VSA
Suction Cups with 1.5 Bellows Ø 5 to 78 mm

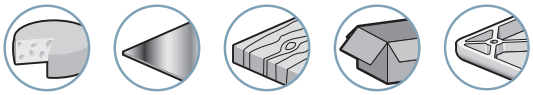


VSA series suction cups with bellows combine the advantages of flat suction cups with increased deflection, flexibility and precision.
Used for gripping slightly concave or convex objects.

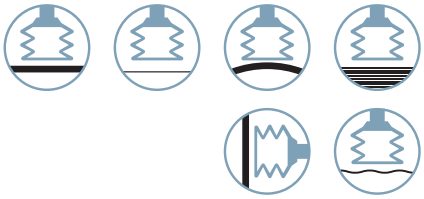
■ Flexibility ■ Precision ■ Deflection

For delicate gripping requiring a very flexible lip (opening bags, gripping tins and flexible aluminum or plastic bottles, etc.), we recommend using 35 Shore A white silicone, SIB. For larger diameters, see page 3/7, MVS series.

Industry-specific applications



Types of use



Materials

NBR	Nitrile	**SIT5**	Translucent silicone
NR	Natural rubber	**SIB**	35 shore A white silicone
STN	SITON® 60 ShoreA	**STN5**	SITON® 50 ShoreA (on request)

Suction Cup Properties

	Ø (mm)	(cm³)	(N) (1)	(N) (1)	R_{min} (mm)	NBR	SIT5	SIB	NR	STN (2)
VSA 5	5.5	0.04	0.5	0.2	10	**VSA5NBR**	**VSA5SIT5**	-	-	**VSA5STN**
VSA 11	11	0.225	1.7	0.9	10	**VSA11NBR**	**VSA11SIT5**	-	**VSA11NR**	**VSA11STN**
VSA 14	13	0.42	2.5	1.3	13	**VSA14NBR**	**VSA14SIT5**	-	**VSA14NR**	**VSA14STN**
VSA 16	16	0.75	2.7	1.3	20	**VSA16NBR**	**VSA16SIT5**	**VSA16SIB**	**VSA16NR**	**VSA16STN**
VSA 18	18	0.76	4.4	2.2	25	**VSA18NBR**	**VSA18SIT5**	**VSA18SIB**	**VSA18NR**	**VSA18STN**
VSA 20	19	1.15	5.6	2.8	30	**VSA20NBR**	**VSA20SIT5**	**VSA20SIB**	**VSA20NR**	**VSA20STN**
VSA 22	22	1.4	6.1	3.1	25	**VSA22NBR**	**VSA22SIT5**	**VSA22SIB**	**VSA22NR**	**VSA22STN**
VSA 25	24	3.15	7.9	4.0	20	**VSA25NBR**	**VSA25SIT5**	**VSA25SIB**	**VSA25NR**	**VSA25STN**
VSA 26	25	3.9	10.8	5.4	30	**VSA26NBR**	**VSA26SIT5**	-	**VSA26NR**	**VSA26STN**
VSA 33	33	4.75	13.9	6.9	40	**VSA33NBR**	**VSA33SIT5**	-	**VSA33NR**	**VSA33STN**
VSA 43	43	9.25	20.2	10.1	60	**VSA43NBR**	**VSA43SIT5**	-	**VSA43NR**	**VSA43STN**
VSA 53	53	26.25	42.6	21.3	75	**VSA53NBR**	**VSA53SIT5**	-	**VSA53NR**	**VSA53STN**
VSA 63	63	39.0	59.2	29.6	75	**VSA63NBR**	**VSA63SIT5**	-	**VSA63NR**	**VSA63STN**
VSA 78	78	76.0	109.8	54.9	70	**VSA78NBR**	**VSA78SIT5**	-	**VSA78NR**	**VSA78STN**

(1) Actual force of the suction cup in use with 65% vacuum and including a safety factor of 2 for horizontal handling and a factor of 4 for vertical handling.
(2) On request, some models are available in STN5 (SITON® 50 shore A)

Choice of Fittings

(Ø)	Group	M3-M	M5-M	M6-M	M8-M	M10-M	G1/8"-F	G1/8"-M	10/32-M	G1/4"-F	G1/4"-M	G3/8"-M	G1/2"-M
5	**1**	■	-	-	-	-	-	-	-	-	-	-	-
11…25	**1**	-	■	■	-	-	■	■	□	-	-	-	-
26…63	**2**	-	□	□	□	□	■	■	-	■	■	-	-
78	**3**	-	-	-	-	□	-	■	-	■	■	■	□

■ Standard available configurations (suction cup + fitting): see page 2/28 □ Additional mounting configurations: see page 2/31 Fitting: M = male F = female

Types of Assembly

COVAL suction cups can be assembled in a wide variety of configurations.

C **Version C**
Barbed fitting

S **Version S**
Factory-crimped fitting

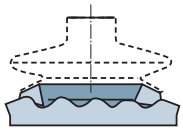
V **Version V**
Removable fitting:
(adapter and hollow screw)

E **Version E**
Pressed fitting

Textured Surfaces

For handling objects with a granular or textured gripping surface, use VSA suction cups with the VSBM foam strip option (see page 2/65).





Please specify the part n°. e.g. VSA78NBRIM14C
Refer to page 2/28

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**.

VSA

Suction Cups with 1.5 Bellows Ø 5 to 78 mm

References - "Suction Cup + Fitting"



Group 1 — C

	THREAD	M3-M	M5-M	M6-M	G1/8"-M	G1/8"-F
Ø 5 - 25 mm	**VSA5NBR**	VSA5NBRIMM3C	-	-	-	-
	VSA5SIT5	VSA5SIT5IMM3C	-	-	-	-
	VSA5STN	VSA5STNIMM3C	-	-	-	-
	VSA11NBR	-	VSA11NBRIMM5C	VSA11NBRIMM6C	VSA11NBRIM18C	VSA11NBRIF18C
	VSA11NR	-	VSA11NRIMM5C	VSA11NRIMM6C	VSA11NRIM18C	VSA11NRIF18C
	VSA11SIT5	-	VSA11SIT5IMM5C	VSA11SIT5IMM6C	VSA11SIT5IM18C	VSA11SIT5IF18C
	VSA11STN	-	VSA11STNIMM5C	VSA11STNIMM6C	VSA11STNIM18C	VSA11STNIF18C
	VSA14NBR	-	VSA14NBRIMM5C	VSA14NBRIMM6C	VSA14NBRIM18C	VSA14NBRIF18C
	VSA14NR	-	VSA14NRIMM5C	VSA14NRIMM6C	VSA14NRIM18C	VSA14NRIF18C
	VSA14SIT5	-	VSA14SIT5IMM5C	VSA14SIT5IMM6C	VSA14SIT5IM18C	VSA14SIT5IF18C
	VSA14STN	-	VSA14STNIMM5C	VSA14STNIMM6C	VSA14STNIM18C	VSA14STNIF18C
	VSA16NBR	-	VSA16NBRIMM5C	VSA16NBRIMM6C	VSA16NBRIM18C	VSA16NBRIF18C
	VSA16NR	-	VSA16NRIMM5C	VSA16NRIMM6C	VSA16NRIM18C	VSA16NRIF18C
	VSA16SIB	-	VSA16SIBIMM5C	VSA16SIBIMM6C	VSA16SIBIM18C	VSA16SIBIF18C
	VSA16SIT5	-	VSA16SIT5IMM5C	VSA16SIT5IMM6C	VSA16SIT5IM18C	VSA16SIT5IF18C
	VSA16STN	-	VSA16STNIMM5C	VSA16STNIMM6C	VSA16STNIM18C	VSA16STNIF18C
	VSA18NBR	-	VSA18NBRIMM5C	VSA18NBRIMM6C	VSA18NBRIM18C	VSA18NBRIF18C
	VSA18NR	-	VSA18NRIMM5C	VSA18NRIMM6C	VSA18NRIM18C	VSA18NRIF18C
	VSA18SIB	-	VSA18SIBIMM5C	VSA18SIBIMM6C	VSA18SIBIM18C	VSA18SIBIF18C
	VSA18SIT5	-	VSA18SIT5IMM5C	VSA18SIT5IMM6C	VSA18SIT5IM18C	VSA18SIT5IF18C
	VSA18STN	-	VSA18STNIMM5C	VSA18STNIMM6C	VSA18STNIM18C	VSA18STNIF18C
	VSA20NBR	-	VSA20NBRIMM5C	VSA20NBRIMM6C	VSA20NBRIM18C	VSA20NBRIF18C
	VSA20NR	-	VSA20NRIMM5C	VSA20NRIMM6C	VSA20NRIM18C	VSA20NRIF18C
	VSA20SIB	-	VSA20SIBIMM5C	VSA20SIBIMM6C	VSA20SIBIM18C	VSA20SIBIF18C
	VSA20SIT5	-	VSA20SIT5IMM5C	VSA20SIT5IMM6C	VSA20SIT5IM18C	VSA20SIT5IF18C
	VSA20STN	-	VSA20STNIMM5C	VSA20STNIMM6C	VSA20STNIM18C	VSA20STNIF18C
	VSA22NBR	-	VSA22NBRIMM5C	VSA22NBRIMM6C	VSA22NBRIM18C	VSA22NBRIF18C
	VSA22NR	-	VSA22NRIMM5C	VSA22NRIMM6C	VSA22NRIM18C	VSA22NRIF18C
	VSA22SIB	-	VSA22SIBIMM5C	VSA22SIBIMM6C	VSA22SIBIM18C	VSA22SIBIF18C
	VSA22SIT5	-	VSA22SIT5IMM5C	VSA22SIT5IMM6C	VSA22SIT5IM18C	VSA22SIT5IF18C
	VSA22STN	-	VSA22STNIMM5C	VSA22STNIMM6C	VSA22STNIM18C	VSA22STNIF18C
	VSA25NBR	-	VSA25NBRIMM5C	VSA25NBRIMM6C	VSA25NBRIM18C	VSA25NBRIF18C
	VSA25NR	-	VSA25NRIMM5C	VSA25NRIMM6C	VSA25NRIM18C	VSA25NRIF18C
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	VSA25SIT5	-	VSA25SIT5IMM5C	VSA25SIT5IMM6C	VSA25SIT5IM18C	VSA25SIT5IF18C
	VSA25STN	-	VSA25STNIMM5C	VSA25STNIMM6C	VSA25STNIM18C	VSA25STNIF18C

Additional mounting configurations are available (see page 2/31). For standard configurations (suction cup+fitting), the C and V versions are delivered unassembled.

Group 2 — C / E / V

	THREAD	G1/4"-M	G1/4"-F	G1/4"-M	G1/4"-F	G1/8"-M	G1/8"-F	G1/4"-M	G1/4"-F
Ø 26 - 63 mm	**VSA26NBR**	VSA26NBRIM14C	VSA26NBRIF14C	VSA26NBRIM14	VSA26NBRIF14	VSA26NBRIM18V	VSA26NBRIF18V	VSA26NBRIM14V	VSA26NBRIF14V
	VSA26NR	VSA26NRIM14C	VSA26NRIF14C	VSA26NRIM14	VSA26NRIF14	VSA26NRIM18V	VSA26NRIF18V	VSA26NRIM14V	VSA26NRIF14V
	VSA26SIT5	VSA26SIT5IM14C	VSA26SIT5IF14C	VSA26SIT5IM14	VSA26SIT5IF14	VSA26SIT5IM18V	VSA26SIT5IF18V	VSA26SIT5IM14V	VSA26SIT5IF14V
	VSA26STN	VSA26STNIM14C	VSA26STNIF14C	VSA26STNIM14	VSA26STNIF14	VSA26STNIM18V	VSA26STNIF18V	VSA26STNIM14V	VSA26STNIF14V
	VSA33NBR	VSA33NBRIM14C	VSA33NBRIF14C	VSA33NBRIM14	VSA33NBRIF14	VSA33NBRIM18V	VSA33NBRIF18V	VSA33NBRIM14V	VSA33NBRIF14V
	VSA33NR	VSA33NRIM14C	VSA33NRIF14C	VSA33NRIM14	VSA33NRIF14	VSA33NRIM18V	VSA33NRIF18V	VSA33NRIM14V	VSA33NRIF14V
	VSA33SIT5	VSA33SIT5IM14C	VSA33SIT5IF14C	VSA33SIT5IM14	VSA33SIT5IF14	VSA33SIT5IM18V	VSA33SIT5IF18V	VSA33SIT5IM14V	VSA33SIT5IF14V
	VSA33STN	VSA33STNIM14C	VSA33STNIF14C	VSA33STNIM14	VSA33STNIF14	VSA33STNIM18V	VSA33STNIF18V	VSA33STNIM14V	VSA33STNIF14V
	VSA43NBR	VSA43NBRIM14C	VSA43NBRIF14C	VSA43NBRIM14	VSA43NBRIF14	VSA43NBRIM18V	VSA43NBRIF18V	VSA43NBRIM14V	VSA43NBRIF14V
	VSA43NR	VSA43NRIM14C	VSA43NRIF14C	VSA43NRIM14	VSA43NRIF14	VSA43NRIM18V	VSA43NRIF18V	VSA43NRIM14V	VSA43NRIF14V
	VSA43SIT5	VSA43SIT5IM14C	VSA43SIT5IF14C	VSA43SIT5IM14	VSA43SIT5IF14	VSA43SIT5IM18V	VSA43SIT5IF18V	VSA43SIT5IM14V	VSA43SIT5IF14V
	VSA43STN	VSA43STNIM14C	VSA43STNIF14C	VSA43STNIM14	VSA43STNIF14	VSA43STNIM18V	VSA43STNIF18V	VSA43STNIM14V	VSA43STNIF14V
	VSA53NBR	VSA53NBRIM14C	VSA53NBRIF14C	VSA53NBRIM14	VSA53NBRIF14	VSA53NBRIM18V	VSA53NBRIF18V	VSA53NBRIM14V	VSA53NBRIF14V
	VSA53NR	VSA53NRIM14C	VSA53NRIF14C	VSA53NRIM14	VSA53NRIF14	VSA53NRIM18V	VSA53NRIF18V	VSA53NRIM14V	VSA53NRIF14V
	VSA53SIT5	VSA53SIT5IM14C	VSA53SIT5IF14C	VSA53SIT5IM14	VSA53SIT5IF14	VSA53SIT5IM18V	VSA53SIT5IF18V	VSA53SIT5IM14V	VSA53SIT5IF14V
	VSA53STN	VSA53STNIM14C	VSA53STNIF14C	VSA53STNIM14	VSA53STNIF14	VSA53STNIM18V	VSA53STNIF18V	VSA53STNIM14V	VSA53STNIF14V
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	VSA63STN	VSA63STNIM14C	VSA63STNIF14C	VSA63STNIM14	VSA63STNIF14	VSA63STNIM18V	VSA63STNIF18V	VSA63STNIM14V	VSA63STNIF14V

Group 3 — V / S

	THREAD	G1/8"-M	G1/4"-M	G1/4"-F	G1/4"-M	G1/4"-F	G3/8"-M
Ø 78 mm	**VSA78NBR**	VSA78NBRIM18V	VSA78NBRIM14V	VSA78NBRIF14V	VSA78NBRIM14	VSA78NBRIF14	VSA78NBRIM38
	VSA78NR	VSA78NRIM18V	VSA78NRIM14V	VSA78NRIF14V	VSA78NRIM14	VSA78NRIF14	VSA78NRIM38
	VSA78SIT5	VSA78SIT5IM18V	VSA78SIT5IM14V	VSA78SIT5IF14V	VSA78SIT5IM14	VSA78SIT5IF14	VSA78SIT5IM38
	VSA78STN	VSA78STNIM18V	VSA78STNIM14V	VSA78STNIF14V	VSA78STNIM14	VSA78STNIF14	VSA78STNIM38

VSA

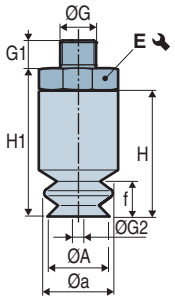
Suction Cups with 1.5 Bellows Ø 5 to 78 mm

Dimensions - "Suction Cup + Fitting"



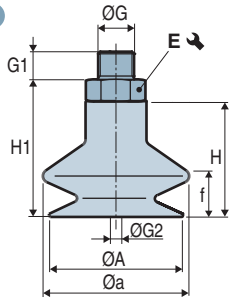
VSA 5 | **Group 1**

1

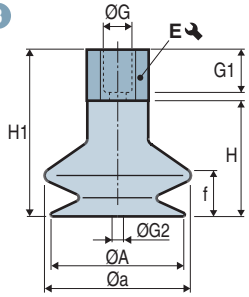


VSA 11 - 25 | **Group 1**

2

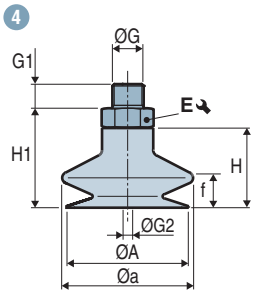


3

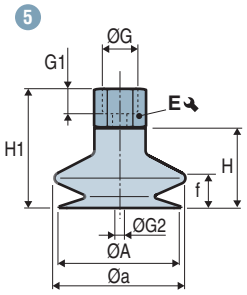


VSA 26 - 43 | **Group 2**

4

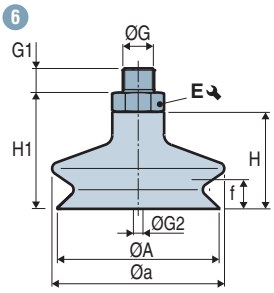


5

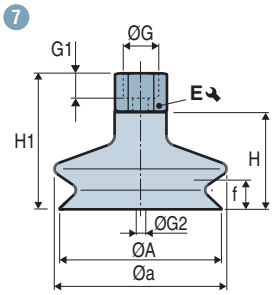


VSA 53 - 63 Group 2 / VSA 78 Group 3

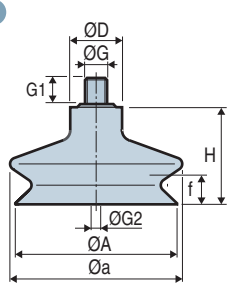
6



7



8



Group 1		Diagram	ØA	Øa	ØD	f (1)	H	H1	ØG	G1	ØG2 (2)	E	(g)
Ø 5 - 25 mm	VSA5---IMM3C	1	5.5	6	-	2	11	13	M3-M	3	1.4	5	0.7
	VSA11---IMM5C	2	11	12.2	-	5.5	16	21	M5-M	4.5	2.5	7	4
	VSA11---IMM6C	2	11	12.2	-	5.5	16	21	M6-M	5	3.5	7	3.6
	VSA11---IM18C	2	11	12.2	-	5.5	16	22	G1/8"-M	7.5	3.5	14	5
	VSA11---IF18C	3	11	12.2	-	5.5	16	28	G1/8"-F	8	3.5	14	4.9
	VSA14---IMM5C	2	13	14	-	5	16	21	M5-M	4.5	2.5	7	4.2
	VSA14---IMM6C	2	13	14	-	5	16	21	M6-M	5	3.5	7	3.8
	VSA14---IM18C	2	13	14	-	5	16	22	G1/8"-M	7.5	3.5	14	5.2
	VSA14---IF18C	3	13	14	-	5	16	28	G1/8"-F	8	3.5	14	5.1
	VSA16---IMM5C	2	16	17.3	-	8.5	19	24	M5-M	4.5	2.5	7	4.4
	VSA16---IMM6C	2	16	17.3	-	8.5	19	24	M6-M	5	3.5	7	4
	VSA16---IM18C	2	16	17.3	-	8.5	19	25	G1/8"-M	7.5	3.5	14	5.4
	VSA16---IF18C	3	16	17.3	-	8.5	19	31	G1/8"-F	8	3.5	14	5.3
	VSA18---IMM5C	2	18	18	-	5	16.5	21.5	M5-M	4.5	2.5	7	4.6
	VSA18---IMM6C	2	18	18	-	5	16.5	21.5	M6-M	5	3.5	7	4.2
	VSA18---IM18C	2	18	18	-	5	16.5	22.5	G1/8"-M	7.5	3.5	14	5.6
	VSA18---IF18C	3	18	18	-	5	16.5	28.5	G1/8"-F	8	3.5	14	5.5
	VSA20---IMM5C	2	19	20	-	5	16	21	M5-M	4.5	2.5	7	4.8
	VSA20---IMM6C	2	19	20	-	5	16	21	M6-M	5	3.5	7	5.8
	VSA20---IM18C	2	19	20	-	5	16	22	G1/8"-M	7.5	3.5	14	5.8
	VSA20---IF18C	3	19	20	-	5	16	28	G1/8"-F	8	3.5	14	5.7
	VSA22---IMM5C	2	22	24	-	8	19	24	M5-M	4.5	2.5	7	5.2
	VSA22---IMM6C	2	22	24	-	8	19	24	M6-M	5	3.5	7	4.8
	VSA22---IM18C	2	22	24	-	8	19	25	G1/8"-M	7.5	3.5	14	6.2
	VSA22---IF18C	3	22	24	-	8	19	31	G1/8"-F	8	3.5	14	6.1
	VSA25---IMM5C	2	24	25	-	10	23	28	M5-M	4.5	2.5	7	6
	VSA25---IMM6C	2	24	25	-	10	23	28	M6-M	5	3.5	7	5.8
	VSA25---IM18C	2	24	25	-	10	23	29	G1/8"-M	7.5	3.5	14	7
	VSA25---IF18C	3	24	25	-	10	23	35	G1/8"-F	8	3.5	14	6.9

Note: All dimensions are in mm.

(1) f = Deflection of the suction cup. (2) Ø G2 = Ø internal orifice of the fitting.

VSA

Suction Cups with 1.5 Bellows Ø 5 to 78 mm

Dimensions - "Suction Cup + Fitting"



Group 2		Diagram	ØA	Øa	ØD	f [1]	H	H1	ØG	G1	ØG2 [2]	E	(g)
Ø 26 - 63 mm	VSA26---IM18V	4	25	30	-	6	25	29.5	G1/8"-M	6	3.5	13	18.7
	VSA26---IF18V	5	25	30	-	6	25	38	G1/8"-F	7.5	3.5	13	22
	VSA26---IM14	4	25	30	-	6	25	29	G1/4"-M	11	4.4	17	12.4
	VSA26---IM14C	4	25	30	-	6	25	33	G1/4"-M	10	7	17	13.3
	VSA26---IM14V	4	25	30	-	6	25	30	G1/4"-M	8	3.5	17	28
	VSA26---IF14	5	25	30	-	6	25	40	G1/4"-F	10	4.4	17	13
	VSA26---IF14C	5	25	30	-	6	25	40	G1/4"-F	12	6.9	17	12.6
	VSA26---IF14V	5	25	30	-	6	25	41	G1/4"-F	11	3.5	17	32.6
	VSA33---IM18V	4	33	36.2	-	11	27.5	32	G1/8"-M	6	3.5	13	21.1
	VSA33---IF18V	5	33	36.2	-	11	27.5	40.5	G1/8"-F	7.5	3.5	13	24.4
	VSA33---IM14	4	33	36.2	-	11	27.5	31.5	G1/4"-M	11	4.4	17	14.8
	VSA33---IM14C	4	33	36.2	-	11	27.5	35.5	G1/4"-M	10	7	17	15.7
	VSA33---IM14V	4	33	36.2	-	11	27.5	32.5	G1/4"-M	8	3.5	17	30.4
	VSA33---IF14	5	33	36.2	-	11	27.5	42.5	G1/4"-F	10	4.4	17	15.4
	VSA33---IF14C	5	33	36.2	-	11	27.5	42.5	G1/4"-F	12	6.9	17	15
	VSA33---IF14V	5	33	36.2	-	11	27.5	43.5	G1/4"-F	11	3.5	17	35
	VSA43---IM18V	4	43	46	-	12.5	28	32.5	G1/8"-M	6	3.5	13	25.9
	VSA43---IF18V	5	43	46	-	12.5	28	41	G1/8"-F	7.5	3.5	13	29.2
	VSA43---IM14	4	43	46	-	12.5	28	32	G1/4"-M	11	4.4	17	19.6
	VSA43---IM14C	4	43	46	-	12.5	28	36	G1/4"-M	10	7	17	20.5
	VSA43---IM14V	4	43	46	-	12.5	28	33	G1/4"-M	8	3.5	17	35.2
	VSA43---IF14	5	43	46	-	12.5	28	43	G1/4"-F	10	4.4	17	20.2
	VSA43---IF14C	5	43	46	-	12.5	28	43	G1/4"-F	12	6.9	17	19.8
	VSA43---IF14V	5	43	46	-	12.5	28	44	G1/4"-F	11	3.5	17	39.8
	VSA53---IM18V	6	53	59	-	15	34	38.5	G1/8"-M	6	3.5	13	35
	VSA53---IF18V	7	53	59	-	15	34	47	G1/8"-F	7.5	3.5	13	38.3
	VSA53---IM14	6	53	59	-	15	34	38	G1/4"-M	11	4.4	17	28.7
	VSA53---IM14C	6	53	59	-	15	34	42	G1/4"-M	10	7	17	29.6
	VSA53---IM14V	6	53	59	-	15	34	39	G1/4"-M	8	3.5	17	44.3
	VSA53---IF14	7	53	59	-	15	34	49	G1/4"-F	10	4.4	17	29.3
	VSA53---IF14C	7	53	59	-	15	34	49	G1/4"-F	12	6.9	17	28.9
	VSA53---IF14V	7	53	59	-	15	34	50	G1/4"-F	11	3.5	17	48.9
	VSA63---IM18V	6	63	67	-	15	34	38.5	G1/8"-M	6	3.5	13	39.1
	VSA63---IF18V	7	63	67	-	15	34	47	G1/8"-F	7.5	3.5	13	42.4
	VSA63---IM14	6	63	67	-	15	34	38	G1/4"-M	11	4.4	17	32.8
	VSA63---IM14C	6	63	67	-	15	34	42	G1/4"-M	10	7	17	33.7
	VSA63---IM14V	6	63	67	-	15	34	39	G1/4"-M	8	3.5	17	48.4
	VSA63---IF14	7	63	67	-	15	34	49	G1/4"-F	10	4.4	17	33.4
	VSA63---IF14C	7	63	67	-	15	34	49	G1/4"-F	12	6.9	17	33
	VSA63---IF14V	7	63	67	-	15	34	50	G1/4"-F	11	3.5	17	53
Group 3													
Ø 78 mm	VSA78---IM18V	8	78	83	25	14	46.8	-	G1/8"-M	8	6	-	85.4
	VSA78---IM14	6	78	83	-	14	46.8	52.8	G1/4"-M	11	8	21	70.2
	VSA78---IM14V	6	78	83	-	14	46.8	51.8	G1/4"-M	8	6	17	92.7
	VSA78---IF14	7	78	83	-	14	46.8	61.8	G1/4"-F	10	8	21	74.1
	VSA78---IF14V	7	78	83	-	14	46.8	65.8	G1/4"-F	9	6	17	102.3
	VSA78---IM38	6	78	83	-	14	46.8	52.8	G3/8"-M	11	8	21	72.4

Note: All dimensions are in mm.

(1) f = Deflection of the suction cup. (2) Ø G2 = Ø internal orifice of the fitting.

VSA

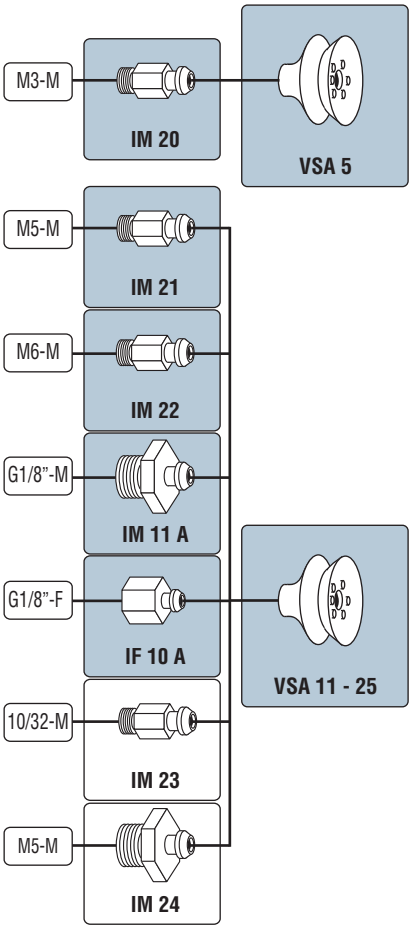
Suction Cups with 1.5 Bellows Ø 5 to 78 mm

Assembly Diagrams



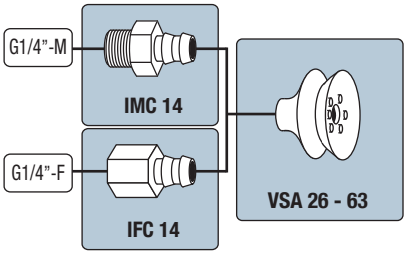
VSA 5 - 25 | Group 1

Barbed fittings C

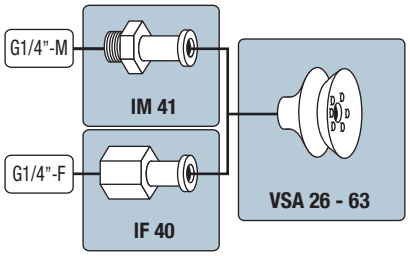


VSA 26 - 63 | Group 2

Barbed fittings C

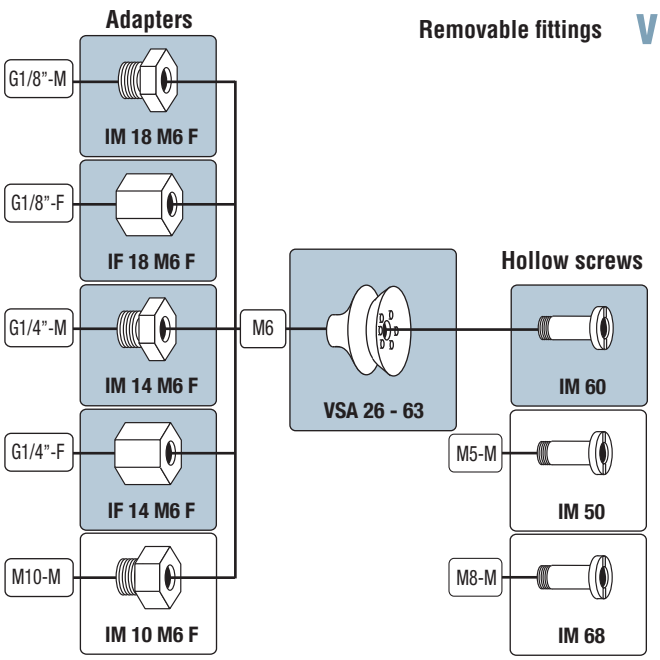


Pressed fittings E



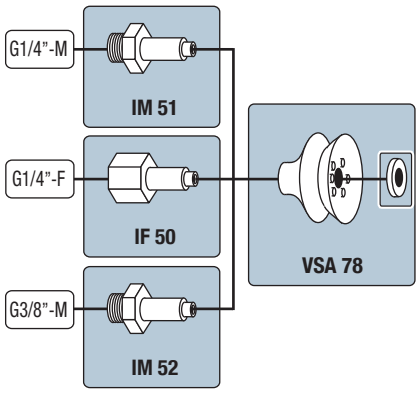
Adapters

Removable fittings V



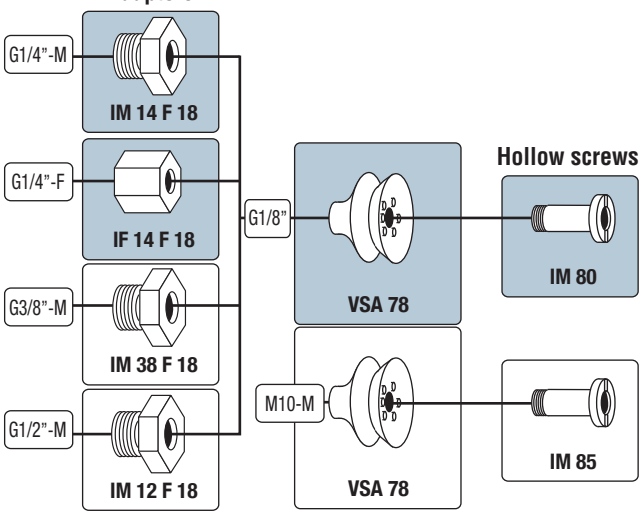
VSA 78 | Group 3

Factory-crimped fittings S



Removable fittings V

Adapters



Configurations (suction cup + fitting) refer to pages 2/28

Non-standard configurations must be ordered in seperate part numbers.

Fittings and suction cups dimensions: see page 2/32.

VSA

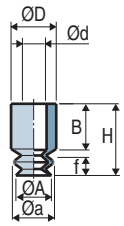
Suction Cups with 1.5 Bellows Ø 5 to 78 mm

Dimensions

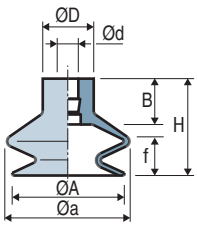


Suction Cups

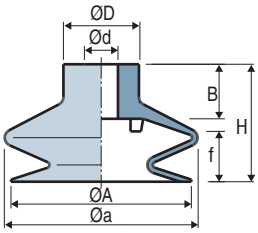
VSA 5



VSA 11 - 25



VSA 26 - 78

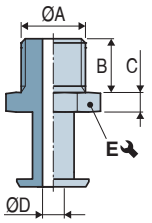


	Ø A	H	Ø a	Ø d	Ø D	f (1)	B	(g)
VSA 5	5.5	11	6	4	7	2	7	0.3
VSA 11	11	16	12.2	4	10	5.5	9	0.9
VSA 14	13	16	14	4	10	5	9	1.1
VSA 16	16	19	17.3	4	10	8.5	9	1.3
VSA 18	18	16.5	18	4	10	5	9	1.5
VSA 20	19	16	20	4	10	5	9	1.7
VSA 22	22	19	24	4	10	8	9	2.1
VSA 25	24	23	25	4	10	10	9	2.9
VSA 26	25	25	30	8	16	6	13	4.6
VSA 33	33	27.5	36.2	8	18	11	13	7
VSA 43	43	28	46	8	18	12.5	13	11.8
VSA 53	53	34	59	8	18	15	13	20.9
VSA 63	63	34	67	8	18	15	13	25
VSA 78	78	46.8	83	12	25	14	20	58.4

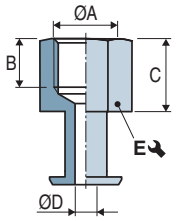
(1) f = Deflection of the suction cup.

Pressed Fittings

Male - IM



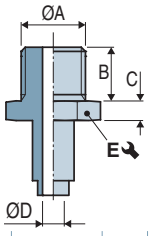
Female - IF



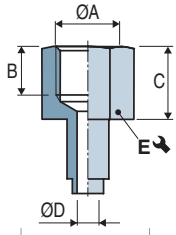
	ØA	B	C	ØD	E	Material	(g)
IM41	G1/4"-M	11	4	4.4	17	Aluminum	7.8
IF40	G1/4"-F	10	15	4.4	17	Aluminum	8.4

Factory-Crimped Fittings

Male - IM

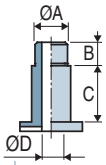


Female - IF

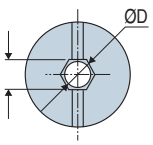


	ØA	B	C	ØD	E	Material	(g)
IM 51	G1/4"-M	11	6	4.4	17	Aluminum	11.8
IF 50	G1/4"-F	10	15	8	21	Aluminum	15.7
IM 52	G3/8"-M	11	6	8	21	Aluminum	14

Hollow Screws



IM60: ⬢4
IM80: ⬢6

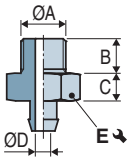


	ØA	B	C	ØD	Material	(g)
IM 50	M5-M	5	11	2.8	Brass	7.4
IM 60 (2) (3)	M6-M	7	11	3.5	Nickel-plated brass	7.5
IM 68	M8-M	8	11	5.2	Nickel-plated brass	6.4
IM 80	G1/8"-M	8	18	6	Nickel-plated brass	23.7
IM 85	M10x150-M	8	18	6	Nickel-plated brass	23.5

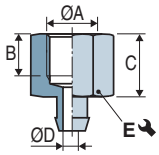
The values represent the average characteristics of our products.
(2) Flow restrictor version available: orifice calibrated to reduce leaks when used with a multi-cup gripper (see page 4/10)
(3) Available in stainless steel

Barbed Fittings

Male - IM



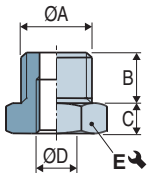
Female - IF



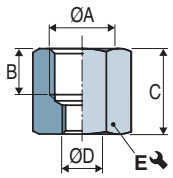
	ØA	B	C	ØD	E	Material	(g)
IM 11 A	G1/8"-M	7.5	6	3.5	14	Aluminum	4.1
IMC 14	G1/4"-M	10	8	7	17	Aluminum	8.7
IM20	M3-M	3	2	1.4	5	Aluminum	0.4
IM 21 (2)	M5-M	4.5	5	2.5	7	Nickel-plated brass	3.1
IM 22 (2)	M6-M	5	5	3.5	7	Nickel-plated brass	2.7
IM 23	10/32-M	4.5	5	2.5	7	Brass	3
IM 24	M5-M	4.5	2.5	2.5	10	Nickel-plated brass	3.2
IF 10 A	G1/8"-F	8	12	3.5	14	Aluminum	4
IFC 14	G1/4"-F	12	15	6.9	17	Aluminum	8

Adapters for Hollow Screws

Male - IM



Female - IF



	ØA	B	C	ØD	E	Material	(g)
IM 10 M6F	M10-M	7	3.5	M6-F	13	Brass	5.9
IM 12 F18	G1/2"-M	14	6	M6-F	22	Nickel-plated brass	46.5
IM 14 M6F	G1/4"-M	8	5	M6-F	17	Nickel-plated brass	15.9
IM 14 F18	G1/4"-M	8	5	G1/8"-F	17	Nickel-plated brass	10.6
IM 18 M6F	G1/8"-M	6	4.5	M6-F	13	Nickel-plated brass	6.6
IM 38 F18	G3/8"-M	9	5	G1/8"-F	19	Nickel-plated brass	18.8
IF 14 M6F	G1/4"-F	11	16	M6-F	17	Nickel-plated brass	20.5
IF 18 M6F	G1/8"-F	7.5	13	M6-F	13	Nickel-plated brass	9.9
IF 14 F18	G1/4"-F	9	19	G1/8"-F	17	Nickel-plated brass	20.2

Note: All dimensions are in mm.