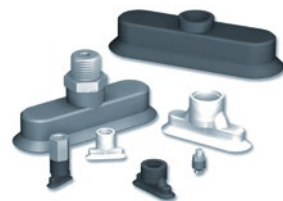


# VPO

## Ventosas ovaladas

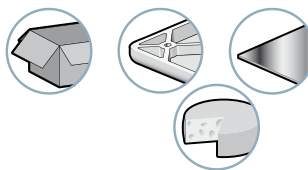


Las ventosas ovaladas serie VPO se utilizan en la manipulación de productos alargados (bolígrafos, tubos, frascos, ampollas...), planos o cilíndricos.

Materiales

**NBR** Nitrilo    **STN** Siton®    **SI** Silicona

Sectores de actividad



Utilización



2  
VPO

### Características ventosas

|          | I x L (mm) | V (cm <sup>3</sup> ) | F (N) <sup>(1)</sup> | R <sub>min</sub> (mm) | NBR        | SI        | STN        |
|----------|------------|----------------------|----------------------|-----------------------|------------|-----------|------------|
| VPO 24   | 2x4        | 0.004                | 0.2                  | 1                     | VPO24NBR   | VPO24SI   | VPO24STN   |
| VPO 357  | 3.5x7      | 0.019                | 0.5                  | 3                     | VPO357NBR  | VPO357SI  | VPO357STN  |
| VPO 515  | 5x15       | 0.036                | 1.7                  | 4                     | VPO515NBR  | VPO515SI  | VPO515STN  |
| VPO 618  | 6x18       | 0.058                | 2.4                  | 4                     | VPO618NBR  | VPO618SI  | VPO618STN  |
| VPO 824  | 8x24       | 0.138                | 4.3                  | 8                     | VPO824NBR  | VPO824SI  | VPO824STN  |
| VPO 1030 | 10x30      | 0.28                 | 6.6                  | 8                     | VPO1030NBR | VPO1030SI | VPO1030STN |
| VPO 1545 | 15x45      | 0.98                 | 15.3                 | 10                    | VPO1545NBR | VPO1545SI | VPO1545STN |
| VPO 2060 | 20x60      | 2.3                  | 27.1                 | 20                    | VPO2060NBR | VPO2060SI | VPO2060STN |
| VPO 2575 | 25x75      | 4.7                  | 42.4                 | 30                    | VPO2575NBR | VPO2575SI | VPO2575STN |
| VPO 3090 | 30x90      | 8.5                  | 61                   | 35                    | VPO3090NBR | VPO3090SI | VPO3090STN |

(1) Fuerza práctica de la ventosa con un vacío del 65 % y un coeficiente de seguridad incluido de 2 para manipulación horizontal.

### Selección de los insertos

|              | M3-M | M5-M | M5-F | G1/8"-M | G1/8"-F | G1/4"-M | G1/4"-F |
|--------------|------|------|------|---------|---------|---------|---------|
| 24, 357      | ■    | -    | -    | -       | -       | -       | -       |
| 515, 618     | -    | ■    | ■    | -       | -       | -       | -       |
| 824, 1030    | -    | -    | -    | ■       | ■       | -       | -       |
| 1545... 3090 | -    | -    | -    | -       | -       | ■       | ■       |

### Tipo de montaje



Versión C: Inserto cánula

Abrazadera obligatoria a partir de las dimensiones 8 x 24 para impedir una rotación involuntaria durante la utilización.

■ Combinaciones «ventosa + inserto» disponibles: ver referencias en tabla de mas abajo. Fijación: M = Macho F = Hembra

### Referencias « ventosa + inserto »

| Ventosa           |           |                |
|-------------------|-----------|----------------|
|                   | M3-M      | M5-F           |
| <b>2x4, 3.5x7</b> | VPO24NBR  | VPO24NBRIMM3C  |
|                   | VPO24SI   | VPO24SIIMM3C   |
|                   | VPO24STN  | VPO24STNIMM3C  |
|                   | VPO357NBR | VPO357NBRIMM3C |
|                   | VPO357SI  | VPO357SIIMM3C  |
|                   | VPO357STN | VPO357STNIMM3C |

| Ventosa            |           |                |
|--------------------|-----------|----------------|
|                    | M5-M      | M5-F           |
| <b>5x15 - 6x18</b> | VPO515NBR | VPO515NBRIMM5C |
|                    | VPO515SI  | VPO515SIIMM5C  |
|                    | VPO515STN | VPO515STNIMM5C |
|                    | VPO618NBR | VPO618NBRIMM5C |
|                    | VPO618SI  | VPO618SIIMM5C  |
|                    | VPO618STN | VPO618STNIMM5C |

| Ventosa             |            |                 |
|---------------------|------------|-----------------|
|                     | G1/8"-M    | G1/8"-F         |
| <b>8x24 - 10x30</b> | VPO824NBR  | VPO824NBRIM18C  |
|                     | VPO824SI   | VPO824SIIM18C   |
|                     | VPO824STN  | VPO824STNIM18C  |
|                     | VPO1030NBR | VPO1030NBRIM18C |
|                     | VPO1030SI  | VPO1030SIIM18C  |
|                     | VPO1030STN | VPO1030STNIM18C |

| Ventosa              |            |                 |
|----------------------|------------|-----------------|
|                      | G1/4"-M    | G1/4"-F         |
| <b>15x45 - 30x90</b> | VPO1545NBR | VPO1545NBRIM14C |
|                      | VPO1545SI  | VPO1545SIIM14C  |
|                      | VPO1545STN | VPO1545STNIM14C |
|                      | VPO2060NBR | VPO2060NBRIM14C |
|                      | VPO2060SI  | VPO2060SIIM14C  |
|                      | VPO2060STN | VPO2060STNIM14C |
|                      | VPO2575NBR | VPO2575NBRIM14C |
|                      | VPO2575SI  | VPO2575SIIM14C  |
|                      | VPO2575STN | VPO2575STNIM14C |
|                      | VPO3090NBR | VPO3090NBRIM14C |
|                      | VPO3090SI  | VPO3090SIIM14C  |
|                      | VPO3090STN | VPO3090STNIM14C |

### Accesorios

Sistema resorte antirotación, véase página 4/6

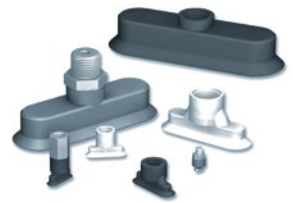


Indique la referencia ej.: VPO618NBRIFM5C  
Diríjase a la tabla de mas arriba

# VPO

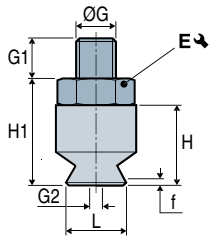
## Ventosas ovaladas

Dimensiones « ventosa + inserto »



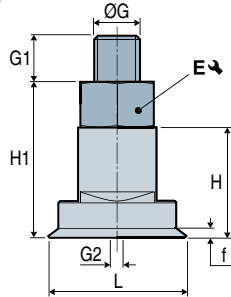
### VPO 2x4 - 3.5x7

1

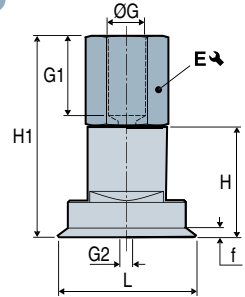


### VPO 5x15 - 6x18

2

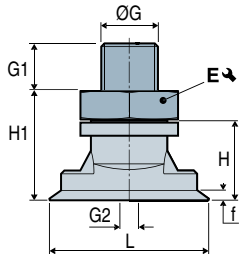


3

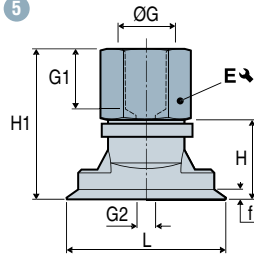


### VPO 8x24 - 10x30

4

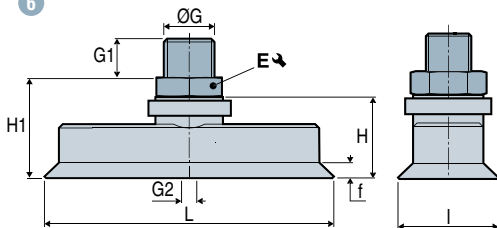


5

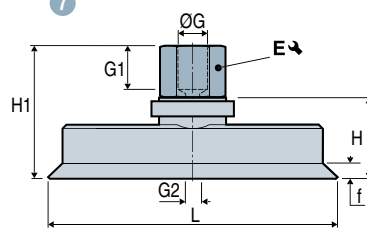


### VPO 15x45 - 20x60 - 25x75 - 30x90

6



7



|                 | Diagrama | L  | I   | f <sup>(1)</sup> | H  | H1 | ØG      | G1  | ØG2 <sup>(2)</sup> | E ↘ | ⊖ (g) |
|-----------------|----------|----|-----|------------------|----|----|---------|-----|--------------------|-----|-------|
| VPO24---IMM3C   | 1        | 4  | 2   | 0.5              | 6  | 8  | M3-M    | 3   | 1                  | 5   | 0.4   |
| VPO357---IMM3C  | 1        | 7  | 3.5 | 0.8              | 6  | 8  | M3-M    | 3   | 1                  | 5   | 0.3   |
| VPO515---IMM5C  | 2        | 15 | 5   | 0.7              | 12 | 17 | M5-M    | 5   | 2                  | 8   | 1.8   |
| VPO515---IFM5C  | 3        | 15 | 5   | 0.7              | 12 | 22 | M5-F    | 8.5 | 2                  | 8   | 1.8   |
| VPO618---IMM5C  | 2        | 18 | 6   | 0.8              | 12 | 17 | M5-M    | 5   | 2                  | 8   | 1.8   |
| VPO618---IFM5C  | 3        | 18 | 6   | 0.8              | 12 | 22 | M5-F    | 8.5 | 2                  | 8   | 1.8   |
| VPO824---IM18C  | 4        | 24 | 8   | 1                | 12 | 17 | G1/8"-M | 8   | 3.5                | 14  | 6.6   |
| VPO824---IF18C  | 5        | 24 | 8   | 1                | 12 | 25 | G1/8"-F | 9   | 3.5                | 14  | 7.3   |
| VPO1030---IM18C | 4        | 30 | 10  | 1.5              | 12 | 17 | G1/8"-M | 8   | 3.5                | 14  | 6.8   |
| VPO1030---IF18C | 5        | 30 | 10  | 1.5              | 12 | 25 | G1/8"-F | 9   | 3.5                | 14  | 7.5   |
| VPO1545---IM14C | 6        | 45 | 15  | 2                | 21 | 26 | G1/4"-M | 10  | 3.5                | 17  | 16.5  |
| VPO1545---IF14C | 7        | 45 | 15  | 2                | 21 | 36 | G1/4"-F | 12  | 3.5                | 17  | 16.5  |
| VPO2060---IM14C | 6        | 60 | 20  | 2.5              | 21 | 26 | G1/4"-M | 10  | 3.5                | 17  | 19.7  |
| VPO2060---IF14C | 7        | 60 | 20  | 2.5              | 21 | 36 | G1/4"-F | 12  | 3.5                | 17  | 19.7  |
| VPO2575---IM14C | 6        | 75 | 25  | 2.8              | 21 | 26 | G1/4"-M | 10  | 3.5                | 17  | 27.9  |
| VPO2575---IF14C | 7        | 75 | 25  | 2.8              | 21 | 36 | G1/4"-F | 12  | 3.5                | 17  | 27.9  |
| VPO3090---IM14C | 6        | 90 | 30  | 3.5              | 21 | 26 | G1/4"-M | 10  | 3.5                | 17  | 36.3  |
| VPO3090---IF14C | 7        | 90 | 30  | 3.5              | 21 | 36 | G1/4"-F | 12  | 3.5                | 17  | 36.3  |

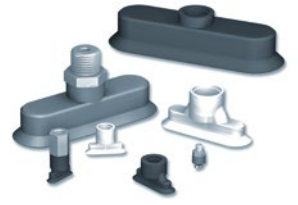
Nota: Todas las cotas están indicadas en mm

(1) f = Flecha de la ventosa. (2) Ø G2 = Ø de paso interno del inserto.

# VPO

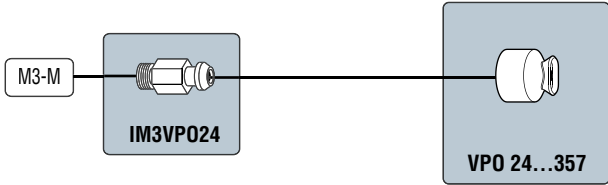
## Ventosas planas ovaladas

### Esquemas de montaje



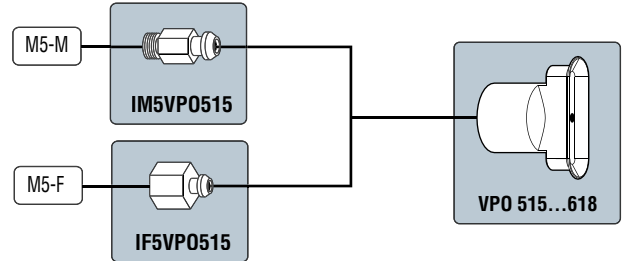
#### VPO 24 - 357

Insertos cánulas **C**  



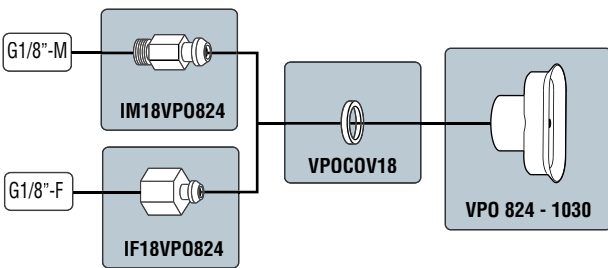
#### VPO 515 - 618

Insertos cánulas **C**  



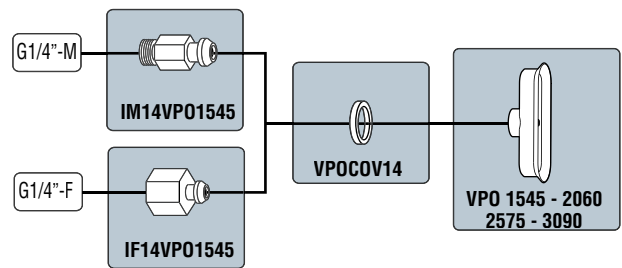
#### VPO 824 - 1030

Insertos cánulas **C**  



#### VPO 1545 - 2060 - 2575 - 3090

Insertos cánulas **C**  

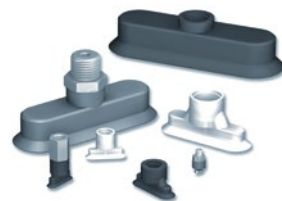


2  
VPO

# VPO

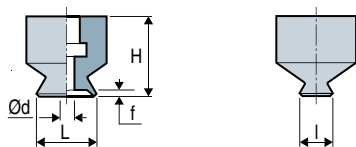
## Ventosas planas ovaladas

### Dimensiones

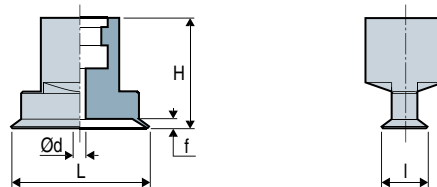


#### Ventosas dimensiones

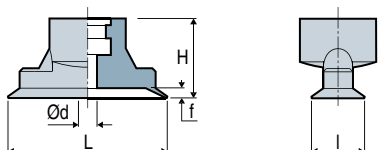
VPO 24 - 357



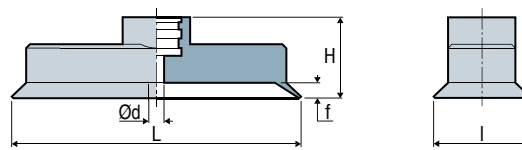
VPO 515 - 618





VPO 824 - 1030



VPO 1545 - 2060 - 2575 - 3090



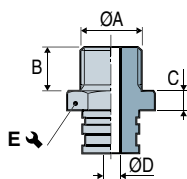
#### Ventosas

|  | L  | l   | Ø d | H  | f (1) |  (g) |
|---|----|-----|-----|----|-------|---|
| VPO24   | 4  | 2   | 0.7 | 6  | 0.5   | 0.12  |
| VPO357  | 7  | 3.5 | 1   | 6  | 0.8   | 0.15  |
| VPO515  | 15 | 5   | 1.2 | 12 | 0.7   | 0.51  |
| VPO618  | 18 | 6   | 1.5 | 12 | 0.8   | 0.53  |
| VPO824  | 24 | 8   | 1.5 | 12 | 1     | 1.1   |
| VPO1030   | 30 | 10  | 2.5 | 12 | 1.5   | 1.3   |
| VPO1545   | 45 | 15  | 3   | 21 | 2     | 4.1   |
| VPO2060   | 60 | 20  | 4   | 21 | 2.5   | 7.3   |
| VPO2575   | 75 | 25  | 4   | 21 | 2.8   | 15.5  |
| VPO3090   | 90 | 30  | 4   | 21 | 3.5   | 23.9  |

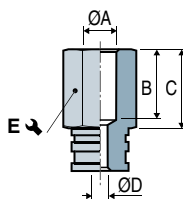
(1) f = Flecha de la ventosa.

#### Insertos cánulas

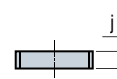
Macho - IM





Hembra - IF



Abrazadera de apriete



|             | ØA      | B   | C  | ØD  | E  | j | Materiales |  (g) |
|-------------|---------|-----|----|-----|---|---|------------|---|
| IM3VPO24    | M3-M    | 3   | 2  | 1   | 5   | - | Aluminio   | 0.2   |
| IM5VPO515   | M5-M    | 5   | 5  | 2   | 8   | - | Aluminio   | 1.3   |
| IM18VPO824  | G1/8"-M | 8   | 5  | 3.5 | 14  | - | Aluminio   | 3.9   |
| IM14VPO1545 | G1/4"-M | 10  | 5  | 3.5 | 17  | - | Aluminio   | 9.7   |
| IF5VPO515   | M5-F    | 8.5 | 10 | 2   | 8   | - | Aluminio   | 1.3   |
| IF18VPO824  | G1/8"-F | 9   | 13 | 3.5 | 14  | - | Aluminio   | 4.6   |
| IF14VPO1545 | G1/4"-F | 12  | 15 | 3.5 | 17  | - | Aluminio   | 9.7   |
| VPO COV18   | -       | -   | -  | -   | -   | 4 | Aluminio   | 1.6   |
| VPO COV14   | -       | -   | -  | -   | -   | 4 | Aluminio   | 2.7   |

Los valores son representativos de las características medias de nuestros productos.  
Nota: Todas las cotas están indicadas en mm

(1) f = Flecha de la ventosa.