 Silicone FDA, 1/2" NPT male	9909650



Rubber parts		Art. No.
Suction cup BL50-4 Silicone FDA		0200238



Description		Art. No.
Fitting G1/2" male, bag		0113117
Fitting 1/2" NPT male, bag		0113140

## BL50-5 FDA



### Suction cup specially optimised for difficult bag handling

- ▶ The silicone material complies with FDA 21 CFR 177.2600
- ▶ High initial flow, with re-enforced bellows and long, thin lip
- ▶ Suitable for handling difficult-to-handle bags, e.g., bags filled with liquid, frozen food, and for heavy bags
- ▶ Suitable working temperature is -40–200 °C
- ▶ Suitable for level compensation

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
8	25	–	–	–	–	26	30	18	29

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	40	-40–200

### Material resistance

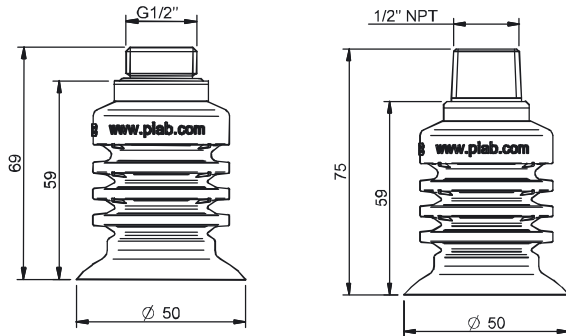
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

# Suction cups/grippers FDA



## Ordering information

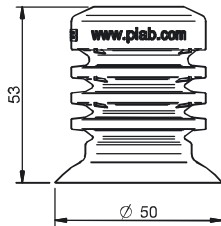
	Complete suction cups	Art. No.
A	Suction cup BL50-5 Silicone FDA, G1/2" male	9909655
B	Suction cup BL50-5 Silicone FDA, 1/2" NPT male	9909656



A

B

Rubber part	Art. No.
Suction cup BL50-5 Silicone FDA	0200240



Description	Art. No.
Fitting G1/2" male, bag	0113117
Fitting 1/2" NPT male, bag	0113140

## BL30-3P



### Suction cup specially designed for plastic bag handling

- ▶ High-flow fitting allowing high initial vacuum flow needed for plastic bag handling.
- ▶ Suitable for level adjustment and uneven surfaces.
- ▶ Dual hardness allowing strength and stability in conjunction with softness and flexibility.
- ▶ DURAFLEX® material features the elasticity of rubber in combination with the wear resistance of polyurethane.
- ▶ The DURAFLEX® material is mark-free.

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
10	22	28	9*	10*	16*	14	6	14	6

\*The suction cup is not intended for handling shear lifts. The values are given as a dimensioning guide to be used when, e.g., the acceleration/retardation causes shear forces.

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Polyurethane, PU30	Yellow	30	10–50
Polyurethane, PU70	Black	70	10–50

### Material resistance

Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Ethanol	Methanol	Oxidation
Excellent	Excellent	Excellent	Fair**	Fair	Fair**	Fair	Poor	Poor

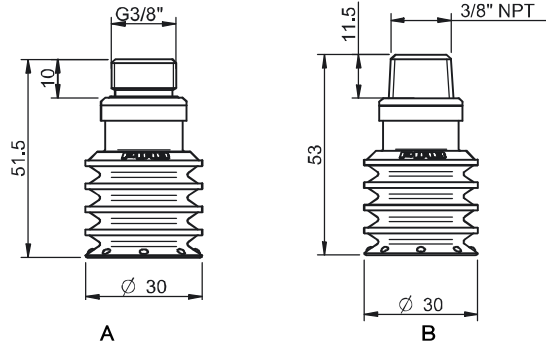
\*\*Please contact Piab.

# Suction cups/grippers DURAFLEX® Bag

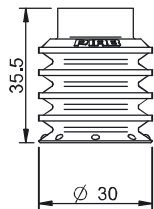


## Ordering information

	Complete suction cup	Art. No.
A	Suction cup BL30-3P Polyurethane 30/70, G3/8" male	0113743
B	Suction cup BL30-3P Polyurethane 30/70, 3/8" NPT male	0113744



	Rubber part	Art. No.
	Suction cup BL30-3P Polyurethane 30/70	0110545



	Fitting	Art. No.
	Fitting G3/8" male, bag	0112662
	Fitting 3/8" NPT male, bag	0112692

## BL40-3P



### Suction cup specially designed for plastic bag handling

- ▶ High-flow fitting allowing high initial vacuum flow needed for plastic bag handling.
- ▶ Suitable for level adjustment and uneven surfaces.
- ▶ Dual hardness allowing strength and stability in conjunction with softness and flexibility.
- ▶ DURAFLEX® material features the elasticity of rubber in combination with the wear resistance of polyurethane.
- ▶ The DURAFLEX® material is mark-free.

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
20	43	55	13*	24*	36*	27	13	21	12

\*The suction cup is not intended for handling shear lifts. The values are given as a dimensioning guide to be used when, e.g., the acceleration/retardation causes shear forces.

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Polyurethane, PU30	Yellow	30	10–50
Polyurethane, PU70	Black	70	10–50

### Material resistance

Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Ethanol	Methanol	Oxidation
Excellent	Excellent	Excellent	Fair**	Fair	Fair**	Fair	Poor	Poor

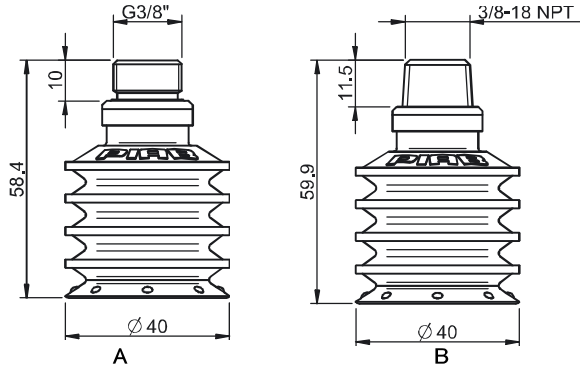
\*\*Please contact Piab.

# Suction cups/grippers DURAFLEX® Bag

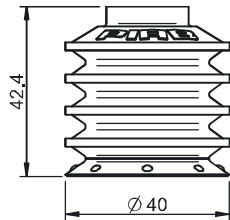


## Ordering information

	Complete suction cup	Art. No.
A	Suction cup BL40-3P Polyurethane 30/70, G3/8" male	0111791
B	Suction cup BL40-3P Polyurethane 30/70, 3/8" NPT male	0112693



	Rubber part	Art. No.
	Suction cup BL40-3P Polyurethane 30/70	0112667



	Fittings	Art. No.
	Fitting G3/8" male, bag	0112662
	Fitting 3/8" NPT male, bag	0112692



## BL50-3P



### Suction cup specially designed for plastic bag handling

- ▶ High-flow fitting allowing high initial vacuum flow needed for plastic bag handling.
- ▶ Suitable for level adjustment and uneven surfaces.
- ▶ Dual hardness allowing strength and stability in conjunction with softness and flexibility.
- ▶ DURAFLEX® material features the elasticity of rubber in combination with the wear resistance of polyurethane.
- ▶ The DURAFLEX® material is mark-free.

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
24	60	75	22*	49*	60*	54	16	26	24

\*The suction cup is not intended for handling shear lifts. The values are given as a dimensioning guide to be used when, e.g., the acceleration/retardation causes shear forces.

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Polyurethane, PU30	Yellow	30	10–50
Polyurethane, PU70	Black	70	10–50

### Material resistance

Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Ethanol	Methanol	Oxidation
Excellent	Excellent	Excellent	Fair**	Fair	Fair**	Fair	Poor	Poor

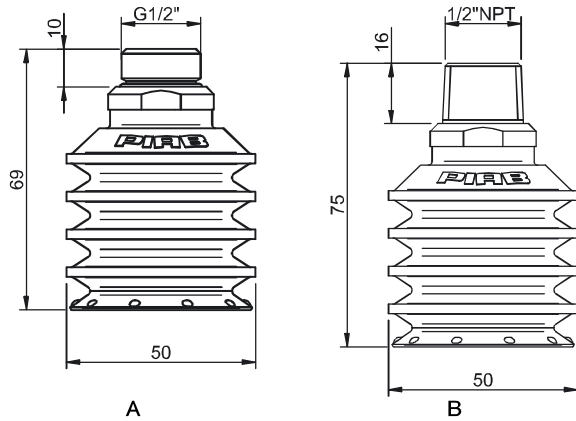
\*\*Please contact Piab.

# Suction cups/grippers DURAFLEX® Bag

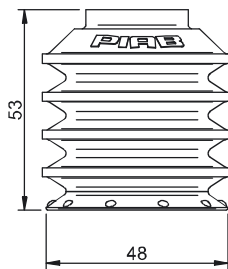


## Ordering information

	Complete suction cup	Art. No.
A	Suction cup BL50-3P Polyurethane 30/70, G1/2" male	0113745
B	Suction cup BL50-3P Polyurethane 30/70, 1/2" NPT male	0113746



	Rubber part	Art. No.
	Suction cup BL50-3P Polyurethane 30/70	0112641



	Fitting	Art. No.
	Fitting G1/2" male, bag	0113117
	Fitting 1/2" NPT male, bag	0113140

## B-BL40-2 FDA, detectable



### Suction cup with long bellows

- ▶ The silicone material complies with FDA 21 CFR 177.2600 and EU 1935/2004.
- ▶ The material is without colour pigment.
- ▶ 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.

### Lifting forces & Technical data

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm <sup>3</sup>	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
15.6	34.1	45.2	—	—	—	29	11	22	9

### Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C	Detectable substance
Silicone, SIL FDA detectable	Transparent	40	-40-200	Fe

### Material resistance

Material	Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA detectable	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

	Description	Art. No.
A	Suction Cup B-BL40-2 FDA, detectable	0126599
B	Retainer clip B-BL40-2, detectable	0121660

