



# Series | Flat vacuum cups SF

Flat vacuum cups, modular – SP-F

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### Product notes

Universal flat vacuum cup in even, supported or deep design.  
Design: Replacement sealing lip for attachment to fitting.

### Advantage

- > High suction force
- > Fast cycle times possible
- > Very resistant to wear (Tepuflex®)
- > Compatible with established products from other vendors

### Ordering notes

Explanation of the ending of the accessory fitting:

> S: with screen

### Technical data

| Item no.             | Model     |     | Material / Color                             | Accessories |
|----------------------|-----------|-----|--|-------------|
| <b>Smooth design</b> |           |     |  |             |
|                      |           |     |  |             |
| <b>102.005.090.*</b> | SP-F-5    | 0.5 | SI (tr), CR (sw)                             | --          |
| <b>102.007.091.*</b> | SP-F-7    | 1   | SI (tr), CR (sw)                             | --          |
| <b>102.009.092.*</b> | SP-F-9    | 1.5 | SI (tr), CR (sw)                             | --          |
| <b>102.011.093.*</b> | SP-F-10   | 1   | SI (tr), CR (sw)                             | --          |
| <b>102.016.098.*</b> | SP-F-15   | 2   | SI (tr), CR (sw)                             | --          |
| <b>102.020.095.*</b> | SP-F-20   | 2.5 | SI (tr), CR (sw)                             | 78.011      |
| <b>102.030.096.*</b> | SP-F-30   | 3.5 | SI (tr), CR (sw)                             | 78.011      |
| <b>102.040.094.*</b> | SP-F-40   | 4   | SI (tr), CR (sw)                             | 78.012      |
| <b>102.050.097.*</b> | SP-F-50   | 6.5 | SI (tr), CR (sw)                             | 78.013      |
| <b>With cleats</b>   |           |     |  |             |
|                      |           |     |  |             |
| <b>104.016.003.*</b> | SP-FA-16  | 0.5 | SI (tr), CR (sw)                             | --          |
| <b>125.020.004.*</b> | SP-FA-20  | 1   | Tepuflex® (or), SI (tr), SI-LE (tr), CR (sw) | 78.011      |
| <b>125.025.007.*</b> | SP-FA-25  | 1   | Tepuflex® (or), SI (tr), CR (sw)             | 78.011      |
| <b>125.030.010.*</b> | SP-FA-30  | 2   | Tepuflex® (or), SI (tr), CR (sw)             | 78.011      |
| <b>125.040.013.*</b> | SP-FA-40  | 2   | Tepuflex® (or), SI (tr), CR (sw)             | 78.012      |
| <b>125.050.017.*</b> | SP-FA-50  | 2.5 | Tepuflex® (or), SI (tr), CR (sw)             | 78.013      |
| <b>154.078.027.*</b> | SP-FA-75  | 3   | SI (tr), SI-LE (tr), CR (sw)                 | --          |
| <b>154.113.028.*</b> | SP-FA-110 | 5   | SI (tr), SI-LE (tr), CR (sw)                 | --          |
| <b>154.155.026.*</b> | SP-FA-150 | 5   | CR (sw)                                      | --          |
| <b>Deep design</b>   |           |     |  |             |
|                      |           |     |  |             |
| <b>122.016.012.*</b> | SP-FD-16  | 1.5 | SI (tr)                                      | --          |
| <b>122.022.022.*</b> | SP-FD-20  | 2.5 | SI (tr), SI-LE (tr), CR (sw)                 | 78.011      |

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## Accessories

| Item no.              | Suitable fittings |           |         |                       |                       |           |           |             |             |             |
|-----------------------|-------------------|-----------|---------|-----------------------|-----------------------|-----------|-----------|-------------|-------------|-------------|
|                       | M5-male           | M5-female | M6-male | G1/8-male             | G1/8-female           | G1/4-male | G3/8-male | G3/8-female | G1/2-female | G3/4-female |
| <b>Smooth design</b>  |                   |           |         |                       |                       |           |           |             |             |             |
| <b>102.005.090._*</b> | 270.153           | --        | --      | --                    | --                    | --        | --        | --          | --          | --          |
| <b>102.007.091._*</b> | 270.153           | --        | --      | --                    | --                    | --        | --        | --          | --          | --          |
| <b>102.009.092._*</b> | 270.153           | --        | --      | --                    | --                    | --        | --        | --          | --          | --          |
| <b>102.011.093._*</b> | 270.134           | --        | 270.104 | --                    | --                    | --        | --        | --          | --          | --          |
| <b>102.016.098._*</b> | 270.134           | --        | 270.104 | --                    | --                    | --        | --        | --          | --          | --          |
| <b>102.020.095._*</b> | --                | 270.500-S | --      | 270.250,<br>270.503-S | --                    | --        | --        | --          | --          | --          |
| <b>102.030.096._*</b> | --                | 270.500-S | --      | 270.250,<br>270.503-S | --                    | --        | --        | --          | --          | --          |
| <b>102.040.094._*</b> | --                | --        | --      | --                    | 270.251,<br>270.501-S | 270.506-S | 270.505-S | --          | --          | --          |
| <b>102.050.097._*</b> | --                | --        | --      | --                    | 270.252,<br>270.502-S | 270.504-S | 270.507-S | --          | --          | --          |
| <b>With cleats</b>    |                   |           |         |                       |                       |           |           |             |             |             |
| <b>104.016.003._*</b> | 270.134           | --        | 270.104 | --                    | --                    | --        | --        | --          | --          | --          |
| <b>125.020.004._*</b> | --                | 270.500-S | --      | 270.250,<br>270.503-S | --                    | --        | --        | --          | --          | --          |
| <b>125.025.007._*</b> | --                | 270.500-S | --      | 270.250,<br>270.503-S | --                    | --        | --        | --          | --          | --          |
| <b>125.030.010._*</b> | --                | 270.500-S | --      | 270.250,<br>270.503-S | --                    | --        | --        | --          | --          | --          |
| <b>125.040.013._*</b> | --                | --        | --      | --                    | 270.251,<br>270.501-S | 270.506-S | 270.505-S | --          | --          | --          |
| <b>125.050.017._*</b> | --                | --        | --      | --                    | 270.252,<br>270.502-S | 270.504-S | 270.507-S | --          | --          | --          |
| <b>154.078.027._*</b> | --                | --        | --      | --                    | 270.527-S             | --        | --        | 270.528-S   | 270.529-S   | --          |
| <b>154.113.028._*</b> | --                | --        | --      | --                    | --                    | --        | --        | 270.530-S   | 270.531-S   | --          |
| <b>154.155.026._*</b> | --                | --        | --      | --                    | --                    | --        | --        | --          | 270.532-S   | 270.533-S   |
| <b>Deep design</b>    |                   |           |         |                       |                       |           |           |             |             |             |
| <b>122.016.012._*</b> | 270.134           | --        | 270.104 | --                    | --                    | --        | --        | --          | --          | --          |
| <b>122.022.022._*</b> | --                | 270.500-S | --      | 270.250,<br>270.503-S | --                    | --        | --        | --          | --          | --          |
| <b>122.032.036._*</b> | --                | 270.500-S | --      | 270.250,<br>270.503-S | --                    | --        | --        | --          | --          | --          |

\* Material code: CR = 9, SI = 2, SI-LE = 2-LE, Tepuflex® = 17



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## Flat vacuum cups, modular

Example:



+



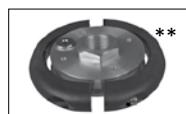
=



Assembly example



+



=



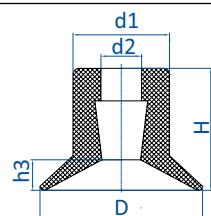
Assembly example

\* Fittings are optionally available with and without filter screen

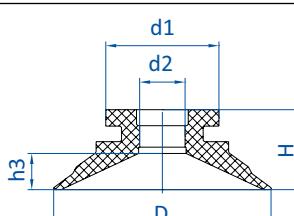
\*\* Fittings come fitted with filter screen as standard

- > The modular series allows you to assemble your own vacuum cups
- > Worn sealing lips can be replaced quickly, cost-effective and easily
- > High flexibility thanks to a large selection of fitting threads

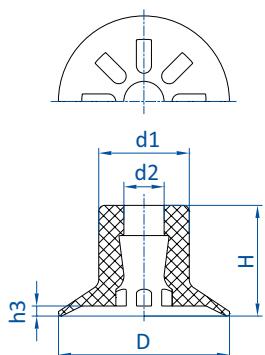
## Dimensions



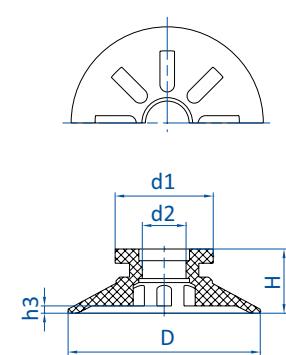
Drawing A



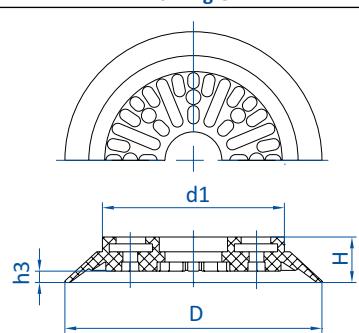
Drawing B



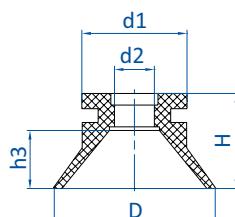
Drawing C



Drawing D



Drawing E



Drawing F

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| Item no.             | Drawing | Ø D [mm] | Ø d1 [mm] | Ø d2 [mm] | H [mm] | h3 [mm] |
|----------------------|---------|----------|-----------|-----------|--------|---------|
| <b>Smooth design</b> |         |          |           |           |        |         |
| 102.005.090._*       | A       | 5        | 4.5       | 2         | 6      | 0.5     |
| 102.007.091._*       | A       | 7        | 5         | 2         | 7      | 0.9     |
| 102.009.092._*       | A       | 9.5      | 5         | 2         | 7      | 1.1     |
| 102.011.093._*       | A       | 11       | 9         | 3.8       | 10.5   | 0.8     |
| 102.016.098._*       | A       | 16       | 9.5       | 4         | 12     | 3       |
| 102.020.095._*       | B       | 22       | 14.5      | 5.5       | 8      | 3       |
| 102.030.096._*       | B       | 32       | 14.5      | 6.5       | 10.5   | 4.7     |
| 102.040.094._*       | B       | 42       | 20        | 7         | 13.5   | 6       |
| 102.050.097._*       | B       | 52       | 27        | 11        | 19     | 8.5     |
| <b>With cleats</b>   |         |          |           |           |        |         |
| 104.016.003._*       | C       | 17       | 9         | 4         | 11     | 1       |
| 125.020.004._*       | D       | 22       | 14.5      | 5.5       | 8      | 0.9     |
| 125.025.007._*       | D       | 28       | 14        | 5.5       | 9      | 1       |
| 125.030.010._*       | D       | 32       | 14.5      | 6.5       | 10.5   | 1.2     |
| 125.040.013._*       | D       | 42       | 20        | 7         | 13.5   | 2.1     |
| 125.050.017._*       | D       | 53       | 27        | 12        | 17.5   | 2       |
| 154.078.027._*       | E       | 78       | 55        | --        | 13     | 3       |
| 154.113.028._*       | E       | 113      | 80        | --        | 20     | 5       |
| 154.155.026._*       | E       | 155      | 109       | --        | 24     | 5       |
| <b>Deep design</b>   |         |          |           |           |        |         |
| 122.016.012._*       | F       | 17.5     | 9         | 4         | 17     | 8       |
| 122.022.022._*       | F       | 22       | 14.5      | 5.5       | 13     | 8       |
| 122.032.036._*       | F       | 32       | 14.5      | 5.5       | 19.5   | 14.4    |

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