MVS

Soft Suction Cups for High Speed Applications



Industry-specific applications



Types of use



COVAL has designed a range of high performance cups in order to meet demanding industry requirements for gripping soft or flexible products at high speeds.

- Soft, thin sealing lip and optional cleats provide a perfect grip during high work rates for all types of flexible shapes and materials.
- Food-grade silicone meets FDA and CE 1935/2004 standards.
- Available in 1.5, 2.5 and 3.5 bellows.
- Available in Ø 20-40 mm.

Applications

This flexibility allows for high speed gripping of all types of materials and foods: FlowPack, DoyPack, thermoformed food trays, raw materials (sausage, fresh fish, cookies, chocolates)... Speeds of 120 or more grip and release cycles per minute.

Materials

SIB 35 Shore A white silicone
SIT5 50 Shore A Translucent silicone

Suction Cup Characteristics

	Ø (mm)	(cm³)	(N) (1)	SIB	SIT5	Aluminum fittings		FDA fittings		
				Reference	Reference	G1/4"-M	G1/4"-F	G1/4"-M	G1/4"-F	G1/8"-M
MVS202.5___G	20	4	3.1	MVS202.5SIBG	MVS202.5SIT5G	-	-	-	-	IM18SP1251
MVS202.5___C	20	4	3.3	MVS202.5SIBC	MVS202.5SIT5C	-	-	-	-	IM18SP1251
MVS301.5___G	30	7	7.8	MVS301.5SIBG	MVS301.5SIT5G	IM51SP143	IF50SP143	IM14PMVS30	IF14PMVS30	-
MVS301.5___C	30	7	10.1	MVS301.5SIBC	MVS301.5SIT5C	IM51SP143	IF50SP143	IM14PMVS30	IF14PMVS30	-
MVS302.5___G	30	11.2	7.6	MVS302.5SIBG	MVS302.5SIT5G	IM51SP143	IF50SP143	IM14PMVS30	IF14PMVS30	-
MVS302.5___C	30	11.2	8.5	MVS302.5SIBC	MVS302.5SIT5C	IM51SP143	IF50SP143	IM14PMVS30	IF14PMVS30	-
MVS303.5___C	30	11.6	8.4	MVS303.5SIBC	-	IM51SP143	IF50SP143	IM14PMVS30	IF14PMVS30	-
MVS401.5___C	40	7.3	12.7	MVS401.5SIBC	MVS401.5SIT5C	IM51SP143	IF50SP143	-	-	-
MVS402.5___C	40	13	8.2	MVS402.5SIBC	MVS402.5SIT5C	IM51SP143	IF50SP143	-	-	-

(1) Actual holding force of the suction cup at a vacuum of 65% on flat and smooth surface and safety factor of 2 included.

MVS___G



MVS___C



For applications requiring suction cups with a smaller diameter, we recommend the VSA series in the SIB version, see page 2/27.

Specify the part number e.g.: MVS302.5SIBC
Please refer to the characteristics table above

Note: Nozzle fitting IM5MVS see page 4/10.

Accessories

To optimize the use of your suction cups, Coval offers a comprehensive range of accessories (nozzle fittings, spring extensions, and feeder systems, etc.), see chapters **4** and **14**.

MVS

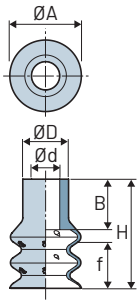
Soft Suction Cups for High Speed Applications

Dimensions

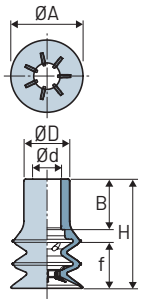


Suction Cups

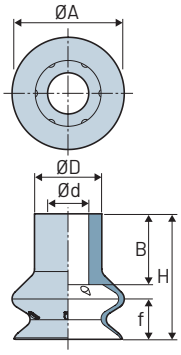
MVS202.5___G



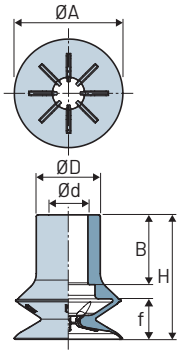
MVS202.5___C



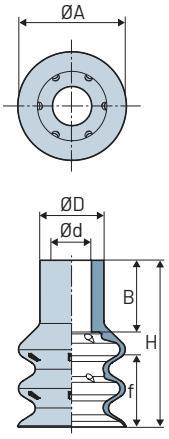
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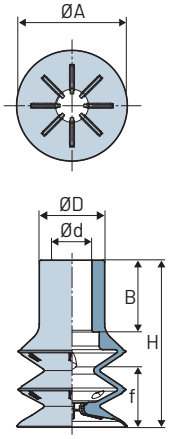
MVS301.5___C



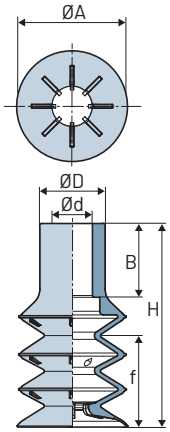
MVS302.5___G



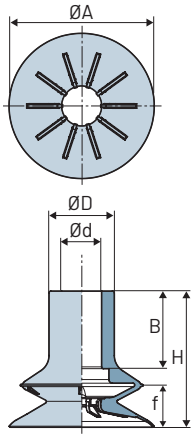
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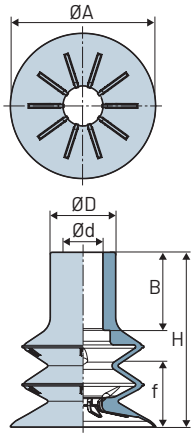
MVS303.5___C



MVS401.5___C



MVS402.5___C

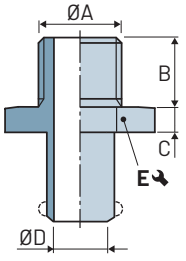


	Ø A	H	Ø d	Ø D	f (2)	B	(g)
MVS202.5___G	20	31	8	13	10	13	2.3
MVS202.5___C	20	31	8	13	10	13	3
MVS301.5___G	30	35	11	18	10	19.5	5.9
MVS301.5___C	30	35	11	18	9	19.5	6.5
MVS302.5___G	30	46	11	18	17.5	19.5	6.8
MVS302.5___C	30	46	11	18	15.5	19.5	8.2
MVS303.5___C	30	56	11	18	22.5	20.6	9.4
MVS401.5___C	40	37.5	11	18	7	21.5	8.7
MVS402.5___C	40	48	11	18	15.5	21.5	10.5

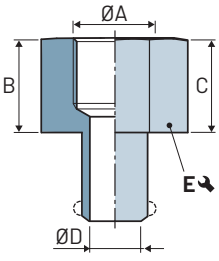
(2) f = Deflection of the suction cup.

Barbed Fittings

Male fittings



Female fittings



	Ø A	B	C	Ø D	E	Materials	(g)
IM 18 SP1251	G1/8"-M	8	5	4.8	14	POM-C	2.5
IM 51 SP143	G1/4"-M	11	6	8	21	Aluminum	10.5
IF 50 SP143	G1/4"-F	10	15	8	21	Aluminum	14.4
IM 14 P MVS30	G1/4"-M	11	6	8	21	POM-C	5.2
IF 14 P MVS30	G1/4"-F	12.5	17	8	21	POM-C	8.3

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