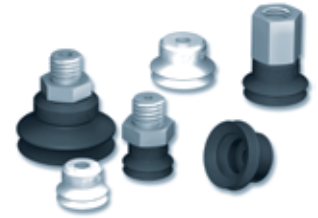
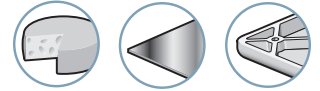


# VSAJ

## Suction Cups with 1.5 Bellows Ø 15 to 30 mm



Industry-specific applications



Types of use








The VSAJ series 1.5 bellows suction cups are recommended to grip slightly convex or concave products. They are also able to compensate for height variations in products being gripped.

2 VSAJ

### Materials


- NBR** Nitrile
- SI** Translucent silicone

### Suction Cup Properties

	Ø (mm)	 (cm <sup>3</sup> )	 (N) <sup>(1)</sup>	 (N) <sup>(1)</sup>	 R <sub>min</sub> (mm)	NBR	SI
<b>VSAJ 15</b>	15	0.5	3.6	1.8	10	<b>VSAJ15NBR</b>	<b>VSAJ15SI</b>
<b>VSAJ 20</b>	20	1.2	6.9	3.4	13	<b>VSAJ20NBR</b>	<b>VSAJ20SI</b>
<b>VSAJ 30</b>	30	3	13.4	6.6	26	<b>VSAJ30NBR</b>	<b>VSAJ30SI</b>

(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)	M5-M	M6-M	M10-M	G1/8"-F	G1/8"-M	G1/4"-F	G1/4"-M
15...20	■	-	-	■	■	-	-
30	-	■	□	■	■	■	■

■ Standard available configurations (suction cup + fitting) refer to page 2/44  
 □ Additional mounting configurations see page 2/45


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

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

 Please specify the part n°. e.g. VSAJ20NBRIM18C  
Refer to page 2/44

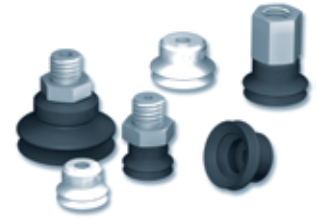
### Accessories

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

# VSAJ

## Suction cups with 1.5 bellows Ø 15 to 30 mm

### References and Dimensions - "Suction Cup + Fitting"



#### References - "Suction Cup + Fitting"

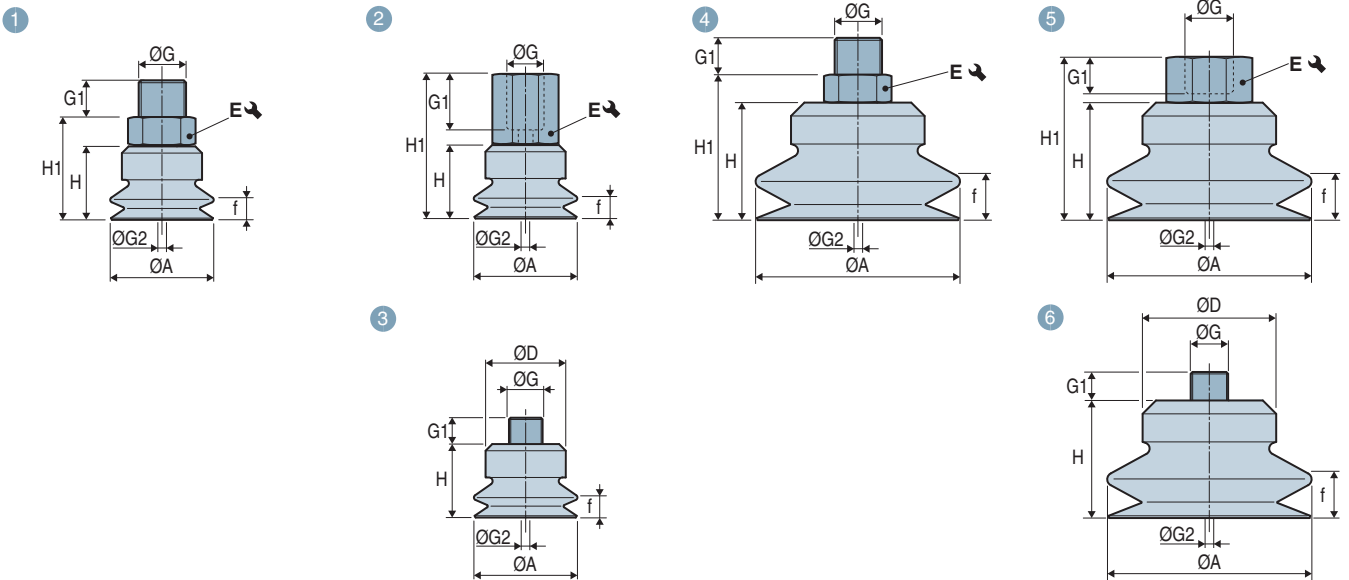
Ø 15 - 20 mm	C			V		
	THREAD	G1/8"-M	G1/8"-F	M5-M	G1/8"-M	G1/8"-F
VSAJ15NBR	VSAJ15NBRIM18C	VSAJ15NBRIF18C	VSAJ15NBRIMM5V	VSAJ15NBRIM18V	VSAJ15NBRIF18V	
VSAJ15SI	VSAJ15SIIM18C	VSAJ15SIIF18C	VSAJ15SIIMM5V	VSAJ15SIIM18V	VSAJ15SIIF18V	
VSAJ20NBR	VSAJ20NBRIM18C	VSAJ20NBRIF18C	VSAJ20NBRIMM5V	VSAJ20NBRIM18V	VSAJ20NBRIF18V	
VSAJ20SI	VSAJ20SIIM18C	VSAJ20SIIF18C	VSAJ20SIIMM5V	VSAJ20SIIM18V	VSAJ20SIIF18V	

Ø 30 mm	C			V			
	THREAD	G1/8"-M	G1/8"-F	M5-M	G1/8"-M	G1/8"-F	G1/4"-M
VSAJ30NBR	VSAJ30NBRIM18C	VSAJ30NBRIF18C	VSAJ30NBRIMM6V	VSAJ30NBRIM18V	VSAJ30NBRIF18V	VSAJ30NBRIM14V	VSAJ30NBRIF14V
VSAJ30SI	VSAJ30SIIM18C	VSAJ30SIIF18C	VSAJ30SIIMM6V	VSAJ30SIIM18V	VSAJ30SIIF18V	VSAJ30SIIM14V	VSAJ30SIIF14V

#### VSAJ 15 -20

#### VSAJ 30



		Diagrams	ØA	ØD	f <sup>(1)</sup>	H	H1	ØG	G1	ØG2 <sup>(2)</sup>	E	g
Ø 15 - 20 mm	VSAJ15---IM18C	1	15	-	3.3	11	16	G1/8"-M	8	2.2	14	4.8
	VSAJ15---IF18C	2	15	-	3.3	11	26	G1/8"-F	9	2.5	14	6
	VSAJ15---IMM5V	3	15	12	3.3	11	-	M5-M	5	2.5	-	3
	VSAJ15---IM18V	1	15	-	3.3	11	15.5	G1/8"-M	6	2.5	13	9.4
	VSAJ15---IF18V	2	15	-	3.3	11	24	G1/8"-F	7.5	2.5	13	12.6
	VSAJ20---IM18C	1	20	-	5.5	13	18	G1/8"-M	8	3	14	5.7
	VSAJ20---IF18C	2	20	-	5.5	13	28	G1/8"-F	9	3	14	7
	VSAJ20---IMM5V	3	20	15	5.5	13	-	M5-M	5	2.5	-	3.8
	VSAJ20---IM18V	1	20	-	5.5	13	17.5	G1/8"-M	6	2.5	13	10.1
VSAJ20---IF18V	2	20	-	5.5	13	26	G1/8"-F	7.5	2.5	13	14.6	
Ø 30 mm	VSAJ30---IM18C	4	30	-	7	17	42	G1/8"-M	8	4	14	9
	VSAJ30---IF18C	5	30	-	7	17	32	G1/8"-F	9	4	14	8.4
	VSAJ30---IMM6V	6	30	20	7	17	-	M6-M	6	3.5	-	7.6
	VSAJ30---IM18V	4	30	-	7	17	21.5	G1/8"-M	6	3.5	13	14.2
	VSAJ30---IF18V	5	30	-	7	17	30	G1/8"-F	7.5	3.5	13	17.5
	VSAJ30---IM14V	4	30	-	7	17	21.5	G1/4"-M	8	3.5	17	20.8
VSAJ30---IF14V	5	30	-	7	17	33	G1/4"-F	11	3.5	17	28.1	

Note: All dimensions are in mm.

(1) f = Deflection of the suction cup.

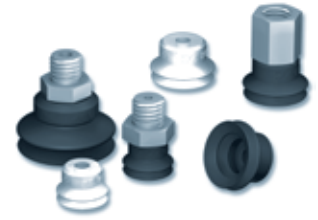
(2) Ø G2 = Ø internal orifice of the fitting.

Additional mounting configurations are available (see page 2/45). For standard configurations (suction cup+fitting), the C and V versions are delivered unassembled.

# VSAJ

## Suction Cups with 1.5 Bellows Ø 15 to 30 mm

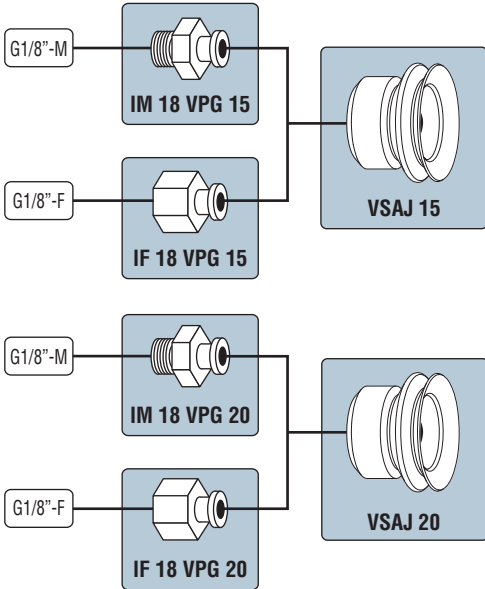
### Assembly Diagrams



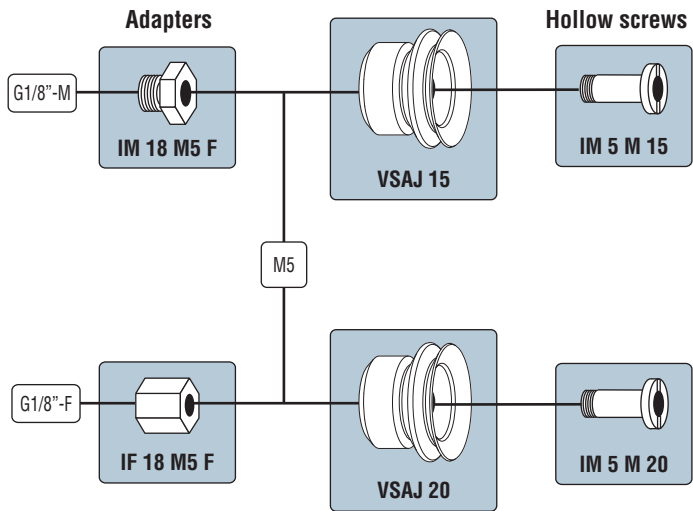
2  
VSAJ

#### VSAJ 15 - 20

Barbed fittings **C**

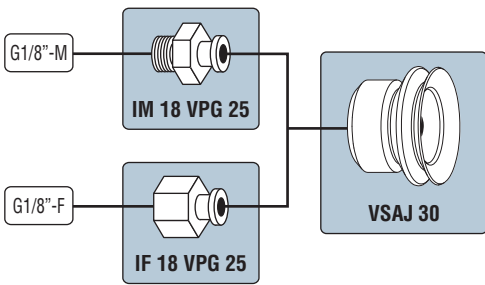


Removable fittings **V**

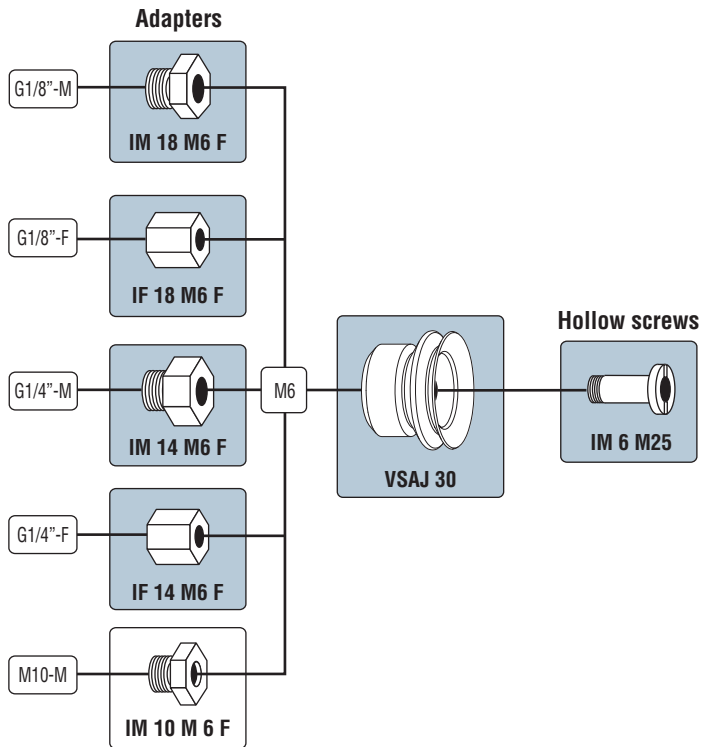


#### VSAJ 30

Barbed fittings **C**



Removable fittings **V**

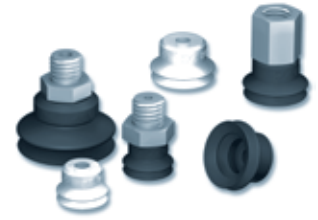


Configurations (suction cup + fitting) refer to page 2/44

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

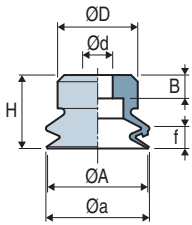
# VSAJ

## Suction Cups with 1.5 Bellows Ø 15 to 30 mm Dimensions

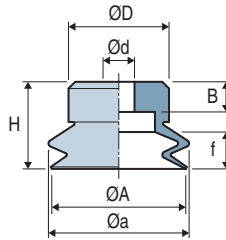


### Suction Cups

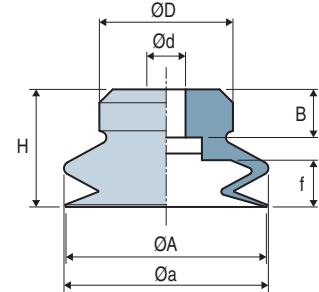
VSAJ 15



VSAJ 20



VSAJ 30

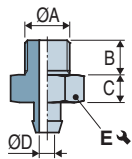


	Ø A	H	Ø a	Ø d	Ø D	f (1)	B	⊖ (g)
<b>VSAJ 15</b>	15	11	15.5	4.5	12	3.3	3.5	9
<b>VSAJ 20</b>	20	13	21	4.7	15	5.5	4.5	8.4
<b>VSAJ 30</b>	30	17	30.6	5.8	20	7	7.2	7.6

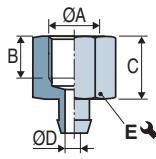
(1) f = Deflection of the suction cup.

### Barbed Fittings

Male - IM

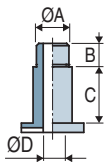


Female - IF



	ØA	B	C	ØD	E ↘	Material	⊖ (g)
<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	4.1
<b>IM 18 VPG25</b>	G1/8"-M	8	5	4	14	Aluminum	4.1
<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

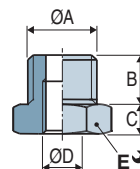
### Hollow Screws



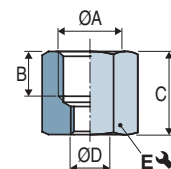
	ØA	B	C	ØD	Material	⊖ (g)
<b>IM 5 M15</b>	M5-M	5	2	2.5	Nickel-plated brass	1.3
<b>IM 5 M20</b>	M5-M	5	4	2.5	Nickel-plated brass	2.2
<b>IM 6 M25</b>	M6-M	6	6	3.5	Nickel-plated brass	2.7

### 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

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