

## B5 FDA



### Suction cup with short bellows

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Lifting movement to separate small and thin objects.
- ▶ Only lightweight objects should be handled when the lifting force is parallel to the surface.
- ▶ 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	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
0.30	0.80	1.0	—	—	—	0.05	1.5	1.5	0.11

### Material specifications

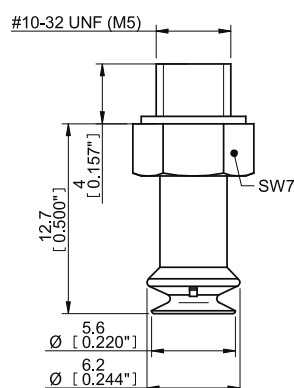
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

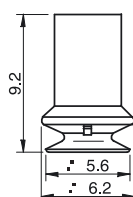
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

Complete suction cups	Art. No.
Suction cup B5 Silicone FDA, M5 male	9909604



Rubber parts	Art. No.
Suction cup B5 Silicone FDA	0200277



Fittings	Art. No.
Fitting M5 male, 5–8	3107031

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

## B8 FDA



### Suction cup with short bellows

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Lifting movement to separate small and thin objects.
- ▶ Only lightweight objects should be handled when the lifting force is parallel to the surface.
- ▶ 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	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
0.80	1.6	2.5	—	—	—	0.15	1.9	3.5	0.3

### Material specifications

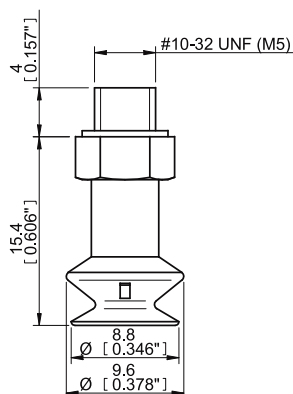
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

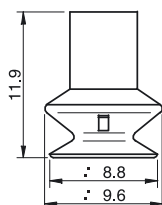
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

Complete suction cups	Art. No.
Suction cup B8 Silicone FDA, M5 male	9909605



Rubber parts	Art. No.
Suction cup B8 Silicone FDA	0200278



Fittings	Art. No.
Fitting M5 male, 5–8	3107031

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

## B10-2 FDA



### Suction cup with short bellows

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Lifting movement to separate small and thin objects.
- ▶ Only lightweight objects should be handled when the lifting force is parallel to the surface.
- ▶ 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	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
1.5	3.4	4.9	—	—	—	0.48	4.0	4.5	1.0

### Material specifications

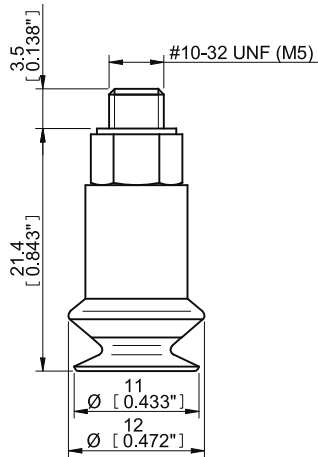
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

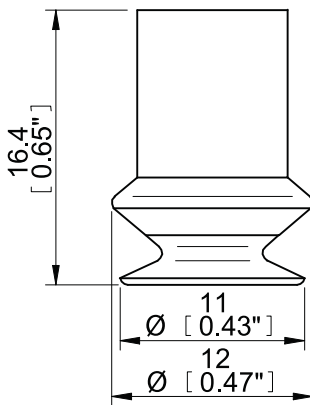
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## Ordering information

Complete suction cups	Art. No.
Suction cup B10-2 Silicone FDA, M5 male	9909606



Rubber parts	Art. No.
Suction cup B10-2 Silicone FDA	0200241



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

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

## B15-2 FDA



### Suction cup with short bellows

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Lifting movement to separate small and thin objects.
- ▶ Only lightweight objects should be handled when the lifting force is parallel to the surface.
- ▶ 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	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
2.9	5.9	8.9	—	—	—	1.1	5.0	6.5	1.5

### Material specifications

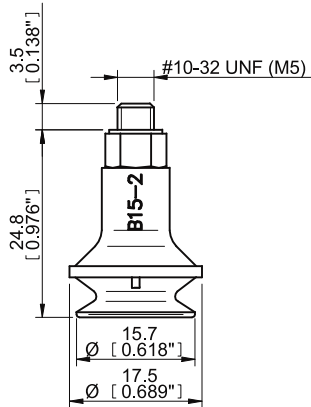
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

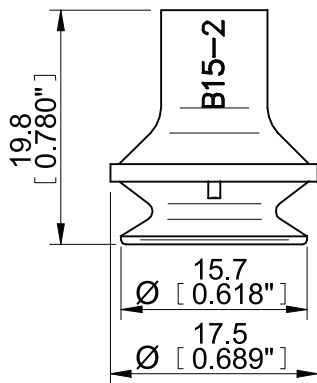
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## Ordering information

Complete suction cups	Art. No.
Suction cup B15-2 Silicone FDA, M5 male	9909607



Rubber parts	Art. No.
Suction cup B15-2 Silicone FDA	0200271



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

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

## B20 FDA



### Suction cup with short bellows

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for level adjustment. Several short bellows in one lifting device can handle objects with height differences and varying shapes, for example embossed or corrugated plates.
- ▶ The lifting movement can be used to separate small and thin objects.
- ▶ Only lightweight objects should be handled when the lifting force is parallel to the surface of the object, in order to achieve good precision and safe lifting movement.

### 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
5.9	9.8	14	—	—	—	2.7	10	10	3.2

### Material specifications

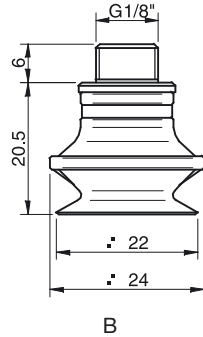
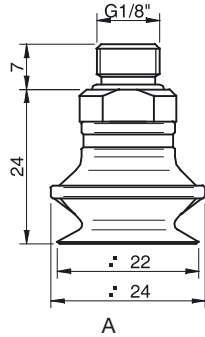
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

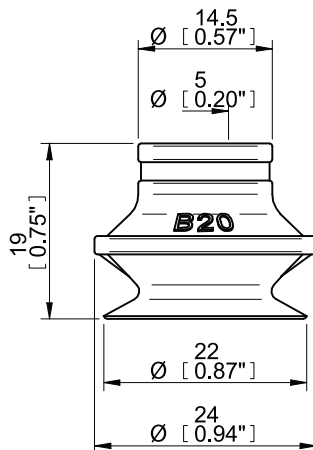
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## Ordering information

	Complete suction cups	Art. No.
A	Suction cup B20 Silicone FDA, G1/8" male, with mesh filter	9909608
B	Suction cup B20 Silicone FDA, G1/8" male/M5 female, with mesh filter	9909700



	Rubber parts	Art. No.
	Suction cup B20 Silicone FDA	0200405



	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.



## B30-2 FDA



### Suction cup with short bellows

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for level adjustment. Several short bellows in one lifting device can handle objects with height differences and varying shapes, for example embossed or corrugated plates.
- ▶ The lifting movement can be used to separate small and thin objects.
- ▶ Only lightweight objects should be handled when the lifting force is parallel to the surface of the object, in order to achieve good precision and safe lifting movement.

### 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
12.0	22.0	27	—	—	—	10	15	15	7.0

### Material specifications

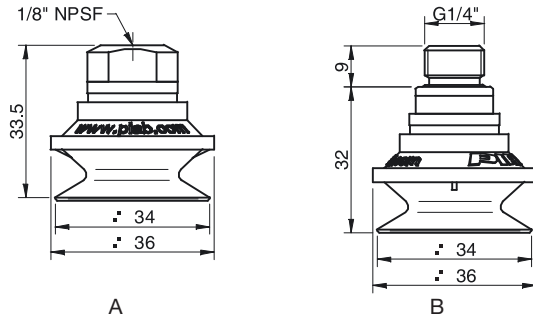
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

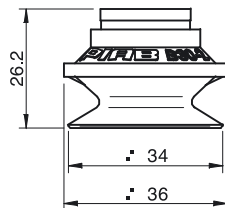
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## Ordering information

	Complete suction cups	Art. No.
A	Suction cup B30-2 Silicone FDA, 1/8" NPSF female, with mesh filter	9909610
B	Suction cup B30-2 Silicone FDA, G1/4" male, with mesh filter	9909609



	Rubber parts	Art. No.
	Suction cup B30-2 Silicone FDA	0200407



	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.

## B40 FDA



### Suction cup with short bellows

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for level adjustment. Several short bellows in one lifting device can handle objects with height differences and varying shapes, for example embossed or corrugated plates.
- ▶ The lifting movement can be used to separate small and thin objects.
- ▶ Only lightweight objects should be handled when the lifting force is parallel to the surface of the object, in order to achieve good precision and safe lifting movement.

### 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
22.0	39	49	—	—	—	15	20	12	10.0

### Material specifications

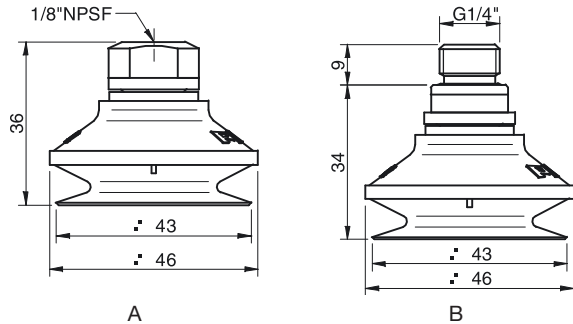
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

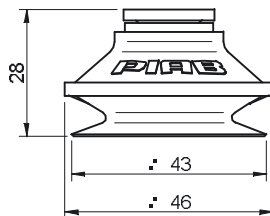
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## Ordering information

	Complete suction cups	Art. No.
A	Suction cup B40 Silicone FDA, 1/8" NPSF female, with mesh filter	9909613
B	Suction cup B40 Silicone FDA, G1/4" male, with mesh filter	9909611



	Rubber parts	Art. No.
	Suction cup B40 Silicone FDA	0200408



	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.

## B50 FDA



### Suction cup with short bellows

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for level adjustment. Several short bellows in one lifting device can handle objects with height differences and varying shapes, for example embossed or corrugated plates.
- ▶ The lifting movement can be used to separate small and thin objects.
- ▶ Only lightweight objects should be handled when the lifting force is parallel to the surface of the object, in order to achieve good precision and safe lifting movement.

### 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
33	65	82	—	—	—	32	30	19	20.0

### Material specifications

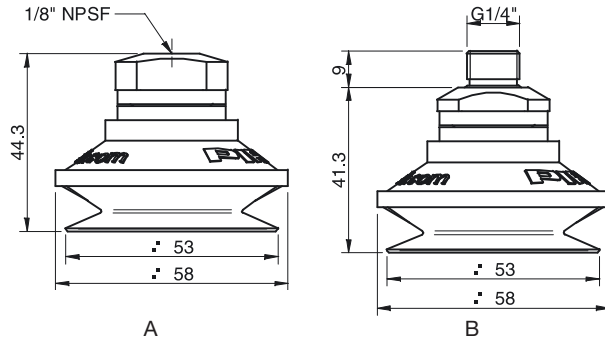
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

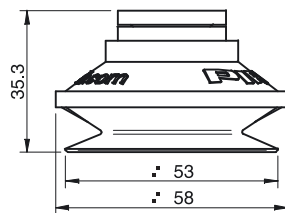
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## Ordering information

	Complete suction cups	Art. No.
A	Suction cup B50 Silicone FDA, 1/8" NPSF female, with mesh filter	9909709
B	Suction cup B50 Silicone FDA, G1/4" male, with mesh filter	9909614



	Rubber parts	Art. No.
	Suction cup B50 Silicone FDA	0200409



	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*.

## B50-2 FDA



### Suction cup with short bellows and filter

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for level adjustment. Several short bellows in one lifting device can handle objects with height differences and varying shapes, for example embossed or corrugated plates.
- ▶ Lifting movement to separate small and thin objects.
- ▶ Only lightweight objects should be handled when the lifting force is parallel to the surface of the object, in order to achieve good precision and safe lifting movement.

### 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
33	65	82	—	—	—	32	30	19	20.0

### Material specifications

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

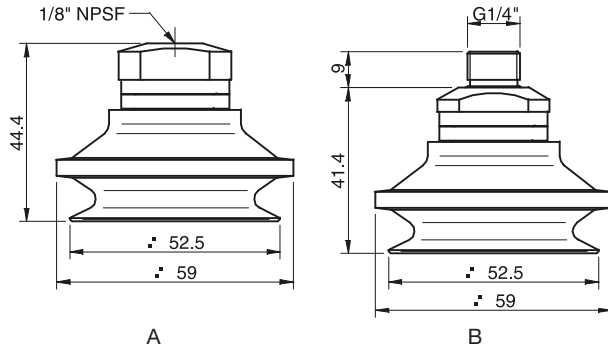
\* Filter disc max. 80 °C

### Material resistance

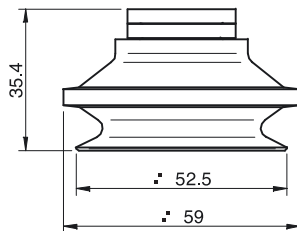
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## Ordering information

	Complete suction cups	Art. No
A	Suction cup B50-2 Silicone FDA with filter, 1/8" NPSF female, with mesh filter	9909619
B	Suction cup B50-2 Silicone FDA with filter, G1/4" male, with mesh filter	9909618



	Rubber parts	Art. No.
	Suction cup B50-2 Silicone FDA with filter	0200484



	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.
Filter for B50-2	Polyethylene, PE	-40-80	3150243



## B75 FDA



### Suction cup with short bellows

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for level adjustment. Several short bellows in one lifting device can handle objects with height differences and varying shapes, for example embossed or corrugated plates.
- ▶ The lifting movement can be used to separate small and thin objects.
- ▶ Only lightweight objects should be handled when the lifting force is parallel to the surface of the object, in order to achieve good precision and safe lifting movement.

### 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
74	167	226	—	—	—	110	40	24	35

### Material specifications

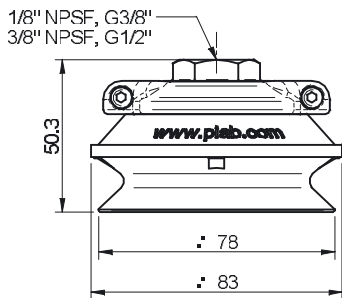
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

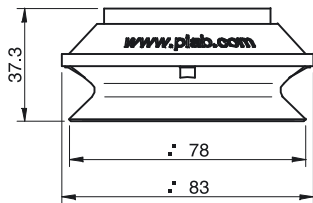
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## Ordering information

Complete suction cups	Art. No.
Suction cup B75 Silicone FDA, G3/8" female, with mesh filter	0200546



Rubber parts	Art. No.
Suction cup B75 Silicone FDA	0200245



Fittings	Art. No.
Fitting 75, G3/8" female, with mesh filter	0100551

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

## B75-2 FDA



### Suction cup with short bellows and filter

- The silicone material complies with FDA 21 CFR 177.2600.
- Suitable for level adjustment. Several short bellows in one lifting device can handle objects with height differences and varying shapes, for example embossed or corrugated plates.
- Lifting movement to separate small and thin objects.
- Only lightweight objects should be handled when the lifting force is parallel to the surface of the object, in order to achieve good precision and safe lifting movement.

### 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
74	167	226	—	—	—	110	40	24	35

### Material specifications

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

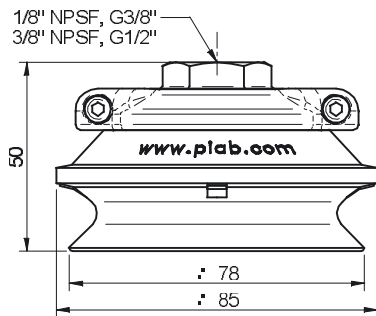
\* Filter disc max. 80 °C

### Material resistance

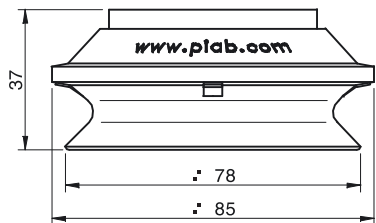
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## Ordering information

Complete suction cups	Art. No.
Suction cup B75-2 Silicone FDA with filter, G3/8" female, with mesh filter	0200531



Rubber parts	Art. No.
Suction cup B75-2 Silicone FDA with filter	0200485



Fittings	Art. No.
Fitting 75, G3/8" female, with mesh filter	0100551

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

Spare part	Material	Temperature range °C	Art. No.
Filter for B75-2	Polyethylene, PE	-40–80	3150244

## B110 FDA



### Suction cup with short bellows

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for level adjustment. Several short bellows in one lifting device can handle objects with height differences and varying shapes, for example embossed or corrugated plates.
- ▶ The lifting movement can be used to separate small and thin objects.
- ▶ Only lightweight objects should be handled when the lifting force is parallel to the surface of the object, in order to achieve good precision and safe lifting movement.

### 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
137	343	461	—	—	—	310	60	35	120

### Material specifications

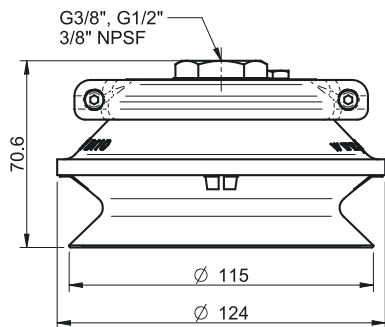
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

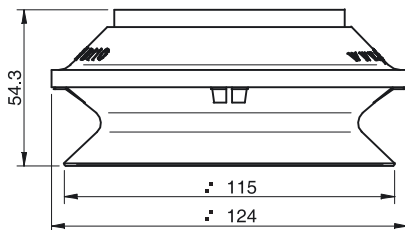
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## Ordering information

Complete suction cups	Art. No.
Suction cup B110 Silicone FDA, G1/2" female, with mesh filter	0200551



Rubber parts	Art. No.
Suction cup B110 Silicone FDA	0200246



Fittings	Art. No.
Fitting 110, G1/2" female, with mesh filter	0100561

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

## B110-2 FDA



### Suction cup with short bellows and filter

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for level adjustment. Several short bellows in one lifting device can handle objects with height differences and varying shapes, for example embossed or corrugated plates.
- ▶ Lifting movement to separate small and thin objects.
- ▶ Only lightweight objects should be handled when the lifting force is parallel to the surface of the object, in order to achieve good precision and safe lifting movement.

### 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
137	343	461	—	—	—	310	60	35	120

### Material specifications

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

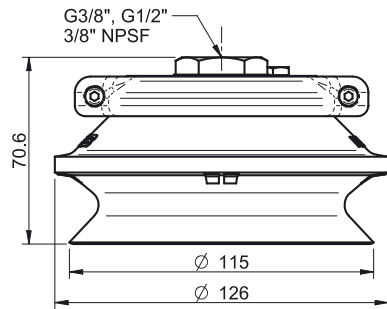
\* Filter disc max. 80 °C

### Material resistance

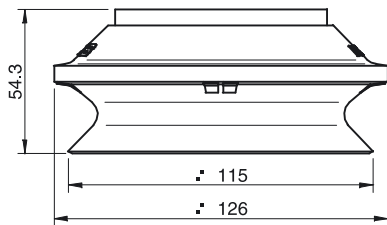
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## Ordering information

Complete suction cups	Art. No.
Suction cup B110-2 Silicone FDA with filter, G1/2" female, with mesh filter	0200536



Rubber parts	Art. No.
Suction cup B110-2 Silicone FDA with filter	0200486



Fittings	Art. No.
Fitting 110, G1/2" female, with mesh filter	0100561

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

Spare Part	Material	Temperature range °C	Art. No.
Filter for B110-2	Polyethylene, PE	-40–80	3150249



## B150 FDA



### Suction cup with short bellows

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for level adjustment. Several short bellows in one lifting device can handle objects with height differences and varying shapes, for example embossed or corrugated plates.
- ▶ The lifting movement can be used to separate small and thin objects.
- ▶ Only lightweight objects should be handled when the lifting force is parallel to the surface of the object, in order to achieve good precision and safe lifting movement.

### 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
294	686	883	—	—	—	650	75	45	265

### Material specifications

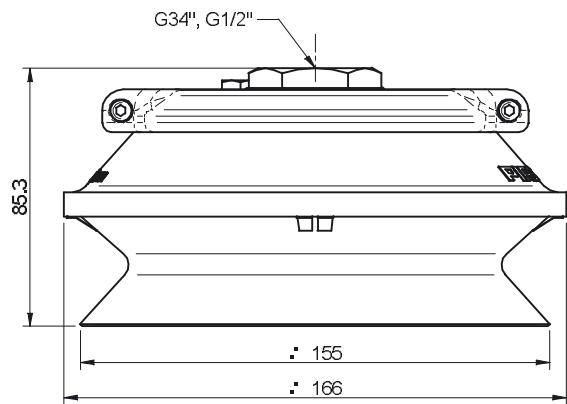
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

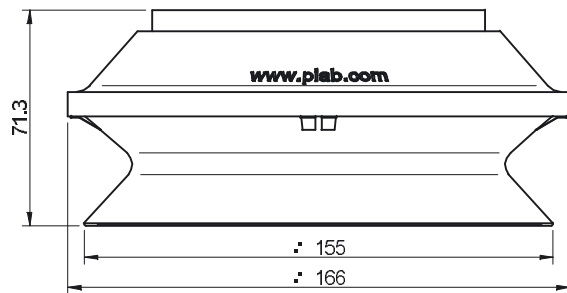
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## Ordering information

Complete suction cups	Art. No.
Suction cup B150 Silicone FDA, G1/2" female, with mesh filter	0200552



Rubber parts	Art. No.
Suction cup B150 Silicone FDA	0200247



Fittings	Art. No.
Fitting 150, G1/2" female, with mesh filter	0100564

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

## 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	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
0.32/3.2*	0.62/6.2*	—	—	—	—	4.0	4.0	13	3

\*Lifting force with reinforcement rings.

### Material specifications

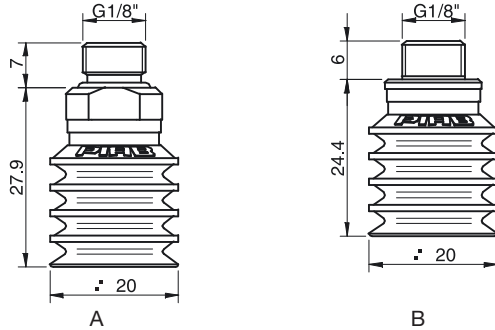
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

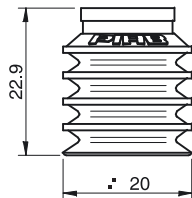
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## 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	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
0.64/6.4*	1.6/16.0*	—	—	—	—	10	8	20	7

\*Lifting force with reinforcement rings.

### Material specifications

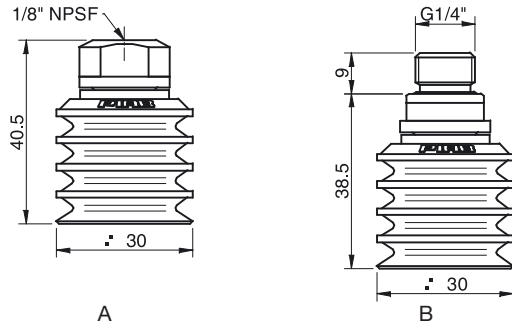
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

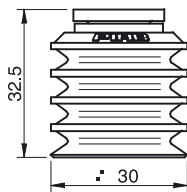
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## 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	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

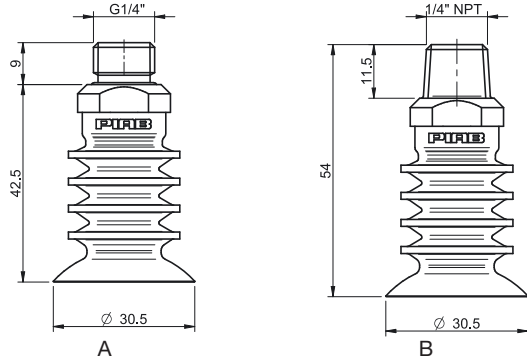
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	40	-40–200

### Material resistance

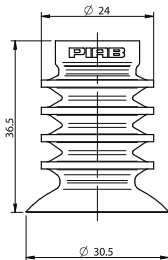
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## 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

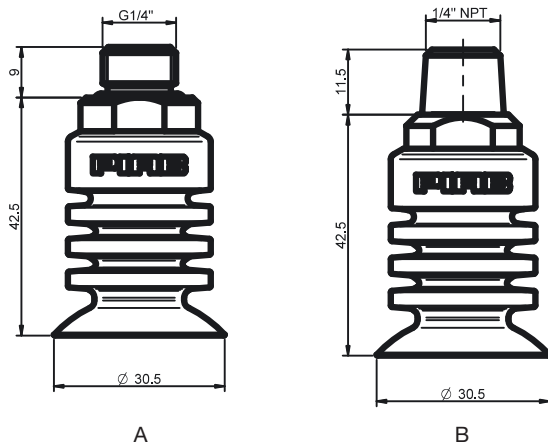
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	40	-40–200

### Material resistance

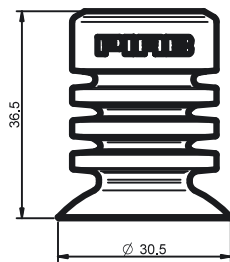
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## 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	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
1.1/11.0*	2.2/22.0*	—	—	—	—	27	11	33	10

\*Lifting force with reinforcement rings.

### Material specifications

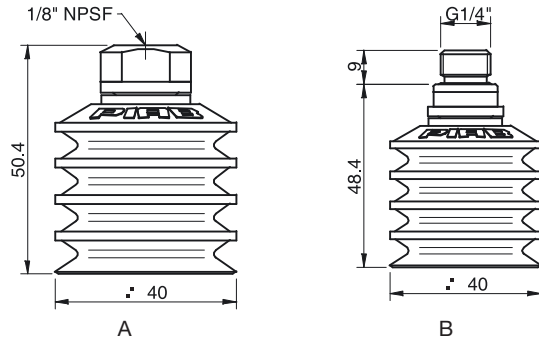
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

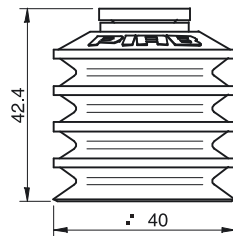
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## 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

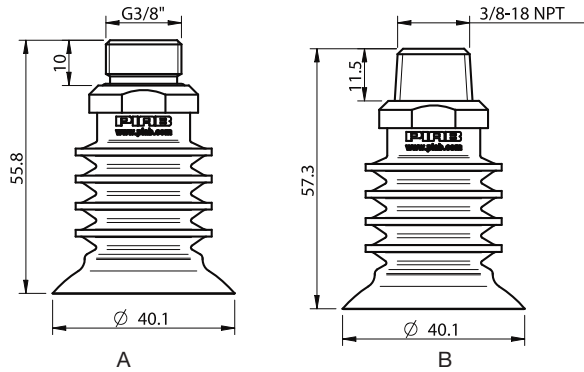
### Material resistance

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

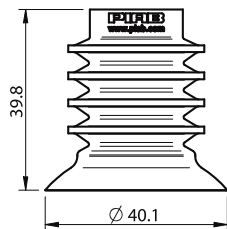
# Suction cups/grippers FDA

## 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

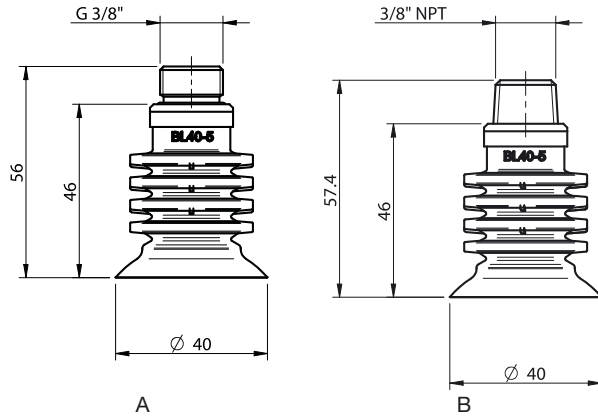
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	40	-40–200

### Material resistance

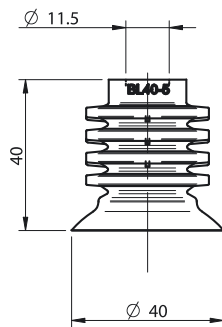
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## 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	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
1.7/17.0*	4.3/43*	—	—	—	—	53	13	34	20.0

\*Lifting force with reinforcement rings.

### Material specifications

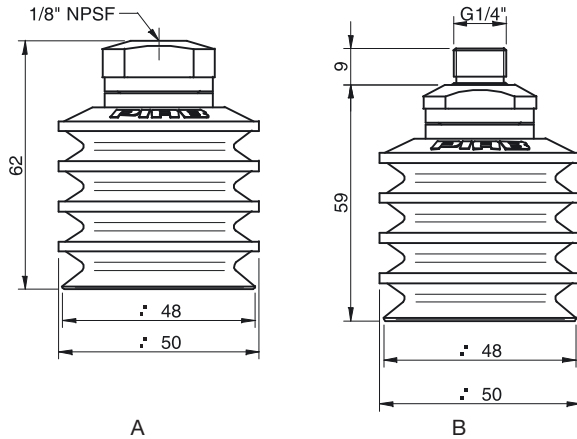
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

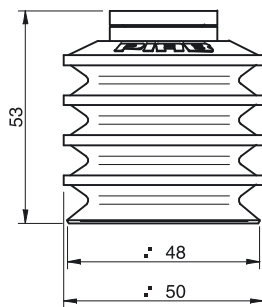
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## 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	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	25	—	—	—	—	35	30	22	25

### Material specifications

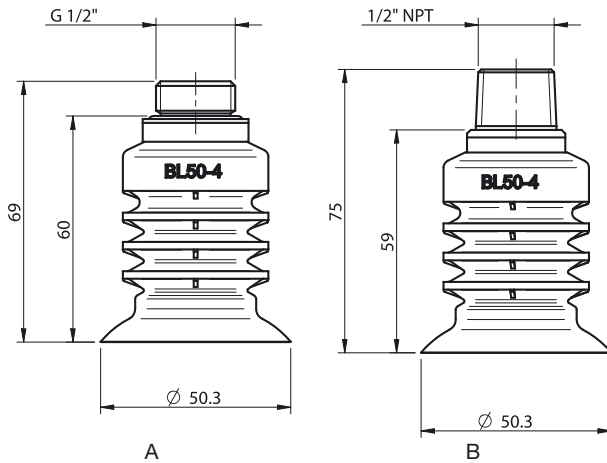
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	40	-40–200

### Material resistance

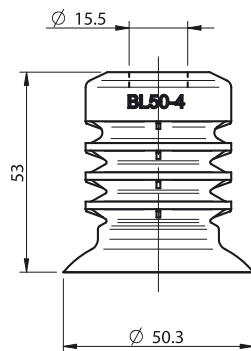
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## 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

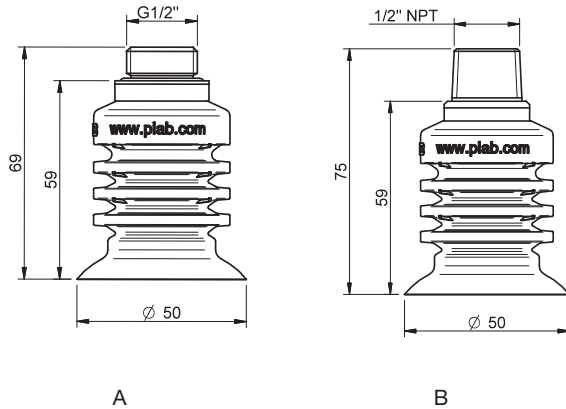
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	40	-40–200

### Material resistance

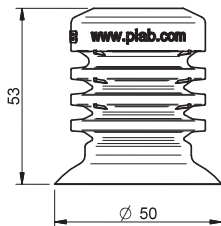
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

## 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



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

## F15 FDA



### Flat suction cup with cleats

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for flat objects.
- ▶ Good stability and little inherent movement.
- ▶ Recommended when the lifting force is parallel to the surface of the object.
- ▶ Cleats prevent thin, sensitive objects from being deformed and gives extra friction when the lifting force is parallel.

### 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
3.5	8.5	11.0	3.5	6.5	7.5	0.37	13	1.0	0.9

### Material specifications

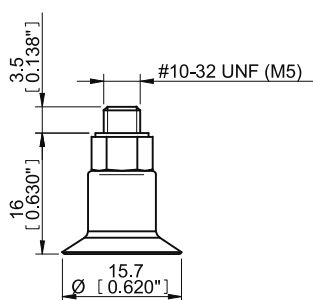
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40-200

### Material resistance

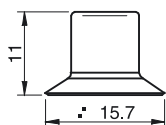
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

Complete suction cups	Art. No.
Suction cup F15 Silicone FDA, M5 male	9909623



Rubber parts	Art. No.
Suction cup F15 Silicone FDA	0200263



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

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

## F20 FDA



### Flat suction cup with cleats

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for flat objects.
- ▶ Good stability and little inherent movement.
- ▶ Recommended when the lifting force is parallel to the surface of the object.
- ▶ Cleats prevent thin, sensitive objects from being deformed and gives extra friction when the lifting force is parallel.

### 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
6.0	14.5	19.0	5.0	8.0	8.5	1.0	18	1.5	1.2

### Material specifications

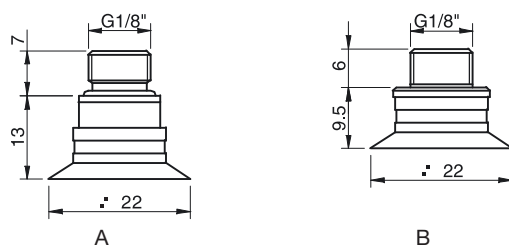
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40-200

### Material resistance

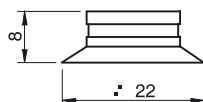
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

	Complete suction cups	Art. No.
A	Suction cup F20 Silicone FDA, G1/8" male, with mesh filter	9909624
B	Suction cup F20 Silicone FDA, G1/8" male/M5 female, with mesh filter	9909710



Rubber parts	Art. No.
Suction cup F20 Silicone FDA	0200417



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.



## F25 FDA



### Flat suction cup with cleats

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for flat objects.
- ▶ Good stability and little inherent movement.
- ▶ Recommended when the lifting force is parallel to the surface of the object.
- ▶ Cleats prevent thin, sensitive objects from being deformed and gives extra friction when the lifting force is parallel.

### 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
9.0	19.5	25	8.0	9.0	10.0	1.1	22	1.5	1.8

### Material specifications

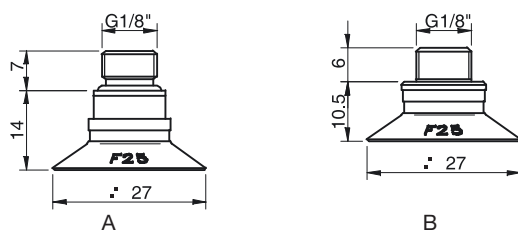
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40-200

### Material resistance

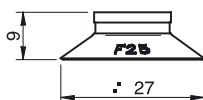
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

	Complete suction cups	Art. No.
A	Suction cup F25 Silicone FDA, G1/8" male, with mesh filter	9909625
B	Suction cup F25 Silicone FDA, G1/8" male/M5 female, with mesh filter	9909711



Rubber parts	Art. No.
Suction cup F25 Silicone FDA	0200439



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.

## F30-2 FDA



### Flat suction cup with cleats

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for flat objects.
- ▶ Good stability and little inherent movement.
- ▶ Recommended when the lifting force is parallel to the surface of the object.
- ▶ Cleats prevent thin, sensitive objects from being deformed and gives extra friction when the lifting force is parallel.

### 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
12.0	25	31	11.0	16.0	20.0	2.0	25	2.0	2.2

### Material specifications

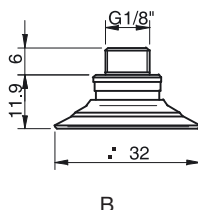
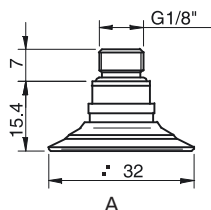
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40-200

### Material resistance

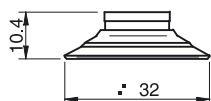
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

	Complete suction cups	Art. No.
A	Suction cup F30-2 Silicone FDA, G1/8" male, with mesh filter	9909626
B	Suction cup F30-2 Silicone FDA, G1/8" male/M5 female, with mesh filter	9909627



Rubber parts	Art. No.
Suction cup F30-2 Silicone FDA	0200418



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.

## F40-2 FDA



### Flat suction cup with cleats

- The silicone material complies with FDA 21 CFR 177.2600.
- Suitable for flat objects.
- Good stability and little inherent movement.
- Recommended when the lifting force is parallel to the surface of the object.
- Cleats prevent thin, sensitive objects from being deformed and gives extra friction when the lifting force is parallel.

### 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
20.0	40	50	15.0	25	30	4.8	52	2.5	5.5

### Material specifications

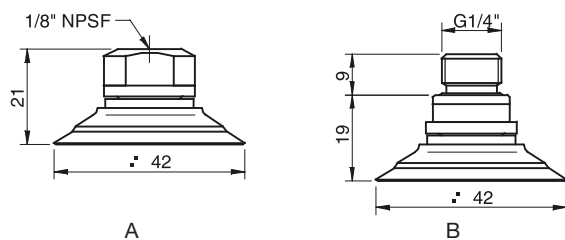
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40-200

### Material resistance

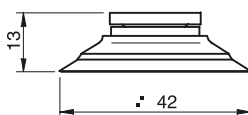
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

	Complete suction cups	Art. No.
A	Suction cup F40-2 Silicone FDA, 1/8" NPSF female, with mesh filter	9909629
B	Suction cup F40-2 Silicone FDA, G1/4" male, with mesh filter	9909628



Rubber parts	Art. No.
Suction cup F40-2 Silicone FDA	0200437



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.

## F50-2 FDA



### Flat suction cup with cleats

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for flat objects.
- ▶ Good stability and little inherent movement.
- ▶ Recommended when the lifting force is parallel to the surface of the object.
- ▶ Cleats prevent thin, sensitive objects from being deformed and gives extra friction when the lifting force is parallel.

### 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
36	74	96	24.0	40	50	10	55	3.0	14

### Material specifications

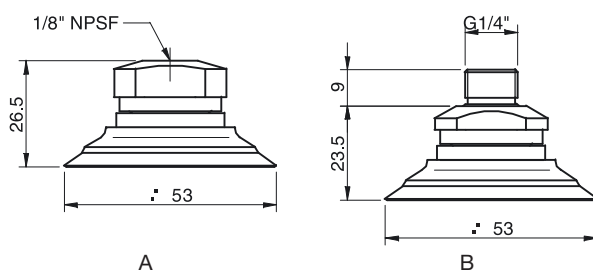
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40-200

### Material resistance

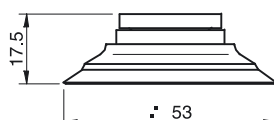
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

	Complete suction cups	Art. No.
A	Suction cup F50-2 Silicone FDA, 1/8" NPSF female, with mesh filter	9909631
B	Suction cup F50-2 Silicone FDA, G1/4" male, with mesh filter	9909630



Rubber parts	Art. No.
Suction cup F50-2 Silicone FDA	0200438



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.

## F75 FDA



### Flat suction cup with cleats

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for flat objects.
- ▶ Good stability and little inherent movement.
- ▶ Recommended when the lifting force is parallel to the surface of the object.
- ▶ Cleats prevent thin, sensitive objects from being deformed and gives extra friction when the lifting force is parallel.

### 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
80	200	270	60	110	140	20	150	3.0	23

### Material specifications

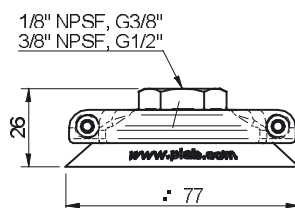
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40-200

### Material resistance

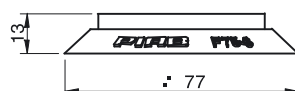
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

Complete suction cups	Art. No.
Suction cup F75 Silicone FDA, G3/8" female, with mesh filter	0200497



Rubber parts	Art. No.
Suction cup F75 Silicone FDA	0200264



Fittings	Art. No.
Fitting 75, G3/8" female, with mesh filter	0100551

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

## F110 FDA



### Flat suction cup with cleats

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for flat objects.
- ▶ Good stability and little inherent movement.
- ▶ Recommended when the lifting force is parallel to the surface of the object.
- ▶ Cleats prevent thin, sensitive objects from being deformed and gives extra friction when the lifting force is parallel.

### 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
140	420	560	140	250	300	70	250	4.0	66

### Material specifications

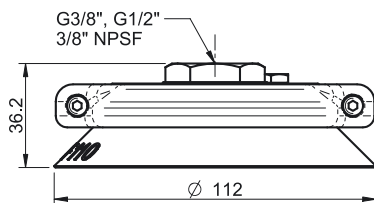
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40-200

### Material resistance

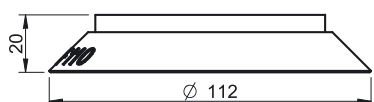
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

Complete suction cups	Art. No.
Suction cup F110 Silicone FDA, G1/2" female, with mesh filter	0200504



Rubber part	Art. No.
Suction cup F110 Silicone FDA	0200302



Fittings	Art. No.
Fitting 110, G1/2" female, with mesh filter	0100561

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

## F150 FDA



### Flat suction cup with cleats

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for flat objects.
- ▶ Good stability and little inherent movement.
- ▶ Recommended when the lifting force is parallel to the surface of the object.
- ▶ Cleats prevent thin, sensitive objects from being deformed and gives extra friction when the lifting force is parallel.

### 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
300	850	1100	250	600	800	160	500	6.0	200

### Material specifications

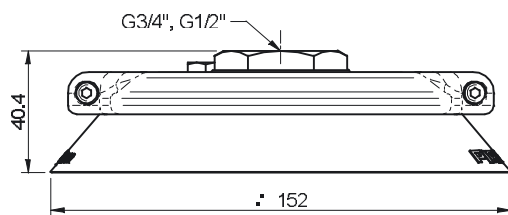
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40-200

### Material resistance

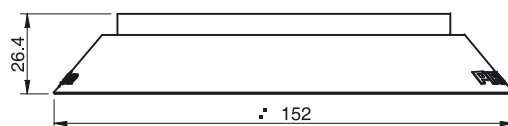
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

Complete suction cups	Art. No.
Suction cup F150 Silicone FDA, G1/2" female, with mesh filter	0200507



Rubber parts	Art. No.
Suction cup F150 Silicone FDA	0200265



Fittings	Art. No.
Fitting 150, G1/2" female, with mesh filter	0100564

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

## U4 FDA



### Universal suction cup

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for objects with flat or slightly curved surfaces.
- ▶ Also used for concave objects.

### 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
0.20	0.90	1.3	0.20	0.80	1.0	0.03	3.0	0.20	0.08

### Material specifications

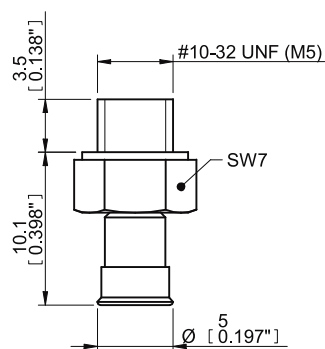
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

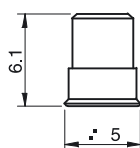
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

Complete suction cups	Art. No.
Suction cup U4 Silicone FDA, M5 male	9909632



Rubber parts	Art. No.
Suction cup U4 Silicone FDA	0200254



Fittings	Art. No.
Fitting M5 male, 5–8	3107031

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



## U6 FDA



### Universal suction cup

- The silicone material complies with FDA 21 CFR 177.2600.
- Suitable for objects with flat or slightly curved surfaces.
- Also used for concave objects.

### 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
0.50	1.7	2.5	0.50	1.5	2.0	0.05	5.0	0.30	0.14

### Material specifications

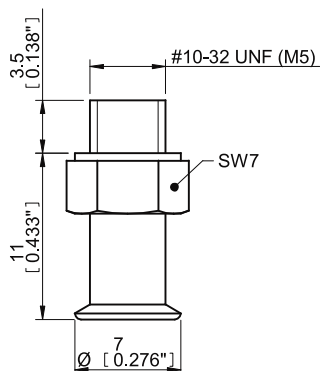
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

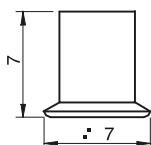
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

Complete suction cups	Art. No.
Suction cup U6 Silicone FDA, M5 male	9909633



Rubber parts	Art. No.
Suction cup U6 Silicone FDA	0200255



Fittings	Art. No.
Fitting M5 male, 5–8	3107031

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

## U8 FDA



### Universal suction cup

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for objects with flat or slightly curved surfaces.
- ▶ Also used for concave objects.

### 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
1.0	2.9	3.9	1.0	2.9	3.4	0.10	6.0	0.50	0.16

### Material specifications

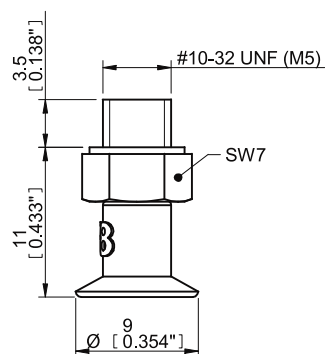
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

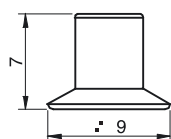
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

Complete suction cups	Art. No.
Suction cup U8 Silicone FDA, M5 male	9909634



Rubber parts	Art. No.
Suction cup U8 Silicone FDA	0200256



Fittings	Art. No.
Fitting M5 male, 5–8	3107031

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

## U10 FDA



### Universal suction cup

- The silicone material complies with FDA 21 CFR 177.2600.
- Suitable for objects with flat or slightly curved surfaces.
- Also used for concave objects.

### 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
1.5	4.4	6.9	1.5	4.4	4.9	0.18	8.0	0.50	0.65

### Material specifications

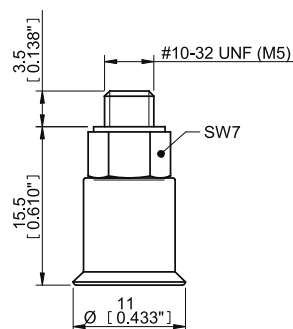
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

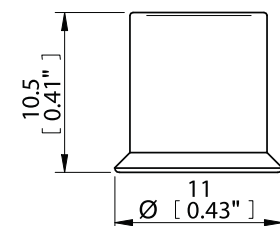
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

Complete suction cups	Art. No.
Suction cup U10 Silicone FDA, M5 male	9909635



Rubber parts	Art. No.
Suction cup U10 Silicone FDA	0200257



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

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

## U15 FDA



### Universal suction cup

- The silicone material complies with FDA 21 CFR 177.2600.
- Suitable for objects with flat or slightly curved surfaces.
- Also used for concave objects.

### 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
3.5	8.4	11.0	3.5	5.4	5.9	0.50	8.0	1.5	0.70

### Material specifications

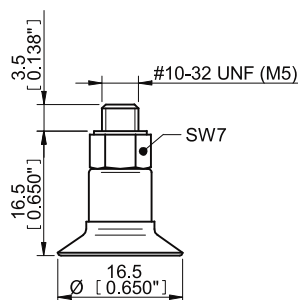
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

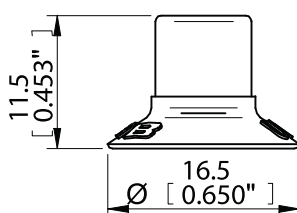
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

Complete suction cups	Art. No.
Suction cup U15 Silicone FDA, M5 male	9909636



Rubber parts	Art. No.
Suction cup U15 Silicone FDA	0200258



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

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

## U20 FDA



### Universal suction cup

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for objects with flat or slightly curved surfaces.
- ▶ Also used for concave objects.

### 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
5.9	12.0	16.0	5.9	8.8	9.8	1.0	13.0	2.5	1.2

### Material specifications

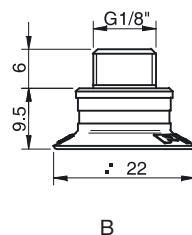
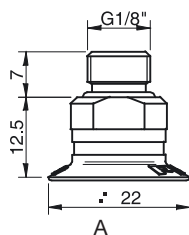
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

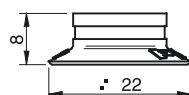
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

	Complete suction cups	Art. No.
A	Suction cup U20 Silicone FDA, G1/8" male, with mesh filter	9909717
B	Suction cup U20 Silicone FDA, G1/8" male/M5 female, with mesh filter	9909718



Rubber parts	Art. No.
Suction cup U20 Silicone FDA	0200440



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*.

## U30 FDA



### Universal suction cup

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for objects with flat or slightly curved surfaces.
- ▶ Also used for concave objects.

### 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
12.0	25.0	30	7.8	9.8	11.0	2.0	20.0	3.5	1.8

### Material specifications

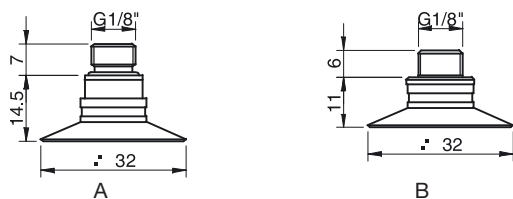
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40-200

### Material resistance

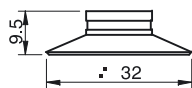
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

	Complete suction cups	Art. No.
A	Suction cup U30 Silicone FDA, G1/8" male, with mesh filter	9909720
B	Suction cup U30 Silicone FDA, G1/8" male / M5 female, with mesh filter	9909721



Rubber parts	Art. No.
Suction cup U30 Silicone FDA	0200441



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.

## U40-2 FDA



### Universal suction cup

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for objects with flat or slightly curved surfaces.
- ▶ Also used for concave objects.

### 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
20.0	39	49	14.0	22.0	27	5.5	30	4.5	4.0

### Material specifications

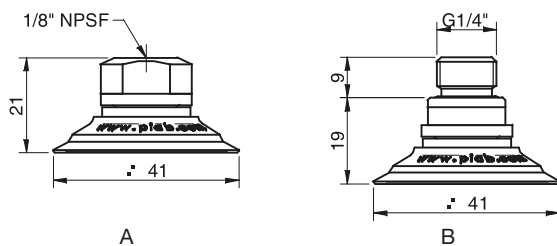
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

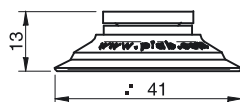
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

	Complete suction cups	Art. No.
A	Suction cup U40-2 Silicone FDA, 1/8" NPSF female, with mesh filter	9909723
B	Suction cup U40-2 Silicone FDA, G1/4" male, with mesh filter	9909722



Rubber parts	Art. No.
Suction cup U40-2 Silicone FDA	0200442



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.

## U50-2 FDA



### Universal suction cup

- The silicone material complies with FDA 21 CFR 177.2600.
- Suitable for objects with flat or slightly curved surfaces.
- Also used for concave objects.

### 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
35	73	92	20	37	44	12	35	6.0	10.0

### Material specifications

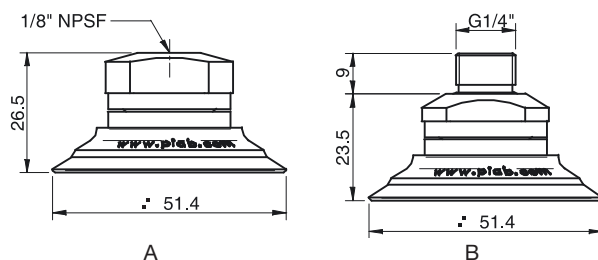
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

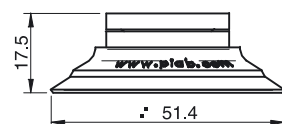
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

	Complete suction cups	Art. No
A	Suction cup U50-2 Silicone FDA, 1/8" NPSF female, with mesh filter	9909726
B	Suction cup U50-2 Silicone FDA, G1/4" male, with mesh filter	9909725



Rubber parts	Art. No.
Suction cup U50-2 Silicone FDA	0200443



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.



## D15-2 FDA



### Deep suction cup

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for objects with curved or irregular surfaces.
- ▶ Grips around corners and edges.

### 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
2.9	7.8	11.0	—	—	—	0.9	6.0	3.0	1.2

### Material specifications

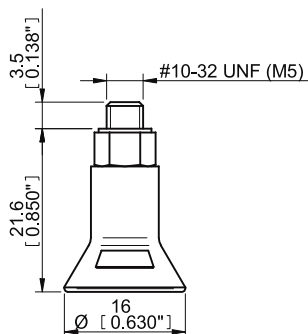
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

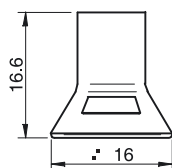
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

Complete suction cups	Art. No.
Suction cup D15-2 Silicone FDA, M5 male	9909674



Rubber parts	Art. No.
Suction cup D15-2 Silicone FDA	0200266



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

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

## D20-2 FDA



### Deep suction cup

- The silicone material complies with FDA 21 CFR 177.2600.
- Suitable for objects with curved or irregular surfaces.
- Grips around corners and edges.

### 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
5.9	15.0	18.0	—	—	—	2.5	8.0	4.5	2.2

### Material specifications

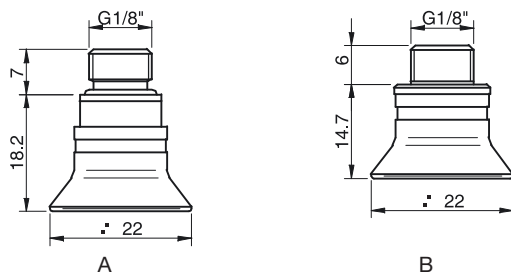
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

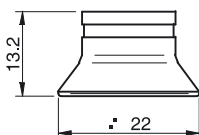
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

	Complete suction cups	Art. No.
A	Suction cup D20-2 Silicone FDA, G1/8" male, with mesh filter	9909712
B	Suction cup D20-2 Silicone FDA, G1/8" male/M5 female, with mesh filter	9909713



Rubber parts	Art. No.
Suction cup D20-2 Silicone FDA	0200444



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.

## D30-2 FDA



### Deep suction cup

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for objects with curved or irregular surfaces.
- ▶ Grips around corners and edges.

### 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
14.0	26	31	—	—	—	5.0	13	5.0	4.0

### Material specifications

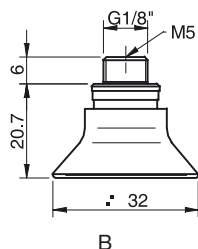
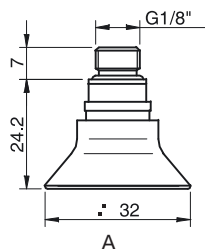
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

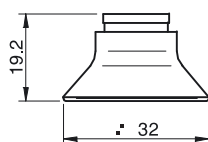
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

	Complete suction cups	Art. No.
A	Suction cup D30-2 Silicone FDA, G1/8" male, with mesh filter	9909714
B	Suction cup D30-2 Silicone FDA, G1/8" male/M5 female, with mesh filter	9909715



Rubber parts	Art. No.
Suction cup D30-2 Silicone FDA	0200446



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.

## D50 FDA



### Deep suction cup

- ▶ The silicone material complies with FDA 21 CFR 177.2600.
- ▶ Suitable for objects with curved or irregular surfaces.
- ▶ Grips around corners and edges.

### 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
36	78	98	—	—	—	15	25	10	18

### Material specifications

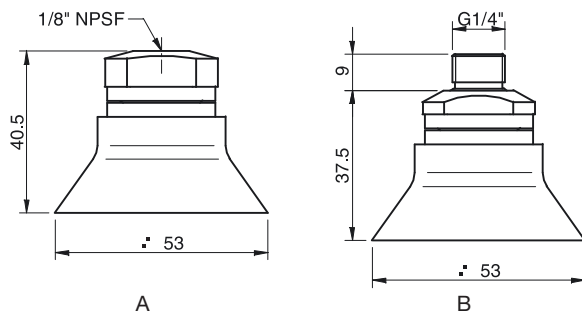
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL FDA	Transparent	50	-40–200

### Material resistance

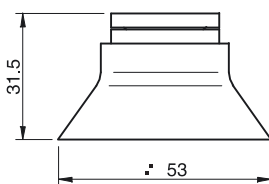
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL FDA	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

### Ordering information

	Complete suction cups	Art. No.
A	Suction cup D50 Silicone FDA, 1/8" NPSF female, with mesh filter	9909676
B	Suction cup D50 Silicone FDA, G1/4" male, with mesh filter	9909675



Rubber parts	Art. No.
Suction cup D50 Silicone FDA	0200445



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.