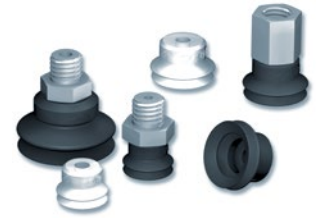
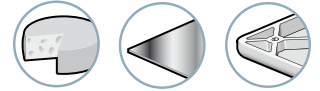


VSAJ

Suction Cups with 1.5 Bellows Ø 15 to 30 mm



Industry-specific applications



Types of use








2 VSAJ

Materials


- NBR** Nitrile
- SI** Translucent silicone

Suction Cup Properties

|  | Ø (mm) |  (cm ³) |  (lbf) ⁽¹⁾ |  (lbf) ⁽¹⁾ |  R _{min} (mm) | NBR | SI |
|---|--------|--|--|--|--|-----------|----------|
| VSAJ 15 | 15 | 0.5 | 0.81 | 0.41 | 10 | VSAJ15NBR | VSAJ15SI |
| VSAJ 20 | 20 | 1.2 | 1.54 | 0.76 | 13 | VSAJ20NBR | VSAJ20SI |
| VSAJ 30 | 30 | 3 | 3.00 | 1.49 | 26 | VSAJ30NBR | VSAJ30SI |

(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 2/40
 □ Additional mounting configurations see page 2/41


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 2/40

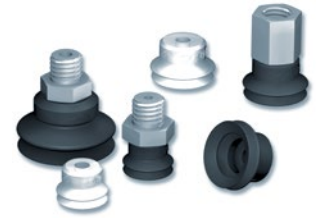
Accessories

To optimize use of your suction cups, Coval offers a comprehensive range of accessories (spring systems, extensions, feeder systems, etc.) see chapters 4 and 12.

VSAJ

Suction cups with 1.5 bellows Ø 15 to 30 mm

References and Dimensions - "Suction Cup + Fitting"



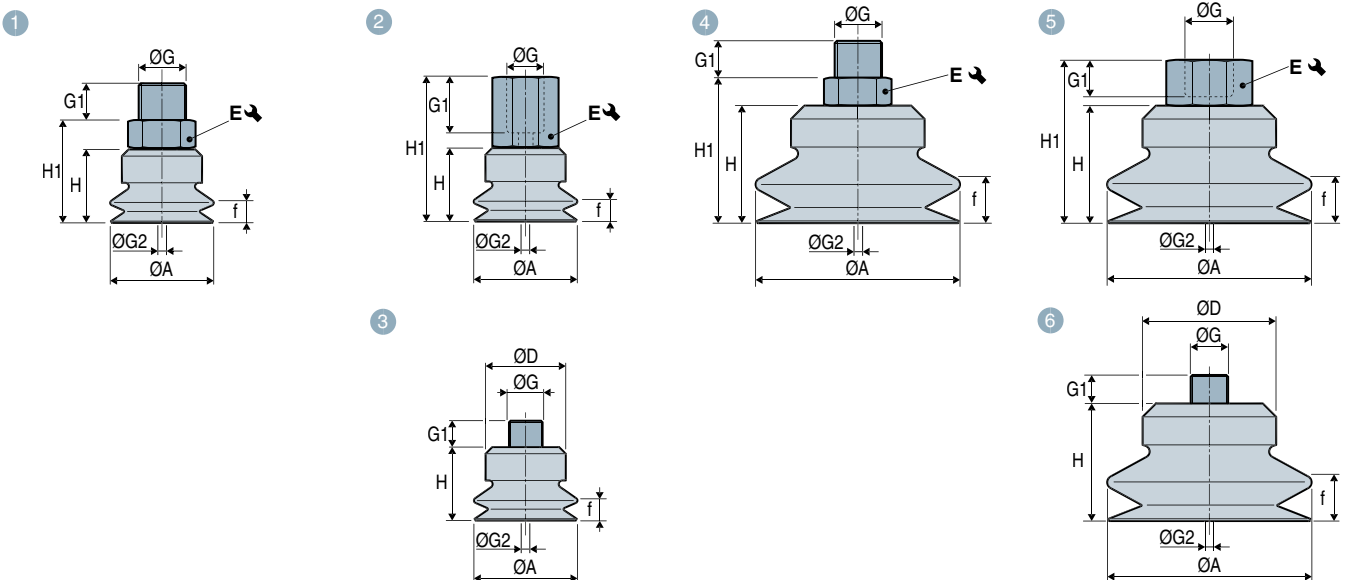
References - "Suction Cup + Fitting"

| 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 | G1/4"-F |
| 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 ⁽¹⁾ | H | H1 | ØG | G1 | ØG2 ⁽²⁾ | 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.

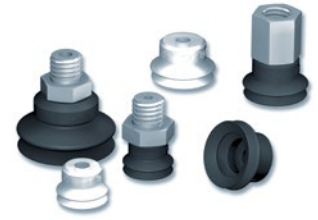
(2) Ø G2 = Ø internal orifice of the fitting.

Additional mounting configurations are available (see page 2/41). 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

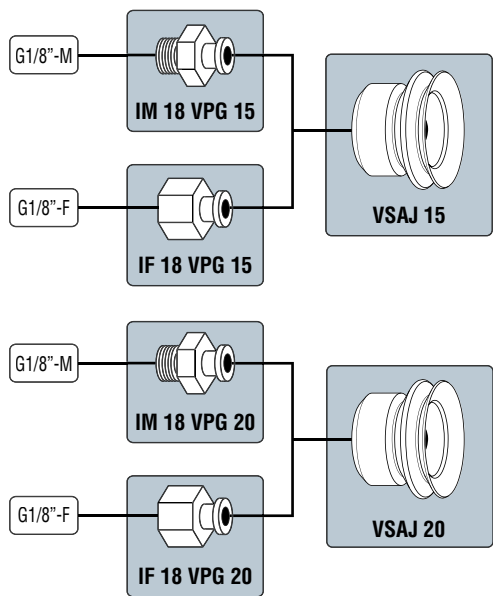
Assembly Diagrams



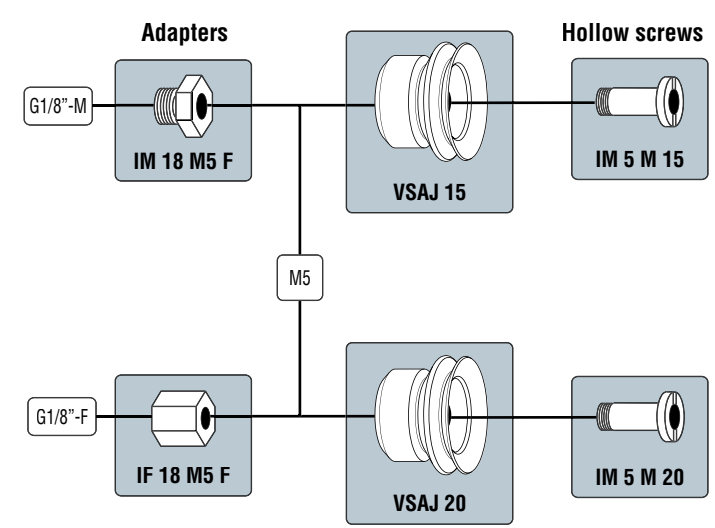
2 VSAJ

VSAJ 15 - 20

Barbed fittings **C**

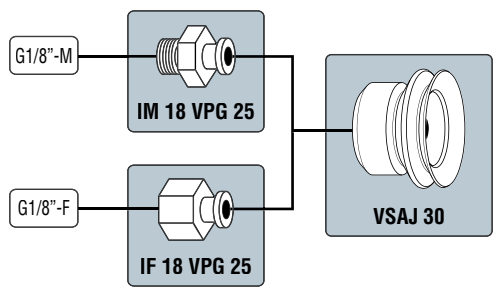


Removable fittings **V**

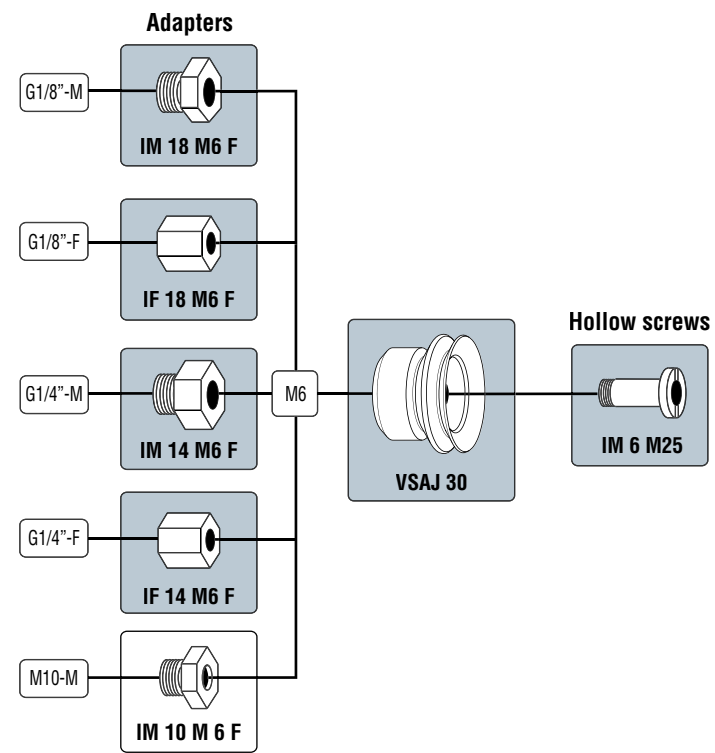


VSAJ 30

Barbed fittings **C**



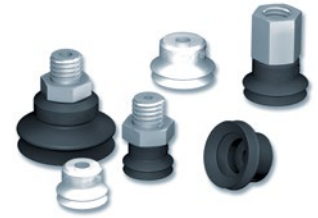
Removable fittings **V**



VSAJ

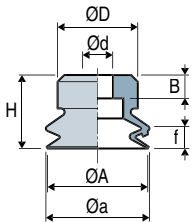
Suction Cups with 1.5 Bellows Ø 15 to 30 mm

Dimensions

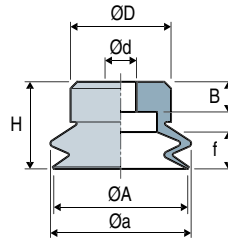


Suction Cups

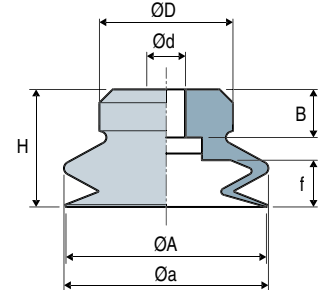
VSAJ 15



VSAJ 20



VSAJ 30

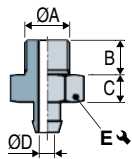


| | Ø A | H | Ø a | Ø d | Ø D | f (1) | B | (g) |
|---------|-----|----|------|-----|-----|-------|-----|-----|
| VSAJ 15 | 15 | 11 | 15.5 | 4.5 | 12 | 3.3 | 3.5 | 9 |
| VSAJ 20 | 20 | 13 | 21 | 4.7 | 15 | 5.5 | 4.5 | 8.4 |
| VSAJ 30 | 30 | 17 | 30.6 | 5.8 | 20 | 7 | 7.2 | 7.6 |

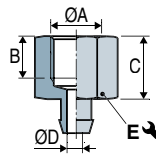
(1) f = Deflection of the suction cup.

Barbed Fittings

Male - IM

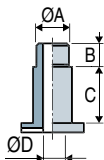


Female - IF



| | ØA | B | C | ØD | E | Material | (g) |
|-------------|---------|---|----|-----|----|----------|-----|
| IM 18 VPG15 | G1/8"-M | 8 | 5 | 2.2 | 14 | Aluminum | 4 |
| IM 18 VPG20 | G1/8"-M | 8 | 5 | 3 | 14 | Aluminum | 4.1 |
| IM 18 VPG25 | G1/8"-M | 8 | 5 | 4 | 14 | Aluminum | 4.1 |
| IF 18 VPG15 | G1/8"-F | 9 | 15 | 2.5 | 14 | Aluminum | 5.2 |
| IF 18 VPG20 | G1/8"-F | 9 | 15 | 3 | 14 | Aluminum | 5.4 |
| IF 18 VPG25 | G1/8"-F | 9 | 15 | 4 | 14 | Aluminum | 5.5 |

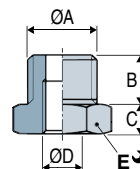
Hollow Screws



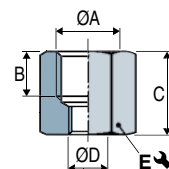
| | ØA | B | C | ØD | Material | (g) |
|----------|------|---|---|-----|---------------------|-----|
| IM 5 M15 | M5-M | 5 | 2 | 2.5 | Nickel-plated brass | 1.3 |
| IM 5 M20 | M5-M | 5 | 4 | 2.5 | Nickel-plated brass | 2.2 |
| IM 6 M25 | M6-M | 6 | 6 | 3.5 | Nickel-plated brass | 2.7 |

Adapters for Hollow Screws

Male - IM



Female - IF



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