

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			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				
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

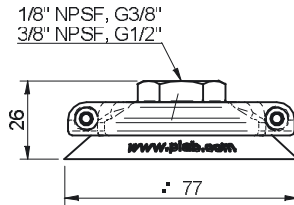
Material resistance

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

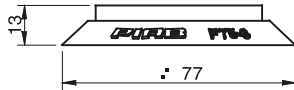
Ordering information

Complete suction cups	Art. No.
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

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

F110



Flat suction cup with cleats

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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
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*

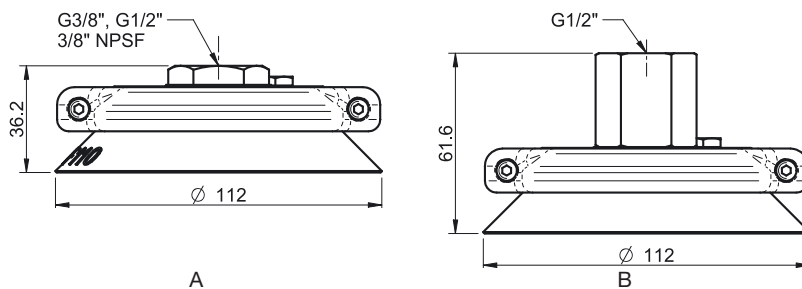
* For a shorter period of time up to +160 °C

Material resistance

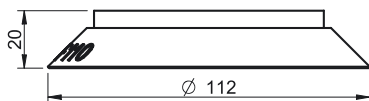
Material	Wear resistance	Oil	Weather & ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Nitrile-PVC, NPV	Excellent	Excellent	Good	Good	Excellent	Fair	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent
HNBR	Excellent	Excellent	Excellent	Good	Excellent	Fair	Good	Excellent

Ordering information

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

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

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

F150



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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				
300	850	1100	250	600	800	160	500	6.0	200

Material specifications

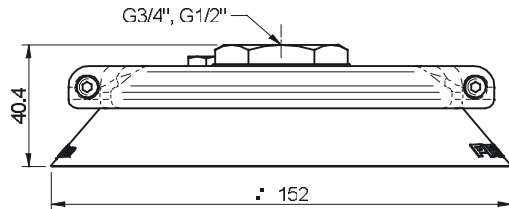
Material	Colour	Hardness °Shore A	Temperature range °C
Nitrile-PVC, NPV	Black	50	0-90
Silicone, SIL	Red	50	-40-200

Material resistance

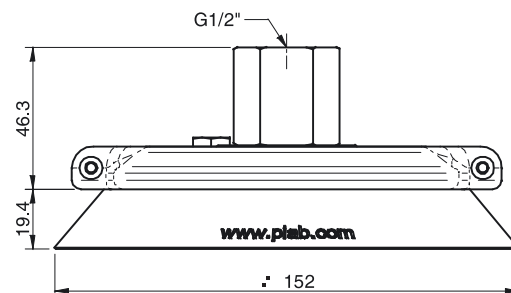
Material	Wear resistance	Oil	Weather & Ozone	Hydrolysis	Petrol	Concentrated acids	Alcohol	Oxidation
Nitrile-PVC, NPV	Excellent	Excellent	Good	Good	Excellent	Fair	Good	Good
Silicone, SIL	Good	Poor	Excellent	Fair	Poor	Poor	Good	Excellent

Ordering information

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

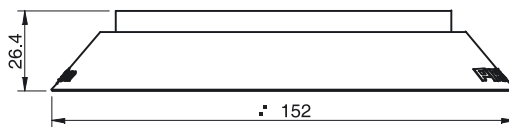


A



B

	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

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

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