

## 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

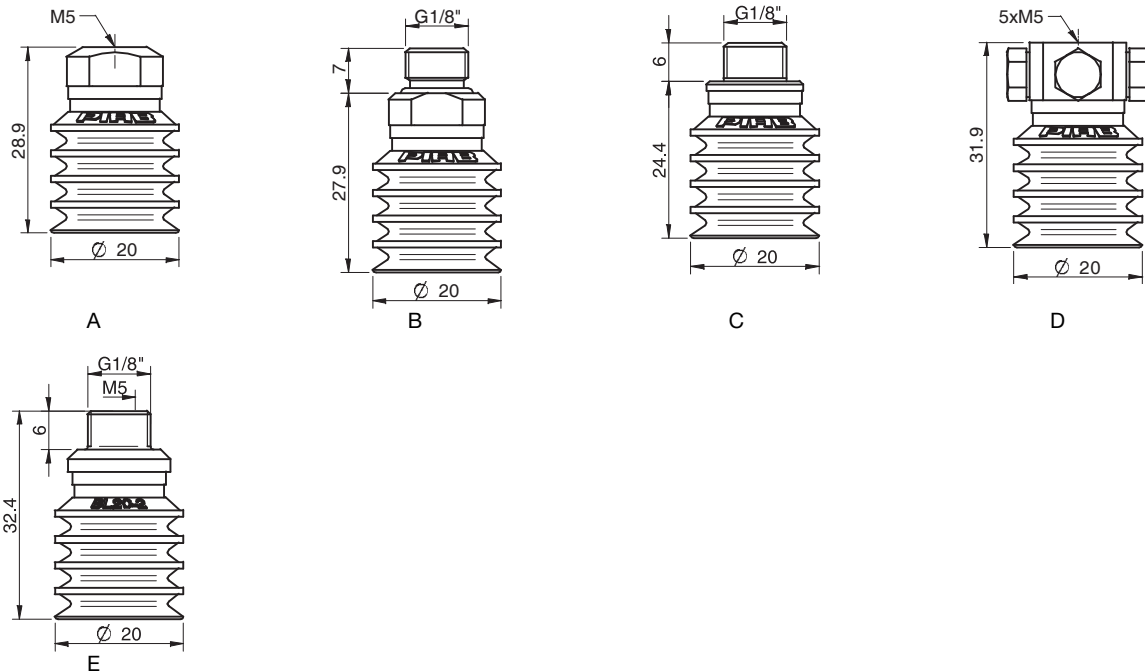
Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	60	-40–110
Silicone, SIL	Red	50	-40–200

### Material resistance

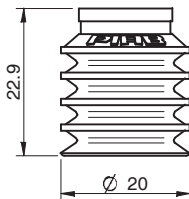
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Chloroprene, CR	Excellent	Fair	Good	Good	Fair	Poor	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### 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



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

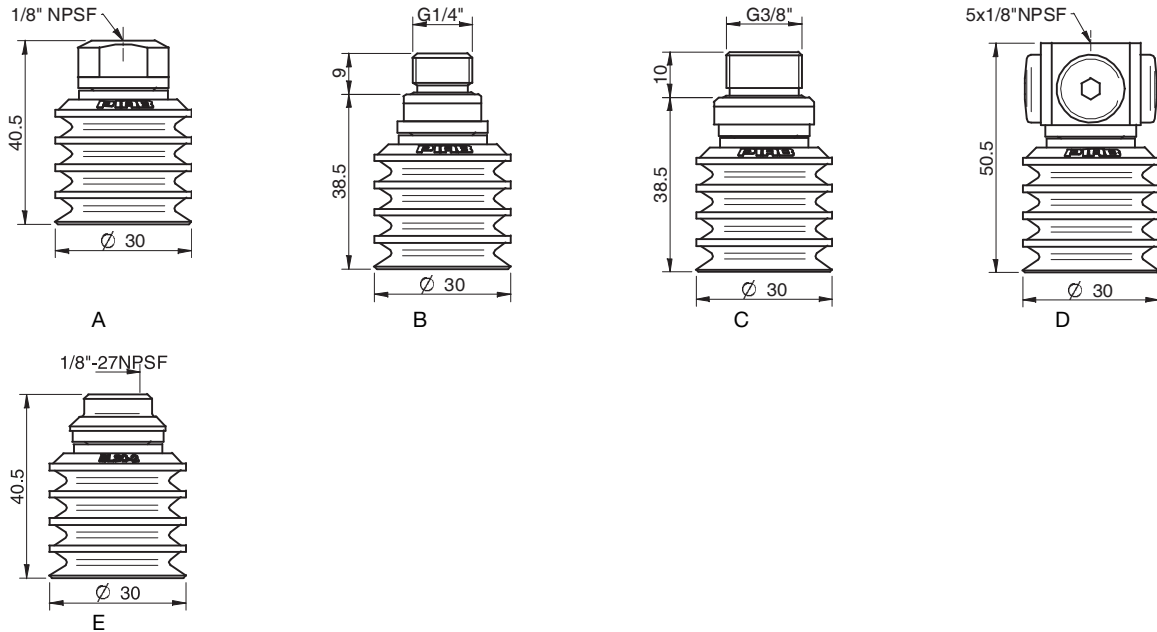
Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	60	-40–110
Silicone, SIL	Red	50	-40–200

### Material resistance

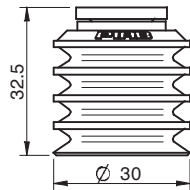
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Chloroprene, CR	Excellent	Fair	Good	Good	Fair	Poor	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### 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



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

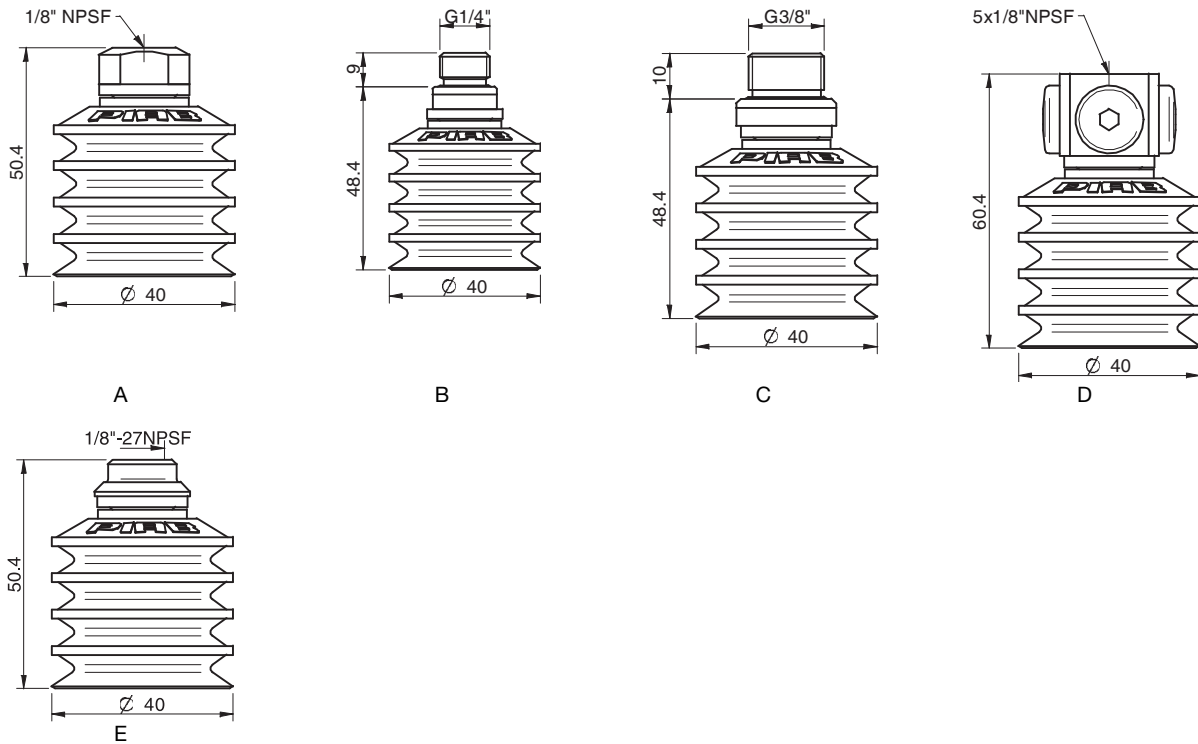
Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	60	-40–110
Silicone, SIL	Red	50	-40–200

### Material resistance

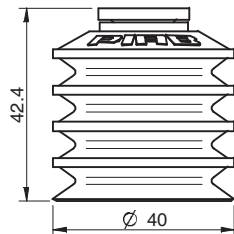
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Chloroprene, CR	Excellent	Fair	Good	Good	Fair	Poor	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### 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



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

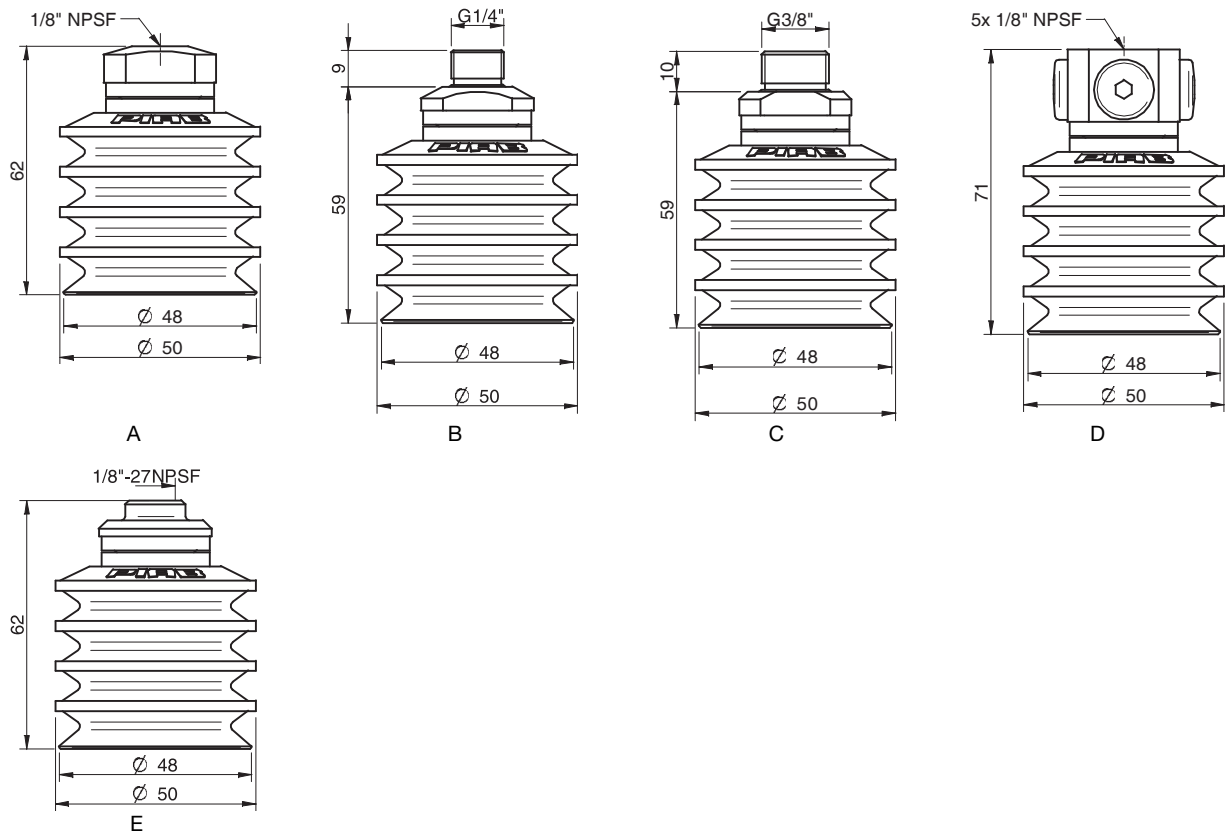
### Material resistance

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

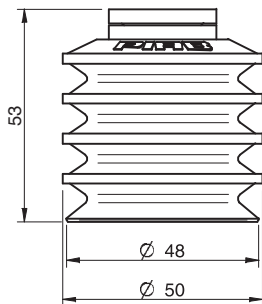
### Ordering information

	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





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	Polamide, 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)
- ▶ The silicone material complies with FDA 21 CFR 177.2600

### 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
8.0	—	—	—	—	—	4.1	20	19	5

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

### Material specifications

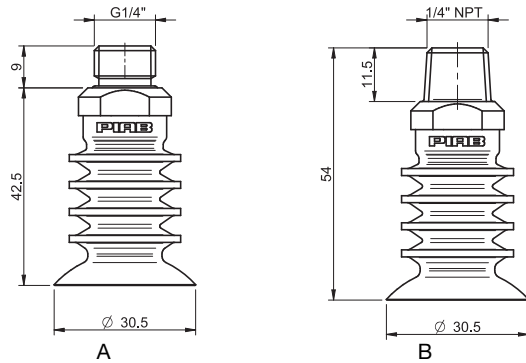
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL	Red	40	-40-200

### Material resistance

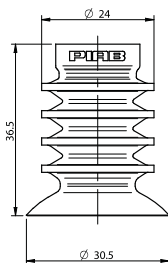
Material	Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## 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

Silicone Bag

## 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)
- ▶ The silicone material complies with FDA 21 CFR 177.2600

### 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

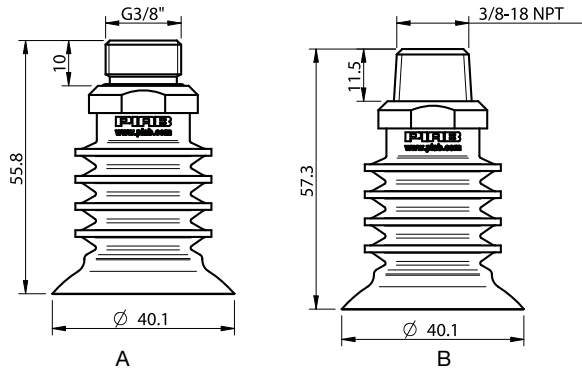
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL	Red	40	-40-200

### Material resistance

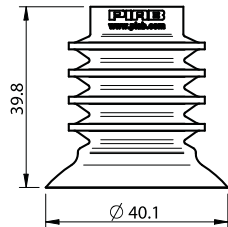
Material	Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## 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
- ▶ The silicone material complies with FDA 21 CFR 177.2600
- ▶ 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

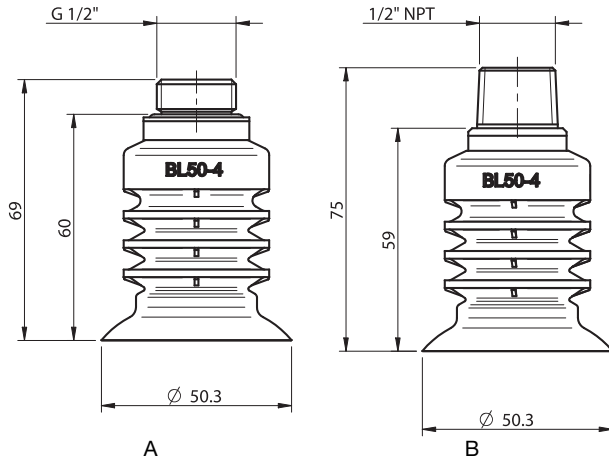
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL	Red	40	-40-200

### Material resistance

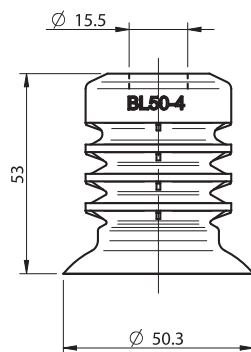
Material	Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## 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
- ▶ Made of silicone material that complies with FDA 21 CFR 177.2600

### 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	Red	40	-40–200

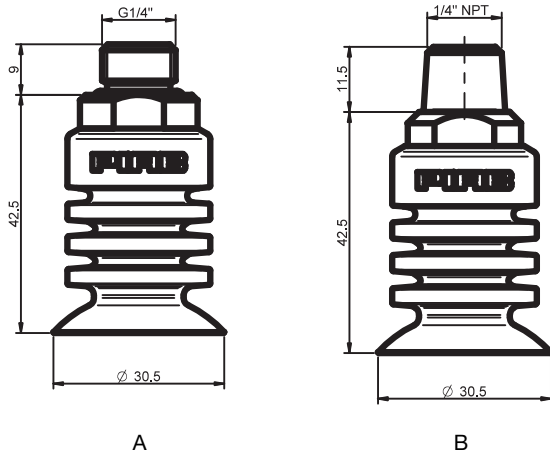
### Material resistance

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

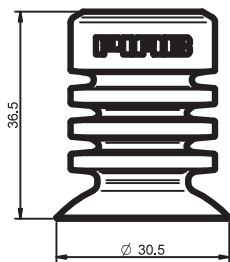


## Ordering information

	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

Silicone Bag

## 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
- ▶ Made of silicone material that complies with FDA 21 CFR 177.2600

### 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

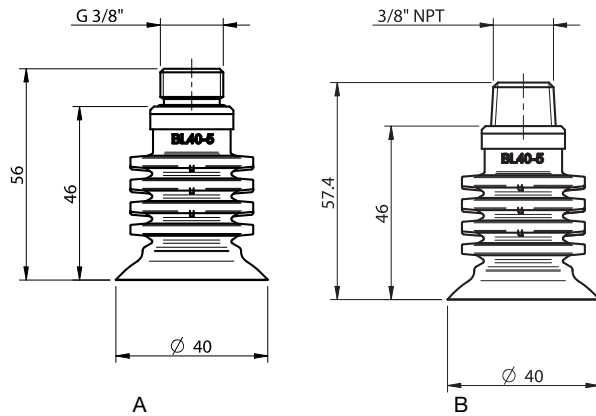
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL	Red	40	-40–200

### Material resistance

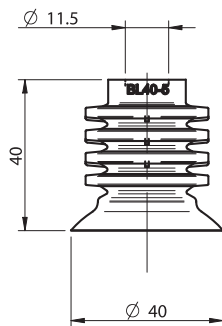
Material	Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## 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

Silicone Bag

## 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.
- ▶ Made of silicone material that complies with FDA 21 CFR 177.2600.

### 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

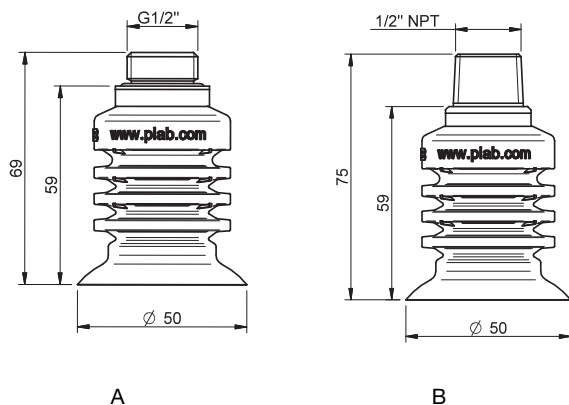
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL	Red	40	-40–200

### Material resistance

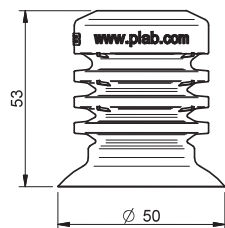
Material	Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## 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