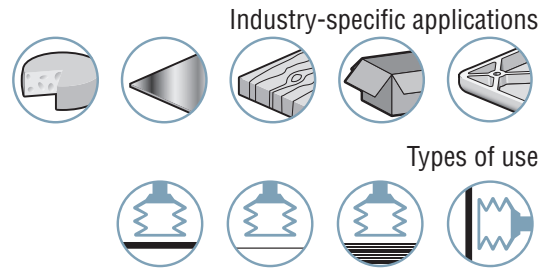


The profile of the VPG series extra-flat suction cups provides for accuracy in load gripping and speeds up throughput rates. These suction cups are used for flat surfaces only.



### Materials






**NBR** Nitrile  
**SI** Silicone

**STN** SITON®

2


VPG

### Suction Cup Properties

	Ø (mm)	 (cm <sup>3</sup> )	 (N) <sup>(1)</sup>	 (N) <sup>(1)</sup>	 <sub>min</sub> (mm)	NBR	SI	STN
VPG 2	2	0.00073	0.1	0.04	2	VPG2NBR	VPG2SI	-
VPG 3.5	3.5	0.0022	0.2	0.1	8	VPG3.5NBR	VPG3.5SI	-
VPG 5	5	0.005	0.5	0.2	8	VPG5NBR	VPG5SI	VPG5STN
VPG 6	6	0.008	0.7	0.4	8	VPG6NBR	VPG6SI	VPG6STN
VPG 8	8	0.03	1.2	0.6	10	VPG8NBR	VPG8SI	VPG8STN
VPG 10	10	0.07	2.0	1.0	13	VPG10NBR	VPG10SI	VPG10STN
VPG 15	15	0.2	4.7	2.4	13	VPG15NBR	VPG15SI	VPG15STN
VPG 20	20	0.5	8.8	4.4	20	VPG20NBR	VPG20SI	VPG20STN
VPG 25	25	1.1	12.1	6.1	25	VPG25NBR	VPG25SI	VPG25STN
VPG 30	30	1.4	16.4	8.2	40	VPG30NBR	VPG30SI	VPG30STN
VPG 35	35	2.9	23.8	11.9	50	VPG35NBR	VPG35SI	VPG35STN
VPG 40	40	3.8	34.7	17.3	50	VPG40NBR	VPG40SI	VPG40STN
VPG 50	50	5.3	54.2	27.1	75	VPG50NBR	VPG50SI	VPG50STN
VPG 60	60	12	88.8	44.4	100	VPG60NBR	VPG60SI	VPG60STN
VPG 60S	60	12	88.8	44.4	100	VPG60SNBR	VPG60SSI	VPG60SSTN
VPG 80	80	26.9	143.0	71.5	150	VPG80NBR	VPG80SI	VPG80STN
VPG 80S	80	26.9	143.0	71.5	150	VPG80SNBR	VPG80SSI	VPG80SSTN
VPG 95	95	41	202.2	101.1	200	VPG95NBR	VPG95SI	VPG95STN
VPG 95S	95	41	202.2	101.1	200	VPG95SNBR	VPG95SSI	VPG95SSTN
VPG 120	120	141	263.6	131.8	365	VPG120NBR	VPG120SI	VPG120STN
VPG 150	150	230	426.1	213.1	380	VPG150NBR	VPG150SI	VPG150STN
VPG 200	200	384	758.3	379.2	430	VPG200NBR	VPG200SI	VPG200STN

(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.

### Choice of Fittings

 (Ø)	M3-M	M5-M	M5-F	M6-M	M8-M	M10-M	M10x125-F	G1/8"-F	G1/8"-M	G1/4"-F	G1/4"-M	G1/2"-F
2, 3.5	■	■	-	-	-	-	-	-	-	-	-	-
5... 10	-	■	■	-	-	-	-	■	■	-	-	-
15, 20	-	■	-	-	-	-	-	■	■	-	-	-
25... 50	-	-	-	■	□	□	-	■	■	■	■	-
60... 95	-	-	-	-	-	-	■	-	-	■	■	-
60S... 95S	-	-	-	-	-	-	-	-	-	■	-	-
120... 200	-	-	-	-	-	-	-	-	-	-	-	■

■ Standard available configurations (suction cup + fitting) see page reference 2/10 □ Additional mounting configurations See pages 2/13 - 2/14

Fitting: M = male F = female

### Types of Assembly

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



**Version C:** Barbed fitting



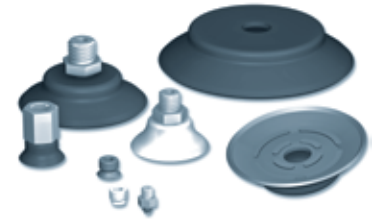
**Version V:** Removable fitting: (adaptor and hollow screw)

### 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.



Please specify the part n°. e.g. VPG25STNIF18C  
Refer to page 2/10



Ø 2 - 10 mm	THREAD	M3-M	M5-M	M5-F	G1/8"-M	G1/8"-F
	VPG2NBR	VPG2NBRIMM3C	VPG2NBRIMM5C	-	-	-
	VPG2SI	VPG2SIIMM3C	VPG2SIIMM5C	-	-	-
	VPG3.5NBR	VPG3.5NBRIMM3C	VPG3.5NBRIMM5C	-	-	-
	VPG3.5SI	VPG3.5SIIMM3C	VPG3.5SIIMM5C	-	-	-
	VPG5NBR	-	VPG5NBRIMM5C	VPG5NBRIFM5C	VPG5NBRIM18C	VPG5NBRIF18C
	VPG5SI	-	VPG5SIIMM5C	VPG5SIIFM5C	VPG5SIIM18C	VPG5SIIF18C
	VPG5STN	-	VPG5STNIMM5C	VPG5STNIFM5C	VPG5STNIM18C	VPG5STNIF18C
	VPG6NBR	-	VPG6NBRIMM5C	VPG6NBRIFM5C	VPG6NBRIM18C	VPG6NBRIF18C
	VPG6SI	-	VPG6SIIMM5C	VPG6SIIFM5C	VPG6SIIM18C	VPG6SIIF18C
	VPG6STN	-	VPG6STNIMM5C	VPG6STNIFM5C	VPG6STNIM18C	VPG6STNIF18C
	VPG8NBR	-	VPG8NBRIMM5C	VPG8NBRIFM5C	VPG8NBRIM18C	VPG8NBRIF18C
	VPG8SI	-	VPG8SIIMM5C	VPG8SIIFM5C	VPG8SIIM18C	VPG8SIIF18C
	VPG8STN	-	VPG8STNIMM5C	VPG8STNIFM5C	VPG8STNIM18C	VPG8STNIF18C
	VPG10NBR	-	VPG10NBRIMM5C	VPG10NBRIFM5C	VPG10NBRIM18C	VPG10NBRIF18C
VPG10SI	-	VPG10SIIMM5C	VPG10SIIFM5C	VPG10SIIM18C	VPG10SIIF18C	
VPG10STN	-	VPG10STNIMM5C	VPG10STNIFM5C	VPG10STNIM18C	VPG10STNIF18C	

Ø 15 - 20 mm	THREAD	G1/8"-M	G1/8"-F	M5-M	G1/8"-M	G1/8"-F
	VPG15NBR	VPG15NBRIM18C	VPG15NBRIF18C	VPG15NBRIMM5V	VPG15NBRIM18V	VPG15NBRIF18V
	VPG15SI	VPG15SIIM18C	VPG15SIIF18C	VPG15SIIMM5V	VPG15SIIM18V	VPG15SIIF18V
	VPG15STN	VPG15STNIM18C	VPG15STNIF18C	VPG15STNIMM5V	VPG15STNIM18V	VPG15STNIF18V
	VPG20NBR	VPG20NBRIM18C	VPG20NBRIF18C	VPG20NBRIMM5V	VPG20NBRIM18V	VPG20NBRIF18V
	VPG20SI	VPG20SIIM18C	VPG20SIIF18C	VPG20SIIMM5V	VPG20SIIM18V	VPG20SIIF18V
VPG20STN	VPG20STNIM18C	VPG20STNIF18C	VPG20STNIMM5V	VPG20STNIM18V	VPG20STNIF18V	

Ø 25 - 50 mm	THREAD	G1/8"-M	G1/8"-F	M6-M	G1/8"-M	G1/8"-F	G1/4"-M	G1/4"-F
	VPG25NBR	VPG25NBRIM18C	VPG25NBRIF18C	VPG25NBRIMM6V	VPG25NBRIM18V	VPG25NBRIF18V	VPG25NBRIM14V	VPG25NBRIF14V
	VPG25SI	VPG25SIIM18C	VPG25SIIF18C	VPG25SIIMM6V	VPG25SIIM18V	VPG25SIIF18V	VPG25SIIM14V	VPG25SIIF14V
	VPG25STN	VPG25STNIM18C	VPG25STNIF18C	VPG25STNIMM6V	VPG25STNIM18V	VPG25STNIF18V	VPG25STNIM14V	VPG25STNIF14V
	VPG30NBR	VPG30NBRIM18C	VPG30NBRIF18C	VPG30NBRIMM6V	VPG30NBRIM18V	VPG30NBRIF18V	VPG30NBRIM14V	VPG30NBRIF14V
	VPG30SI	VPG30SIIM18C	VPG30SIIF18C	VPG30SIIMM6V	VPG30SIIM18V	VPG30SIIF18V	VPG30SIIM14V	VPG30SIIF14V
	VPG30STN	VPG30STNIM18C	VPG30STNIF18C	VPG30STNIMM6V	VPG30STNIM18V	VPG30STNIF18V	VPG30STNIM14V	VPG30STNIF14V
	VPG35NBR	VPG35NBRIM18C	VPG35NBRIF18C	VPG35NBRIMM6V	VPG35NBRIM18V	VPG35NBRIF18V	VPG35NBRIM14V	VPG35NBRIF14V
	VPG35SI	VPG35SIIM18C	VPG35SIIF18C	VPG35SIIMM6V	VPG35SIIM18V	VPG35SIIF18V	VPG35SIIM14V	VPG35SIIF14V
	VPG35STN	VPG35STNIM18C	VPG35STNIF18C	VPG35STNIMM6V	VPG35STNIM18V	VPG35STNIF18V	VPG35STNIM14V	VPG35STNIF14V
	VPG40NBR	VPG40NBRIM18C	VPG40NBRIF18C	VPG40NBRIMM6V	VPG40NBRIM18V	VPG40NBRIF18V	VPG40NBRIM14V	VPG40NBRIF14V
	VPG40SI	VPG40SIIM18C	VPG40SIIF18C	VPG40SIIMM6V	VPG40SIIM18V	VPG40SIIF18V	VPG40SIIM14V	VPG40SIIF14V
	VPG40STN	VPG40STNIM18C	VPG40STNIF18C	VPG40STNIMM6V	VPG40STNIM18V	VPG40STNIF18V	VPG40STNIM14V	VPG40STNIF14V
	VPG50NBR	VPG50NBRIM18C	VPG50NBRIF18C	VPG50NBRIMM6V	VPG50NBRIM18V	VPG50NBRIF18V	VPG50NBRIM14V	VPG50NBRIF14V
	VPG50SI	VPG50SIIM18C	VPG50SIIF18C	VPG50SIIMM6V	VPG50SIIM18V	VPG50SIIF18V	VPG50SIIM14V	VPG50SIIF14V
VPG50STN	VPG50STNIM18C	VPG50STNIF18C	VPG50STNIMM6V	VPG50STNIM18V	VPG50STNIF18V	VPG50STNIM14V	VPG50STNIF14V	

Ø 60 - 95 mm	THREAD	M10x125-F	G1/4"-F	G1/4"-M	G1/4"-F
	VPG60NBR	VPG60NBR	-	VPG60NBRIM14V	VPG60NBRIF14V
	VPG60SNBR	-	VPG60SNBR	-	-
	VPG60SI	VPG60SI	-	VPG60SIIM14V	VPG60SIIF14V
	VPG60SSI	-	VPG60SSI	-	-
	VPG60STN	VPG60STN	-	VPG60STNIM14V	VPG60STNIF14V
	VPG60SSTN	-	VPG60SSTN	-	-
	VPG80NBR	VPG80NBR	-	VPG80NBRIM14V	VPG80NBRIF14V
	VPG80SNBR	-	VPG80SNBR	-	-
	VPG80SI	VPG80SI	-	VPG80SIIM14V	VPG80SIIF14V
	VPG80SSI	-	VPG80SSI	-	-
	VPG80STN	VPG80STN	-	VPG80STNIM14V	VPG80STNIF14V
	VPG80SSTN	-	VPG80SSTN	-	-
	VPG95NBR	VPG95NBR	-	VPG95NBRIM14V	VPG95NBRIF14V
	VPG95SNBR	-	VPG95SNBR	-	-
VPG95SI	VPG95SI	-	VPG95SIIM14V	VPG95SIIF14V	
VPG95SSI	-	VPG95SSI	-	-	
VPG95STN	VPG95STN	-	VPG95STNIM14V	VPG95STNIF14V	
VPG95SSTN	-	VPG95SSTN	-	-	

Ø 120 - 200 mm	THREAD	G1/2"-F *	G1/2"-F **
	VPG120NBR	VPG120NBRIFS12V	VPG120NBRIF12V
	VPG120SI	VPG120SIIFS12V	VPG120SIIF12V
	VPG120STN	VPG120STNIFS12V	VPG120STNIF12V
	VPG150NBR	VPG150NBRIFS12V	VPG150NBRIF12V
	VPG150SI	VPG150SIIFS12V	VPG150SIIF12V
	VPG150STN	VPG150STNIFS12V	VPG150STNIF12V
	VPG200NBR	VPG200NBRIFS12V	VPG200NBRIF12V
VPG200SI	VPG200SIIFS12V	VPG200SIIF12V	
VPG200STN	VPG200STNIFS12V	VPG200STNIF12V	

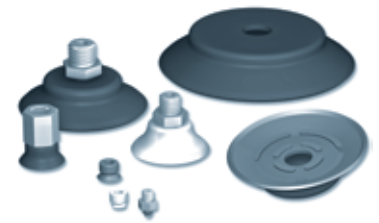
\* Configured using fitting n° IFS12120  
 \*\* Configured using fitting n° IF12120

Non-standard configurations are available (see page 2/13 and 2/14). For standard configurations (suction cup+fitting), the C and V versions are delivered unassembled.

# VPG

## Extra-flat Suction Cups Ø 2 to 200 mm

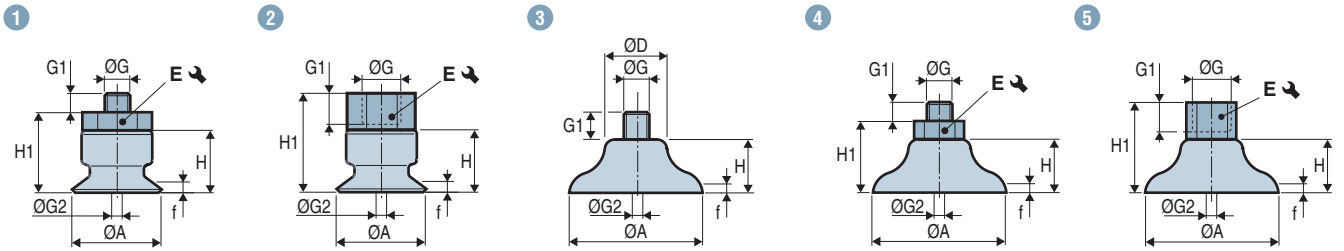
### Dimensions "Suction Cup + Fitting"



VPG 2

#### VPG 2 - 10

#### VPG 15 - 50



#### VPG 60 - 95

#### VPG 120 - 200

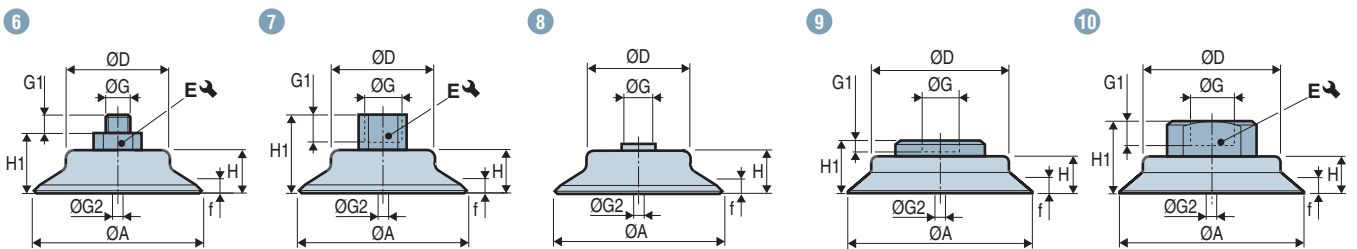


	Diagram	ØA	ØD	f <sup>(1)</sup>	H	H1	ØG	G1	ØG2 <sup>(2)</sup>	E ↺	⊞ (g)
Ø 2 - 10 mm	VPG2---IMM3C	1	2	-	0.5	4	M3-M	3	1	5	0.21
	VPG2---IMM5C	1	2	-	0.5	4	M5-M	4.5	1	7	0.91
	VPG3.5---IMM3C	1	3.5	-	0.5	4	M3-M	3	1	5	0.22
	VPG3.5---IMM5C	1	3.5	-	0.5	4	M5-M	4.5	1	7	0.65
	VPG5---IMM5C	1	5	-	0.8	6.5	M5-M	4.5	2.2	7	0.86
	VPG5---IFM5C	2	5	-	0.8	6.5	M5-F	6	2.2	8	1.3
	VPG5---IM18C	1	5	-	0.8	6.5	G1/8"-M	8	2.2	14	4.1
	VPG5---IF18C	2	5	-	0.8	6.5	G1/8"-F	9	2.2	14	5.3
	VPG6---IMM5C	1	6	-	0.8	6.5	M5-M	4.5	2.2	7	0.9
	VPG6---IFM5C	2	6	-	0.8	6.5	M5-F	6	2.2	8	1.3
	VPG6---IM18C	1	6	-	0.8	6.5	G1/8"-M	8	2.2	14	4.1
	VPG6---IF18C	2	6	-	0.8	6.5	G1/8"-F	9	2.2	14	5.3
	VPG8---IMM5C	1	8	-	1.2	7	M5-M	4.5	2.2	7	0.9
	VPG8---IFM5C	2	8	-	1.2	7	M5-F	6	2.2	8	1.4
	VPG8---IM18C	1	8	-	1.2	7	G1/8"-M	8	2.2	14	4.1
	VPG8---IF18C	2	8	-	1.2	7	G1/8"-F	9	2.2	14	5.3
VPG10---IMM5C	1	10	-	1.5	7.5	M5-M	4.5	2.2	7	1	
VPG10---IFM5C	2	10	-	1.5	7.5	M5-F	6	2.2	8	1.5	
VPG10---IM18C	1	10	-	1.5	7.5	G1/8"-M	8	2.2	14	4.2	
VPG10---IF18C	2	10	-	1.5	7.5	G1/8"-F	9	2.2	14	5.4	
Ø 15 - 20 mm	VPG15---IM18C	4	15	-	1.9	8	G1/8"-M	8	2.2	14	4.7
	VPG15---IF18C	5	15	-	1.9	8	G1/8"-F	9	2.5	14	5.9
	VPG15---IMM5V	3	15	-	1.9	8	M5-M	5	2.5	-	2
	VPG15---IM18V	4	15	-	1.9	8	G1/8"-M	6	2.5	13	9.3
	VPG15---IF18V	5	15	-	1.9	8	G1/8"-F	7.5	2.5	13	12.5
	VPG20---IM18C	4	20	-	2.3	10	G1/8"-M	8	3	14	5.6
	VPG20---IF18C	5	20	-	2.3	10	G1/8"-F	9	3	14	6.9
	VPG20---IMM5V	3	20	-	2.3	10	M5-M	5	2.5	-	3.7
	VPG20---IM18V	4	20	-	2.3	10	G1/8"-M	6	2.5	13	11
	VPG20---IF18V	5	20	-	2.3	10	G1/8"-F	7.5	2.5	13	14.2

Note: All dimensions are in mm.

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

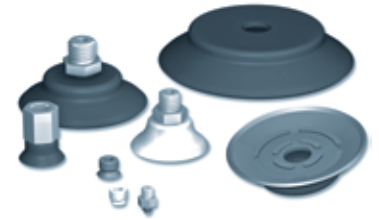



	Diagram	ØA	ØD	f <sup>(1)</sup>	H	H1	ØG	G1	ØG2 <sup>(2)</sup>	E ↘	 (g)	
Ø 25 - 50 mm	VPG25---IM18C	4	25	-	3	14	19	G1/8"-M	8	4	14	6.9
	VPG25---IF18C	5	25	-	3	14	29	G1/8"-F	9	4	14	7.9
	VPG25---IMM6V	3	25	-	3	14	-	M6-M	6	3.5	-	5.5
	VPG25---IM18V	4	25	-	3	14	18.5	G1/8"-M	6	3.5	13	12.1
	VPG25---IF18V	5	25	-	3	14	27	G1/8"-F	7.5	3.5	13	15.4
	VPG25---IM14V	4	25	-	3	14	19	G1/4"-M	8	3.5	17	21.4
	VPG25---IF14V	5	25	-	3	14	30	G1/4"-F	11	3.5	17	26
	VPG30---IM18C	4	30	-	2	12	17	G1/8"-M	8	4	14	7.4
	VPG30---IF18C	5	30	-	2	12	27	G1/8"-F	9	4	14	8.4
	VPG30---IMM6V	3	30	-	2	12	-	M6-M	6	3.5	-	6
	VPG30---IM18V	4	30	-	2	12	16.5	G1/8"-M	6	3.5	13	12.6
	VPG30---IF18V	5	30	-	2	12	25	G1/8"-F	7.5	3.5	13	15.9
	VPG30---IM14V	4	30	-	2	12	17	G1/4"-M	8	3.5	17	21.9
	VPG30---IF14V	5	30	-	2	12	28	G1/4"-F	11	3.5	17	26.5
	VPG35---IM18C	4	35	-	3	14	19	G1/8"-M	8	4	14	9.9
	VPG35---IF18C	5	35	-	3	14	29	G1/8"-F	9	4	14	10.9
	VPG35---IMM6V	3	35	-	3	14	-	M6-M	6	3.5	-	8.5
	VPG35---IM18V	4	35	-	3	14	18.5	G1/8"-M	6	3.5	13	15.1
	VPG35---IF18V	5	35	-	3	14	27	G1/8"-F	7.5	3.5	13	18.4
	VPG35---IM14V	4	35	-	3	14	19	G1/4"-M	8	3.5	17	24.4
	VPG35---IF14V	5	35	-	3	14	30	G1/4"-F	11	3.5	17	29
	VPG40---IM18C	4	40	-	3.5	14	19	G1/8"-M	8	4	14	11.4
	VPG40---IF18C	5	40	-	3.5	14	29	G1/8"-F	9	4	14	12.4
	VPG40---IMM6V	3	40	-	3.5	14	-	M6-M	6	3.5	-	10
	VPG40---IM18V	4	40	-	3.5	14	18.5	G1/8"-M	6	3.5	13	16.6
	VPG40---IF18V	5	40	-	3.5	14	27	G1/8"-F	7.5	3.5	13	19.9
	VPG40---IM14V	4	40	-	3.5	14	19	G1/4"-M	8	3.5	17	25.9
	VPG40---IF14V	5	40	-	3.5	14	30	G1/4"-F	11	3.5	17	30.5
	VPG50---IM18C	4	50	-	4	15	20	G1/8"-M	8	4	14	16
	VPG50---IF18C	5	50	-	4	15	30	G1/8"-F	9	4	14	17.4
VPG50---IMM6V	3	50	-	4	15	-	M6-M	6	3.5	-	18.6	
VPG50---IM18V	4	50	-	4	15	19.5	G1/8"-M	6	3.5	13	25.2	
VPG50---IF18V	5	50	-	4	15	28	G1/8"-F	7.5	3.5	13	28.5	
VPG50---IM14V	4	50	-	4	15	20	G1/4"-M	8	3.5	17	34.5	
VPG50---IF14V	5	50	-	4	15	31	G1/4"-F	11	3.5	17	39.1	
Ø 60 - 95 mm	VPG60---	8	60	38	5	16	-	M10x125-F	-	-	-	25.4
	VPG60---IM14V	6	60	38	5	16	21	G1/4"-M	10	5	17	32.4
	VPG60---IF14V	7	60	38	5	16	33	G1/4"-F	10	5	17	33.7
	VPG60S---	8	60	38	5	16	-	G1/4"-F	-	-	-	25.4
	VPG80---	8	80	53	6	18	-	M10x125-F	-	-	-	53
	VPG80---IM14V	6	80	53	6	18	23	G1/4"-M	10	5	17	60
	VPG80---IF14V	7	80	53	6	18	35	G1/4"-F	10	5	17	61.3
	VPG80S---	8	80	53	6	18	-	G1/4"-F	-	-	-	53
	VPG95---	8	95	68	6	19	-	M10x125-F	-	-	-	93.2
	VPG95---IM14V	6	95	68	6	19	24	G1/4"-M	10	5	17	100.2
VPG95---IF14V	7	95	68	6	19	36	G1/4"-F	10	5	17	101.5	
VPG95S---	8	95	68	6	19	-	G1/4"-F	-	-	-	93.2	
Ø 120 - 200 mm	VPG120---IF12V	10	120	89.5	6	24.5	54.5	G1/2"-F	24	19	48	454.8
	VPG120---IFS12V	9	120	89.5	6	24.5	37.5	G1/2"-F	13	-	-	373.5
	VPG150---IF12V	10	150	105	9	30.5	60.5	G1/2"-F	24	19	48	624.8
	VPG150---IFS12V	9	150	105	9	30.5	43.5	G1/2"-F	13	-	-	543.5
	VPG200---IF12V	10	200	143	12.5	35.5	65.5	G1/2"-F	24	19	48	914.8
	VPG200---IFS12V	9	200	143	12.5	35.5	48.5	G1/2"-F	13	-	-	833.5

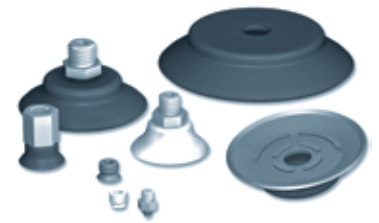
Note: All dimensions are in mm.

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

# VPG

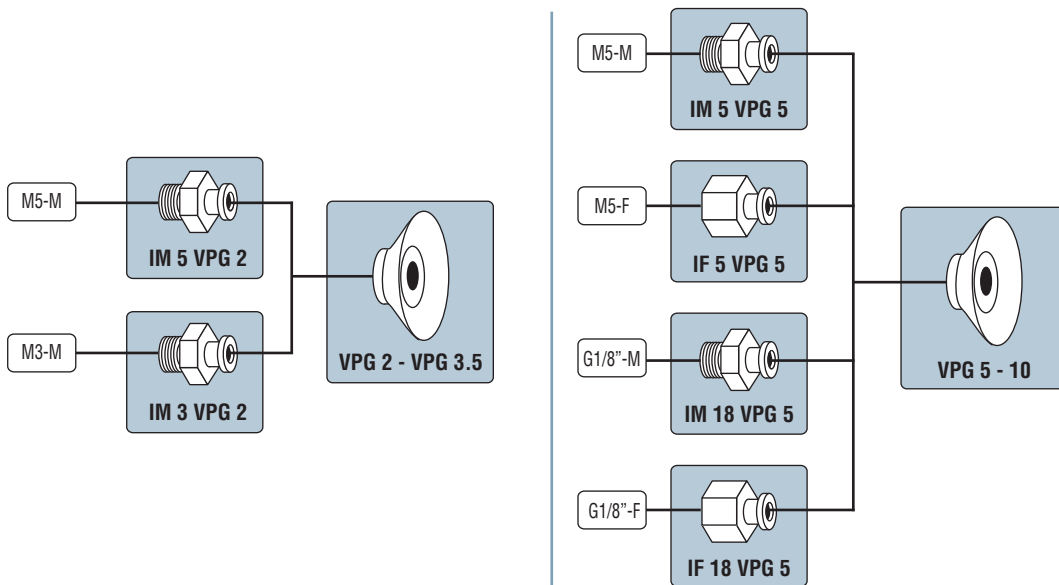
## Extra-flat Suction Cups Ø 2 to 200 mm

### Assembly Diagrams



#### VPG 2 - 10

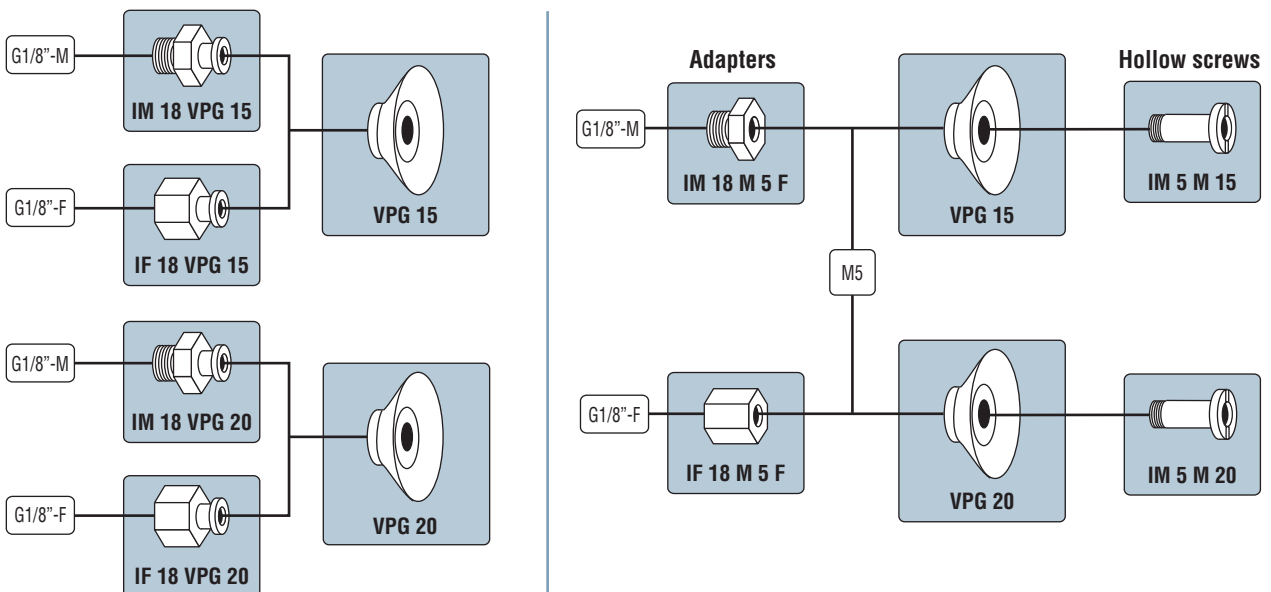
Barbed fittings **C**



#### VPG 15 - 20

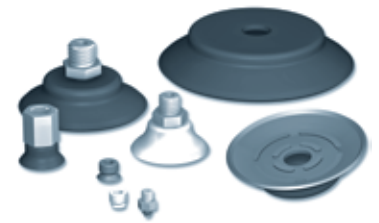
Barbed fittings **C**

Removable fittings **V**



Configurations (suction cup + fitting) refer to page 2/10

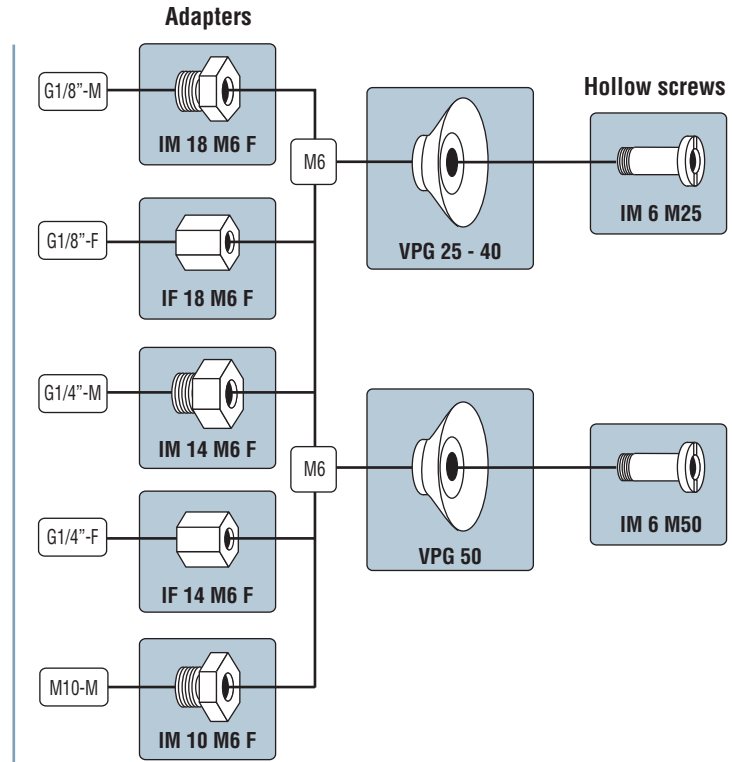
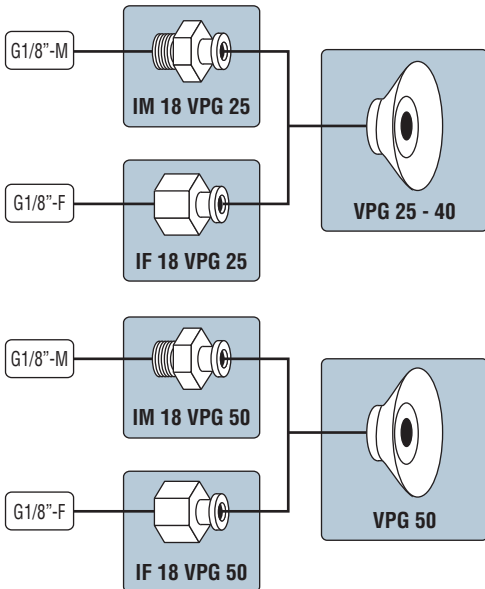
Fittings and suction cups dimensions: see page 2/15 and 2/16.



#### VPG 25 - 50

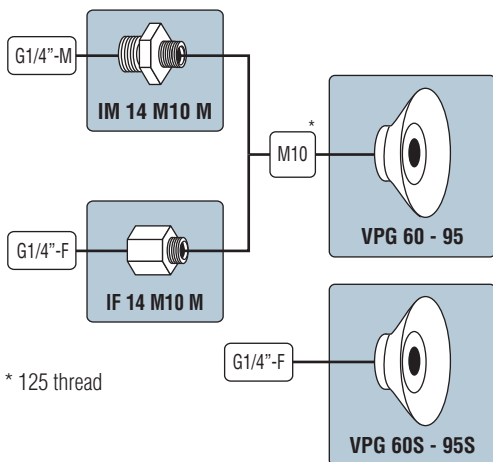
Barbed fittings **C**

Removable fittings **V**



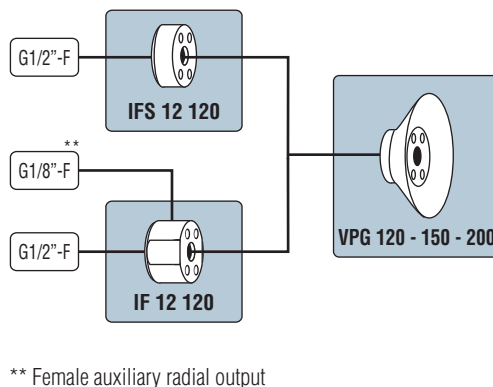
#### VPG 60 - 95

Removable fittings **V**



#### VPG 120 - 200

Removable fittings **V**



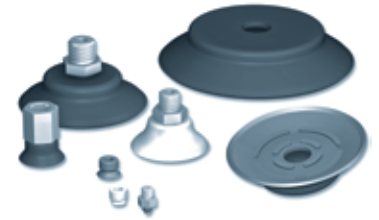
Configurations (suction cup + fitting) refer to page 2/10.

Fittings and suction cups dimensions: see page 2/15 and 2/16.

# VPG

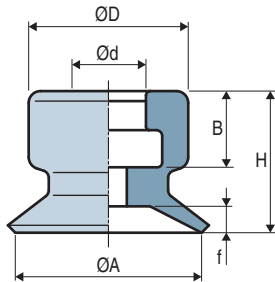
## Extra-flat Suction Cups Ø 2 to 200 mm

### Dimensions - Suction Cups

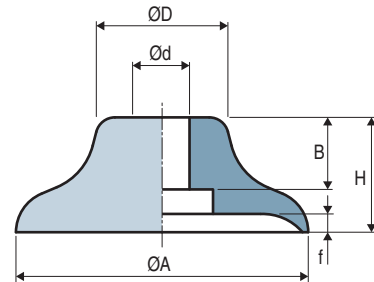


VPG 2

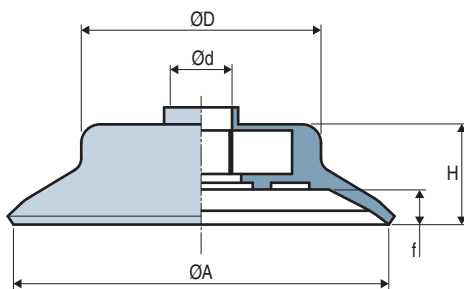
VPG 2 - 10



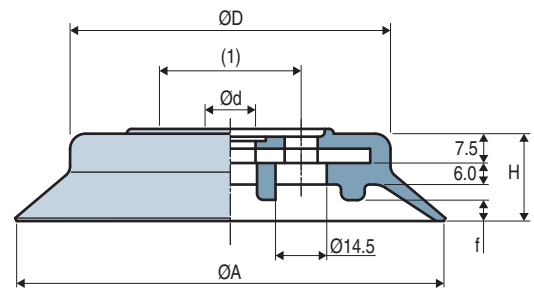
VPG 15 - 50



VPG 60 - 95



VPG 120 - 200



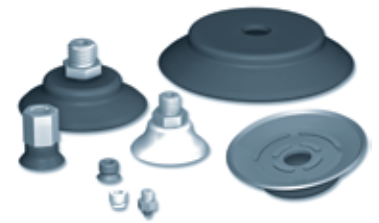
(1) 4 holes Ø 9 on Ø 40

Ø (Ø)	ØA	H	Ød	ØD	f (1)	B	g (g)
VPG 2	2	4	2	4	0.5	2.5	0.03
VPG 3.5	3.5	4	2	4	0.5	2.5	0.04
VPG 5	5	6.5	4	7.5	0.8	4	0.16
VPG 6	6	6.5	4	7.5	0.8	4	0.17
VPG 8	8	7	4	8	1.2	4	0.23
VPG 10	10	7.5	4	8.7	1.5	4	0.3
VPG 15	15	8	4.5	12	1.9	2.5	0.7
VPG 20	20	10	4.5	15	2.3	4.5	1.5
VPG 25	25	14	6	16	3	7	2.8
VPG 30	30	12	6	15	2	7	3.3
VPG 35	35	14	6	20.5	3	7	5.8
VPG 40	40	14	6	23.5	3.5	7	7.3
VPG 50	50	15	8	29	4	7	11.1
VPG 60	60	16	M10x125-F	38	5	-	25.4
VPG 60S	60	16	G1/4"-F	38	5	-	25.4
VPG 80	80	18	M10x125-F	53	6	-	53
VPG 80S	80	18	G1/4"-F	53	6	-	53
VPG 95	95	19	M10x125-F	68	6	-	93.2
VPG 95S	95	19	G1/4"-F	68	6	-	93.2
VPG 120	120	24.5	14.5	89.5	6	-	230
VPG 150	150	30.5	13	105	9	-	400
VPG 200	200	35.5	13	143	12.5	-	690

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

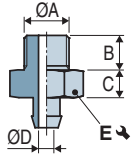
(1) f = Deflection of the suction cup.



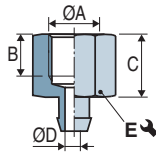


#### Barbed Fittings

Male - IM

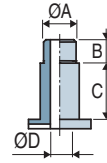


Female - IF



	ØA	B	C	ØD	E ↘	Material	⚖ (g)
<b>IM 3 VPG2</b>	M3-M	3	2	1	5	Aluminum	0.18
<b>IM 5 VPG2</b>	M5-M	4.5	3.5	1	7	Aluminum	0.61
<b>IM 5 VPG5</b>	M5-M	4.5	3.5	2.2	7	Aluminum	0.7
<b>IM 18 VPG5</b>	G1/8"-M	8	5	2.2	14	Aluminum	3.9
<b>IM 18 VPG15</b>	G1/8"-M	8	5	2.2	14	Aluminum	4
<b>IM 18 VPG20</b>	G1/8"-M	8	5	3	14	Aluminum	4.06
<b>IM 18 VPG25</b>	G1/8"-M	8	5	4	14	Aluminum	4.08
<b>IM 18 VPG50</b>	G1/8"-M	8	5	4	14	Aluminum	4.9
<b>IF 5 VPG5</b>	M5-F	6	9	2.2	8	Aluminum	1.2
<b>IF 18 VPG5</b>	G1/8"-F	9	15	2.2	14	Aluminum	5.1
<b>IF 18 VPG15</b>	G1/8"-F	9	15	2.5	14	Aluminum	5.2
<b>IF 18 VPG20</b>	G1/8"-F	9	15	3	14	Aluminum	5.4
<b>IF 18 VPG25</b>	G1/8"-F	9	15	4	14	Aluminum	5.5
<b>IF 18 VPG50</b>	G1/8"-F	9	15	4	14	Aluminum	6.3

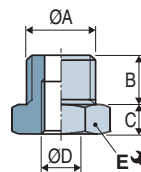
#### Hollow Screws



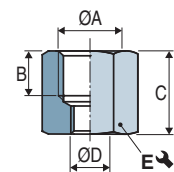
	ØA	B	C	ØD	Material	⚖ (g)
<b>IM 5 M15</b>	M5-M	5	2	2.5	Nickel-plated brass	1.3
<b>IM 5 M20</b>	M5-M	5	4	2.5	Nickel-plated brass	2.2
<b>IM 6 M25</b>	M6-M	6	6	3.5	Nickel-plated brass	2.7
<b>IM 6 M50</b>	M6-M	6	6	3.5	Nickel-plated brass	7.5

#### Adapters for Hollow Screws

Male - IM



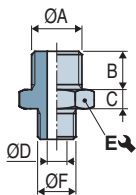
Female - IF



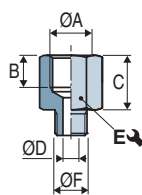
	ØA	B	C	ØD	E ↘	Material	⚖ (g)
<b>IM 10 M6F</b>	M10-M	7	3.5	M6-F	13	Brass	5.9
<b>IM 14 M6F</b>	G1/4"-M	8	5	M6-F	17	Nickel-plated brass	15.9
<b>IM 18 M5F</b>	G1/8"-M	6	4.5	M5-F	13	Nickel-plated brass	7.3
<b>IM 18 M6F</b>	G1/8"-M	6	4.5	M6-F	13	Nickel-plated brass	6.6
<b>IF 14 M6F</b>	G1/4"-F	11	16	M6-F	17	Nickel-plated brass	20.5
<b>IF 18 M5F</b>	G1/8"-F	7.5	13	M5-F	13	Nickel-plated brass	10.5
<b>IF 18 M6F</b>	G1/8"-F	7.5	13	M6-F	13	Nickel-plated brass	9.9

#### Screwed

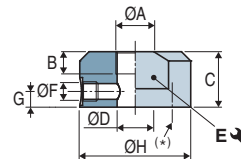
Male - IM



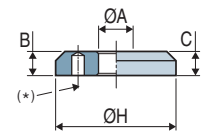
Female - IF



Female - IF 12120



Female - IFS 12120



(\*) 4 M8 holes at 90° on Ø40 (screws provided)

	ØA	B	C	ØD	E ↘	ØF	G	H	Material	⚖ (g)
<b>IM 14 M10M</b>	G1/4"-M	10	5	5	17	M10x125-M	-	-	Aluminum	7
<b>IF 14 M10M</b>	G1/4"-F	10	17	5	17	M10x125-M	-	-	Aluminum	8.3
<b>IF 12120</b>	G1/2"-F	24	30	19	48	G1/8"-F	8.7	60	Aluminum	224.8
<b>IFS 12120</b>	G1/2"-F	13	13	-	-	-	-	65	Aluminum	143.5

Note: All dimensions are in mm.