

B5



Suction cup with short bellows

- 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.
- ➤ Suction cups of conductive silicone are suitable for objects with sensitivity to static electricity.

Lifting forces & Technical data

	force vertica e, N, at vacuu			ng force parallel to the ace, 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	mm	mm	g
0.30	0.80	1.0	_	_	_	0.05	1.5	1.5	0.11

Material specifications

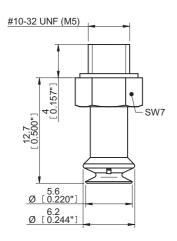
Material	Colour	Hardness ∘Shore A	Temperature range °C
Chloroprene, CR	Black	50	-40–110
Silicone, SIL	Red	50	-40–200
Conductive silicone, CSIL	Black	50	-55–230

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
Conductive silicone, CSIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

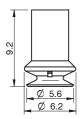


Ordering information

Complete suction cups	Art. No.
Suction cup B5 Chloroprene, M5 male	3250082
Suction cup B5 Silicone, M5 male	3250082S
Suction cup B5 Conductive silicone, M5 male	3250082SC



Rubber parts	Art. No.
Suction cup B5 Chloroprene	3150286
Suction cup B5 Silicone	3150286S
Suction cup B5 Conductive silicone	3150286SC



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



B8



Suction cup with short bellows

- 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.
- ➤ Suction cups of conductive silicone are suitable for objects with sensitivity to static electricity.

Lifting forces & Technical data

	ting force vertical to the face, 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	mm	mm	g
0.80	1.6	2.5	_	_	_	0.15	1.9	3.5	0.3

Material specifications

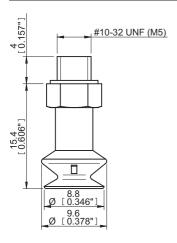
Material	Colour	Hardness ∘Shore A	Temperature range °C
Chloroprene, CR	Black	50	-40–110
Silicone, SIL	Red	50	-40–200
Conductive silicone, CSIL	Black	50	-55–230

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
Conductive silicone, CSIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

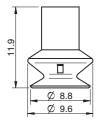


Ordering information

Complete suction cups	Art. No.
Suction cup B8 Chloroprene, M5 male	3250083
Suction cup B8 Silicone, M5 male	3250083S
Suction cup B8 Conductive silicone, M5 male	3250083SC



Rubber parts	Art. No.
Suction cup B8 Chloroprene	3150287
Suction cup B8 Silicone	3150287S
Suction cup B8 Conductive silicone	3150287SC



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



B10-2



Suction cup with short bellows

- ➤ Suitable for level adjustment.
- ► Lifting movement to separate small and thin objects.
- ➤ Only lightweight objects should be handled when the lifting force is parallel to the surface.

Lifting forces & Technical data

	force vertica , N, at vacuu		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	mm	mm	g
1.5	3.4	4.9	_	_	_	0.48	4.0	4.5	1.0

Material specifications

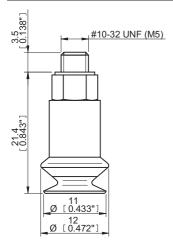
Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	60	-40–110
Silicone, SIL	Red	50	-40–200

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

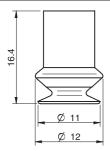


Ordering information

Complete suction cups	Art. No.
Suction cup B10-2 Chloroprene, M5 male	3150023
Suction cup B10-2 Silicone, M5 male	3150023S



Rubber parts	Art. No.
Suction cup B10-2 Chloroprene	3150101
Suction cup B10-2 Silicone	3150101S



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



B15-2



Suction cup with short bellows

- ► Suitable for level adjustment.
- ► Lifting movement to separate small and thin objects.
- ➤ Only lightweight objects should be handled when the lifting force is parallel to the surface.

Lifting forces & Technical data

		force vertica , N, at vacuu		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	mm	mm	g
ſ	2.9	5.9	8.9	_	_	_	1.1	5.0	6.5	1.5

Material specifications

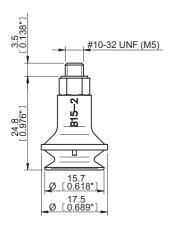
Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	60	-40–110
Silicone, SIL	Red	50	-40–200

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

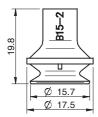


Ordering information

Complete suction cups			
Suction cup B15-2 Chloroprene, M5 male	3250037		
Suction cup B15-2 Silicone, M5 male	3250037S		



Rubber parts	Art. No.
Suction cup B15-2 Chloroprene	3150230
Suction cup B15-2 Silicone	3150230S



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



B20



Suction cup with short bellows

- ➤ 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 ³	mm	mm	g
Г	5.9	9.8	14	_	_	_	2.7	10	10	3.2

Material specifications

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

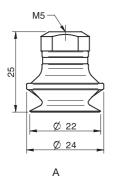
Material resistance

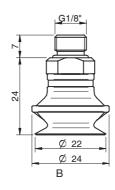
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Chloroprene, CR	Excellent	Fair	Good	Good	Fair	Poor	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

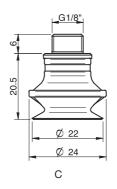
Ordering information

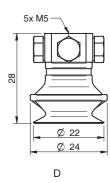
	Complete suction cups	Art. No.
Α	Suction cup B20 Chloroprene, M5 female	0101160
Α	Suction cup B20 Chloroprene, M5 female, with dual flow control valve	0101166
В	Suction cup B20 Chloroprene, G1/8" male, with mesh filter	0101161
В	Suction cup B20 Chloroprene, G1/8" male, with mesh filter and dual flow control valve	0101167
С	Suction cup B20 Chloroprene, G1/8" male/M5 female, with mesh filter	0101165
С	Suction cup B20 Chloroprene, G1/8" male/M5 female, with dual flow control valve	0101169
D	Suction cup B20 Chloroprene, 5xM5 female	0101164
Α	Suction cup B20 Silicone, M5 female	0101171
Α	Suction cup B20 Silicone, M5 female, with dual flow control valve	0101177
В	Suction cup B20 Silicone, G1/8" male, with mesh filter	0101172
В	Suction cup B20 Silicone, G1/8" male, with mesh filter and dual flow control valve	0101178
С	Suction cup B20 Silicone, G1/8" male/M5 female, with mesh filter	0101176
С	Suction cup B20 Silicone, G1/8" male/M5 female, with dual flow control valve	0101180
D	Suction cup B20 Silicone, 5xM5 female	0101175
D	Suction cup B20 Silicone, 5xM5 female, with dual flow control valve	0101181
Е	Suction cup B20 Chloroprene, G1/8" male/M5 female, PA	0110949
Е	Suction cup B20 Silicone, G1/8" male/M5 female, PA	0110336

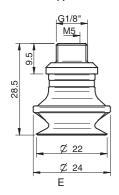




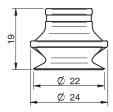








Rubber parts	Art. No.
Suction cup B20 Chloroprene	0101101
Suction cup B20 Silicone	0101102



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



B30-2



Suction cup with short bellows

- ➤ 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 ³	mm	mm	g
12.0	22.0	27	_	_	_	10	15	15	7.0

Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	60	-40–110
Silicone, SIL	Red	50	-40–200
HNBR	Grey-blue	75	-30–140*

^{*}For a shorter period of time up to 160 ℃.

Material resistance

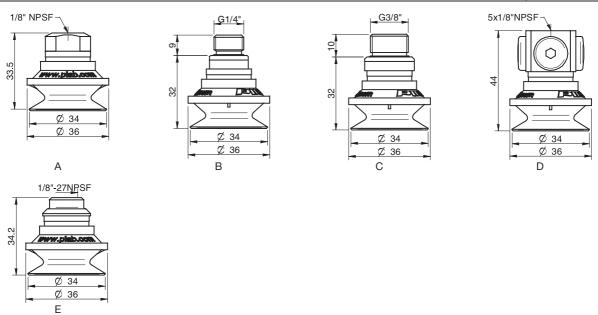
Material	Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Chloroprene, CR	Excellent	Fair	Good	Good	Fair	Poor	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent
HNBR	Excellent	Excellent	Excellent	Good	Excellent	Fair	Good	Excellent

Ordering information

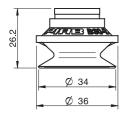
	Complete suction cups	Art. No.
Α	Suction cup B30-2 Chloroprene, 1/8" NPSF female, with mesh filter	0101423
Α	Suction cup B30-2 Chloroprene, 1/8" NPSF female, with dual flow control valve	0101424
В	Suction cup B30-2 Chloroprene, G1/4" male, with mesh filter	0101418
В	Suction cup B30-2 Chloroprene, G1/4" male, with mesh filter dual flow control valve	0101425
С	Suction cup B30-2 Chloroprene, G3/8" male, with mesh filter	0101420
С	Suction cup B30-2 Chloroprene, G3/8" male, with mesh filter and dual flow control valve	0101427
D	Suction cup B30-2 Chloroprene, 5x1/8" NPSF female	0101422
Α	Suction cup B30-2 Silicone, 1/8" NPSF female, with mesh filter	0101436
Α	Suction cup B30-2 Silicone, 1/8" NPSF female, with dual flow control valve	0101437
В	Suction cup B30-2 Silicone, G1/4" male, with mesh filter	0101431
В	Suction cup B30-2 Silicone, G1/4" male, with mesh filter and dual flow control valve	0101438
С	Suction cup B30-2 Silicone, G3/8" male, with mesh filter	0101433
С	Suction cup B30-2 Silicone, G3/8" male, with mesh filter and dual flow control valve	0101440
D	Suction cup B30-2 Silicone, 5x1/8" NPSF female	0101435
D	Suction cup B30-2 Silicone, 5x1/8" NPSF female, with dual flow control valve	0101442



	Complete suction cups	Art. No.
Α	Suction cup B30-2 HNBR, 1/8" NPSF female, with mesh filter	0108078
В	Suction cup B30-2 HNBR, G1/4" male, with mesh filter	0108167
С	Suction cup B30-2 HNBR, G3/8" male, with mesh filter	0108168
Е	Suction cup B30-2 Chloroprene, 1/8" NPSF female, PA	0109845
Е	Suction cup B30-2 Silicone, 1/8" NPSF female, PA	0110343



Rubber parts	Art. No.
Suction cup B30-2 Chloroprene	0101103
Suction cup B30-2 Silicone	0101104
Suction cup B30-2 HNBR	0108077



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



B40



Suction cup with short bellows

- ➤ 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 ³	mm	mm	g
22.0	39	49	_	_	_	15	20	12	10.0

Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	60	-40–110
Silicone, SIL	Red	50	-40–200
HNBR	Grey-blue	75	-30–140*

^{*}For a shorter period of time up to 160 °C.

Material resistance

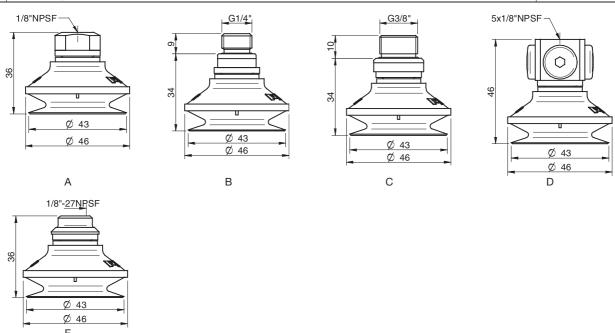
Material	Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Chloroprene, CR	Excellent	Fair	Good	Good	Fair	Poor	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent
HNBR	Excellent	Excellent	Excellent	Good	Excellent	Fair	Good	Excellent

Ordering information

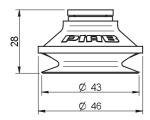
	Complete suction cups	Art. No.
Α	Suction cup B40 Chloroprene, 1/8" NPSF female, with mesh filter	0101462
Α	Suction cup B40 Chloroprene, 1/8" NPSF female, with dual flow control valve	0101463
В	Suction cup B40 Chloroprene, G1/4" male, with mesh filter	0101457
В	Suction cup B40 Chloroprene, G1/4" male, with mesh filter and dual flow control valve	0101464
С	Suction cup B40 Chloroprene, G3/8" male, with mesh filter	0101459
С	Suction cup B40 Chloroprene, G3/8" male, with mesh filter and dual flow control valve	0101466
D	Suction cup B40 Chloroprene, 5x1/8" NPSF female	0101461
Α	Suction cup B40 Silicone, 1/8" NPSF female, with mesh filter	0101475
Α	Suction cup B40 Silicone, 1/8" NPSF female, with dual flow control valve	0101476
В	Suction cup B40 Silicone, G1/4" male, with mesh filter	0101470
В	Suction cup B40 Silicone, G1/4" male, with mesh filter and dual flow control valve	0101477
С	Suction cup B40 Silicone, G3/8" male, with mesh filter	0101472
D	Suction cup B40 Silicone, 5x1/8" NPSF female	0101474
Α	Suction cup B40 HNBR, 1/8" NPSF female, with mesh filter	0108082
В	Suction cup B40 HNBR, G1/4" male, with mesh filter	0108169



	Complete suction cups	Art. No.
С	Suction cup B40 HNBR, G3/8" male, with mesh filter	0108170
Е	Suction cup B40 Chloroprene, 1/8" NPSF female, PA	0109843
Е	Suction cup B40 Silicone, 1/8" NPSF female PA	0110337



Rubber parts	Art. No.
Suction cup B40 Chloroprene	0101105
Suction cup B40 Silicone	0101106
Suction cup B40 HNBR	0108081



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



B50



Suction cup with short bellows

- ➤ 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	cm³	mm	mm	g
33	65	82	_	_	_	32	30	19	20.0

Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Nitrile-PVC, NPV	Black	50	0–90
Silicone, SIL	Red	50	-40–200
HNBR	Grey-blue	75	-30–140*

^{*} For a shorter period of time up to +160 °C

Material resistance

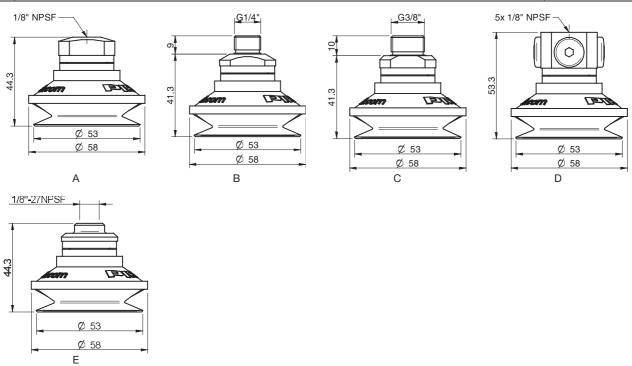
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Nitrile-PVC, NPV	Excellent	Excellent	Good	Good	Excellent	Fair	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent
HNBR	Excellent	Excellent	Excellent	Good	Excellent	Fair	Good	Excellent

Ordering information

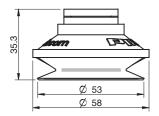
	Complete suction cups	Art. No.
Α	Suction cup B50 Nitrile-PVC, 1/8" NPSF female, with mesh filter	0101649
Α	Suction cup B50 Nitrile-PVC, 1/8" NPSF female, with dual flow control valve	0101650
В	Suction cup B50 Nitrile-PVC, G1/4" male, with mesh filter	0101644
В	Suction cup B50 Nitrile-PVC, G1/4" male, with mesh filter and dual flow control valve	0101651
С	Suction cup B50 Nitrile-PVC, G3/8" male, with mesh filter	0101646
С	Suction cup B50 Nitrile-PVC, G3/8" male, with mesh filter and dual flow control valve	0101653
D	Suction cup B50 Nitrile-PVC, 5x1/8" NPSF female	0101648
Α	Suction cup B50 Silicone, 1/8" NPSF female, with mesh filter	0101636
Α	Suction cup B50 Silicone, 1/8" NPSF female, with dual flow control valve	0101637
В	Suction cup B50 Silicone, G1/4" male, with mesh filter	0101631
В	Suction cup B50 Silicone, G1/4" male, with mesh filter and dual flow control valve	0101638
С	Suction cup B50 Silicone, G3/8" male, with mesh filter	0101633
С	Suction cup B50 Silicone, G3/8" male, with mesh filter and dual flow control valve	0101640
D	Suction cup B50 Silicone, 5x1/8" NPSF female	0101635
Α	Suction cup B50 HNBR, 1/8" NPSF female, with mesh filter	0108171



	Complete suction cups	Art. No.
В	Suction cup B50 HNBR, G1/4" male, with mesh filter	0108172
С	Suction cup B50 HNBR, G3/8" male, with mesh filter	0108173
Е	Suction cup B50 Nitrile-PVC, 1/8" NPSF female, PA	0111063



Rubber parts	Art. No.
Suction cup B50 Silicone	0101108
Suction cup B50 Nitrile-PVC	0101107
Suction cup B50 HNBR	0108165



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



B50-2



Suction cup with short bellows and filter

- ➤ 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

	force vertica , N, at vacuu		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	cm³	mm	mm	g
33	65	82	_	_	-	32	30	19	20.0

Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Nitrile-PVC, NPV	Black	50	0–90*
Silicone, SIL	Red	50	-40–200*

^{*} Filter disc max. 80 ℃

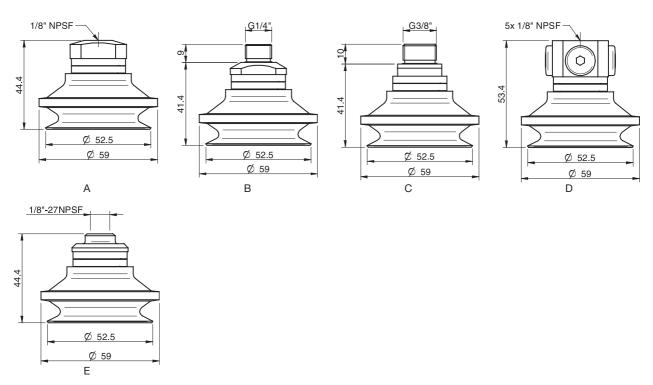
Material resistance

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

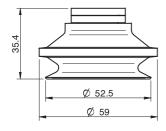
Ordering information

	Complete suction cups	Art. No
Α	Suction cup B50-2 Nitrile-PVC with filter, 1/8" NPSF female, with mesh filter	0101675
Α	Suction cup B50-2 Nitrile-PVC with filter, 1/8" NPSF female, with dual flow control valve	0101676
В	Suction cup B50-2 Nitrile-PVC with filter, G1/4" male, with mesh filter	0101670
В	Suction cup B50-2 Nitrile-PVC with filter, G1/4" male, with dual flow control valve and mesh filter	0101677
С	Suction cup B50-2 Nitrile-PVC with filter, G3/8" male, with mesh filter	0101672
D	Suction cup B50-2 Nitrile-PVC with filter, 5x1/8" NPSF female	0101674
Α	Suction cup B50-2 Silicone with filter, 1/8" NPSF female, with mesh filter	0101662
Α	Suction cup B50-2 Silicone with filter, 1/8" NPSF female, with dual flow control valve	0101663
В	Suction cup B50-2 Silicone with filter, G1/4" male, with mesh filter	0101657
С	Suction cup B50-2 Silicone with filter, G3/8" male, with mesh filter	0101659
D	Suction cup B50-2 Silicone with filter, 5x1/8" NPSF female	0101661
Е	Suction cup B50-2 Nitrile-PVC with filter, 1/8" NPSF female, PA	0110957
Е	Suction cup B50-2 Silicone with filter, 1/8" NPSF female, PA	0110347





Rubber parts	Art. No.
Suction cup B50-2 Nitrile-PVC with filter	0101109
Suction cup B50-2 Silicone with filter	0101110



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

Spare Part	Material	Temperature range °C	Art. No.
Filter for B50-2	Polyethylene, PE	-40–80	3150243



B75



Suction cup with short bellows

- ➤ 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			Min.curve radius	Max. vertical movement	Weight rubber part
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa	cm ³	mm	mm	g
74	167	226	_	-	_	110	40	24	35

Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Nitrile-PVC, NPV	Black	50	0–90
Silicone, SIL	Red	50	-40–200
HNBR	Grey-blue	75	-30–140*

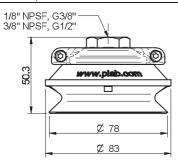
^{*} For a shorter period of time up to +160 °C

Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Nitrile-PVC, NPV	Excellent	Excellent	Good	Good	Excellent	Fair	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent
HNBR	Excellent	Excellent	Excellent	Good	Excellent	Fair	Good	Excellent

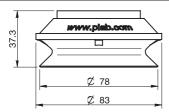


Ordering information

Complete suction cups	Art. No.
Suction cup B75 Nitrile-PVC, 1/8" NPSF female, with mesh filter	0101854
Suction cup B75 Nitrile-PVC, G3/8" female, with mesh filter	0101855
Suction cup B75 Nitrile-PVC, 3/8" NPSF female, with mesh filter	0101856
Suction cup B75 Nitrile-PVC, G1/2" female, with mesh filter	0101857
Suction cup B75 Silicone, 1/8" NPSF female, with mesh filter	0101850
Suction cup B75 Silicone, G3/8" female, with mesh filter	0101851
Suction cup B75 Silicone, 3/8" NPSF female, with mesh filter	0101852
Suction cup B75 Silicone, G1/2" female, with mesh filter	0101853
Suction cup B75 HNBR, 1/8" NPSF female, with mesh filter	0108174
Suction cup B75 HNBR, G3/8" female, with mesh filter	0108175
Suction cup B75 HNBR, 3/8" NPSF female, with mesh filter	0108176
Suction cup B75 HNBR, G1/2" female, with mesh filter	0108177



Rubber parts	Art. No.
Suction cup B75 Nitrile-PVC	3150107P
Suction cup B75 Silicone	3150107S
Suction cup B75 HNBR	3150107T



Fittings	Art. No.
Fitting 75, 1/8" NPSF female, with mesh filter	0100548
Fitting 75, G3/8" female, with mesh filter	0100551
Fitting 75, 3/8" NPSF female, with mesh filter	0100553
Fitting 75, G1/2" female, with mesh filter	0100555



B75-2



Suction cup with short bellows and filter

- ➤ 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			Min.curve radius	Max. vertical movement	Weight rubber part
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa	cm ³	mm	mm	g
74	167	226	_	_	_	110	40	24	35

Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Nitrile-PVC, NPV	Black	50	0–90*
Silicone, SIL	Red	50	-40-200*

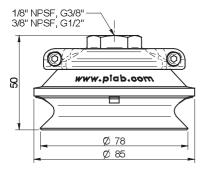
^{*} Filter disc max. 80 ℃

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

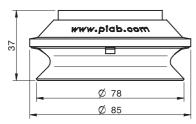


Ordering information

Complete suction cups	Art. No.
Suction cup B75-2 Nitrile-PVC with filter, 1/8" NPSF female, with mesh filter	0101862
Suction cup B75-2 Nitrile-PVC with filter, G3/8" female, with mesh filter	0101863
Suction cup B75-2 Nitrile-PVC with filter, 3/8" NPSF female, with mesh filter	0101864
Suction cup B75-2 Nitrile-PVC with filter, G1/2" female, with mesh filter	0101865
Suction cup B75-2 Silicone with filter, 1/8" NPSF female, with mesh filter	0101858
Suction cup B75-2 Silicone with filter, G3/8" female, with mesh filter	0101859
Suction cup B75-2 Silicone with filter, 3/8" NPSF female, with mesh filter	0101860
Suction cup B75-2 Silicone, G1/2" female, with mesh filter	0101861



Rubber parts	Art. No.
Suction cup B75-2 Nitrile-PVC with filter	0101942
Suction cup B75-2 Silicone with filter	0101943



Fittings	Art. No.
Fitting 75, 1/8" NPSF female, with mesh filter	0100548
Fitting 75, G3/8" female, with mesh filter	0100551
Fitting 75, 3/8" NPSF female, with mesh filter	0100553
Fitting 75, G1/2" female, with mesh filter	0100555

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



B110



Suction cup with short bellows

- ➤ 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			Min. curve radius	Max. vertical movement	Weight rubber part
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa	cm ³	mm	mm	g
137	343	461	_	_	_	310	60	35	120

Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Nitrile-PVC, NPV	Black	50	0–90
Silicone, SIL	Red	50	-40–200
HNBR	Grey-blue	75	-30–140*

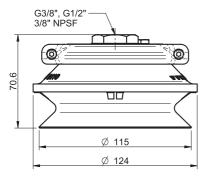
^{*} For a shorter period of time up to +160 °C

Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Nitrile-PVC, NPV	Excellent	Excellent	Good	Good	Excellent	Fair	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent
HNBR	Excellent	Excellent	Excellent	Good	Excellent	Fair	Good	Excellent

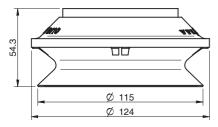


Ordering information

Complete suction cups	Art. No.
Suction cup B110 Nitrile-PVC, G3/8" female, with mesh filter	0101890
Suction cup B110 Nitrile-PVC, 3/8" NPSF female, with mesh filter	0101891
Suction cup B110 Nitrile-PVC, G1/2" female, with mesh filter	0101892
Suction cup B110 Silicone, G3/8" female, with mesh filter	0101884
Suction cup B110 Silicone, 3/8" NPSF female, with mesh filter	0101885
Suction cup B110 Silicone, G1/2" female, with mesh filter	0101886
Suction cup B110 HNBR, G3/8" female, with mesh filter	0108178
Suction cup B110 HNBR, G1/2" female, with mesh filter	0108180
Suction cup B110 HNBR, 3/8" NPSF female, with mesh filter	0108179



Rubber parts	Art. No.
Suction cup B110 Nitrile-PVC	3150108P
Suction cup B110 Silicone	3150108S
Suction cup B110 HNBR	3150108T



Fittings	Art. No.
Fitting 110 G3/8" female, with mesh filter	0100557
Fitting 110, G1/2" female, with mesh filter	0100561
Fitting 110, 3/8" NPSF female, with mesh filter	0100559



B110-2



Suction cup with short bellows and filter

- ➤ 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

	force vertica , N, at vacuu		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 ³	mm	mm	g
137	343	461	_	_	-	310	60	35	120

Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Nitrile-PVC, NPV	Black	50	0–90*
Silicone, SIL	Red	50	-40–200*

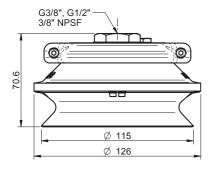
^{*} Filter disc max. 80 ℃

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

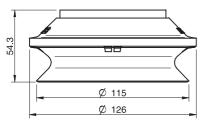


Ordering information

Complete suction cups	Art. No.
Suction cup B110-2 Nitrile-PVC with filter, G3/8" female, with mesh filter	0101902
Suction cup B110-2 Nitrile-PVC with filter, 3/8" NPSF female, with mesh filter	0101903
Suction cup B110-2 Nitrile-PVC with filter, G1/2" female, with mesh filter	0101904
Suction cup B110-2 Silicone with filter, G3/8" female, with mesh filter	0101896
Suction cup B110-2 Silicone with filter, 3/8" NPSF female, with mesh filter	0101897
Suction cup B110-2 Silicone with filter, G1/2" female, with mesh filter	0101898



Rubber parts	Art. No.
Suction cup B110-2 Nitrile-PVC with filter	0101944
Suction cup B110-2 Silicone with filter	0101945



Fittings	Art. No.
Fitting 110 G3/8" female, with mesh filter	0100557
Fitting 110, G1/2" female, with mesh filter	0100561
Fitting 110, 3/8" NPSF female, with mesh filter	0100559

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



B150



Suction cup with short bellows

- ➤ 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

	force vertica , N, at vacuu		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	cm³	mm	mm	g
294	686	883	_	_	_	650	75	45	265

Material specifications

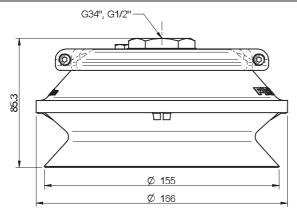
Material	Colour	Hardness °Shore A	Temperature range °C
Nitrile-PVC, NPV	Black	50	0–90
Silicone, SIL	Red	50	-40–200

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

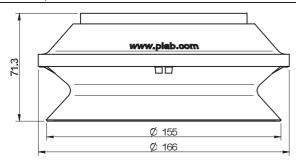


Ordering information

Complete suction cups	Art. No.
Suction cup B150 Nitrile-PVC, G1/2" female, with mesh filter	0101931
Suction cup B150 Nitrile-PVC, G3/4" female, with mesh filter	0101932
Suction cup B150 Silicone, G1/2" female, with mesh filter	0101928
Suction cup B150 Silicone, G3/4" female, with mesh filter	0101929



Rubber parts	Art. No.
Suction cup B150 Nitrile-PVC	3150109P
Suction cup B150 Silicone	3150109S



Fittings	Art. No.
Fitting 150, G1/2" female, with mesh filter	0100564
Fitting 150, G3/4" female, with mesh filter	0100567



B-BL40-2, detectable



Suction cup with long bellows

- Suitable for bakeries for use with handling seeded product.
- ▶ A low percentage metal additive is mixed with the rubber material to make it detectable.
- ► FDA-grade silicone material.
- ► Suitable for level adjustment.

Lifting forces & Technical data

	force vertica , N, at vacuu		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	cm³	mm	mm	g
1.1	2.2	_	_	_	_	27	11	33	10

Material specifications

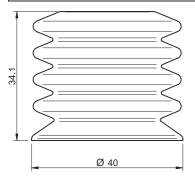
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL	Red	30	-40–200

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

Description	Art. No.
Suction cup B-BL40-2, detectable	0121630
Retainer clip B-BL40-2, detectable	0121660





D15-2



Deep suction cup

- ➤ Suitable for objects with curved or irregular surfaces.
- ► Grips around corners and edges.

Lifting forces & Technical data

	force vertica , N, at vacuu		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	mm	mm	g
2.9	7.8	11.0	_	_	_	0.9	6.0	3.0	1.2

Material specifications

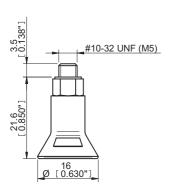
Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	50	-40–110
Silicone, SIL	Red	50	-40–200

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.
Suction cup D15-2 Chloroprene, M5 male	3150010
Suction cup D15-2 Silicone, M5 male	3150010S



Rubber parts	Art. No.
Suction cup D15-2 Chloroprene	3150135
Suction cup D15-2 Silicone	3150135S



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



D20-2



Deep suction cup

- 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			Min. curve radius	Max. vertical movement	Weight rubber part
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa	cm ³	mm	mm	g
5.9	15.0	18.0	_	_	_	2.5	8.0	4.5	2.2

Material specifications

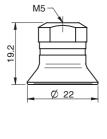
Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	50	-40–110
Silicone, SIL	Red	50	-40–200

Material resistance

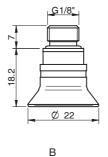
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Chloroprene, CR	Excellent	Fair	Good	Good	Fair	Poor	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

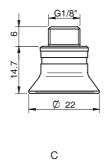
Ordering information

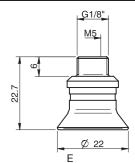
	Complete suction cups	Art. No.
Α	Suction cup D20-2 Chloroprene, M5 female	0101215
В	Suction cup D20-2 Chloroprene, G1/8" male, with mesh filter	0101216
С	Suction cup D20-2 Chloroprene, G1/8" male/M5 female, with mesh filter	0101220
Α	Suction cup D20-2 Silicone, M5 female	0101226
Α	Suction cup D20-2 Silicone, M5 female, with dual flow control valve	0101232
В	Suction cup D20-2 Silicone, G1/8" male, with mesh filter	0101227
С	Suction cup D20-2 Silicone, G1/8" male/M5 female, with mesh filter	0101231
Е	Suction cup D20-2 Silicone, G1/8" male/M5 female, PA	0110331



Α



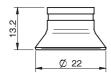




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Rubber parts	Art. No.
Suction cup D20-2 Chloroprene	0101123
Suction cup D20-2 Silicone	0101124



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



D30-2



Deep suction cup

- 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			Min. curve radius	Max. vertical movement	Weight rubber part
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa	cm ³	mm	mm	g
14.0	26	31	_	_	_	5.0	13	5.0	4.0

Material specifications

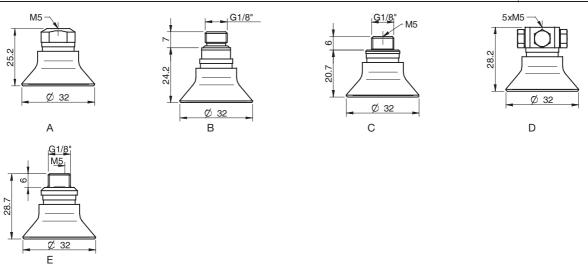
Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	50	-40–110
Silicone, SIL	Red	50	-40–200

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

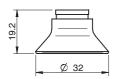


Ordering information

	Complete suction cups	Art. No.
Α	Suction cup D30-2 Chloroprene, M5 female	0101237
В	Suction cup D30-2 Chloroprene, G1/8" male, with mesh filter	0101238
В	Suction cup D30-2 Chloroprene, G1/8" male, with mesh filter and dual flow control valve	0101244
С	Suction cup D30-2 Chloroprene, G1/8" male/M5 female, with mesh filter	0101242
С	Suction cup D30-2 Chloroprene, G1/8" male/M5 female, with dual flow control valve	0101246
Α	Suction cup D30-2 Silicone, M5 female	0101248
В	Suction cup D30-2 Silicone, G1/8" male, with mesh filter	0101249
С	Suction cup D30-2 Silicone, G1/8" male/M5 female, with mesh filter	0101253
D	Suction cup D30-2 Silicone, 5xM5 female	0101252
Е	Suction cup D30-2 Silicone, G1/8" male/M5 female, PA	0110332



Rubber parts	Art. No.
Suction cup D30-2 Chloroprene	0101125
Suction cup D30-2 Silicone	0101126



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



D50



Deep suction cup

- 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 ³	mm	mm	g
36	78	98	_	_	_	15	25	10	18

Material specifications

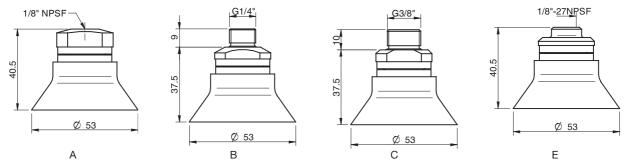
Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	50	-40–110
Silicone, SIL	Red	50	-40–200

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

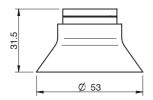


Ordering information

	Complete suction cups	Art. No.
Α	Suction cup D50 Chloroprene, 1/8" NPSF female, with mesh filter	0101727
В	Suction cup D50 Chloroprene, G1/4" male, with mesh filter	0101722
С	Suction cup D50 Chloroprene, G3/8" male, with mesh filter	0101724
Α	Suction cup D50 Silicone, 1/8" NPSF female, with mesh filter	0101740
В	Suction cup D50 Silicone, G1/4" male, with mesh filter	0101735
С	Suction cup D50 Silicone, G3/8" male, with mesh filter	0101737
Е	Suction cup D50 Chloroprene, 1/8" NPSF female, PA	0109841



Rubber parts	Art. No.
Suction cup D50 Chloroprene	0101127
Suction cup D50 Silicone	0101128



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



F15



Flat suction cup with cleats

- 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

	force vertica , N, at vacuu		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	mm	mm	g
3.5	8.5	11.0	3.5	6.5	7.5	0.37	13	1.0	0.9

Material specifications

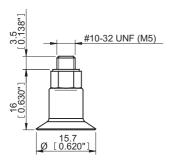
Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	50	-40–110
Silicone, SIL	Red	50	-40–200

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.
Suction cup F15 Chloroprene, M5 male	3150014
Suction cup F15 Silicone, M5 male	3150014S



Rubber parts	Art. No.
Suction cup F15 Chloroprene	3150125
Suction cup F15 Silicone	3150125S



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



F20



Flat suction cup with cleats

- ► 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			Min. curve radius	Max. vertical movement	Weight rubber part
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa	cm ³	mm	mm	g
6.0	14.5	19.0	5.0	8.0	8.5	1.0	18	1.5	1.2

Material specifications

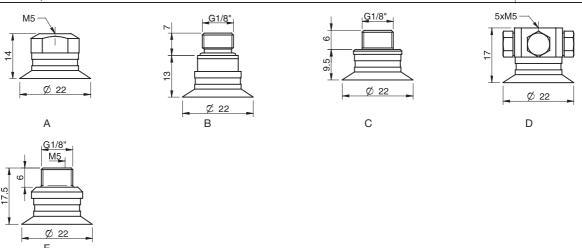
Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	50	-40–110
Silicone, SIL	Red	50	-40–200

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

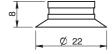


Ordering information

	Complete suction cups	Art. No.
Α	Suction cup F20 Chloroprene, M5 female	0101259
Α	Suction cup F20 Chloroprene, M5 female, with dual flow control valve	0101265
В	Suction cup F20 Chloroprene, G1/8" male, with mesh filter	0101260
В	Suction cup F20 Chloroprene, G1/8" male, with mesh filter and dual flow control valve	0101266
С	Suction cup F20 Chloroprene, G1/8" male/M5 female, with mesh filter	0101264
С	Suction cup F20 Chloroprene, G1/8" male/M5 female, with dual flow control valve	0101268
D	Suction cup F20 Chloroprene, 5xM5 female	0101263
Α	Suction cup F20 Silicone, M5 female	0101270
В	Suction cup F20 Silicone, G1/8" male, with mesh filter	0101271
В	Suction cup F20 Silicone, G1/8" male, with mesh filter and dual flow control valve	0101277
С	Suction cup F20 Silicone, G1/8" male/M5 female, with mesh filter	0101275
D	Suction cup F20 Silicone, 5xM5 female	0101274
Е	Suction cup F20 Chloroprene, G1/8" male/M5 female, PA	0110950
Ε	Suction cup F20 Silicone, G1/8" male/M5 female, PA	0110334



Rubber parts	Art. No.
Suction cup F20 Chloroprene	0101129
Suction cup F20 Silicone	0101130



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



F25



Flat suction cup with cleats

- ► 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

	force vertica , N, at vacuu		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 ³	mm	mm	g
9.0	19.5	25	8.0	9.0	10.0	1.1	22	1.5	1.8

Material specifications

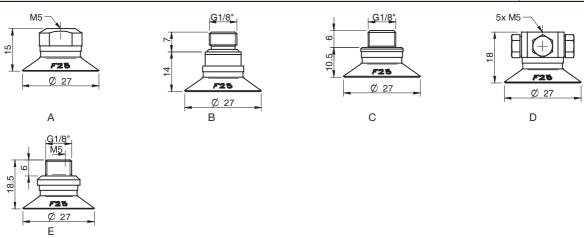
Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	50	-40–110
Silicone, SIL	Red	50	-40–200

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

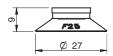


Ordering information

	Complete suction cups	Art. No.
Α	Suction cup F25 Chloroprene, M5 female	0101292
В	Suction cup F25 Chloroprene, G1/8" male, with mesh filter	0101293
В	Suction cup F25 Chloroprene, G1/8" male, with mesh filter and dual flow control valve	0101299
С	Suction cup F25 Chloroprene, G1/8" male/M5 female, with mesh filter	0101297
С	Suction cup F25 Chloroprene, G1/8" male/M5 female, with dual flow control valve	0101301
D	Suction cup F25 Chloroprene, 5xM5 female	0101296
Α	Suction cup F25 Silicone, M5 female	0101303
В	Suction cup F25 Silicone, G1/8" male, with mesh filter	0101304
С	Suction cup F25 Silicone, G1/8" male/M5 female, with mesh filter	0101308
С	Suction cup F25 Silicone, G1/8" male/M5 female, with dual flow control valve	0101312
D	Suction cup F25 Silicone, 5xM5 female	0101307
Е	Suction cup F25 Chloroprene, G1/8" male/M5 female, PA	0109842
Е	Suction cup F25 Silicone, G1/8" male/M5 female, PA	0110335



Rubber parts	Art. No.
Suction cup F25 Chloroprene	0101131
Suction cup F25 Silicone	0101132



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



F30-2



Flat suction cup with cleats

- ► 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

	force vertica , N, at vacuu		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 ³	mm	mm	g
12.0	25	31	11.0	16.0	20.0	2.0	25	2.0	2.2

Material specifications

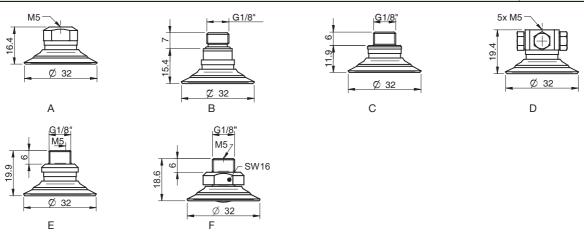
Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	50	-40–110
Silicone, SIL	Red	50	-40–200

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

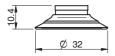


Ordering information

	Complete suction cups	Art. No.
Α	Suction cup F30-2 Chloroprene, M5 female	0101325
Α	Suction cup F30-2 Chloroprene, M5 female, with dual flow control valve	0101331
В	Suction cup F30-2 Chloroprene, G1/8" male, with mesh filter	0101326
В	Suction cup F30-2 Chloroprene, G1/8" male, with mesh filter and dual flow control valve	0101332
С	Suction cup F30-2 Chloroprene, G1/8" male/M5 female, with mesh filter	0101330
С	Suction cup F30-2 Chloroprene, G1/8" male/M5 female, with dual flow control valve	0101334
Е	Suction cup F30-2 Chloroprene, G1/8" male/M5 female PA	0109846
F	Suction cup F30-2 Chloroprene, G1/8" male/M5 female, with cone valve	3250039
D	Suction cup F30-2 Chloroprene, 5xM5 female	0101329
Α	Suction cup F30-2 Silicone, M5 female	0101341
В	Suction cup F30-2 Silicone, G1/8" male, with mesh filter	0101342
В	Suction cup F30-2 Silicone, G1/8" male, with mesh filter and dual flow control valve	0101348
С	Suction cup F30-2 Silicone, G1/8" male/M5 female, with mesh filter	0101346
С	Suction cup F30-2 Silicone, G1/8" male/M5 female, with dual flow control valve	0101350
D	Suction cup F30-2 Silicone, 5xM5 female	0101345
Е	Suction cup F30-2 Silicone, G1/8" male/M5 female PA	0110344
F	Suction cup F30-2 Silicone, G1/8" male/M5 female, with cone valve	3250039S



Rubber parts	Art. No.
Suction cup F30-2 Chloroprene	0101133
Suction cup F30-2 Chloroprene, for fitting with cone valve	3150239
Suction cup F30-2 Silicone	0101134



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 G1/8" male/M5 female, with cone valve	0101155
Fitting 5xM5 female	0100260
Fitting 5xM5 female, with dual flow control valve	3251005
Fitting G1/8" male/M5 female, PA	3150196

Spare Part	Material	Temperature range °C	Art. No.
Cone valve for F30-2	AI/SS/NBR	-40–110	3150055



F40-2



Flat suction cup with cleats

- ► 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

L		ing force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Min. curve radius	Max. vertical movement	Weight rubber part
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa	cm ³	mm	mm	g
	20.0	40	50	15.0	25	30	4.8	52	2.5	5.5

Material specifications

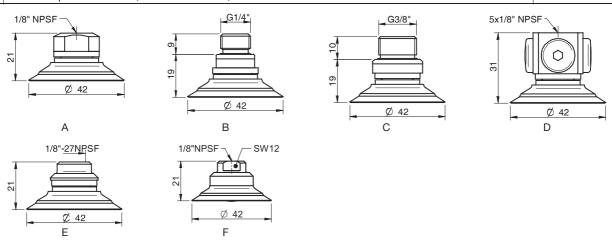
Material	Colour	Hardness °Shore A	Temperature range °C
Nitrile-PVC, NPV	Black	50	0–90
Silicone, SIL	Red	50	-40–200

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

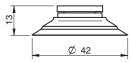


Ordering information

	Complete suction cups	Art. No.
Α	Suction cup F40-2 Nitrile-PVC, 1/8" NPSF female, with mesh filter	0101572
Α	Suction cup F40-2 Nitrile-PVC, 1/8" NPSF female, with dual flow control valve	0101573
В	Suction cup F40-2 Nitrile-PVC, G1/4" male, with mesh filter	0101567
В	Suction cup F40-2 Nitrile-PVC, G1/4" male, with mesh filter and dual flow control valve	0101574
С	Suction cup F40-2 Nitrile-PVC, G3/8" male, with mesh filter	0101569
С	Suction cup F40-2 Nitrile-PVC, G3/8" male, with mesh filter and dual flow control valve	0101576
D	Suction cup F40-2 Nitrile-PVC, 5x1/8" NPSF female	0101571
Ε	Suction cup F40-2 Nitrile-PVC, 1/8" NPSF female PA	0109847
F	Suction cup F40-2 Nitrile-PVC, 1/8" NPSF female, with cone valve	3150050P
Α	Suction cup F40-2 Silicone, 1/8" NPSF female, with mesh filter	0101553
Α	Suction cup F40-2 Silicone, 1/8" NPSF female, with dual flow control valve	0101554
В	Suction cup F40-2 Silicone, G1/4" male, with mesh filter	0101548
С	Suction cup F40-2 Silicone, G3/8" male, with mesh filter	0101550
D	Suction cup F40-2 Silicone, 5x1/8" NPSF female	0101552
Е	Suction cup F40-2 Silicone, 1/8" NPSF female PA	0110345
F	Suction cup F40-2 Silicone, 1/8" NPSF female, with cone valve	3150050S



Rubber parts	Art. No.
Suction cup F40-2 Nitrile-PVC	0101135
Suction cup F40-2 Nitrile-PVC, for fitting with cone valve	3150240P
Suction cup F40-2 Silicone	0101136
Suction cup F40-2 Silicone, for fitting with cone valve	3150240S



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 1/8" NPSF female, 30–40, with cone valve	0101156
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

Spare Part	Material	Temperature range °C	Art. No.
Cone valve for F40-2	AI/SS/NBR	-40–110	3150056



F50-2



Flat suction cup with cleats

- 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

	force vertica , N, at vacuu		Lifting force parallel to the surface, N, at vacuum level				Min. curve radius	Max. vertical movement	Weight rubber part
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa	cm ³	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
Nitrile-PVC, NPV	Black	50	0–90
Silicone, SIL	Red	50	-40–200
HNBR	Grey-blue	75	-30–140*

^{*} For a shorter period of time up to +160 °C

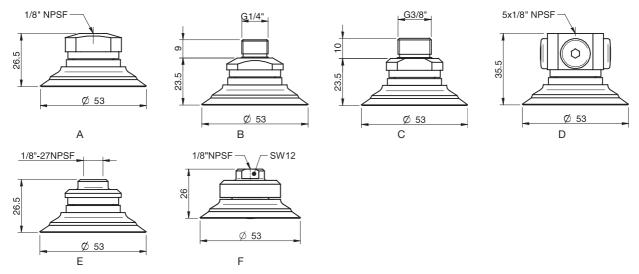
Material resistance

Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Nitrile-PVC, NPV	Excellent	Excellent	Good	Good	Excellent	Fair	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent
HNBR	Excellent	Excellent	Excellent	Good	Excellent	Fair	Good	Excellent

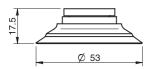
Ordering information

	Complete suction cups	Art. No.
Α	Suction cup F50-2 Nitrile-PVC, 1/8" NPSF female, with mesh filter	0101772
Α	Suction cup F50-2 Nitrile-PVC, 1/8" NPSF female, with dual flow control valve	0101773
В	Suction cup F50-2 Nitrile-PVC, G1/4" male, with mesh filter	0101767
В	Suction cup F50-2 Nitrile-PVC, G1/4" male, with mesh filter and dual flow control valve	0101774
С	Suction cup F50-2 Nitrile-PVC, G3/8" male, with mesh filter	0101769
С	Suction cup F50-2 Nitrile-PVC, G3/8" male, with mesh filter and dual flow control valve	0101776
D	Suction cup F50-2 Nitrile-PVC, 5x1/8" NPSF female	0101771
D	Suction cup F50-2 Nitrile-PVC, 5x1/8" NPSF female, with dual flow control valve	0101778
Е	Suction cup F50-2 Nitrile-PVC, 1/8" NPSF female, PA	0110952
F	Suction cup F50-2 Nitrile-PVC, 1/8" NPSF female, with cone valve	3150051P
Α	Suction cup F50-2 Silicone, 1/8" NPSF female, with mesh filter	0101753
Α	Suction cup F50-2 Silicone, 1/8" NPSF female, with dual flow control valve	0101754
В	Suction cup F50-2 Silicone, G1/4" male, with mesh filter	0101748
С	Suction cup F50-2 Silicone, G3/8" male, with mesh filter	0101750
D	Suction cup F50-2 Silicone, 5x1/8" NPSF female	0101752
Е	Suction cup F50-2 Silicone, 1/8" NPSF female, PA	0110346
F	Suction cup F50-2 Silicone, 1/8" NPSF female, with cone valve	3150051S
Α	Suction cup F50-2 HNBR, 1/8" NPSF female	0108181
В	Suction cup F50-2 HNBR, G1/4" male, with mesh filter	0108182
С	Suction cup F50-2 HNBR, G3/8" male, with mesh filter	0108183





Rubber parts	Art. No.
Suction cup F50-2 Nitrile-PVC	0101137
Suction cup F50-2 Nitrile-PVC, for fitting with cone valve	3150241P
Suction cup F50-2 Silicone	0101138
Suction cup F50-2 Silicone, for fitting with cone valve	3150241S
Suction cup F50-2 HNBR	0108166



Fittings	Art. No
Fitting 1/8" NPSF female, 50	3250017
Fitting 1/8" NPSF female, 50, with mesh filter	0101154
Fitting 1/8" NPSF female, 50, with dual flow control valve	3251012
Fitting 1/8" NPSF female, 50, with cone valve	0101157
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.
Cone valve for F50-2	AI/SS/NBR	-40–110	3150057



F75



Flat suction cup with cleats

- ► 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			Min. curve radius	Max. vertical movement	Weight rubber part
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa	cm³	mm	mm	g
80	200	270	60	110	140	20	150	3.0	23

Material specifications

Material	Colour Hardness °Shore A		Temperature range °C		
Nitrile-PVC, NPV	Black	50	0–90		
Silicone, SIL	Red	50	-40–200		
HNBR	Grey-blue	75	-30–140*		

^{*} For a shorter period of time up to +160 °C

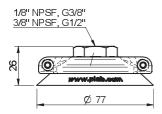
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Nitrile-PVC, NPV	Excellent	Excellent	Good	Good	Excellent	Fair	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent
HNBR	Excellent	Excellent	Excellent	Good	Excellent	Fair	Good	Excellent



Ordering information

Complete suction cups	Art. No.
Suction cup F75 Nitrile-PVC, 1/8" NPSF female, with mesh filter	0101873
Suction cup F75 Nitrile-PVC, G3/8" female, with mesh filter	0101874
Suction cup F75 Nitrile-PVC, G3/8" female, with cone valve	0101877
Suction cup F75 Nitrile-PVC, 3/8" NPSF female, with mesh filter	0101875
Suction cup F75 Nitrile-PVC, G1/2" female, with mesh filter	0101876
Suction cup F75 Nitrile-PVC, G1/2" female, with cone valve	0101879
Suction cup F75 Silicone, 1/8" NPSF female, with mesh filter	0101866
Suction cup F75 Silicone, G3/8" female, with mesh filter	0101867
Suction cup F75 Silicone, G3/8" female, with cone valve	0101870
Suction cup F75 Silicone, 3/8" NPSF female, with mesh filter	0101868
Suction cup F75 Silicone, G1/2" female, with mesh filter	0101869
Suction cup F75 Silicone, G1/2" female, with cone valve	0101872
Suction cup F75 HNBR, 1/8" NPSF female, with mesh filter	0108184
Suction cup F75 HNBR, G3/8" female, with mesh filter	0108185
Suction cup F75 HNBR, 3/8" NPSF female, with mesh filter	0108186
Suction cup F75 HNBR, G1/2" female, with mesh filter	0108187

When using F75 G1/2" female with cone valve (0101879 and 0101872) with Level compensator G1/2" (3350071 and 0114291) or Ball joint G1/2" (3350066), a Connector G1/2" (3107757) must be used.



Rubber parts	Art. No.
Suction cup F75 Nitrile-PVC	3150131P
Suction cup F75 Silicone	3150131S
Suction cup F75 HNBR	3150131T



Fittings	Art. No.
Fitting 75, 1/8" NPSF female, with mesh filter	0100548
Fitting 75, G3/8" female, with mesh filter	0100551
Fitting 75, G3/8" female, with cone valve	0100552
Fitting 75, 3/8" NPSF female, with mesh filter	0100553
Fitting 75, G1/2" female, with mesh filter	0100555
Fitting 75, G1/2" female, with cone valve	0100556



F110



Flat suction cup with cleats

- ► 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			Min. curve radius	Max. vertical movement	Weight rubber part
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa	cm ³	mm	mm	g
ı	140	420	560	140	250	300	70	250	4.0	66

Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Nitrile-PVC, NPV	Black	50	0–90
Silicone, SIL	Red	50	-40–200
HNBR	Grey-blue	75	-30–140*

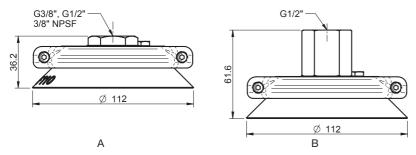
^{*} For a shorter period of time up to +160 °C

Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Nitrile-PVC, NPV	Excellent	Excellent	Good	Good	Excellent	Fair	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent
HNBR	Excellent	Excellent	Excellent	Good	Excellent	Fair	Good	Excellent

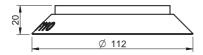


Ordering information

	Complete suction cups	Art. No.
Α	Suction cup F110 Nitrile-PVC, G3/8" female, with mesh filter	0101915
Α	Suction cup F110 Nitrile-PVC, 3/8" NPSF female, with mesh filter	0101916
Α	Suction cup F110 Nitrile-PVC, G1/2" female, with mesh filter	0101917
В	Suction cup F110 Nitrile-PVC, G1/2" female, with cone valve	0101921
Α	Suction cup F110 Silicone, G3/8" female, with mesh filter	0101908
Α	Suction cup F110 Silicone, 3/8" NPSF female, with mesh filter	0101909
Α	Suction cup F110 Silicone, G1/2" female, with mesh filter	0101910
В	Suction cup F110 Silicone, G1/2" female, with cone valve	0101914
Α	Suction cup F110 HNBR, G3/8" female, with mesh filter	0108188
Α	Suction cup F110 HNBR, 3/8" NPSF female, with mesh filter	0108189
Α	Suction cup F110 HNBR, G1/2" female, with mesh filter	0108190



Rubber part	Art. No.
Suction cup F110 Nitrile-PVC	3150132P
Suction cup F110 Silicone	3150132S
Suction cup F110 HNBR	3150132T



Fittings	Art. No.
Fitting 110 G3/8" female, with mesh filter	0100557
Fitting 110, G1/2" female, with mesh filter	0100561
Fitting 110, 3/8" NPSF female, with mesh filter	0100559
Fitting 110, G1/2" female, with cone valve	0100563

Spare part	Material	Temperature range °C	Art. No.
Cone valve for Fitting 110 & 150	AI/SS/NBR	-40–110	3350034



F150



Flat suction cup with cleats

- ► 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 ³	mm	mm	g
300	850	1100	250	600	800	160	500	6.0	200

Material specifications

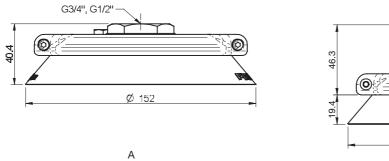
Material	Material Colour		Temperature range °C
Nitrile-PVC, NPV	Black	50	0–90
Silicone, SIL	Red	50	-40–200

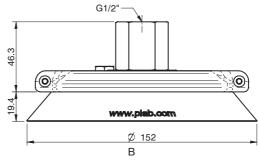
Material	Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Nitrile-PVC, NPV	Excellent	Excellent	Good	Good	Excellent	Fair	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent



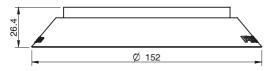
Ordering information

	Complete suction cups	Art. No.
Α	Suction cup F150 Nitrile-PVC, G3/4" female, with mesh filter	0101939
Α	Suction cup F150 Nitrile-PVC, G1/2" female, with mesh filter	0101938
В	Suction cup F150 Nitrile-PVC, G1/2" female, with cone valve	0101941
Α	Suction cup F150 Silicone, G3/4" female, with mesh filter	0101935
Α	Suction cup F150 Silicone, G1/2" female, with mesh filter	0101934
В	Suction cup F150 Silicone, G1/2" female, with cone valve	0101937





Rubber parts	Art. No.
Suction cup F150 Nitrile-PVC	3150133P
Suction cup F150 Silicone	3150133S



Fittings	Art. No.
Fitting 150, G1/2" female, with mesh filter	0100564
Fitting 150, G3/4" female, with mesh filter	0100567
Fitting 150, G1/2" female, with cone valve	0100566

Spare part	Material	Temperature range °C	Art. No.
Cone valve for Fitting 110 & 150	AI/SS/NBR	-40–110	3350034



XLF



- ➤ Suitable for handling large and heavy sheets, such as glass and metal, with a flat or slightly concave surface.
- ► Friction pattern increases safety and capabillity to handle tilted or standing glass/metal sheets.
- ▶ Double lip design increases safety against overload or tear on the outer lip.
- Durable and abrasive resistant material reduces the risk for marks.
- ► Flat mounting plate facilitates customized mounting interfaces.
- ► Auxiliary port, suitable for vacuum sensing or efficient blow-off/release.

Lifting forces & technical data

Model	Lifting force* vertical to the surface, N, at vacuum level				Volume	Min. curve radius	Max. vertical movement	Weight		
	40 -kPa	60 -kPa	90 -kPa	40 - kPa	60 - kPa	90 - kPa	cm³	mm	mm	g
XLF150	330/520	500/770	780/1130	281	425	663	145	500	8	362
XLF200	760/1030	1130/1510	1720/2200	646	961	1462	275	800	8	792
XLF250	1310/1640	1950/2460	2870/3540	1114	1658	2440	435	1300	8	1280
XLF300	2150/2620	3200/3760	4630/5450	1828	2720	3936	666	1900	8	2035

^{*}Inner/Outer lip

Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Nitrile-PVC, NPV	Black	60	0-90

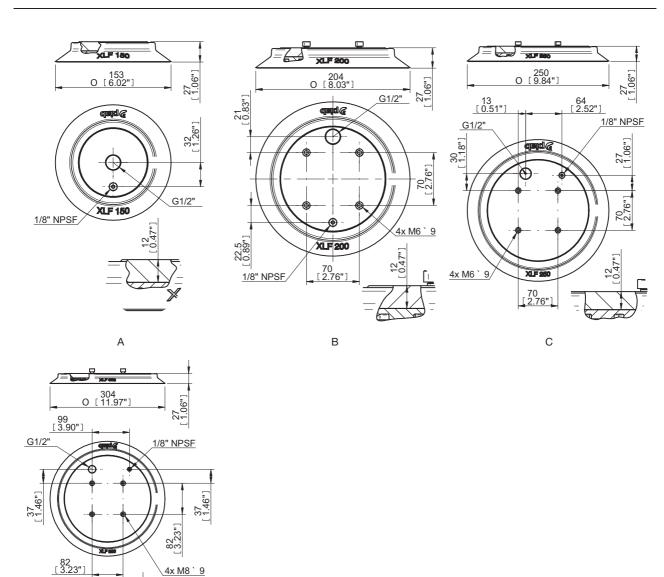
Material resistance

Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Nitrile-PVC, NPV	Excellent	Excellent	Good	Good	Excellent	Fair	Good	Good

Ordering information

	Complete suction cups	Art. No.
Α	XLF150 Extra Large Flat cup, G1/2" female	0127131
В	XLF200 Extra Large Flat cup, G1/2" female	0127132
С	XLF250 Extra Large Flat cup, G1/2" female	0127133
D	XLF300 Extra Large Flat cup, G1/2" female	0127134





D



OC60x140



Oval, concave suction cup

- Suitable for handling oblong objects with flat or curved surface.
- ▶ Good stability and little inherent movement.
- ► Thick, durable lip.

Lifting forces & Technical data

	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Min. curve radius	Max. vertical movement	Weight with fitting
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa	cm ³	mm	mm	g
132	373	520	186	373	510	52	200	7.5	160

Material specifications

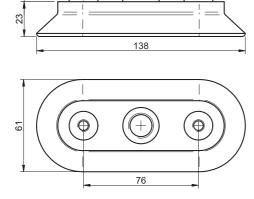
Material	Colour	Hardness °Shore A	Temperature range °C
Nitrile, NBR	Black	50	-20–100

Material resistance

Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Excellent	Excellent	Fair	Good	Good	Fair	Good	Good

Ordering information

Complete suction cups	Art. No.
Suction cup OC60x140 Nitrile, G3/8" female	3350011



2x 5/16UNC x 9.5





Universal suction cup

- Suitable for objects with flat or slightly curved surfaces.
- Also used for concave objects.
- Suction cups of conductive silicone are suitable for objects with sensitivity to static electricity.

Lifting forces & Technical data

	force vertica , N, at vacuu		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 ³	mm	mm	g
0.03	0.10	0.15	_	_	_	0.003	4.0	0.10	0.012

Material specifications

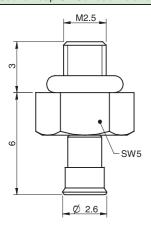
Material	Colour	Hardness °Shore A	Temperature range °C
Conductive silicone, CSIL	Black	50	-55–230

Material resistance

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

Ordering information

Complete suction cups	Art. No.
Suction cup U2 Conductive silicone, M2.5 male	3250080SC



Rubber parts	Art. No.
Suction cup U2 Conductive silicone	3150284SC



Fittings	Art. No.
Fitting M2.5 male	3250084





Universal suction cup

- Suitable for objects with flat or slightly curved surfaces.
- Also used for concave objects.
- Suction cups of conductive silicone are suitable for objects with sensitivity to static electricity.

Lifting forces & Technical data

	force vertica , N, at vacuu		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 ³	mm	mm	g
0.09	0.42	0.65	_	_	_	0.005	5.0	0.15	0.030

Material specifications

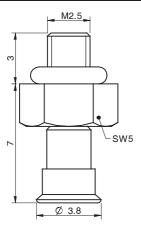
Material	Colour	Hardness °Shore A	Temperature range °C
Conductive silicone, CSIL	Black	50	-55–230

Material resistance

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

Ordering information

Complete suction cups	Art. No.
Suction cup U3 Conductive silicone, M2.5 male	3250081SC



Rubber parts	Art. No.
Suction cup U3 Conductive silicone	3150285SC



Fittings	Art. No.
Fitting M2.5 male	3250084





Universal suction cup

- ➤ Suitable for objects with flat or slightly curved surfaces.
- ► Also used for concave objects.

Lifting forces & Technical data

	force vertica , N, at vacuu		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	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

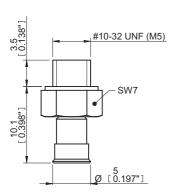
Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	50	-40–110
Silicone, SIL	Red	50	-40–200

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.
Suction cup U4 Chloroprene, M5 male	3150059
Suction cup U4 Silicone, M5 male	3150059S



Rubber parts	Art. No.
Suction cup U4 Chloroprene	3150114
Suction cup U4 Silicone	3150114S



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





Universal suction cup

- Suitable for objects with flat or slightly curved surfaces.
- Also used for concave objects.

Lifting forces & Technical data

	force vertica , N, at vacuu		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	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

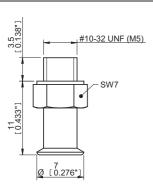
Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	50	-40–110
Silicone, SIL	Red	50	-40–200

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.
Suction cup U6 Chloroprene, M5 male	3150003
Suction cup U6 Silicone, M5 male	3150003S



Rubber parts	Art. No.
Suction cup U6 Chloroprene	3150115
Suction cup U6 Silicone	3150115S



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





Universal suction cup

- Suitable for objects with flat or slightly curved surfaces.
- ► Also used for concave objects.

Lifting forces & Technical data

		force vertica , N, at vacuu		Lifting force parallel to the surface, N, at vacuum level			Volume	Min. curve radius	Max. vertical movement	Weight rubber part
2	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa	cm	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

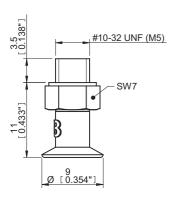
Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	50	-40–110
Silicone, SIL	Red	50	-40–200

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.
Suction cup U8 Chloroprene, M5 male	3150004
Suction cup U8 Silicone, M5 male	3150004S



Rubber parts	Art. No.
Suction cup U8 Chloroprene	3150116
Suction cup U8 Silicone	3150116S



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



U10



Universal suction cup

- 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			Min. curve radius	Max. vertical movement	Weight rubber part
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa	cm	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

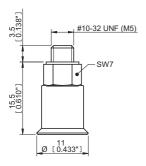
Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	50	-40–110
Silicone, SIL	Red	50	-40–200

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.
Suction cup U10 Chloroprene, M5 male	3150005
Suction cup U10 Silicone, M5 male	3150005S



Rubber parts	Art. No.
Suction cup U10 Chloroprene	3150117
Suction cup U10 Silicone	3150117S



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



U15



Universal suction cup

- 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			Min. curve radius	Max. vertical movement	Weight rubber part
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa	cm	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

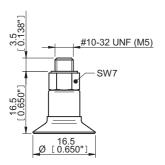
Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	50	-40–110
Silicone, SIL	Red	50	-40–200

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.
Suction cup U15 Chloroprene, M5 male	3150006
Suction cup U15 Silicone, M5 male	3150006S



Rubber parts	Art. No.
Suction cup U15 Chloroprene	3150118
Suction cup U15 Silicone	3150118S



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



U15-3



Universal suction cup with reinforced lip

- ► Wide temperature range (-60°C to +200°C)
- ► The silicone material complies with FDA 21 CFR 177.2600
- ▶ Reinforced lip

Lifting forces & Technical data

	Lifting force vertical to the surface, N, at vacuum level surface, N, at vacuum level level			Volume	Min. curve radius	Max. vertical movement	Weight rubber part		
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa	cm	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

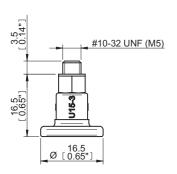
Material	Colour	Hardness °Shore A	Temperature range °C
Silicone, SIL	Red	40	-40–200

Material resistance

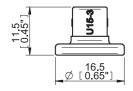
Material	Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

Ordering information

Complete suction cup	Art. No.
Suction cup U15-3 Silicone, M5 male	0117947



Rubber part	Art. No.
Suction cup U15-3 Silicone	0114981



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



U20



Universal suction cup

- 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						Min. curve radius	Max. vertical movement	Weight rubber part
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa	cm ³	mm	mm	g
ſ	5.9	12.0	16.0	5.9	8.8	9.8	1.0	13.0	2.5	1.2

Material specifications

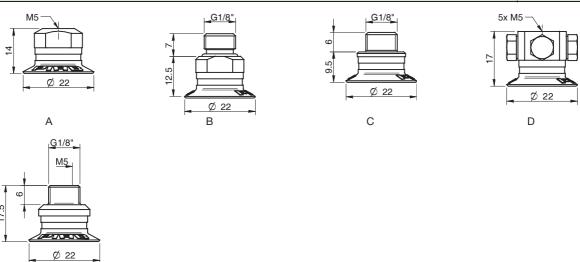
Material	Colour	Hardness °Shore A	Temperature range °C
Chloroprene, CR	Black	50	-40–110
Silicone, SIL	Red	50	-40–200

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

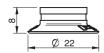


Ordering information

	Complete suction cups	Art. No.
Α	Suction cup U20 Chloroprene, M5 female	0101373
Α	Suction cup U20 Chloroprene, M5 female, with dual flow control valve	0101379
В	Suction cup U20 Chloroprene, G1/8" male, with mesh filter	0101374
В	Suction cup U20 Chloroprene, G1/8" male, with mesh filter and dual flow control valve	0101380
С	Suction cup U20 Chloroprene, G1/8" male/M5 female, with mesh filter	0101378
С	Suction cup U20 Chloroprene, G1/8" male/M5 female, with dual flow control valve	0101382
D	Suction cup U20 Chloroprene, 5xM5 female	0101377
Α	Suction cup U20 Silicone, M5 female, with dual flow control valve	0101390
В	Suction cup U20 Silicone, G1/8" male, with mesh filter	0101385
В	Suction cup U20 Silicone, G1/8" male, with mesh filter and dual flow control valve	0101391
С	Suction cup U20 Silicone, G1/8" male/M5 female, with mesh filter	0101389
D	Suction cup U20 Silicone, 5xM5 female	0101388
D	Suction cup U20 Silicone, 5xM5 female, with dual flow control valve	0101394
Е	Suction cup U20 Chloroprene, G1/8" male/M5 female, PA	0110956
Е	Suction cup U20 Silicone, G1/8" male/M5 female, PA	0110328



Rubber parts	Art. No.
Suction cup U20 Chloroprene	0101144
Suction cup U20 Silicone	0101145



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



U30



Universal suction cup

- 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 ³	mm	mm	g
12.0	25.0	30	7.8	9.8	11.0	2.0	20.0	3.5	1.8

Material specifications

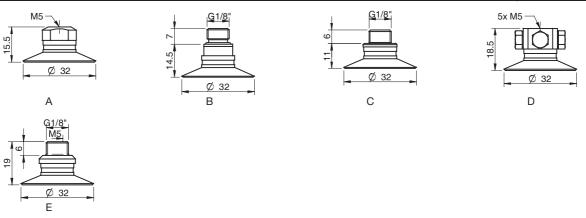
Material	Colour	Hardness °Shore A	Temperature range °C
Nitrile-PVC, NPV	Black	50	0–90
Silicone, SIL	Red	50	-40–200

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

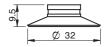


Ordering information

	Complete suction cups	Art. No.
Α	Suction cup U30 Nitrile-PVC, M5 female	0101406
В	Suction cup U30 Nitrile-PVC, G1/8" male, with mesh filter	0101407
В	Suction cup U30 Nitrile-PVC, G1/8" male, with mesh filter and dual flow control valve	0101413
С	Suction cup U30 Nitrile-PVC, G1/8" male / M5 female, with mesh filter	0101411
С	Suction cup U30 Nitrile-PVC, G1/8" male / M5 female, with dual flow control valve	0101415
Α	Suction cup U30 Silicone, M5 female, with mesh filter	0101395
В	Suction cup U30 Silicone, G1/8" male, with mesh filter	0101396
В	Suction cup U30 Silicone, G1/8" male, with mesh filter and dual flow control valve	0101402
С	Suction cup U30 Silicone, G1/8" male / M5 female, with mesh filter	0101400
D	Suction cup U30 Silicone, 5xM5 female, with mesh filter	0101399
Е	Suction cup U30 Nitrile-PVC, G1/8" male / M5 female, PA	0109839



Rubber parts	Art. No.
Suction cup U30 Nitrile-PVC	0101146
Suction cup U30 Silicone	0101147



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



U40-2



Universal suction cup

- 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 ³	mm	mm	g
20.0	39	49	14.0	22.0	27	5.5	30	4.5	4.0

Material specifications

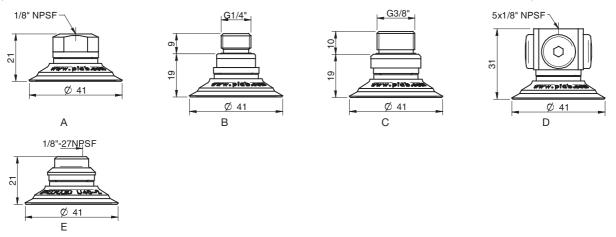
Material	Colour	Hardness °Shore A	Temperature range °C
Nitrile-PVC, NPV	Black	50	0–90
Silicone, SIL	Red	50	-40–200

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

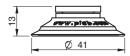


Ordering information

	Complete suction cups	Art. No.
Α	Suction cup U40-2 Nitrile-PVC, 1/8" NPSF female, with mesh filter	0101623
В	Suction cup U40-2 Nitrile-PVC, G1/4" male, with mesh filter	0101618
В	Suction cup U40-2 Nitrile-PVC, G1/4" male, with mesh filter and dual flow control valve	0101625
С	Suction cup U40-2 Nitrile-PVC, G3/8" male, with dual flow control valve	0101627
Α	Suction cup U40-2 Silicone, 1/8" NPSF female, with mesh filter	0101610
В	Suction cup U40-2 Silicone, G1/4" male, with mesh filter	0101605
С	Suction cup U40-2 Silicone, G3/8" male, with mesh filter	0101607
D	Suction cup U40-2 Silicone, 5x1/8" NPSF female	0101609
Е	Suction cup U40-2 Silicone, 1/8" NPSF female, PA	0110338



Rubber parts	Art. No.
Suction cup U40-2 Nitrile-PVC	0101148
Suction cup U40-2 Silicone	0101149



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



U50-2



Universal suction cup

- 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 ³	mm	mm	g
ı	35	73	92	20	37	44	12	35	6.0	10.0

Material specifications

Material	Colour	Hardness °Shore A	Temperature range °C
Nitrile-PVC, NPV	Black	50	0–90
Silicone, SIL	Red	50	-40–200

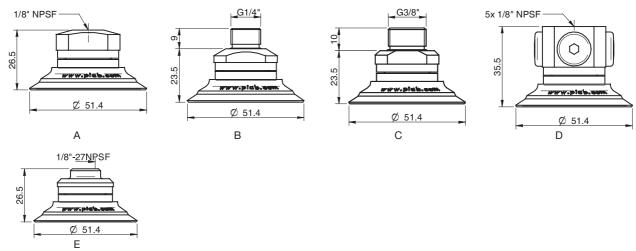
Material	Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Nitrile-PVC, NPV	Excellent	Excellent	Good	Good	Excellent	Fair	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

Suction cups/grippers Standard

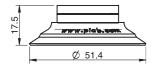


Ordering information

	Complete suction cups	Art. No
Α	Suction cup U50-2 Nitrile-PVC, 1/8" NPSF female, with mesh filter	0101823
В	Suction cup U50-2 Nitrile-PVC, G1/4" male, with mesh filter	0101818
С	Suction cup U50-2 Nitrile-PVC, G3/8" male, with mesh filter	0101820
D	Suction cup U50-2 Nitrile-PVC, 5x1/8" NPSF female	0101822
Α	Suction cup U50-2 Silicone, 1/8" NPSF female, with mesh filter	0101810
Α	Suction cup U50-2 Silicone, 1/8" NPSF female, with dual flow control valve	0101811
В	Suction cup U50-2 Silicone, G1/4" male, with mesh filter	0101805
С	Suction cup U50-2 Silicone, G3/8" male, with mesh filter	0101807
С	Suction cup U50-2 Silicone, G3/8" male, with mesh filter and dual flow control valve	0101814
Е	Suction cup U50-2 Silicone, 1/8" NPSF female, PA	0110330



Rubber parts	Art. No.
Suction cup U50-2 Silicone	0101151
Suction cup U50-2 Nitrile-PVC	0101150



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.



Level compensator LC



- ► Adjust differences in levels, for example on lifting devices with several suction cups.
- ► Less demand for exact positioning of vacuum handling device.
- Provides a certain degree of shock and vibration absorption.
- Allows for soft placement of cups on sensitive or thin objects.
- ► Non-rotational design, suitable for use with oval suction cups.
- ▶ Wide range of thread connections and stroke lengths.

Technical data

Description	Unit	Value
Material		AI, SS, (FPM)*
Temperature range	°C	0-60

^{*} Valid for LC10 family (0124947 - 0124950).

Technical data, specific

Art. No.	Spring force	Internal force	End force	Weight	Volume	Connection	Action range/ Stroke	Max. recommended suction cup
	N/mm	N	N	g	cm ³		mm	
0127103	0.21	1.9	4.1	17	0.22	M5	10	Ø30mm (Area: 700mm²)
0127104	0.21	1.9	4.1	17	0.22	M5	10	Ø30mm (Area: 700mm²)
0127105	0.12	2	5	23	0.22	M5	25	Ø30mm (Area: 700mm²)
0127106	0.12	2	5	23	0.22	M5	25	Ø30mm (Area: 700mm²)
0124951	0.27	3.6	9.0	36	1.14	G1/8"	20	Ø50mm (Area: 2000mm²)
0124952	0.27	3.6	9.0	36	1.14	G1/8"	20	Ø50mm (Area: 2000mm²)
0124953	0.15	4.3	9.5	46	1.63	G1/8"	35	Ø50mm (Area: 2000mm²)
0124954	0.15	4.3	9.5	46	1.83	G1/8"	35	Ø50mm (Area: 2000mm²)
0124955	0.27	4.1	11	64	2.47	G1/4"	25	Ø80mm (Area: 5000mm²)
0124956	0.27	4.1	11	64	2.8	G1/4"	25	Ø80mm (Area: 5000mm²)
0124957	0.14	4.3	11.4	90	4.1	G1/4"	50	Ø80mm (Area: 5000mm²)
0124958	0.14	4.3	11.4	90	4.4	G1/4"	50	Ø80mm (Area: 5000mm²)
0124959	0.27	5.6	16.5	164	6.6	G3/8"	40	Ø125mm (Area: 12000mm²)
0124960	0.27	5.6	16.5	164	7.4	G3/8"	40	Ø125mm (Area: 12000mm²)
0124961	0.14	6	17	231	11.16	G3/8"	80	Ø125mm (Area: 12000mm²)
0124962	0.14	6	17	231	11.96	G3/8"	80	Ø125mm (Area: 12000mm²)

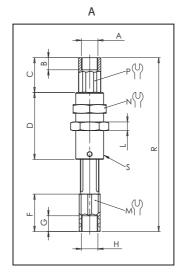


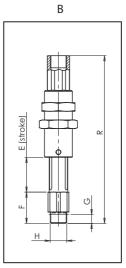
Ordering information

Description	Art. No.
Level compensator LC12-F0510	0127103
Level compensator LC12-M0510	0127104
Level compensator LC12-F0525	0127105
Level compensator LC12-M0525	0127106
Level compensator LC16-F1820	0124951
Level compensator LC16-M1820	0124952
Level compensator LC16-F1835	0124953
Level compensator LC16-M1835	0124954
Level compensator LC20-F1425	0124955
Level compensator LC20-M1425	0124956
Level compensator LC20-F1450	0124957
Level compensator LC20-M1450	0124958
Level compensator LC25-F3840	0124959
Level compensator LC25-M3840	0124960
Level compensator LC25-F3880	0124961
Level compensator LC25-M3880	0124962

Dimensions mm

	Art. No.	Α	В	С	D	Е	F	G	Н	L	М	N	Р	R	S
Α	0127103	M5	5.5	17	25	10	8	5.5	M5	4	10	15	10	60	M12x1
В	0127104	M5	5.5	17	25	10	9.5	4.5	M5	4	10	15	10	61.5	M12x1
Α	0127105	M5	5.5	17	44	25	8	5.5	M5	4	10	15	10	94	M12x1
В	0127106	M5	5.5	17	44	25	9.5	4.5	M5	4	10	15	10	95.5	M12x1
Α	0124951	G1/8"	7	20	38.5	20	21.5	9	G1/8"	5	12	19	12	100	M16x1
В	0124952	G1/8"	7	20	38.5	20	18	5	G1/8"	5	12	19	12	96.5	M16x1
Α	0124953	G1/8"	7	20	58.5	35	21.5	9	G1/8"	5	12	19	12	135	M16x1
В	0124954	G1/8"	7	20	58.5	35	18	5	G1/8"	5	12	19	12	131.5	M16X1
Α	0124955	G1/4"	10	23	50	25	15	10	G1/4"	6	16	24	16	113	M20x1.5
В	0124956	G1/4"	10	23	50	25	14	6.5	G1/4'	6	16	24	16	112	M20x1.5
Α	0124957	G1/4"	10	23	82.5	50	15	10	G1/4"	6	16	24	16	170.5	M20X1.5
В	0124958	G1/4"	10	23	82.5	50	14	6.5	G1/4'	6	16	24	16	169.5	M20x1.5
Α	0124959	G3/8"	11	33	71	40	15	11	G3/8"	8	22	32	22	159	M25x1.5
В	0124960	G3/8"	11	33	71	40	18	9.5	G3/8"	8	22	32	22	162	M25x1.5
Α	0124961	G3/8"	11	33	121	80	15	11	G3/8"	8	22	32	22	249	M25x1.5
В	0124962	G3/8"	11	33	121	80	18	9.5	G3/8"	8	22	32	22	252	M25x1.5







Level compensators



- ▶ Adjust differences in levels, for example on lifting devices with several suction cups on a frame
- ➤ A level compensator is often advantageous since it places less demand on exact vertical positioning, for example on a handling robot.
- ► The level compensator provides a certain degree of shock absorbtion.
- ▶ Level Compensator G1/2" with stiffer spring is identical to standard level compensator G1/2" except for thicker spring material. Suits e.g. robot vision systems in applications such as auto-racking.

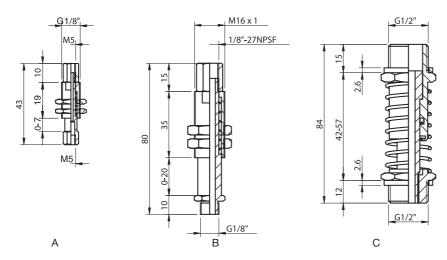
Technical data

Description	Unit	Value					
		M5	G1/8"	G1/2"	G1/2" with stiffer spring		
Weight	g	10	70	160	196		
Temperature range	°C	-20–120	-20–120	-20–90	-20–90		
Stroke	mm	0–7	0–20	0–15	0–15		
Max. Load	kg	3.0	25	50	50		
Material		SS/CuZn	SS/CuZn	SS	SS		

Ordering information

	Description	Art. No.
Α	Level compensator M5	3350068
В	Level compensator G1/8"	3350069
С	Level compensator G1/2"	3350071
С	Level compensator G1/2" with stiffer spring	0114291

When using Level compensator G1/2" (3350071 and 0114291) with Suction cup F75 G1/2" female with cone valve (0101872 and 0101879), a Connector G1/2" (3107757) must be used.



Ordering information, accessories

Description	Art. No.
Connector ext-int G1/2"	3107757



Level compensator LC30



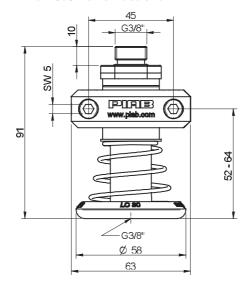
- ► Tailor made for the Vacuum Gripper System, VGSTM, but can also be used together with other Piab products.
- Developed for use with standard profile systems.
- ► Easy installation with the option of fine adjustments and positioning of the suction cup.
- Non-rotational for use with, for example, oval suction cups. Can easily be made rotational.
- ▶ Quiet and reliable level compensation with load protection and shock absorbtion.

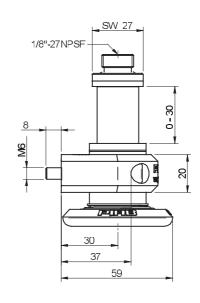
Technical data

Description	Unit	Value
Spring force	N	5–42
Stroke	mm	30
Weight	g	220
Volume, internal	cm ³	5
Maximum load, vertical	N	700
Temperature range	C°	10–50
Adjustable in height	mm	12
Adjustable in rotational direction	0	0–360
Material		AI, NBR, PA, POM, PUR, SS

Description	Art. No.
Level compensator LC30	0111552

LC 30 is delivered with two MC6S M6x45 fzb screws.







Ball joints



- ▶ Ball joint fittings could be used when lifting sheet metal with a device using several suction cups.
- ➤ To avoid bending stress a suction cup can be fitted with a balljoint.

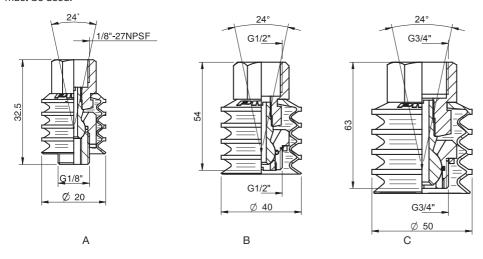
Technical data

Description	Unit	Value		
		G1/8"	G1/2"	G3/4"
Weight	g	20	110	200
Temperature range	°C	-40–110	-40–110	-40–110
Angle	0	±12	±12	±12
Max. Load	kg	25	50	150
Material		SS/CR/PA/NBR	SS/CR/PA/NBR	SS/CR/PA/NBR

Ordering information

	Description	Art. No.
Α	Ball joint G1/8"	3350065
В	Ball joint G1/2"	3350066
С	Ball joint G3/4"	3350067

When using Ball joint G1/2" (3350066) with Suction cup F75 G1/2" with cone valve (0101872 and 0101879), a Connector G1/2" (3107757) must be used.



Ordering information, accessories

Description	Art. No.
Connector ext-int G1/2"	3107757



Angle adaptors

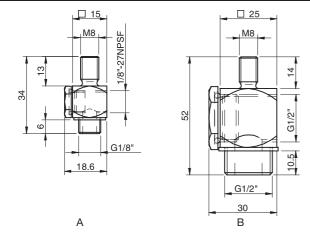


- ► Angle adaptors facilitate vacuum connections when space and headroom are limited.
- ► Can also be used as T-connectors.

Technical data

Description	Unit	Value	
		G1/8" – M8	G1/2" -M8
Weight	g	20	120
Temperature range	°C	-40–110	-40–110
Material		CuZn/NBR/PA	SS/NBR/PA

Г	Description	Art. No.
1	A Angle adapter G1/8"–M8	3150053
E	B Angle adapter G1/2"-M8	3150054





T-slot adapters

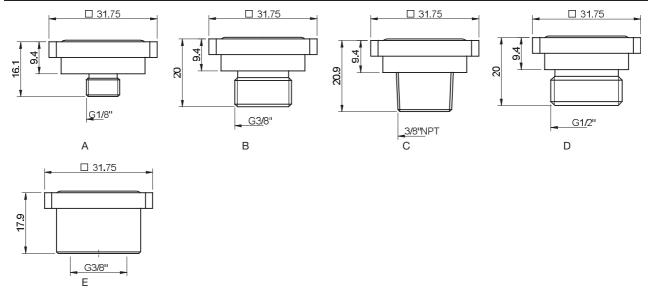


- ▶ The Piab T-slot adapter enables Piab suction cups to mount to existing boom assemblies and end-of-arm tooling used in the automotive industry. The T-slot adapter threads into the Piab cup fitting and can then be mounted accordingly.
- ► The suction cups can be changed quickly and with great ease.
- ► Non-rotating feature good when using oval suction cups.

Technical data

Description	Unit	Value
Weight	g	17–22
Working temperature	°C	-20–90
Material		AI/NBR

	Description	Art. No.
Α	T-slot adapter G1/8" male	0104108
В	T-slot adapter G3/8" male	0104110
С	T-slot adapter 3/8" NPT	0104111
D	T-slot adapter G1/2" male	0104112
Е	T-slot adapter G3/8" female	0107942





Ball joint fitting



- ▶ Fitted to a suction cup to avoid bending stress.
- Non-leaking design to work with Vacuum Check Valve and Vacustat.
- ➤ Available in a loose-fit, a locking version or one with 5° movement.

Technical data

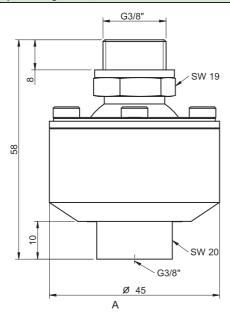
Description	Unit	Value
Material		SS, Zn, CuZn, NBR
Temperature range	°C	-30-70
Weight	g	348-393

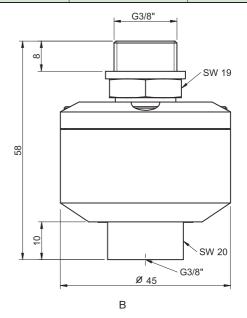
Technical data, specific

Description	Unit	Value		
		0110636	0121177	0110635
Angular movement	0	±20	±5	±20

Ordering information

	Description	PMAT No.	Art. No.
Α	Ball joint fitting G3/8"	X7016	0110635
Α	Ball joint fitting G3/8", locking	X7018	0110636
В	Ball joint fitting G3/8", limited movement	X7026	0121177





Ordering information, accessories

Description	Art. No.
Adapter fitting G3/8" male x 3/8" NPT male	0121240



Height adjuster



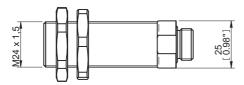
- ▶ Provides a height extension between the tooling and the suction cup.
- Adjustable in height.
- ► Can be used with Suction cup extension.
- ► Key handle to avoid rotation when connecting vacuum ports.

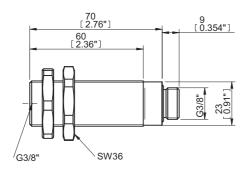
Technical data

Description	Unit	Value
Material		AI, NBR, SS
Temperature range	°C	-30-70
Weight	g	130
Volume, internal	cm³	32
Action range, adjustable length	mm	48

Ordering information

Description	Art. No.
Height adjuster G3/8" male x G3/8" female	0121122





Ordering information, accessories

Description	Art. No.
Adapter fitting G3/8" male x 3/8" NPT male	0121240



Suction cup extension



- ▶ Solid extension for mounting a suction cup.
- ► Several heights available.
- ► Can be used with Height adjuster.

Technical data

Description	Unit	Value
Material		AL, NBR
Temperature range	°C	-30-70
Max. load, radial	N	400
Max. load, axial	N	700
Radial deflection at 400 N	mm	<1

Operational lifetime: 10,000,000 cycles at max. load

Technical data, specific - G threads

Description	Unit		Value								
		0110653	0110655	0110657	0110659	0110661	0110663				
Weight	g	29	56	84	123	168	223				
Volume, internal	cm ³	3	5	7	9	12	16				

Technical data, specific - NPT threads

Description	Unit		Value								
		0121138	0121139	0121140	0121141	0121142	0121143				
Weight	g	39	66	94	133	178	233				
Volume, internal	cm ³	3	5	7	9	12	16				

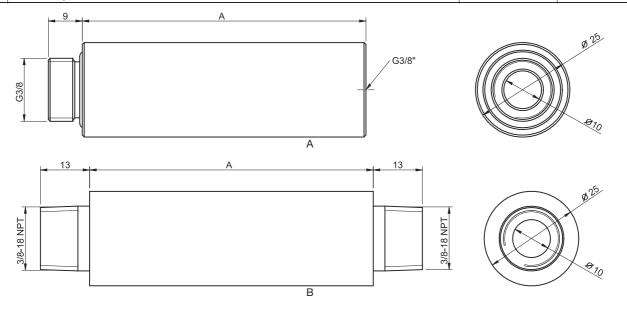






Ordering information

	Description	PMAT No.	Art. No.
Α	Suction cup extension 25, G3/8" male x G3/8" female	X7044	0110653
Α	Suction cup extension 50, G3/8" male x G3/8" female	X7046	0110655
Α	Suction cup extension 75, G3/8" male x G3/8" female	X7051	0110657
Α	Suction cup extension 110, G3/8" male x G3/8" female	X7054	0110659
Α	Suction cup extension 150, G3/8" male x G3/8" female	X7058	0110661
Α	Suction cup extension 200, G3/8" male x G3/8" female	X7062	0110663
В	Suction cup extension 25, 3/8" NPT male x 3/8" NPT male		0121138
В	Suction cup extension 50, 3/8" NPT male x 3/8" NPT male		0121139
В	Suction cup extension 75, 3/8" NPT male x 3/8" NPT male		0121140
В	Suction cup extension 110, 3/8" NPT male x 3/8" NPT male		0121141
В	Suction cup extension 150, 3/8" NPT male x 3/8" NPT male		0121142
В	Suction cup extension 200, 3/8" NPT male x 3/8" NPT male		0121143



Dimensions

Description	A mm
Suction cup extension 25	25
Suction cup extension 50	50
Suction cup extension 75	75
Suction cup extension 110	110
Suction cup extension 150	150
Suction cup extension 200	200

Ordering information, accessories

Description	Art. No.
Height adjuster G3/8" male x G3/8" female	0121122



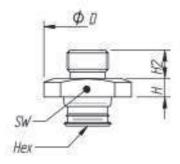
piGRIP® fittings



- ► All fittings are possible to use for all piGRIP® configurations.
- ► All fittings are also suitable for suction cups B50, B50-2, B50MF, BL50-2, BX52P, D50, F50-2, F50MF, U50-2.
- ► Integrated mesh filter as an option, keeps particles away.
- ▶ O-ring seal on straight threads to avoid leakage.
- Internal and external key handle on most fittings.

Technical data male thread G and M

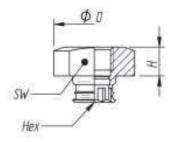
Art. No.	Code	Description	Material	Weight	Volume	Temp.		Dime	nsio	ns (m	m)
				g	cm ³	C°	Н	H2	D	SW	HEX
9902441	G18M.00	piGRIP® Fitting G1/8" male	AI, NBR	5.0	1.2		5	6	19	17	10
9902442	G18M.01	piGRIP® Fitting G1/8" male, with mesh filter	Al, SS, NBR	5.1	1.2		5	6	19	17	10
9902447	G14M.00	piGRIP® Fitting G1/4" male	AI, NBR	12.3	1.6		6	9	28	22	10
9902448	G14M.01	piGRIP® Fitting G1/4" male, with mesh filter	AI, SS, NBR	12.4	1.6		6	9	28	22	10
9902451	G38M.00	piGRIP® Fitting G3/8" male	AI, NBR	13.4	2.1		6	10	28	22	10
9902452	G38M.01	piGRIP® Fitting G3/8" male, with mesh filter	AI, SS, NBR	13.5	2.1		6	10	28	22	10
9902455	G12M.00	piGRIP® Fitting G1/2" male	AI, NBR	16.9	2.2		6	10	28	22	10
9902456	G12M.01	piGRIP® Fitting G1/2" male, with mesh filter	AI, SS, NBR	17.0	2.2		6	10	28	22	10
9902487	MM6M.00	piGRIP® Fitting M6 male	Steel, NBR	14.1	0.9		5	6	19	17	10
9902488	MM6M.01	piGRIP® Fitting M6 male, with mesh filter	Steel, NBR	14.2	0.9		5	6	19	17	10
9902493	MMF8M.00	piGRIP® Fitting M8 x 1 male	Steel, NBR	14.1	1.1	-20-90	5	6	19	17	10
9902494	MMF8M.01	piGRIP® Fitting M8 x 1 male, with mesh filter	Steel, NBR	14.2	1.1		5	6	19	17	10
9902497	MM10M.00	piGRIP® Fitting M10 male	AI, NBR	6.1	1.4		6	10	19	17	10
9902498	MM10M.01	piGRIP® Fitting M10 male, with mesh filter	AI, SS, NBR	6.2	1.4		6	10	19	17	10
9905743	MM12M.00	piGRIP® Fitting M12 male	AI, NBR	10.2	1.4		6	10	28	10	22
9905744	MM12M.01	piGRIP® Fitting M12 male, with mesh filter	Al, SS, NBR	10.3	1.4		6	10	28	10	22
9902501	MMF14M.00	piGRIP® Fitting M14 x 1 male	AI, NBR	10.3	2.3		6	12	28	22	10
9902502	MMF14M.01	piGRIP® Fitting M14 x 1 male, with mesh filter	AI, SS, NBR	10.4	2.3		6	12	28	22	10
9902505	MMF16M.00	piGRIP® Fitting M16 x 1.5 male	AI, NBR	13.6	2.3		6	12	28	22	10
9902506	MMF16M.01	piGRIP® Fitting M16 x 1.5 male, with mesh filter	AI, SS, NBR	13.7	2.3		6	12	28	22	10





Technical data female thread

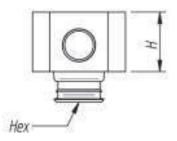
Art. No.	Code	Description	Material	Weight	Volume	Temp.	Di	imens	ions (ı	mm)
				g	cm ³	C°	Н	D	SW	HEX
9902445	G14F.00	piGRIP® Fitting G1/4" female	Al	11.7	1.9		10	28	22	10
9902446	G14F.01	piGRIP® Fitting G1/4" female, with mesh filter	AI, SS	11.8	1.9		10	28	22	10
9902449	G38F.00	piGRIP® Fitting G3/8" female	Al	13	3.1		13	28	22	10
9902450	G38F.01	piGRIP® Fitting G3/8" female, with mesh filter	AI, SS	13.1	3.1		13	28	22	10
9902453	G12F.00	piGRIP® Fitting G1/2" female	Al	13.6	4.6		14	28	22	10
9902454	G12F.01	piGRIP® Fitting G1/2" female, with mesh filter	AI, SS	13.7	4.6		14	28	22	10
9902485	MM5F.00	piGRIP® Fitting M5 female	Al	5.3	0.9		6	19	17	10
9902486	MM5F.01	piGRIP® Fitting M5 female, with mesh filter	AI, SS	5.4	0.9		6	19	17	10
9902489	MM6F.00	piGRIP® Fitting M6 female	Al	5.3	1.0		7	19	17	10
9902490	MM6F.01	piGRIP® Fitting M6 female, with mesh filter	AI, SS	5.4	1.0		7	19	17	10
9902491	MM8F.00	piGRIP® Fitting M8 female	Al	5.7	1.1		7	19	17	10
9902492	MM8F.01	piGRIP® Fitting M8 female, with mesh filter	AI, SS	5.8	1.1		7	19	17	10
9902495	MM10F.00	piGRIP® Fitting M10 female	Al	5.7	1.2		7	19	17	10
9902496	MM10F.01	piGRIP® Fitting M10 x 1 female, with mesh filter	AI, SS	5.8	1.2		7	19	17	10
9902499	MM12F.00	piGRIP® Fitting M12 female	Al	16.1	1.8		12	22	10	10
9902500	MM12F.01	piGRIP® Fitting M12 female, with mesh filter	AI, SS	16.2	1.8	-20-	12	22	10	10
9902503	MMF16F.00	piGRIP® Fitting M16 x 1.5 female	Al	13.6	2.9	120	13	22	10	10
9902504	MMF16F.01	piGRIP® Fitting M16 x 1.5 female, with mesh filter	AI, SS	13.7	2.9		13	22	10	10
9902439	NS18F.00	piGRIP® Fitting 1/8" NPSF female	Al	5.2	1.2		7	19	17	10
9902440	NS18F.01	piGRIP® Fitting 1/8" NPSF female, with mesh filter	AI, SS	5.3	1.2		7	19	17	10
9902479	NS14F.00	piGRIP® Fitting 1/4" NPSF female	Al	11.9	1.8		10	28	22	10
9902480	NS14F.01	piGRIP® Fitting 1/4" NPSF female, with mesh filter	AI, SS	12.0	1.8		10	28	22	10
9902481	NS38F.00	piGRIP® Fitting 3/8" NPSFfemale	Al	13.3	3.0		13	28	22	10
9902482	NS38F.01	piGRIP® Fitting 3/8" NPSF female, with mesh filter	AI, SS	13.4	3.0		13	28	22	10
9902483	NS12F.00	piGRIP® Fitting 1/2" NPSF female	Al	14.3	4.3		14	28	22	10
9902484	NS12F.01	piGRIP® Fitting 1/2" NPSF female, with mesh filter	AI, SS	14.4	4.3		14	28	22	10
9902463	NT14F.00	piGRIP® Fitting 1/4" NPT female	Al	15.6	2.0		12	28	22	10
9902464	NT14F.01	piGRIP® Fitting 1/4" NPT female, with mesh filter	AI, SS	15.7	2.0		12	28	22	10
9902467	NT38F.00	piGRIP® Fitting 3/8" NPT female	Al	13.4	3.0		13	28	22	10
9902468	NT38F.01	piGRIP® Fitting 3/8" NPT female, with mesh filter	AI, SS	13.5	3.0		13	28	22	10
9902507	U12F.00	piGRIP® Fitting 1/2" UNC female	Al	15.9	1.9		12	28	22	10
9902508	U12F.01	piGRIP® Fitting 1/2" UNC female, with mesh filter	Al, SS	16.0	1.9		12	28	22	10





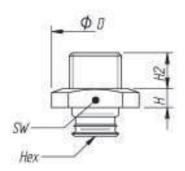
Technical data female thread 5x

Art. No.	Code	Description	Material	Weight	Volume	Temp. range	Dimensions (mm)	
				g	cm ³	C°	Н	HEX
9902443	NS518F.00	piGRIP® Fitting 5x1/8" NPSF female	Al	27.6	4.3	-20-	18	10
9902444	NS518F.01	piGRIP® Fitting 5x1/8" NPSF female, with mesh filter	AI, SS	27.7	4.3	120	18	10



Technical data male thread NPT

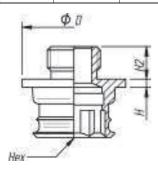
Art. No.	Code	Description	Material	Weight	Volume	Temp. range		Dimensions (mm)			
				g	cm ³	C°	Н	H2	D	SW	HEX
9902465	NT18M.00	piGRIP® Fitting 1/8" NPT male	Al	5.2	1.2		5	7	19	17	10
9902513	NT18M.01	piGRIP® Fitting 1/8" NPT male, with mesh filter	AI, SS	5.3	1.2		5	7	19	17	10
9902512	NT14M.00	piGRIP® Fitting 1/4" NPT male	Al	11.6	1.7		6	11	28	22	10
9902466	NT14M.01	piGRIP® Fitting 1/4" NPT male, with mesh filter	AI, SS	11.7	1.7	-20-	6	11	28	22	10
9902469	NT38M.00	piGRIP® Fitting 3/8" NPT male	Al	12.7	2.3	120	6	11.5	28	22	10
9902470	NT38M.01	piGRIP® Fitting 3/8" NPT male, with mesh filter	AI, SS	12.8	2.3		6	11.5	28	22	10
9902471	NT12M.00	piGRIP® Fitting 1/2" NPT male	Al	19.3	2.6		6	15	28	22	10
9902472	NT12M.01	piGRIP® Fitting 1/2" NPT male, with mesh filter	AI, SS	19.4	2.6		6	15	28	22	10





Technical data male thread low G and NPT

Art. No.	Code	Description	Material	Weight	Volume	Temp. range	Dimensions (mm)		nm)	
				g	cm ³	C°	Н	H2	D	HEX
9902457	GL18M.00	piGRIP® Fitting G1/8" low male	Al	3	1.1		1.5	6	19	10
9902458	GL18M.01	piGRIP® Fitting G1/8" low male, with mesh filter	Al, SS	3.1	1.1		1.5	6	19	10
9902459	GL14M.00	piGRIP® Fitting G1/4" low male	Al	5.5	1.3		1.5	9	28	10
9902460	GL14M.01	piGRIP® Fitting G1/4" low male, with mesh filter	AI, SS	5.6	1.3		1.5	9	28	10
9902461	GL38M.00	piGRIP® Fitting G3/8" low male	Al	6.9	1.8		1.5	10	28	10
9902462	GL38M.01	piGRIP® Fitting G3/8" low male, with mesh filter	Al, SS	7.0	1.8	-20-	1.5	10	28	10
9902473	NTL18M.00	piGRIP® Fitting 1/8" NPT low male	Al	3.2	1.1	120	1.5	7	19	10
9902474	NTL18M.01	piGRIP® Fitting 1/8" NPT low male, with mesh filter	AI, SS	3.3	1.1		1.5	7	19	10
9902475	NTL14M.00	piGRIP® Fitting 1/4" NPT low male	Al	6.2	1.4		1.5	11	28	10
9902476	NTL14M.01	piGRIP® Fitting 1/4" NPT low male, with mesh filter	AI, SS	6.3	1.4		1.5	11	28	10
9902477	NTL38M.00	piGRIP® Fitting 3/8" NPT low male	Al	7.7	1.9		1.5	11.5	28	10
9902478	NTL38M.01	piGRIP® Fitting 3/8" NPT low male, with mesh filter	Al, SS	7.8	1.9		1.5	11.5	28	10





Push-on fitting



- ▶ Push-on style fittings most suitable for size 25-55 piGRIP® cups. For size 70-77 piGRIP® cups, contact Piab.
- ➤ Available in three sizes for tubes/pipes with diameter 8mm, 10mm and 11mm.
- ► Allow a few +/- tenths of a tolerance deviation of the tube/pipe.
- ► Purchased and installed once. After installation, replace only the piGRIP® cup.
- ► Easy installation with the possibility of minor height adjustment.
- ▶ Adds virtually no build-height to the piGRIP® cup.

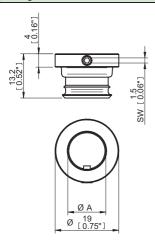
Technical data

Description	Unit	Value
Material		AI, SS, NBR
Temperature range	°C	-20-90

Technical data, specific

Description	Unit	Value		
		0125933	0125932	0125931
Weight	g	4.8	3.7	3.1
Volume, internal	cm ³	0.67	1.03	1.23
Connection (A), push-on tube size	mm	ø8	ø10	ø11

Description	Art. No.
Fitting CAT3-5 Push on retrofit 8	0125933
Fitting CAT3-5 Push on retrofit 10	0125932
Fitting CAT3-5 Push on retrofit 11	0125931





Fitting 75

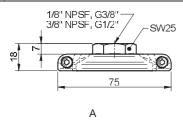


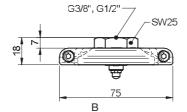
- ► Suits suction cups: B75, B75P, B75-2, F75, F75P, FC100P
- ► With cone valve only for: F75

Technical data

Description	Unit	Value	
		With mesh filter	With cone valve
Weight	g	70	75
Working temperature	°C	-20–120	-20–90
Material		AI/SS	AI/SS/NBR

	Description	Art. No.
Α	Fitting 75, G3/8" female, with mesh filter	0100551
В	Fitting 75, G3/8" female, with cone valve	0100552
Α	Fitting 75, G1/2" female, with mesh filter	0100555
В	Fitting 75, G1/2" female, with cone valve	0100556
Α	Fitting 75, 3/8" NPSF female, with mesh filter	0100553
Α	Fitting 75, 1/8" NPSF female, with mesh filter	0100548







Fitting 110

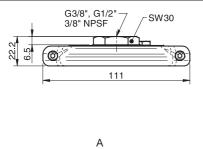


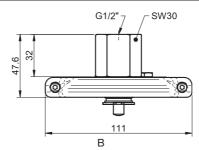
- ➤ Suits suction cups: B110, B110-2, F110P, F110, FC150P
- ► With cone valve only for: F110

Technical data

Description	Unit	Value	
		With mesh filter	With cone valve
Weight	g	240	290
Working temperature	°C	-20–90	-20–90
Material		Al/SS/CuZn/NBR	Al/SS/CuZn/NBR

	Description	Art. No.
Α	Fitting 110 G3/8" female, with mesh filter	0100557
Α	Fitting 110, G1/2" female, with mesh filter	0100561
В	Fitting 110, G1/2" female, with cone valve	0100563
Α	Fitting 110, 3/8" NPSF female, with mesh filter	0100559







Fitting 150



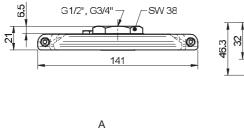
Features

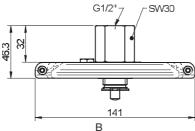
- ► Suits suction cups: B150, F150
- ► With cone valve only for: F150

Technical data

Description	Unit	Value	
		With mesh filter	With cone valve
Weight	g	355	415
Working temperature	°C	-20–90	-20–90
Material		Al/SS/CuZn/NBR	Al/SS/CuZn/NBR

	Description	Art. No.
Α	Fitting 150, G1/2" female, with mesh filter	0100564
В	Fitting 150, G1/2" female, with cone valve	0100566
Α	Fitting 150, G3/4" female, with mesh filter	0100567







M2.5 male



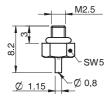
► Suits suction cups: U2, U3

Technical data

Description	Unit	Value
Weight	g	0.5
Working temperature	°C	-20–90
Material		CuZn/NBR

Ordering information

Description	Art. No.
Fitting M2.5 male	3250084



M5 male

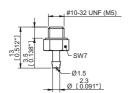


► Suits suction cups: B5, B8, U4, U6, U8

Technical data

Description	Unit	Value
Weight	g	3
Working temperature	°C	-40–110
Material		CuZn/PA

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





M5 male



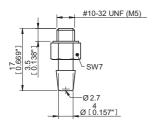
Suits suction cups: B10-2, B15-2, B15MF, D15-2, F15, F15MF, U10, U15

Technical data

Description	Unit	Value
Weight	g	4
Working temperature	°C	-40–110
Material		CuZn/PA

Ordering information

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



M5 female



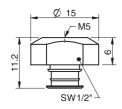
► Suits suction cups:

B20, B20MF, BL20-2, D20-2, F20, F20MF, U20, F25, FC20P, FC25P, D30-2, F30-2, U30

Technical data

Description	Unit	Value	
		Without valve	With dual flow control valve
Weight	g	3	3
Working temperature	°C	-20–120	0–80
Material		Al	Al/PUR

Description	Art. No.
Fitting M5 female	3250003
Fitting M5 female, with dual flow control valve	3251001





G1/8" male



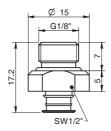
Suits suction cups: B20, B20MF, D20-2, F20, F20MF, U20, F25, FC20P, FC25P, D30-2, F30-2, U30

Technical data

Description	Unit	Value	
		With mesh filter	With dual flow control valve
Weight	g	3	3
Working temperature	°C	-20–90	0–80
Material		AI/SS/NBR	AI/SS/NBR/PUR

Ordering information

Description	Art. No.
Fitting G1/8" male, with mesh filter	3250085
Fitting G1/8" male, with mesh filter and dual flow control valve	3251002



G1/8" male / M5 female



► Suits suction cups:

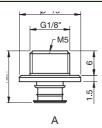
B20, B20MF, BL20-2, D20-2, F20, F20MF, U20, F25, FC20P, FC25P, D30-2, F30-2, U30

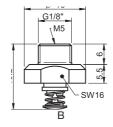
► With cone valve only for: F30-2

Technical data

Description	Unit	Value		
		With mesh filter	With dual flow control valve	With cone valve
Weight	g	2	2	4
Working temperature	°C	-20–120	0–80	-20–90
Material		AI/SS	AI/PUR	AI/SS/NBR

	Description	Art. No.
Α	Fitting G1/8" male/M5 female, with mesh filter	0101152
Α	Fitting G1/8" male/M5 female, with dual flow control valve	3251004
В	Fitting G1/8" male/M5 female, with cone valve	0101155







G1/8" male / M5 female - Composite

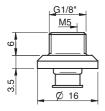


- Made of PA (Polyamide).
- ► Can be used on a number of Piab's suction cups in sizes from 20 to 50 mm.
- ➤ The weight of the composite fittings is approximately half the weight of corresponding fittings of aluminium.
- ➤ The fittings are durable and resistant to the most common acids and chemicals. They can be used in applications where aluminium cannot be used due to environmental issues, for example, in the chemical industry and the food industry.
- ➤ **Suits suction cups:** B20, BL20-2, D20-2, D30-2, F20, F25, F30-2, U20, U30

Technical data

Description	Unit	Value
Weight	g	1.7
Working temperature	°C	-20–110
Material		PA composite

Description	Art. No.
Fitting G1/8" male/M5 female, PA	3150196





1/8" NPSF female

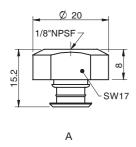


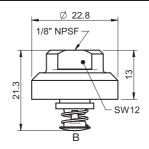
- ► Suits suction cups: B30-2, BL30-2, B40, BL40-2, F40-2, U40-2, FC35P
- ► With cone valve only for: F40-2
- ► Without mesh filter for: BX35P

Technical data

Description	Unit	Value				
		Without mesh filter	With mesh filter	With dual flow control valve	With cone valve	
Weight	g	6	6	6	7	
Working temperature	°C	-20–120	-20–120	0–80	-20–90	
Material		Al	AI/SS	AI/PUR	AI/SS/NBR	

	Description	Art. No.
Α	Fitting 1/8" NPSF female, 30–40	3250005
Α	Fitting 1/8" NPSF female, 30–40, with mesh filter	0101153
Α	Fitting 1/8" NPSF female, 30–40, with dual flow control valve	3251006
В	Fitting 1/8" NPSF female, 30–40, with cone valve	0101156







1/8" NPSF female

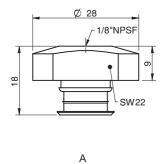


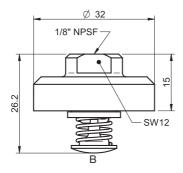
- ➤ Suits suction cups: B50, B50-2, BX52P, BL50-2, D50, F50-2, U50-2
- ► With cone valve only for: F50-2
- ▶ Without mesh filter for:
- ► BX52P

Technical data

Description	Unit	Value			
		Without mesh filter	With mesh filter	With dual flow control valve	With cone valve
Weight	g	10	10	10	15
Working temperature	°C	-20–120	-20–120	0–80	-20–90
Material		Al	AI/SS	AI/PUR	AI/SS/NBR

	Description	Art. No.
Α	Fitting 1/8" NPSF female, 50	3250017
Α	Fitting 1/8" NPSF female, 50, with mesh filter	0101154
Α	Fitting 1/8" NPSF female, 50, with dual flow control valve	3251012
В	Fitting 1/8" NPSF female, 50, with cone valve	0101157







1/8" NPSF female - Composite

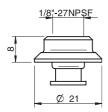


- ► Made of PA (Polyamide).
- ► Can be used on a number of Piab's suction cups in sizes from 20 to 50 mm.
- ➤ The weight of the composite fittings is approximately half the weight of corresponding fittings of aluminium.
- ➤ The fittings are durable and resistant to the most common acids and chemicals. They can be used in applications where aluminium cannot be used due to environmental issues, for example, in the chemical industry and the food industry.
- ➤ **Suits suction cups:** B30-2, B40, BL30-2, BL40-2, F40-2, U40-2

Technical data

Description	Unit	Value
Weight	g	2.4
Working temperature	°C	-20–110
Material		PA composite

Description	Art. No.
Fitting 1/8" NPSF female, 30–40, PA	3150197





1/8" NPSF female - Composite

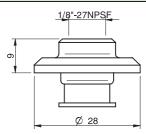


- Made of PA (Polyamide).
- ► Can be used on a number of Piab's suction cups in sizes from 20 to 50 mm.
- ➤ The weight of the composite fittings is approximately half the weight of corresponding fittings of aluminium.
- ➤ The fittings are durable and resistant to the most common acids and chemicals. They can be used in applications where aluminium cannot be used due to environmental issues, for example, in the chemical industry and the food industry.
- ➤ **Suits suction cups:** B50, B50-2, BL50-2, B50MF, D50, F50-2, U50-2

Technical data

Description	Unit	Value
Weight	g	5.6
Working temperature	°C	-20–110
Material		PA composite

Description	Art. No.
Fitting 1/8" NPSF female, 50, PA	3150198





G1/4" male with mesh filter

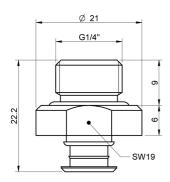


► Suits suction cups: B30-2, BL30-2, B40, BX35P, BL40-2, F40-2, U40-2, FC35P

Technical data

Description	Unit	Value	
		With mesh filter	With dual flow control valve
Weight	g	7	7
Working temperature	°C	-20–90	0–80
Material		AI/SS/NBR	AI/SS/NBR/PUR

Description	Art. No.
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





G1/4" male with mesh filter

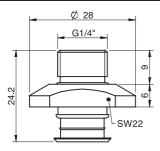


► Suits suction cups: B50, B50-2, BX52P, BL50-2, D50, F50-2, U50-2

Technical data

Description	Unit	Value		
		With mesh filter	With dual flow control valve	
Weight	g	10	10	
Working temperature	°C	-20–90	0–80	
Material		AI/SS/NBR	AI/SS/NBR/PUR	

Description	Art. No.
Fitting G1/4" male, 50, with mesh filter	3250092
Fitting G1/4" male, with mesh filter and dual flow control valve	3251013





G1/2" male

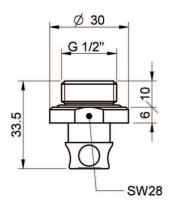


► Suits suction cup: BL50-3P

Technical data

Description	Unit	Value
Weight	g	14
Working temperature	°C	-20–90
Material		AI/NBR

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





1/2" NPT male

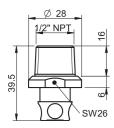


► Suits suction cup: BL50-3P

Technical data

Description	Unit	Value
Weight	g	17
Working temperature	°C	-20–90
Material		Al

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





G3/8" male with mesh filter

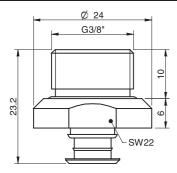


► Suits suction cups: B30-2, BL30-2, B40, BX35P, BL40-2, F40-2, U40-2, FC35P

Technical data

Description	Unit	Value	
		With mesh filter	With dual flow control valve
Weight	g	10	10
Working temperature	°C	-20–90	0–80
Material		AI/SS/NBR	AI/SS/NBR/PUR

Description	Art. No.
Fitting G3/8" male, 30–40, with mesh filter	3250086
Fitting G3/8" male, 30–40, with mesh and dual flow control valve	3251009





G3/8" male with mesh filter

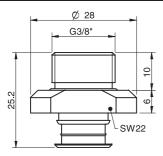


➤ Suits suction cups: B50, B50-2, BL50-2, D50, F50-2, U50-2

Technical data

Description	Unit	Value	
		With mesh filter	With dual flow control valve
Weight	g	10	10
Working temperature	°C	-20–90	0–80
Material		AI/SS/NBR	AI/SS/NBR/PUR

Description	Art. No.
Fitting G3/8" male, 50, with mesh filter	3250087
Fitting G3/8" male, 50, with mesh filter and dual flow control valve	3251015





G3/8" male

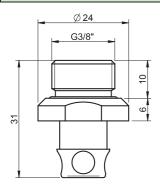


► Suits suction cup: BL30-3P, BL40-3P

Technical data

Description	Unit	Value
Weight	g	12
Working temperature	°C	-20–90
Material		AI/NBR

Description	Art. No.
Fitting G3/8" male, bag	0112662





3/8" NPT male

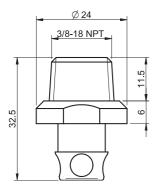


► Suits suction cup: BL30-3P, BL40-3P

Technical data

Description	Unit	Value
Weight	g	12
Working temperature	°C	-20–120
Material		Al

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





5xM5 female

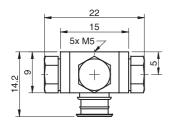


► Suits suction cups: B20, B20MF, BL20-2, D20-2, F20, F20MF, U20, F25, FC20P, FC25P, D30-2, F30-2, U30

Technical data

Description	Unit	Value	
		With mesh filter	With dual flow control valve
Weight	g	10	10
Working temperature	°C	-20–120	0–80
Material		Al/CuZn/PA	Al/CuZn/PA/PUR

Description	Art. No.
Fitting 5xM5 female	0100260
Fitting 5xM5 female, with dual flow control valve	3251005





5x1/8" NPSF female

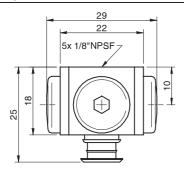


► Suits suction cups: B30-2, BL30-2, B40, BX35P, BL40-2, F40-2, U40-2, FC35P

Technical data

Description	Unit	Value	
		With mesh filter	With dual flow control valve
Weight	g	20	20
Working temperature	°C	-20–90	0–80
Material		AI/PPS/NBR	AI/PPS/NBR/PUR

Description	Art. No.
Fitting 5x1/8" NPSF female, 30–40	0100261
Fitting 5x1/8" NPSF female, 30–40, with dual flow control valve	3251011





5x1/8" NPSF female



► Suits suction cups: B50, B50-2, BX52P, BL50-2, D50, F50-2, U50-2

Technical data

Description	Unit	Value	
		With mesh filter	With dual flow control valve
Weight	g	30	30
Working temperature	°C	-20–90	0–80
Material		AI/PPS/NBR	AI/PPS/NBR/PUR

Description	Art. No.
Fitting 5x1/8" NPSF female, 50	0100262
Fitting 5x1/8" NPSF female, 50, with dual flow control valve	3251017