Soft Suction Cups for High Speed Applications

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 and 2.5 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.



Industry-specific applications







Types of use







Materials

SIB 35 Shore A white silicone

SIT5 50 Shore A Translucent silicone

Suction Cup Characteristics								
	Ø (mm)	(cm³)	会(N) (1)	SIB	SIT5	Fittings		
				Reference	Reference	G1/8"-M	G1/4"-M	G1/4"-F
MVS202.5	20	4	3.1	MV\$202.5SIB	MVS202.5SIT5	IM18SP1251	-	-
MVS202.5C	20	4	3.3	MVS202.5SIBC	MVS202.5SIT5C	IM18SP1251	-	-
MVS301.5	30	7	7.8	MVS301.5SIB	MVS301.5SIT5	-	IM51SP143	IF50SP143
MVS301.5C	30	7	10.1	MVS301.5SIBC	MVS301.5SIT5C	-	IM51SP143	IF50SP143
MVS302.5	30	11.2	7.6	MVS302.5SIB	MVS302.5SIT5	-	IM51SP143	IF50SP143
MVS302.5G	30	11.2	7.6	MVS302.5SIBG	MVS302.5SIT5G	-	IM51SP143	IF50SP143
MVS302.5C	30	11.2	8.5	MVS302.5SIBC	MVS302.5SIT5C	-	IM51SP143	IF50SP143
MVS401.5C	40	7.3	12.7	MVS401.5SIBC	MVS401.5SIT5C	-	IM51SP143	IF50SP143
MVS402.5C	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.

MVS302.5

MVS302.5C

MVS302.5G







For applications requiring suction cups with a smaller diameter, we recommend the VSA series in the SIB version, see page 2/25.

1

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

Note: Nozzle fitting IM5MVS see page 4/9.

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 12.





Soft Suction Cups for High Speed Applications

Dimensions



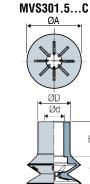
Suction Cups



MVS202.5...C

MVS301.5

Ød

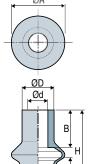


MVS302.5...G

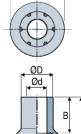
MVS302.5...C

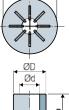
MVS401.5...C

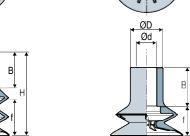
MVS402.5...C

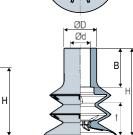


MVS302.5







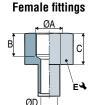


	Ø A	н	Ø d	Ø D	f ⁽²⁾	В	<u>o</u> (g)
MVS202.5	20	31	8	13	10	13	2.3
MVS202.5C	20	31	8	13	10	13	3
MVS301.5	30	35	11	18	10	19.5	5.9
MVS301.5C	30	35	11	18	9	19.5	6.5
MVS302.5	30	46	11	18	17.5	19.5	7.4
MVS302.5G	30	46	11	18	17.5	19.5	6.8
MVS302.5C	30	46	11	18	15.5	19.5	8.2
MVS401.5C	40	37.5	11	18	7	21.5	8.7
MVS402.5C	40	48	11	18	15.5	21.5	10.5

(2) f = Deflection of the suction cup.

Barbed Fittings

Male fittings



	ØA	В	C	ØD	E 🔦	Materials	<u>⇔</u> (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

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

