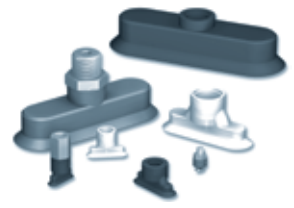


VPO

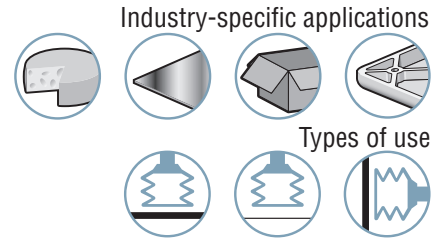
Oblong Flat Suction Cups



The VPO series of flat suction cups is used for handling oblong products, such as pens, tubes and bottles, and flat or cylindrical objects.

Materials

NBR Nitrile **STN** SITON® **SI** Silicone



2
VPO

Suction Cup Properties

	I x L (mm)	Volume (cm ³)	Force (lbf) ⁽¹⁾	R _{min} (mm)	NBR	SI	STN
VPO 24	2x4	0.004	0.05	1	VPO24NBR	VPO24SI	VPO24STN
VPO 357	3.5x7	0.019	0.12	3	VPO357NBR	VPO357SI	VPO357STN
VPO 515	5x15	0.036	0.38	4	VPO515NBR	VPO515SI	VPO515STN
VPO 618	6x18	0.058	0.55	4	VPO618NBR	VPO618SI	VPO618STN
VPO 824	8x24	0.138	0.97	8	VPO824NBR	VPO824SI	VPO824STN
VPO 1030	10x30	0.28	1.49	8	VPO1030NBR	VPO1030SI	VPO1030STN
VPO 1545	15x45	0.98	3.43	10	VPO1545NBR	VPO1545SI	VPO1545STN
VPO 2060	20x60	2.3	6.10	20	VPO2060NBR	VPO2060SI	VPO2060STN
VPO 2575	25x75	4.7	9.53	30	VPO2575NBR	VPO2575SI	VPO2575STN
VPO 3090	30x90	8.5	13.72	35	VPO3090NBR	VPO3090SI	VPO3090STN

(1) Actual force of the suction cup with 65% vacuum and a safety factor of 2 included.

Choice of Fittings

	M3-M	M5-M	M5-F	G1/8"-M	G1/8"-F	G1/4"-M	G1/4"-F
24, 357	■	-	-	-	-	-	-
515, 618	-	■	■	-	-	-	-
824, 1030	-	-	-	■	■	-	-
1545... 3090	-	-	-	-	-	■	■

Collar must be used from 8 x 24 upwards to prevent unintentional rotation when in use.

■ Standard available configurations (suction cup + fitting): refer to n° table above

Fitting: M = male

F = female

Type of Assembly



Version C: Barbed fitting

References - "Suction Cup + Fitting"

	C	
	THREAD	M3-M
2x4, 3.5x7	VPO24NBR	VPO24NBRIMM3C
	VPO24SI	VPO24SIIMM3C
	VPO24STN	VPO24STNIMM3C
	VPO357NBR	VPO357NBRIMM3C
	VPO357SI	VPO357SIIMM3C
	VPO357STN	VPO357STNIMM3C

	C		
	THREAD	M5-M	M5-F
5x15 - 6x18	VPO515NBR	VPO515NBRIMM5C	VPO515NBRIFM5C
	VPO515SI	VPO515SIIMM5C	VPO515SIIFM5C
	VPO515STN	VPO515STNIMM5C	VPO515STNIFM5C
	VPO618NBR	VPO618NBRIMM5C	VPO618NBRIFM5C
	VPO618SI	VPO618SIIMM5C	VPO618SIIFM5C
	VPO618STN	VPO618STNIMM5C	VPO618STNIFM5C

	C		
	THREAD	G1/8"-M	G1/8"-F
8x24 - 10x30	VPO824NBR	VPO824NBRIM18C	VPO824NBRIF18C
	VPO824SI	VPO824SIIM18C	VPO824SIIF18C
	VPO824STN	VPO824STNIM18C	VPO824STNIF18C
	VPO1030NBR	VPO1030NBRIM18C	VPO1030NBRIF18C
	VPO1030SI	VPO1030SIIM18C	VPO1030SIIF18C
	VPO1030STN	VPO1030STNIM18C	VPO1030STNIF18C

	C		
	THREAD	G1/4"-M	G1/4"-F
15x45 - 30x90	VPO1545NBR	VPO1545NBRIM14C	VPO1545NBRIF14C
	VPO1545SI	VPO1545SIIM14C	VPO1545SIIF14C
	VPO1545STN	VPO1545STNIM14C	VPO1545STNIF14C
	VPO2060NBR	VPO2060NBRIM14C	VPO2060NBRIF14C
	VPO2060SI	VPO2060SIIM14C	VPO2060SIIF14C
	VPO2060STN	VPO2060STNIM14C	VPO2060STNIF14C
	VPO2575NBR	VPO2575NBRIM14C	VPO2575NBRIF14C
	VPO2575SI	VPO2575SIIM14C	VPO2575SIIF14C
	VPO2575STN	VPO2575STNIM14C	VPO2575STNIF14C
	VPO3090NBR	VPO3090NBRIM14C	VPO3090NBRIF14C
	VPO3090SI	VPO3090SIIM14C	VPO3090SIIF14C
	VPO3090STN	VPO3090STNIM14C	VPO3090STNIF14C

Accessories

Anti-rotation spring system, see page 4/6

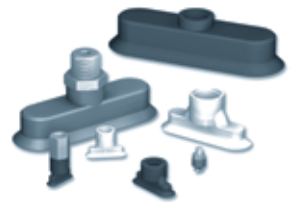


Please specify the part n°. e.g. VPO618NBRIFM5C
See part n° table above

VPO

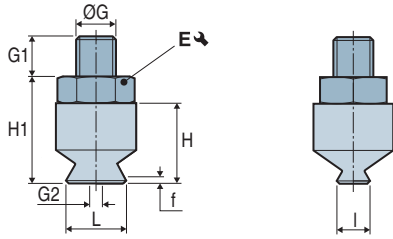
Oblong Flat Suction Cups

Dimensions - "Suction Cup + Fitting"



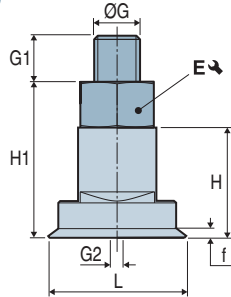
VPO 2x4 - 3.5x7

1

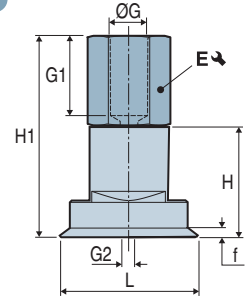


VPO 5x15 - 6x18

2

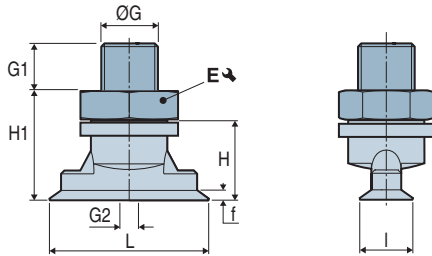


3

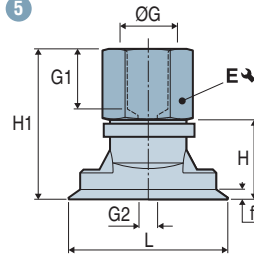


VPO 8x24 - 10x30

4

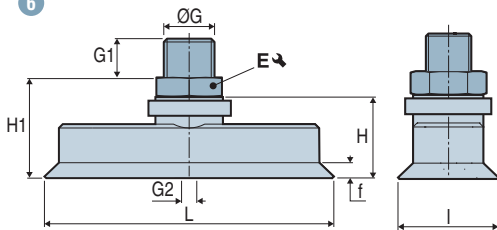


5



VPO 15x45 - 20x60 - 25x75 - 30x90

6



7

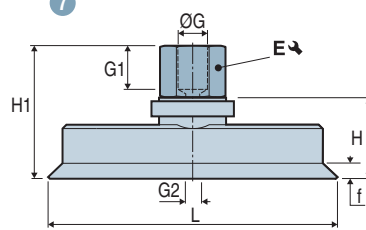


	Diagram	L	I	f ⁽¹⁾	H	H1	ØG	G1	ØG2 ⁽²⁾	E ↘	⊕ (g)
VPO24---IMM3C	1	4	2	0.5	6	8	M3-M	3	1	5	0.4
VPO357---IMM3C	1	7	3.5	0.8	6	8	M3-M	3	1	5	0.3
VPO515---IMM5C	2	15	5	0.7	12	17	M5-M	5	2	8	1.8
VPO515---IFM5C	3	15	5	0.7	12	22	M5-F	8.5	2	8	1.8
VPO618---IMM5C	2	18	6	0.8	12	17	M5-M	5	2	8	1.8
VPO618---IFM5C	3	18	6	0.8	12	22	M5-F	8.5	2	8	1.8
VPO824---IM18C	4	24	8	1	12	17	G1/8"-M	8	3.5	14	6.6
VPO824---IF18C	5	24	8	1	12	25	G1/8"-F	9	3.5	14	7.3
VPO1030---IM18C	4	30	10	1.5	12	17	G1/8"-M	8	3.5	14	6.8
VPO1030---IF18C	5	30	10	1.5	12	25	G1/8"-F	9	3.5	14	7.5
VPO1545---IM14C	6	45	15	2	21	26	G1/4"-M	10	3.5	17	16.5
VPO1545---IF14C	7	45	15	2	21	36	G1/4"-F	12	3.5	17	16.5
VPO2060---IM14C	6	60	20	2.5	21	26	G1/4"-M	10	3.5	17	19.7
VPO2060---IF14C	7	60	20	2.5	21	36	G1/4"-F	12	3.5	17	19.7
VPO2575---IM14C	6	75	25	2.8	21	26	G1/4"-M	10	3.5	17	27.9
VPO2575---IF14C	7	75	25	2.8	21	36	G1/4"-F	12	3.5	17	27.9
VPO3090---IM14C	6	90	30	3.5	21	26	G1/4"-M	10	3.5	17	36.3
VPO3090---IF14C	7	90	30	3.5	21	36	G1/4"-F	12	3.5	17	36.3

Note: All dimensions are in mm.

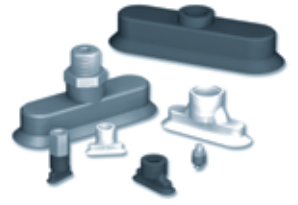
(1) f = Deflection of the suction cup.

(2) Ø G2 = Ø internal orifice of the fitting.

VPO

Oblong Flat Suction Cups

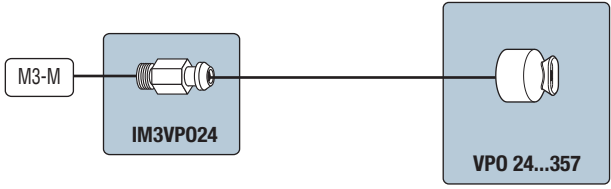
Assembly Diagrams



2
VPO

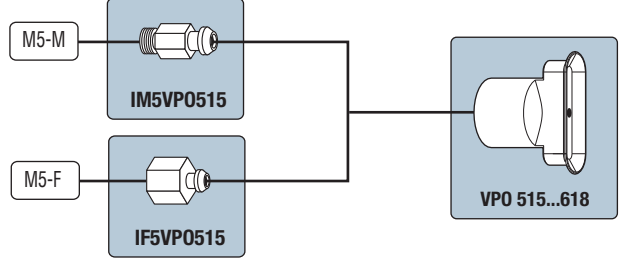
VPO 24 - 357

Barbed fittings   



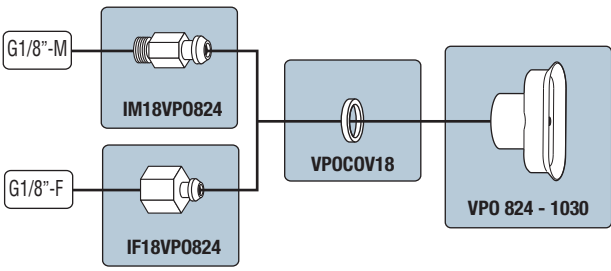
VPO 515 - 618

Barbed fittings   



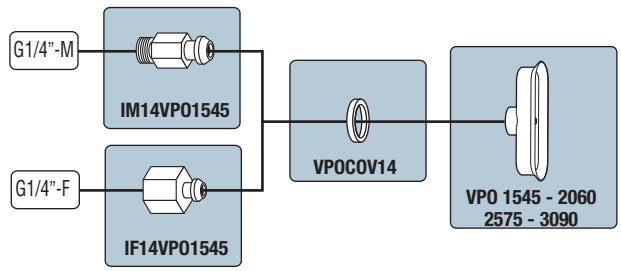
VPO 824 - 1030

Barbed fittings   



VPO 1545 - 2060 - 2575 - 3090

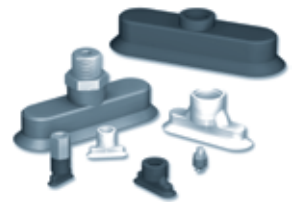
Barbed fittings   



VPO

Oblong Flat Suction Cups

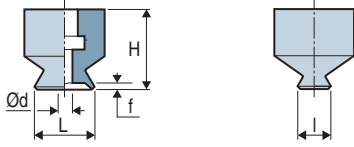
Dimensions



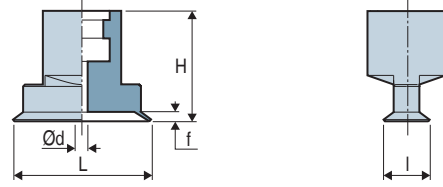
VPO 2

Dimensions Suction Cups

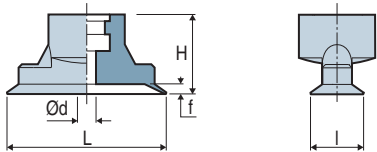
VPO 24 - 357



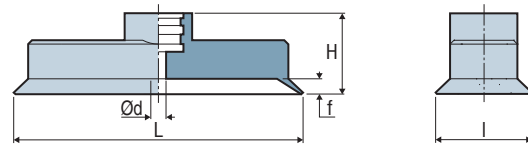
VPO 515 - 618





VPO 824 - 1030



VPO 1545 - 2060 - 2575 - 3090



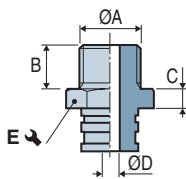
Suction Cups

	L	l	Ø d	H	f (1)	 (g)
VPO24	4	2	0.7	6	0.5	0.12
VPO357	7	3.5	1	6	0.8	0.15
VPO515	15	5	1.2	12	0.7	0.51
VPO618	18	6	1.5	12	0.8	0.53
VPO824	24	8	1.5	12	1	1.1
VPO1030	30	10	2.5	12	1.5	1.3
VPO1545	45	15	3	21	2	4.1
VPO2060	60	20	4	21	2.5	7.3
VPO2575	75	25	4	21	2.8	15.5
VPO3090	90	30	4	21	3.5	23.9

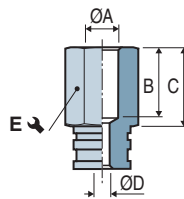
(1) f = Deflection of the suction cup.

Barbed Fitting

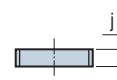
Male - IM





Female - IF



Collar



	ØA	B	C	ØD	E 	j	Material	 (g)
IM3VP024	M3-M	3	2	1	5	-	Aluminum	0.2
IM5VP0515	M5-M	5	5	2	8	-	Aluminum	1.3
IM18VP0824	G1/8"-M	8	5	3.5	14	-	Aluminum	3.9
IM14VP01545	G1/4"-M	10	5	3.5	17	-	Aluminum	9.7
IF5VP0515	M5-F	8.5	10	2	8	-	Aluminum	1.3
IF18VP0824	G1/8"-F	9	13	3.5	14	-	Aluminum	4.6
IF14VP01545	G1/4"-F	12	15	3.5	17	-	Aluminum	9.7
VPO COV18	-	-	-	-	-	4	Aluminum	1.6
VPO COV14	-	-	-	-	-	4	Aluminum	2.7

The values represent the average characteristics of our products.
Note: All dimensions are in mm.

(1) f = Deflection of the suction cup.