

FC20P & FC25P



FLAT, CONCAVE SUCTION CUP WITH CLEATS

- ▶ Suitable for lifting small objects and narrow parts, also slightly domed, flat and oily surfaces, e.g., such as those encountered when handling steel sheets in press processes.
- ▶ Thanks to the high friction of the rubber material, the suction cups can withstand high forces at rapid accelerations in horizontal directions, even on oily surfaces.
- ▶ The suction cups have cleats that prevent thin objects from being disfigured.
- ▶ DURAFLEX® suction cups manufactured in a specially developed material that features the elasticity of rubber and wear resistance of polyurethane. The material does not leave any marks on the objects handled.

LIFTING FORCES & TECHNICAL DATA

Model	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm ³	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
FC20P	4.5	12.0	16.0	4.5	9.0	12.0	1.0	25	1.9	1.3
FC25P	8.0	20.0	27	9.0	12.0	18.0	3.0	45	4.0	3

MATERIAL SPECIFICATIONS

Material	Colour	Hardness °Shore A	Temperature range °C
Polyurethane, PU50	Blue transparent	50	10-50

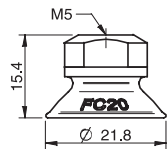
MATERIAL RESISTANCE

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

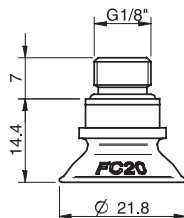
**Please contact PIAB.

ORDERING INFORMATION

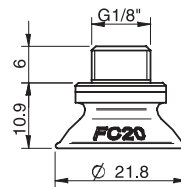
Complete suction cups		Art. No.
A	Suction cup FC20P Polyurethane 50, M5 female	0106717
B	Suction cup FC20P Polyurethane 50, G1/8" male, with mesh filter	0106722
C	Suction cup FC20P Polyurethane 50, G1/8" male / M5 female, with mesh filter	0106718
D	Suction cup FC25P Polyurethane 50, M5 female	0106719
E	Suction cup FC25P Polyurethane 50, G1/8" male, with mesh filter	0106721
F	Suction cup FC25P Polyurethane 50, G1/8" male / M5 female, with mesh filter	0106720



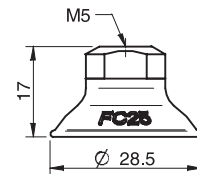
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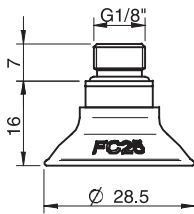
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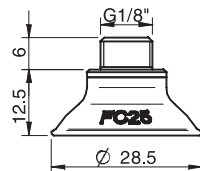
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D

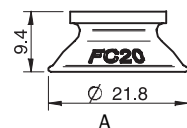


E

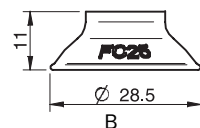


F

Rubber part		Art. No.
A	Suction cup FC20P Polyurethane 50	0106016
B	Suction cup FC25P Polyurethane 50	0104803



A



B

Fittings		Art. No.
Fitting M5 female		3250003
Fitting G1/8" male, with mesh filter		3250085
Fitting G1/8" male/M5 female, with mesh filter		0101152

For further information and dimensioned drawings, see SUCTION CUPS FITTINGS chapter.

FC35P



FLAT, CONCAVE SUCTION CUP WITH CLEATS

- ▶ Suitable for slightly domed and flat and oily surfaces, e.g., such as those encountered when handling steel sheets in press processes.
- ▶ Thanks to the high friction of the rubber material, the suction cups can withstand high forces at rapid accelerations in horizontal directions, even on oily surfaces.
- ▶ The suction cups have cleats that prevent thin objects from being disfigured.
- ▶ DURAFLEX® suction cups manufactured in a specially developed material that features the elasticity of rubber and wear resistance of polyurethane. The material does not leave any marks on the objects handled.

LIFTING FORCES & TECHNICAL DATA

Material	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm ³	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
PU50°	11.0	36	51	27	51	62	5.0	32	5.5	6
PU60°	11.0	34	49	27	41	51	5.0	32	5.5	6

MATERIAL SPECIFICATIONS

Material	Colour	Hardness °Shore A	Temperature range °C
Polyurethane, PU50	Blue transparent	50	10-50
Polyurethane, PU60	Green transparent	60	10-50

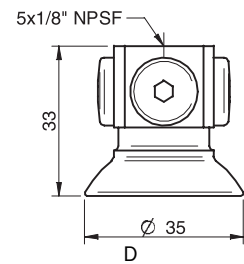
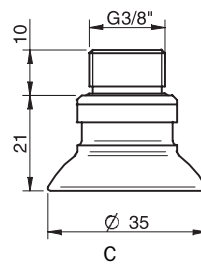
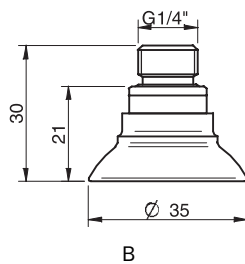
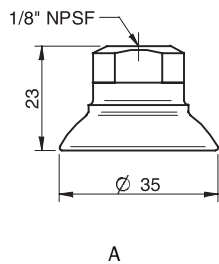
MATERIAL RESISTANCE

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

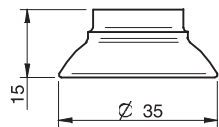
**Please contact PIAB.

ORDERING INFORMATION

Complete suction cups		Art. No.
A	Suction cup FC35P Polyurethane 50, 1/8"NPSF female, with mesh filter	0103705
A	Suction cup FC35P Polyurethane 50, 1/8"NPSF female, with dual flow control valve	0103709
B	Suction cup FC35P Polyurethane 50, G1/4" male, with mesh filter	0103711
B	Suction cup FC35P Polyurethane 50, G1/4" male, with mesh filter and dual flow control valve	0103713
C	Suction cup FC35P Polyurethane 50, G3/8" male, with mesh filter	0103719
C	Suction cup FC35P Polyurethane 50, G3/8" male, with mesh filter and dual flow control valve	0103721
D	Suction cup FC35P Polyurethane 50, 5x1/8"NPSF female	0103727
D	Suction cup FC35P Polyurethane 50, 5x1/8"NPSF female, with dual flow control valve	0103729
A	Suction cup FC35P Polyurethane 60, 1/8"NPSF female, with mesh filter	0103706
A	Suction cup FC35P Polyurethane 60, 1/8"NPSF female, with dual flow control valve	0103710
B	Suction cup FC35P Polyurethane 60, G1/4" male, with mesh filter	0103712
B	Suction cup FC35P Polyurethane 60, G1/4" male, with mesh filter and dual flow control valve	0103714
C	Suction cup FC35P Polyurethane 60, G3/8" male, with mesh filter	0103720
C	Suction cup FC35P Polyurethane 60, G3/8" male, with mesh filter and dual flow control valve	0103722
D	Suction cup FC35P Polyurethane 60, 5x1/8"NPSF female	0103728
D	Suction cup FC35P Polyurethane 60, 5x1/8"NPSF female, with dual flow control valve	0103730



Rubber parts		Art. No.
Suction cup FC35P Polyurethane 50		0103290
Suction cup FC35P Polyurethane 60		0103291



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

For further information and dimensioned drawings, see SUCTION CUPS FITTINGS chapter.

Suction cups FC-P

FC50P



FLAT, CONCAVE SUCTION CUP WITH CLEATS

- ▶ Suitable for slightly domed and flat and oily surfaces, e.g., such as those encountered when handling steel sheets in press processes.
- ▶ Thanks to the high friction of the rubber material, the suction cups can withstand high forces at rapid accelerations in horizontal directions, even on oily surfaces.
- ▶ The suction cups have cleats that prevent thin objects from being disfigured.
- ▶ DURAFLEX® suction cups manufactured in a specially developed material that features the elasticity of rubber and wear resistance of polyurethane. The material does not leave any marks on the objects handled.

LIFTING FORCES & TECHNICAL DATA

Material	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm ³	Min. curve radius mm	Max. vertical movement mm	Weight with fitting g
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
PU40°	28	77	103	49	82	100	10	53	5.0	28
PU60°	28	77	104	52	93	111	10	53	5.0	28

MATERIAL SPECIFICATIONS

Material	Colour	Hardness °Shore A	Temperature range °C
Polyurethane, PU40	Red transparent	40	10–50
Polyurethane, PU60	Green transparent	60	10–50

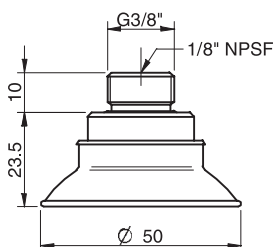
MATERIAL RESISTANCE

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

**Please contact PIAB.

ORDERING INFORMATION

Complete suction cups	Art. No.
Suction cup FC50P Polyurethane 40, G3/8" male - 1/8"NPSF female	0103289
Suction cup FC50P Polyurethane 60, G3/8" male - 1/8"NPSF female	0103293



FC75P



FLAT, CONCAVE SUCTION CUP WITH CLEATS

- ▶ Suitable for slightly domed and flat and oily surfaces, e.g., such as those encountered when handling steel sheets in press processes.
- ▶ Thanks to the high friction of the rubber material, the suction cups can withstand high forces at rapid accelerations in horizontal directions, even on oily surfaces.
- ▶ The suction cups have cleats that prevent thin objects from being disfigured.
- ▶ DURAFLEX® suction cups manufactured in a specially developed material that features the elasticity of rubber and wear resistance of polyurethane. The material does not leave any marks on the objects handled.

LIFTING FORCES & TECHNICAL DATA

Material	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm ³	Min. curve radius mm	Max. vertical movement mm	Weight with fitting g
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
PU40°	73	157	215	107	200	230	30	78	6.5	45
PU60°	73	168	225	93	225	255	30	78	6.5	45

MATERIAL SPECIFICATIONS

Material	Colour	Hardness °Shore A	Temperature range °C
Polyurethane, PU40	Red transparent	40	10-50
Polyurethane, PU60	Green transparent	60	10-50

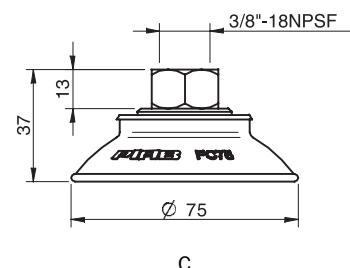
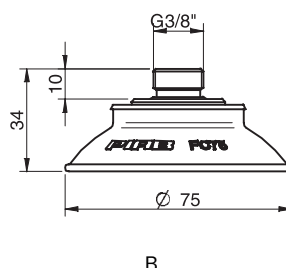
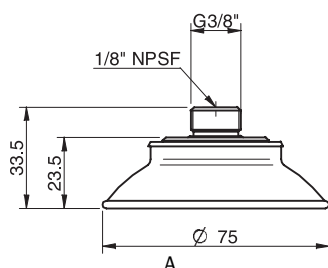
MATERIAL RESISTANCE

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

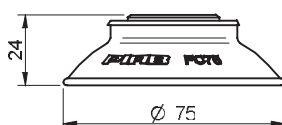
**Please contact PIAB.

ORDERING INFORMATION

Complete suction cups	Art. No.
A Suction cup FC75P Polyurethane 40, G3/8" male - 1/8"NPSF female	0103294
A Suction cup FC75P Polyurethane 60, G3/8" male - 1/8"NPSF female	0103296
B Suction cup FC75P Polyurethane 40, thread insert G3/8" with mesh filter	0106959
B Suction cup FC75P Polyurethane 60, thread insert G3/8" with mesh filter	0107303
C Suction cup FC75P Polyurethane 40, 3/8"NPSF female	0108796
C Suction cup FC75P Polyurethane 60, 3/8"NPSF female	0108797



Rubber parts	Art. No.
Suction cup FC75P Polyurethane 40, for tread insert	0106948
Suction cup FC75P Polyurethane 60, for tread insert	0107302



Fitting	Art. No.
Thread insert G3/8" male, with O-ring and mesh filter	0107148

For further information and dimensioned drawings, see SUCTION CUPS FITTINGS chapter.

FC100P



FLAT, CONCAVE SUCTION CUP WITH CLEATS

- ▶ Suitable for slightly domed and flat and oily surfaces, e.g., such as those encountered when handling steel sheets in press processes.
- ▶ Thanks to the high friction of the rubber material, the suction cups can withstand high forces at rapid accelerations in horizontal directions, even on oily surfaces.
- ▶ The suction cups have cleats that prevent thin objects from being disfigured.
- ▶ DURAFLEX® suction cups manufactured in a specially developed material that features the elasticity of rubber and wear resistance of polyurethane. The material does not leave any marks on the objects handled.

LIFTING FORCES & TECHNICAL DATA

Material	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm ³	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
PU40°	137	284	377	176	318	420	80	110	10.2	64
PU60°	152	328	446	112	264	382	80	110	10.2	64

MATERIAL SPECIFICATIONS

Material	Colour	Hardness °Shore A	Temperature range °C
Polyurethane, PU40	Red transparent	40	10–50
Polyurethane, PU60	Green transparent	60	10–50

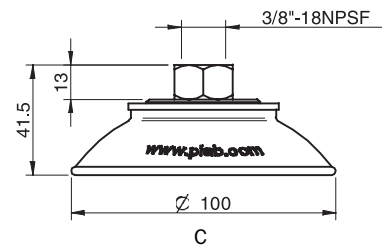
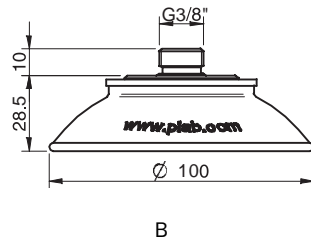
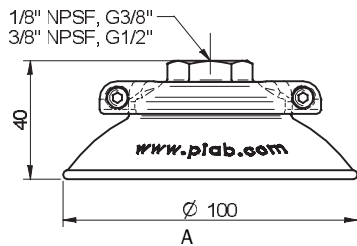
MATERIAL RESISTANCE

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

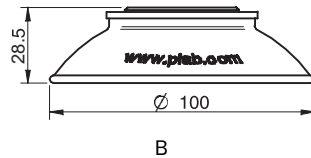
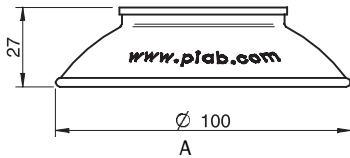
**Please contact PIAB.

ORDERING INFORMATION

Complete suction cups		Art. No.
A	Suction cup FC100P Polyurethane 40, 1/8"NPSF female, with mesh filter	0103731
A	Suction cup FC100P Polyurethane 40, G3/8" female, with mesh filter	0103734
A	Suction cup FC100P Polyurethane 40, 3/8"NPSF female, with mesh filter	0103737
A	Suction cup FC100P Polyurethane 40, G1/2" female, with mesh filter	0103740
A	Suction cup FC100P Polyurethane 60, 1/8"NPSF female, with mesh filter	0103733
A	Suction cup FC100P Polyurethane 60, G3/8" female, with mesh filter	0103736
A	Suction cup FC100P Polyurethane 60, G1/2" female, with mesh filter	0103742
A	Suction cup FC100P Polyurethane 60, 3/8"NPSF female, with mesh filter	0103739
B	Suction cup FC100P Polyurethane 40, thread insert G3/8" male, with mesh filter	0106836
B	Suction cup FC100P Polyurethane 60, thread insert G3/8" male, with mesh filter	0107305
C	Suction cup FC100P Polyurethane 40, 3/8"NPSF female	0108798
C	Suction cup FC100P Polyurethane 60, 3/8"NPSF female	0108799



Rubber parts		Art. No.
A	Suction cup FC100P Polyurethane 40	0103297
A	Suction cup FC100P Polyurethane 60	0103299
B	Suction cup FC100P Polyurethane 40, for tread insert	0106835
B	Suction cup FC100P Polyurethane 60, for tread insert	0107304



Fittings		Art. No.
Fitting 1/8"NPSF female, with mesh filter		0100548
Fitting G3/8" female, with mesh filter		0100551
Fitting 3/8"NPSF female, with mesh filter		0100553
Fitting G1/2" female, with mesh filter		0100555
Thread insert G3/8" male, with O-ring and mesh filter		0107148

For further information and dimensioned drawings, see SUCTION CUPS FITTINGS chapter.

FC150P



FLAT, CONCAVE SUCTION CUP WITH CLEATS

- ▶ Suitable for slightly domed and flat and oily surfaces, e.g., such as those encountered when handling steel sheets in press processes.
- ▶ Thanks to the high friction of the rubber material, the suction cups can withstand high forces at rapid accelerations in horizontal directions, even on oily surfaces.
- ▶ The suction cups have cleats that prevent thin objects from being disfigured.
- ▶ DURAFLEX® suction cups manufactured in a specially developed material that features the elasticity of rubber and wear resistance of polyurethane. The material does not leave any marks on the objects handled.

LIFTING FORCES & TECHNICAL DATA

Material	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm ³	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
PU40°	274	716	932	343	765	902	250	165	14.2	213
PU60°	284	647	922	215	568	863	250	165	14.2	213

MATERIAL SPECIFICATIONS

Material	Colour	Hardness °Shore A	Temperature range °C
Polyurethane, PU40	Red transparent	40	10–50
Polyurethane, PU60	Green transparent	60	10–50

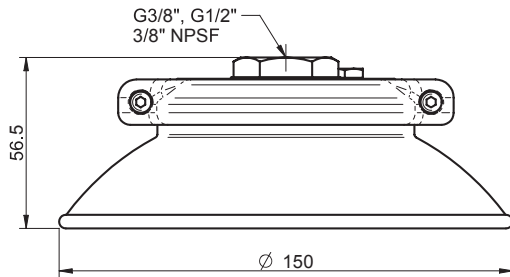
MATERIAL RESISTANCE

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

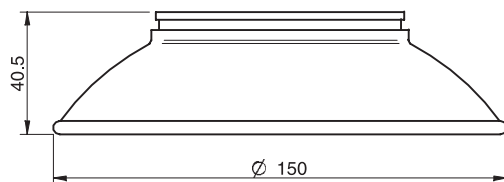
**Please contact PIAB.

ORDERING INFORMATION

Complete suction cups	Art. No.
Suction cup FC150P Polyurethane 40, G3/8" female, with mesh filter	0103743
Suction cup FC150P Polyurethane 40, 3/8"NPSF female, with mesh filter	0103749
Suction cup FC150P Polyurethane 40, G1/2" female, with mesh filter	0103755
Suction cup FC150P Polyurethane 60, G3/8" female, with mesh filter	0103745
Suction cup FC150P Polyurethane 60, 3/8"NPSF female, with mesh filter	0103751
Suction cup FC150P Polyurethane 60, G1/2" female, with mesh filter	0103757



Rubber parts	Art. No.
Suction cup FC150P Polyurethane 40	0101946
Suction cup FC150P Polyurethane 60	0103301



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

For further information and dimensioned drawings, see *SUCTION CUPS FITTINGS* chapter.

F15MF



FLAT SUCTION CUP WITH CLEATS, MARK FREE

- ▶ Suction cup of TPU, a mark free material that leaves no trace on the object being handled.
- ▶ Suitable for flat surfaces.
- ▶ Good stability and little inherent movement.
- ▶ Recommended when the lifting force is parallel to the surface of the object.

LIFTING FORCES & TECHNICAL DATA

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm ³	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
4.0	8.0	12.0	4.5	9.0	14.5	0.37	17	1.0	0.8

MATERIAL SPECIFICATIONS

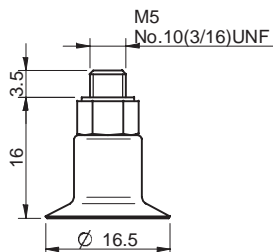
Material	Colour	Hardness °Shore A	Temperature range °C
Thermoelastic polyurethane, TPU	Transparent white	81	-20-80

MATERIAL RESISTANCE

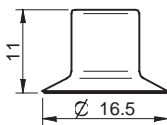
Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Excellent	Excellent	Excellent	Poor	Poor	Poor	Good	Good

ORDERING INFORMATION

Complete suction cups	Art. No.
Suction cup F15MF Thermoelastic polyurethane, M5 male	3250074



Rubber parts	Art. No.
Suction cup F15MF Thermoelastic polyurethane	3150269



Fittings	Art. No.
Fitting M5 male	3107030

For further information and dimensioned drawings, see SUCTION CUPS FITTINGS chapter.

F20MF



FLAT SUCTION CUP WITH CLEATS, MARK FREE

- ▶ Suction cup of TPU, a mark free material that leaves no trace on the object being handled.
- ▶ Suitable for flat surfaces.
- ▶ Good stability and little inherent movement.
- ▶ Recommended when the lifting force is parallel to the surface of the object.

LIFTING FORCES & TECHNICAL DATA

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume	Min. curve radius	Max. vertical movement	Weight rubber part
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa	cm ³	mm	mm	g
3.6	14.5	22.0	8.0	14.5	21.0	1.0	18	2.0	1.2

MATERIAL SPECIFICATIONS

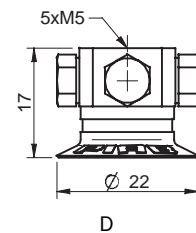
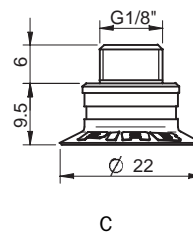
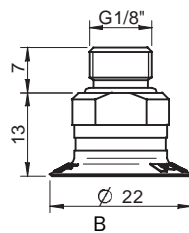
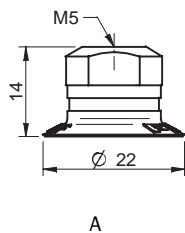
Material	Colour	Hardness °Shore A	Temperature range °C
Thermoelastic polyurethane, TPU	Transparent white	81	-20-80

MATERIAL RESISTANCE

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

ORDERING INFORMATION

	Complete suction cups	Art. No.
A	Suction cup F20MF Thermoelastic polyurethane, M5 female	0101281
A	Suction cup F20MF Thermoelastic polyurethane, M5 female, with dual flow control valve	0101287
B	Suction cup F20MF Thermoelastic polyurethane, G1/8" male, with mesh filter	0101282
B	Suction cup F20MF Thermoelastic polyurethane, G1/8" male, with mesh filter and dual flow control valve	0101288
C	Suction cup F20MF Thermoelastic polyurethane, G1/8" male / M5 female, with mesh filter	0101286
C	Suction cup F20MF Thermoelastic polyurethane, G1/8" male / M5 fem., with dual flow control valve	0101290
D	Suction cup F20MF Thermoelastic polyurethane, 5xM5 female	0101285
D	Suction cup F20MF Thermoelastic polyurethane, 5xM5 female, with dual flow control valve	0101291



Rubber parts	Art. No.
Suction cup F20MF Thermoelastic polyurethane	0101139



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

For further information and dimensioned drawings, see SUCTION CUPS FITTINGS chapter.

F25MF



FLAT SUCTION CUP WITH CLEATS, MARK FREE

- ▶ Suction cup of TPU, a mark free material that leaves no trace on the object being handled.
- ▶ Suitable for flat surfaces.
- ▶ Good stability and little inherent movement.
- ▶ Recommended when the lifting force is parallel to the surface of the object.

LIFTING FORCES & TECHNICAL DATA

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm ³	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
6.3	24.5	35.5	9.0	24.5	36.3	1.1	23	1.5	1.7

MATERIAL SPECIFICATIONS

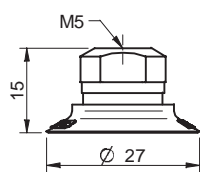
Material	Colour	Hardness °Shore A	Temperature range °C
Thermoelastic polyurethane, TPU	Transparent white	81	-20-80

MATERIAL RESISTANCE

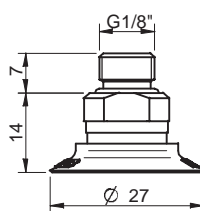
Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Excellent	Excellent	Excellent	Poor	Poor	Poor	Good	Good

ORDERING INFORMATION

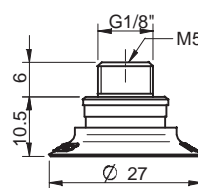
Complete suction cups	Art. No.
A Suction cup F25MF Thermoelastic polyurethane, M5 female	0101314
A Suction cup F25MF Thermoelastic polyurethane, M5 female, with dual flow control valve	0101320
B Suction cup F25MF Thermoelastic polyurethane, G1/8" male, with mesh filter	0101315
B Suction cup F25MF Thermoelastic polyurethane, G1/8" male, with mesh filter and dual flow control valve	0101321
C Suction cup F25MF Thermoelastic polyurethane, G1/8" male/M5 female, with mesh filter	0101319
C Suction cup F25MF Thermoelastic polyurethane, G1/8" male/M5 fem., with dual flow control valve	0101323
D Suction cup F25MF Thermoelastic polyurethane, 5xM5 female	0101318
D Suction cup F25MF Thermoelastic polyurethane, 5xM5 female, with dual flow control valve	0101324



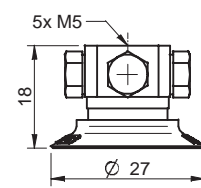
A



B

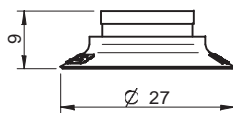


C



D

Rubber parts	Art. No.
Suction cup F25MF Thermoelastic polyurethane	0101140



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

For further information and dimensioned drawings, see SUCTION CUPS FITTINGS chapter.

F30MF



FLAT SUCTION CUP WITH CLEATS, MARK FREE

- ▶ Suction cup of TPU, a mark free material that leaves no trace on the object being handled.
- ▶ Suitable for flat surfaces.
- ▶ Good stability and little inherent movement.
- ▶ Recommended when the lifting force is parallel to the surface of the object.

LIFTING FORCES & TECHNICAL DATA

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume	Min. curve radius	Max. vertical movement	Weight rubber part
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa	cm ³	mm	mm	g
11.0	34.5	48	13,6	28	42	2.0	44	1.5	2.2

MATERIAL SPECIFICATIONS

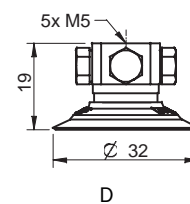
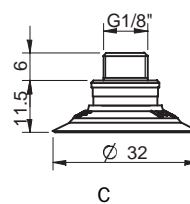
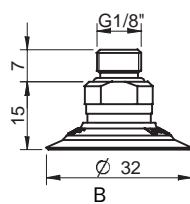
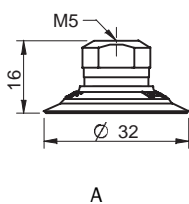
Material	Colour	Hardness °Shore A	Temperature range °C
Thermoelastic polyurethane, TPU	Transparent white	81	-20-80

MATERIAL RESISTANCE

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

ORDERING INFORMATION

	Complete suction cups	Art. No.
A	Suction cup F30MF Thermoelastic polyurethane, M5 female	0101357
A	Suction cup F30MF Thermoelastic polyurethane, M5 female, with dual flow control valve	0101363
B	Suction cup F30MF Thermoelastic polyurethane, G1/8" male, with mesh filter	0101358
B	Suction cup F30MF Thermoelastic polyurethane, G1/8" male, with mesh filter and dual flow control valve	0101364
C	Suction cup F30MF Thermoelastic polyurethane, G1/8" male/M5 female, with mesh filter	0101362
C	Suction cup F30MF Thermoelastic polyurethane, G1/8" male/M5 fem., with dual flow control valve	0101366
D	Suction cup F30MF Thermoelastic polyurethane, 5xM5 female	0101361
D	Suction cup F30MF Thermoelastic polyurethane, 5xM5 female, with dual flow control valve	0101367



Rubber parts	Art. No.
Suction cup F30MF Thermoelastic polyurethane	0101141



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

For further information and dimensioned drawings, see SUCTION CUPS FITTINGS chapter.

F40MF



FLAT SUCTION CUP WITH CLEATS, MARK FREE

- ▶ Suction cup of TPU, a mark free material that leaves no trace on the object being handled.
- ▶ Suitable for flat surfaces.
- ▶ Good stability and little inherent movement.
- ▶ Recommended when the lifting force is parallel to the surface of the object.

LIFTING FORCES & TECHNICAL DATA

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm ³	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
18.0	57	83	16.0	49	57	4.8	60	2.0	6

MATERIAL SPECIFICATIONS

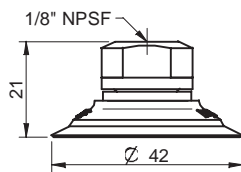
Material	Colour	Hardness °Shore A	Temperature range °C
Thermoelastic polyurethane, TPU	Transparent white	81	-20-80

MATERIAL RESISTANCE

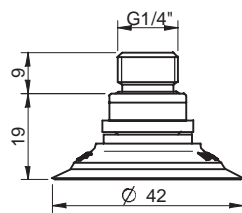
Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Excellent	Excellent	Excellent	Poor	Poor	Poor	Good	Good

ORDERING INFORMATION

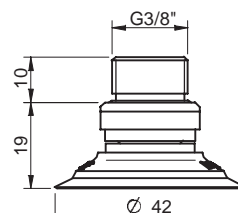
	Complete suction cups	Art. No.
A	Suction cup F40MF Thermoelastic polyurethane, 1/8"NPSF female	0101591
A	Suction cup F40MF Thermoelastic polyurethane, 1/8"NPSF female, with dual flow control valve	0101592
B	Suction cup F40MF Thermoelastic polyurethane, G1/4" male, with mesh filter	0101586
B	Suction cup F40MF Thermoelastic polyurethane, G1/4" male, with mesh filter and dual flow control valve	0101593
C	Suction cup F40MF Thermoelastic polyurethane, G3/8" male, with mesh filter	0101588
C	Suction cup F40MF Thermoelastic polyurethane, G3/8" male, with mesh filter and dual flow control valve	0101595
D	Suction cup F40MF Thermoelastic polyurethane, 5x1/8"NPSF female	0101590
D	Suction cup F40MF Thermoelastic polyurethane, 5x1/8"NPSF female, with dual flow control valve	0101597



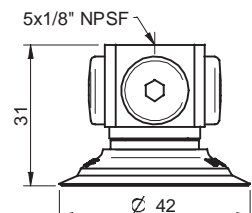
A



B

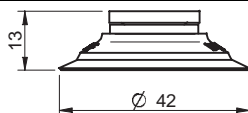


C



D

Rubber parts	Art. No.
Suction cup F40MF Thermoelastic polyurethane	0101142



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

For further information and dimensioned drawings, see SUCTION CUPS FITTINGS chapter.

F50MF



FLAT SUCTION CUP WITH CLEATS, MARK FREE

- ▶ Suction cup of TPU, a mark free material that leaves no trace on the object being handled.
- ▶ Suitable for flat surfaces.
- ▶ Good stability and little inherent movement.
- ▶ Recommended when the lifting force is parallel to the surface of the object.

LIFTING FORCES & TECHNICAL DATA

Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm ³	Min. curve radius mm	Max. vertical movement mm	Weight rubber part g
20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
24.5	92	141	31	82	107	10	95	2.0	10

MATERIAL SPECIFICATIONS

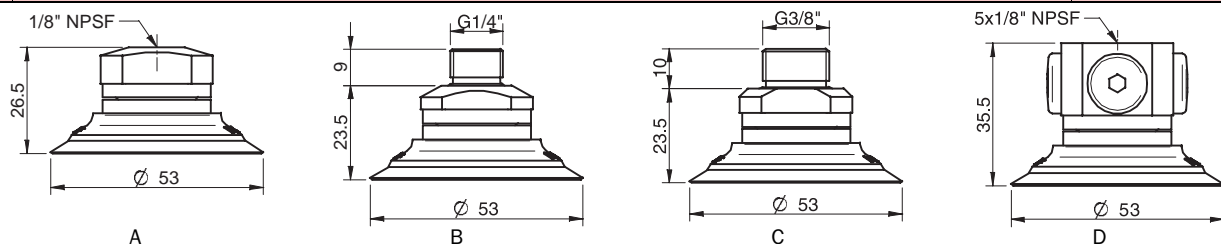
Material	Colour	Hardness °Shore A	Temperature range °C
Thermoelastic polyurethane, TPU	Transparent white	81	-20-80

MATERIAL RESISTANCE

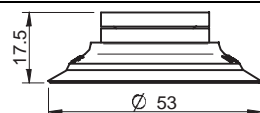
Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Excellent	Excellent	Excellent	Poor	Poor	Poor	Good	Good

ORDERING INFORMATION

	Complete suction cups	Art. No.
A	Suction cup F50MF Thermoelastic polyurethane, 1/8"NPSF female, with mesh filter	0101791
A	Suction cup F50MF Thermoelastic polyurethane, 1/8"NPSF female, with dual flow control valve	0101792
B	Suction cup F50MF Thermoelastic polyurethane, G1/4" male, with mesh filter	0101786
B	Suction cup F50MF Thermoelastic polyurethane, G1/4" male, with mesh filter and dual flow control valve	0101793
C	Suction cup F50MF Thermoelastic polyurethane, G3/8" male, with mesh filter	0101788
C	Suction cup F50MF Thermoelastic polyurethane, G3/8" male, with mesh filter and dual flow control valve	0101795
D	Suction cup F50MF Thermoelastic polyurethane, 5x1/8"NPSF female	0101790
D	Suction cup F50MF Thermoelastic polyurethane, 5x1/8"NPSF female, with dual flow control valve	0101797



Rubber parts	Art. No.
Suction cup F50MF Thermoelastic polyurethane	0101143



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

For further information and dimensioned drawings, see SUCTION CUPS FITTINGS chapter.

F75P



FLAT SUCTION CUP WITH CLEATS

- ▶ Suitable for flat and rough surfaces.
- ▶ Fair stability and little inherent movement.
- ▶ Recommended when the lifting force is parallel to the surface of the object.
- ▶ In the two-coloured suction cup the bellows and the sealing lip are of different hardnesses, which makes the suction cup strong and stable and, at the same time, soft and flexible.
- ▶ DURAFLEX® suction cups manufactured in a specially developed material that features the elasticity of rubber and wear resistance of polyurethane. The material does not leave any marks on the objects handled.

LIFTING FORCES & TECHNICAL DATA

Material	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm ³	Min. curve radius mm	Max. vertical movement mm	Weight rubber parts g
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
PU30°/60°	70	193	273	44	176	308	19	150	2	28
PU60°	82	231	330	47	113	169	19	150	2	53

MATERIAL SPECIFICATIONS

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

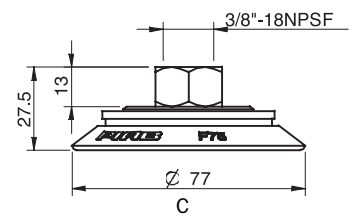
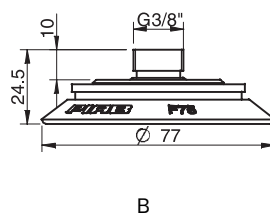
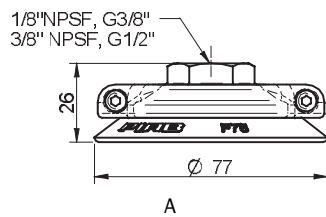
MATERIAL RESISTANCE

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

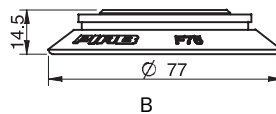
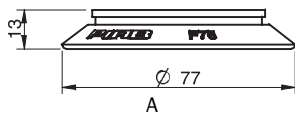
**Please contact PIAB.

ORDERING INFORMATION

Complete suction cups		Art. No.
A	Suction cup F75P Polyurethane 30/60, 1/8"NPSF female, with mesh filter	0106349
A	Suction cup F75P Polyurethane 30/60, G3/8" female, with mesh filter	0106350
A	Suction cup F75P Polyurethane 30/60, 3/8"NPSF female, with mesh filter	0106351
A	Suction cup F75P Polyurethane 30/60, G1/2" female, with mesh filter	0106352
A	Suction cup F75P Polyurethane 60, 1/8"NPSF female, with mesh filter	0111585
A	Suction cup F75P Polyurethane 60, G3/8" female, with mesh filter	0111586
A	Suction cup F75P Polyurethane 60, 3/8"NPSF female, with mesh filter	0111587
A	Suction cup F75P Polyurethane 60, G1/2" female, with mesh filter	0111588
B	Suction cup F75P Polyurethane 30/60, thread insert G3/8" male, with mesh filter	0106830
B	Suction cup F75P Polyurethane 60, thread insert G3/8" male, with mesh filter	0107321
C	Suction cup F75P Polyurethane 30/60, 3/8"NPSF female	0108800
C	Suction cup F75P Polyurethane 60, 3/8"NPSF female	0108801



Rubber parts		Art. No.
A	Suction cup F75P Polyurethane 30/60	0104724
A	Suction cup F75P Polyurethane 60	0111584
B	Suction cup F75P Polyurethane 30/60, for tread insert	0106829
B	Suction cup F75P Polyurethane 60, for tread insert	0107320



Fittings		Art. No.
Fitting G3/8" female, with mesh filter		0100551
Fitting 1/8"NPSF female, with mesh filter		0100548
Fitting G1/2" female, with mesh filter		0100555
Fitting 3/8"NPSF female, with mesh filter		0100553
Thread insert G3/8" male, with O-ring and mesh filter		0107148

For further information and dimensioned drawings, see SUCTION CUPS FITTINGS chapter.

F110P



FLAT SUCTION CUP WITH CLEATS

- ▶ Suitable for flat and rough surfaces.
- ▶ Fair stability and little inherent movement.
- ▶ Recommended when the lifting force is parallel to the surface of the object.
- ▶ In the two-coloured suction cup the bellows and the sealing lip are of different hardnesses, which makes the suction cup strong and stable and, at the same time, soft and flexible.
- ▶ DURAFLEX® suction cups manufactured in a specially developed material that features the elasticity of rubber and wear resistance of polyurethane. The material does not leave any marks on the objects handled.

LIFTING FORCES & TECHNICAL DATA

Material	Lifting force vertical to the surface, N, at vacuum level			Lifting force parallel to the surface, N, at vacuum level			Volume cm ³	Min. curve radius mm	Max. vertical movement mm	Weight rubber parts g
	20 -kPa	60 -kPa	90 -kPa	20 -kPa	60 -kPa	90 -kPa				
PU30°/60°	167	432	591	149	441	617	60	250	4	82
PU60°	191	498	705	297	523	664	60	250	4	133

MATERIAL SPECIFICATIONS

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

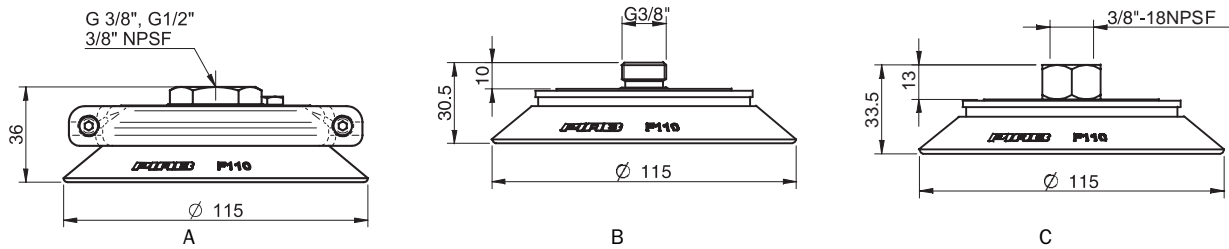
MATERIAL RESISTANCE

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

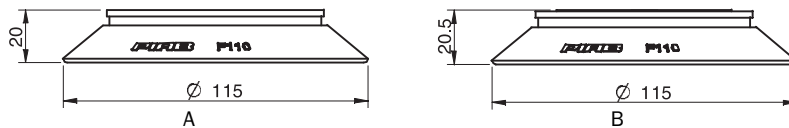
**Please contact PIAB.

ORDERING INFORMATION

Complete suction cups		Art. No.
A	Suction cup F110P Polyurethane 30/60, G3/8" female, with mesh filter	0106353
A	Suction cup F110P Polyurethane 30/60, 3/8"NPSF female, with mesh filter	0106354
A	Suction cup F110P Polyurethane 30/60, G1/2" female, with mesh filter	0106355
A	Suction cup F110P Polyurethane 60, G3/8" female, with mesh filter	0111595
A	Suction cup F110P Polyurethane 60, 3/8"NPSF female, with mesh filter	0111596
A	Suction cup F110P Polyurethane 60, G1/2" female, with mesh filter	0111597
B	Suction cup F110P Polyurethane 30/60, thread insert G3/8" with mesh filter	0106798
B	Suction cup F110P Polyurethane 60, thread insert G3/8" with mesh filter	0107323
C	Suction cup F110P Polyurethane 30/60, 3/8"NPSF female	0108802
C	Suction cup F110P Polyurethane 60, 3/8"NPSF female	0108803



Rubber parts		Art. No.
A	Suction cup F110P Polyurethane 30/60	0104725
A	Suction cup F110P Polyurethane 60	0111593
B	Suction cup F110P Polyurethane 30/60, for thread insert	0106796
B	Suction cup F110P Polyurethane 60, for thread insert	0107322



Fitting		Art. No.
Fitting G3/8" female, with mesh filter		0100557
Fitting 3/8"NPSF female, with mesh filter		0100559
Fitting G1/2" female, with mesh filter		0100561
Thread insert G3/8" male, with O-ring and mesh filter		0107148

For further information and dimensioned drawings, see SUCTION CUPS FITTINGS chapter.