

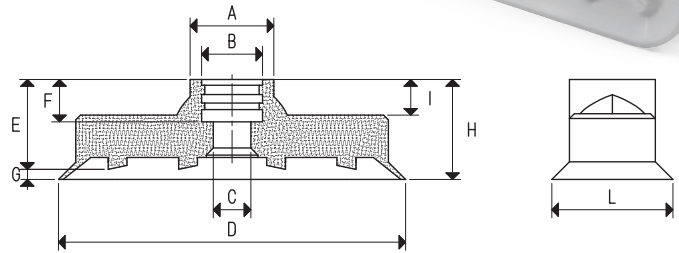
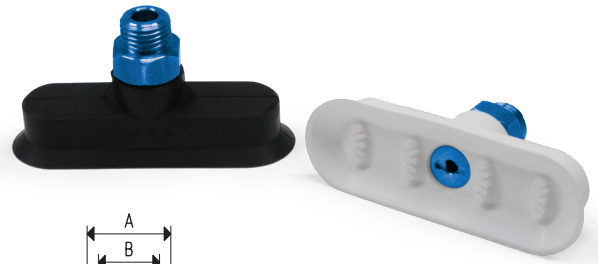


# FLAT AND BELLOW ELLIPTICAL SUCTION CUPS WITH RELATIVE SUPPORTS

Complete range of flat elliptical suction cups, normally used for gripping, handling and clamping cardboard cases and boxes, wood shingles, small ceramic or brick tiles, iron or stainless steel profiles, sheets and anything else present on long, narrow gripping surfaces.

Instead, bellow elliptical suction cups, in addition to having the same function as the flat cups described above, are able to adapt to the gripping plane, even if not perfectly perpendicular to the axis of the suction cup, and can recover evident unevenness of the loads to be lifted.

They are normally available in three standard compounds but can also be supplied in special compounds, upon request and for minimum quantities to be specified upon ordering. Both items can be supplied with or without automation fastening support. Upon request, special non-rotating suction cup holders on which to assemble them are able to prevent their rotation during use.



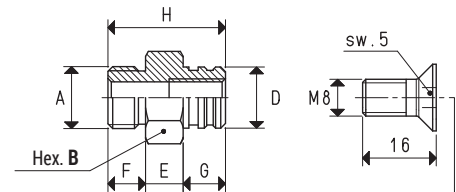
## CUPS

Art.	Force Kg	A Ø	B Ø	C Ø	D	E	F	G	H	I	L	Volume cm <sup>3</sup>
VOP 08 24 SR *	0.44	12.2	7.3	2.5	24	11.2	5.5	0.8	12.0	6.7	8.0	0.191
VOP 10 30 SR *	0.69	12.2	7.3	4.5	30	11.3	5.5	0.7	12.0	7.0	10.0	0.214
VOP 12 36 SR *	0.98	12.0	7.3	5.0	36	12.1	5.5	0.9	13.0	6.4	12.0	0.498
VOP 15 45 SR *	1.56	16.4	13.0	4.0	45	20.1	8.8	1.9	22.0	14.3	15.0	1.203
VOP 20 60 SR *	2.73	18.0	13.0	8.0	60	20.0	9.0	1.5	21.5	10.0	20.0	2.026
VOP 25 75 SR *	4.30	17.8	13.0	8.0	75	19.1	9.0	2.2	21.3	7.6	25.0	5.026
VOP 28 85 SR *	5.53	18.6	13.0	8.0	85	18.9	9.7	2.8	21.7	8.7	28.0	6.761
VOP 35 100 SR *	8.09	18.8	13.0	8.0	100	18.9	9.7	3.3	22.2	8.7	35.0	11.989

\* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

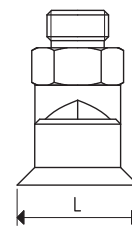
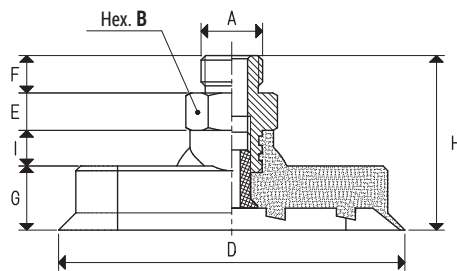
## MALE SUPPORTS

Art.	A Ø	B	D Ø	E	F	G	H	Support material	Cup art.	Peso g
00 08 344	G1/8"	14	7.3	7	7	5.5	19.5	aluminium	VOP 08 24 SR VOP 10 30 SR VOP 12 36 SR	18.5
00 08 346	G1/4"	17	13.0	8	8	9.0	25.0	aluminium	VOP 15 45 SR	25.0
00 08 404	G1/4"	17	13.0	8	8	9.0	25.0	aluminium	VOP 20 60 SR VOP 25 75 SR	29.8
00 08 402	G1/4"	17	13.0	8	8	9.0	25.0	aluminium	VOP 28 85 SR VOP 35 100 SR	30.7



screw  
art.00 08 347 for supp.00 08 402  
art.00 08 348 for supp.00 08 404

N.B. By ordering the art. referring to the support, the screw will also be provided



## CUPS WITH MALE SUPPORTS

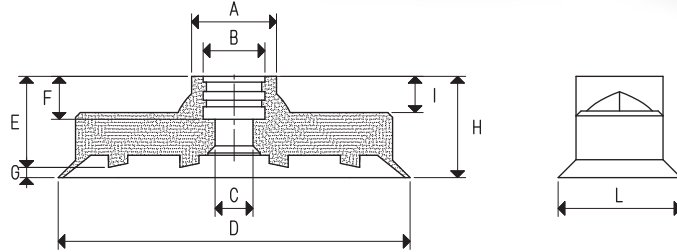
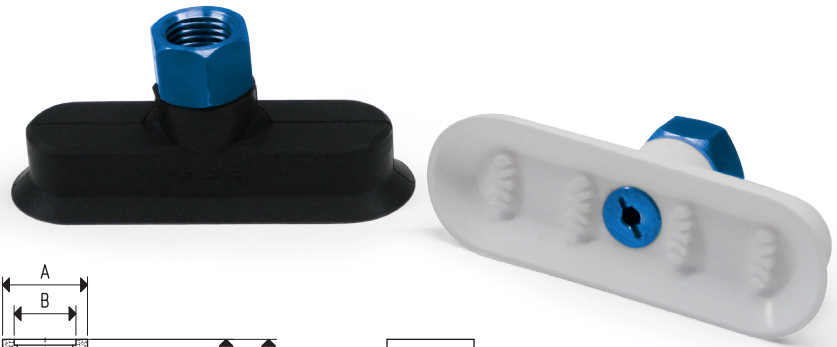
Art.	Force Kg	A Ø	B	D	E	F	G	H	I	L	Cup art.	Support art.	Weight g
VOP 08 24 *	0.44	G1/8"	14	24	7	7	5.3	26.0	6.7	8.0	VOP 08 24 SR	00 08 344	19.7
VOP 10 30 *	0.69	G1/8"	14	30	7	7	5.0	26.0	7.0	10.0	VOP 10 30 SR	00 08 344	19.8
VOP 12 36 *	0.98	G1/8"	14	36	7	7	6.6	27.0	6.4	12.0	VOP 12 36 SR	00 08 344	20.6
VOP 15 45 *	1.56	G1/4"	17	45	8	8	7.7	38.0	14.3	15.0	VOP 15 45 SR	00 08 346	29.2
VOP 20 60 *	2.73	G1/4"	17	60	8	8	11.5	37.5	10.0	20.0	VOP 20 60 SR	00 08 404	38.3
VOP 25 75 *	4.30	G1/4"	17	75	8	8	13.7	37.3	7.6	25.0	VOP 25 75 SR	00 08 404	43.5
VOP 28 85 *	5.53	G1/4"	17	85	8	8	13.0	37.7	8.7	28.0	VOP 28 85 SR	00 08 402	50.7
VOP 35 100 *	8.09	G1/4"	17	100	8	8	13.5	38.2	8.7	35.0	VOP 35 100 SR	00 08 402	62.7

\* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note. The force of the suction cups shown in the table represents 1/3 of the value of the theoretical force calculated at a vacuum degree of -75 kPa and a safety factor 3.

Conversion ratio: N (newton) = Kg x 9.81 (G-force); inch =  $\frac{\text{mm}}{25.4}$ ; pounds =  $\frac{\text{Kg}}{453.6} = \frac{\text{Kg}}{0.4536}$  GAS-NPT thread adapters available at page 1.128

# FLAT ELLIPTICAL SUCTION CUPS WITH FEMALE SUPPORTS



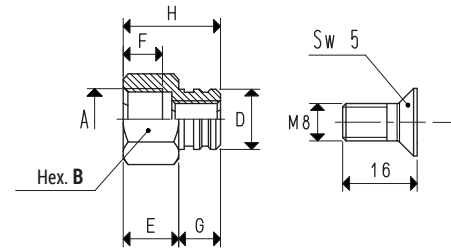
## CUPS

Art.	Force Kg	A Ø	B Ø	C Ø	D	E	F	G	H	I	L	Volume cm <sup>3</sup>
VOP 08 24 SR *	0.44	12.2	7.3	2.5	24	11.2	5.5	0.8	12.0	6.7	8.0	0.191
VOP 10 30 SR *	0.69	12.2	7.3	4.5	30	11.3	5.5	0.7	12.0	7.0	10.0	0.214
VOP 12 36 SR *	0.98	12.0	7.3	5.0	36	12.1	5.5	0.9	13.0	6.4	12.0	0.498
VOP 15 45 SR *	1.56	16.4	13.0	4.0	45	20.1	8.8	1.9	22.0	14.3	15.0	1.203
VOP 20 60 SR *	2.73	18.0	13.0	8.0	60	20.0	9.0	1.5	21.5	10.0	20.0	2.026
VOP 25 75 SR *	4.30	17.8	13.0	8.0	75	19.1	9.0	2.2	21.3	7.6	25.0	5.026
VOP 28 85 SR *	5.53	18.6	13.0	8.0	85	18.9	9.7	2.8	21.7	8.7	28.0	6.761
VOP 35 100 SR *	8.09	18.8	13.0	8.0	100	18.9	9.7	3.3	22.2	8.7	35.0	11.989

\* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

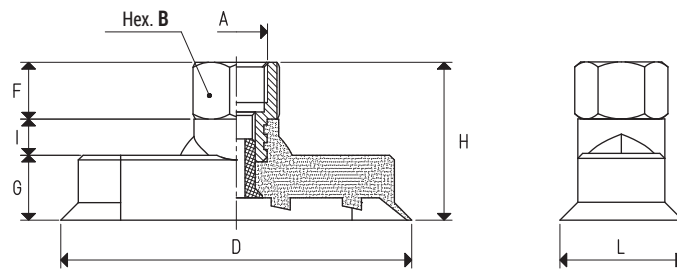
## FEMALE SUPPORTS

Art.	A Ø	B	D Ø	E	F	G	H	Support material	Cup art.	Peso g
00 08 343	G1/8"	14	7.3	10	8.0	5.5	15.5	aluminium	VOP 08 24 SR VOP 10 30 SR VOP 12 36 SR	16.8
00 08 345	G1/4"	17	13.0	12	8.5	9.0	21.0	aluminium	VOP 15 45 SR	19.9
00 08 405	G1/4"	17	13.0	12	8.5	9.0	21.0	aluminium	VOP 20 60 SR VOP 25 75 SR	24.7
00 08 403	G1/4"	17	13.0	12	8.5	9.0	21.0	aluminium	VOP 28 85 SR VOP 35 100 SR	25.6



screw  
art.00 08 347 for supp.00 08 403  
art.00 08 348 for supp.00 08 405

N.B. By ordering the art. referring to the support, the screw will also be provided



## CUPS WITH FEMALE SUPPORT

Art.	Force Kg	A Ø	B	D	F	G	H	I	L	Cup art.	Support art.	Weight g
VOP 08 24 F *	0.44	G1/8"	14	24	10	5.3	22.0	6.7	8.0	VOP 08 24 SR	00 08 343	18.0
VOP 10 30 F *	0.69	G1/8"	14	30	10	5.0	22.0	7.0	10.0	VOP 10 30 SR	00 08 343	18.1
VOP 12 36 F *	0.98	G1/8"	14	36	10	6.6	23.0	6.4	12.0	VOP 12 36 SR	00 08 343	18.9
VOP 15 45 F *	1.56	G1/4"	17	45	12	7.7	24.0	14.3	15.0	VOP 15 45 SR	00 08 345	23.9
VOP 20 60 F *	2.73	G1/4"	17	60	12	11.5	33.5	10.0	20.0	VOP 20 60 SR	00 08 405	33.2
VOP 25 75 F *	4.30	G1/4"	17	75	12	13.7	33.3	7.6	25.0	VOP 25 75 SR	00 08 405	38.4
VOP 28 85 F *	5.53	G1/4"	17	85	12	13.0	33.7	8.7	28.0	VOP 28 85 SR	00 08 403	45.6
VOP 35 100 F *	8.09	G1/4"	17	100	12	13.5	34.2	8.7	35.0	VOP 35 100 SR	00 08 403	57.6

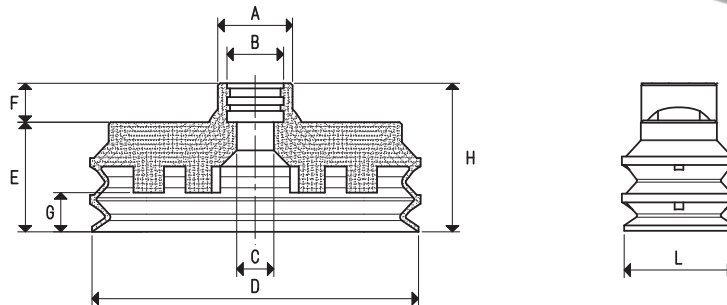
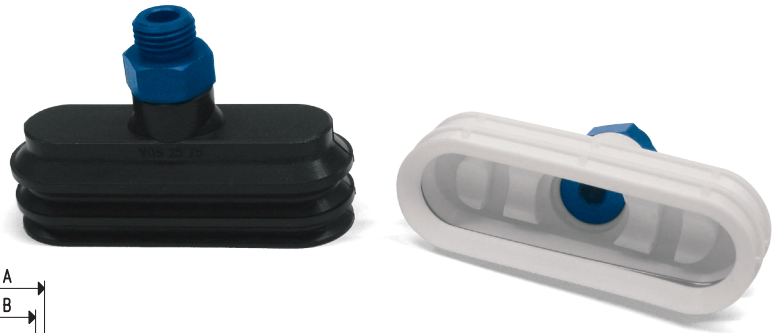
\* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note. The force of the suction cups shown in the table represents 1/3 of the value of the theoretical force calculated at a vacuum degree of -75 kPa and a safety factor 3.

Conversion ratio: N (newton) = Kg x 9.81 (G-force); inch =  $\frac{\text{mm}}{25.4}$ ; pounds =  $\frac{\text{Kg}}{453.6} = \frac{\text{Kg}}{0.4536}$  GAS-NPT thread adapters available at page 1.128



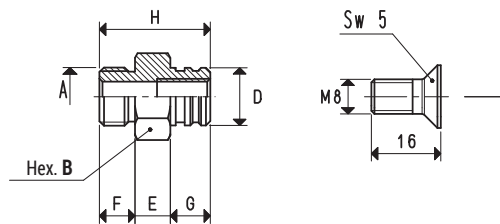
# BELLOW ELLIPTICAL SUCTION CUPS WITH MALE SUPPORTS



## CUPS

Art.	Force Kg	A Ø	B Ø	C Ø	D	E	F	G	H	L	Volume cm <sup>3</sup>
VOS 08 25 *	0.51	10.0	7.3	1.3	25.0	12.4	6.0	3.0	18.4	8.0	0.852
VOS 15 45 *	1.56	17.2	13.0	4.0	45.0	18.6	10.0	6.5	28.6	15.0	4.978
VOS 25 75 *	4.30	17.2	13.0	9.0	75.0	25.2	9.0	8.5	34.2	25.0	23.083

\* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

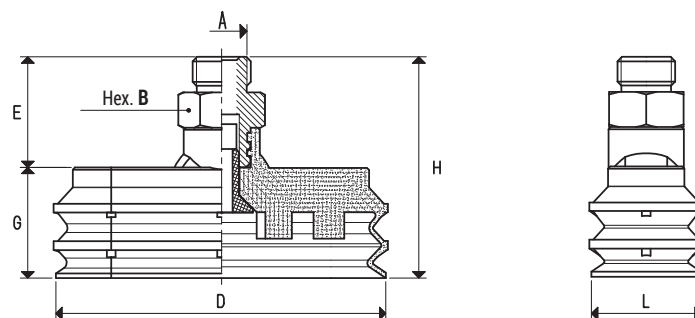


screw  
art.00 08 347 for supp.00 08 402

**N.B.** By ordering the art. referring to the support, the screw will also be provided

## MALE SUPPORTS

Art.	A Ø	B	D Ø	E	F	G	H	Support material	Cup art.	Weight g
00 08 344	G1/8"	14	7.3	7	7	5.5	19.5	aluminium	VOS 08 25	18.5
00 08 346	G1/4"	17	13.0	8	8	9.0	25.0	aluminium	VOS 15 45	25.0
00 08 402	G1/4"	17	13.0	8	8	9.0	25.0	aluminium	VOS 25 75	30.7



## CUPS WITH MALE SUPPORTS

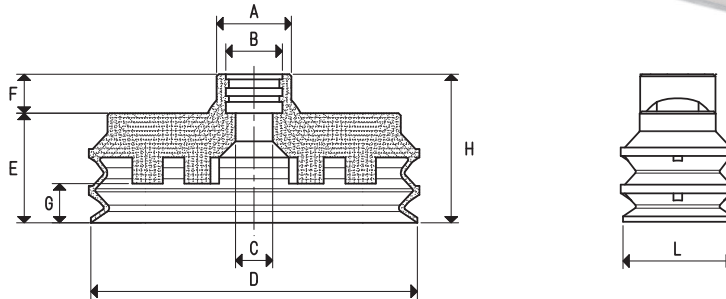
Art.	Force Kg	A Ø	B	D	E	G	H	L	Cup art.	Support art.	Weight g
VOS 08 25 M *	0.51	G1/8"	14	25.0	20.0	12.4	32.4	8.0	VOS 08 25	00 08 344	20.0
VOS 15 45 M *	1.56	G1/4"	17	45.0	26.0	18.6	44.6	15.0	VOS 15 45	00 08 346	31.4
VOS 25 75 M *	4.30	G1/4"	17	75.0	25.0	25.2	50.2	25.0	VOS 25 75	00 08 402	47.3

\* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

Note. The force of the suction cups shown in the table represents 1/3 of the value of the theoretical force calculated at a vacuum degree of -75 kPa and a safety factor 3.

Conversion ratio: N (newton) = Kg x 9.81 (G-force); inch =  $\frac{\text{mm}}{25.4}$ ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$  GAS-NPT thread adapters available at page 1.128

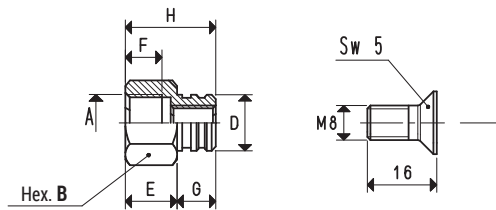
# BELLOW ELLIPTICAL SUCTION CUPS WITH FEMALE SUPPORTS



## CUPS

Art.	Force Kg	A ∅	B ∅	C ∅	D	E	F	G bellow stroke	H	L	Volume cm <sup>3</sup>
VOS 08 25 *	0.51	10.0	7.3	1.3	25.0	12.4	6.0	3.0	18.4	8.0	0.852
VOS 15 45 *	1.56	17.2	13.0	4.0	45.0	18.6	10.0	6.5	28.6	15.0	4.978
VOS 25 75 *	4.30	17.2	13.0	9.0	75.0	25.2	9.0	8.5	34.2	25.0	23.083

\* Complete the code indicating the compound: A= oil-resistant rubber; N= natural para rubber; S= silicon

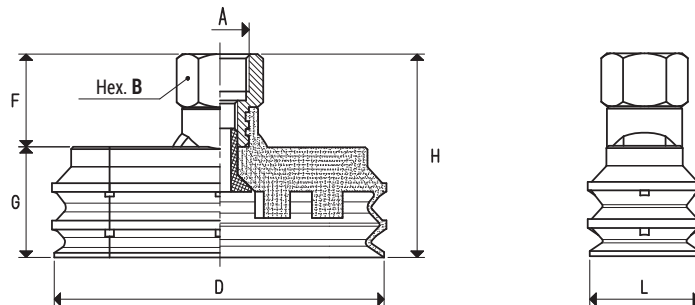


screw  
art.00 08 347 for supp.00 08 403

**N.B.** By ordering the art. referring to the support, the screw will also be provided

## FEMALE SUPPORTS

Art.	A ∅	B ∅	D ∅	E	F	G	H	Support material	Cup art.	Weight g
00 08 343	G1/8"	14	7.3	10	8.0	5.5	15.5	aluminium	VOS 08 25	16.8
00 08 345	G1/4"	17	13.0	12	8.5	9.0	21.0	aluminium	VOS 15 45	19.9
00 08 403	G1/4"	17	13.0	12	8.5	9.0	21.0	aluminium	VOS 25 75	25.6



## CUPS WITH FEMALE SUPPORT

Art.	Force Kg	A ∅	B	D	F	G	H	L	Cup art.	Support art.	Weight g
VOS 08 25 F *	0.51	G1/8"	14	25.0	16.0	12.4	28.4	8.0	VOS 08 25	00 08 343	18.3
VOS 15 45 F *	1.56	G1/4"	17	45.0	22.0	18.6	40.6	15.0	VOS 15 45	00 08 345	26.3
VOS 25 75 F *	4.30	G1/4"	17	75.0	21.0	25.2	46.2	25.0	VOS 25 75	00 08 403	42.2

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Conversion ratio: N (newton) = Kg x 9.81 (G-force); inch =  $\frac{\text{mm}}{25.4}$ ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$  GAS-NPT thread adapters available at page 1.128