



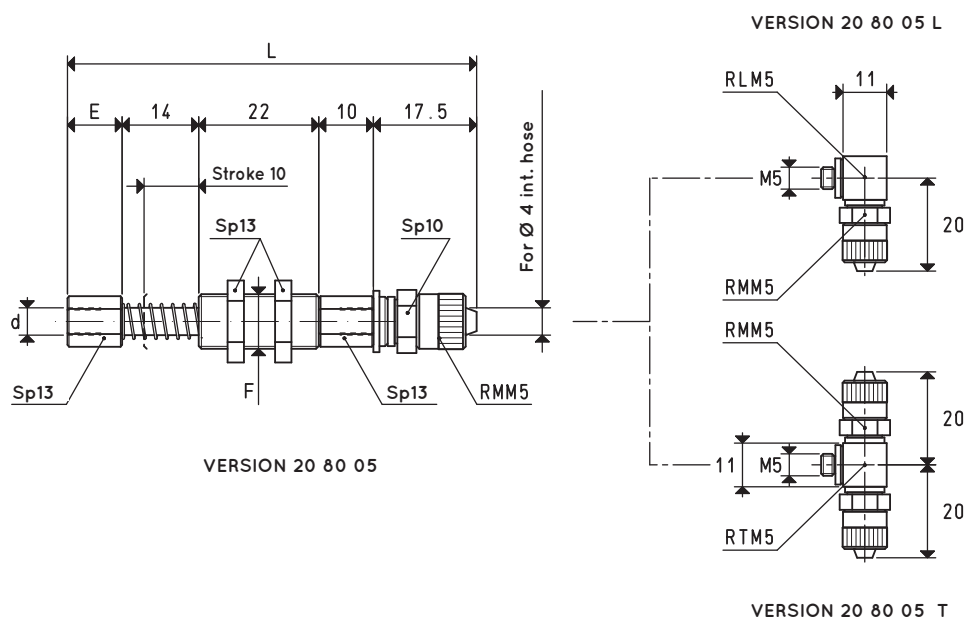
# VACUUM CUP HOLDERS

|  |                   |
|--|-------------------|
| MICRO VACUUM CUP HOLDERS   | PG. 2.01          |
| MINI VACUUM CUP HOLDERS  | PG. 2.02 ÷ 2.08   |
| MINI VACUUM CUP HOLDERS FOR BELLOWS CUPS   | PG. 2.09 ÷ 2.16   |
| MINI VACUUM CUP HOLDERS WITH MALE AND FEMALE THREADED CONNECTORS                     | PG. 2.17 ÷ 2.18   |
| MINI VACUUM CUP HOLDERS WITH BUILT-IN SPRING   | PG. 2.18          |
| MINI VACUUM CUP HOLDERS WITH COMPACT STROKE  | PG. 2.19 ÷ 2.21   |
| MINI VACUUM CUP HOLDERS WITH BUILT-IN BUSH   | PG. 2.22 ÷ 2.23   |
| MINI VACUUM CUP HOLDERS WITH BUILT-IN BUSH, WITH MALE AND FEMALE THREADED CONNECTORS | PG. 2.24          |
| MINI VACUUM CUP HOLDERS WITH PLUNGER VALVE   | PG. 2.25 ÷ 2.29   |
| MINI VACUUM CUP HOLDERS WITH PLUNGER VALVE AND BUILT-IN BUSH                         | PG. 2.30 ÷ 2.34   |
| MINI VACUUM CUP HOLDERS WITH NO SPRINGING  | PG. 2.35 ÷ 2.39   |
| MINI VACUUM CUP HOLDERS WITH BUILT-IN SHUT-OFF VALVE                                 | PG. 2.40          |
| MINI ANTI-ROTATION VACUUM CUP HOLDERS  | PG. 2.41 ÷ 2.43   |
| MINI VACUUM CUP HOLDERS WITH MAGNETIC SENSOR   | PG. 2.44          |
| MINI VACUUM CUP HOLDERS FIX  | PG. 2.45          |
| BASIC VACUUM CUP HOLDERS   | PG. 2.46 ÷ 2.62   |
| BASIC VACUUM CUP HOLDERS FOR BELLOWS VACUUM CUPS                                     | PG. 2.63 ÷ 2.77   |
| BASIC VACUUM CUP HOLDERS WITH MALE AND FEMALE THREADED CONNECTORS                    | PG. 2.78 ÷ 2.81   |
| BASIC VACUUM CUP HOLDERS WITH PLUNGER VALVE  | PG. 2.82 ÷ 2.88   |
| BASIC VACUUM CUP HOLDERS WITH NO SPRINGING   | PG. 2.89 ÷ 2.96   |
| BASIC VACUUM CUP HOLDERS WITH BUILT-IN SHUT-OFF VALVE                                | PG. 2.97          |
| BASIC ARTICULATED VACUUM CUP HOLDERS   | PG. 2.98 ÷ 2.101  |
| BASIC ANTI-ROTATION VACUUM CUP HOLDERS   | PG. 2.102         |
| BASIC VACUUM CUP HOLDERS FIX   | PG. 2.103         |
| SPECIAL VACUUM CUP HOLDERS   | PG. 2.104 ÷ 2.117 |
| SPECIAL VACUUM CUP HOLDERS FOR BELLOWS VACUUM CUPS                                   | PG. 2.118 ÷ 2.122 |
| SPECIAL VACUUM CUP HOLDERS WITH MALE AND FEMALE THREADED CONNECTORS                  | PG. 2.123 ÷ 2.124 |
| SPECIAL VACUUM CUP HOLDERS WITH PLUNGER VALVE  | PG. 2.125 ÷ 2.129 |
| SPECIAL VACUUM CUP HOLDERS WITH PUSH VALVE   | PG. 2.130 ÷ 2.131 |
| SPECIAL VACUUM CUP HOLDERS WITH BUILT-IN SHUT-OFF VALVE                              | PG. 2.132         |
| SPECIAL ARTICULATED VACUUM CUP HOLDERS   | PG. 2.133 ÷ 2.139 |
| SPECIAL ARTICULATED VACUUM CUP HOLDERS WITHOUT GS ARTICULATED JOINT                  | PG. 2.140 ÷ 2.141 |
| SPECIAL ARTICULATED VACUUM CUP HOLDERS WITH COMPACT STROKE                           | PG. 2.142 ÷ 2.144 |
| SPECIAL STAINLESS STEEL ANTI-ROTATION VACUUM CUP HOLDERS                             | PG. 2.145         |
| SPECIAL ANTI-ROTATION VACUUM CUP HOLDERS WITH MALE THREADED CONNECTOR                | PG. 2.146         |
| SPECIAL ANTI-ROTATION VACUUM CUP HOLDERS WITH SPHERICAL SWIVEL SUPPORT               | PG. 2.147 ÷ 2.148 |
| SPECIAL VACUUM CUP HOLDERS WITH DOUBLE SPRINGING                                     | PG. 2.149 ÷ 2.157 |
| SPECIAL ARTICULATED VACUUM CUP HOLDERS WITH DOUBLE SPRINGING                         | PG. 2.158 ÷ 2.164 |
| SPHERICAL ARTICULATED JOINTS   | PG. 2.165         |
| SPHERICAL ARTICULATED JOINTS WITH AXIAL VACUUM CONNECTION                            | PG. 2.166         |
| POSITIONABLE SPHERICAL ARTICULATED JOINTS WITH AXIAL VACUUM CONNECTION               | PG. 2.167         |
| VACUUM CUP HOLDER FIXING SUPPORTS  | PG. 2.168 ÷ 2.170 |



# MICRO VACUUM CUP HOLDERS

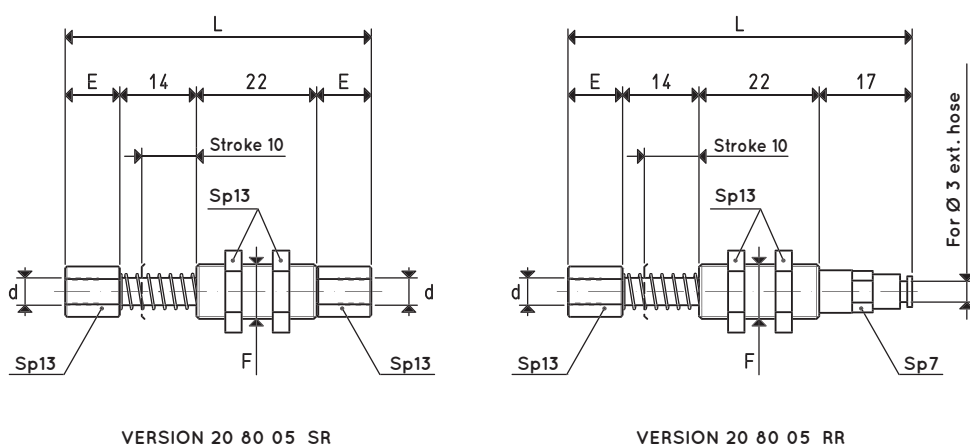
- Extremely reduced size and weight
- Stainless steel stems and spring
- Self-lubricating bush built in the threaded sleeve ensuring a perfect sliding of the stem and durability
- Indicated for Pick & Place units and handling machines for unloading plastic objects from a mould press
- Available in various versions with or without coupling
- Suitable for all vacuum cups with male M5 support



## VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item     | d<br>Ø | E  | F<br>Ø     | L    | Weight<br>g |
|----------|--------|----|------------|------|-------------|
| 20 80 05 | M5     | 10 | M10 x 0.75 | 73.5 | 20          |

Note: To order vacuum cup holders with L or T fittings, add the letter L or T to the code.



| Item        | d<br>Ø | E  | F<br>Ø     | L  | Weight<br>g |
|-------------|--------|----|------------|----|-------------|
| 20 80 05 SR | M5     | 10 | M10 x 0.75 | 56 | 14          |
| 20 80 05 RR | M5     | 10 | M10 x 0.75 | 63 | 16          |

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

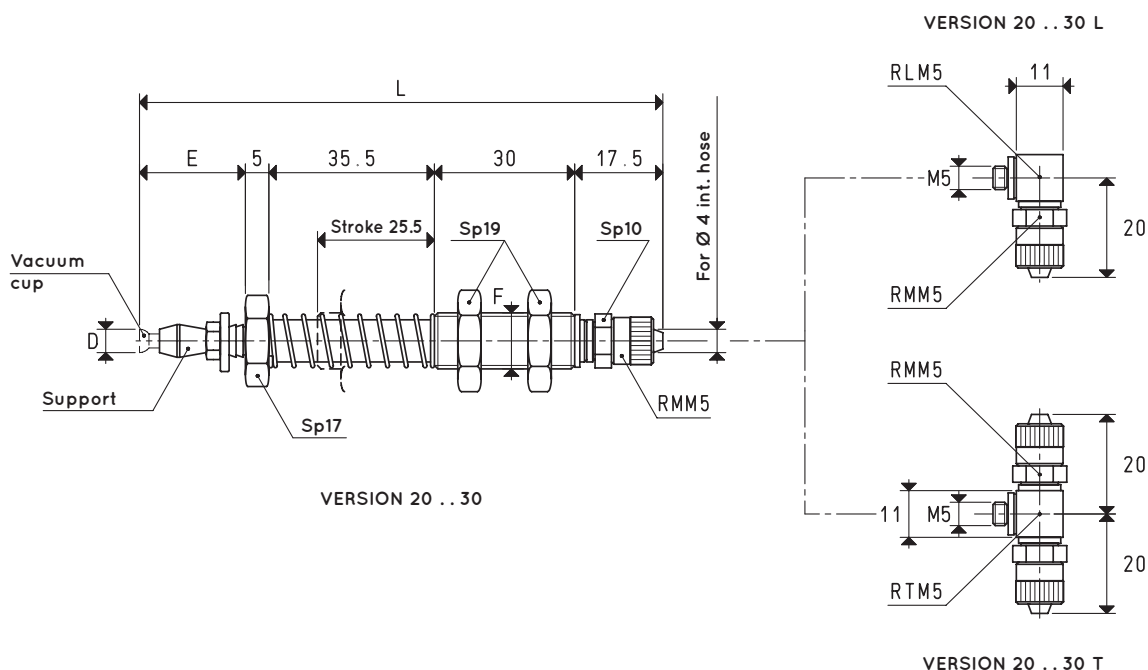
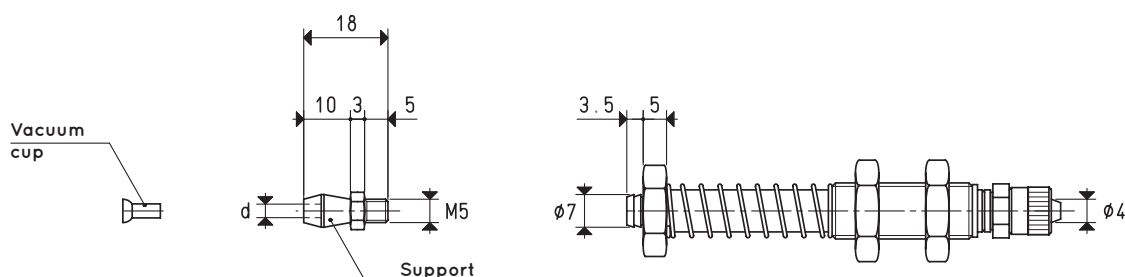
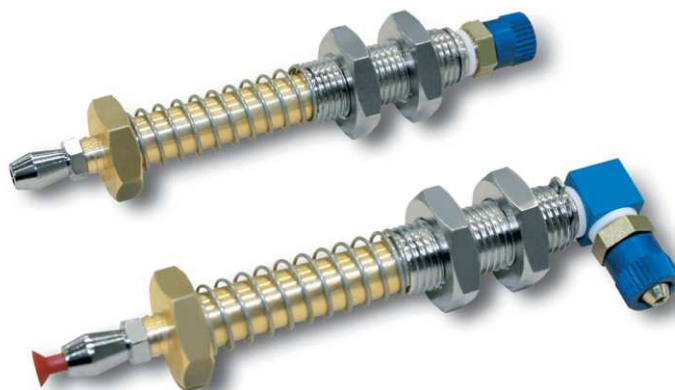


## MINI VACUUM CUP HOLDERS

The main feature of the cup holders described on these pages is their reduced size, which results in a reduced weight and bulk. They allow use of even very small cups, guaranteeing, given the same diameter, the same performance as the larger series.

They are composed of:

- A brass stem for fastening the cup
- A threaded sleeve equipped with nuts, for mounting the vacuum up holder on the automation
- A spring to cushion the impact of the cup and to, at the same time, keep pressure pressure with the load to be lifted
- A quick coupling for connection with the suction hose



### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item     | Force<br>Kg | d<br>Ø | D<br>Ø | E    | F<br>Ø     | L     | For vacuum cup<br>item | Support included<br>item | Weight<br>g |
|----------|-------------|--------|--------|------|------------|-------|------------------------|--------------------------|-------------|
| 20 04 30 | 0.03        | 2.90   | 4.0    | 21.0 | M12 x 1.25 | 109.0 | 01 04 10               | 00 08 01                 | 74          |
| 20 05 30 | 0.05        | 2.90   | 5.0    | 21.5 | M12 x 1.25 | 109.5 | 01 05 10               | 00 08 01                 | 74          |
| 20 06 30 | 0.07        | 2.90   | 6.0    | 21.5 | M12 x 1.25 | 109.5 | 01 06 10               | 00 08 01                 | 74          |
| 20 08 30 | 0.12        | 4.75   | 8.0    | 21.5 | M12 x 1.25 | 109.5 | 01 08 10               | 00 08 02                 | 74          |
| 20 09 30 | 0.15        | 4.75   | 9.0    | 20.5 | M12 x 1.25 | 108.5 | 01 09 07               | 00 08 02                 | 74          |

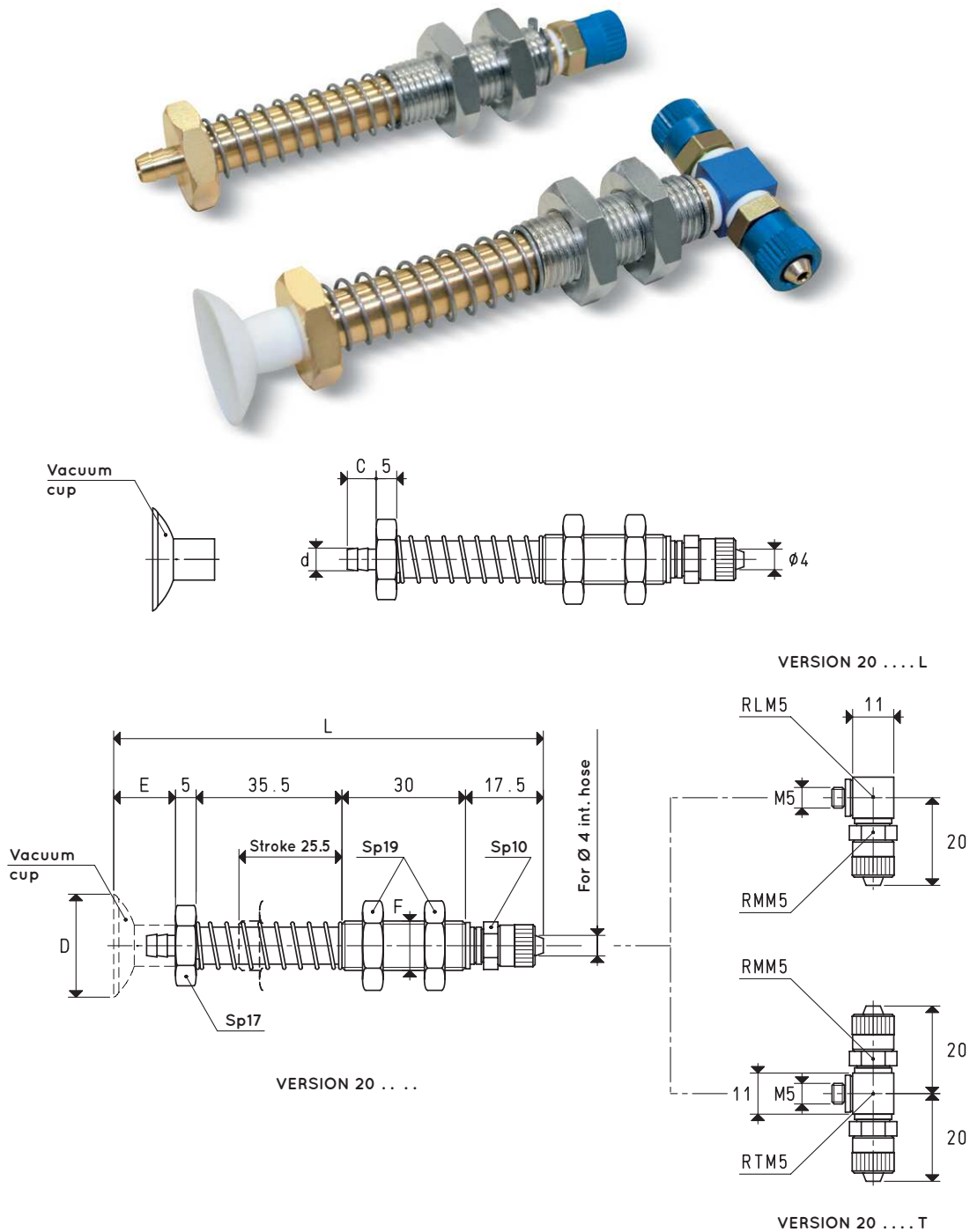
Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$





VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item            | Force<br>Kg | C   | d<br>Ø | D<br>Ø | E    | F<br>Ø     | L     | For vacuum cup<br>item | Weight<br>g |
|-----------------|-------------|-----|--------|--------|------|------------|-------|------------------------|-------------|
| <b>20 10 30</b> | 0.19        | 7.0 | 5.5    | 10.0   | 11.0 | M12 x 1.25 | 99.0  | 01 10 10               | 70.0        |
| <b>20 12 30</b> | 0.28        | 7.0 | 5.5    | 12.0   | 11.0 | M12 x 1.25 | 99.0  | 01 12 10               | 70.6        |
| <b>20 14 15</b> | 0.38        | 7.5 | 6.5    | 14.0   | 15.0 | M12 x 1.25 | 103.0 | 01 14 15               | 70.5        |
| <b>20 14 30</b> | 0.38        | 7.0 | 5.5    | 14.0   | 10.0 | M12 x 1.25 | 98.0  | 01 14 10               | 70.4        |
| <b>20 15 30</b> | 0.44        | 7.0 | 5.5    | 15.0   | 12.0 | M12 x 1.25 | 100.0 | 01 15 10               | 70.7        |
| <b>20 17 30</b> | 0.60        | 7.0 | 5.5    | 17.0   | 11.0 | M12 x 1.25 | 99.0  | 01 17 12               | 70.7        |
| <b>20 18 12</b> | 0.63        | 7.5 | 6.5    | 18.0   | 10.0 | M12 x 1.25 | 98.0  | 01 18 12               | 70.8        |
| <b>20 18 30</b> | 0.63        | 7.0 | 5.5    | 18.0   | 12.0 | M12 x 1.25 | 100.0 | 01 18 10               | 70.7        |
| <b>20 20 30</b> | 0.78        | 7.0 | 5.5    | 20.0   | 12.0 | M12 x 1.25 | 100.0 | 01 20 10               | 70.8        |
| <b>20 22 30</b> | 0.95        | 7.0 | 5.5    | 22.0   | 13.0 | M12 x 1.25 | 101.0 | 01 22 10               | 71.2        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

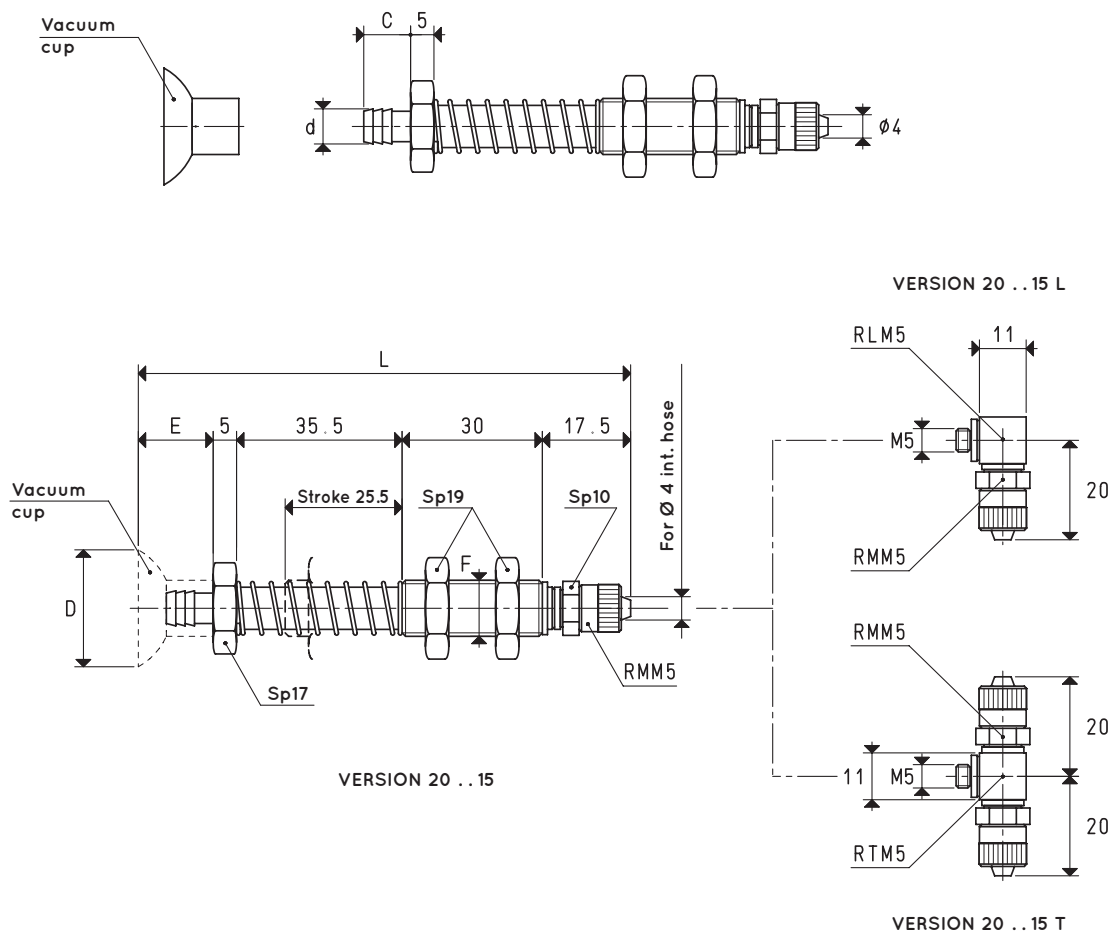
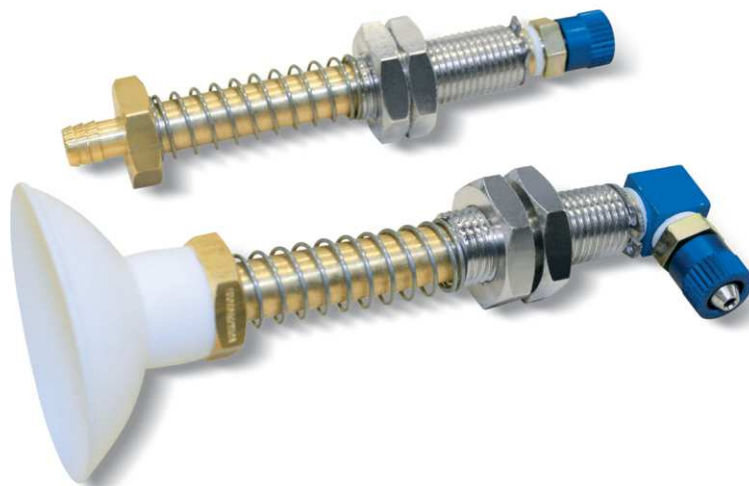
To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## MINI VACUUM CUP HOLDERS



VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

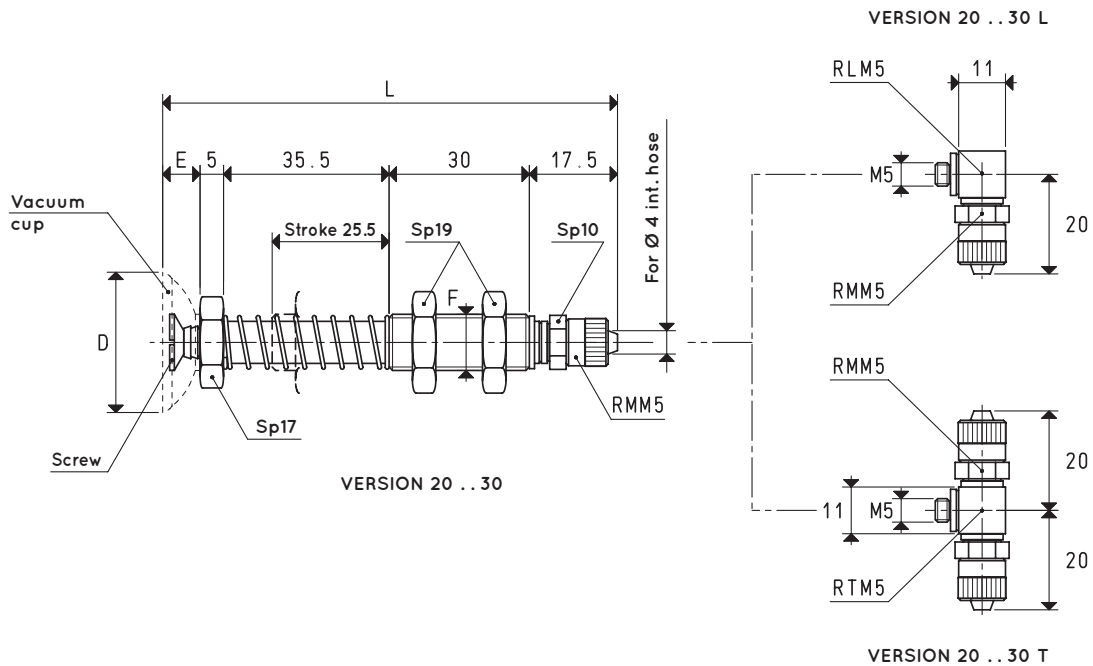
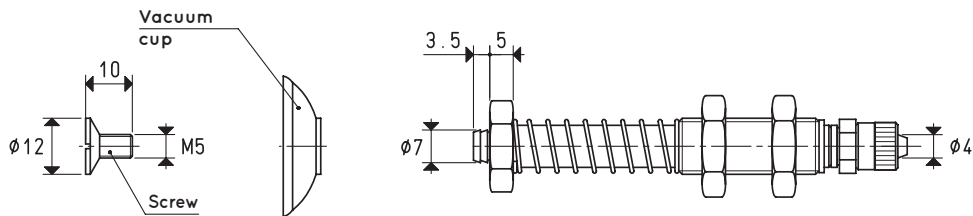
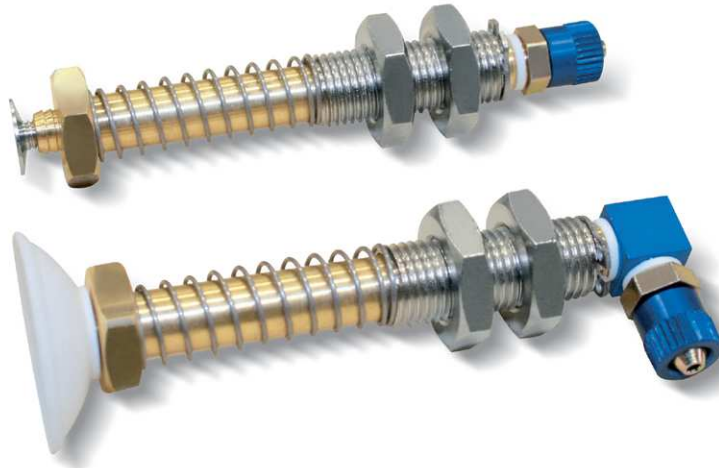
| Item            | Force<br>Kg | C  | d<br>Ø | D<br>Ø | E  | F<br>Ø     | L   | For vacuum cup<br>item | Weight<br>g |
|-----------------|-------------|----|--------|--------|----|------------|-----|------------------------|-------------|
| <b>20 25 15</b> | 1.23        | 10 | 7.5    | 25     | 16 | M12 x 1.25 | 104 | 01 25 15               | 76.0        |
| <b>20 30 15</b> | 1.76        | 10 | 7.5    | 30     | 17 | M12 x 1.25 | 105 | 01 30 15               | 76.7        |
| <b>20 35 15</b> | 2.40        | 10 | 12.0   | 35     | 16 | M12 x 1.25 | 104 | 01 35 15               | 76.6        |
| <b>20 40 15</b> | 3.14        | 10 | 12.0   | 40     | 18 | M12 x 1.25 | 106 | 01 40 15               | 77.1        |
| <b>20 45 15</b> | 3.98        | 10 | 12.0   | 45     | 23 | M12 x 1.25 | 111 | 01 45 15               | 80.6        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item            | Force<br>Kg | D<br>Ø | E | F<br>Ø     | L  | For vacuum cup<br>item | Screw included<br>item | Weight<br>g |
|-----------------|-------------|--------|---|------------|----|------------------------|------------------------|-------------|
| <b>20 25 30</b> | 1.23        | 25.0   | 8 | M12 x 1.25 | 96 | 01 25 10               | 00 20 12               | 75.2        |
| <b>20 30 30</b> | 1.76        | 30.0   | 8 | M12 x 1.25 | 96 | 01 30 10               | 00 20 12               | 75.9        |
| <b>20 35 30</b> | 2.40        | 35.0   | 8 | M12 x 1.25 | 96 | 01 35 10               | 00 20 12               | 76.4        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

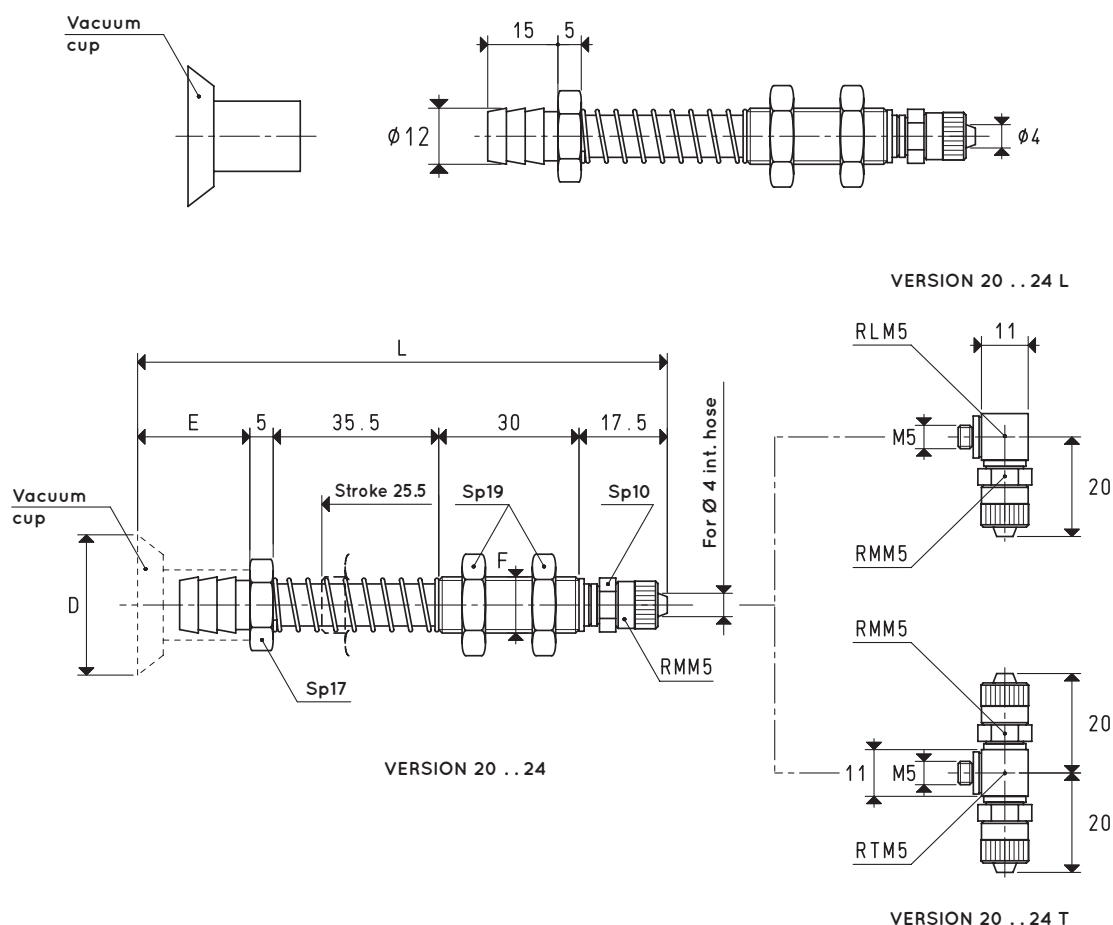
To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## MINI VACUUM CUP HOLDERS



### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

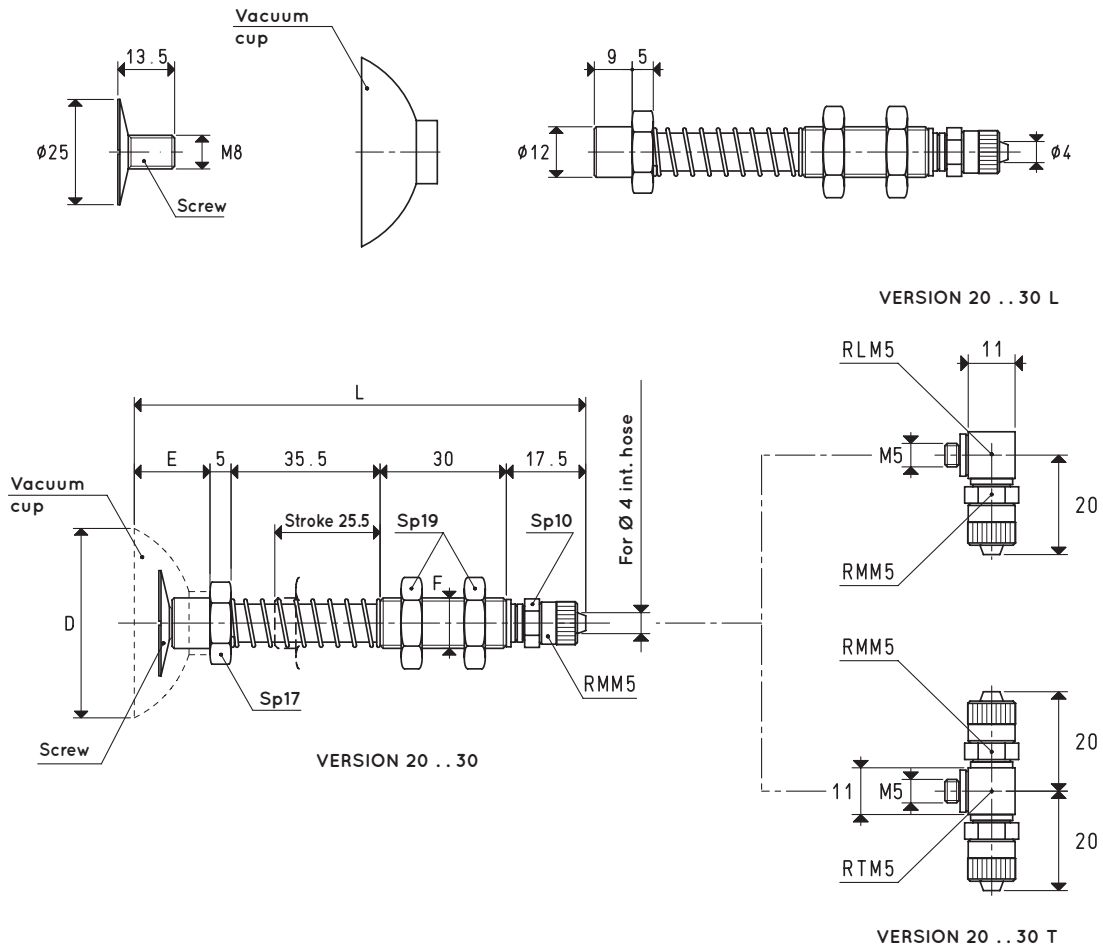
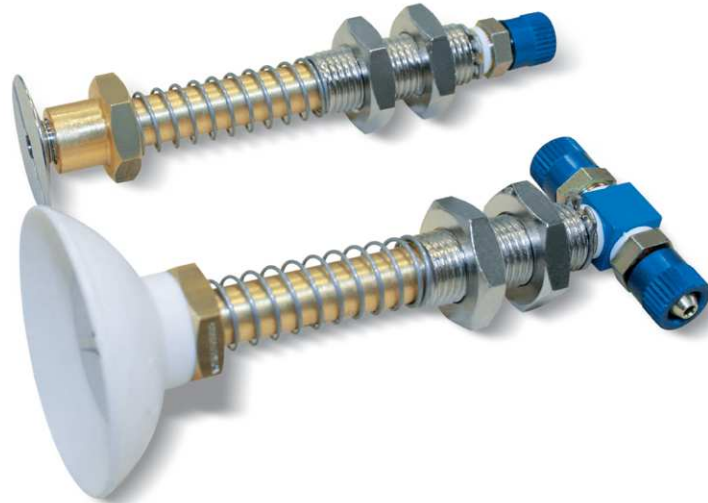
| Item     | Force<br>Kg | D<br>Ø | E  | F<br>Ø     | L   | For vacuum cup<br>item | Weight<br>g |
|----------|-------------|--------|----|------------|-----|------------------------|-------------|
| 20 27 24 | 1.43        | 27.0   | 24 | M12 x 1.25 | 112 | 01 27 24               | 76.8        |
| 20 30 24 | 1.76        | 30.0   | 24 | M12 x 1.25 | 112 | 01 30 24               | 76.9        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item     | Force<br>Kg | D<br>Ø | E  | F<br>Ø     | L   | For vacuum cup<br>item | Screw included<br>item | Weight<br>g |
|----------|-------------|--------|----|------------|-----|------------------------|------------------------|-------------|
| 20 45 30 | 3.98        | 45     | 18 | M12 x 1.25 | 106 | 01 45 10               | 00 20 13               | 80.7        |
| 20 60 30 | 7.06        | 60     | 22 | M12 x 1.25 | 110 | 01 60 10               | 00 20 13               | 88.9        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

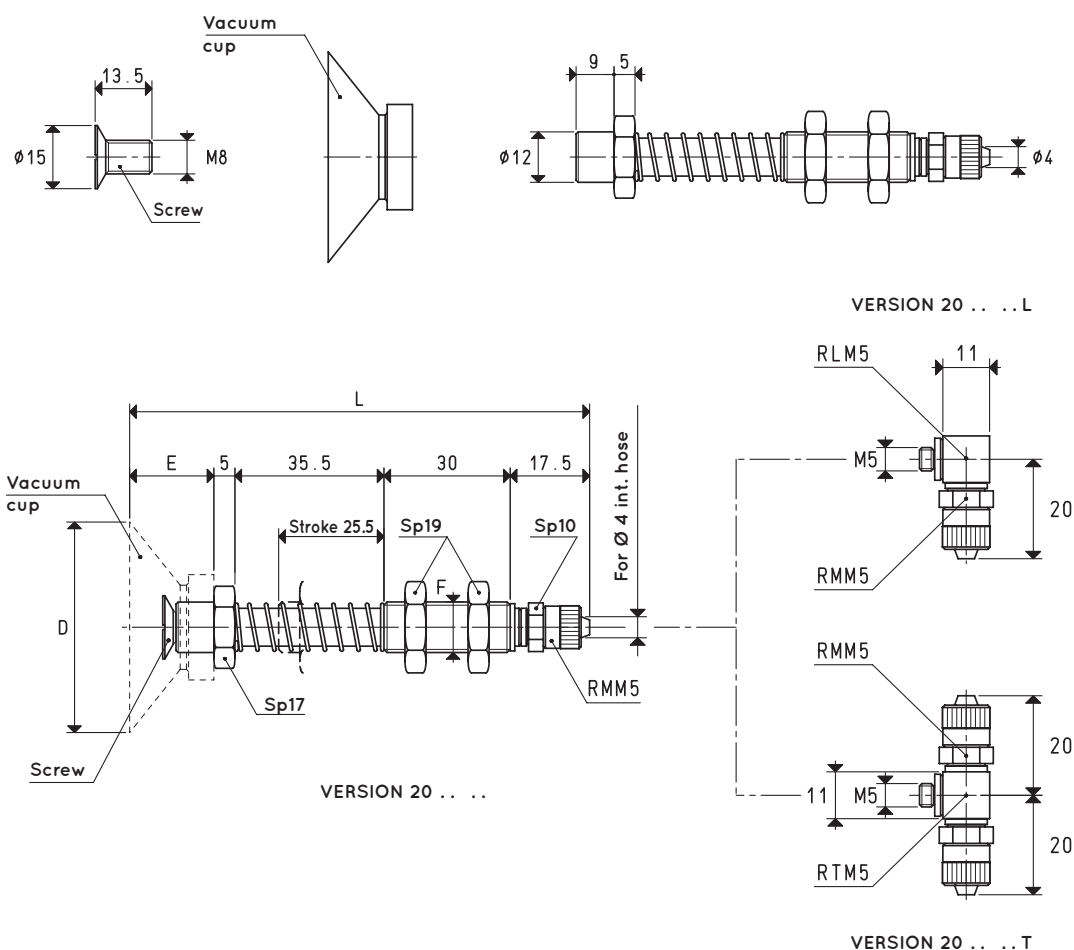
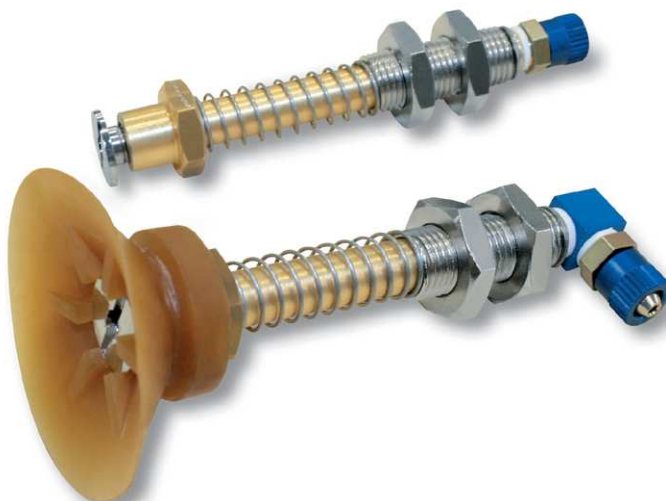
To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## MINI VACUUM CUP HOLDERS



### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

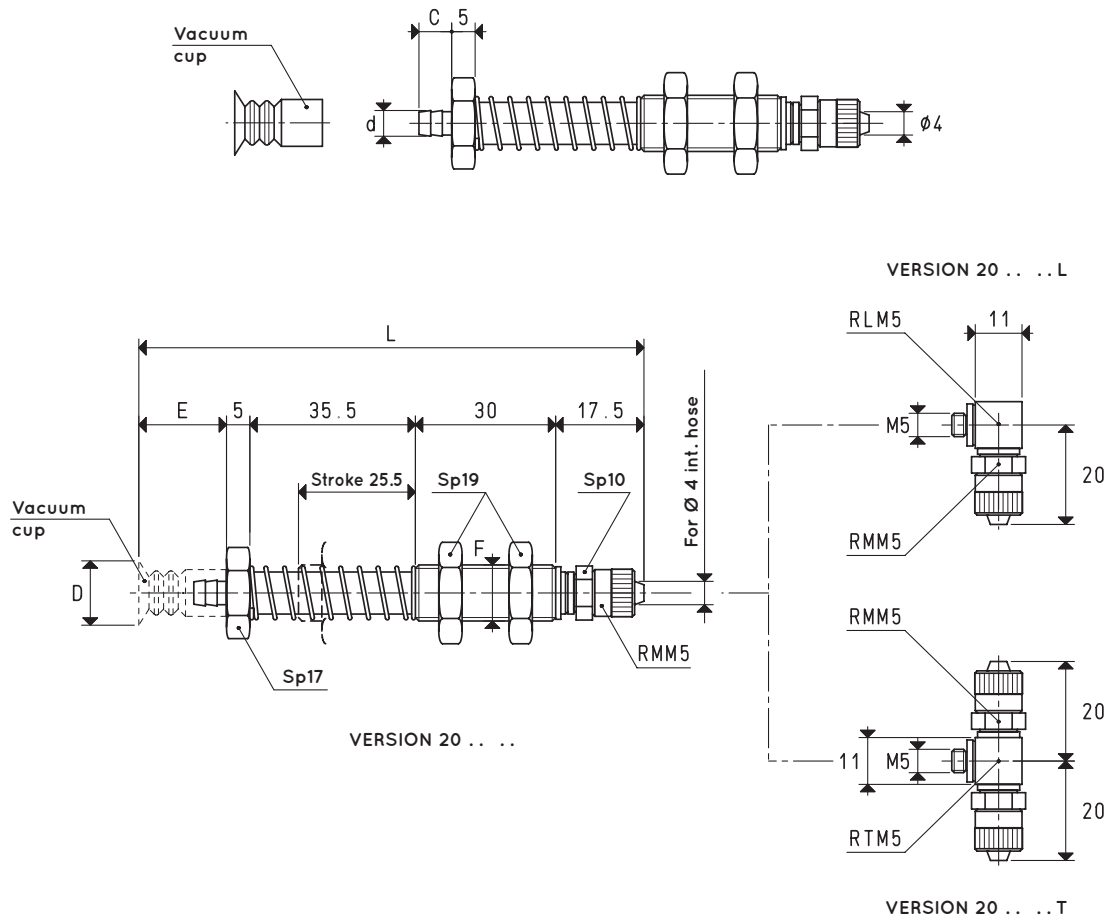
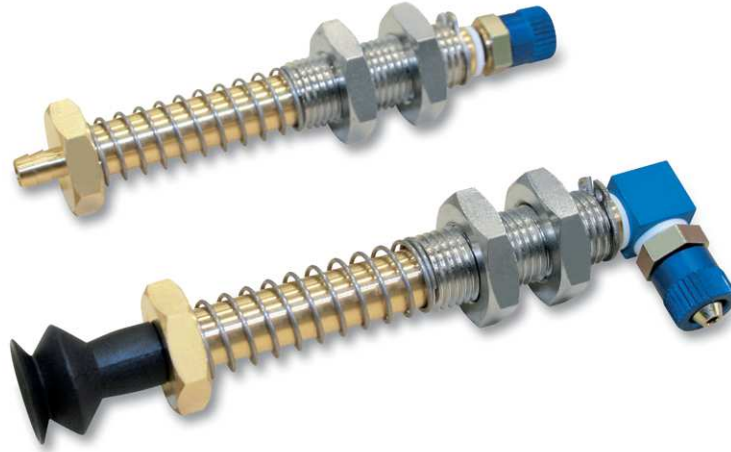
| Item     | Force<br>Kg | D<br>Ø | E  | F<br>Ø     | L   | For vacuum cup<br>item | Screw included<br>item | Weight<br>g |
|----------|-------------|--------|----|------------|-----|------------------------|------------------------|-------------|
| 20 50 20 | 4.90        | 50     | 20 | M12 x 1.25 | 108 | 01 50 20               | 00 20 14               | 82.0        |
| 20 65 28 | 8.20        | 65     | 28 | M12 x 1.25 | 116 | 01 65 28               | 00 20 14               | 89.7        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item            | Force<br>Kg | C | d<br>Ø | D<br>Ø | E  | F<br>Ø     | L   | For vacuum cup<br>item | Weight<br>g |
|-----------------|-------------|---|--------|--------|----|------------|-----|------------------------|-------------|
| <b>20 06 50</b> | 0.07        | 7 | 5.5    | 6      | 15 | M12 x 1.25 | 103 | 01 06 50               | 70.4        |
| <b>20 08 50</b> | 0.12        | 7 | 5.5    | 8      | 15 | M12 x 1.25 | 103 | 01 08 50               | 70.5        |
| <b>20 11 16</b> | 0.23        | 7 | 5.5    | 11     | 20 | M12 x 1.25 | 108 | 01 11 16               | 70.7        |
| <b>20 11 50</b> | 0.23        | 7 | 5.5    | 11     | 15 | M12 x 1.25 | 103 | 01 11 50               | 70.6        |
| <b>20 16 30</b> | 0.50        | 7 | 5.5    | 16     | 20 | M12 x 1.25 | 108 | 01 16 20               | 71.0        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

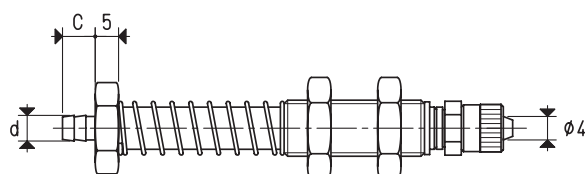
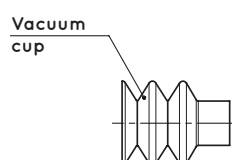
To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

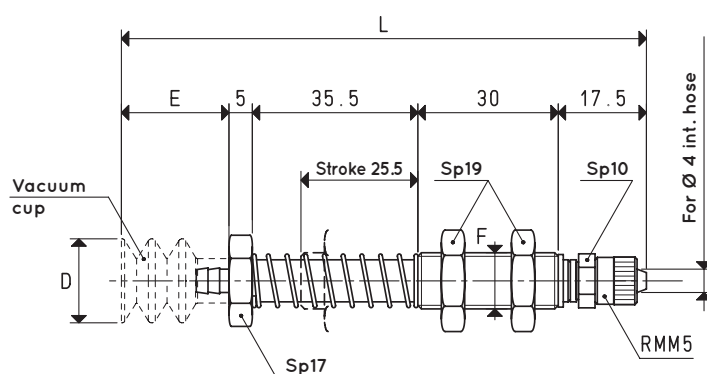
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



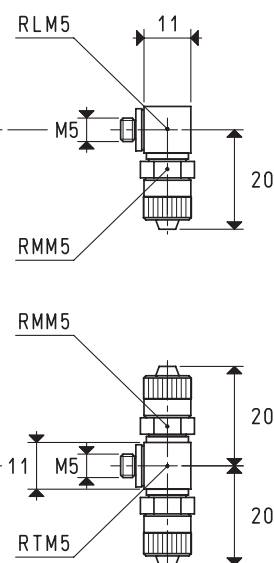
## MINI VACUUM CUP HOLDERS FOR BELLOWS CUPS



VERSION 20 ... L



VERSION 20 ...



VERSION 20 ... T

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item     | Force<br>Kg | C   | d   | D<br>Ø | E  | F          | L   | For vacuum cup<br>item | Weight<br>g |
|----------|-------------|-----|-----|--------|----|------------|-----|------------------------|-------------|
| 20 15 23 | 0.44        | 7.5 | 6.5 | 15     | 23 | M12 x 1.25 | 111 | 01 15 23               | 71.3        |
| 20 18 23 | 0.63        | 7.5 | 6.5 | 18     | 23 | M12 x 1.25 | 111 | 01 18 23               | 71.5        |
| 20 18 29 | 0.63        | 7.5 | 6.5 | 18     | 29 | M12 x 1.25 | 117 | 01 18 29               | 71.8        |
| 20 18 35 | 0.63        | 7.5 | 6.5 | 18     | 35 | M12 x 1.25 | 123 | 01 18 35               | 72.3        |

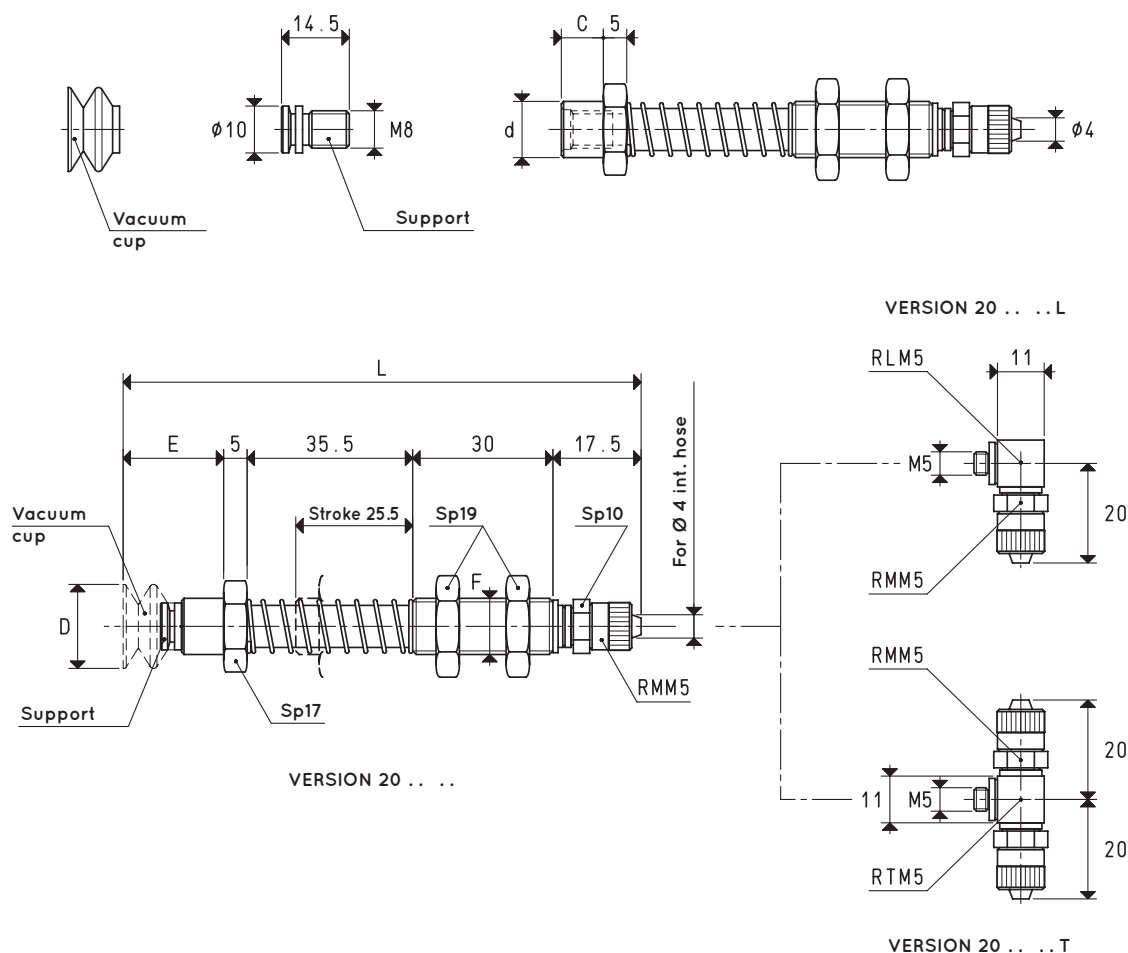
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Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$





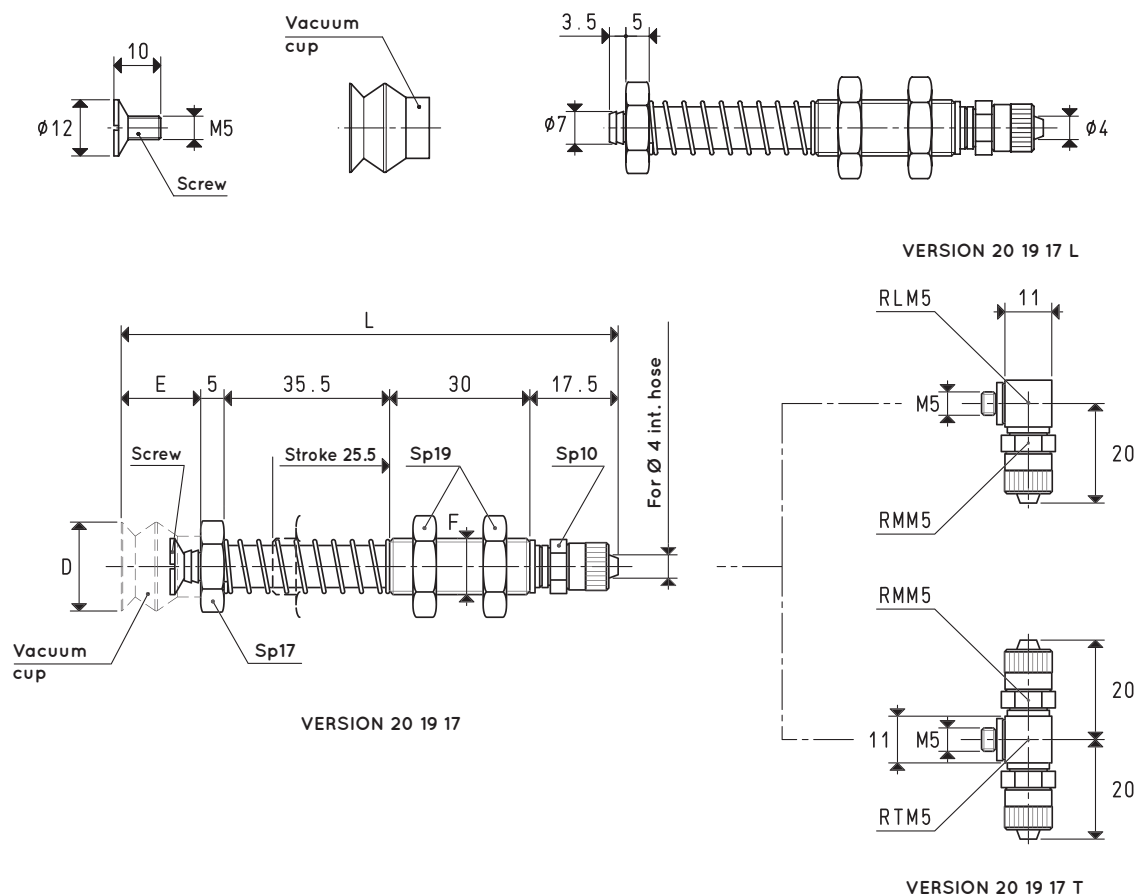
| Item            | Force<br>Kg | C | d<br>Ø | D<br>Ø | E    | F<br>Ø     | L     | For vacuum cup<br>item | Support included<br>item | Weight<br>g |
|-----------------|-------------|---|--------|--------|------|------------|-------|------------------------|--------------------------|-------------|
| <b>20 18 50</b> | 0.63        | 9 | 12     | 18     | 21.5 | M12 x 1.25 | 109.5 | 01 18 50               | 00 08 07                 | 82.7        |
| <b>20 20 62</b> | 0.78        | 9 | 12     | 20     | 56.5 | M12 x 1.25 | 144.5 | 01 20 60               | 00 08 07                 | 86.2        |

To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## MINI VACUUM CUP HOLDERS FOR BELLOWS CUPS



### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

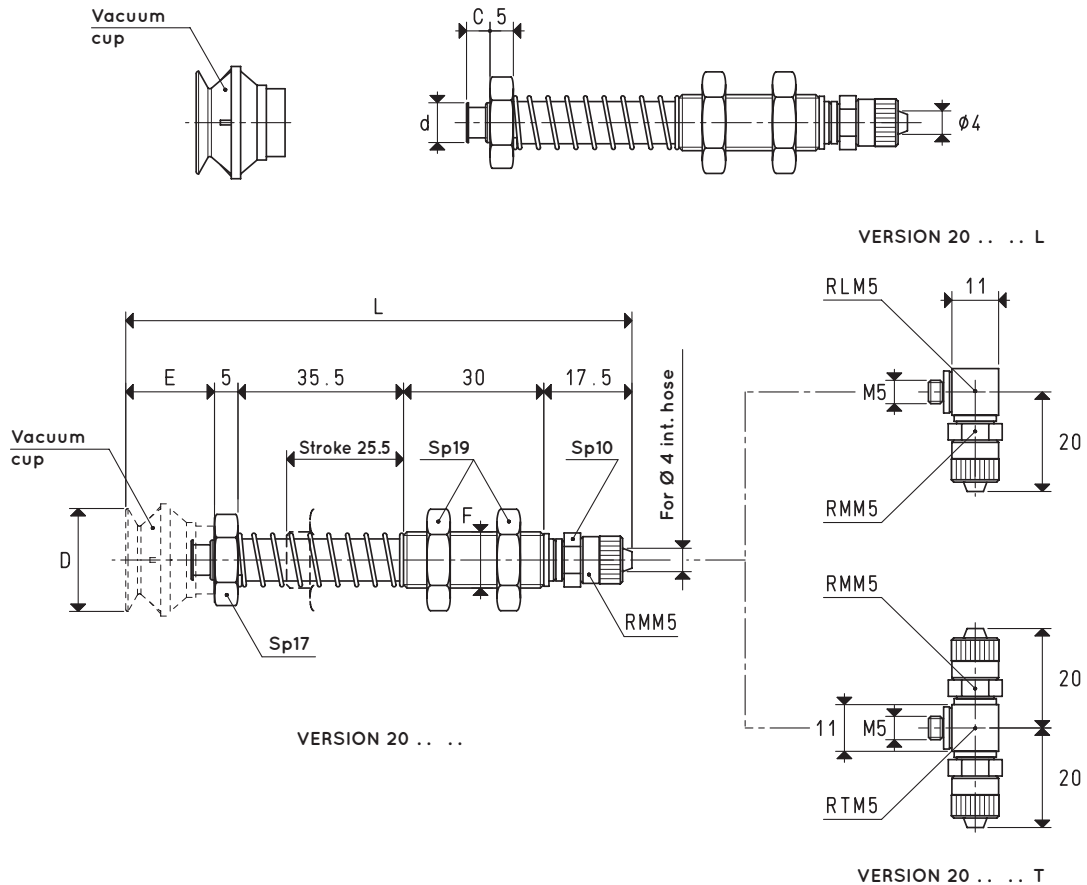
| Item            | Force<br>Kg | D<br>Ø | E  | F<br>Ø     | L   | For vacuum cup<br>item | Screw included<br>item    | Weight<br>g |
|-----------------|-------------|--------|----|------------|-----|------------------------|---------------------------|-------------|
| <b>20 19 17</b> | 0.70        | 19     | 17 | M12 x 1.25 | 105 | 01 19                  | <b>VERSION 20 . . . T</b> | 75.3        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item            | Force<br>Kg | C | d<br>Ø | D<br>Ø | E  | F<br>Ø     | L   | For vacuum cup<br>item | Weight<br>g |
|-----------------|-------------|---|--------|--------|----|------------|-----|------------------------|-------------|
| <b>20 20 23</b> | 0.78        | 5 | 8.5    | 20     | 23 | M12 x 1.25 | 111 | 01 20 23               | 73.8        |
| <b>20 22 19</b> | 0.95        | 5 | 8.5    | 22     | 19 | M12 x 1.25 | 107 | 01 22 19               | 74.7        |
| <b>20 34 26</b> | 2.26        | 5 | 8.5    | 34     | 26 | M12 x 1.25 | 114 | 01 34 26               | 77.7        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

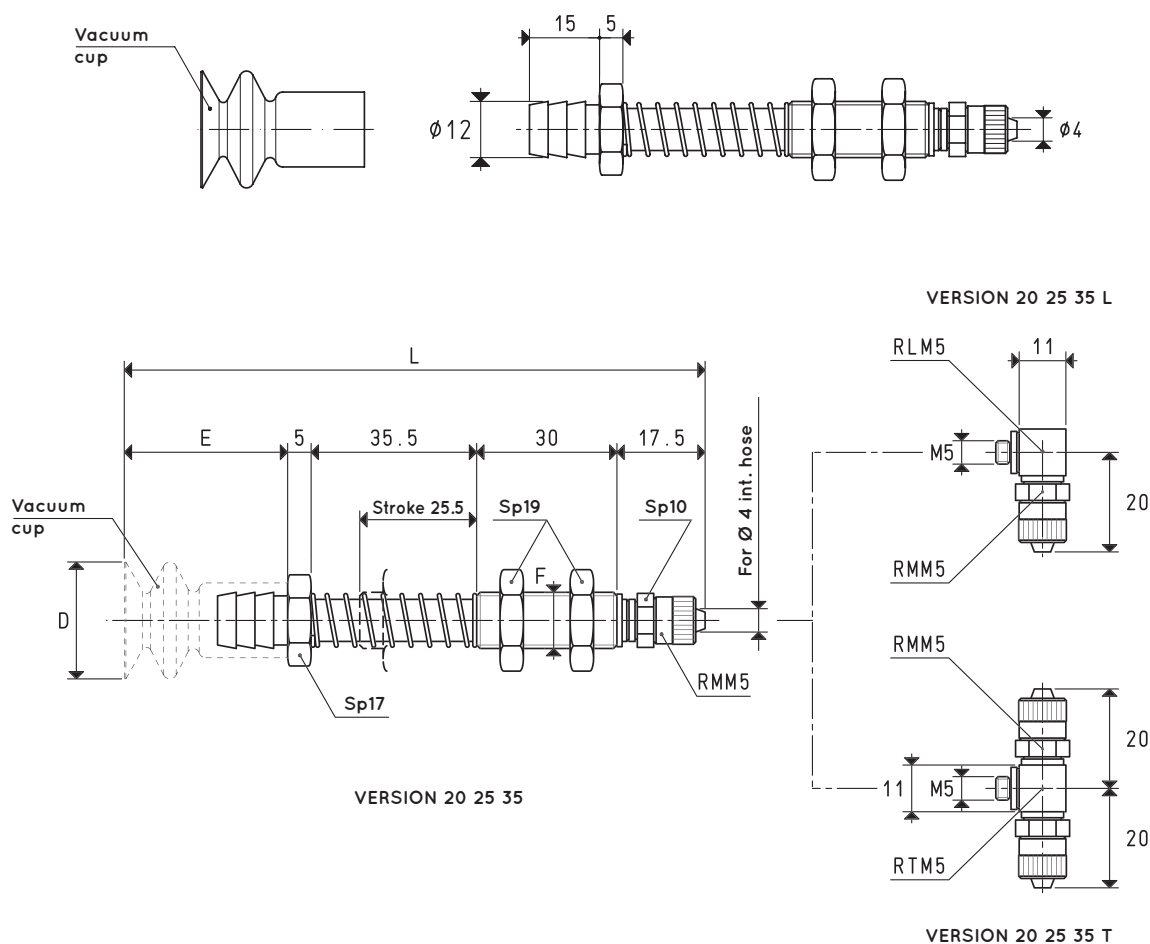
To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## MINI VACUUM CUP HOLDERS FOR BELLOWS CUPS



### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

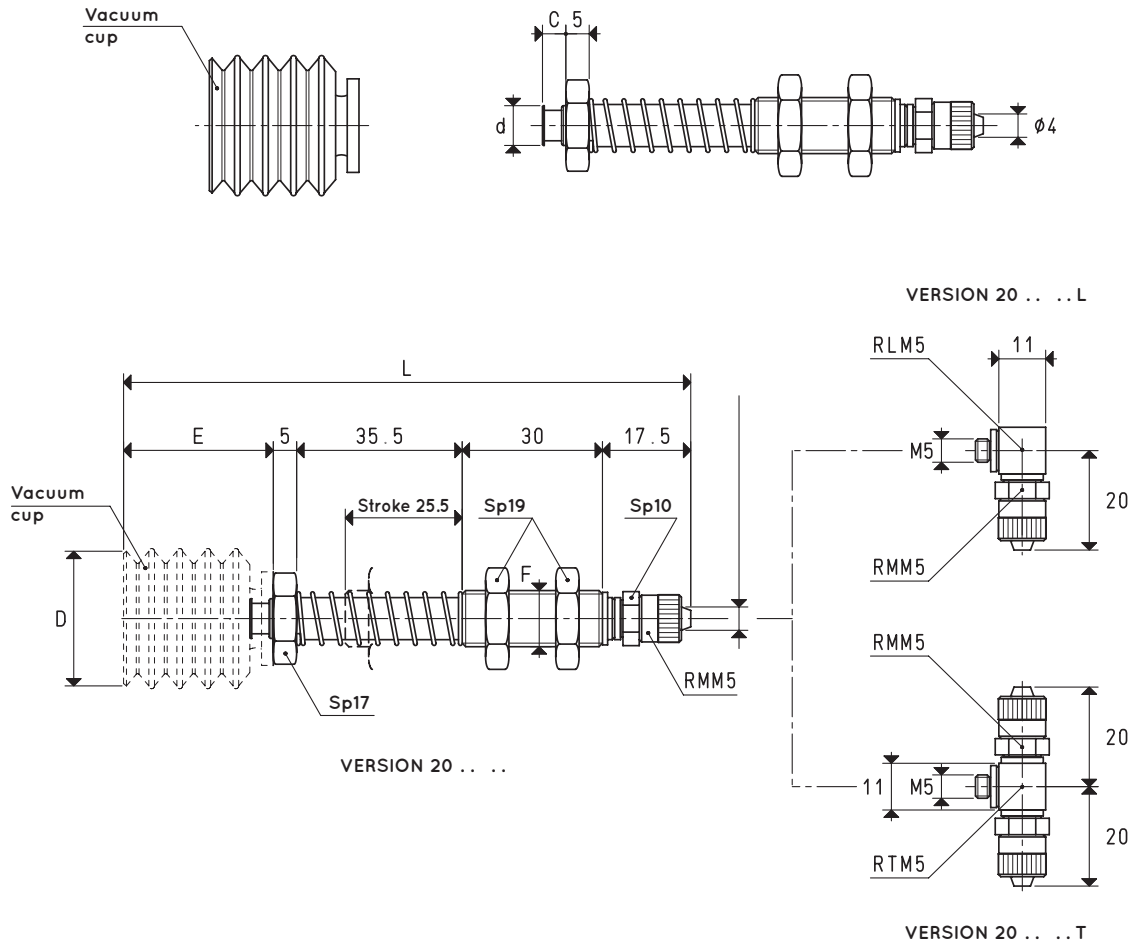
| Item     | Force<br>Kg | D  | E  | F<br>Ø     | L   | For vacuum cup<br>item | Weight<br>g |
|----------|-------------|----|----|------------|-----|------------------------|-------------|
| 20 25 35 | 1.23        | 25 | 24 | M12 x 1.25 | 112 | 01 25 35               | 79          |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item            | Force<br>Kg | C   | d<br>Ø | D<br>Ø | E  | F<br>Ø     | L   | For vacuum cup<br>item | Weight<br>g |
|-----------------|-------------|-----|--------|--------|----|------------|-----|------------------------|-------------|
| <b>20 30 32</b> | 1.76        | 7.5 | 10     | 30     | 32 | M12 x 1.25 | 120 | 01 30 32               | 79.6        |
| <b>20 40 42</b> | 3.14        | 7.5 | 10     | 40     | 42 | M12 x 1.25 | 130 | 01 40 42               | 85.6        |
| <b>20 43 28</b> | 3.62        | 7.5 | 10     | 43     | 28 | M12 x 1.25 | 116 | 01 43 28               | 83.0        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

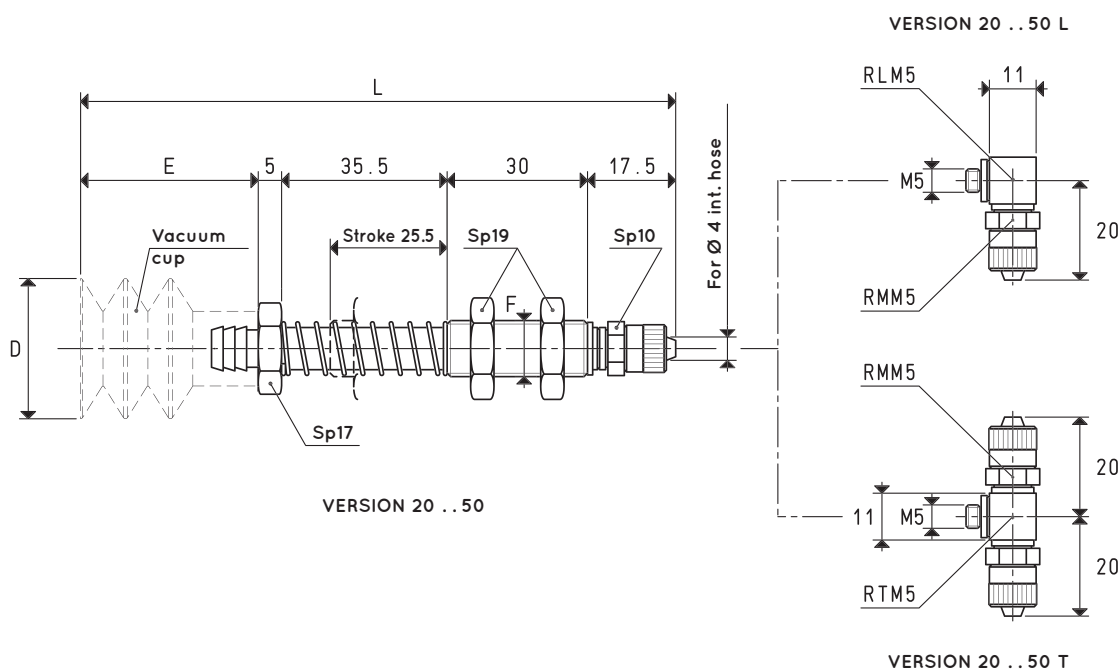
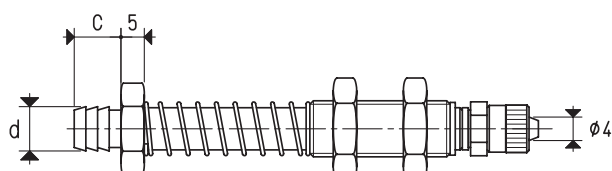
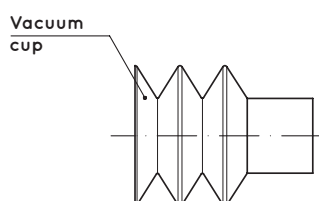
To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## MINI VACUUM CUP HOLDERS FOR BELLOWS CUPS



### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item     | Force<br>Kg | C  | d<br>Ø | D<br>Ø | E  | F<br>Ø     | L   | For vacuum cup<br>item | Weight<br>g |
|----------|-------------|----|--------|--------|----|------------|-----|------------------------|-------------|
| 20 30 50 | 1.76        | 10 | 9.5    | 30     | 38 | M12 x 1.25 | 126 | 01 30 50               | 81.6        |
| 20 40 50 | 3.14        | 10 | 9.5    | 40     | 23 | M12 x 1.25 | 111 | 01 40 50               | 78.6        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

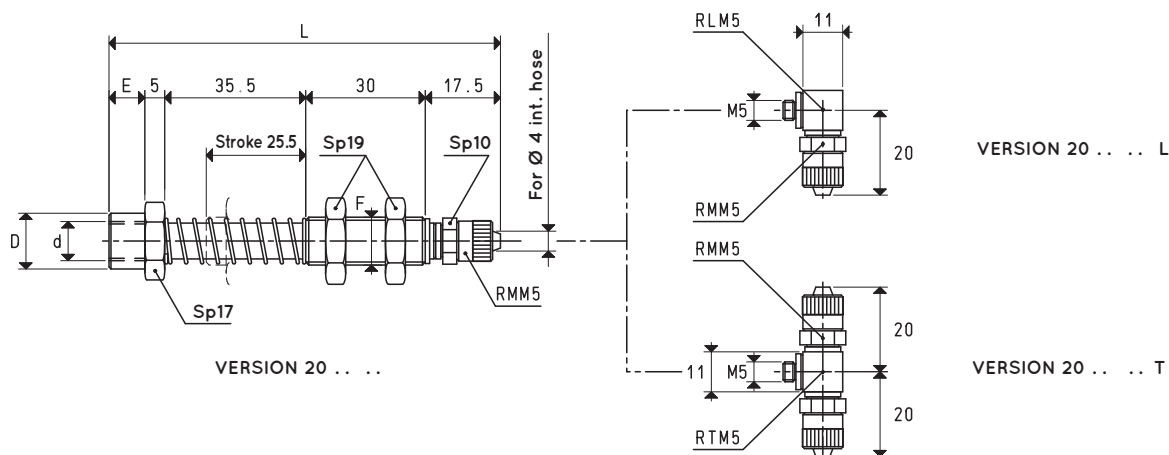
To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## MINI VACUUM CUP HOLDERS WITH MALE AND FEMALE THREADED CONNECTORS

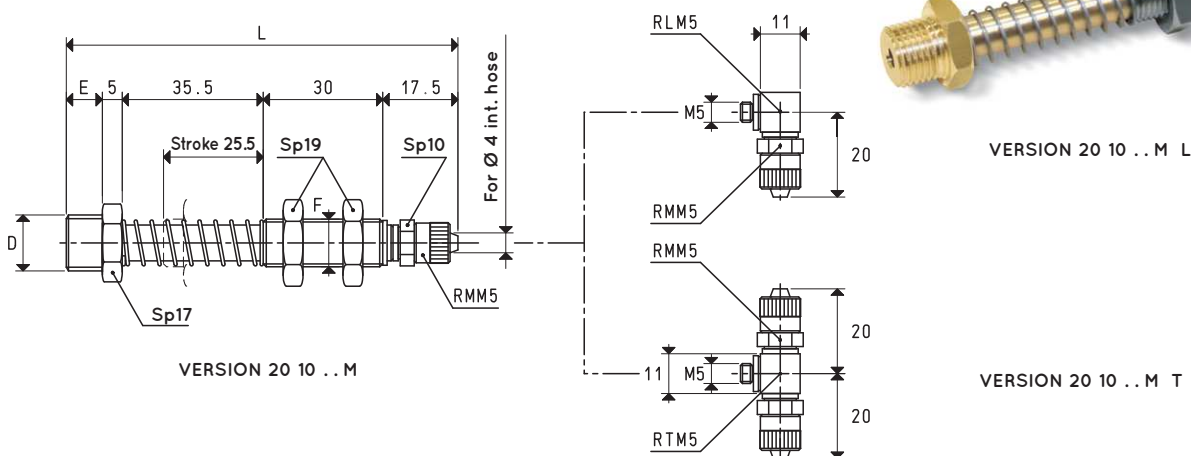
The cup holders described on these pages share the same features as the previously described ones, but differ for their brass stem, which has 1/8" and 1/4" gas threaded female connection, for the exclusive installation of cups with male threaded support and for the vacuum connection, which can either be radial or axial, upon request.



### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item     | d<br>Ø | D<br>Ø | E   | F<br>Ø     | L    | Weight<br>g |
|----------|--------|--------|-----|------------|------|-------------|
| 20 06 35 | M5     | 7.0    | 3.5 | M12 x 1.25 | 91.5 | 74          |
| 20 07 35 | M8     | 12.0   | 9   | M12 x 1.25 | 97   | 76          |
| 20 10 38 | G1/8"  | 14.0   | 9   | M12 x 1.25 | 97   | 78          |
| 20 10 48 | G1/4"  | 16.5   | 9   | M12 x 1.25 | 97   | 78          |

Note: To order vacuum cup holders with L or T fittings, add the letter L or T to the code.



### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item       | D<br>Ø | E  | F<br>Ø     | L  | Weight<br>g |
|------------|--------|----|------------|----|-------------|
| 20 10 38 M | G1/8"  | 8  | M12 x 1.25 | 96 | 78          |
| 20 10 48 M | G1/4"  | 10 | M12 x 1.25 | 98 | 76          |

Note: To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

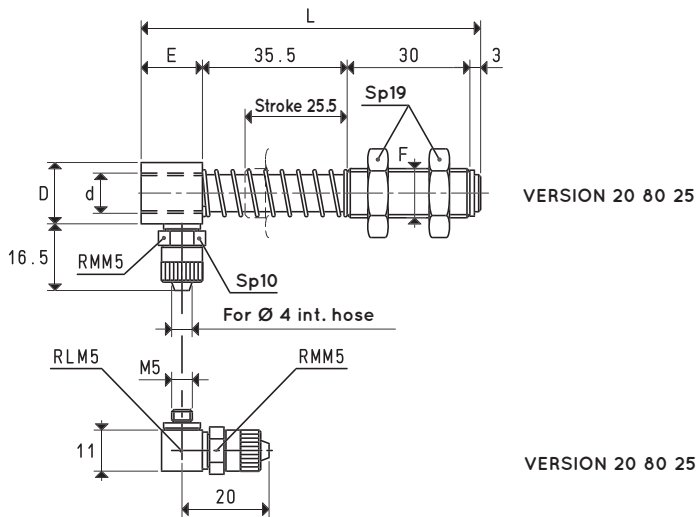
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch =  $\frac{\text{mm}}{25.4}$ ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$





## MINI VACUUM CUP HOLDERS WITH MALE AND FEMALE THREADED CONNECTORS



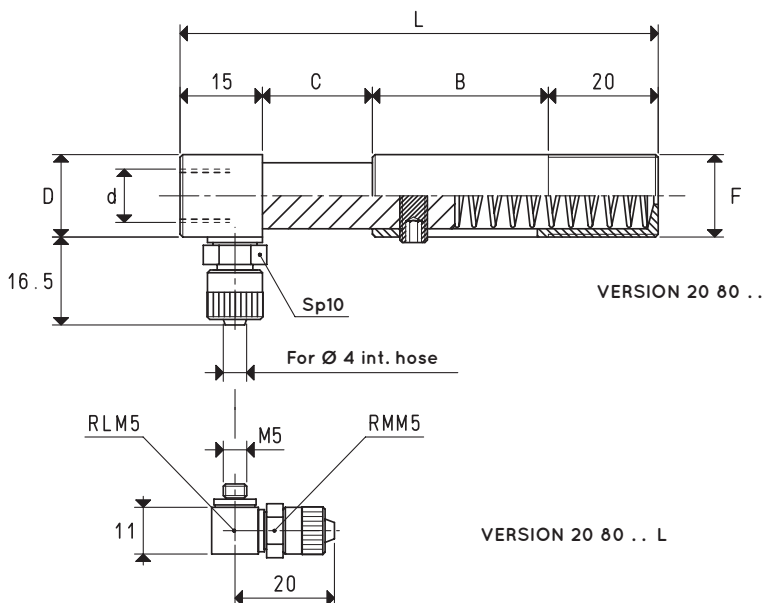
### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item     | d<br>Ø | D<br>Ø | E  | F<br>Ø     | L    | Weight<br>g |
|----------|--------|--------|----|------------|------|-------------|
| 20 80 25 | G1/8"  | 15     | 15 | M12 x 1.25 | 83.5 | 82          |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.

## MINI VACUUM CUP HOLDERS WITH BUILT-IN SPRING

For a further bulk and weight reduction, as well as to meet the requirements of discharge automations for plastic moulding press manufacturers, these cup holders are made with a built-in spring and an anodised aluminium cup fixing stem. Also these cup holders allow for the installation of cups with male threaded support only. The particular shape of the brass drive bush for fastening the cup holder to the automation prevents any rotation of the stem and, therefore, of the cup. The vacuum connection is radial.



### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item     | B  | C<br>stroke | d<br>Ø | D<br>Ø | F<br>Ø     | L  | Weight<br>g |
|----------|----|-------------|--------|--------|------------|----|-------------|
| 20 80 15 | 22 | 15          | G1/8"  | 15     | M10 x 0.75 | 72 | 26          |
| 20 80 20 | 32 | 20          | G1/8"  | 15     | M15 x 1.00 | 87 | 42          |

Note: To order chrome-plated iron, add the letters FC to the item.

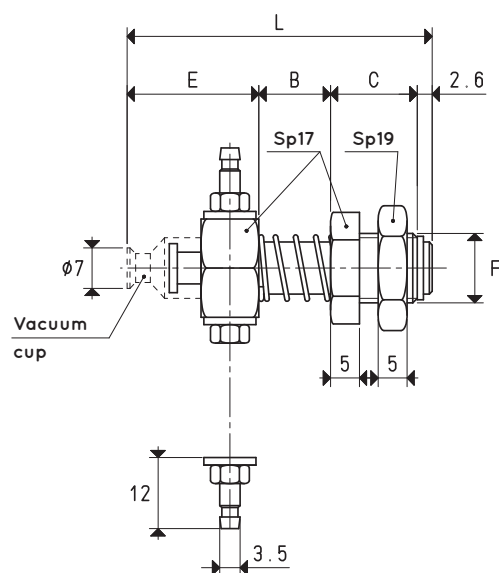
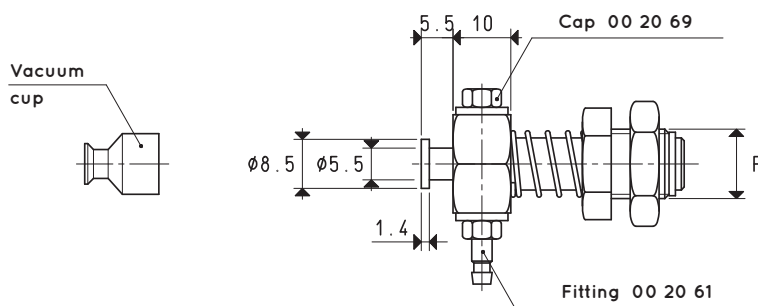
To order vacuum cup holders with L fittings, add the letter L to the code.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



They are particularly suited for small cups to be manually assembled with diameters ranging between 10 and 30 mm.

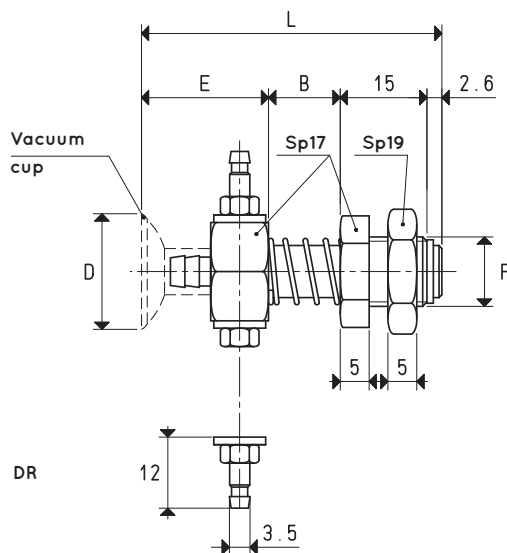


VERSION 20 . .13 DR

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6}$  =  $\frac{\text{Kg}}{0.4536}$



## 2



VERSION 20 .. 10 DR

| Item            | Force<br>Kg | B<br>stroke | D<br>Ø | E  | F<br>Ø     | L  | For vacuum cup<br>item | Weight<br>g |
|-----------------|-------------|-------------|--------|----|------------|----|------------------------|-------------|
| <b>20 10 10</b> | 0.19        | 12.4        | 10     | 21 | M12 x 1.25 | 51 | 01 10 10               | 56.0        |
| <b>20 12 10</b> | 0.28        | 12.4        | 12     | 21 | M12 x 1.25 | 51 | 01 12 10               | 56.6        |
| <b>20 15 10</b> | 0.44        | 12.4        | 15     | 22 | M12 x 1.25 | 52 | 01 15 10               | 56.7        |
| <b>20 18 10</b> | 0.63        | 12.4        | 18     | 22 | M12 x 1.25 | 52 | 01 18 10               | 56.7        |
| <b>20 20 10</b> | 0.78        | 12.4        | 20     | 22 | M12 x 1.25 | 52 | 01 20 10               | 56.8        |
| <b>20 22 10</b> | 0.95        | 12.4        | 22     | 23 | M12 x 1.25 | 53 | 01 22 10               | 57.2        |

$$\text{inch} = \frac{\text{mm}}{25.4} ; \text{pounds} = \frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$$

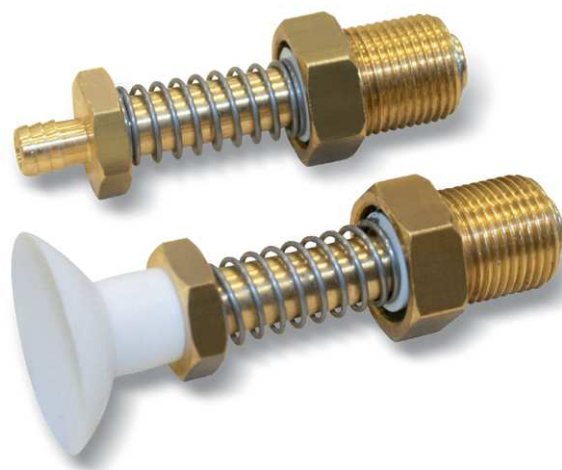
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)       $\text{inch} = \frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



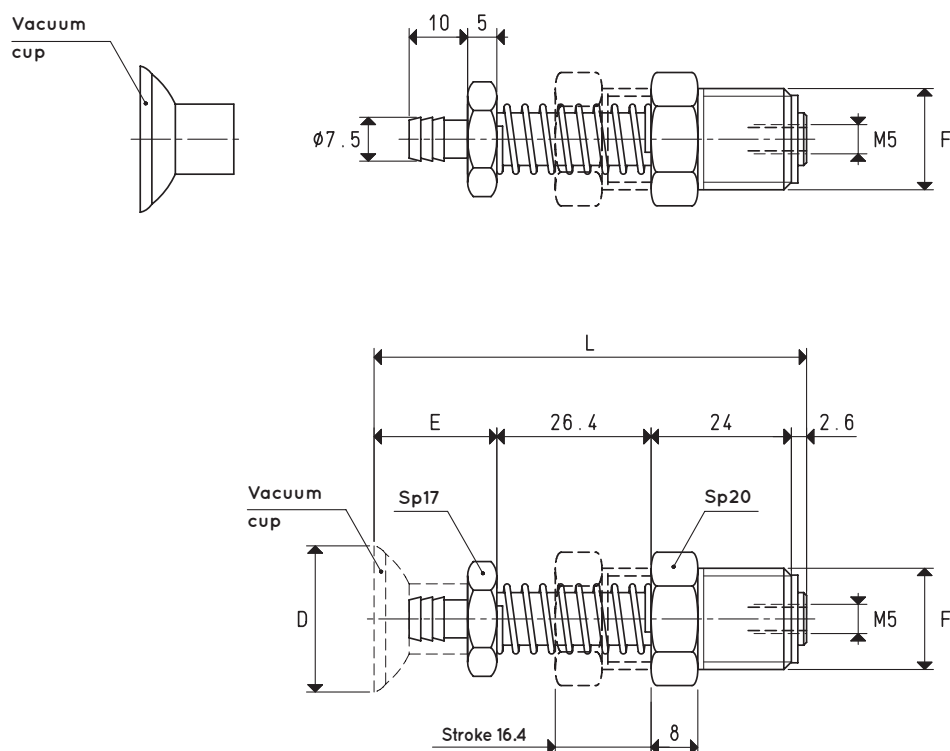
## MINI VACUUM CUP HOLDERS WITH BUILT-IN BUSH

The reduced size and the particular shape of these cup holders allow them to be directly assembled to the vacuum manifold, saving time and eliminating pipes and fittings.

The hexagonal threaded bush for cup holder assembly with the vacuum manifold is equipped with a seal and has the task of driving and holding the brass stem for fixing the vacuum cup.



VERSION 20 .. 11



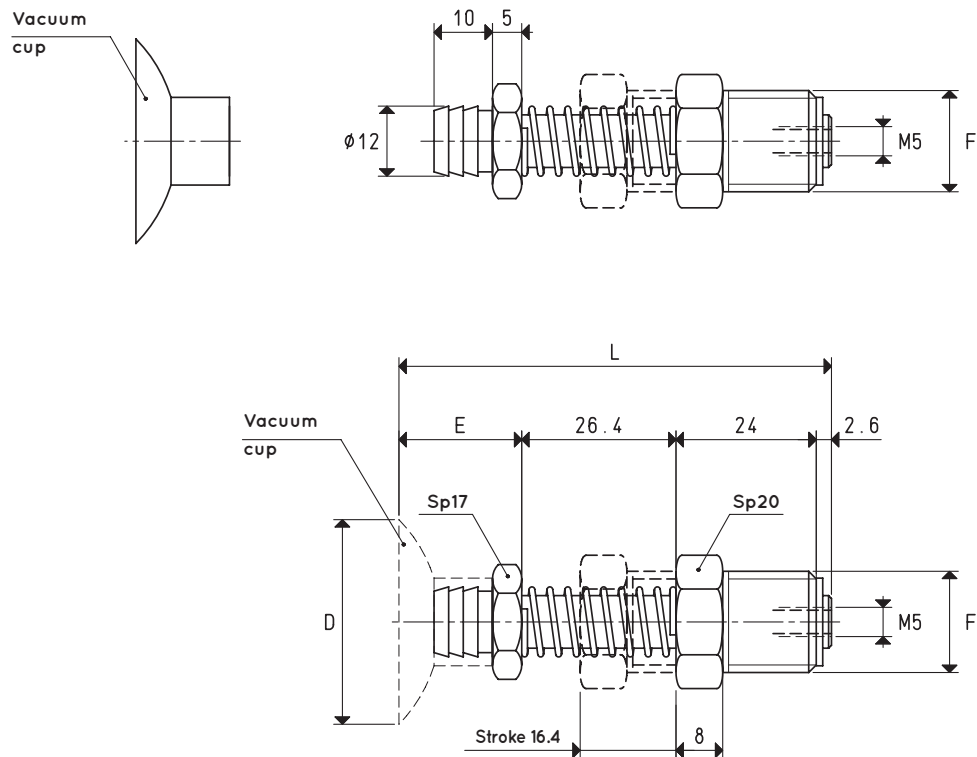
| Item     | Force<br>Kg | D<br>Ø | E  | F<br>Ø | L  | For vacuum cup<br>item | Weight<br>g |
|----------|-------------|--------|----|--------|----|------------------------|-------------|
| 20 25 11 | 1.23        | 25     | 21 | G3/8"  | 74 | 01 25 15               | 70.0        |
| 20 30 11 | 1.76        | 30     | 22 | G3/8"  | 75 | 01 30 15               | 70.7        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

VERSION 20 . . 11



| Item            | Force<br>Kg | D<br>Ø | E  | F<br>Ø | L  | For vacuum cup<br>item | Weight<br>g |
|-----------------|-------------|--------|----|--------|----|------------------------|-------------|
| <b>20 35 11</b> | 2.40        | 35     | 21 | G3/8"  | 74 | 01 35 15               | 76.6        |
| <b>20 40 11</b> | 3.14        | 40     | 23 | G3/8"  | 76 | 01 40 15               | 77.1        |
| <b>20 45 11</b> | 3.98        | 45     | 28 | G3/8"  | 81 | 01 45 15               | 80.6        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

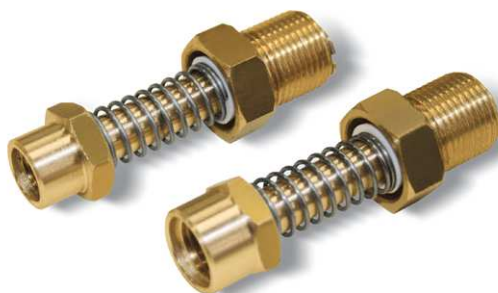
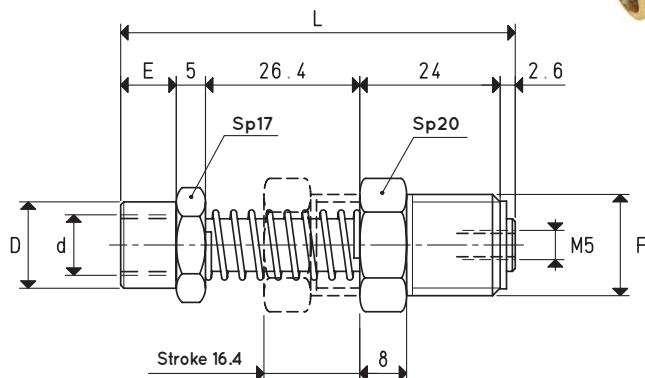
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## VACUUM CUP HOLDERS WITH BUILT-IN BUSH, WITH FEMALE THREADED CONNECTOR

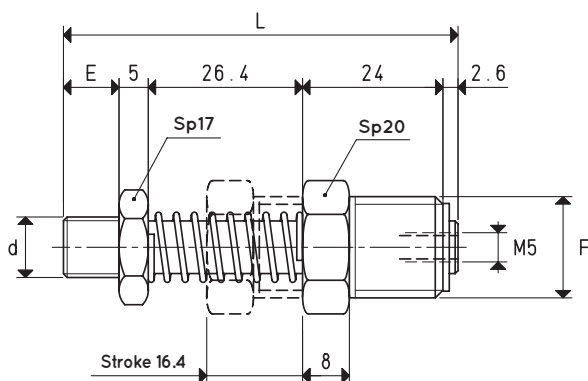
VERSION 20 .. 11



| Item     | d<br>Ø | D<br>Ø | E | F<br>Ø | L  | Weight<br>g |
|----------|--------|--------|---|--------|----|-------------|
| 20 08 11 | G1/8"  | 14.0   | 9 | G3/8"  | 67 | 74          |
| 20 10 11 | G1/4"  | 16.5   | 9 | G3/8"  | 67 | 73          |

## VACUUM CUP HOLDERS WITH BUILT-IN BUSH, WITH MALE THREADED CONNECTOR

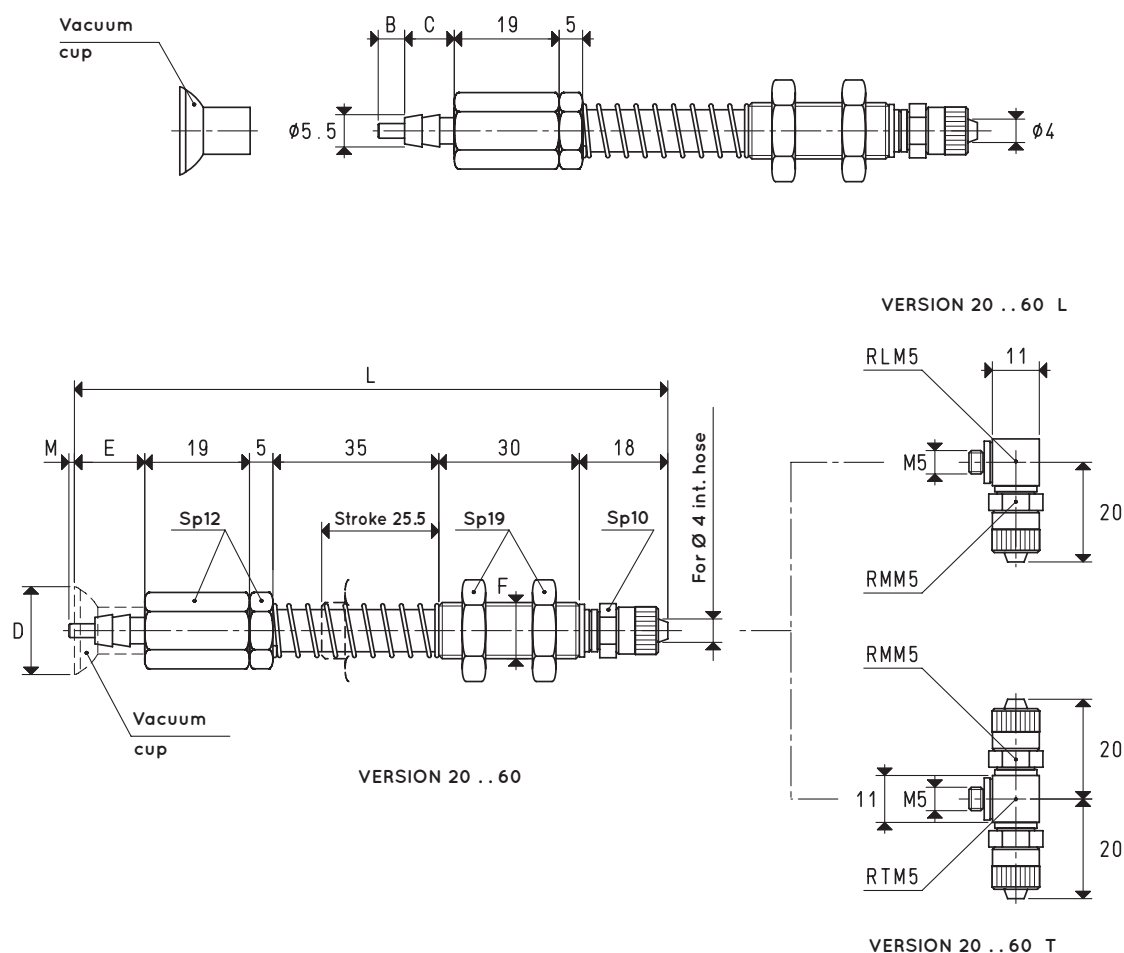
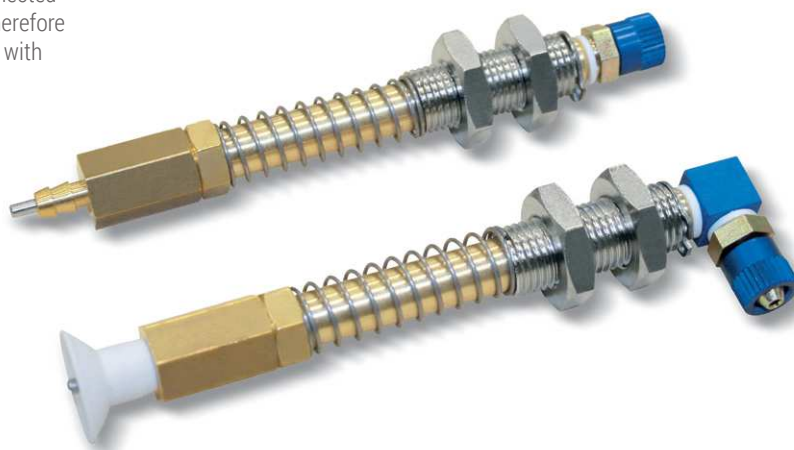
VERSION 20 .. 11 M



| Item       | d<br>Ø | E  | F<br>Ø | L  | Weight<br>g |
|------------|--------|----|--------|----|-------------|
| 20 08 11 M | G1/8"  | 8  | G3/8"  | 66 | 75          |
| 20 10 11 M | G1/4"  | 10 | G3/8"  | 68 | 74          |

## MINI VACUUM CUP HOLDERS WITH PLUNGER VALVE

They share the same mechanical features at the other mini vacuum cup holders.  
Their distinctive feature is the plunger valve solidly connected to a conical spear valve, which activates suction, and therefore creates vacuum, only when the cup comes into contact with the load to be lifted.



### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item            | Force<br>Kg | B   | C   | D<br>Ø | E  | F<br>Ø     | L   | M | For vacuum cup<br>item | Weight<br>g |
|-----------------|-------------|-----|-----|--------|----|------------|-----|---|------------------------|-------------|
| <b>20 12 60</b> | 0.28        | 4.5 | 8.5 | 12     | 11 | M12 x 1.25 | 118 | 2 | 01 12 10               | 78.6        |
| <b>20 15 60</b> | 0.44        | 4.5 | 8.5 | 12     | 12 | M12 x 1.25 | 119 | 1 | 01 15 10               | 78.7        |
| <b>20 18 60</b> | 0.63        | 4.5 | 8.5 | 12     | 12 | M12 x 1.25 | 119 | 1 | 01 18 10               | 78.7        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

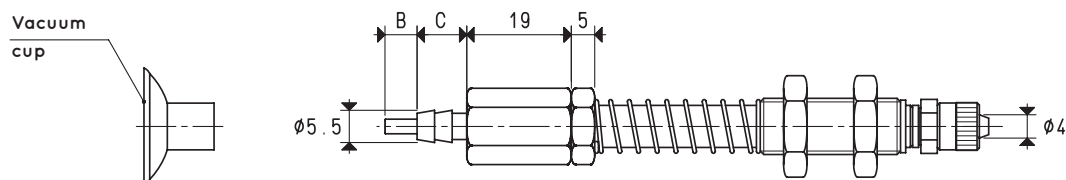
To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## 2



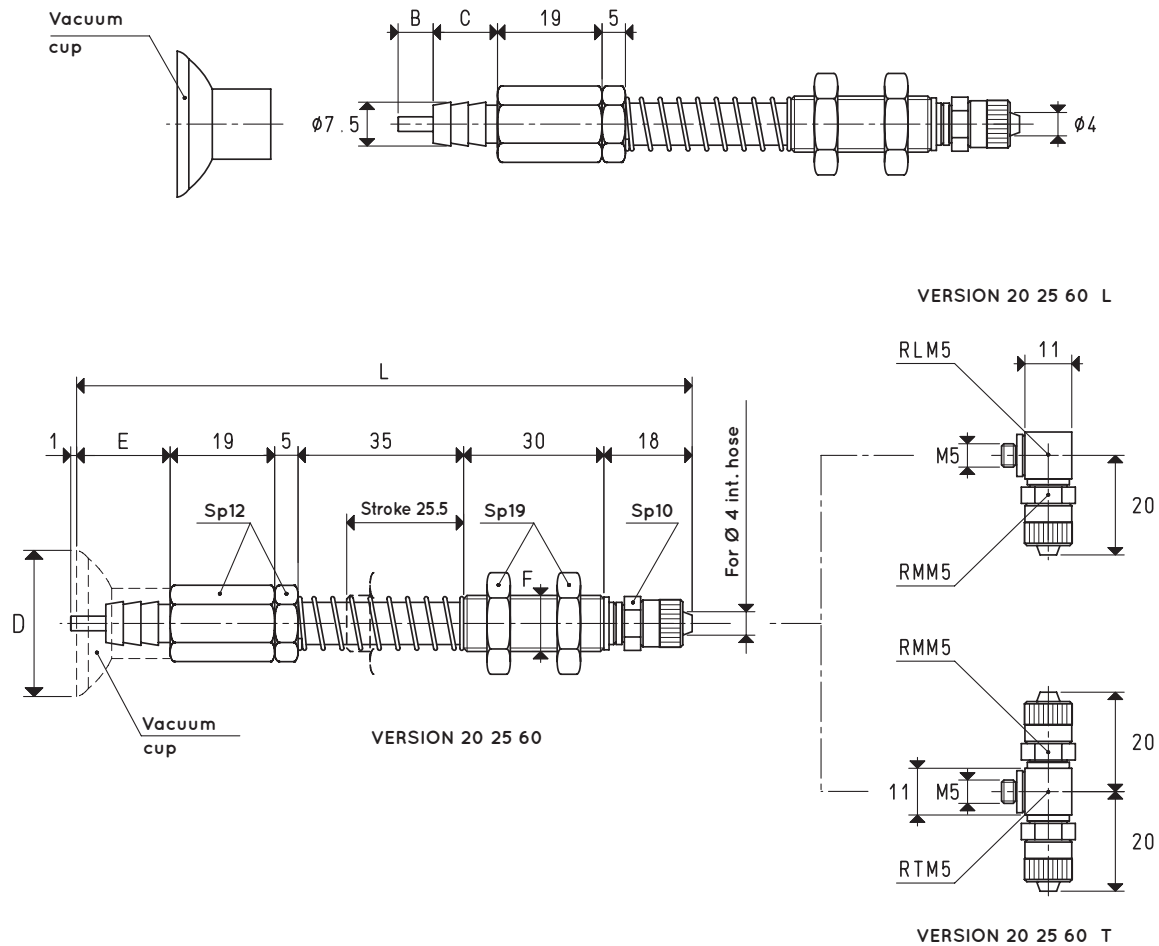
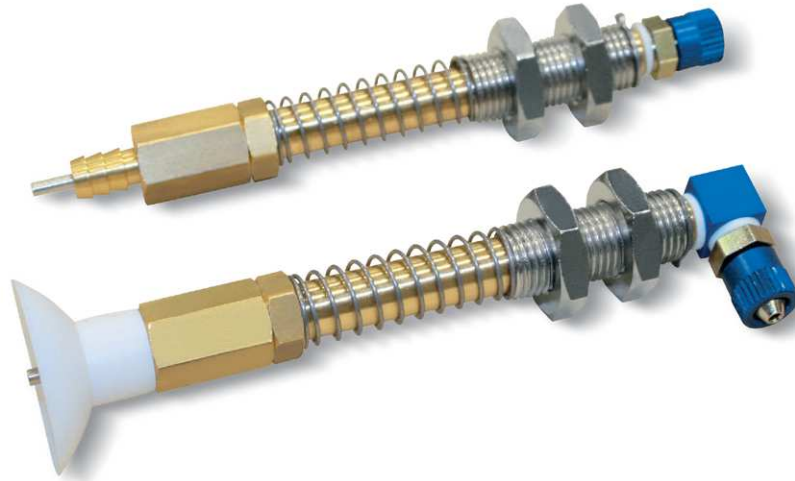
Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

$$\text{inch} = \frac{\text{mm}}{25.4} ; \text{pounds} = \frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$$





## VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item     | Force<br>Kg | B | C  | D<br>Ø | E  | F<br>Ø     | L   | For vacuum cup<br>item | Weight<br>g |
|----------|-------------|---|----|--------|----|------------|-----|------------------------|-------------|
| 20 25 60 | 1.23        | 6 | 11 | 25     | 16 | M12 x 1.25 | 123 | 01 25 15               | 84          |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

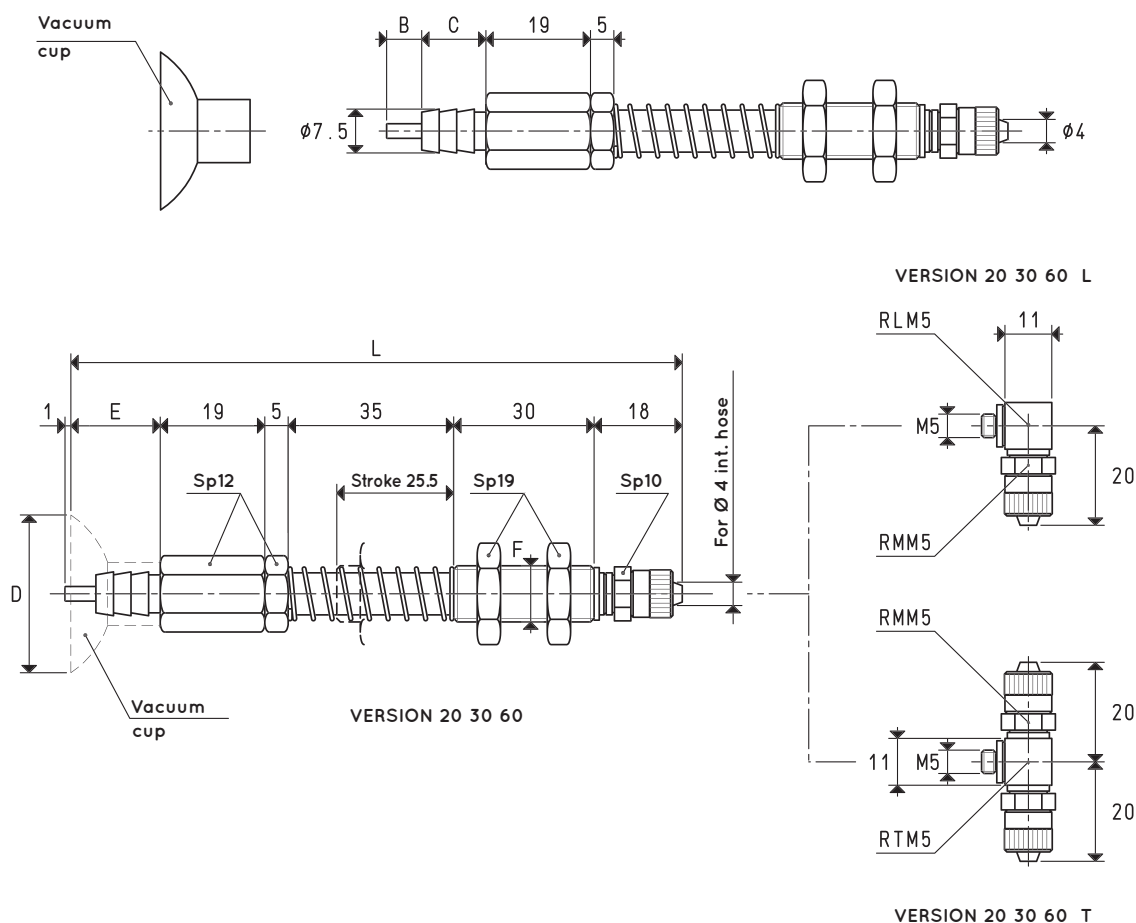
To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## MINI VACUUM CUP HOLDERS WITH PLUNGER VALVE



### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

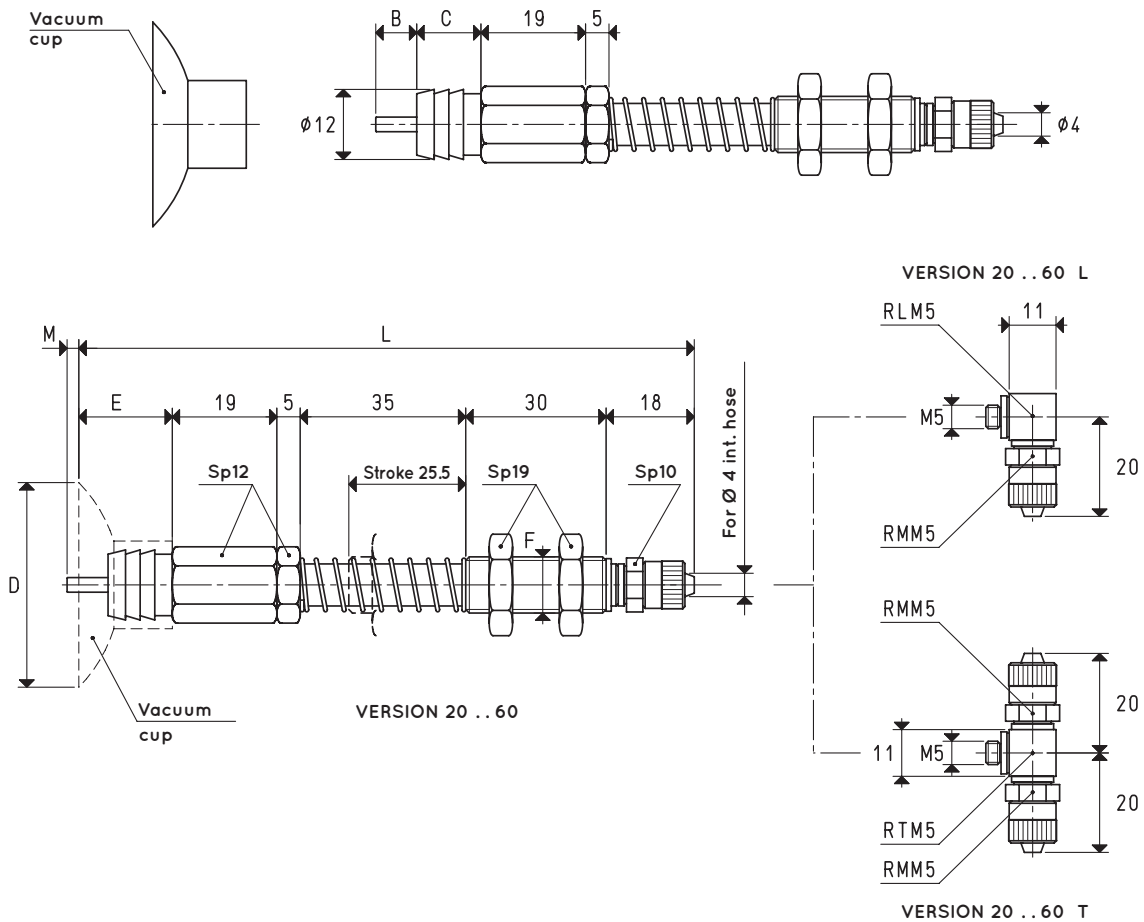
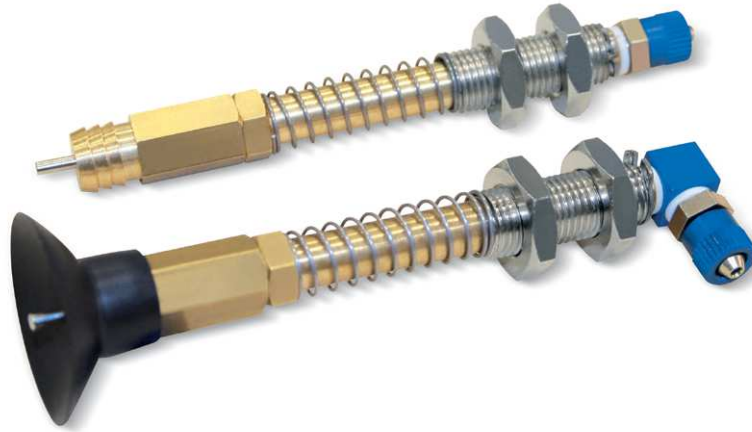
| Item     | Force<br>Kg | B | C  | D<br>Ø | E  | F<br>Ø     | L   | For vacuum cup<br>item | Weight<br>g |
|----------|-------------|---|----|--------|----|------------|-----|------------------------|-------------|
| 20 30 60 | 1.76        | 7 | 11 | 30     | 17 | M12 x 1.25 | 124 | 01 30 15               | 86.7        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item            | Force<br>Kg | B | C  | D<br>Ø | E  | F<br>Ø     | L   | M | For vacuum cup<br>item | Weight<br>g |
|-----------------|-------------|---|----|--------|----|------------|-----|---|------------------------|-------------|
| <b>20 35 60</b> | 2.40        | 7 | 11 | 35     | 16 | M12 x 1.25 | 123 | 2 | 01 35 15               | 90.6        |
| <b>20 40 60</b> | 3.14        | 7 | 11 | 40     | 18 | M12 x 1.25 | 125 | 0 | 01 40 15               | 91.1        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

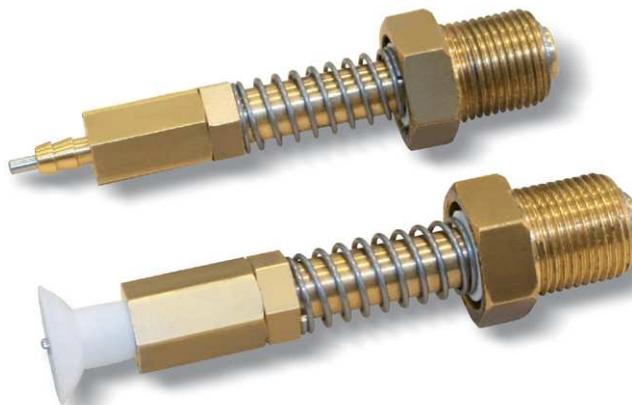
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

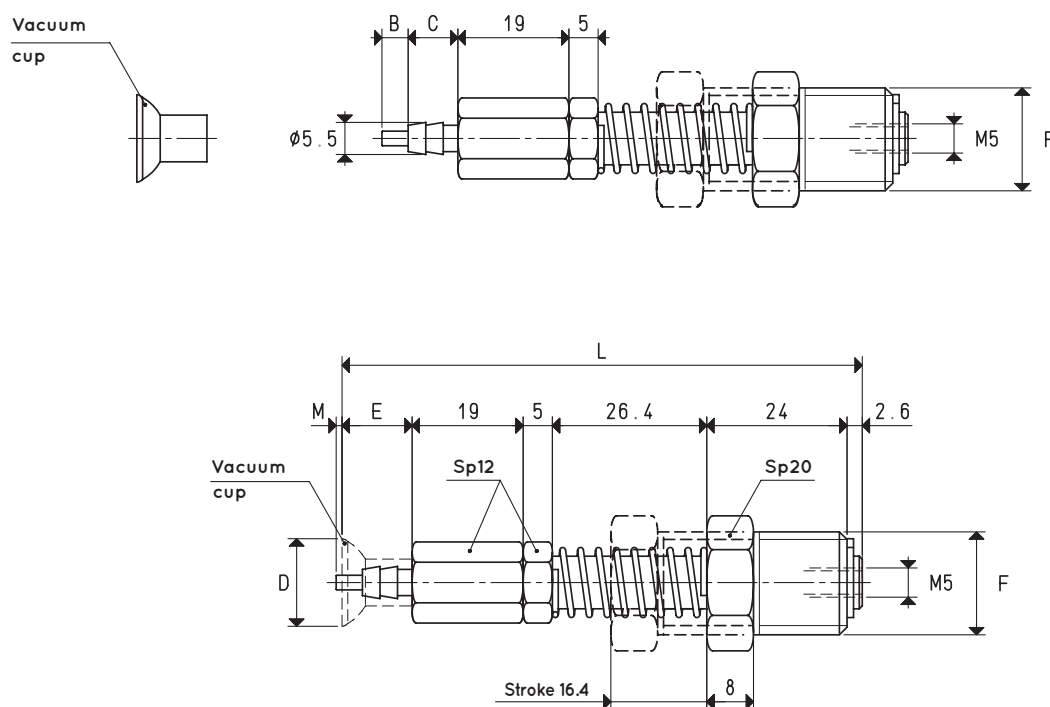


## MINI VACUUM CUP HOLDERS WITH PLUNGER VALVE AND BUILT-IN BUSH

The technical and mechanical features are the same as for the mini vacuum cup holders with plunger valve described on the previous pages. Their distinctive feature is their threaded hexagonal bush, which allows them to be directly assembled to the vacuum manifold, thus saving time and eliminating pipes and fittings.



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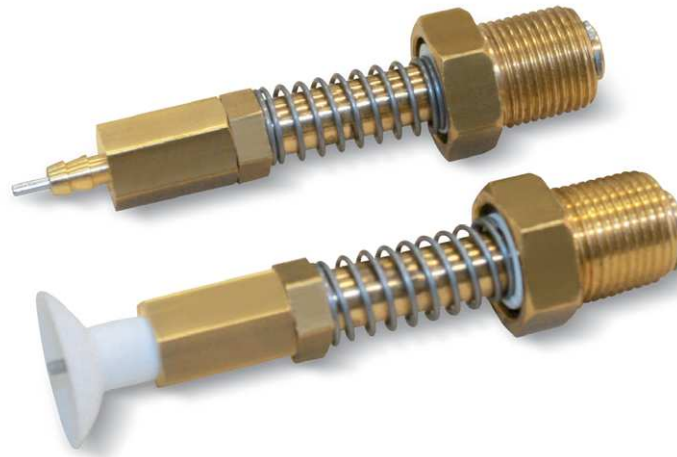


| Item            | Force<br>Kg | B   | C   | D<br>Ø | E  | F<br>Ø | L  | M | For vacuum cup<br>item | Weight<br>g |
|-----------------|-------------|-----|-----|--------|----|--------|----|---|------------------------|-------------|
| <b>20 12 65</b> | 0.28        | 4.5 | 8.5 | 12     | 11 | G3/8"  | 88 | 2 | 01 12 10               | 76.6        |
| <b>20 15 65</b> | 0.44        | 4.5 | 8.5 | 15     | 12 | G3/8"  | 88 | 1 | 01 15 10               | 76.7        |
| <b>20 18 65</b> | 0.63        | 4.5 | 8.5 | 18     | 12 | G3/8"  | 88 | 1 | 01 18 10               | 76.7        |

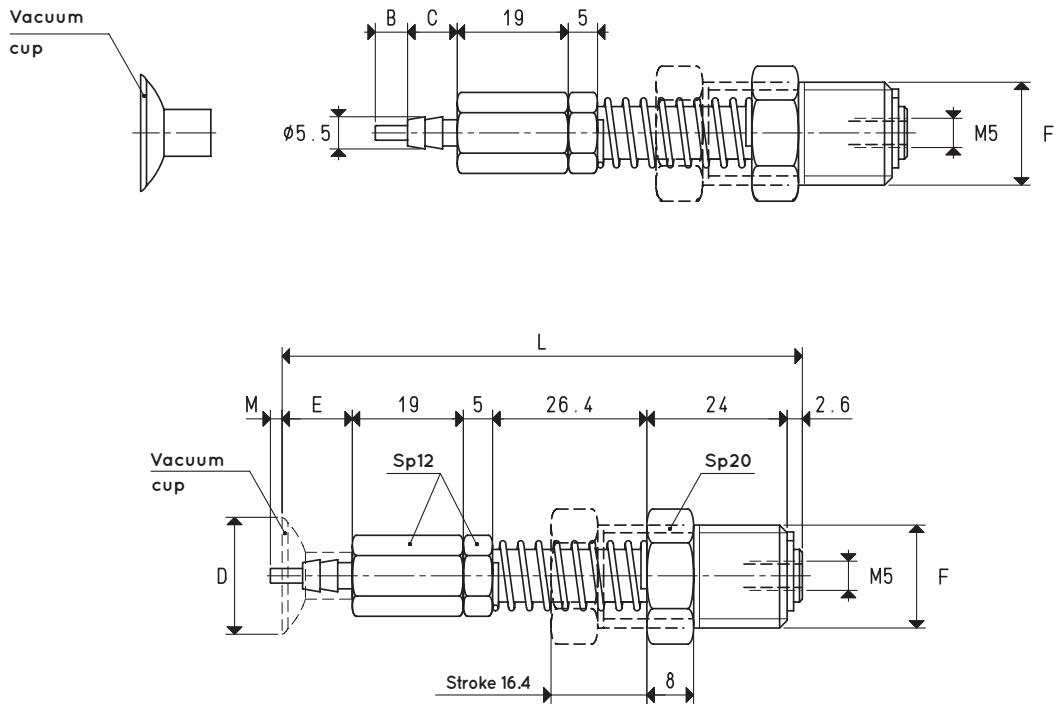
Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



VERSION 20 .. 65



| Item            | Force<br>Kg | B   | C   | D<br>Ø | E  | F<br>Ø | L  | M | For vacuum cup<br>item | Weight<br>g |
|-----------------|-------------|-----|-----|--------|----|--------|----|---|------------------------|-------------|
| <b>20 20 65</b> | 0.78        | 5.5 | 8.5 | 20     | 12 | G3/8"  | 89 | 2 | 01 20 10               | 76.8        |
| <b>20 22 65</b> | 0.95        | 5.5 | 8.5 | 22     | 13 | G3/8"  | 90 | 1 | 01 22 10               | 77.2        |

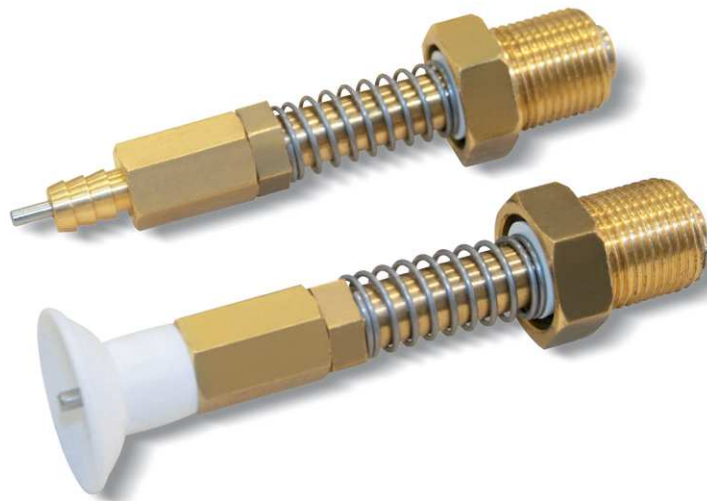
Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

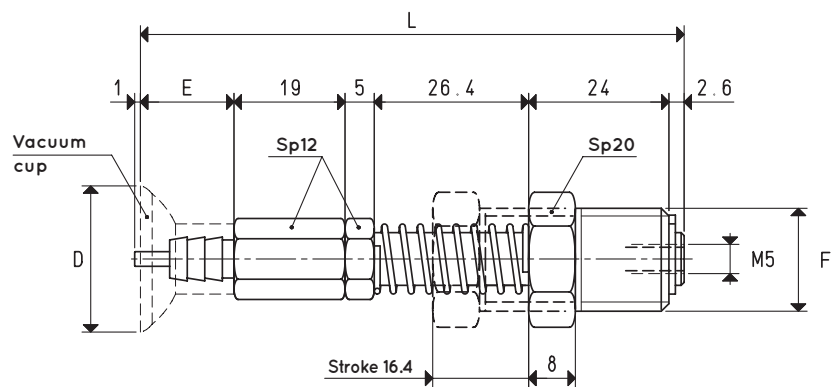
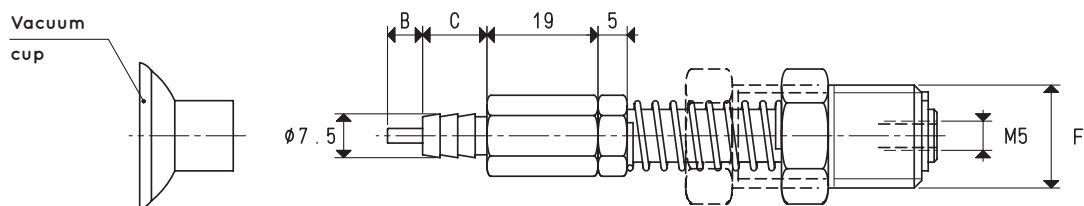
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## MINI VACUUM CUP HOLDERS WITH PLUNGER VALVE AND BUILT-IN BUSH



VERSION 20 25 65

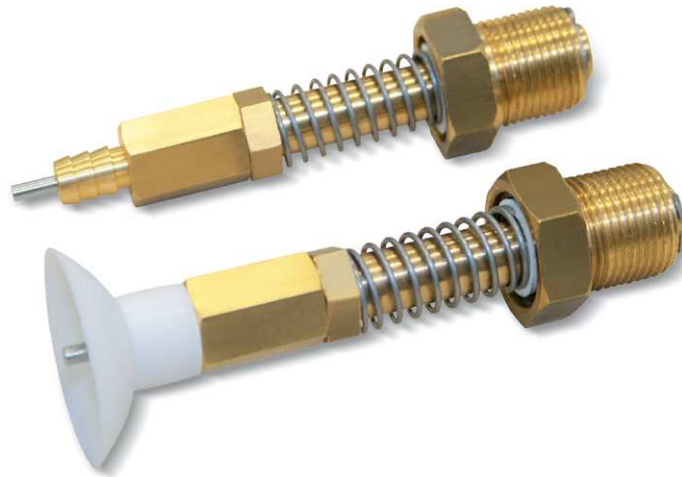


| Item     | Force<br>Kg | B | C  | D<br>Ø | E  | F<br>Ø | L  | For vacuum cup<br>item | Weight<br>g |
|----------|-------------|---|----|--------|----|--------|----|------------------------|-------------|
| 20 25 65 | 1.23        | 6 | 11 | 25     | 16 | G3/8"  | 93 | 01 25 15               | 80          |

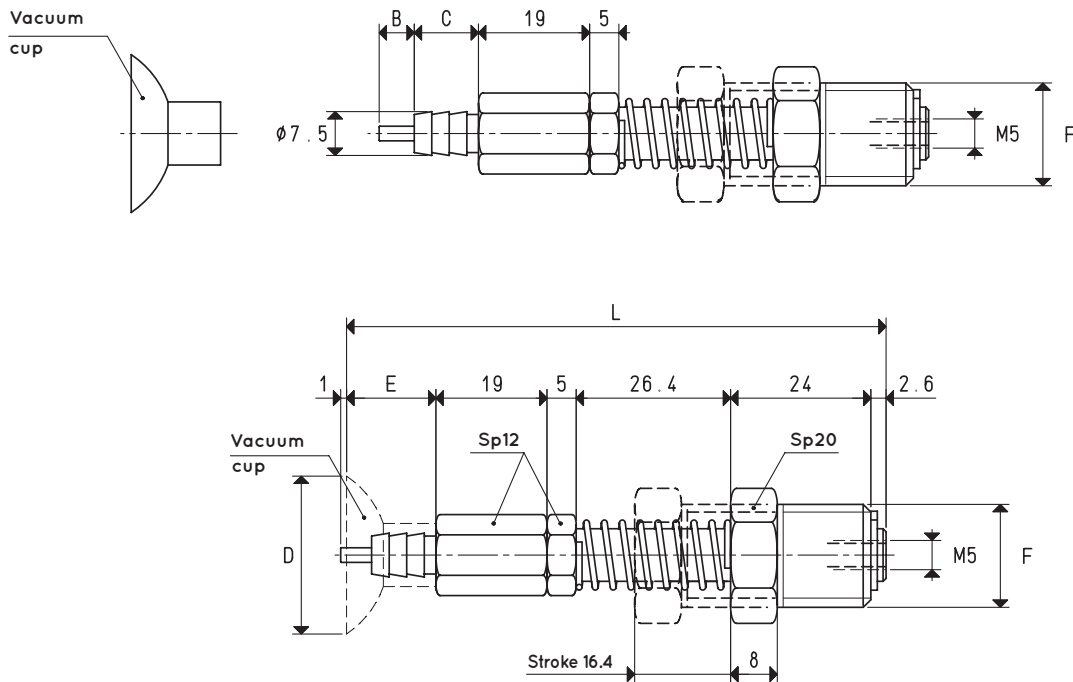
Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



VERSION 20 30 65



| Item     | Force<br>Kg | B | C  | D<br>Ø | E  | F<br>Ø | L  | For vacuum cup<br>item | Weight<br>g |
|----------|-------------|---|----|--------|----|--------|----|------------------------|-------------|
| 20 30 65 | 1.76        | 7 | 11 | 30     | 17 | G3/8"  | 94 | 01 30 15               | 82.7        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

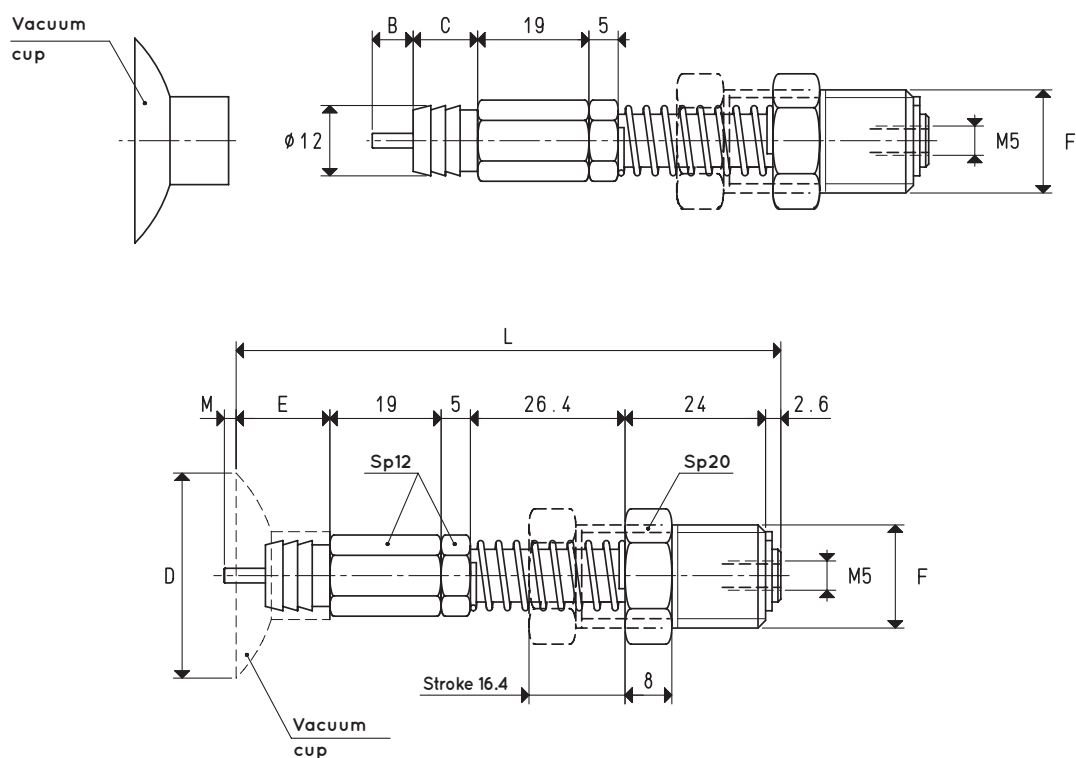
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## MINI VACUUM CUP HOLDERS WITH PLUNGER VALVE AND BUILT-IN BUSH



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| Item     | Force<br>Kg | B | C  | D<br>Ø | E  | F<br>Ø | L  | M | For vacuum cup<br>item | Weight<br>g |
|----------|-------------|---|----|--------|----|--------|----|---|------------------------|-------------|
| 20 35 65 | 2.40        | 7 | 11 | 35     | 16 | G3/8"  | 93 | 2 | 01 35 15               | 82.6        |
| 20 40 65 | 3.14        | 7 | 11 | 40     | 18 | G3/8"  | 95 | 0 | 01 40 15               | 83.1        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



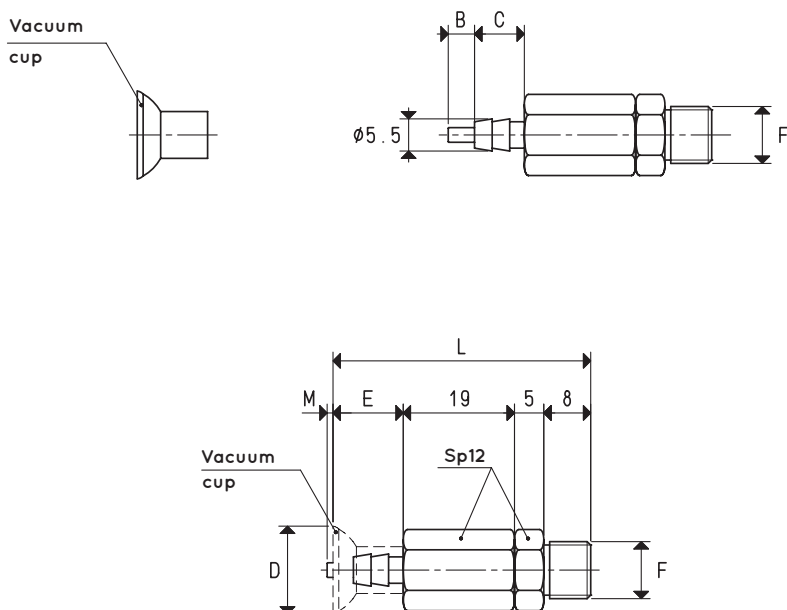
## MINI VACUUM CUP HOLDERS WITH NO SPRINGING

They have the same function as the mini vacuum cup holders with plunger valve but, for further bulk reduction, the cushioning spring, the threaded pipe with nuts for fixing to the automation and the quick coupler have been removed. This type of cup holder is to be directly assembled to the vacuum manifold.

To allow quick assembly, its end is provided with a threaded male shank.



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| Item            | Force<br>Kg | B   | C   | D<br>Ø | E  | F<br>Ø | L  | M | For vacuum cup<br>item | Weight<br>g |
|-----------------|-------------|-----|-----|--------|----|--------|----|---|------------------------|-------------|
| <b>20 12 61</b> | 0.28        | 4.5 | 8.5 | 12     | 11 | G1/8"  | 43 | 2 | 01 12 10               | 24.6        |
| <b>20 15 61</b> | 0.44        | 4.5 | 8.5 | 15     | 12 | G1/8"  | 44 | 1 | 01 15 10               | 24.7        |
| <b>20 18 61</b> | 0.63        | 4.5 | 8.5 | 18     | 12 | G1/8"  | 44 | 1 | 01 18 10               | 24.7        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

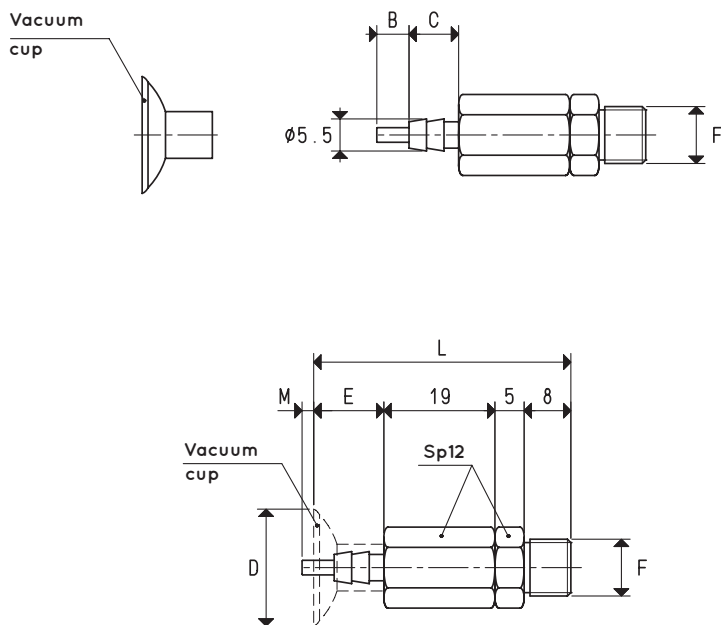
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## MINI VACUUM CUP HOLDERS WITH NO SPRINGING



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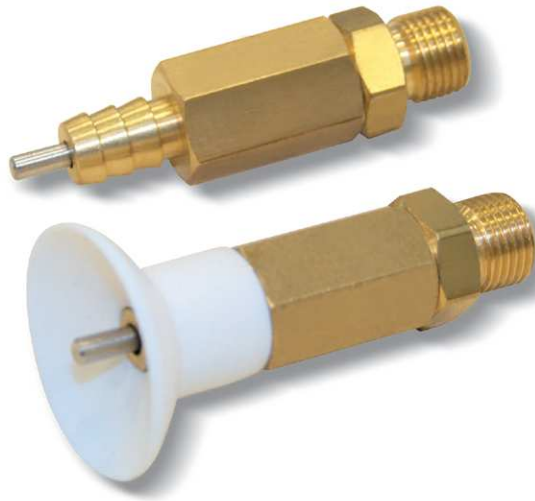


| Item     | Force<br>Kg | B   | C   | D<br>Ø | E  | F<br>Ø | L  | M | For vacuum cup<br>item | Weight<br>g |
|----------|-------------|-----|-----|--------|----|--------|----|---|------------------------|-------------|
| 20 20 61 | 0.78        | 5.5 | 8.5 | 20     | 12 | G1/8"  | 44 | 2 | 01 20 10               | 26.8        |
| 20 22 61 | 0.95        | 5.5 | 8.5 | 22     | 13 | G1/8"  | 45 | 1 | 01 22 10               | 27.2        |

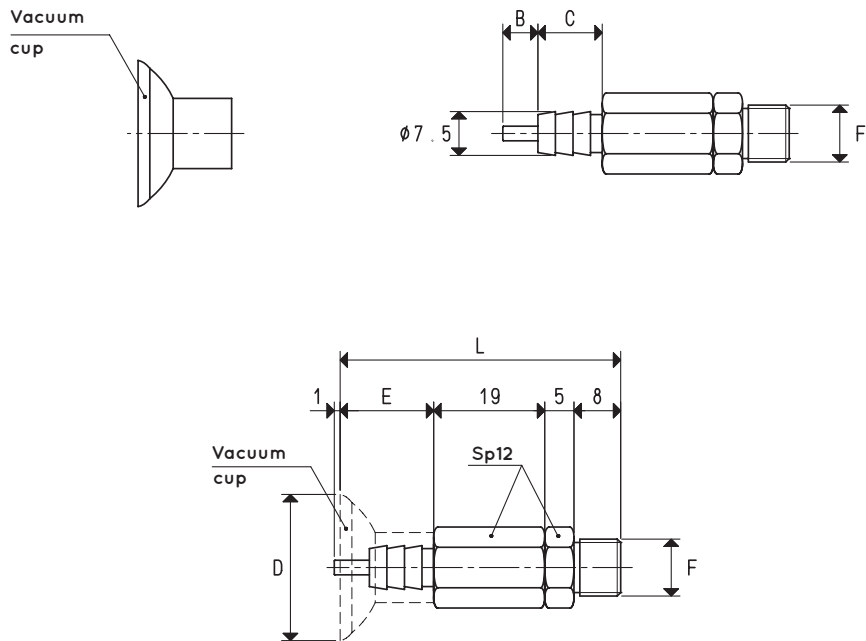
Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



VERSION 20 25 61



| Item     | Force<br>Kg | B | C  | D<br>Ø | E  | F<br>Ø | L  | For vacuum cup<br>item | Weight<br>g |
|----------|-------------|---|----|--------|----|--------|----|------------------------|-------------|
| 20 25 61 | 1.23        | 6 | 11 | 25     | 16 | G1/8"  | 48 | 01 25 15               | 26          |

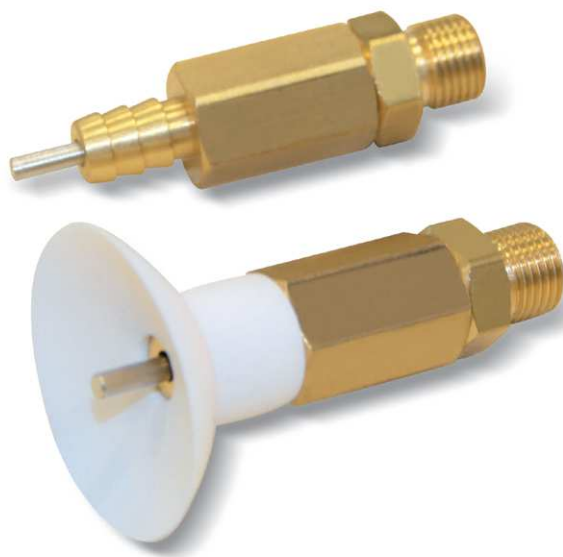
Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

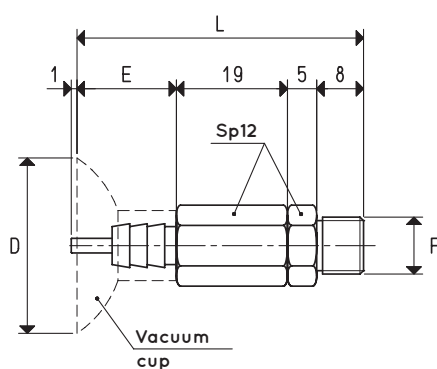
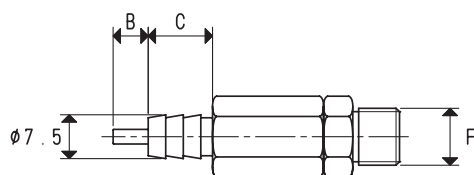
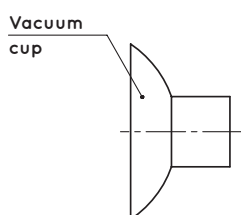
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## MINI VACUUM CUP HOLDERS WITH NO SPRINGING



VERSION 20 30 61



| Item     | Force<br>Kg | B | C  | D<br>$\phi$ | E  | F<br>$\phi$ | L  | For vacuum cup<br>item | Weight<br>g |
|----------|-------------|---|----|-------------|----|-------------|----|------------------------|-------------|
| 20 30 61 | 1.76        | 7 | 11 | 30          | 17 | G1/8"       | 49 | 01 30 15               | 28.6        |

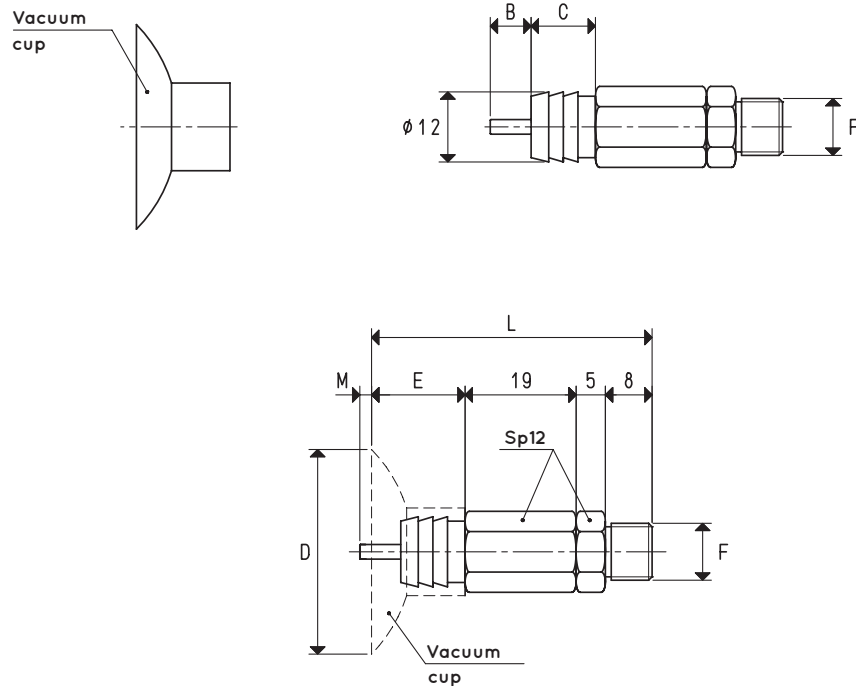
Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



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| Item            | Force<br>Kg | B | C  | D<br>Ø | E  | F<br>Ø | L  | M | For vacuum cup<br>item | Weight<br>Kg |
|-----------------|-------------|---|----|--------|----|--------|----|---|------------------------|--------------|
| <b>20 35 61</b> | 2.40        | 7 | 11 | 35     | 16 | G1/8"  | 48 | 2 | 01 35 15               | 34.6         |
| <b>20 40 61</b> | 3.14        | 7 | 11 | 40     | 18 | G1/8"  | 50 | 0 | 01 40 15               | 35.1         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



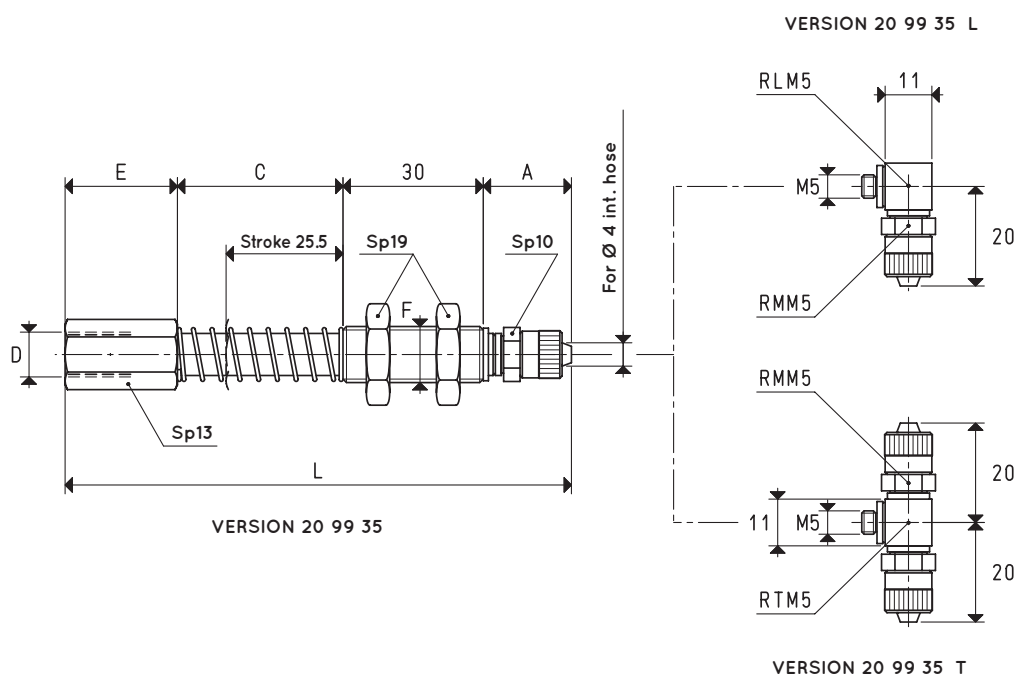
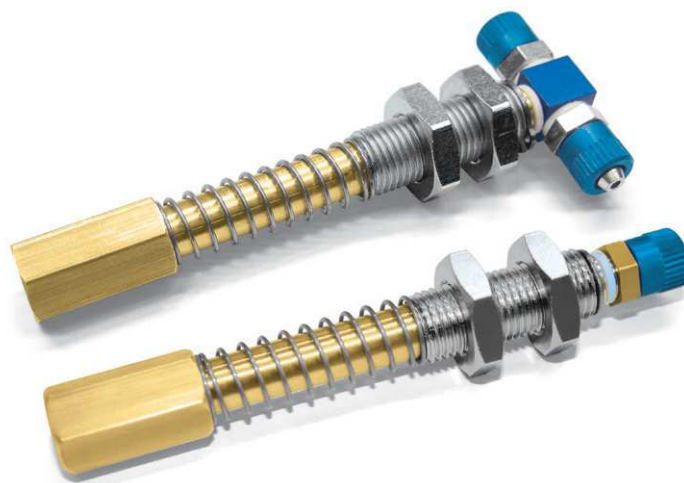
## MINI VACUUM CUP HOLDERS WITH BUILT-IN SHUT-OFF VALVE

In addition to having all the other features of the mini vacuum cup holders, these also have a built-in shut-off valve.

The function of the shut-off valve is to automatically close suction when the cup is not in contact with the surface of the load to be handled or in case of a faulty grip or of considerable transpiration, thus preventing the reduction of the level of vacuum on the remaining cups of the system that are regularly gripping a load.

The advantage of this is that the placement or the exclusion of the non-gripping cups is no longer binding.

Vacuum cups with a minimum diameter of 10 mm and maximum diameter of 50 mm can be assembled on these cup holders, provided they have a 1/8" male threaded gas support.



### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item     | A    | C    | D<br>Ø | E  | F<br>Ø     | L   | Weight<br>g |
|----------|------|------|--------|----|------------|-----|-------------|
| 20 99 35 | 17.5 | 35.5 | G1/8"  | 24 | M12 x 1.25 | 107 | 84          |

Minimum trigger flow = 1.5 m³/h

Minimum a level of vacuum = -250 mbar

Note: To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

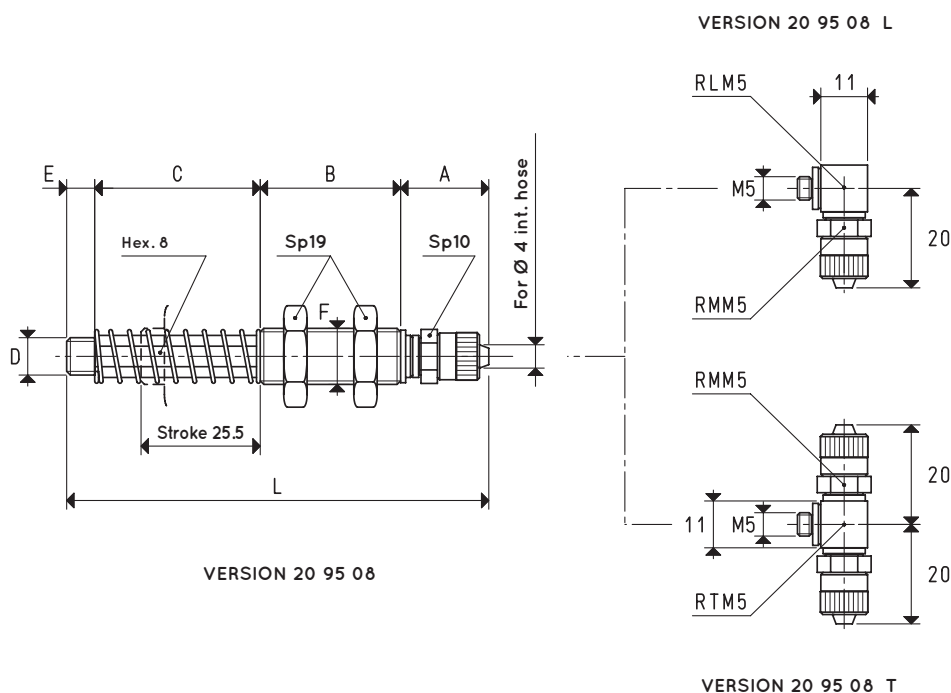
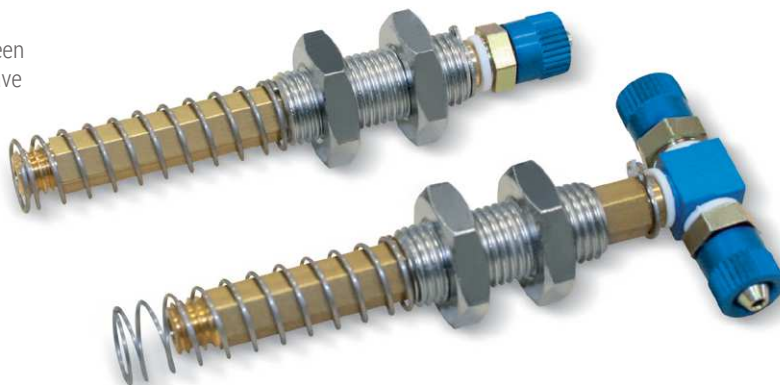
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## MINI ANTI-ROTATION VACUUM CUP HOLDERS

The technical features are the same as for the mini vacuum cup holders, with their distinctive features being their brass stem with hexagonal section and the steel drive bush with hexagonal hole. This prevents the stem from rotating on its axis, and, as a result, also the cup and its support from rotating.

They are suited for cups with male or female support with diameters ranging from 10 mm to 60 mm, but they have been specially designed for the installation of rectangular, concave and elliptical cups.



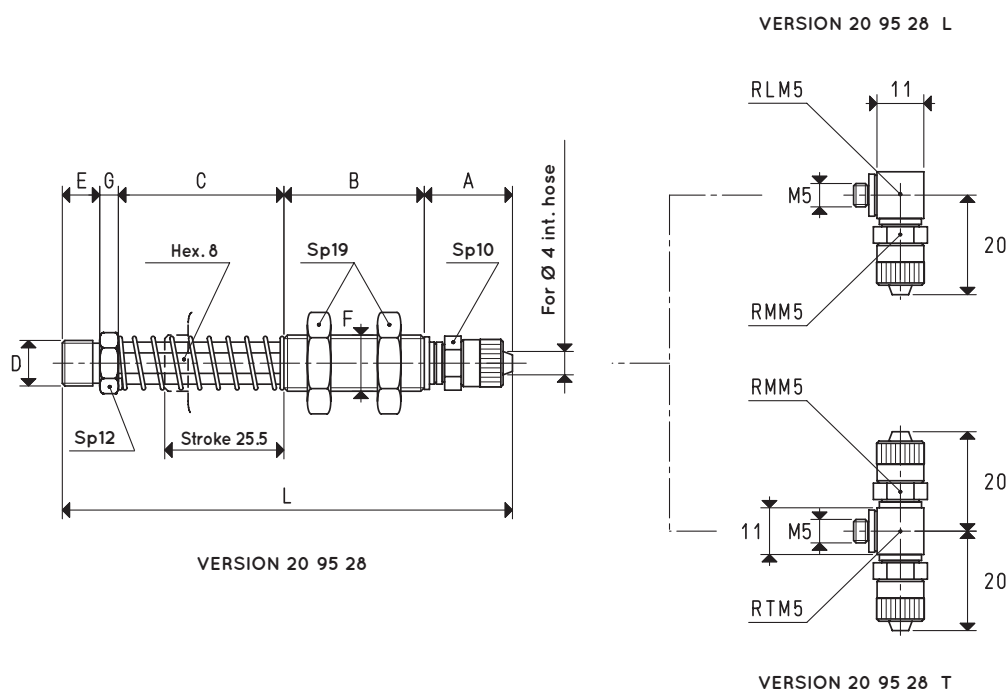
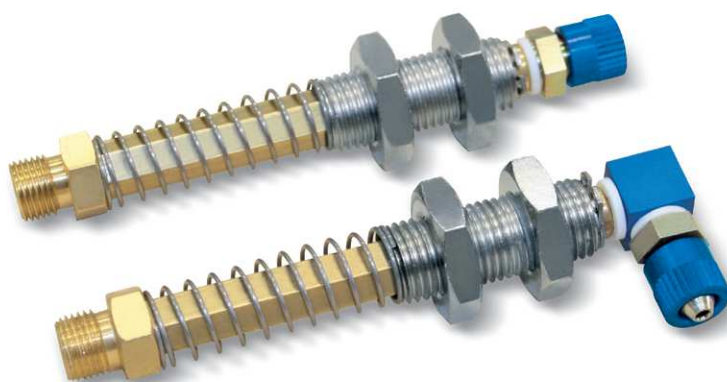
### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item     | A    | B  | C    | D<br>Ø | E | F<br>Ø     | L  | Weight<br>g |
|----------|------|----|------|--------|---|------------|----|-------------|
| 20 95 08 | 17.5 | 30 | 35.5 | M8     | 6 | M12 x 1.25 | 89 | 58          |

Note: To order vacuum cup holders with L or T fittings, add the letter L or T to the code.



## MINI ANTI-ROTATION VACUUM CUP HOLDERS

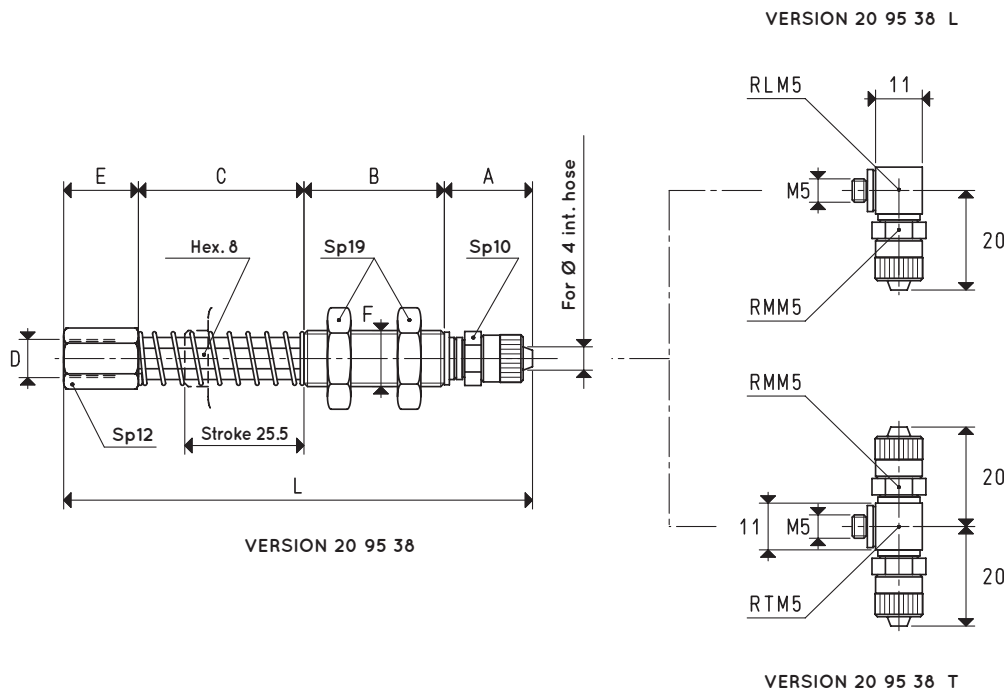
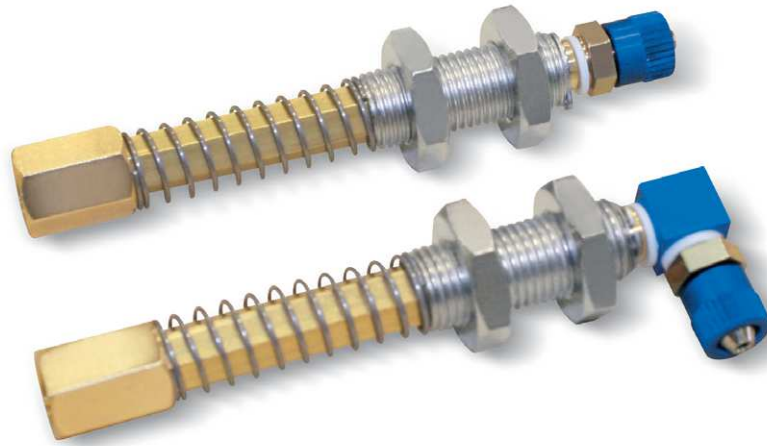


### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item     | A    | B  | C    | D<br>Ø | E | F<br>Ø     | G | L  | Weight<br>g |
|----------|------|----|------|--------|---|------------|---|----|-------------|
| 20 95 28 | 17.5 | 30 | 35.5 | G1/8"  | 8 | M12 x 1.25 | 5 | 96 | 60          |

Note: To order vacuum cup holders with L or T fittings, add the letter L or T to the code.





## VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

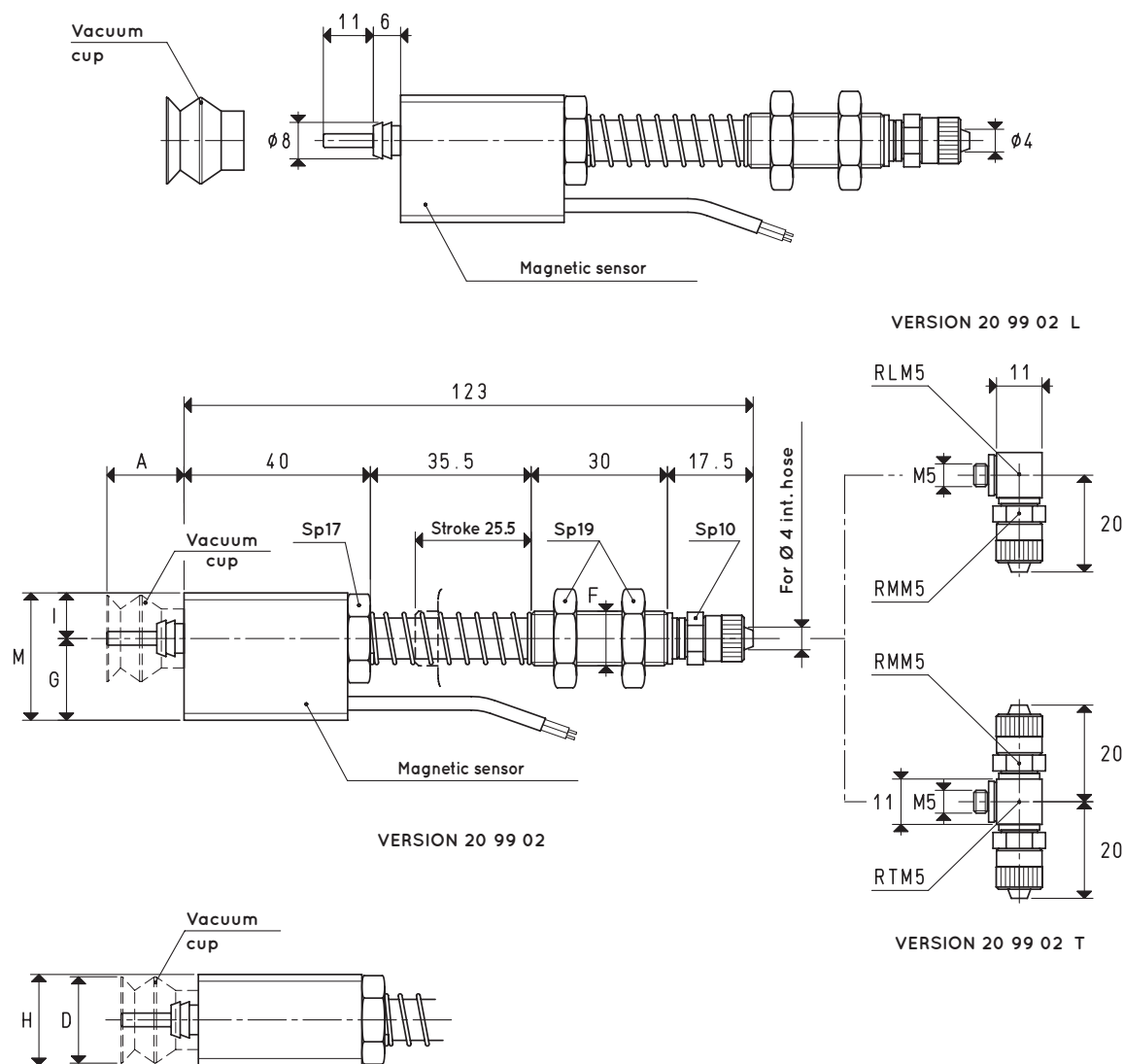
| Item     | A    | B  | C    | D<br>Ø | E  | F<br>Ø     | L  | Weight<br>g |
|----------|------|----|------|--------|----|------------|----|-------------|
| 20 95 38 | 17.5 | 30 | 35.5 | G1/8"  | 16 | M12 x 1.25 | 99 | 68          |

Note: To order vacuum cup holders with L or T fittings, add the letter L or T to the code.



## MINI VACUUM CUP HOLDERS WITH MAGNETIC SENSOR

These cup holders share the same technical features at the other mini vacuum cup holders. They are equipped with a magnetic sensor built into the cup holders to provide an electric signal to the machine every time the vacuum cup performs gripping. This is the reason why they are recommended to be used on piece counter handlers, boxing machines and in all those cases in which the presence of the gripped object is to be guaranteed. These cup holders have been designed for gripping chocolate, snacks, croissants and similar products and they are currently made in the version represented on this page. They can however be made with different vacuum cups upon request.



VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item     | Force<br>Kg | A  | D<br>Ø | F<br>Ø     | G  | H  | I  | M  | For vacuum cup<br>item | Weight<br>g |
|----------|-------------|----|--------|------------|----|----|----|----|------------------------|-------------|
| 20 99 02 | 0.70        | 17 | 19     | M12 x 1.25 | 18 | 20 | 10 | 28 | 01 19 17               | 163.3       |
| 20 99 03 | 1.23        | 16 | 25     | M12 x 1.25 | 18 | 20 | 10 | 28 | 01 25 15               | 161.3       |
|          | 1.76        | 17 | 35     | M12 x 1.25 | 18 | 20 | 10 | 28 | 01 30 15               | 162.0       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

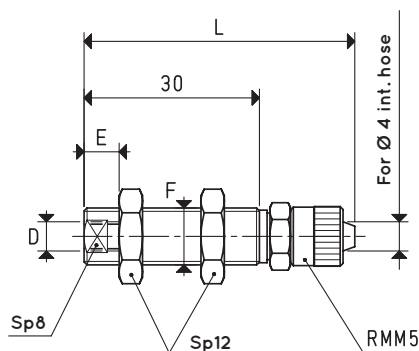
To order vacuum cup holders with L or T fittings, add the letter L or T to the code.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

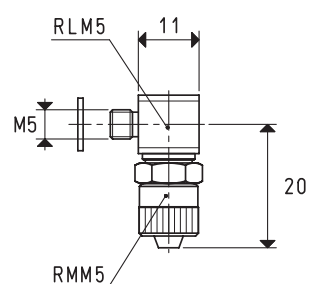
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## MINI VACUUM CUP HOLDERS FIX

These are simple nickel-plated brass threaded bushes with screwing nuts for height adjustment and with threaded ends, one to assemble the vacuum cup with support and the other for the quick coupling connecting the suction hose.



VERSION 20 70 01

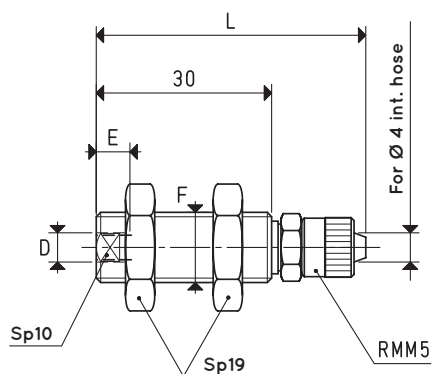


VERSION 20 70 01 L

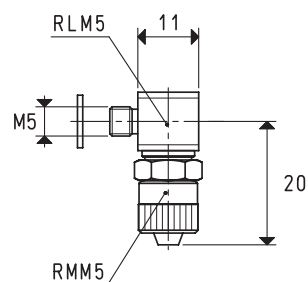
### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item     | D<br>Ø | E | F<br>Ø | L  | Weight<br>g |
|----------|--------|---|--------|----|-------------|
| 20 70 01 | M5     | 6 | G1/8"  | 46 | 19          |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.



VERSION 20 70 05



VERSION 20 70 05 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

| Item     | D<br>Ø | E | F<br>Ø     | L  | Weight<br>g |
|----------|--------|---|------------|----|-------------|
| 20 70 05 | M5     | 6 | M12 x 1.25 | 46 | 45          |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.



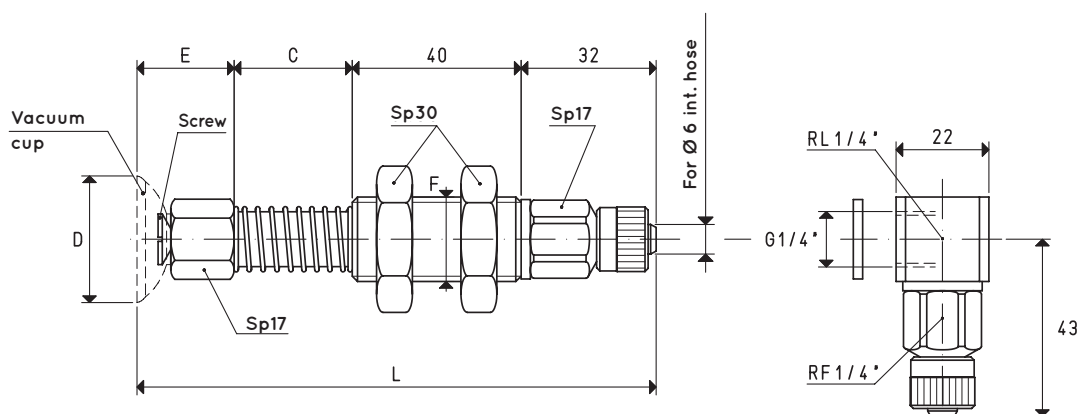
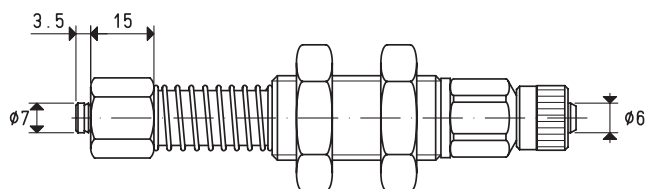
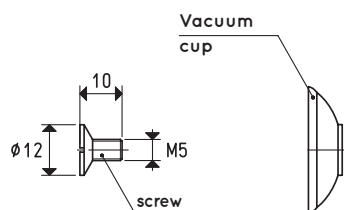
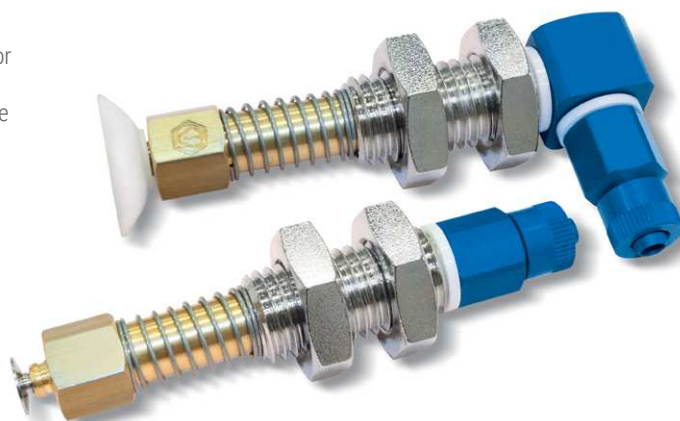
## BASIC VACUUM CUP HOLDERS

These cup holders are built in a simple and rational way, guaranteeing maximum sturdiness and duration. They are composed of:

- A brass stem for fastening the cup
- A steel threaded sleeve equipped with two hexagonal nuts for a quick assembly of the cup to the automation
- A spring to cushion the impact of the cup and to, at the same time, keep pressure pressure with the load to be lifted
- A quick coupling for connection to the suction hose

The actual springing stroke is:

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



VERSION 02 .. 10

VERSION 02 .. 10 L

VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm      C = 95 mm

| Item     | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Screw included<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|----------|-------------|----|--------|----|--------|-----|------------------------|------------------------|-------------|-------------|-------------|
| 02 25 10 | 1.23        | 28 | 25     | 23 | M20    | 123 | 01 25 10               | 00 20 12               | 213.2       | 253.2       | 280.2       |
| 02 30 10 | 1.76        | 28 | 30     | 23 | M20    | 123 | 01 30 10               | 00 20 12               | 213.9       | 253.9       | 280.9       |
| 02 35 10 | 2.40        | 28 | 35     | 23 | M20    | 123 | 01 35 10               | 00 20 12               | 214.4       | 254.4       | 281.4       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

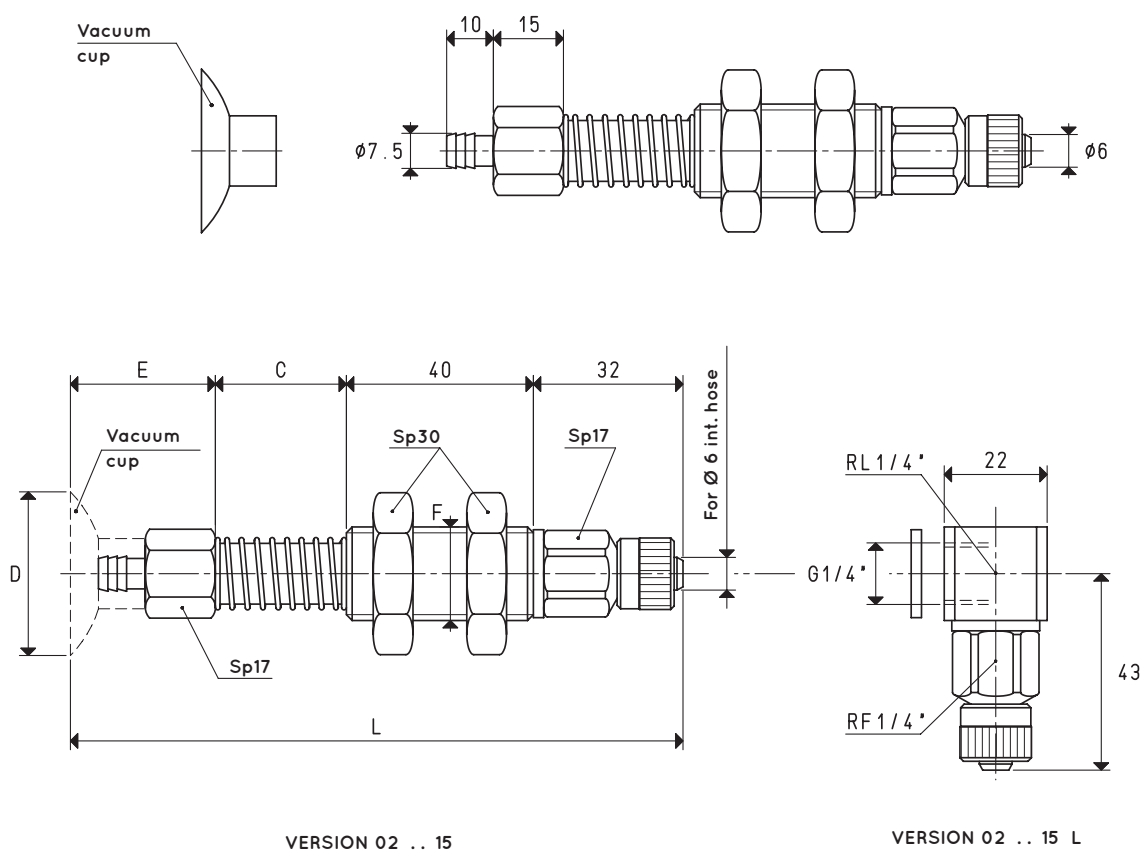
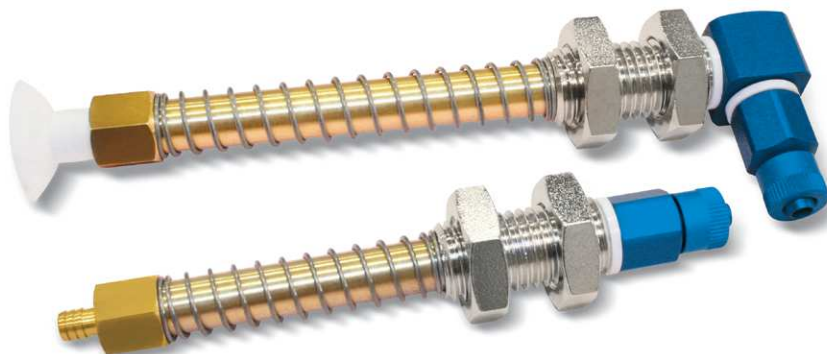
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## BASIC VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



VERSION 02 .. 15

VERSION 02 .. 15 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm      C = 95 mm

| Item            | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|-----------------|-------------|----|--------|----|--------|-----|------------------------|-------------|-------------|-------------|
| <b>02 25 15</b> | 1.23        | 28 | 25     | 31 | M20    | 131 | 01 25 15               | 216.0       | 270.0       | 287.0       |
| <b>02 30 15</b> | 1.76        | 28 | 30     | 32 | M20    | 132 | 01 30 15               | 216.7       | 270.7       | 287.7       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

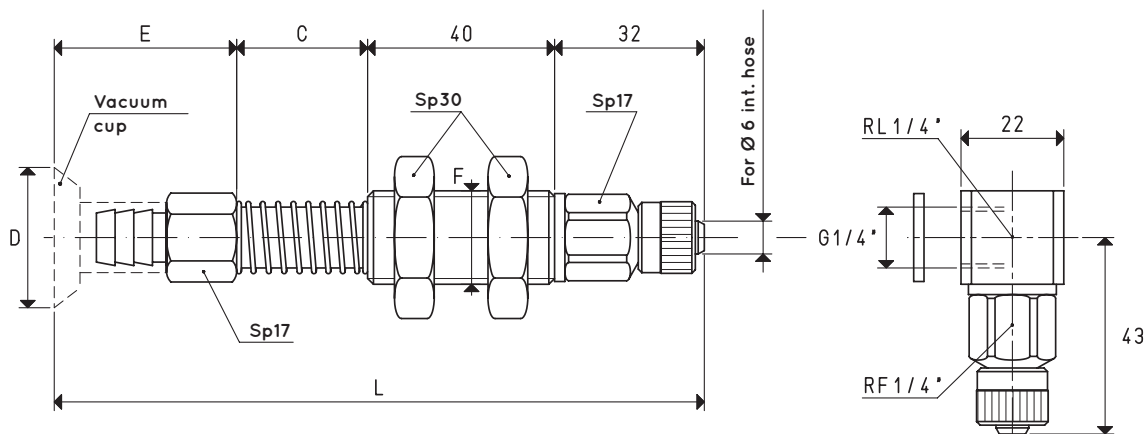
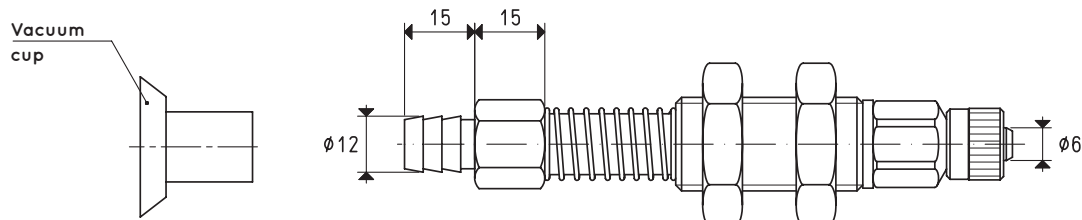
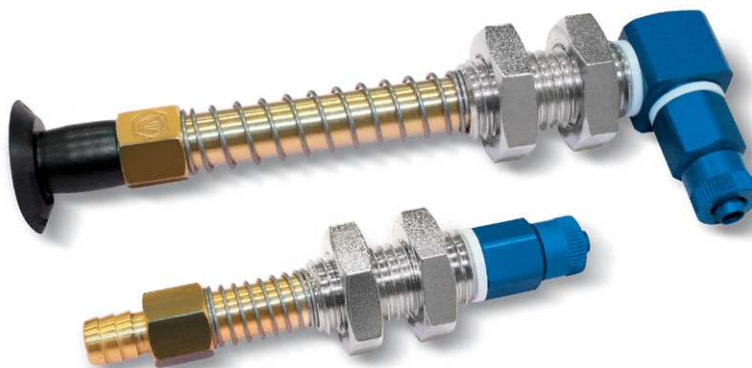
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## BASIC VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 28 mm 16 mm
- For height C= 65 mm 49 mm
- For height C= 95 mm 74 mm



VERSION 02 .. 24

VERSION 02 .. 24 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm C = 95 mm

| Item            | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|-----------------|-------------|----|--------|----|--------|-----|------------------------|-------------|-------------|-------------|
| <b>02 27 24</b> | 1.43        | 28 | 27     | 39 | M20    | 139 | 01 27 24               | 216.8       | 228.8       | 287.8       |
| <b>02 30 24</b> | 1.76        | 28 | 30     | 39 | M20    | 139 | 01 30 24               | 216.9       | 228.9       | 287.9       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

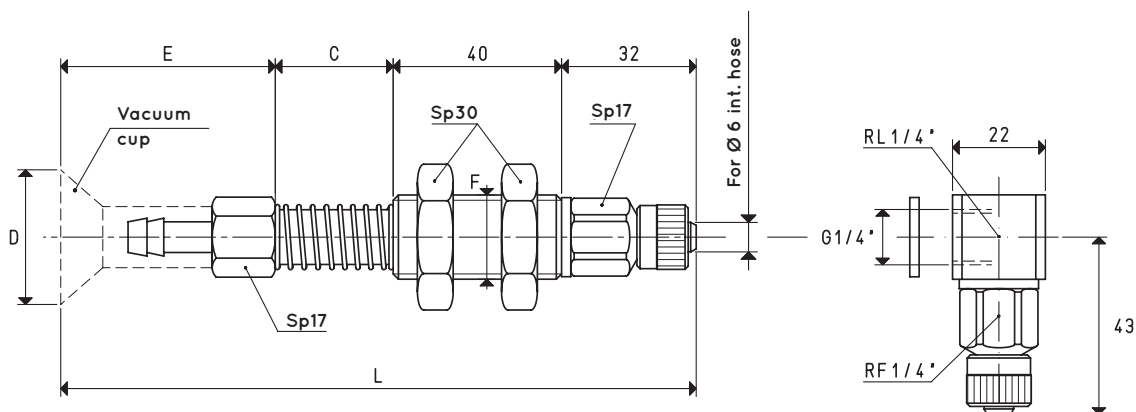
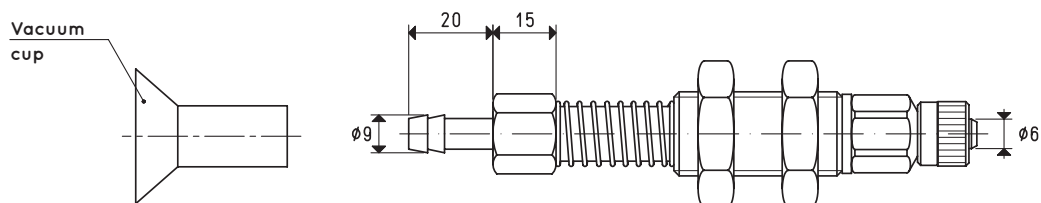
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)  $\text{inch} = \frac{\text{mm}}{25.4}$ ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## BASIC VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



VERSION 02 32 36

VERSION 02 32 36 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

| Item     | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | C = 65 mm      C = 95 mm |             |             |
|----------|-------------|----|--------|----|--------|-----|------------------------|--------------------------|-------------|-------------|
|          |             |    |        |    |        |     |                        | Weight<br>g              | Weight<br>g | Weight<br>g |
| 02 32 36 | 2.00        | 28 | 32     | 51 | M20    | 151 | 01 32 36               | 221.1                    | 269.1       | 289.1       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

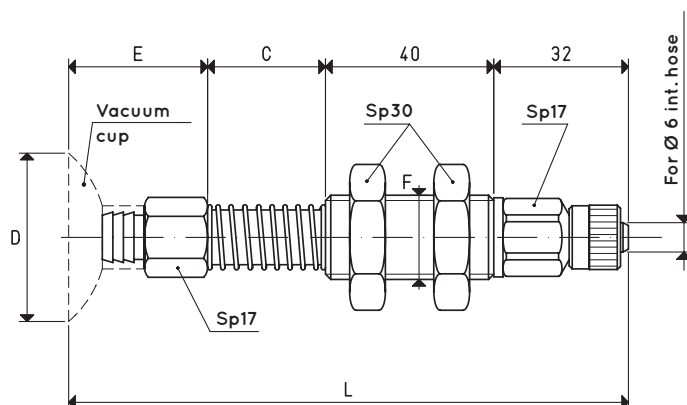
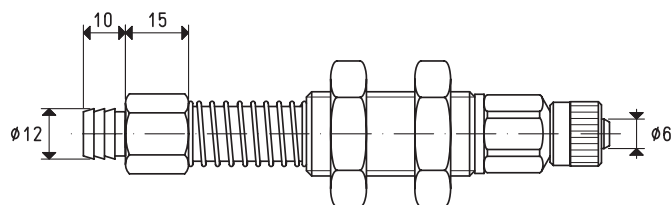
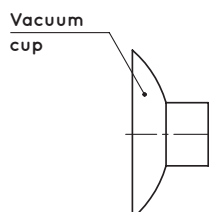




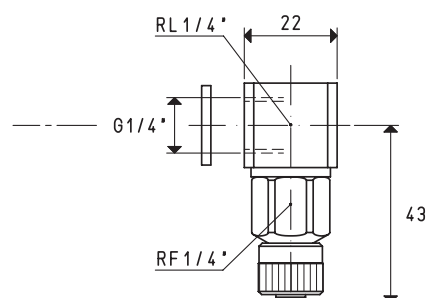
## BASIC VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 28 mm 16 mm
- For height C= 65 mm 49 mm
- For height C= 95 mm 74 mm



VERSION 02 .. 15



VERSION 02 .. 15 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm C = 95 mm

| Item            | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|-----------------|-------------|----|--------|----|--------|-----|------------------------|-------------|-------------|-------------|
| <b>02 35 15</b> | 2.40        | 28 | 35     | 31 | M20    | 131 | 01 35 15               | 218.6       | 266.6       | 293.6       |
| <b>02 40 15</b> | 3.14        | 28 | 40     | 33 | M20    | 133 | 01 40 15               | 219.1       | 267.1       | 294.1       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

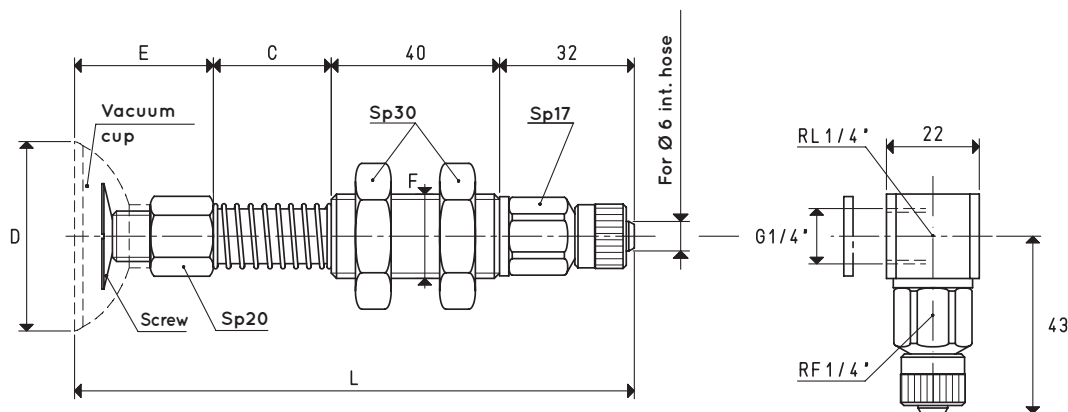
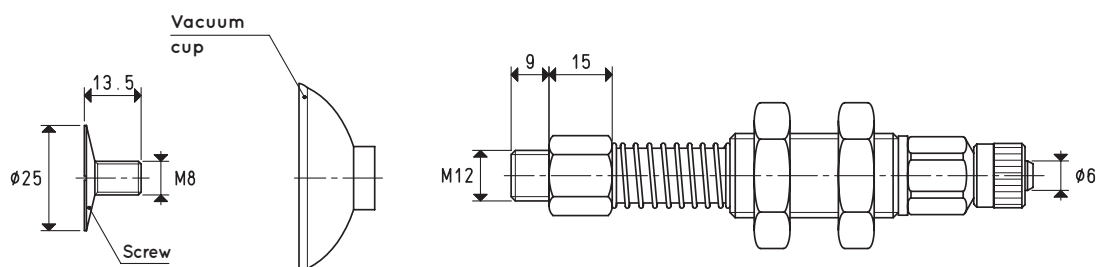
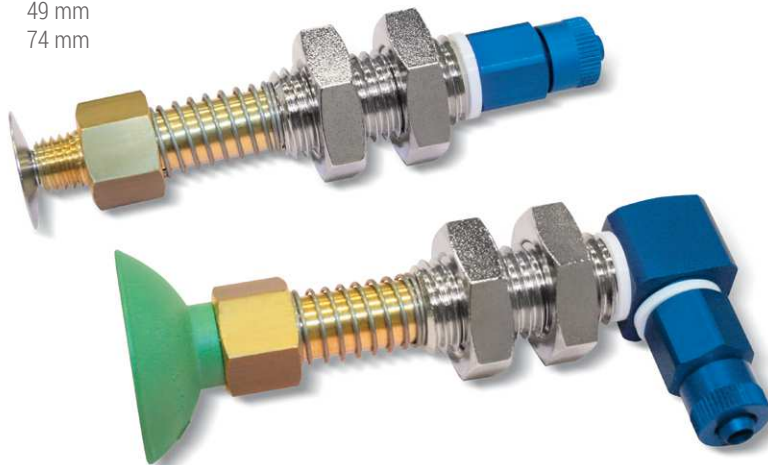
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## BASIC VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



VERSION 02 .. 10

VERSION 02 .. 10 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm      C = 95 mm

| Item            | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Screw included<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|-----------------|-------------|----|--------|----|--------|-----|------------------------|------------------------|-------------|-------------|-------------|
| <b>02 45 10</b> | 3.98        | 28 | 45     | 33 | M20    | 133 | 01 45 10               | 00 20 13               | 222.7       | 270.7       | 336.7       |
| <b>02 60 10</b> | 7.06        | 28 | 60     | 37 | M20    | 137 | 01 60 10               | 00 20 13               | 230.9       | 278.9       | 344.9       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

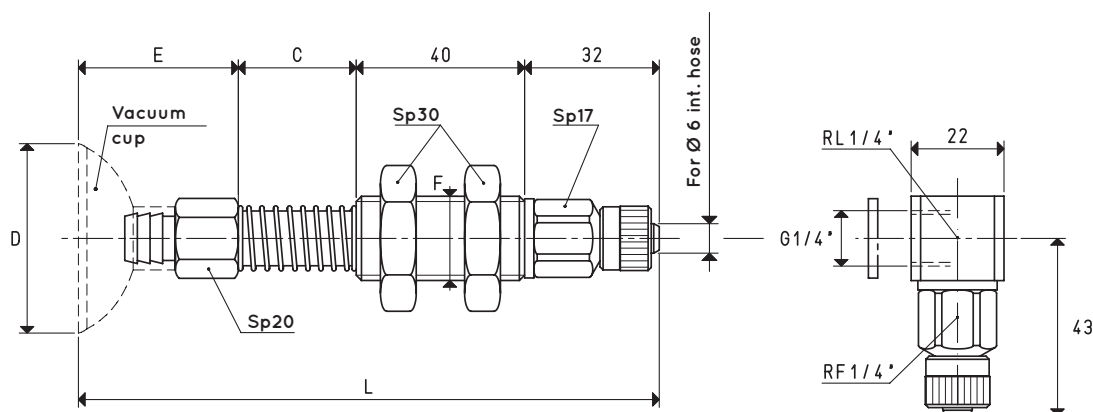
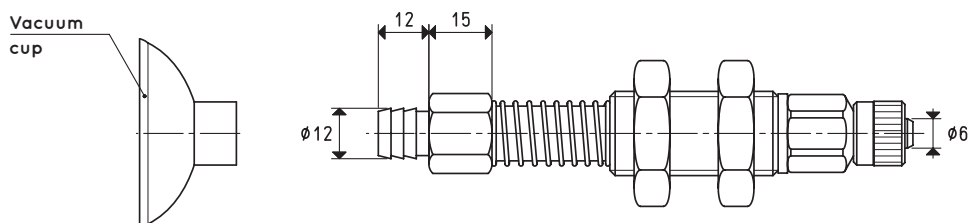
\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



- For height C= 28 mm 16 mm
- For height C= 65 mm 49 mm
- For height C= 95 mm 74 mm



VERSION 02 45 15 L

**C = 65 mm      C = 95 mm**

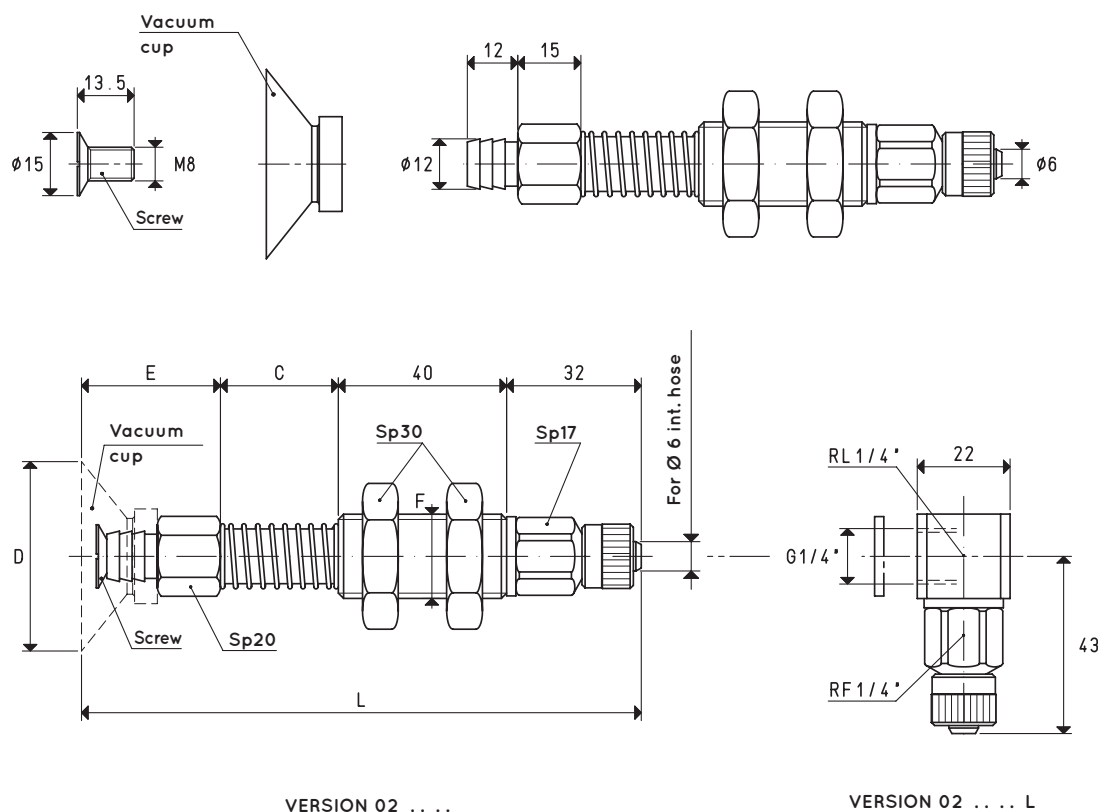
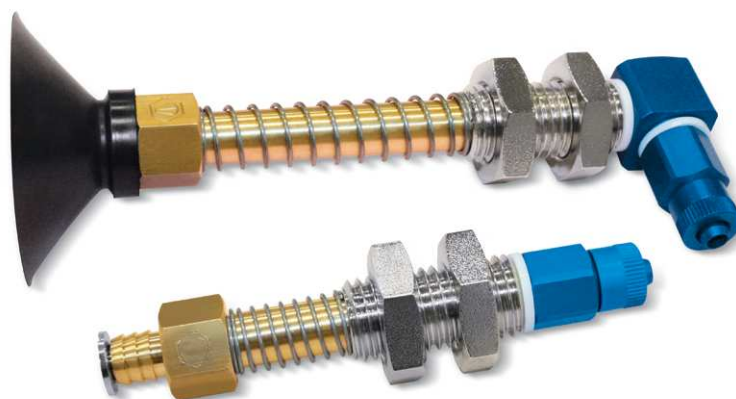
\* Also available with height C of 65 mm and 95 mm

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)       $\text{inch} = \frac{\text{mm}}{25.4}$  ;  $\text{pounds} = \frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## BASIC VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



VERSION 02 . . . .

VERSION 02 . . . . L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm      C = 95 mm

| Item            | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Screw included<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|-----------------|-------------|----|--------|----|--------|-----|------------------------|------------------------|-------------|-------------|-------------|
| <b>02 50 20</b> | 4.90        | 28 | 50     | 35 | M20    | 135 | 01 50 20               | 00 20 14               | 226.0       | 277.0       | 300.0       |
| <b>02 65 28</b> | 8.29        | 28 | 65     | 43 | M20    | 143 | 01 65 28               | 00 20 14               | 231.7       | 282.7       | 305.7       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

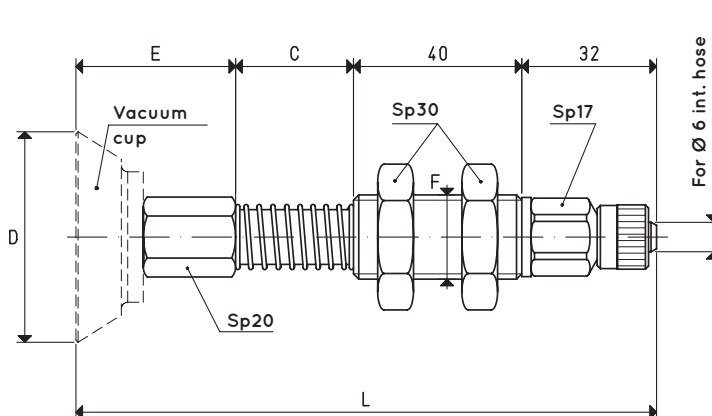
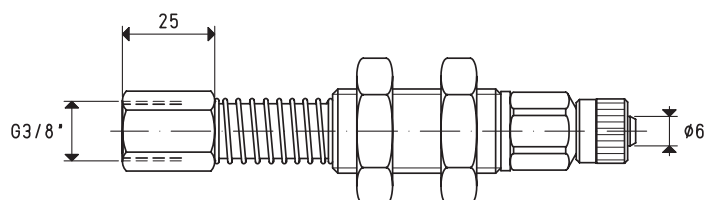
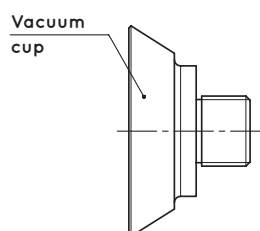
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



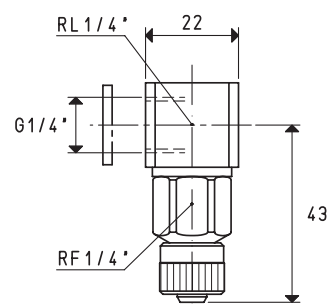
## BASIC VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 28 mm 16 mm
- For height C= 65 mm 49 mm
- For height C= 95 mm 74 mm



VERSION 02 . . .



VERSION 02 . . . L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm C = 95 mm

| Item      | Force<br>Kg | *C | D<br>Ø | E    | F<br>Ø | L     | For vacuum cup<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|-----------|-------------|----|--------|------|--------|-------|------------------------|-------------|-------------|-------------|
| 02 50 40  | 4.90        | 28 | 50     | 41.0 | M20    | 141.0 | 08 50 40               | 258.5       | 288.5       | 320.5       |
| 02 75 40  | 11.04       | 28 | 75     | 50.0 | M20    | 150.0 | 08 75 40               | 277.9       | 307.9       | 339.9       |
| 02 100 40 | 19.62       | 28 | 100    | 51.0 | M20    | 151.0 | 08 100 40              | 298.3       | 328.3       | 360.3       |
| 02 100 50 | 19.62       | 28 | 100    | 55.5 | M20    | 155.5 | 08 100 50              | 294.8       | 324.8       | 356.8       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

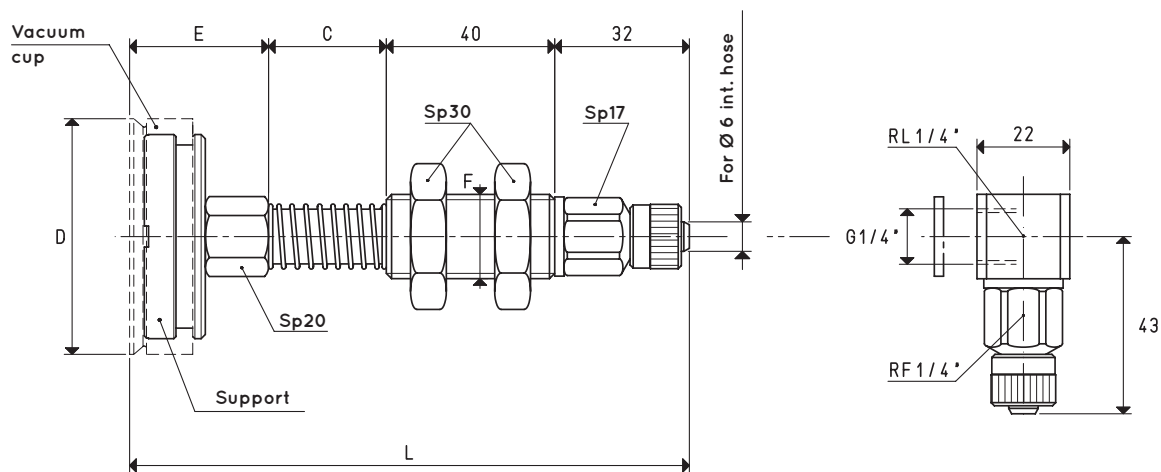
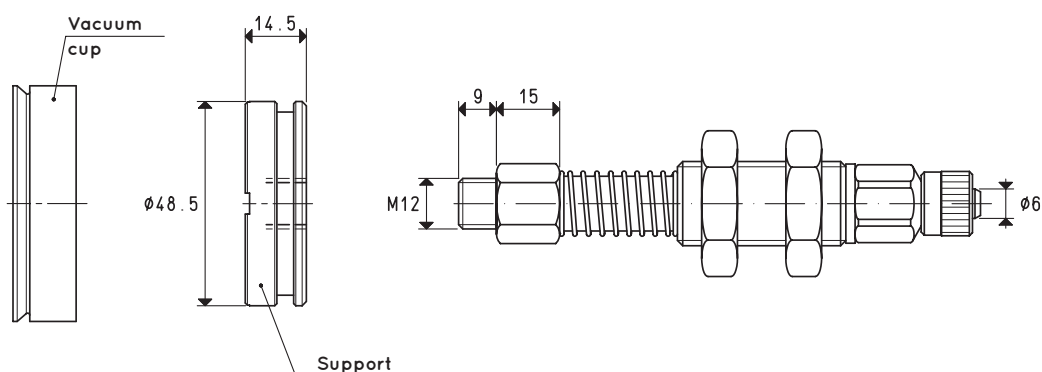
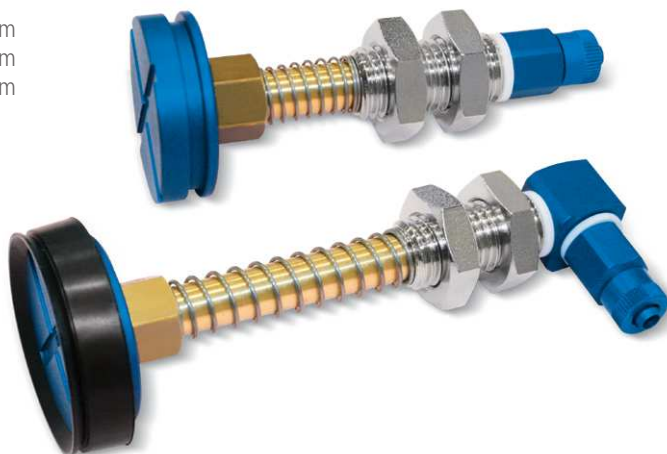
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## BASIC VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



VERSION 02 56 15

VERSION 02 56 15 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm    C = 95 mm

| Item     | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|----------|-------------|----|--------|----|--------|-----|------------------------|--------------------------|-------------|-------------|-------------|
| 02 56 15 | 6.15        | 28 | 56     | 34 | M20    | 134 | 01 56 15               | 00 08 83                 | 305.0       | 352.6       | 379.6       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

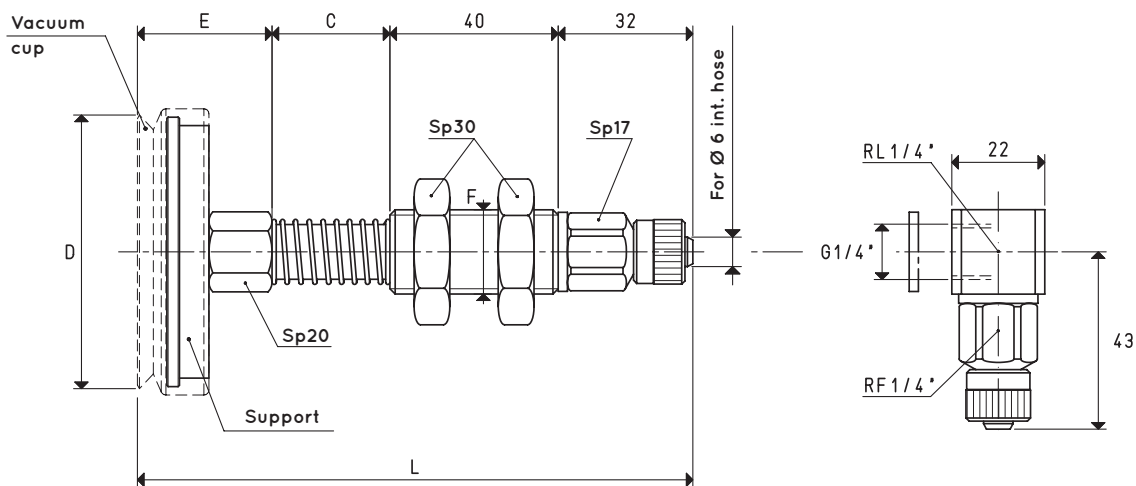
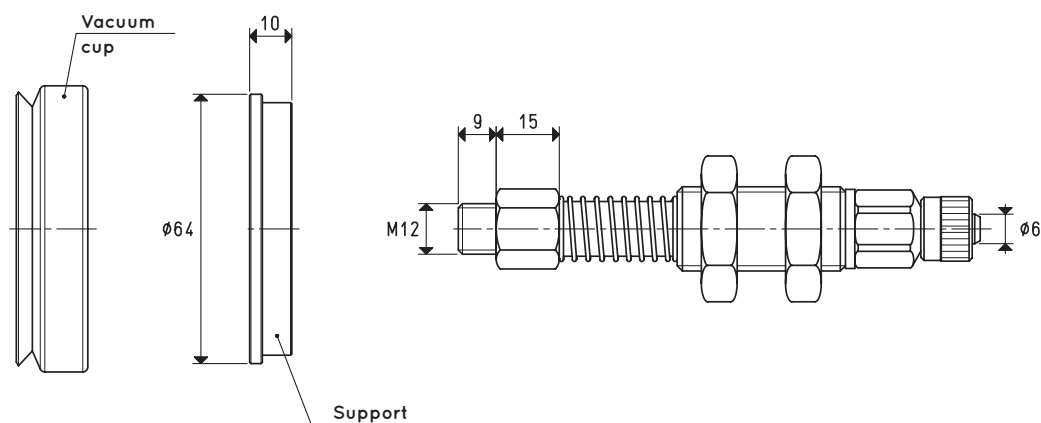
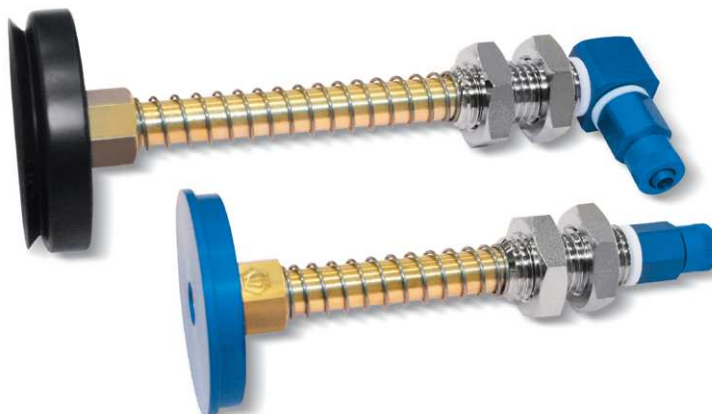
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## BASIC VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 28 mm 16 mm
- For height C= 65 mm 49 mm
- For height C= 95 mm 74 mm



VERSION 02 65 15

VERSION 02 65 15 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm C = 95 mm

| Item     | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|----------|-------------|----|--------|----|--------|-----|------------------------|--------------------------|-------------|-------------|-------------|
| 02 65 15 | 8.29        | 28 | 65     | 32 | M20    | 132 | 01 65 15               | 00 08 32                 | 346.1       | 384.4       | 410.4       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

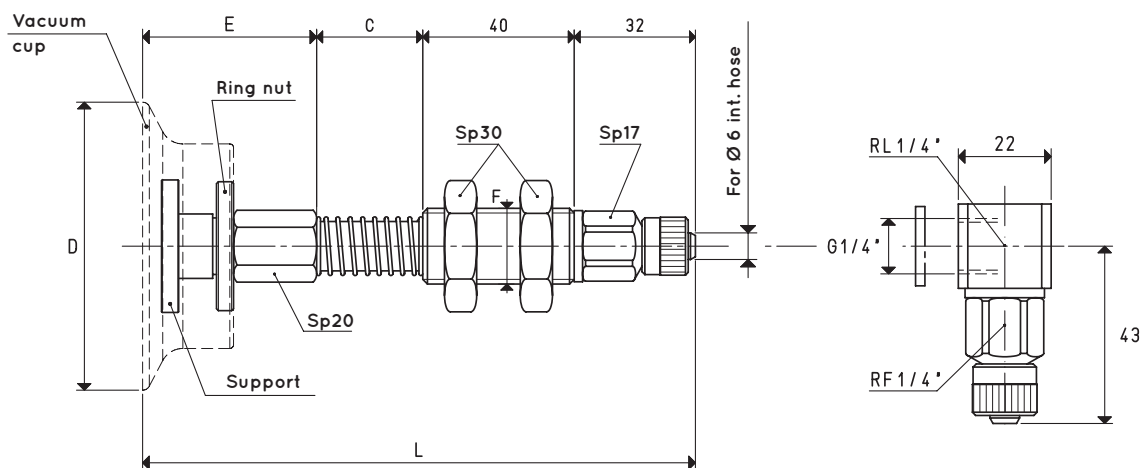
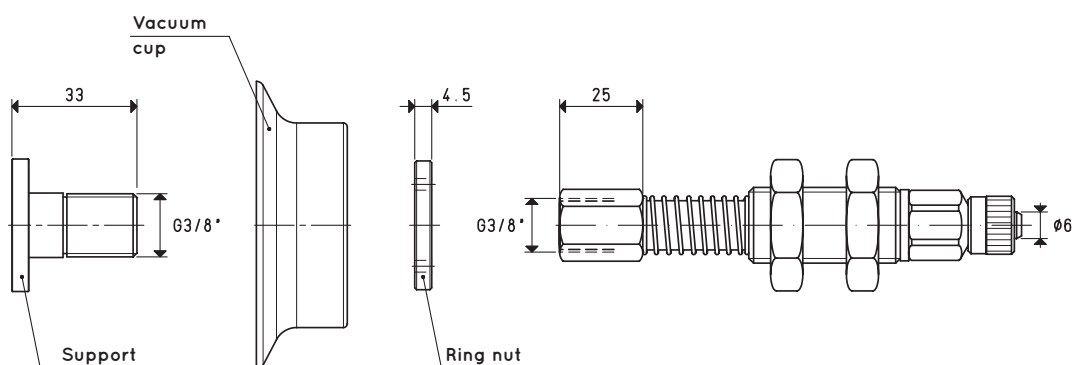
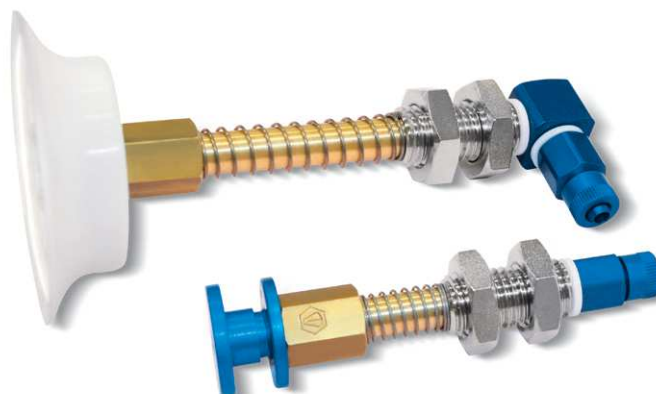
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)  $\text{inch} = \frac{\text{mm}}{25.4}$ ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## BASIC VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 28 mm 16 mm
- For height C= 65 mm 49 mm
- For height C= 95 mm 74 mm



VERSION 02 . . 24

VERSION 02 . . 24 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm C = 95 mm

| Item             | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Support included<br>item | Ring nut included<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|------------------|-------------|----|--------|----|--------|-----|------------------------|--------------------------|---------------------------|-------------|-------------|-------------|
| <b>02 76 24</b>  | 11.33       | 28 | 76     | 49 | M20    | 149 | 01 76 24               | 00 08 110                | 00 08 111                 | 298         | 338         | 361         |
| <b>02 90 24</b>  | 15.89       | 28 | 90     | 49 | M20    | 149 | 01 90 24               | 00 08 110                | 00 08 111                 | 323         | 363         | 390         |
| <b>02 110 24</b> | 23.74       | 28 | 110    | 49 | M20    | 149 | 01 110 24              | 00 08 110                | 00 08 111                 | 373         | 413         | 439         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

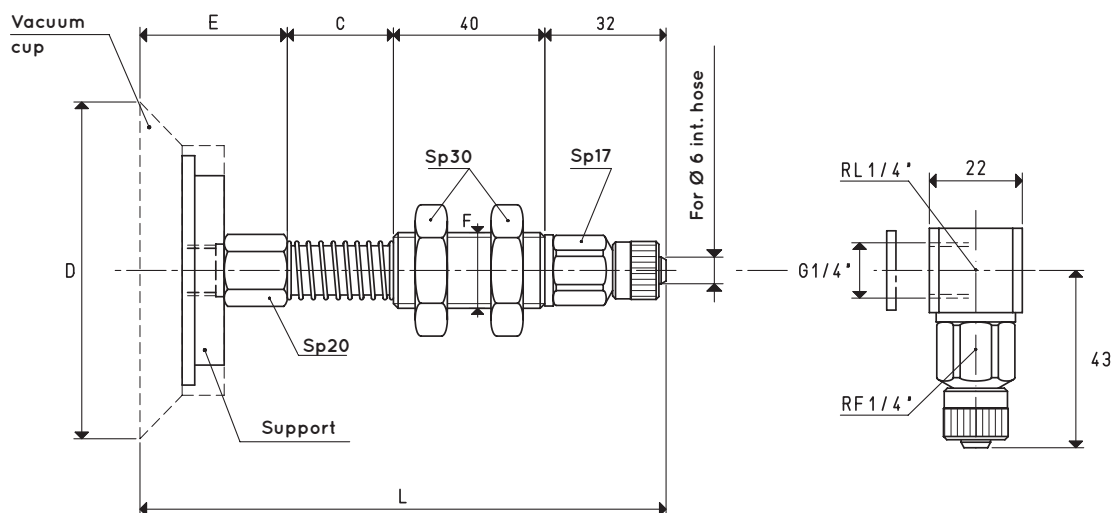
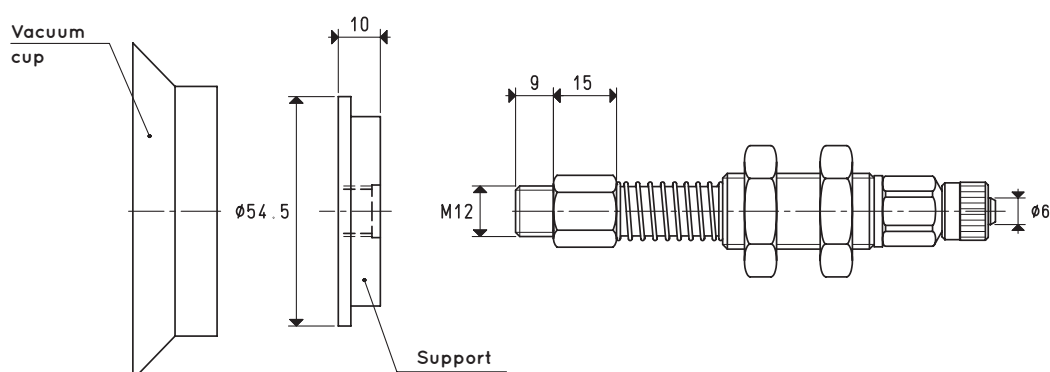
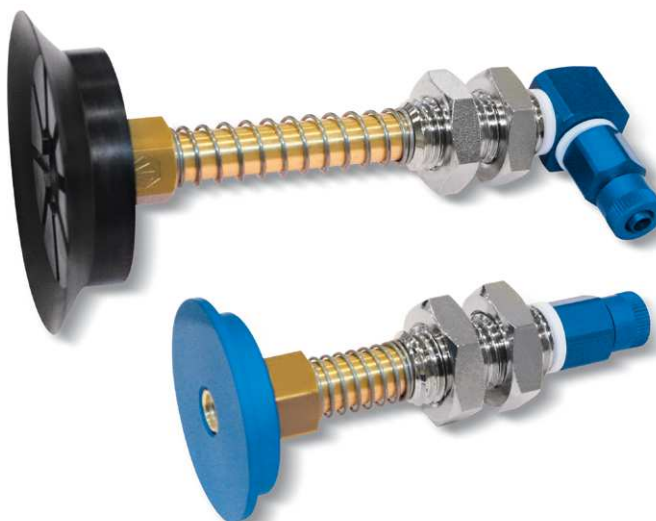
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## BASIC VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 28 mm 16 mm
- For height C= 65 mm 49 mm
- For height C= 95 mm 74 mm



VERSION 02 80 20

VERSION 02 80 20 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm C = 95 mm

| Item     | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|----------|-------------|----|--------|----|--------|-----|------------------------|--------------------------|-------------|-------------|-------------|
| 02 80 20 | 12.56       | 28 | 80     | 35 | M20    | 135 | 01 80 20               | 00 08 126                | 296.4       | 334.3       | 361.8       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



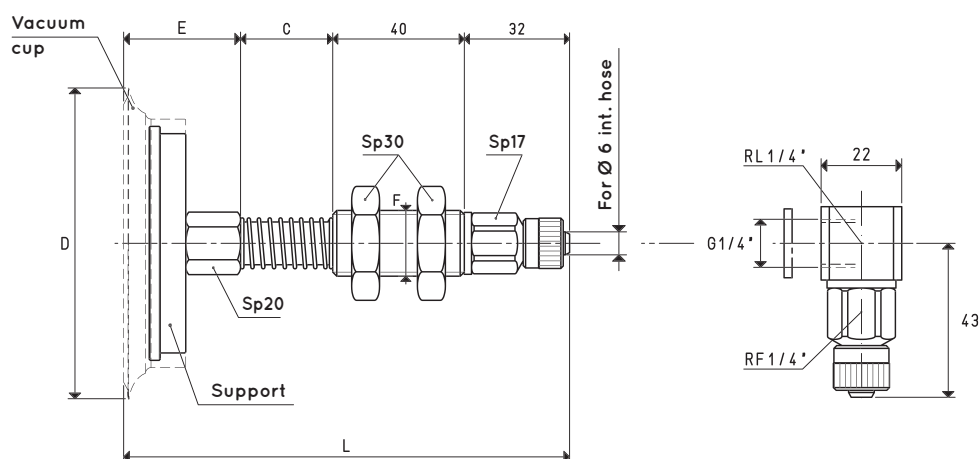
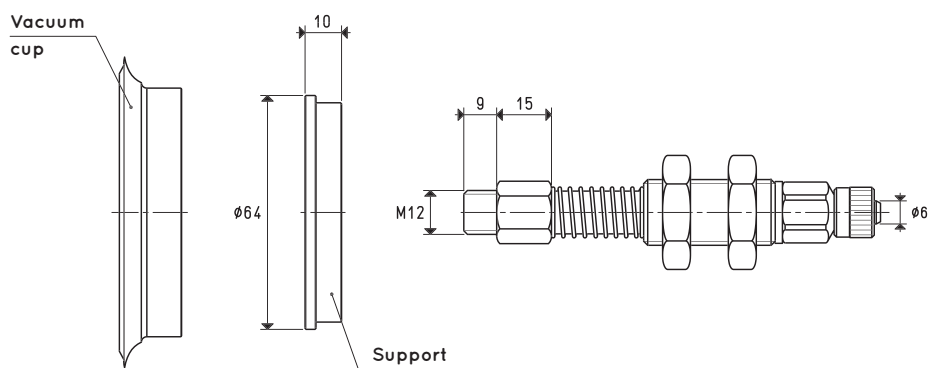
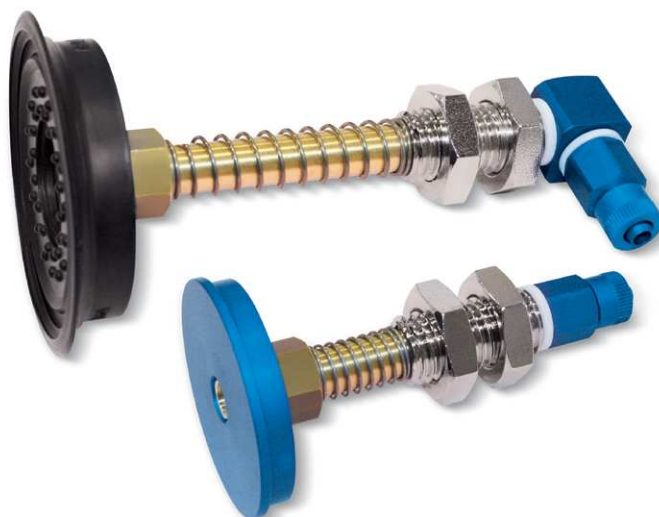




## BASIC VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 28 mm 16 mm
- For height C= 65 mm 49 mm
- For height C= 95 mm 74 mm



VERSION 02 85 15

VERSION 02 85 15 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm C = 95 mm

| Item     | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|----------|-------------|----|--------|----|--------|-----|------------------------|--------------------------|-------------|-------------|-------------|
| 02 85 15 | 14.18       | 28 | 85     | 32 | M20    | 132 | 01 85 15               | 00 08 32                 | 334         | 371         | 399         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

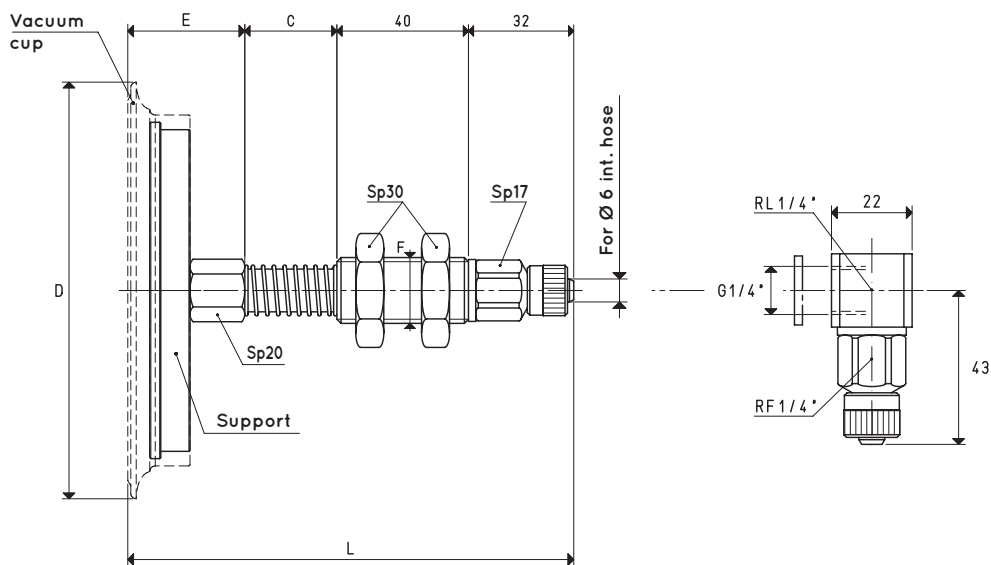
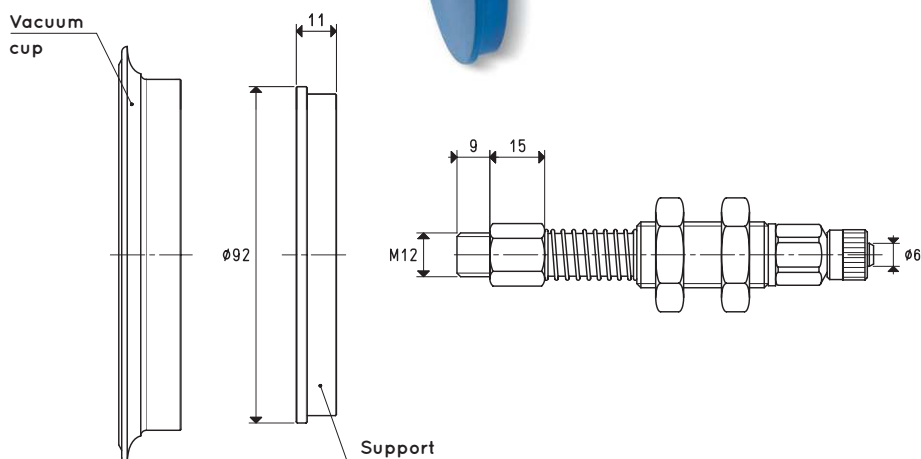
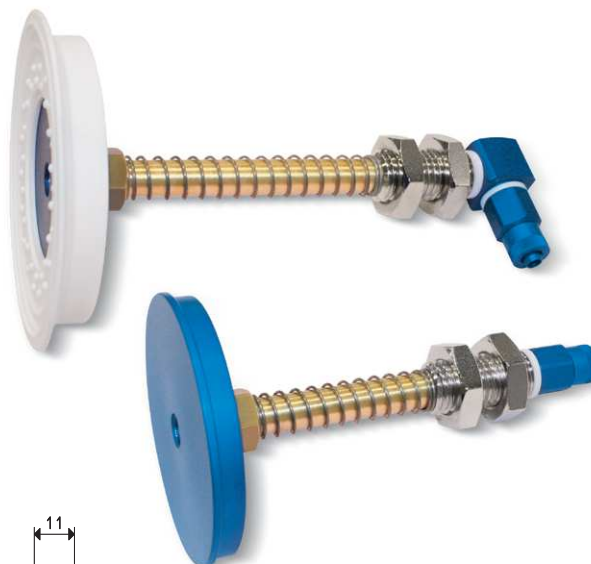
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## BASIC VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 28 mm 16 mm
- For height C= 65 mm 49 mm
- For height C= 95 mm 74 mm



VERSION 02 110 10

VERSION 02 110 10 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm C = 95 mm

| Item      | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|-----------|-------------|----|--------|----|--------|-----|------------------------|--------------------------|-------------|-------------|-------------|
| 02 110 10 | 23.74       | 28 | 114    | 32 | M20    | 132 | 01 110 10              | 00 08 33                 | 456         | 494         | 521         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

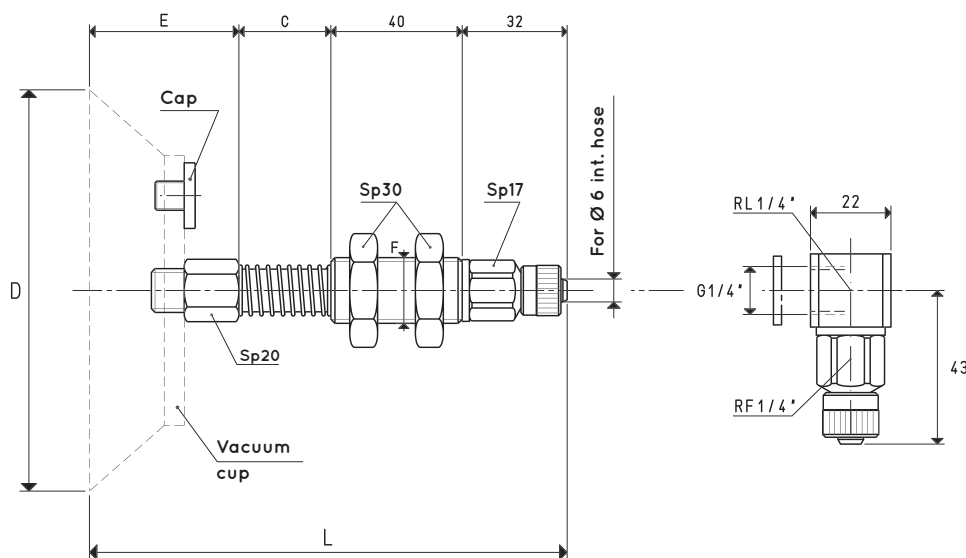
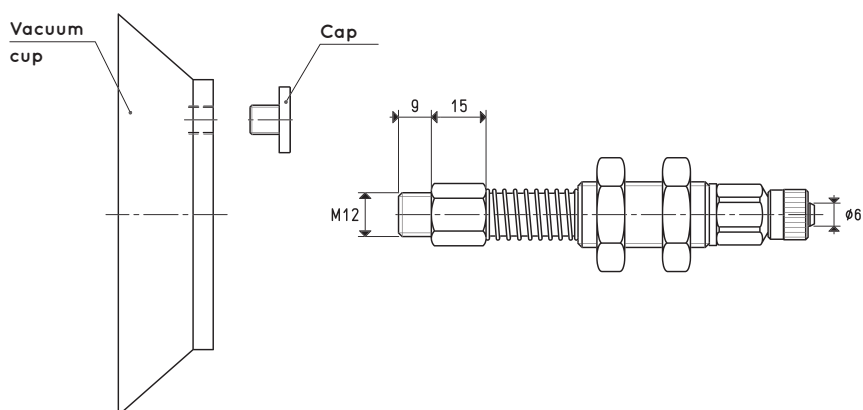
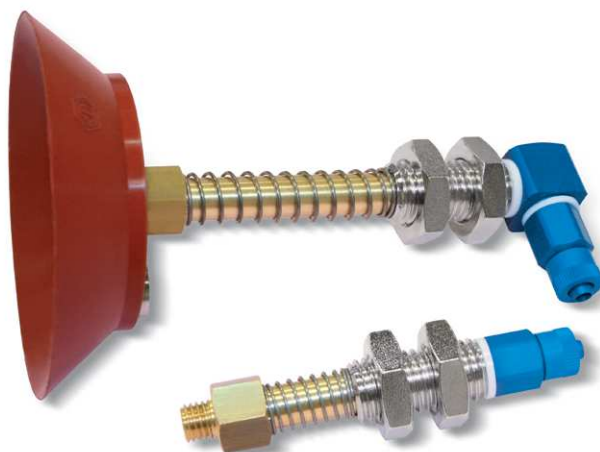
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## BASIC VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 28 mm 16 mm
- For height C= 65 mm 49 mm
- For height C= 95 mm 74 mm



VERSION 02 110 15

VERSION 02 110 15 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm C = 95 mm

| Item      | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Cap included<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|-----------|-------------|----|--------|----|--------|-----|------------------------|----------------------|-------------|-------------|-------------|
| 02 110 15 | 23.74       | 28 | 110    | 41 | M20    | 141 | 08 110 15              | 00 11 06             | 571         | 608         | 636         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

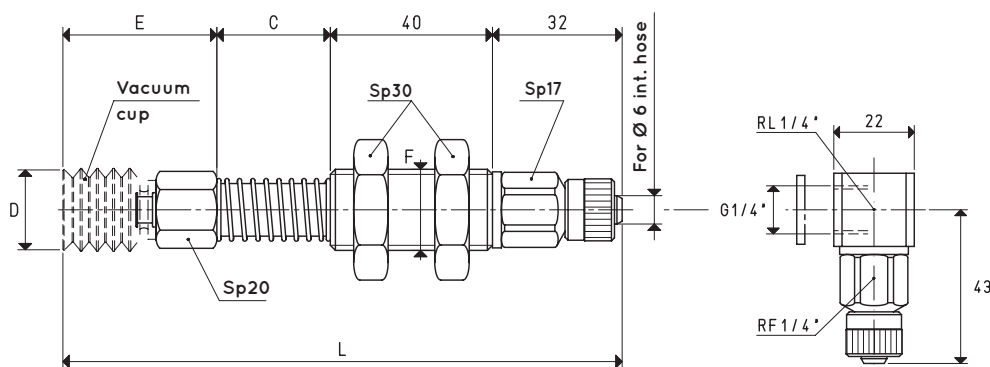
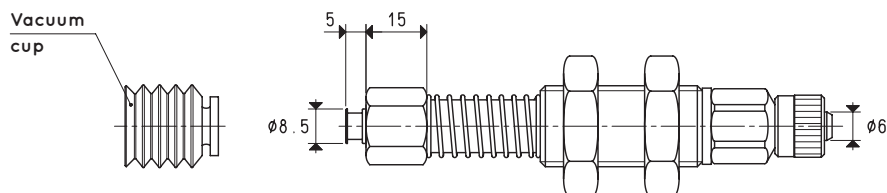
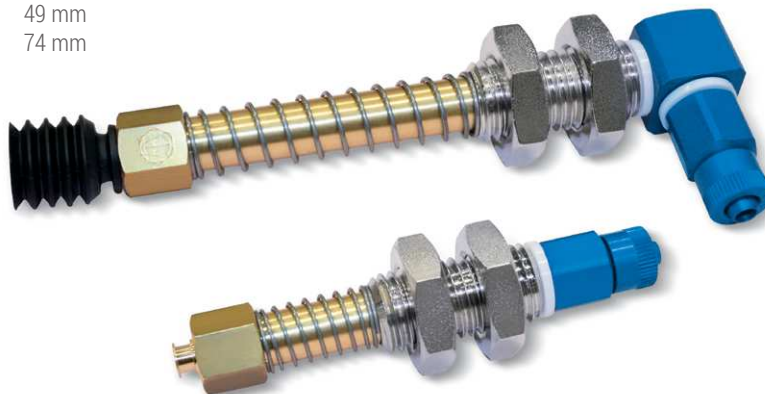
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## BASIC VACUUM CUP HOLDERS FOR BELLOWS CUPS

The actual springing stroke is:

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



VERSION 02 20 23

VERSION 02 20 23 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm      C = 95 mm

| Item     | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|----------|-------------|----|--------|----|--------|-----|------------------------|-------------|-------------|-------------|
| 02 20 23 | 0.78        | 28 | 20     | 38 | M20    | 138 | 01 20 23               | 213.8       | 256.8       | 283.8       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

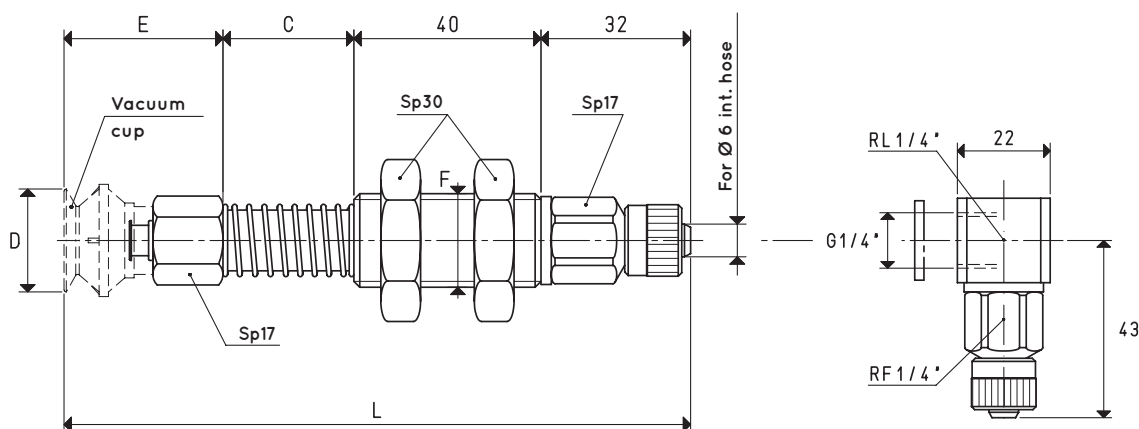
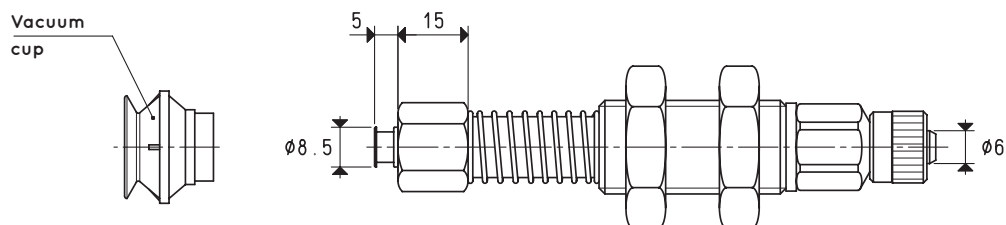
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## BASIC VACUUM CUP HOLDERS FOR BELLOWS CUPS

The actual springing stroke is:

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



VERSION 02 . . .

VERSION 02 . . . L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm      C = 95 mm

| Item            | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|-----------------|-------------|----|--------|----|--------|-----|------------------------|-------------|-------------|-------------|
| <b>02 22 19</b> | 0.95        | 28 | 22     | 34 | M20    | 134 | 01 22 19               | 214.7       | 257.7       | 284.7       |
| <b>02 34 26</b> | 2.26        | 28 | 34     | 41 | M20    | 141 | 01 34 26               | 217.7       | 260.7       | 287.7       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

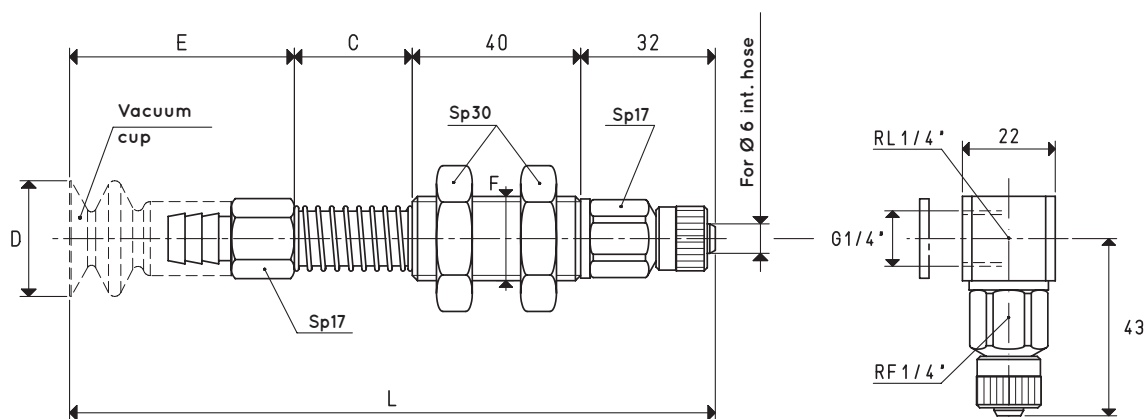
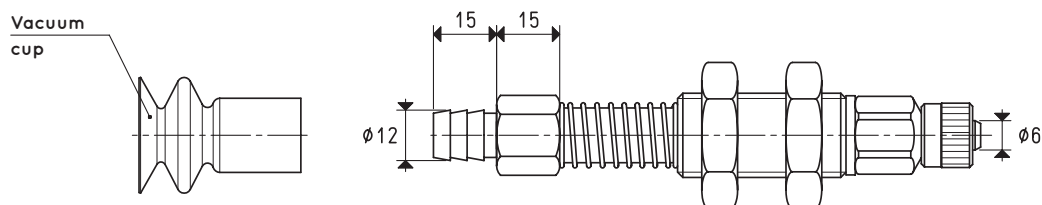
\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## 2

- For height C= 28 mm                      16 mm
- For height C= 65 mm                      49 mm
- For height C= 95 mm                      74 mm



VERSION 02 25 35 L

**C = 65 mm      C = 95 mm**

\* Also available with height C of 65 mm and 95 mm

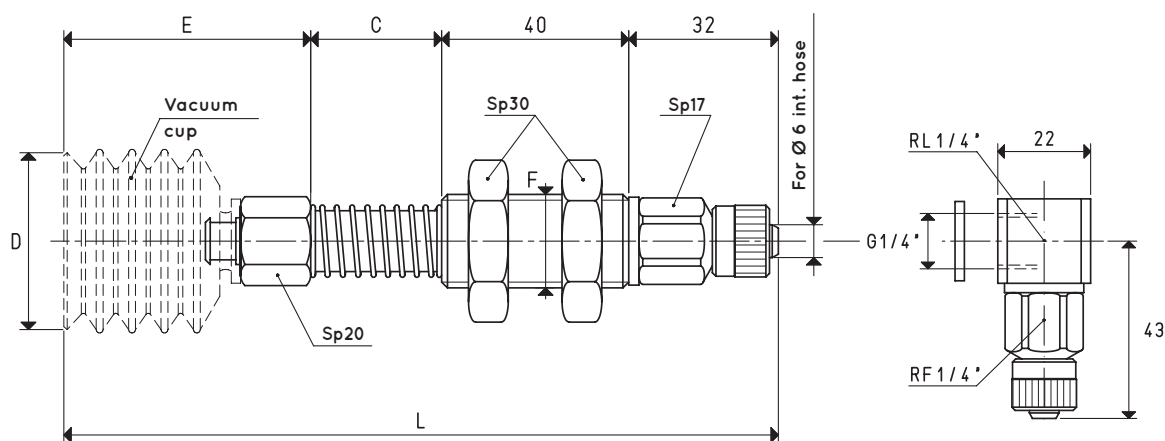
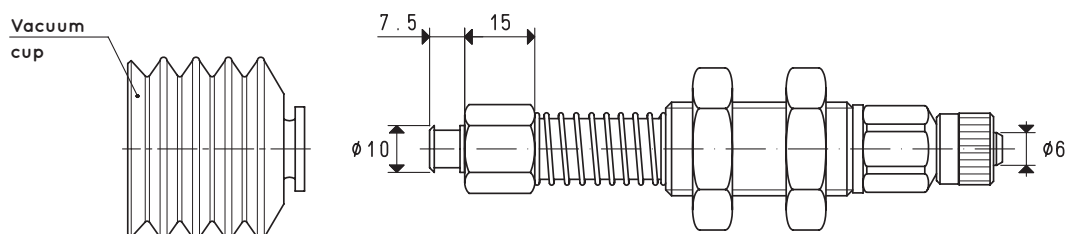
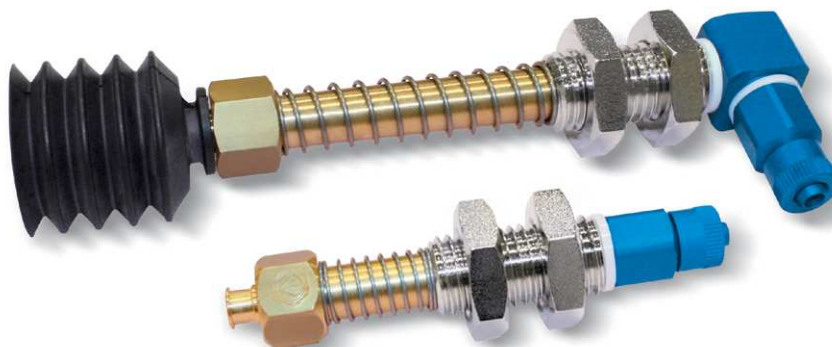
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)       $\text{inch} = \frac{\text{mm}}{25.4}$  ;  $\text{pounds} = \frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## BASIC VACUUM CUP HOLDERS FOR BELLOWS CUPS

The actual springing stroke is:

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



VERSION 02 ...

VERSION 02 ... L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm      C = 95 mm

| Item            | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|-----------------|-------------|----|--------|----|--------|-----|------------------------|-------------|-------------|-------------|
| <b>02 30 32</b> | 1.76        | 28 | 30     | 47 | M20    | 147 | 01 30 32               | 219.6       | 264.6       | 294.6       |
| <b>02 40 42</b> | 3.14        | 28 | 40     | 57 | M20    | 157 | 01 40 42               | 215.6       | 270.6       | 300.6       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

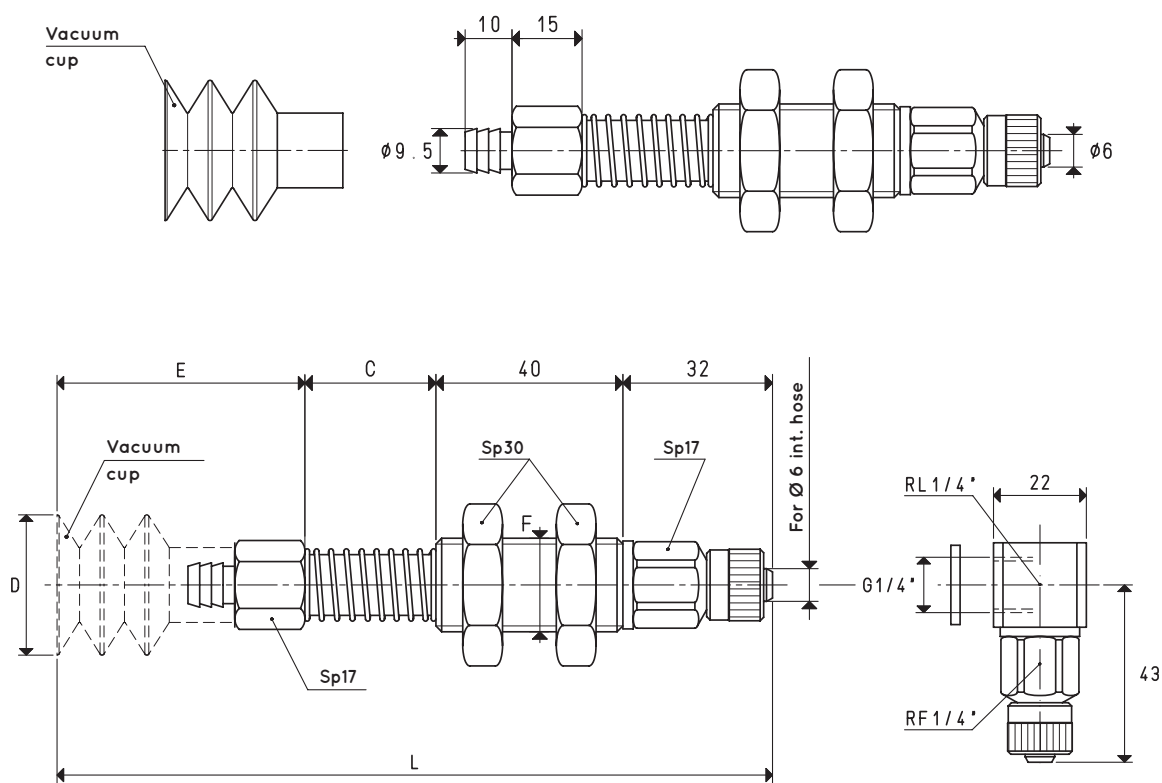
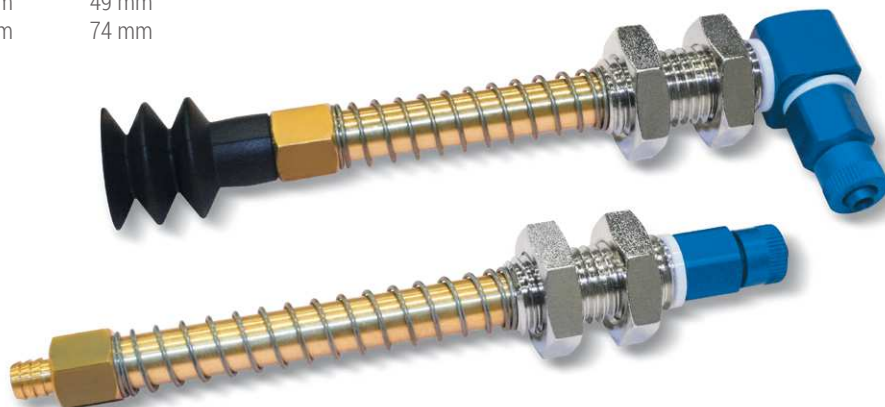
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## BASIC VACUUM CUP HOLDERS FOR BELLOWS CUPS

The actual springing stroke is:

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



VERSION 02 30 ..

VERSION 02 30 .. L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm      C = 95 mm

| Item            | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|-----------------|-------------|----|--------|----|--------|-----|------------------------|-------------|-------------|-------------|
| <b>02 30 50</b> | 1.76        | 28 | 30     | 53 | M20    | 153 | 01 30 50               | 221.6       | 258.6       | 285.6       |
| <b>02 30 99</b> | 1.76        | 28 | 30     | 53 | M20    | 153 | 01 30 99               | 222.2       | 259.2       | 286.2       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

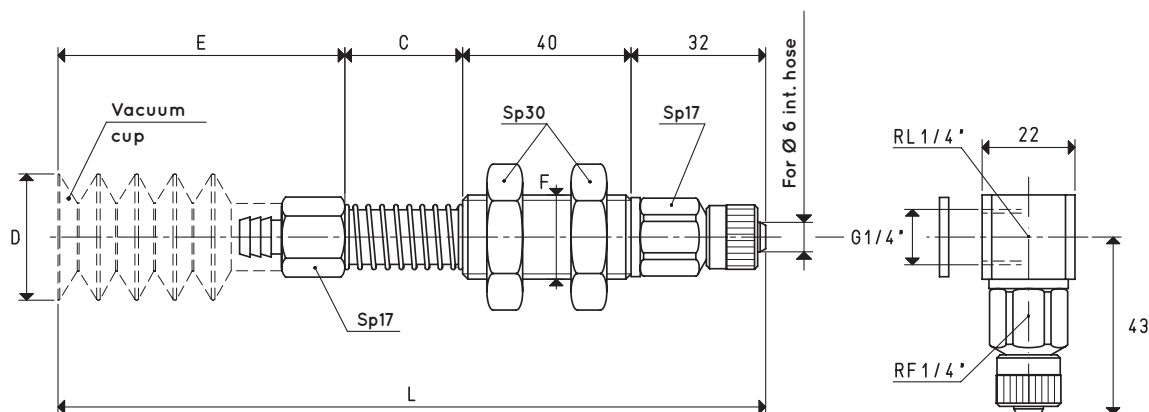
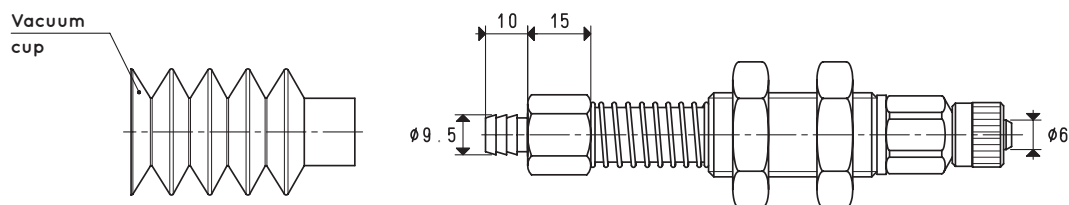
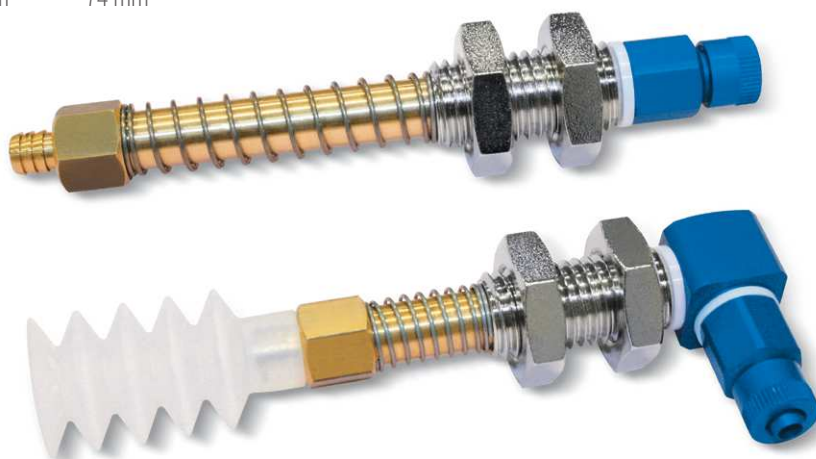
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## BASIC VACUUM CUP HOLDERS FOR BELLOWS CUPS

The actual springing stroke is:

- For height C= 28 mm 16 mm
- For height C= 65 mm 49 mm
- For height C= 95 mm 74 mm



VERSION 02 30 55

VERSION 02 30 55 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm C = 95 mm

| Item     | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|----------|-------------|----|--------|----|--------|-----|------------------------|-------------|-------------|-------------|
| 02 30 55 | 1.76        | 28 | 30     | 70 | M20    | 170 | 01 30 55               | 226.8       | 263.8       | 290.8       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

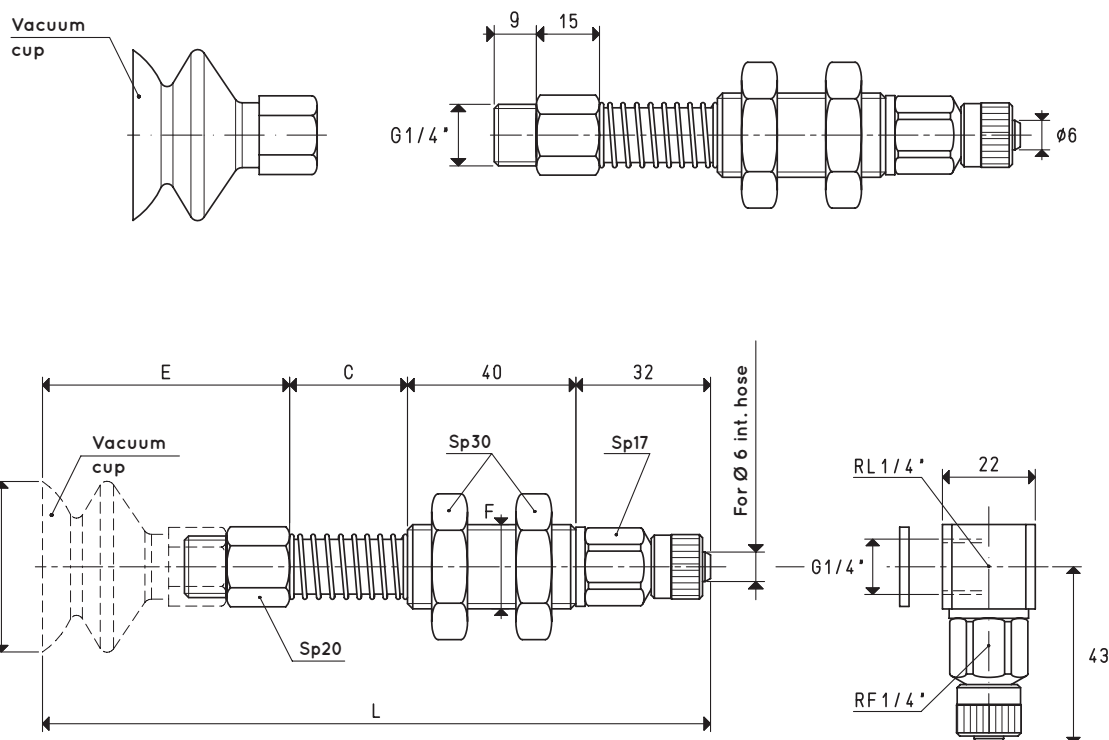
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)  $\text{inch} = \frac{\text{mm}}{25.4}$ ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## BASIC VACUUM CUP HOLDERS FOR BELLOWS CUPS

The actual springing stroke is:

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



VERSION 02 .. 30

VERSION 02 .. 30 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm      C = 95 mm

| Item            | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|-----------------|-------------|----|--------|----|--------|-----|------------------------|-------------|-------------|-------------|
| <b>02 40 30</b> | 3.14        | 28 | 40     | 67 | M20    | 167 | 08 40 30               | 256.4       | 296.4       | 325.4       |
| <b>02 50 30</b> | 4.90        | 28 | 50     | 69 | M20    | 169 | 08 50 30               | 264.9       | 304.9       | 333.9       |
| <b>02 60 30</b> | 7.06        | 28 | 60     | 71 | M20    | 171 | 08 60 30               | 277.6       | 317.6       | 346.6       |
| <b>02 85 30</b> | 14.18       | 28 | 85     | 82 | M20    | 182 | 08 85 30               | 346.0       | 386.0       | 415.0       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

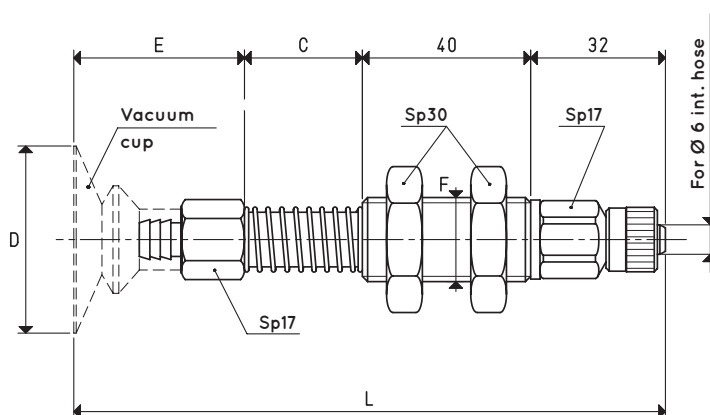
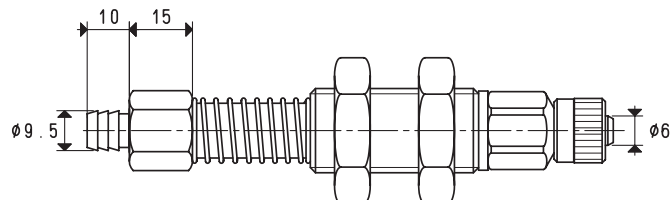
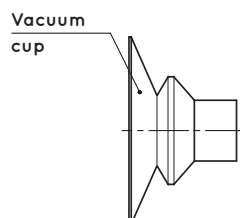
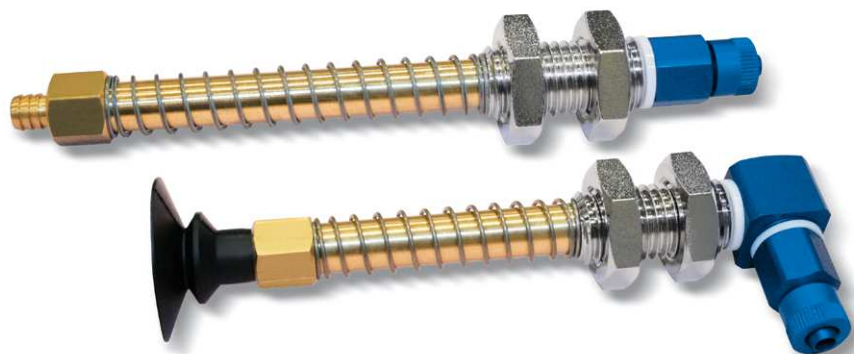
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



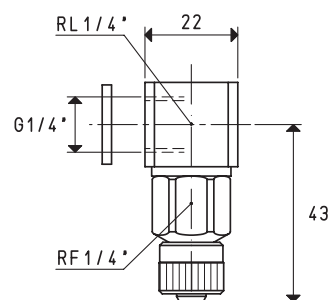
## BASIC VACUUM CUP HOLDERS FOR BELLOWS CUPS

The actual springing stroke is:

- For height C= 28 mm 16 mm
- For height C= 65 mm 49 mm
- For height C= 95 mm 74 mm



VERSION 02 40 50



VERSION 02 40 50 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm C = 95 mm

| Item     | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|----------|-------------|----|--------|----|--------|-----|------------------------|-------------|-------------|-------------|
| 02 40 50 | 3.14        | 28 | 40     | 38 | M20    | 138 | 01 40 50               | 220.6       | 255.6       | 282.6       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

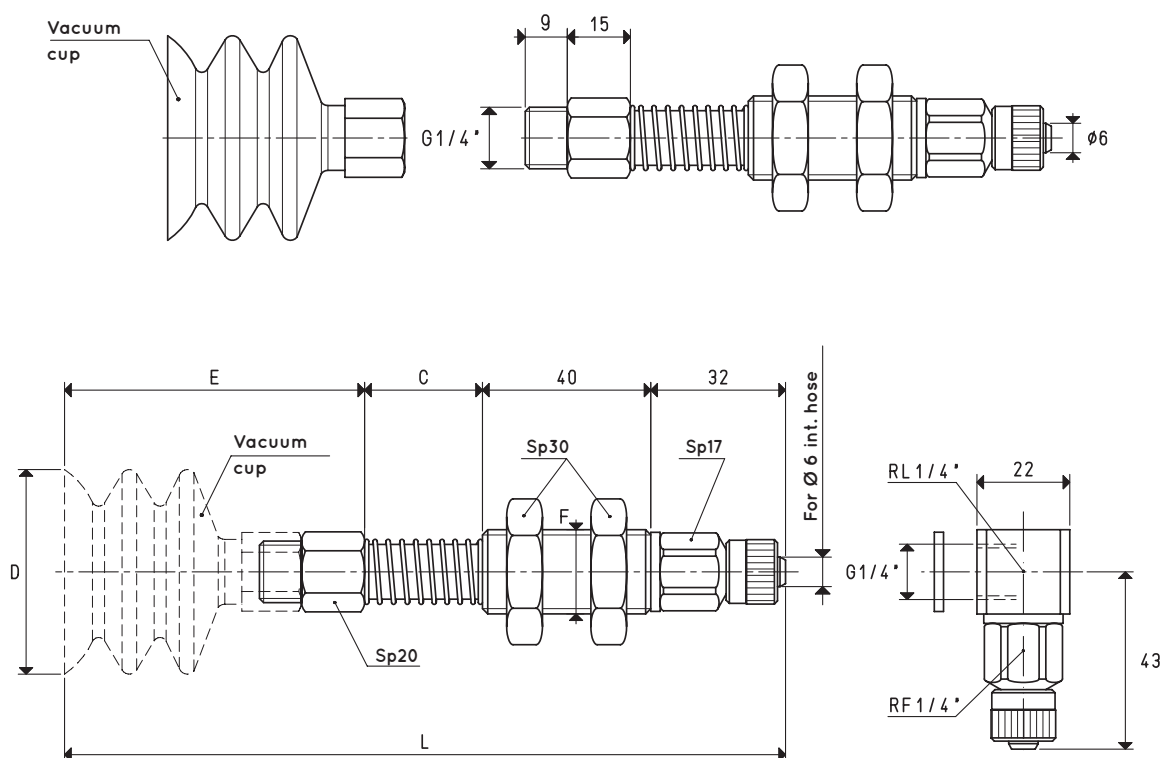
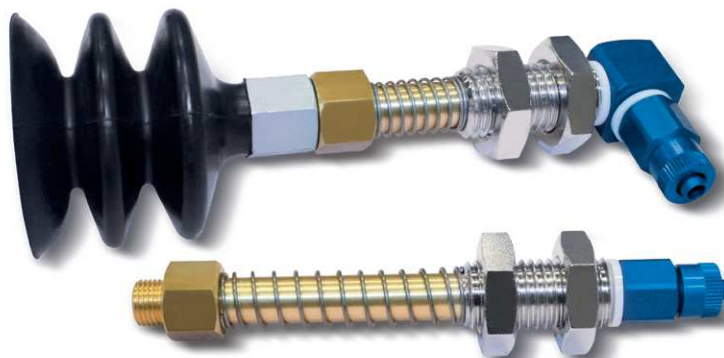
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## BASIC VACUUM CUP HOLDERS FOR BELLOWS CUPS

The actual springing stroke is:

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



VERSION 02 . . .

VERSION 02 . . . L

VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm    C = 95 mm

| Item            | Force<br>Kg | *C | D<br>Ø | E   | F<br>Ø | L   | For vacuum cup<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|-----------------|-------------|----|--------|-----|--------|-----|------------------------|-------------|-------------|-------------|
| <b>02 40 60</b> | 3.14        | 28 | 40     | 84  | M20    | 184 | 08 40 60               | 265.6       | 304.6       | 334.6       |
| <b>02 50 50</b> | 4.90        | 28 | 50     | 87  | M20    | 187 | 08 50 50               | 275.6       | 314.6       | 344.6       |
| <b>02 60 50</b> | 7.06        | 28 | 60     | 91  | M20    | 191 | 08 60 50               | 248.4       | 337.4       | 367.4       |
| <b>02 85 50</b> | 14.18       | 28 | 85     | 110 | M20    | 210 | 08 85 50               | 394.0       | 433.0       | 463.0       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

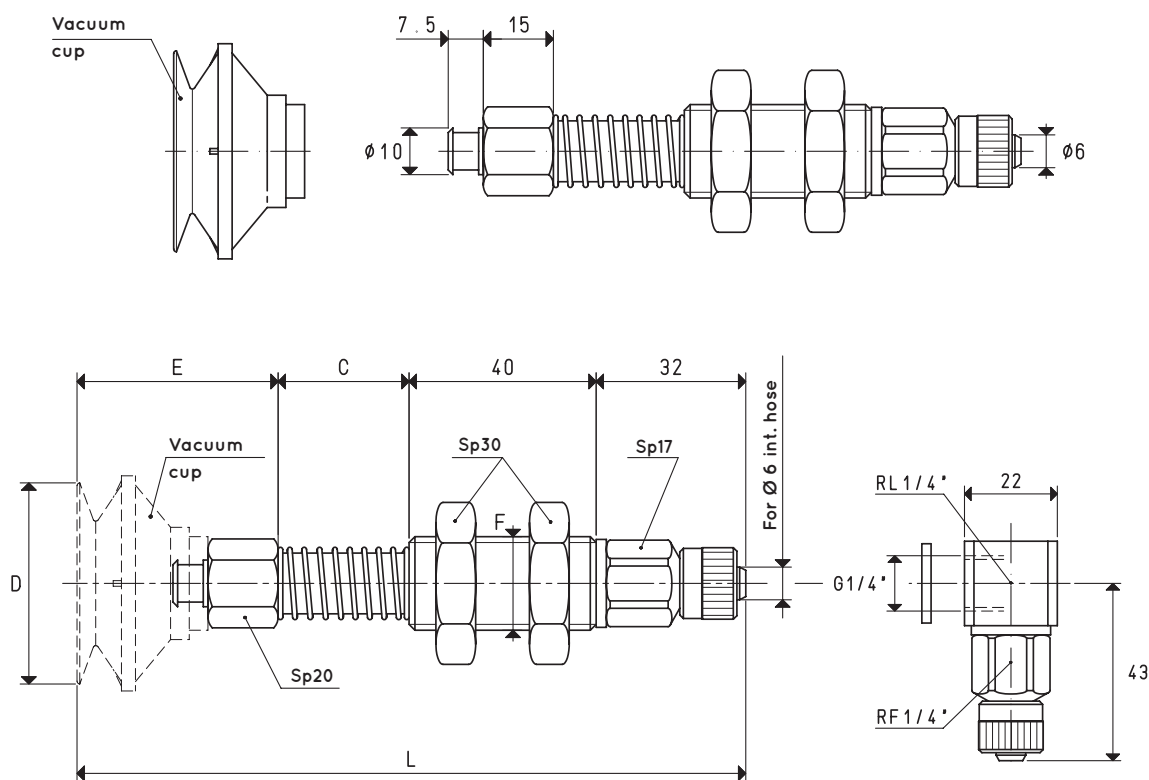
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## BASIC VACUUM CUP HOLDERS FOR BELLOWS CUPS

The actual springing stroke is:

- For height C= 28 mm 16 mm
- For height C= 65 mm 49 mm
- For height C= 95 mm 74 mm



VERSION 02 43 28

VERSION 02 43 28 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm C = 95 mm

| Item     | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|----------|-------------|----|--------|----|--------|-----|------------------------|-------------|-------------|-------------|
| 02 43 28 | 3.62        | 28 | 43     | 43 | M20    | 143 | 01 43 28               | 225         | 269         | 299         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

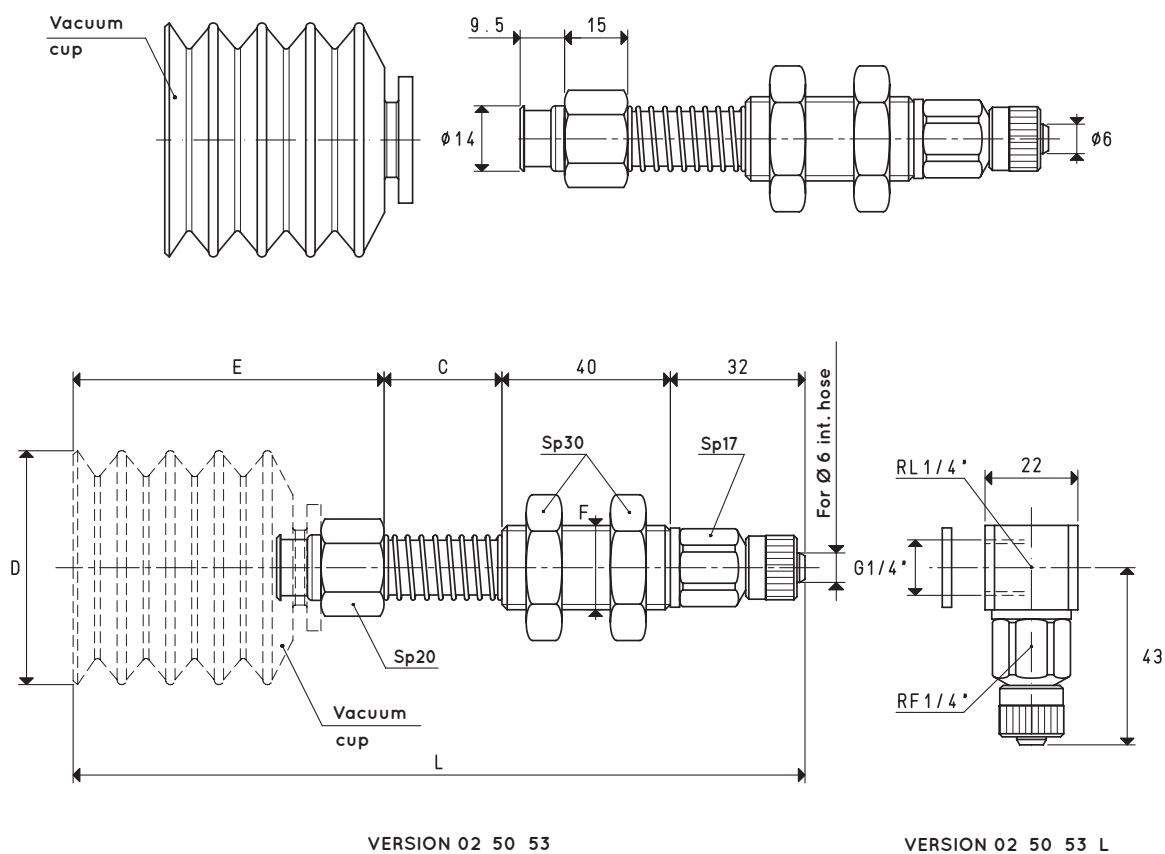
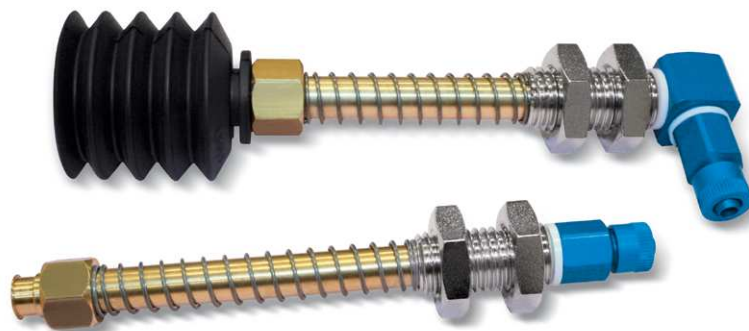
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)    inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## BASIC VACUUM CUP HOLDERS FOR BELLOWS CUPS

The actual springing stroke is:

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm      C = 95 mm

| Item            | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|-----------------|-------------|----|--------|----|--------|-----|------------------------|-------------|-------------|-------------|
| <b>02 50 53</b> | 4.90        | 28 | 50     | 68 | M20    | 168 | 01 50 53               | 247.4       | 286.4       | 315.4       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

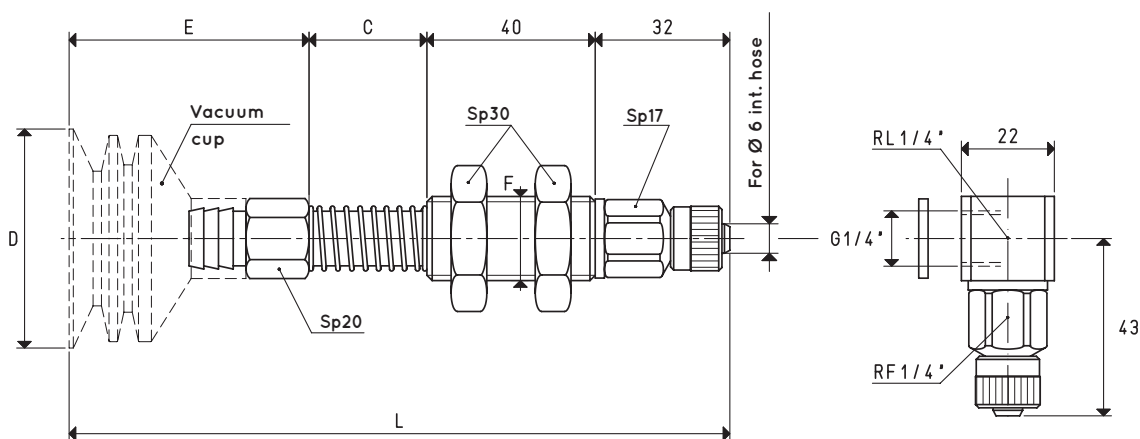
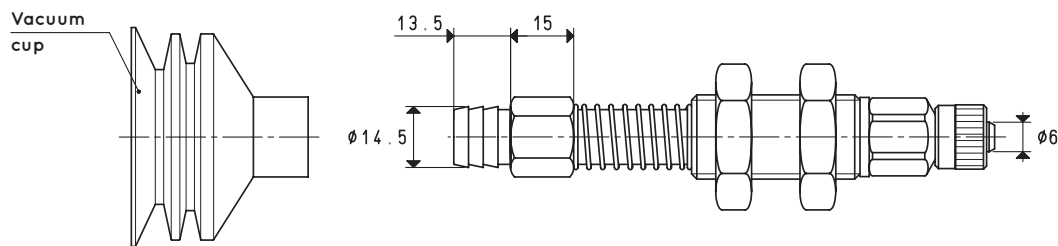
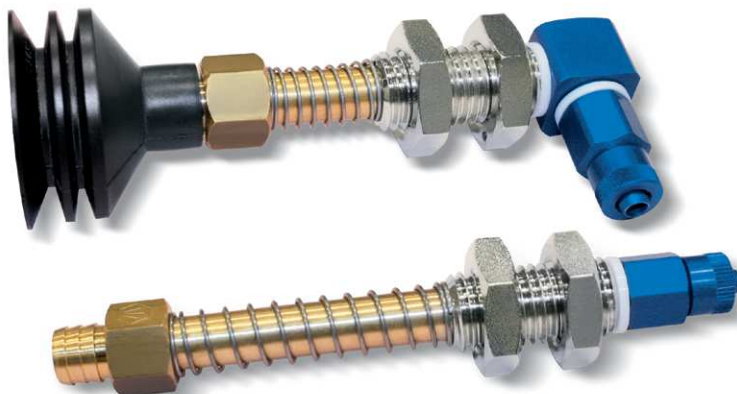




## BASIC VACUUM CUP HOLDERS FOR BELLOWS CUPS

The actual springing stroke is:

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



VERSION 02 52 50

VERSION 02 52 50 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm    C = 95 mm

| Item     | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|----------|-------------|----|--------|----|--------|-----|------------------------|-------------|-------------|-------------|
| 02 52 50 | 5.30        | 28 | 52     | 57 | M20    | 157 | 01 52 50               | 248.7       | 298.7       | 325.7       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

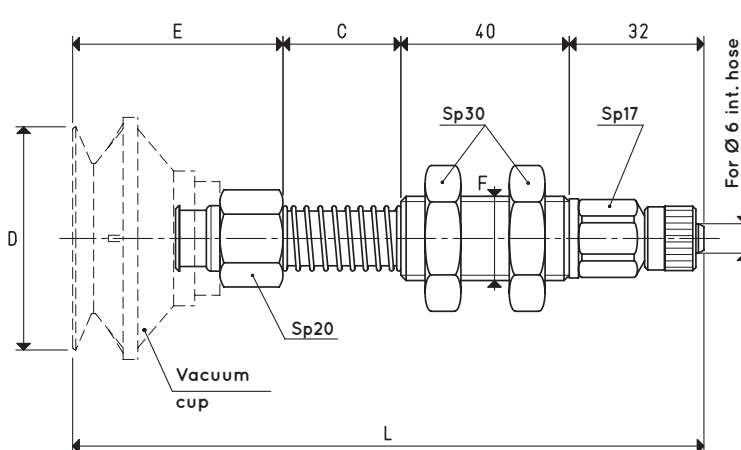
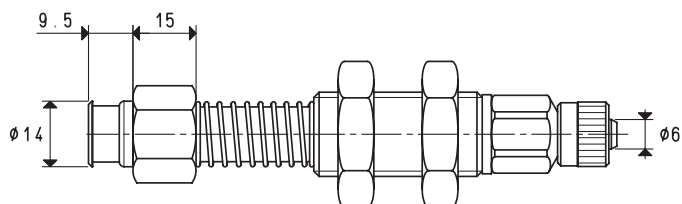
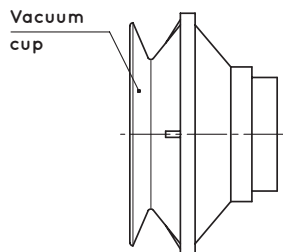
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



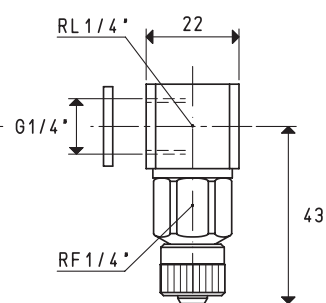
## BASIC VACUUM CUP HOLDERS FOR BELLOWS CUPS

The actual springing stroke is:

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



VERSION 02 53 35



VERSION 02 53 35 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm    C = 95 mm

| Item     | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|----------|-------------|----|--------|----|--------|-----|------------------------|-------------|-------------|-------------|
| 02 53 35 | 5.51        | 28 | 53     | 41 | M20    | 141 | 01 53 35               | 241.6       | 279.6       | 308.6       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

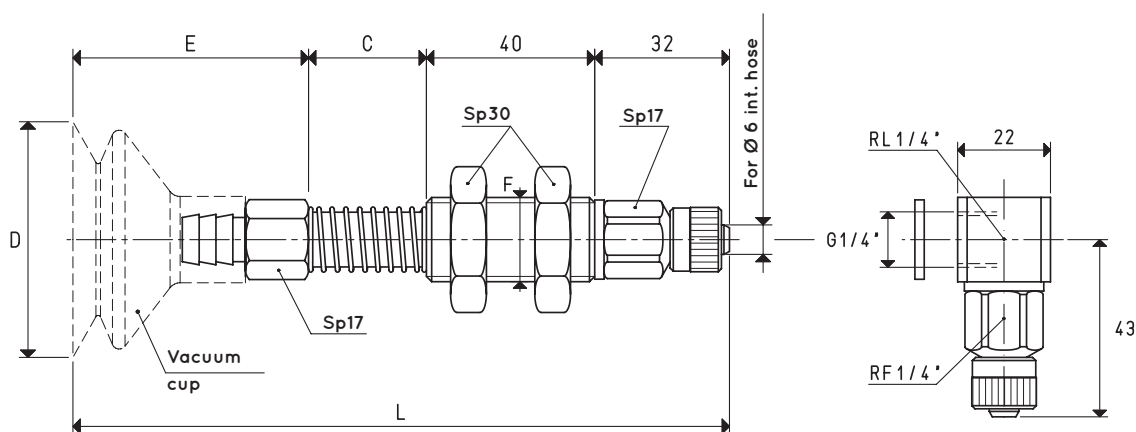
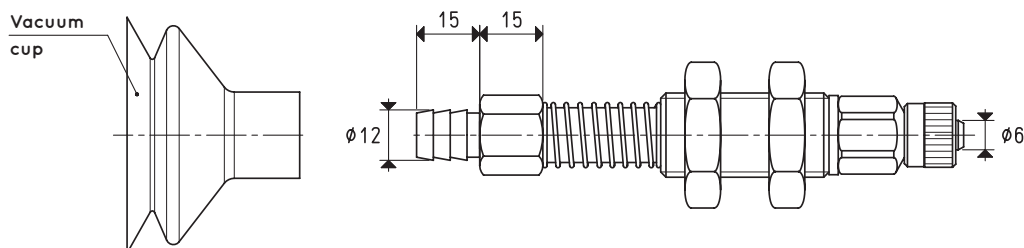
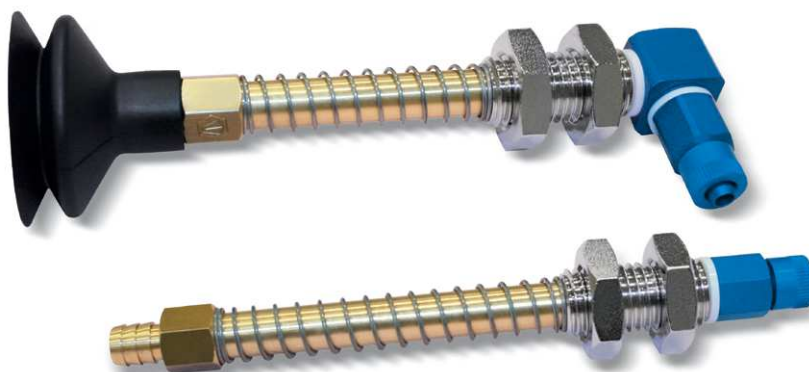
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## BASIC VACUUM CUP HOLDERS FOR BELLOWS CUPS

The actual springing stroke is:

- For height C= 28 mm 16 mm
- For height C= 65 mm 49 mm
- For height C= 95 mm 74 mm



VERSION 02 .. 30

VERSION 02 .. 30 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

| Item            | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | C = 65 mm C = 95 mm |             |             |
|-----------------|-------------|----|--------|----|--------|-----|------------------------|---------------------|-------------|-------------|
|                 |             |    |        |    |        |     |                        | Weight<br>g         | Weight<br>g | Weight<br>g |
| <b>02 56 30</b> | 6.15        | 28 | 56     | 33 | M20    | 133 | 01 56 30               | 236.0               | 243.0       | 264.0       |
| <b>02 75 30</b> | 11.04       | 28 | 75     | 69 | M20    | 169 | 01 75 30               | 255.6               | 262.6       | 283.6       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## 2

The image displays two different spray lance accessories. The top accessory is a trigger gun, featuring a blue handle, a brass-colored trigger gun body, a coiled spring, and a blue quick-connect fitting. The bottom accessory is a quick-connect fitting, featuring a black trigger gun body, a brass-colored trigger gun body, a coiled spring, and a blue quick-connect fitting.



2.77



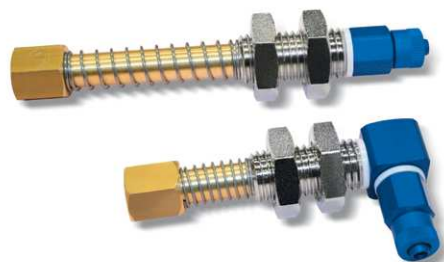
## BASIC VACUUM CUP HOLDERS WITH MALE AND FEMALE THREADED CONNECTORS

These basic vacuum cup holders also have the same characteristics and offer the same performance as those previously described. Their distinctive feature is the brass stem with a threaded male or female end for fixing the cup.

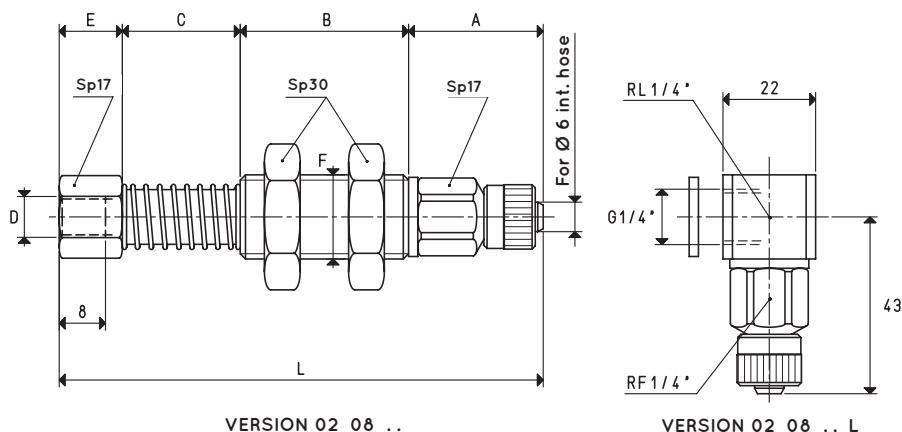
The cups to be assembled onto these vacuum cup holders must be equipped with the suited threaded support.

The actual springing stroke is:

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



### Basic vacuum cup holders with female threaded connectors

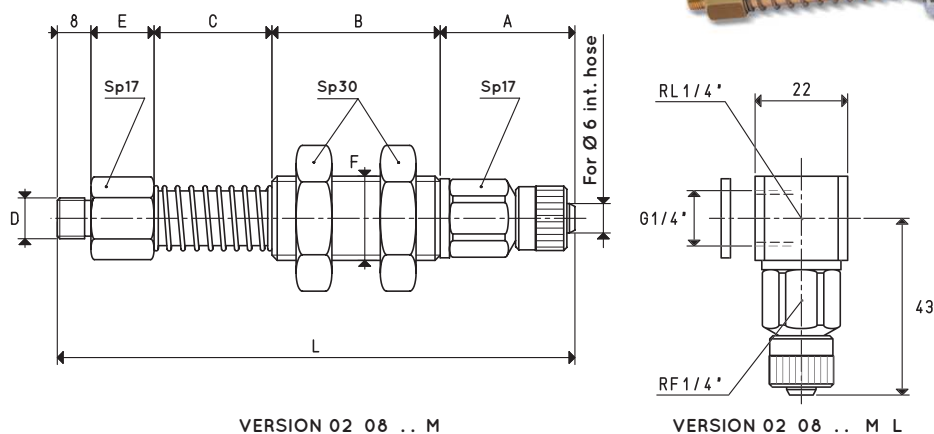


VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

| Item            | A  | B  | C  | D<br>Ø | E  | F<br>Ø | L   | Weight<br>g |
|-----------------|----|----|----|--------|----|--------|-----|-------------|
| <b>02 08 28</b> | 32 | 40 | 28 | G1/8"  | 15 | M20    | 115 | 207         |
| <b>02 08 65</b> | 32 | 40 | 65 | G1/8"  | 15 | M20    | 152 | 243         |
| <b>02 08 95</b> | 32 | 40 | 95 | G1/8"  | 15 | M20    | 182 | 272         |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.

### Basic vacuum cup holders with male threaded connectors



VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

| Item              | A  | B  | C  | D<br>Ø | E  | F<br>Ø | L   | Weight<br>g |
|-------------------|----|----|----|--------|----|--------|-----|-------------|
| <b>02 08 28 M</b> | 32 | 40 | 28 | G1/8"  | 15 | M20    | 123 | 216         |
| <b>02 08 65 M</b> | 32 | 40 | 65 | G1/8"  | 15 | M20    | 160 | 252         |
| <b>02 08 95 M</b> | 32 | 40 | 95 | G1/8"  | 15 | M20    | 190 | 282         |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

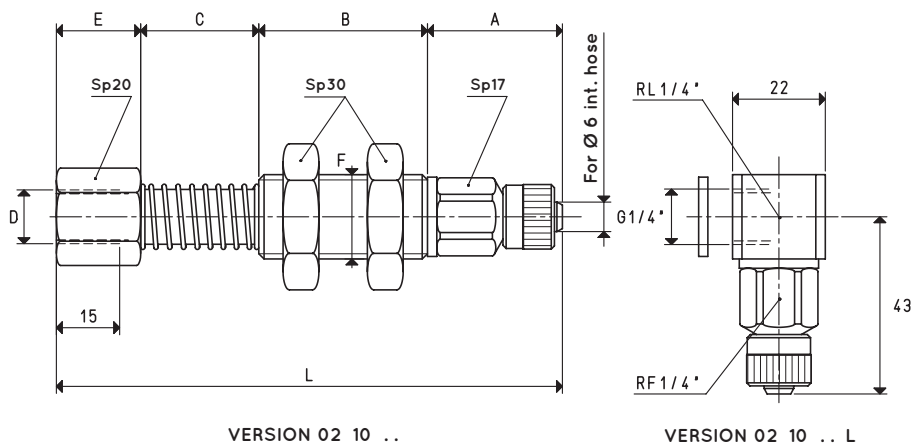
inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

# BASIC VACUUM CUP HOLDERS WITH MALE AND FEMALE THREADED CONNECTORS

The actual springing stroke is:

- For height C= 28 mm 16 mm
- For height C= 65 mm 49 mm
- For height C= 95 mm 74 mm

## Basic vacuum cup holders with female threaded connectors

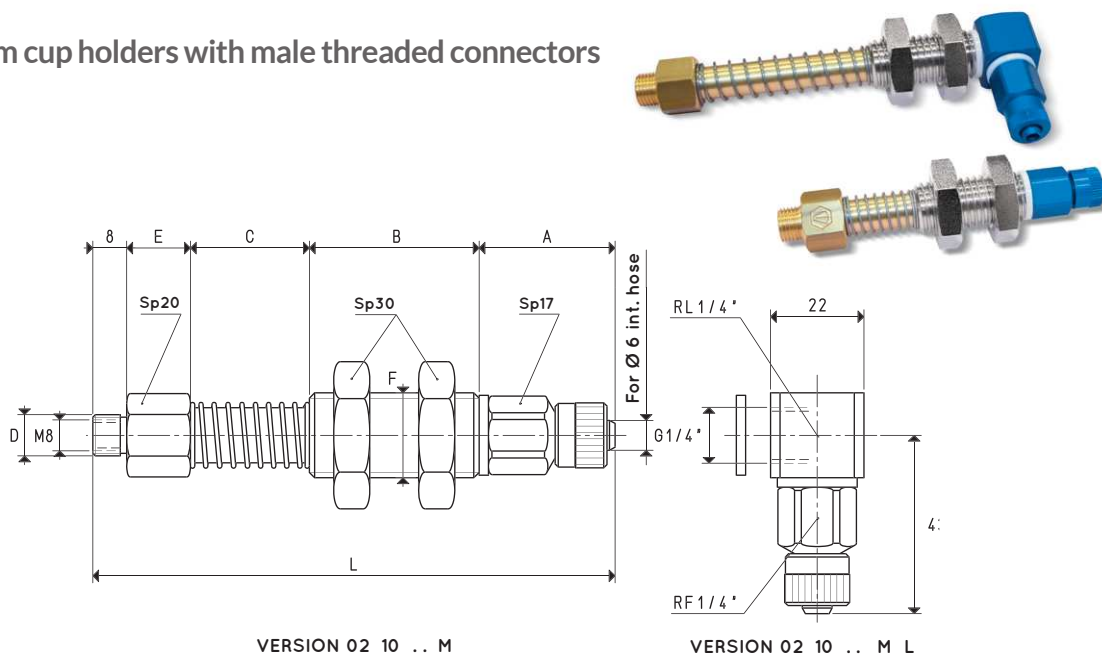


VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

| Item            | A  | B  | C  | D<br>Ø | E  | F<br>Ø | L   | Weight<br>g |
|-----------------|----|----|----|--------|----|--------|-----|-------------|
| <b>02 10 28</b> | 32 | 40 | 28 | G1/4"  | 20 | M20    | 120 | 224         |
| <b>02 10 65</b> | 32 | 40 | 65 | G1/4"  | 20 | M20    | 157 | 262         |
| <b>02 10 95</b> | 32 | 40 | 95 | G1/4"  | 20 | M20    | 187 | 289         |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.

## Basic vacuum cup holders with male threaded connectors



VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

| Item              | A  | B  | C  | D<br>Ø | E  | F<br>Ø | L   | Weight<br>g |
|-------------------|----|----|----|--------|----|--------|-----|-------------|
| <b>02 10 28 M</b> | 32 | 40 | 28 | G1/4"  | 15 | M20    | 124 | 225         |
| <b>02 10 65 M</b> | 32 | 40 | 65 | G1/4"  | 15 | M20    | 161 | 266         |
| <b>02 10 95 M</b> | 32 | 40 | 95 | G1/4"  | 15 | M20    | 191 | 295         |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

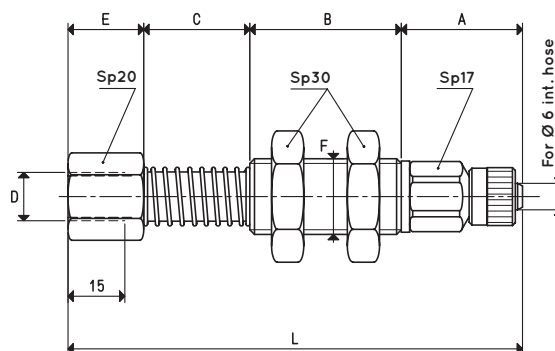


## BASIC VACUUM CUP HOLDERS WITH MALE AND FEMALE THREADED CONNECTORS

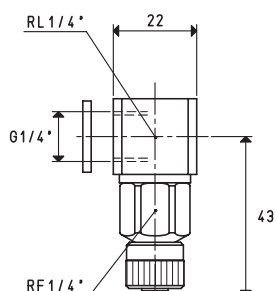
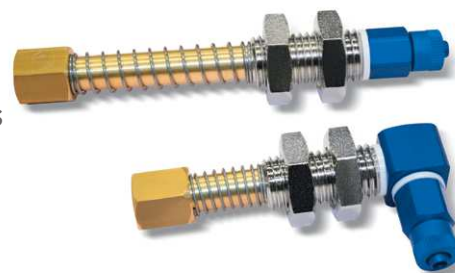
The actual springing stroke is:

- For height C= 28 mm 16 mm
- For height C= 65 mm 49 mm
- For height C= 95 mm 74 mm

### Basic vacuum cup holders with female threaded connectors



VERSION 02 11 ..



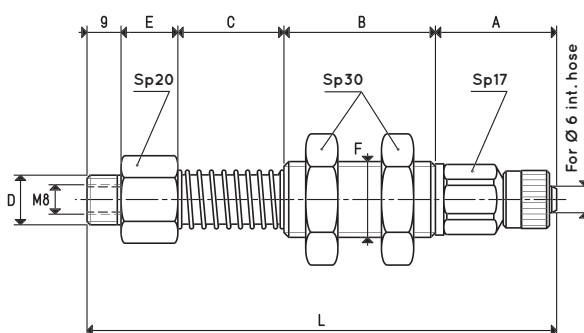
VERSION 02 11 .. L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

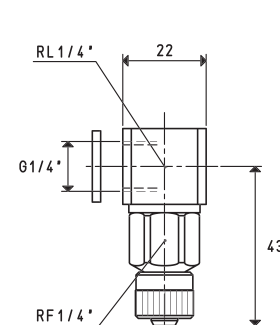
| Item     | A  | B  | C  | D<br>Ø | E  | F<br>Ø | L   | Weight<br>g |
|----------|----|----|----|--------|----|--------|-----|-------------|
| 02 11 28 | 32 | 40 | 28 | M12    | 20 | M20    | 120 | 226         |
| 02 11 65 | 32 | 40 | 65 | M12    | 20 | M20    | 157 | 264         |
| 02 11 95 | 32 | 40 | 95 | M12    | 20 | M20    | 187 | 291         |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.

### Basic vacuum cup holders with male threaded connectors



VERSION 02 11 .. M



VERSION 02 11 .. M L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

| Item       | A  | B  | C  | D<br>Ø | E  | F<br>Ø | L   | Weight<br>g |
|------------|----|----|----|--------|----|--------|-----|-------------|
| 02 11 28 M | 32 | 40 | 28 | M12    | 15 | M20    | 124 | 223         |
| 02 11 65 M | 32 | 40 | 65 | M12    | 15 | M20    | 161 | 264         |
| 02 11 95 M | 32 | 40 | 95 | M12    | 15 | M20    | 191 | 293         |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

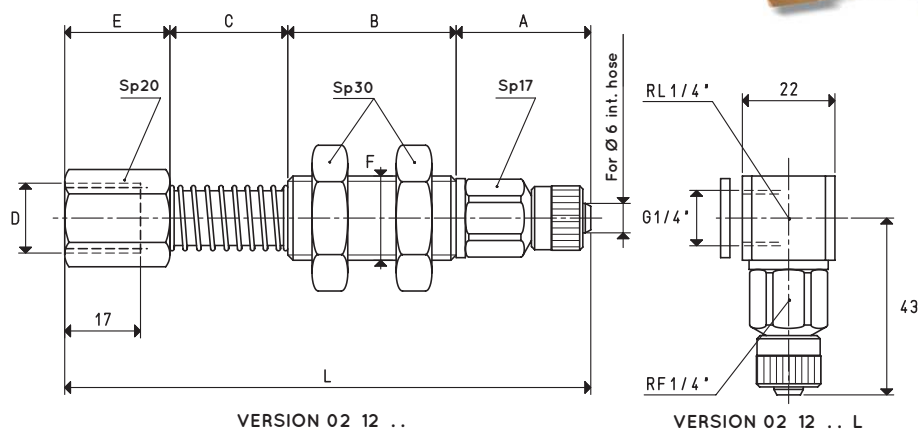
inch =  $\frac{\text{mm}}{25.4}$ ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

# BASIC VACUUM CUP HOLDERS WITH MALE AND FEMALE THREADED CONNECTORS

The actual springing stroke is:

- For height C= 28 mm 16 mm
- For height C= 65 mm 49 mm
- For height C= 95 mm 74 mm

## Basic vacuum cup holders with female threaded connectors

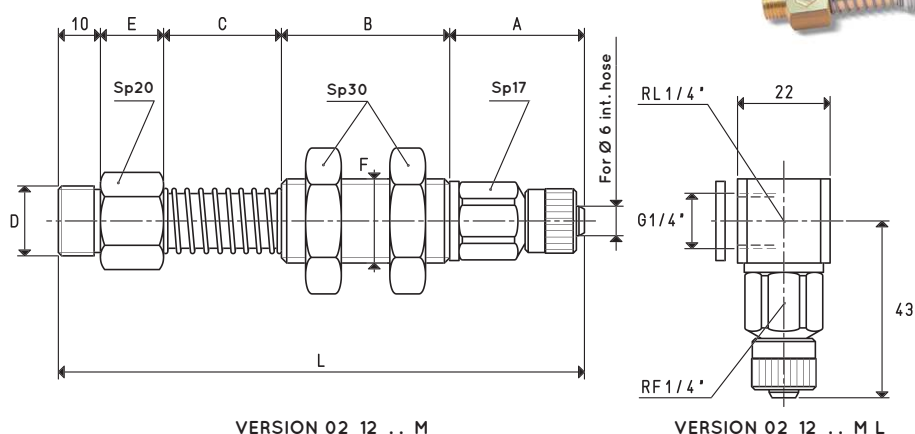


VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

| Item            | A  | B  | C  | D<br>Ø | E  | F<br>Ø | L   | Weight<br>g |
|-----------------|----|----|----|--------|----|--------|-----|-------------|
| <b>02 12 28</b> | 32 | 40 | 28 | G3/8"  | 25 | M20    | 125 | 220         |
| <b>02 12 65</b> | 32 | 40 | 65 | G3/8"  | 25 | M20    | 162 | 259         |
| <b>02 12 95</b> | 32 | 40 | 95 | G3/8"  | 25 | M20    | 192 | 285         |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.

## Basic vacuum cup holders with male threaded connectors



VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

| Item              | A  | B  | C  | D<br>Ø | E  | F<br>Ø | L   | Weight<br>g |
|-------------------|----|----|----|--------|----|--------|-----|-------------|
| <b>02 12 28 M</b> | 32 | 40 | 28 | G3/8"  | 15 | M20    | 125 | 237         |
| <b>02 12 65 M</b> | 32 | 40 | 65 | G3/8"  | 15 | M20    | 162 | 274         |
| <b>02 12 95 M</b> | 32 | 40 | 95 | G3/8"  | 15 | M20    | 192 | 303         |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



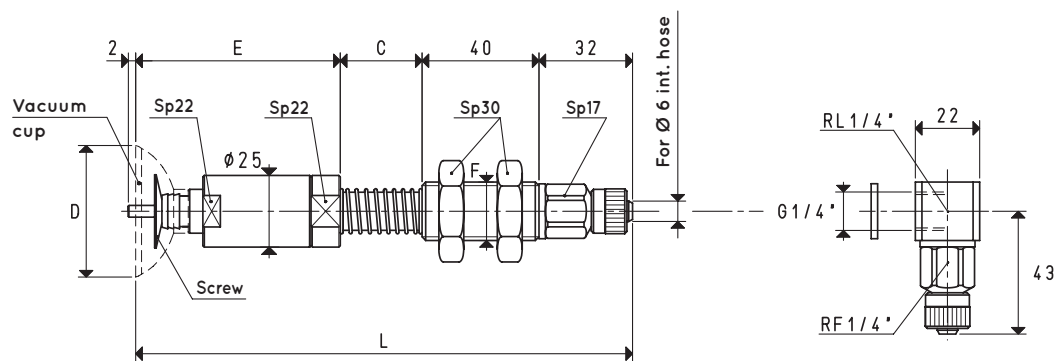
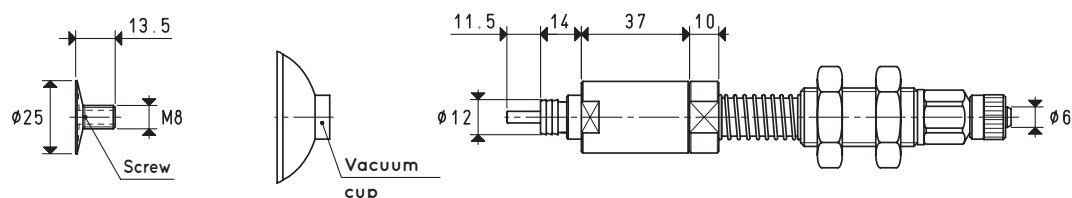


## BASIC VACUUM CUP HOLDERS WITH PLUNGER VALVE

They offer the same mechanical performance at the basic mini vacuum cup holders. They are characterised by a plunger valve solidly connected to a conical spear valve, which activates suction, and therefore creates vacuum, only when the cup comes into contact with the load to be lifted.

The actual springing stroke is:

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



VERSION 03 45 10

VERSION 03 45 10 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm C = 95 mm

| Item     | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Screw included<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|----------|-------------|----|--------|----|--------|-----|------------------------|------------------------|-------------|-------------|-------------|
| 03 45 10 | 3.98        | 28 | 45     | 70 | M20    | 170 | 01 45 10               | 00 20 13               | 344.7       | 381.7       | 415.7       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

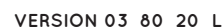


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2.83



## 2



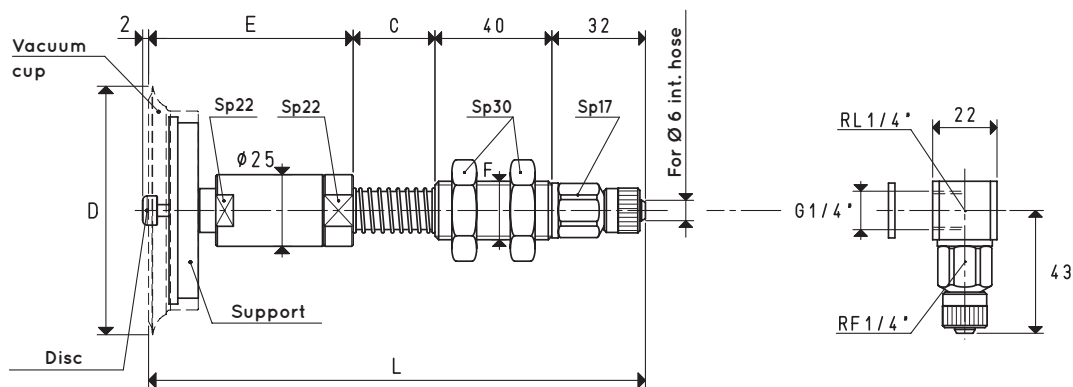
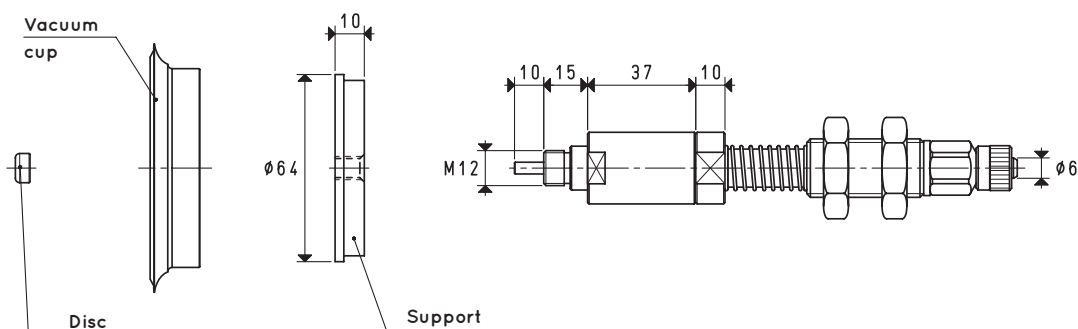
2.85



## BASIC VACUUM CUP HOLDERS WITH PLUNGER VALVE

The actual springing stroke is:

- For height C= 28 mm 16 mm
- For height C= 65 mm 49 mm
- For height C= 95 mm 74 mm



VERSION 03 85 15

VERSION 03 85 15 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm C = 95 mm

| Item     | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Support included<br>item | Disc included<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|----------|-------------|----|--------|----|--------|-----|------------------------|--------------------------|-----------------------|-------------|-------------|-------------|
| 03 85 15 | 14.18       | 28 | 85     | 70 | M20    | 170 | 01 85 15               | 00 08 32                 | 00 03 22              | 477.7       | 515.7       | 548.7       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

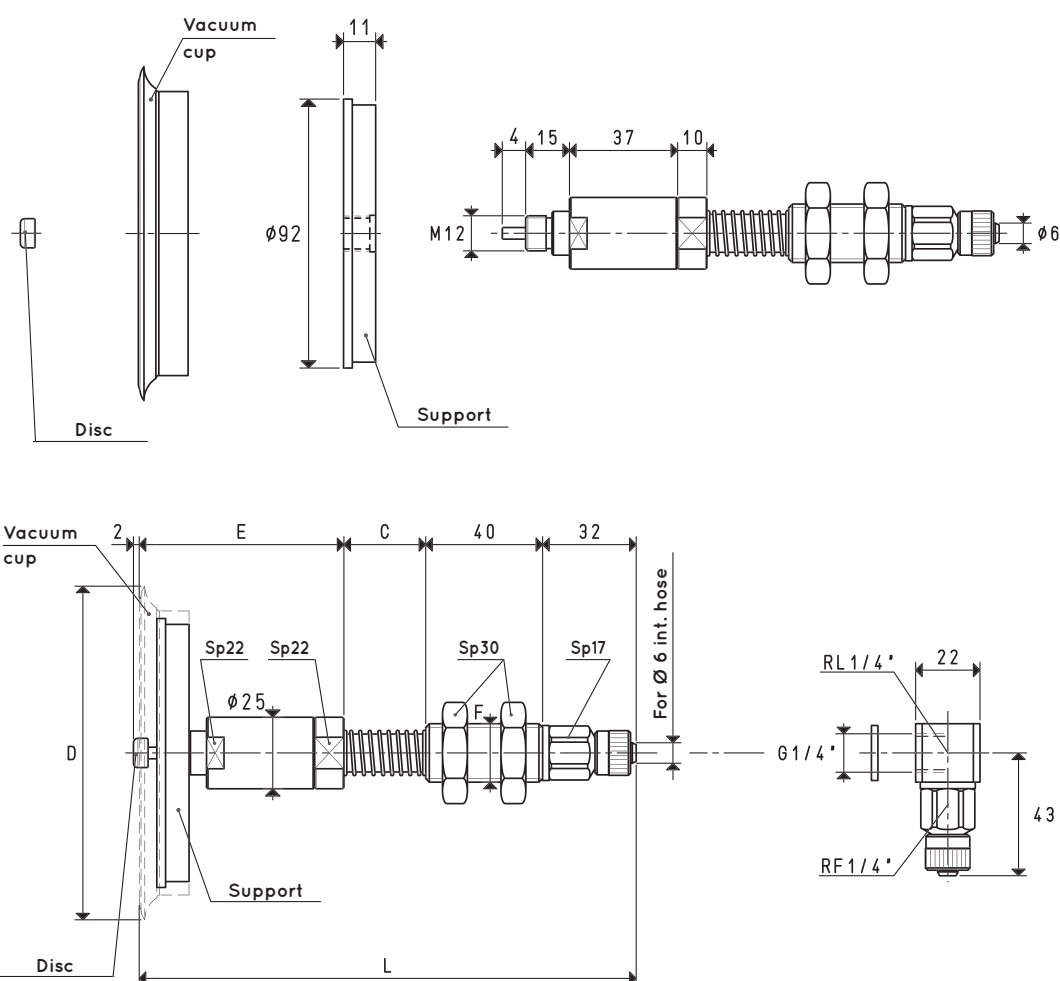
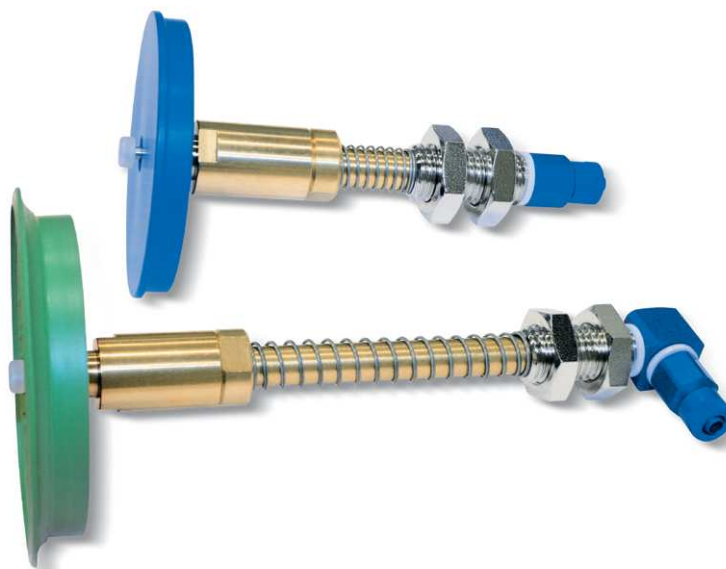
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## BASIC VACUUM CUP HOLDERS WITH PLUNGER VALVE

The actual springing stroke is:

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



VERSION 03 110 10

VERSION 03 110 10 L

## VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm C = 95 mm

| Item      | Force<br>Kg | *C | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Support included<br>item | Disc included<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|-----------|-------------|----|--------|----|--------|-----|------------------------|--------------------------|-----------------------|-------------|-------------|-------------|
| 03 110 10 | 23.74       | 28 | 114    | 70 | M20    | 170 | 01 110 10              | 00 08 33                 | 00 03 22              | 618.3       | 549.3       | 683.3       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

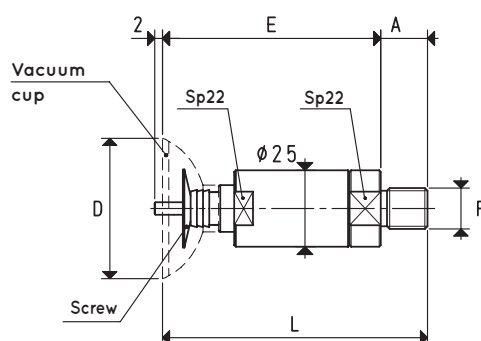
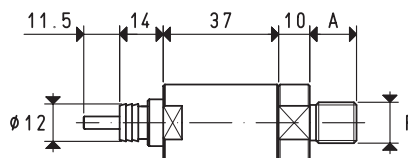
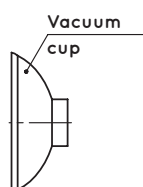
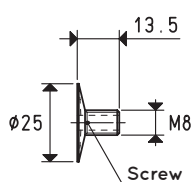
\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## BASIC VACUUM CUP HOLDERS WITH NO SPRINGING

Their function is the same as the previously described basic vacuum cup holders with plunger valve but, for further bulk reduction, the cushioning spring, the threaded bush with nuts for fixing to the automation and the quick coupler have been removed. This type of cup holder must be assembled onto the vacuum manifold by means of a threaded male shank on its end.



VERSION 03 45 11

| Item     | Force<br>Kg | A  | D<br>Ø | E  | F<br>Ø | L  | For vacuum cup<br>item | Screw included<br>item | Weight<br>g |
|----------|-------------|----|--------|----|--------|----|------------------------|------------------------|-------------|
| 03 45 11 | 3.98        | 15 | 45     | 70 | G1/4"  | 85 | 01 45 10               | 00 20 13               | 174.7       |

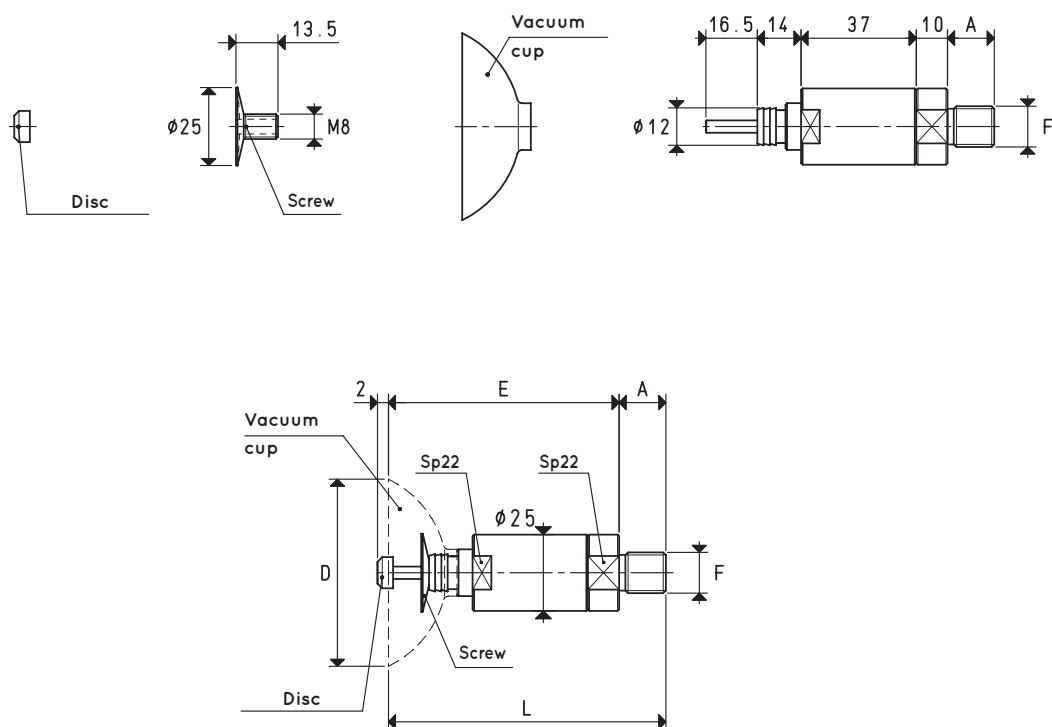
Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



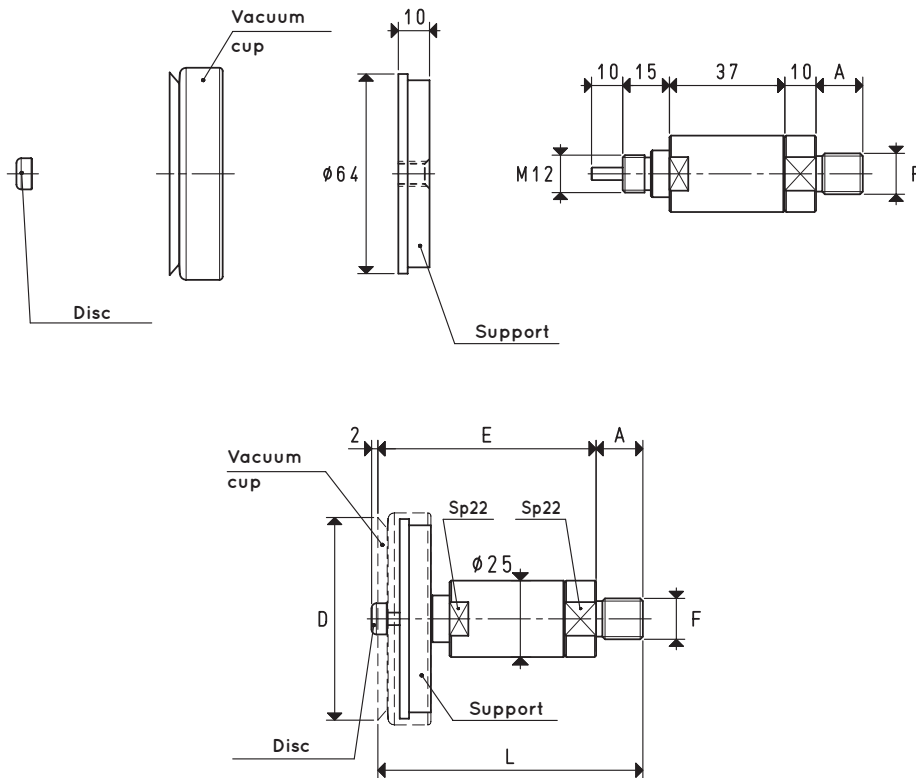
## 2



| Item            | Force<br>Kg | A  | D<br>Ø | E  | F<br>Ø | L  | For vacuum cup<br>item | Screw included<br>item | Disc included<br>item | Weight<br>g |
|-----------------|-------------|----|--------|----|--------|----|------------------------|------------------------|-----------------------|-------------|
| <b>03 60 11</b> | 7.06        | 15 | 60     | 72 | G1/4"  | 87 | 01 60 10               | 00 20 13               | 00 03 22              | 191.9       |

$$\text{inch} = \frac{\text{mm}}{25.4} ; \text{pounds} = \frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$$





VERSION 03 65 16

| Item            | Force<br>Kg | A  | D<br>Ø | E  | F<br>Ø | L  | For vacuum cup<br>item | Support included<br>item | Disc included<br>item | Weight<br>g |
|-----------------|-------------|----|--------|----|--------|----|------------------------|--------------------------|-----------------------|-------------|
| <b>03 65 16</b> | 8.29        | 15 | 65     | 70 | G1/4"  | 85 | 01 65 15               | 00 08 32                 | 00 03 22              | 287.4       |

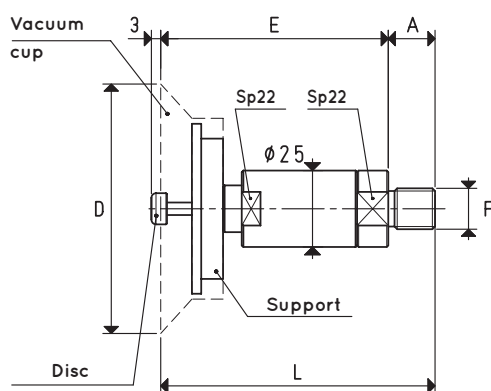
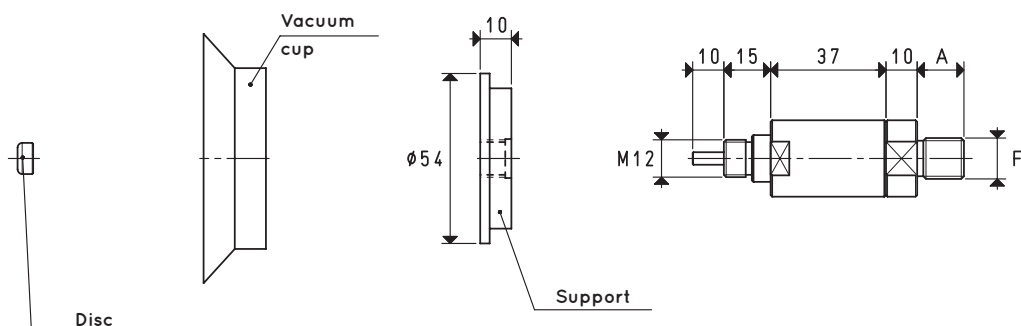
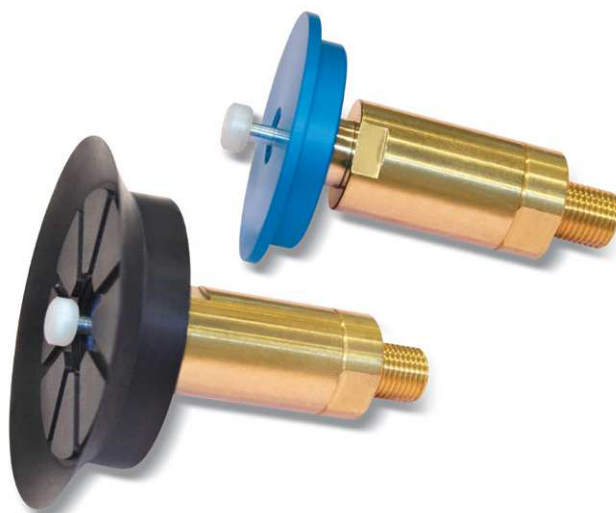
Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## BASIC VACUUM CUP HOLDERS WITH NO SPRINGING



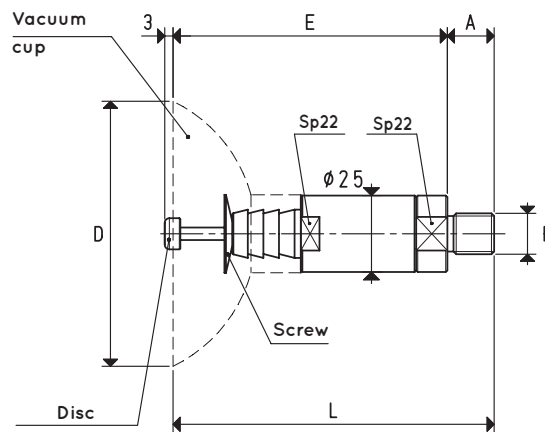
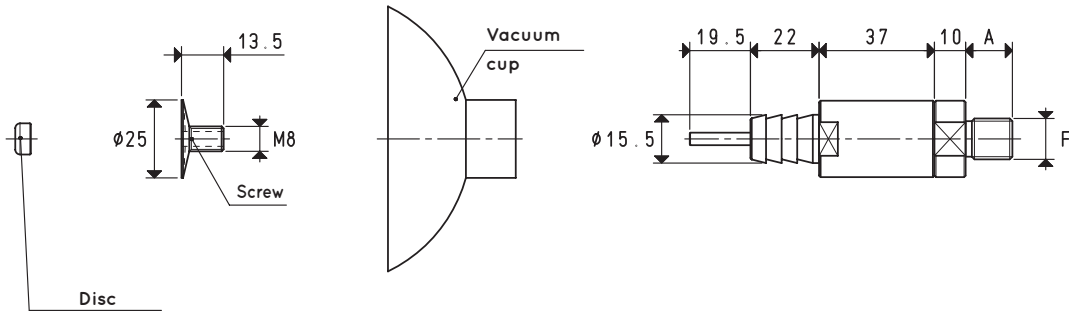
VERSION 03 80 21

| Item     | Force<br>Kg | A  | D<br>Ø | E  | F<br>Ø | L  | For vacuum cup<br>item | Support included<br>item | Disc included<br>item | Weight<br>g |
|----------|-------------|----|--------|----|--------|----|------------------------|--------------------------|-----------------------|-------------|
| 03 80 21 | 12.56       | 15 | 80     | 73 | G1/4"  | 88 | 01 80 20               | 00 08 126                | 00 03 22              | 260.2       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



VERSION 03 85 11

| Item            | Force<br>Kg | A  | D<br>Ø | E  | F<br>Ø | L   | For vacuum cup<br>item | Screw included<br>item | Disc included<br>item | Weight<br>g |
|-----------------|-------------|----|--------|----|--------|-----|------------------------|------------------------|-----------------------|-------------|
| <b>03 85 11</b> | 14.18       | 15 | 85     | 92 | G1/4"  | 107 | 01 85 10               | 00 20 13               | 00 03 22              | 247.9       |

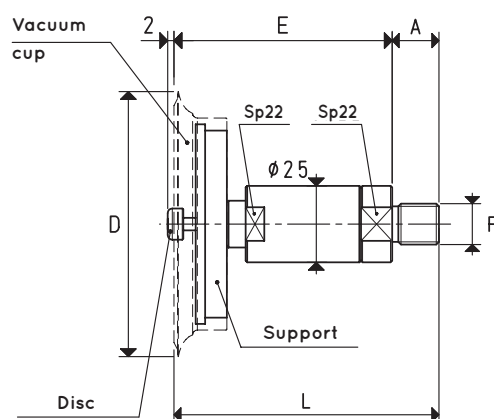
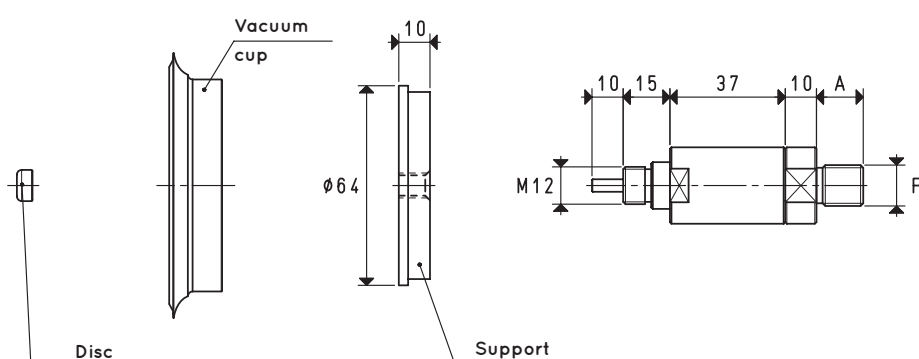
Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## BASIC VACUUM CUP HOLDERS WITH NO SPRINGING



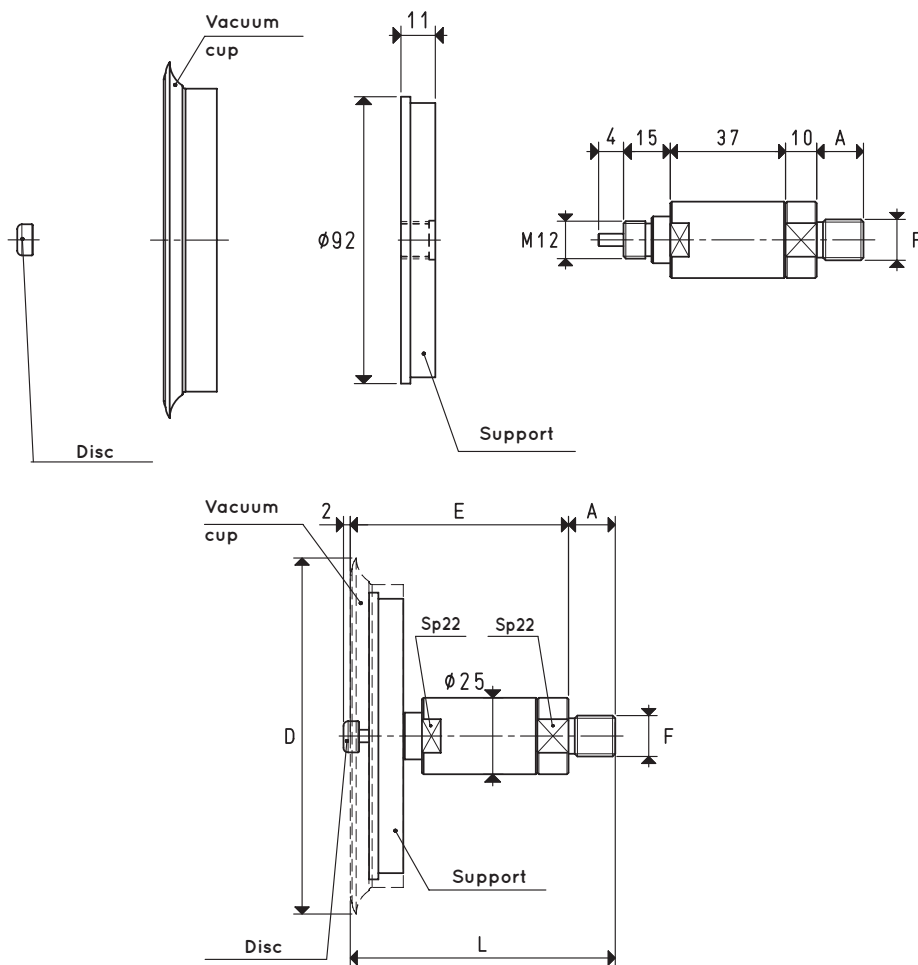
VERSION 03 85 16

| Item            | Force<br>Kg | A  | D<br>Ø | E  | F<br>Ø | L  | For vacuum cup<br>item | Support included<br>item | Disc included<br>item | Weight<br>g |
|-----------------|-------------|----|--------|----|--------|----|------------------------|--------------------------|-----------------------|-------------|
| <b>03 85 16</b> | 14.18       | 15 | 85     | 70 | G1/4"  | 85 | 01 85 15               | 00 08 32                 | 00 03 22              | 302.7       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

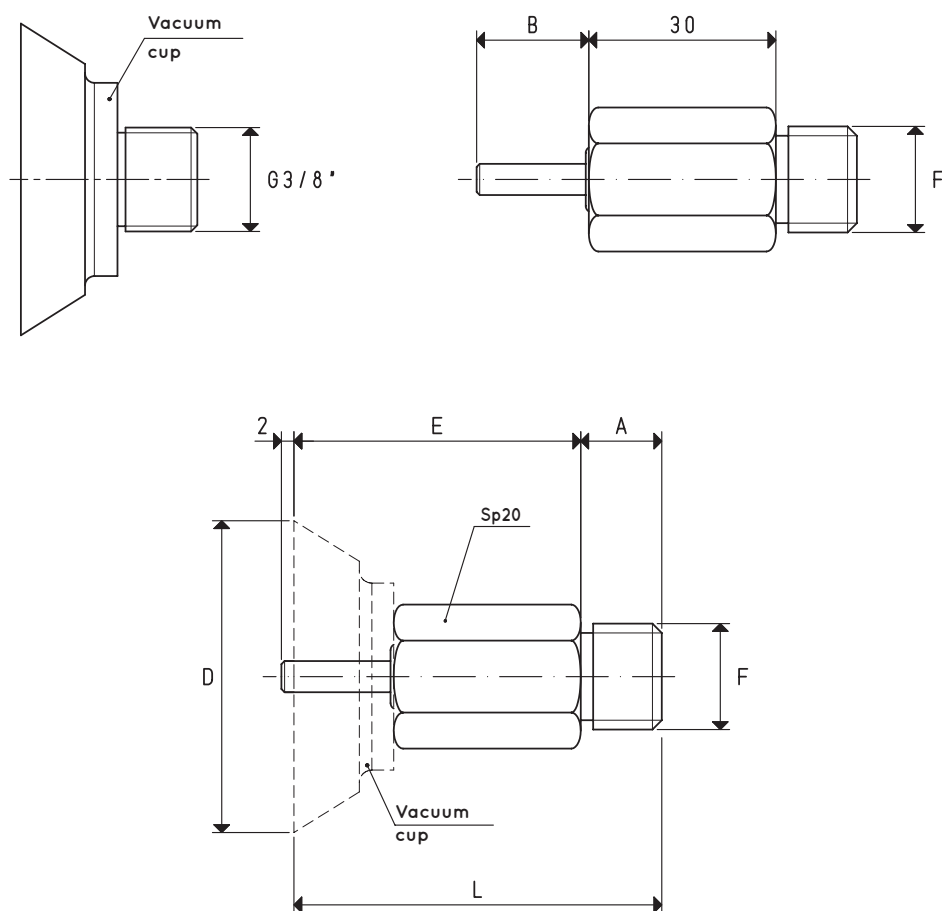


| Item      | Force<br>Kg | A  | D<br>Ø | E  | F<br>Ø | L  | For vacuum cup<br>item | Support included<br>item | Disc included<br>item | Weight<br>g |
|-----------|-------------|----|--------|----|--------|----|------------------------|--------------------------|-----------------------|-------------|
| 03 110 11 | 23.74       | 15 | 114    | 70 | G1/4"  | 85 | 01 110 10              | 00 08 33                 | 00 03 22              | 441.3       |

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)       $\text{inch} = \frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## BASIC VACUUM CUP HOLDERS WITH NO SPRINGING



VERSION 03 . . . .

| Item             | Force<br>Kg | A  | B    | D<br>Ø | E    | F<br>Ø | L    | For vacuum cup<br>item | Weight<br>g |
|------------------|-------------|----|------|--------|------|--------|------|------------------------|-------------|
| <b>03 50 41</b>  | 4.90        | 13 | 18.0 | 50     | 46.0 | G3/8"  | 59.0 | 08 50 40               | 100.6       |
| <b>03 75 41</b>  | 11.04       | 13 | 27.0 | 75     | 55.0 | G3/8"  | 68.0 | 08 75 40               | 120.0       |
| <b>03 100 41</b> | 19.62       | 13 | 28.0 | 100    | 56.0 | G3/8"  | 69.0 | 08 100 40              | 140.4       |
| <b>03 100 51</b> | 19.62       | 13 | 32.5 | 100    | 60.5 | G3/8"  | 73.5 | 08 100 50              | 136.9       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## BASIC VACUUM CUP HOLDERS WITH BUILT-IN SHUT-OFF VALVE

Along with all the other features they share with the other basic vacuum cup holders, these have a built-in shut-off valve.

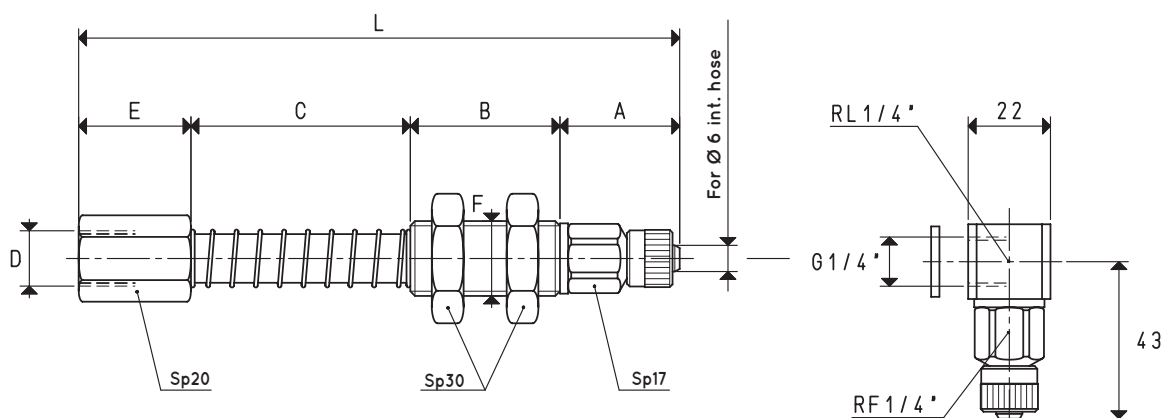
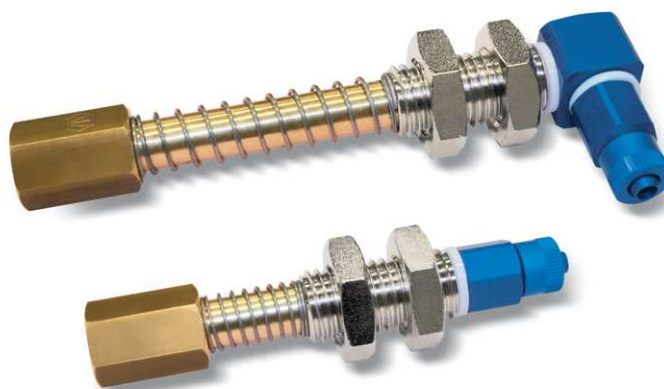
The function of the shut-off valve is to automatically close suction when the cup is not in contact with the surface of the load to be handled or in case of a faulty grip or of considerable transpiration, thus preventing the reduction of the level of vacuum on the remaining cups of the system that are regularly gripping a load.

The advantage of this is that the placement or the exclusion of the non-gripping cups is no longer binding.

Vacuum cups with a minimum diameter of 35 mm and maximum diameter of 85 mm can be assembled on these cup holders, provided they have a 1/4" male threaded gas support.

The actual springing stroke is:

- For height C= 28 mm            16 mm
- For height C= 65 mm            49 mm
- For height C= 95 mm            74 mm



VERSION 02 99 . .

VERSION 02 99 . . L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

| Item            | A  | B  | C  | D<br>Ø | E  | F<br>Ø | L   | Weight<br>g |
|-----------------|----|----|----|--------|----|--------|-----|-------------|
| <b>02 99 28</b> | 32 | 40 | 28 | G1/4"  | 30 | M20    | 130 | 256         |
| <b>02 99 65</b> | 32 | 40 | 65 | G1/4"  | 30 | M20    | 167 | 301         |
| <b>02 99 95</b> | 32 | 40 | 95 | G1/4"  | 30 | M20    | 197 | 333         |

Minimum trigger flow = 4 m³/h

Minimum level of vacuum = -250 mbar

Note: To order vacuum cup holders with L fittings, add the letter L to the code.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

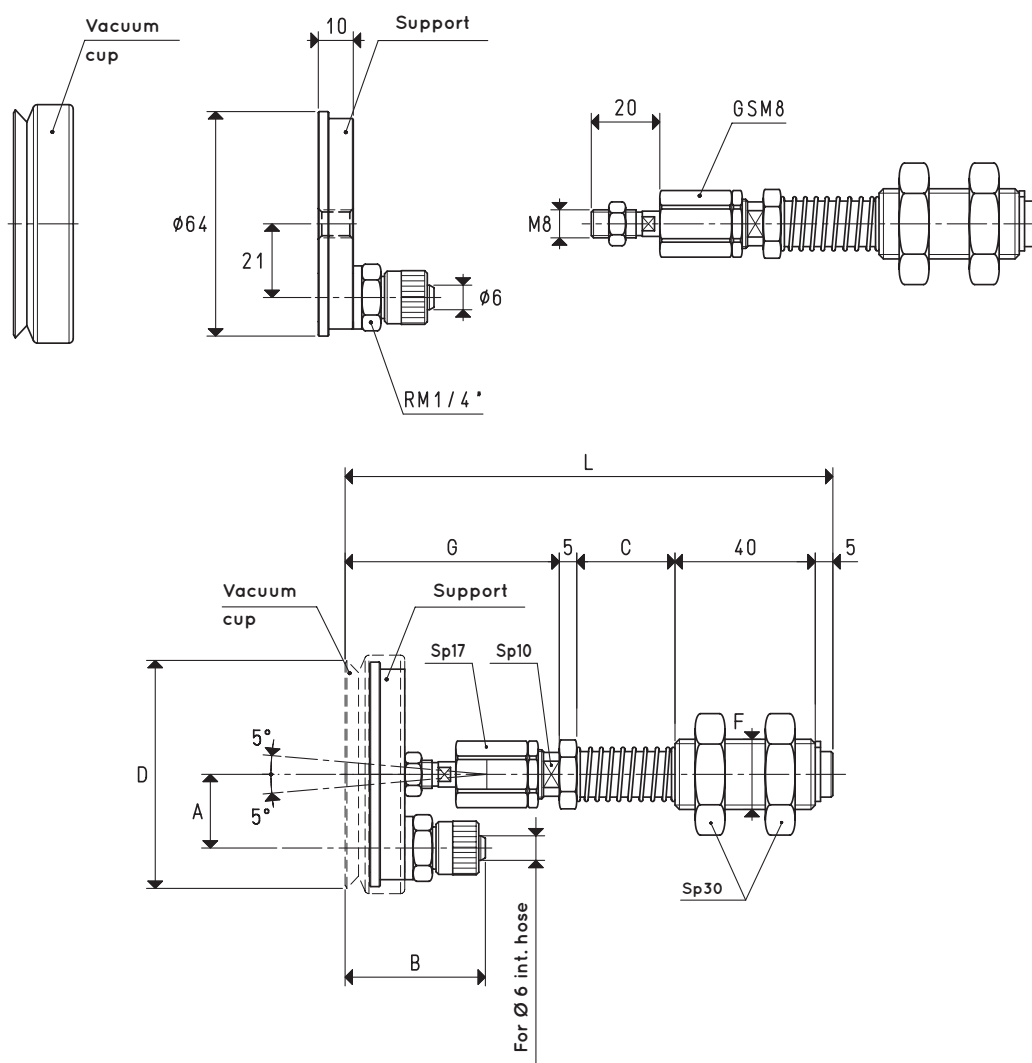
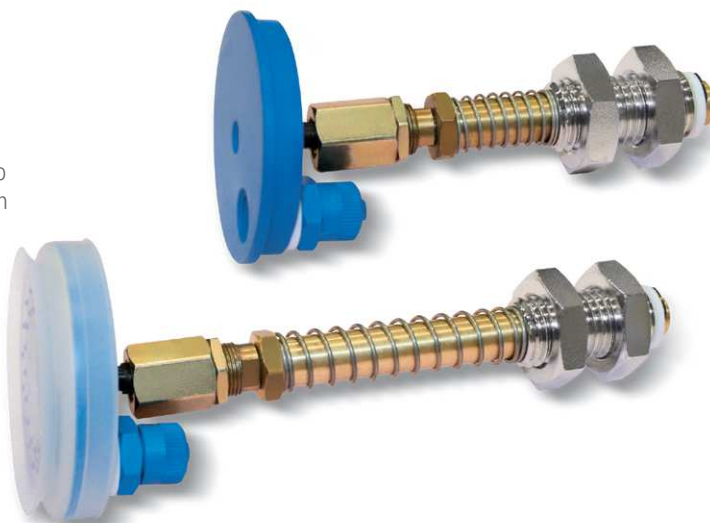
inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## BASIC ARTICULATED VACUUM CUP HOLDERS

The technical and mechanical features are the same as for the basic vacuum cup holders. Their distinctive feature is their articulated joint in hardened steel, which allows the flat cups installed on these cup holders to adapt themselves to the loads to be lifted with slightly tilted surfaces, as well as to compensate possible verticality errors that can arise between the cup holder and the automation fixing support.

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



VERSION 02 65 20

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm C = 95 mm

| Item     | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø | G  | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|----------|-------------|----|----|----|--------|--------|----|-----|------------------------|--------------------------|-------------|-------------|-------------|
| 02 65 20 | 8.29        | 21 | 37 | 28 | 65     | M20    | 52 | 130 | 01 65 16               | 00 02 36                 | 382.4       | 431.4       | 461.4       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

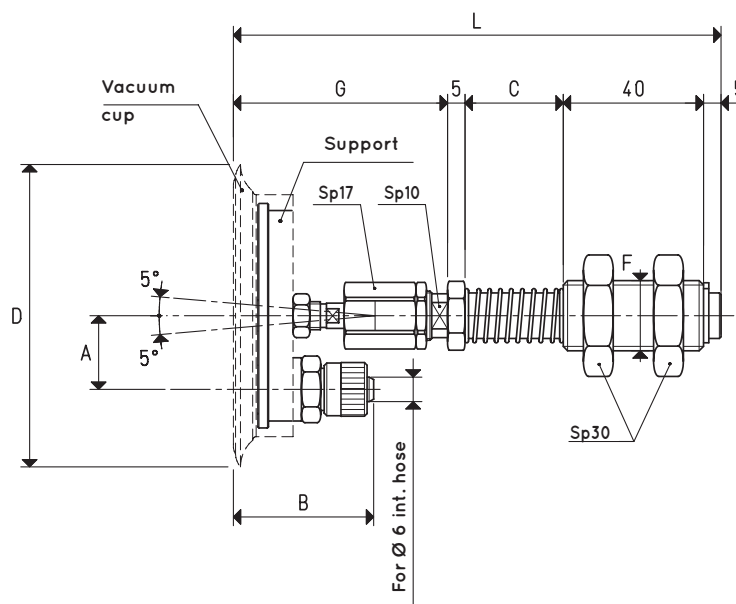
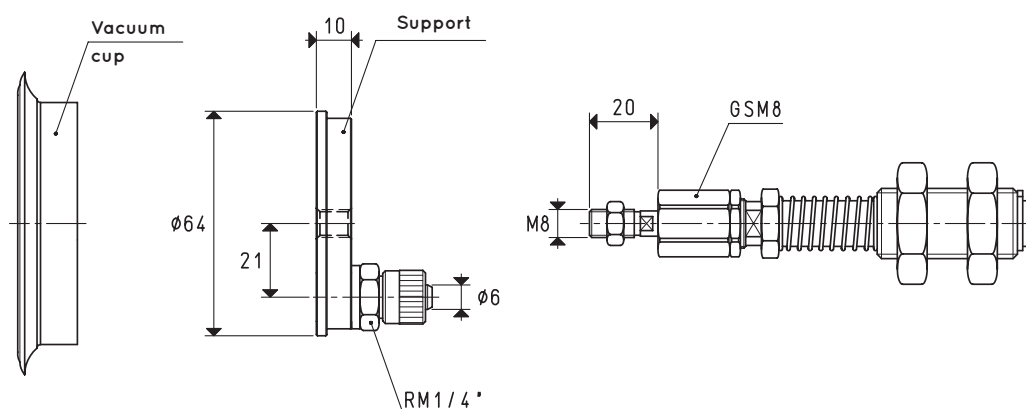
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## BASIC ARTICULATED VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 28 mm      16 mm
- For height C= 65 mm      49 mm
- For height C= 95 mm      74 mm



VERSION 02 85 20

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 65 mm C = 95 mm

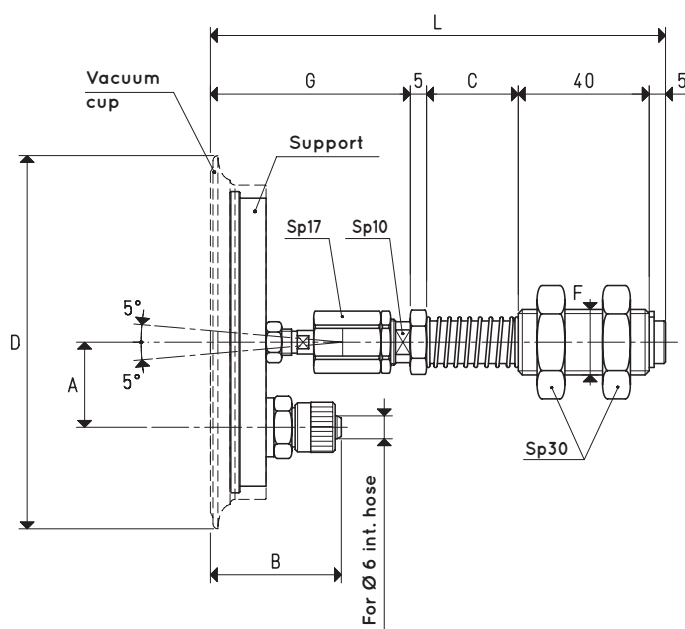
| Item     | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø | G  | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>g | Weight<br>g | Weight<br>g |
|----------|-------------|----|----|----|--------|--------|----|-----|------------------------|--------------------------|-------------|-------------|-------------|
| 02 85 20 | 14.18       | 21 | 37 | 28 | 85     | M20    | 52 | 130 | 01 85 16               | 00 02 36                 | 400.7       | 449.7       | 479.7       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

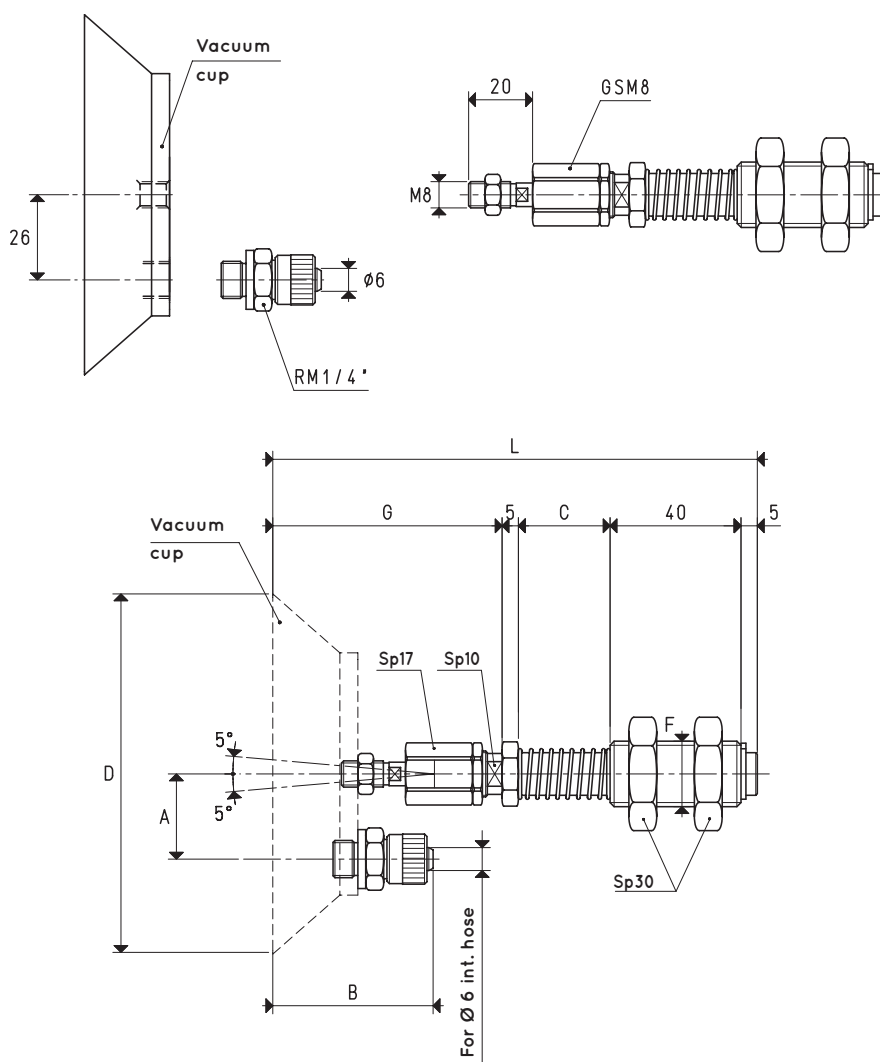
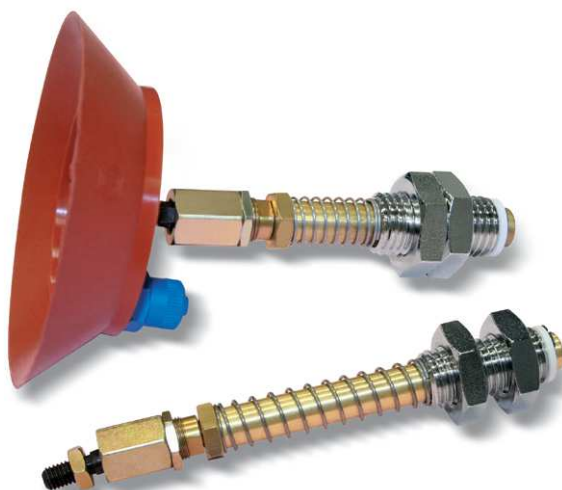
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



2.100

## 2

- For height C= 28 mm                      16 mm
- For height C= 65 mm                      49 mm
- For height C= 95 mm                      74 mm



VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

**C = 65 mm    C = 95 mm**

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 65 mm and 95 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6}$  =  $\frac{\text{Kg}}{0.4536}$



## BASIC ANTI-ROTATION VACUUM CUP HOLDERS

The technical features are the same as for the previously described basic vacuum cup holders. Their distinctive features are their brass stem with hexagonal cross-section and the steel drive bush, also with hexagonal hole.

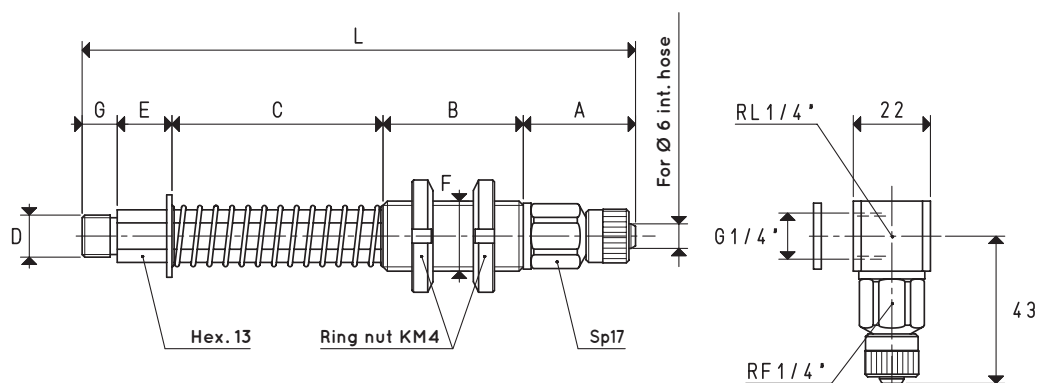
This structure prevents the stem and, as a consequence, the cup assembled onto it from rotating on its axis.

The drive bush is equipped with two fine thread ring nuts to guarantee an accurate fastening of the cup holder to the automation.

They are suited for cups with diameters between 45 mm and 110 mm, although they have been specially designed for assembling rectangular, concave or elliptical cups.

The actual springing stroke is:

- For height C= 28 mm            16 mm
- For height C= 65 mm            49 mm
- For height C= 95 mm            74 mm



VERSION 02 95 . .

VERSION 02 95 . . L

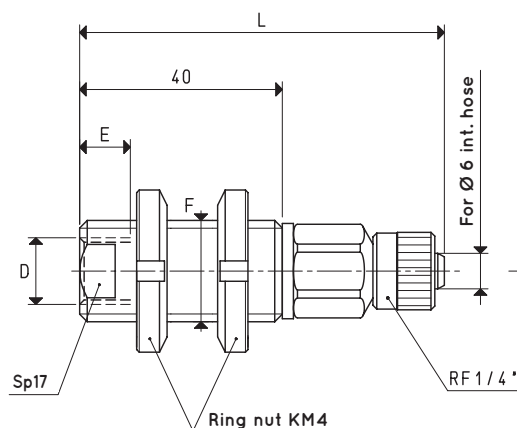
### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

| Item                 | A  | B  | C  | D<br>Ø | E  | F<br>Ø  | G  | L   | Weight<br>g |
|----------------------|----|----|----|--------|----|---------|----|-----|-------------|
| <b>02 95 28</b>      | 32 | 40 | 28 | M12    | 15 | M20 x 1 | 10 | 125 | 180         |
| <b>02 95 65</b>      | 32 | 40 | 65 | M12    | 15 | M20 x 1 | 10 | 162 | 225         |
| <b>02 95 95</b>      | 32 | 40 | 95 | M12    | 15 | M20 x 1 | 10 | 192 | 246         |
| <b>02 95 28 1/4"</b> | 32 | 40 | 28 | G1/4"  | 15 | M20 x 1 | 10 | 125 | 181         |
| <b>02 95 65 1/4"</b> | 32 | 40 | 65 | G1/4"  | 15 | M20 x 1 | 10 | 162 | 226         |
| <b>02 95 95 1/4"</b> | 32 | 40 | 95 | G1/4"  | 15 | M20 x 1 | 10 | 192 | 247         |

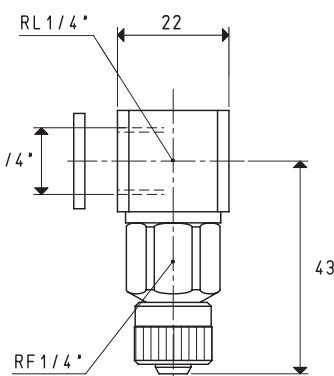
Note: To order vacuum cup holders with L fittings, add the letter L to the code.

## BASIC VACUUM CUP HOLDERS FIX

These are simple nickel-plated brass threaded bushes with ring nuts for height adjustment and with male and female threaded ends, one to assemble the vacuum cup with support and the other for the quick coupling connecting the suction hose.



VERSION 02 91 01

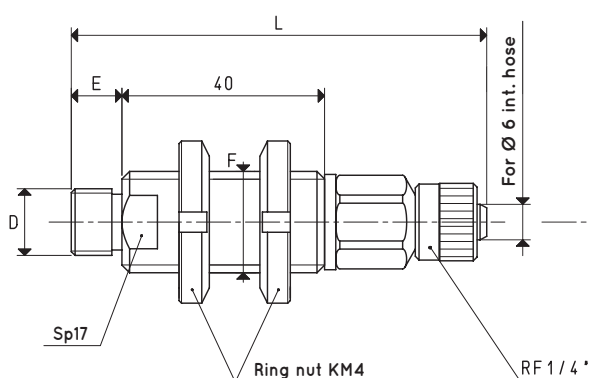


VERSION 02 91 01 L

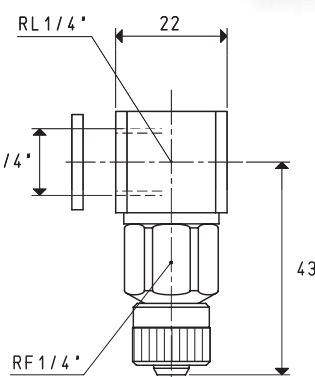
### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

| Item     | D<br>Ø | E  | F<br>Ø  | L  | Weight<br>g |
|----------|--------|----|---------|----|-------------|
| 02 91 01 | G1/4"  | 10 | M20 x 1 | 74 | 162         |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.



VERSION 02 91 . .



VERSION 02 91 . . L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

| Item     | D<br>Ø | E  | F<br>Ø  | L  | Weight<br>g |
|----------|--------|----|---------|----|-------------|
| 02 91 05 | G1/4"  | 10 | M20 x 1 | 84 | 170         |
| 02 91 06 | G3/8"  | 10 | M20 x 1 | 84 | 174         |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.



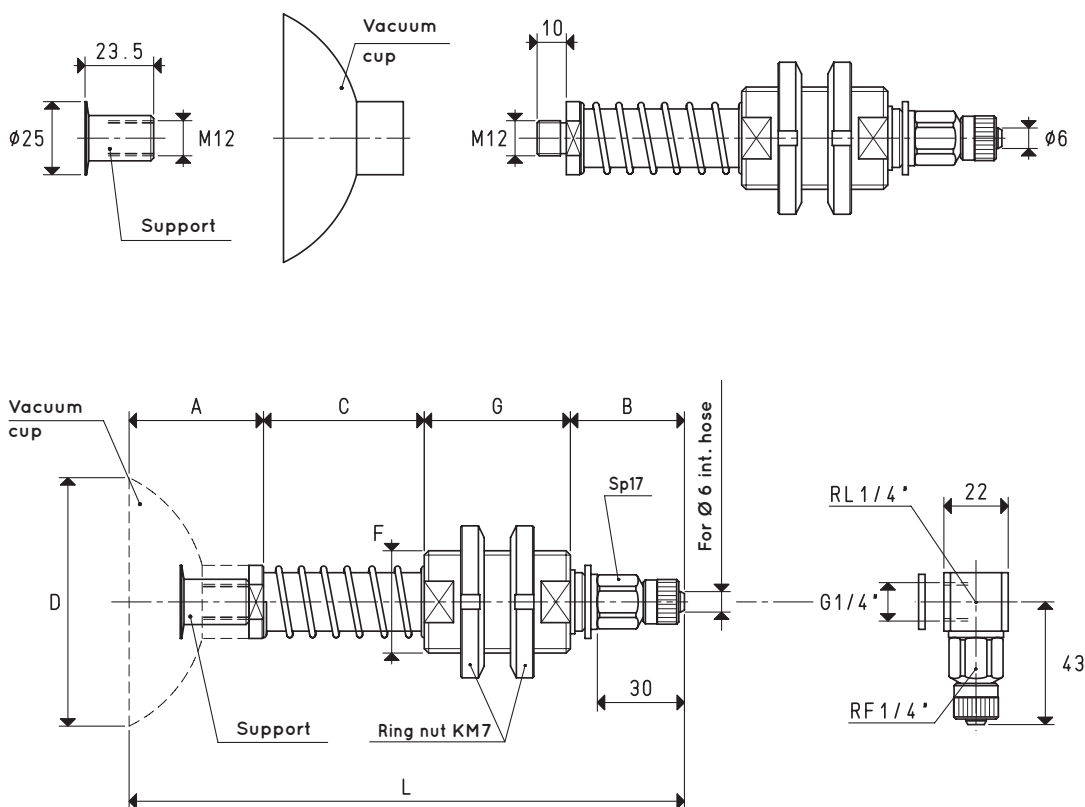
## SPECIAL VACUUM CUP HOLDERS

These special vacuum cup holders have been designed to lift and handle heavy loads and to withstand heavy-duty and continuous workloads in dusty or damp environments. They are composed of:

- A chrome-plated steel stem for fastening the cup
- A brass threaded support with self-lubricating bushes, equipped with two ring nuts for fastening the cup holder to the automation
- A spring to cushion the impact of the cup with the load to be lifted
- A quick coupling for connection with the suction hose

The actual springing stroke is:

- For height C= 55 mm      37 mm
- For height C= 110 mm      84 mm



VERSION 06 85 10

VERSION 06 85 10 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item            | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | G  | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>g | Weight<br>g |
|-----------------|-------------|----|----|----|--------|-----------|----|-----|------------------------|--------------------------|-------------|-------------|
| <b>06 85 10</b> | 14.18       | 46 | 39 | 55 | 85     | M35 x 1.5 | 50 | 190 | 01 85 10               | 00 08 29                 | 731.9       | 853.9       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

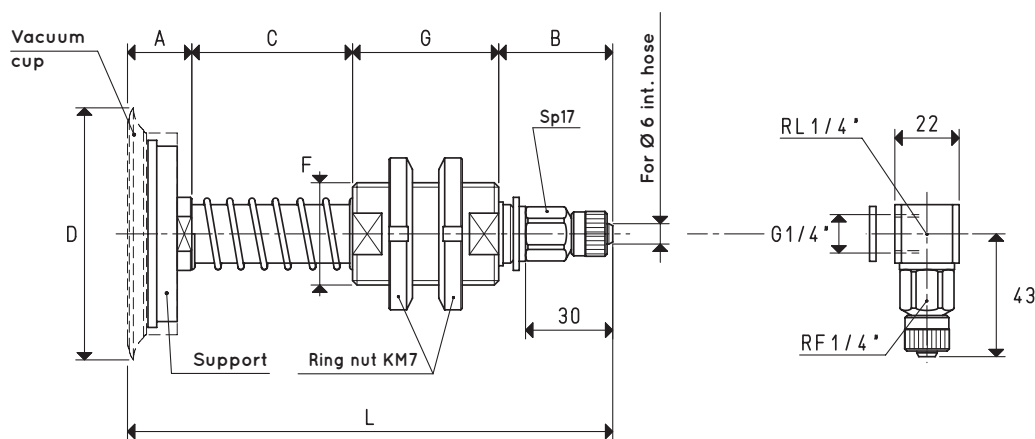
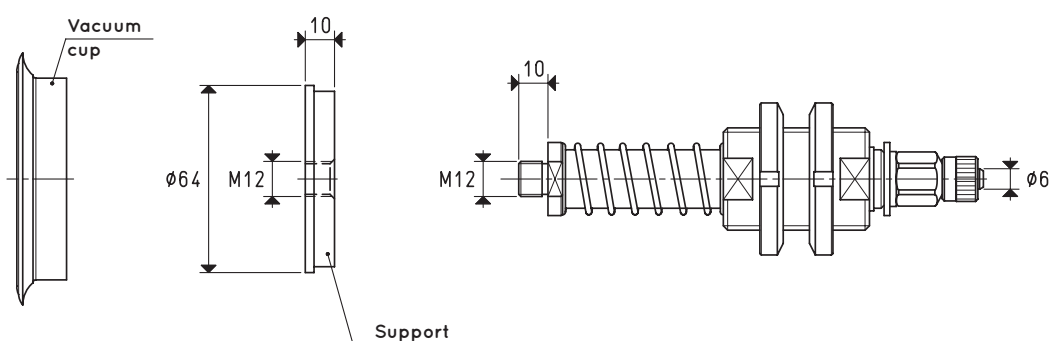
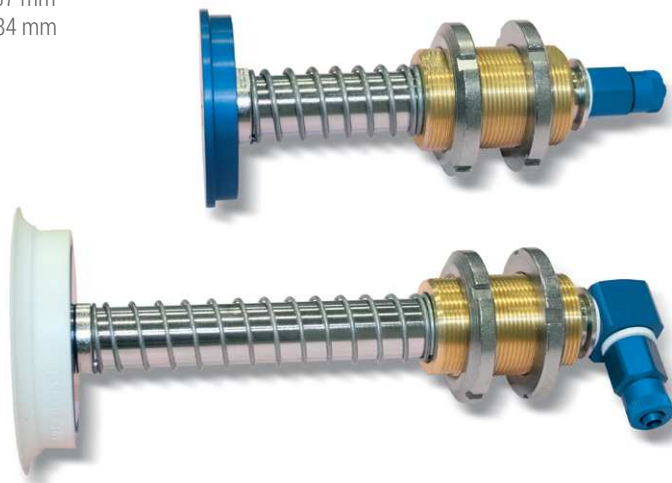
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## SPECIAL VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 85 15

VERSION 06 85 15 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item     | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | G  | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>g | Weight<br>g |
|----------|-------------|----|----|----|--------|-----------|----|-----|------------------------|--------------------------|-------------|-------------|
| 06 85 15 | 14.18       | 22 | 39 | 55 | 85     | M35 x 1.5 | 50 | 166 | 01 85 15               | 00 08 32                 | 779.7       | 899.7       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

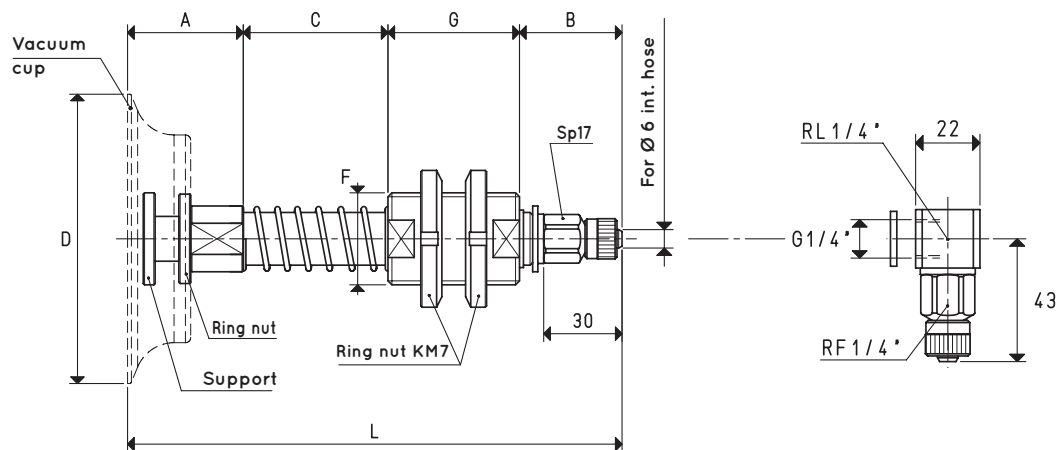
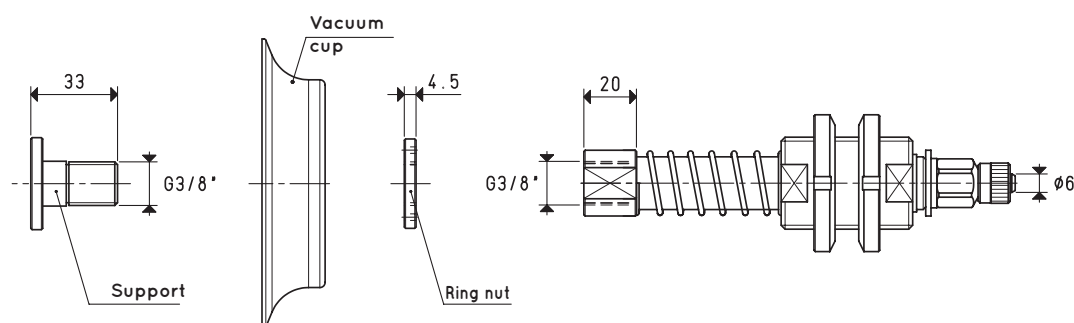
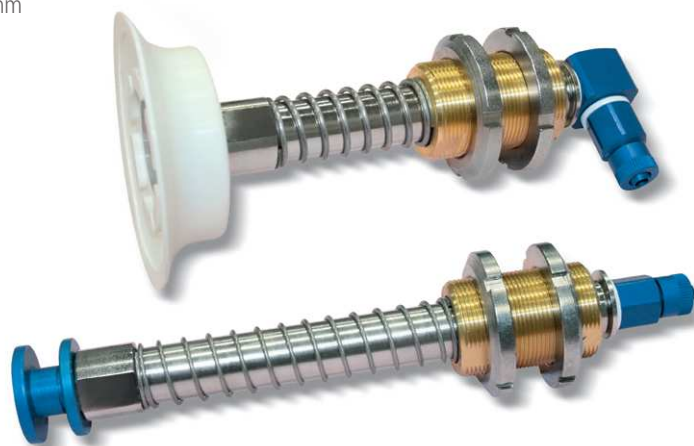
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 90 24

VERSION 06 90 24 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item            | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | G  | L   | For vacuum cup<br>item | Support included<br>item | Ring nut included<br>item | Weight<br>g | Weight<br>g |
|-----------------|-------------|----|----|----|--------|-----------|----|-----|------------------------|--------------------------|---------------------------|-------------|-------------|
| <b>06 90 24</b> | 15.89       | 29 | 39 | 55 | 90     | M35 x 1.5 | 50 | 173 | 01 90 24               | 00 08 110                | 00 08 111                 | 852.8       | 974.8       |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

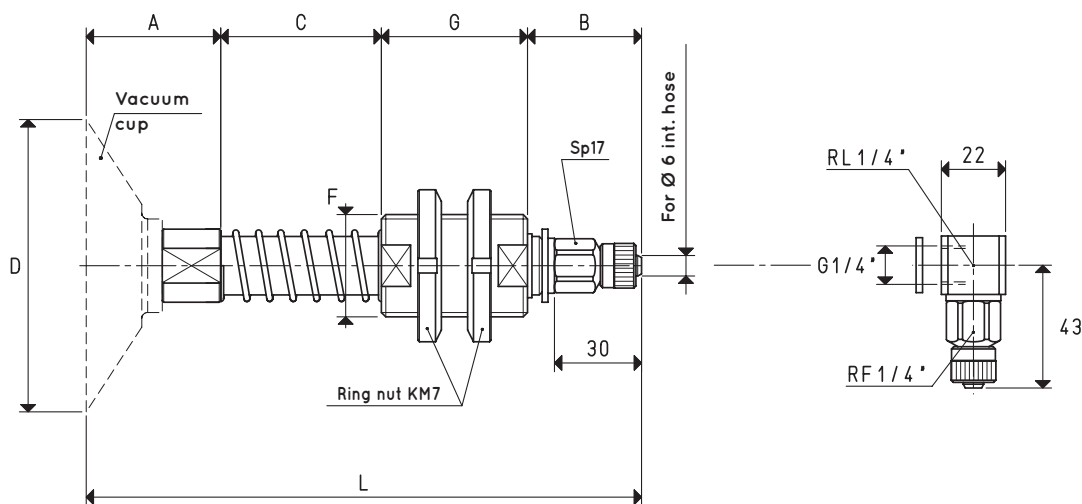
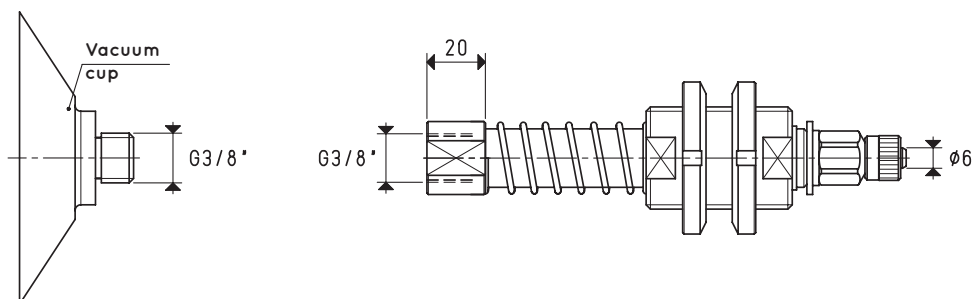
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 100 40

VERSION 06 100 40 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item      | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | G  | L   | For vacuum cup<br>item | Weight<br>g | Weight<br>g |
|-----------|-------------|----|----|----|--------|-----------|----|-----|------------------------|-------------|-------------|
| 06 100 40 | 19.62       | 31 | 39 | 55 | 100    | M35 x 1.5 | 50 | 175 | 08 100 40              | 736         | 858         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

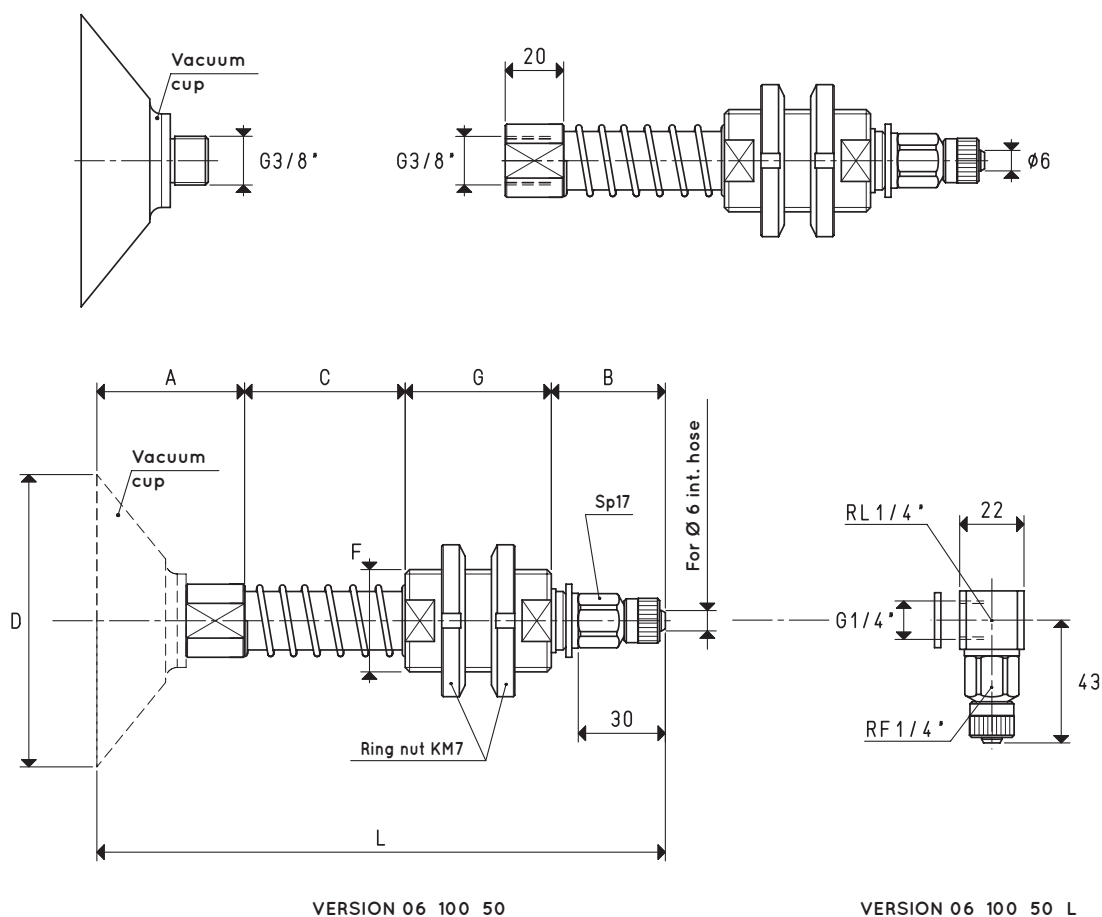


## SPECIAL VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm

3D drawings are available on [vuototecnica.net](http://vuototecnica.net)



VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item             | Force<br>Kg | A    | B  | *C | D<br>Ø | F<br>Ø    | G  | L     | For vacuum cup<br>item | Weight<br>g | Weight<br>g |
|------------------|-------------|------|----|----|--------|-----------|----|-------|------------------------|-------------|-------------|
| <b>06 100 50</b> | 19.62       | 35.5 | 39 | 55 | 100    | M35 x 1.5 | 50 | 179.5 | 08 100 50              | 732         | 854         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

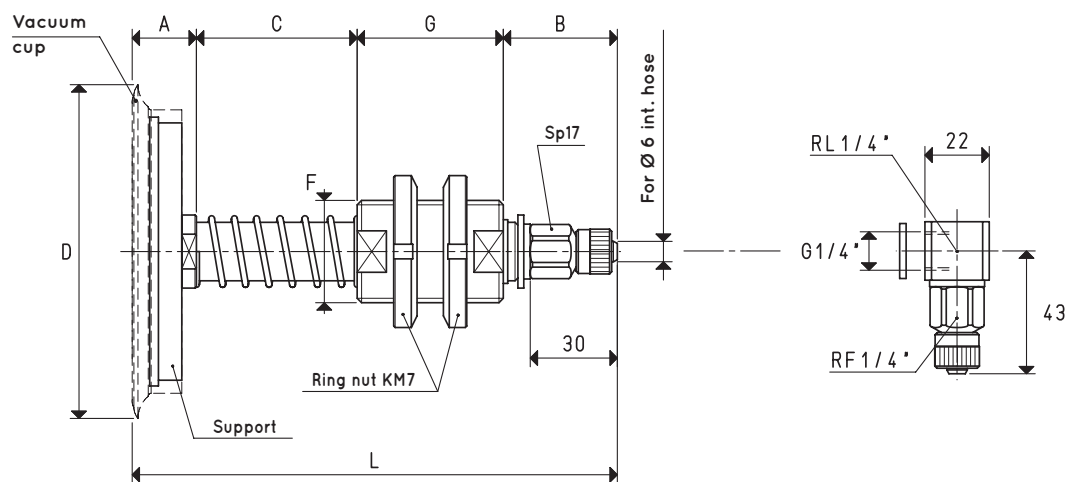
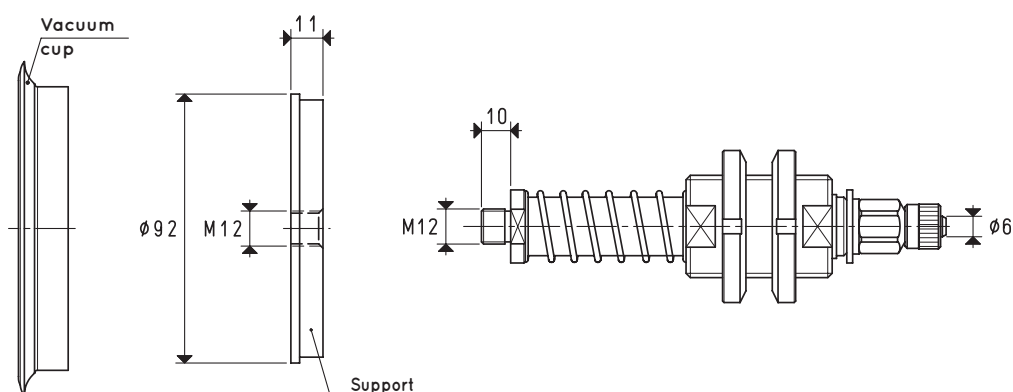
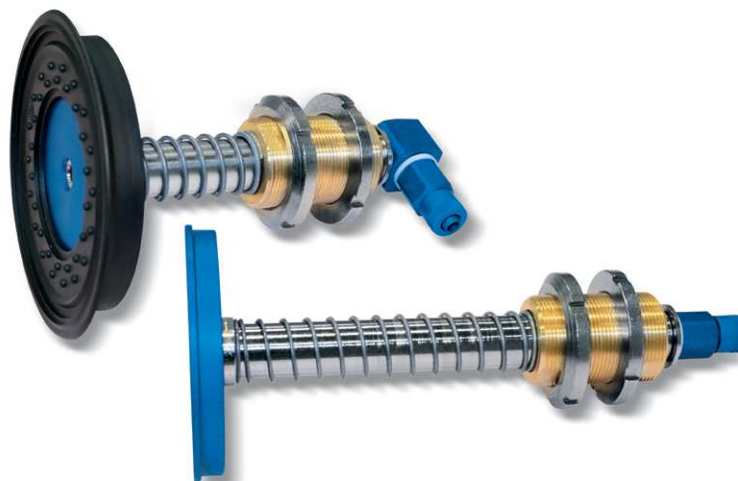
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## SPECIAL VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 110 10

VERSION 06 110 10 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item      | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | G  | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>g | Weight<br>g |
|-----------|-------------|----|----|----|--------|-----------|----|-----|------------------------|--------------------------|-------------|-------------|
| 06 110 10 | 23.74       | 22 | 39 | 55 | 114    | M35 x 1.5 | 50 | 166 | 01 110 10              | 00 08 33                 | 912.3       | 1034.3      |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

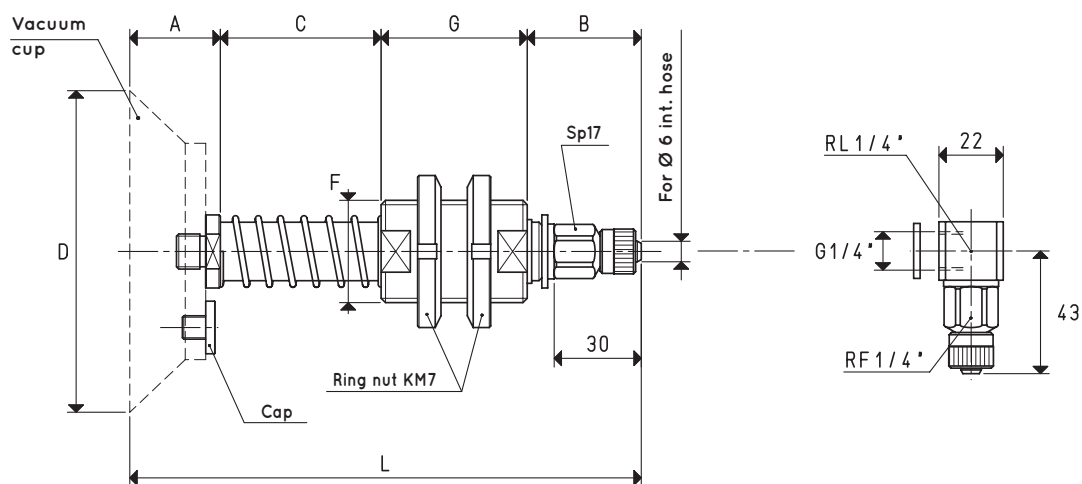
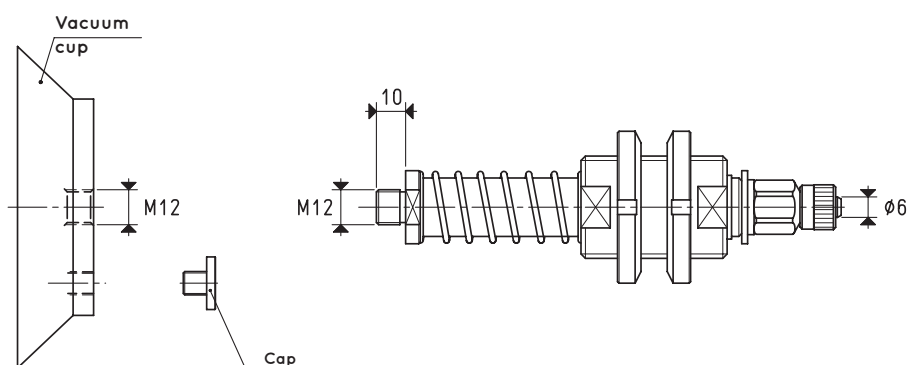
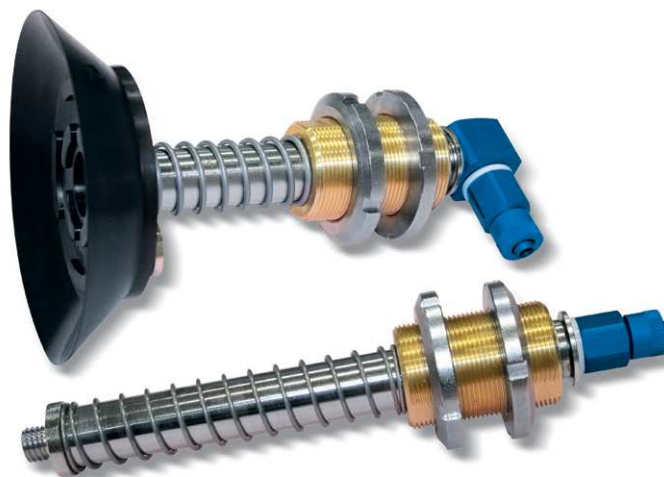
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 110 15

VERSION 06 110 15 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item      | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | G  | L   | For vacuum cup<br>item | Cap included<br>item | Weight<br>g | Weight<br>g |
|-----------|-------------|----|----|----|--------|-----------|----|-----|------------------------|----------------------|-------------|-------------|
| 06 110 15 | 23.74       | 31 | 39 | 55 | 110    | M35 x 1.5 | 50 | 175 | 08 110 15              | 00 11 06             | 980         | 1100        |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

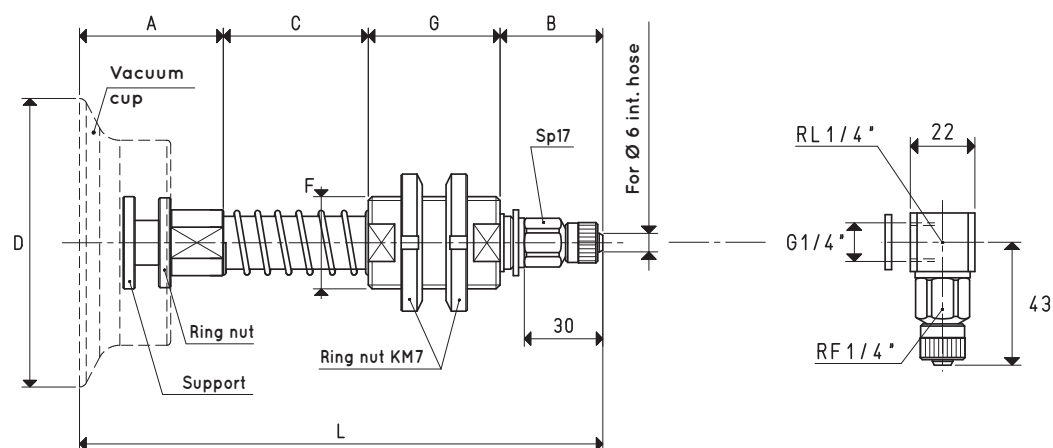
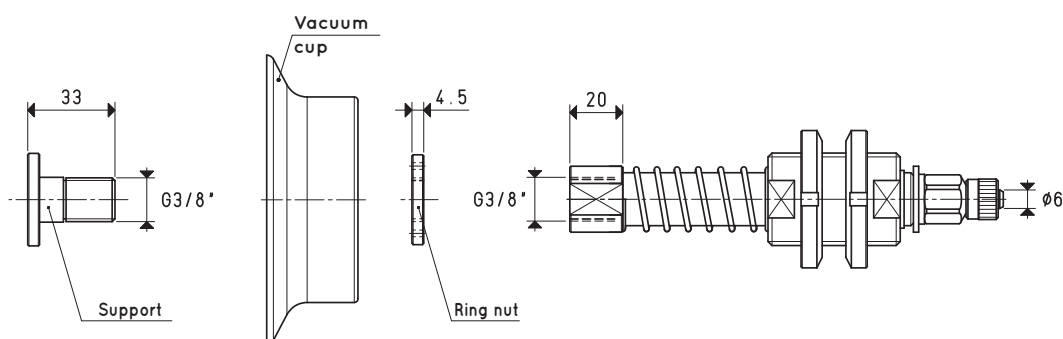
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## SPECIAL VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 110 24

VERSION 06 110 24 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item      | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | G  | L   | For vacuum cup<br>item | Support included<br>item | Ring nut included<br>item | Weight<br>Kg | Weight<br>Kg |
|-----------|-------------|----|----|----|--------|-----------|----|-----|------------------------|--------------------------|---------------------------|--------------|--------------|
| 06 110 24 | 23.74       | 29 | 39 | 55 | 110    | M35 x 1.5 | 50 | 173 | 01 110 24              | 00 08 110                | 00 08 111                 | 1.07         | 1.19         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



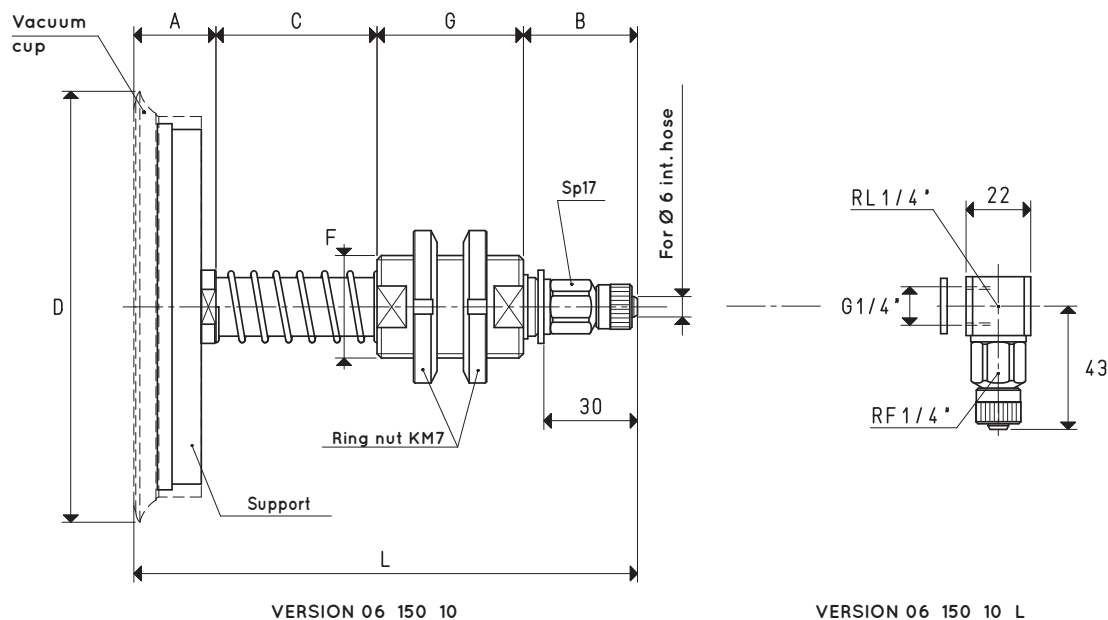
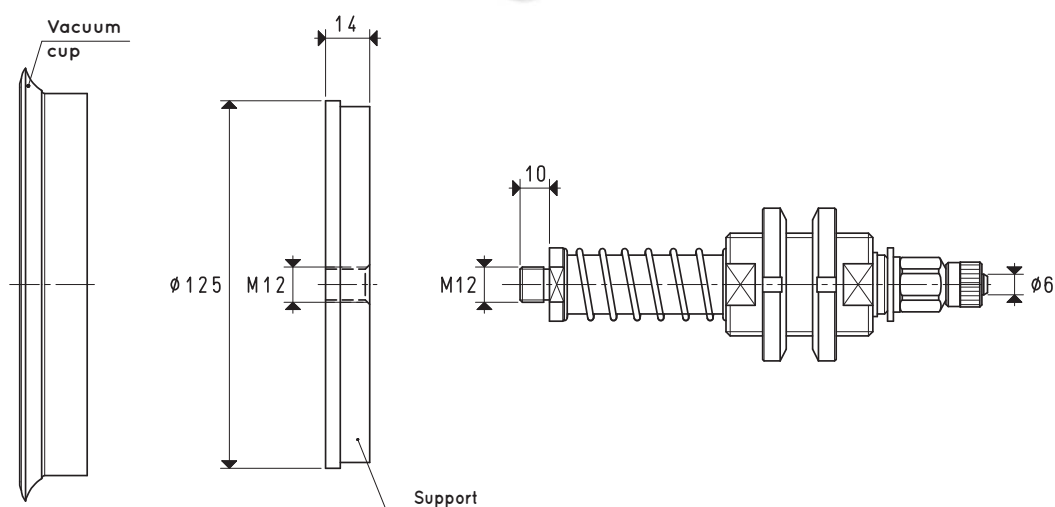
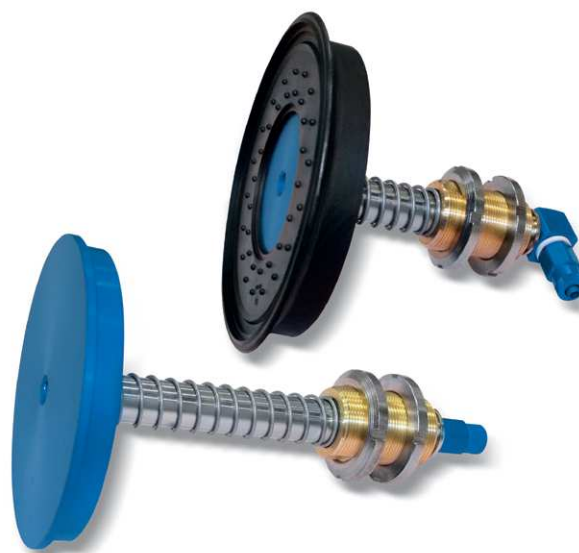
## SPECIAL VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm

3D drawings are available on [vuototecnica.net](http://vuototecnica.net)

2



### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item             | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | G  | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|----|----|----|--------|-----------|----|-----|------------------------|--------------------------|--------------|--------------|
| <b>06 150 10</b> | 45.00       | 28 | 39 | 55 | 154    | M35 x 1.5 | 50 | 172 | 01 150 10              | 00 08 35                 | 1.32         | 1.45         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

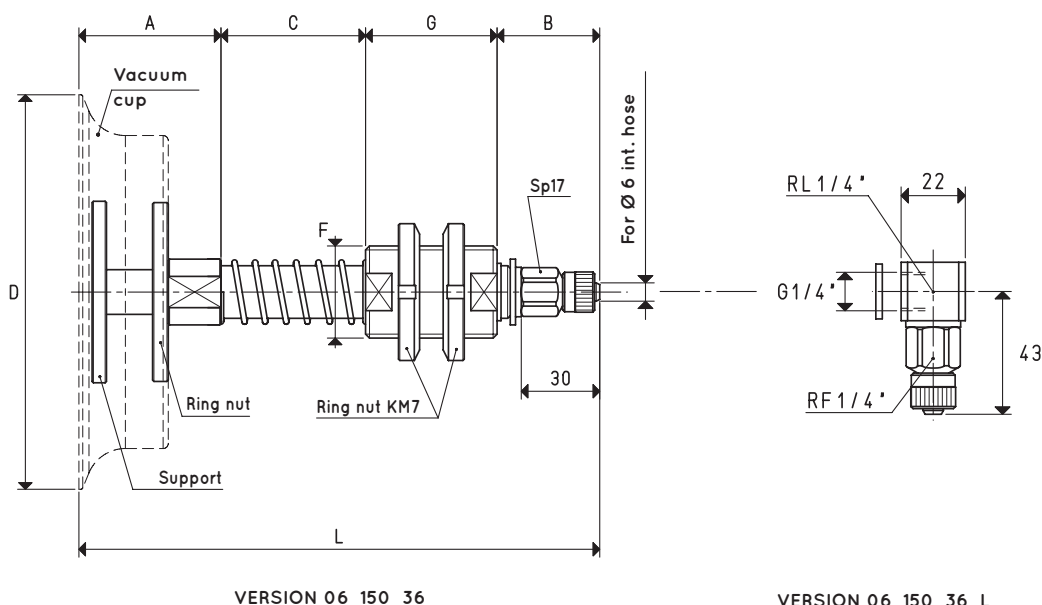
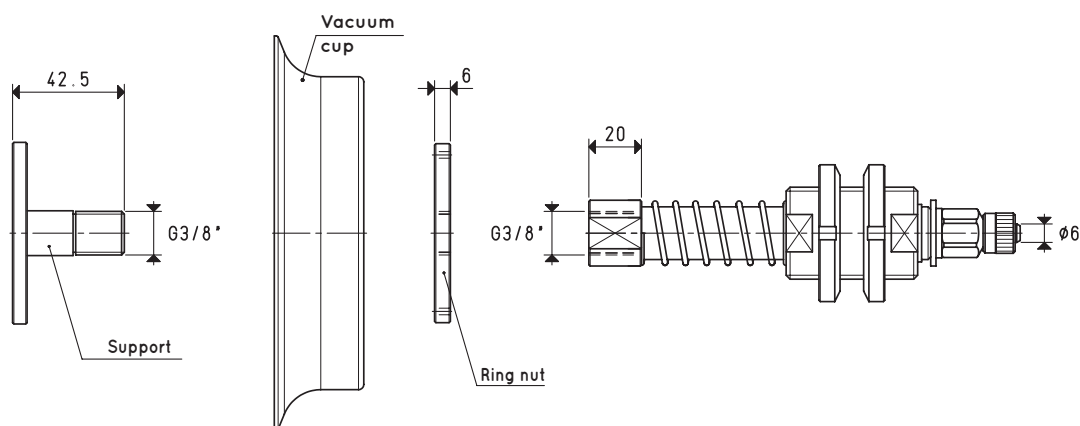
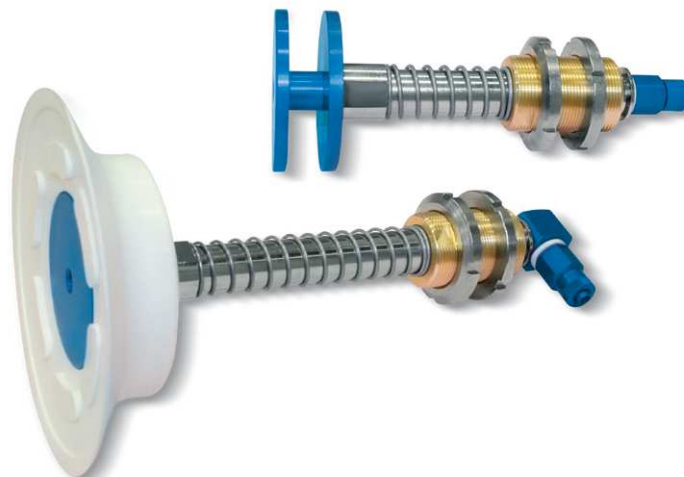
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## SPECIAL VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item             | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | G  | L   | For vacuum cup<br>item | Support included<br>item | Ring nut included<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|----|----|----|--------|-----------|----|-----|------------------------|--------------------------|---------------------------|--------------|--------------|
| <b>06 150 36</b> | 45.00       | 41 | 39 | 55 | 150    | M35 x 1.5 | 50 | 185 | 01 150 36              | 00 08 112                | 00 08 113                 | 1.39         | 1.52         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

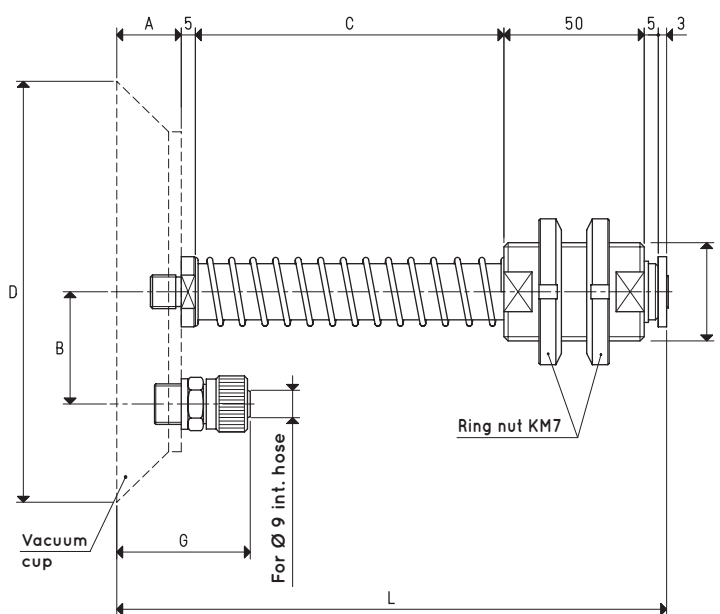
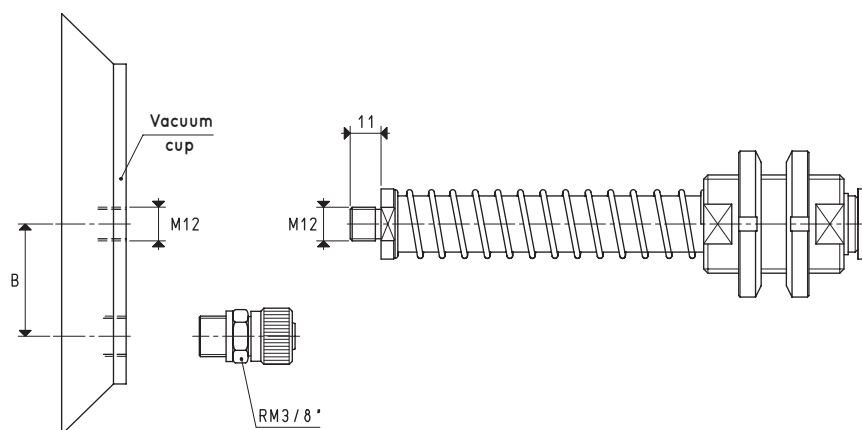
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 ... ..

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 9 X 12

C = 110 mm

| Item             | Force<br>Kg | A  | B    | *C | D<br>Ø | F<br>Ø    | G  | L   | For vacuum cup<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|----|------|----|--------|-----------|----|-----|------------------------|--------------|--------------|
| <b>06 150 15</b> | 45.00       | 26 | 40.0 | 55 | 150    | M35 x 1.5 | 50 | 144 | 08 150 15              | 1.51         | 1.64         |
| <b>06 200 10</b> | 78.50       | 28 | 47.5 | 55 | 200    | M35 x 1.5 | 52 | 146 | 08 200 10              | 2.42         | 2.54         |
| <b>06 250 10</b> | 122.60      | 28 | 72.5 | 55 | 250    | M35 x 1.5 | 52 | 146 | 08 250 10              | 3.68         | 3.80         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



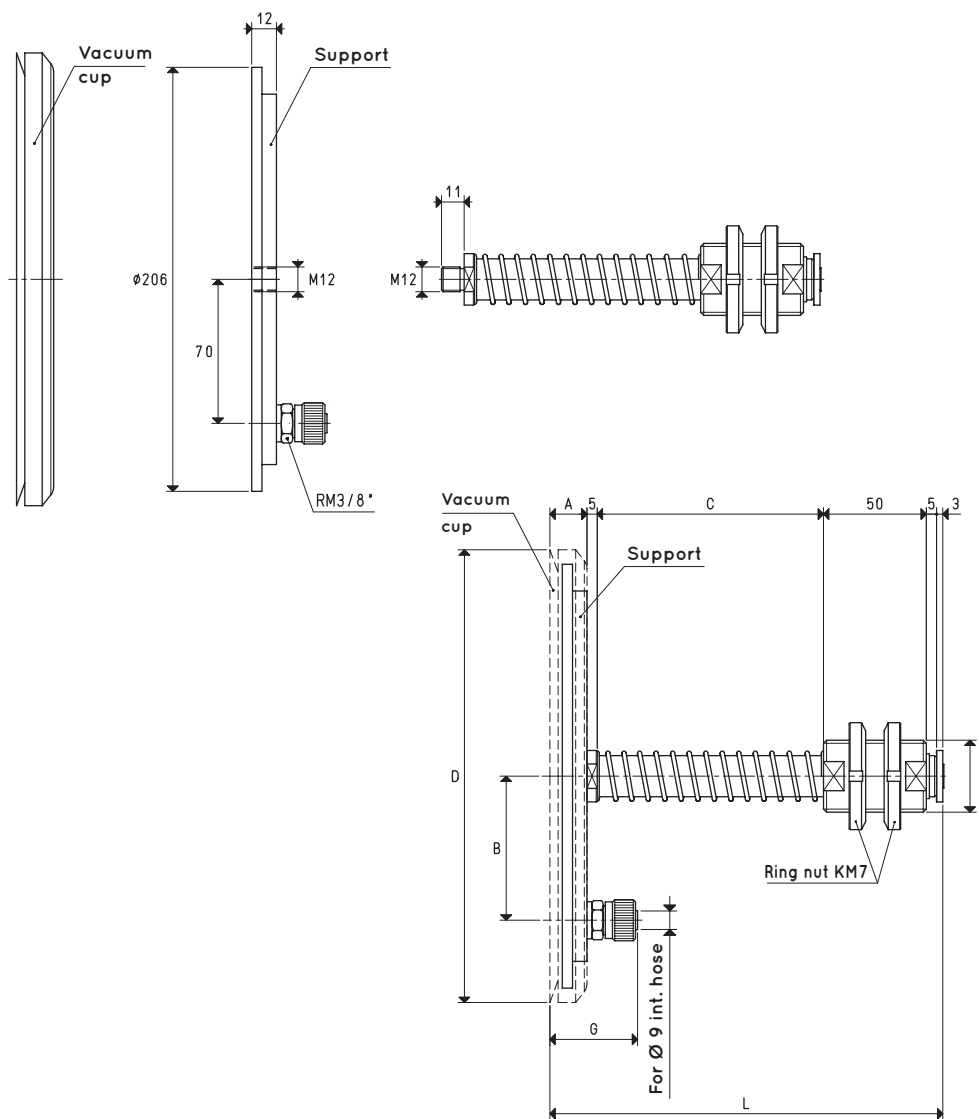
## 2.115



## SPECIAL VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 220 10 A

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 9 X 12

C = 110 mm

| Item        | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | G  | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>Kg | Weight<br>Kg |
|-------------|-------------|----|----|----|--------|-----------|----|-----|------------------------|--------------------------|--------------|--------------|
| 06 220 10 A | 78.5        | 20 | 70 | 55 | 220    | M35 x 1.5 | 44 | 138 | 01 220 10 A            | 00 08 37                 | 1.81         | 1.94         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

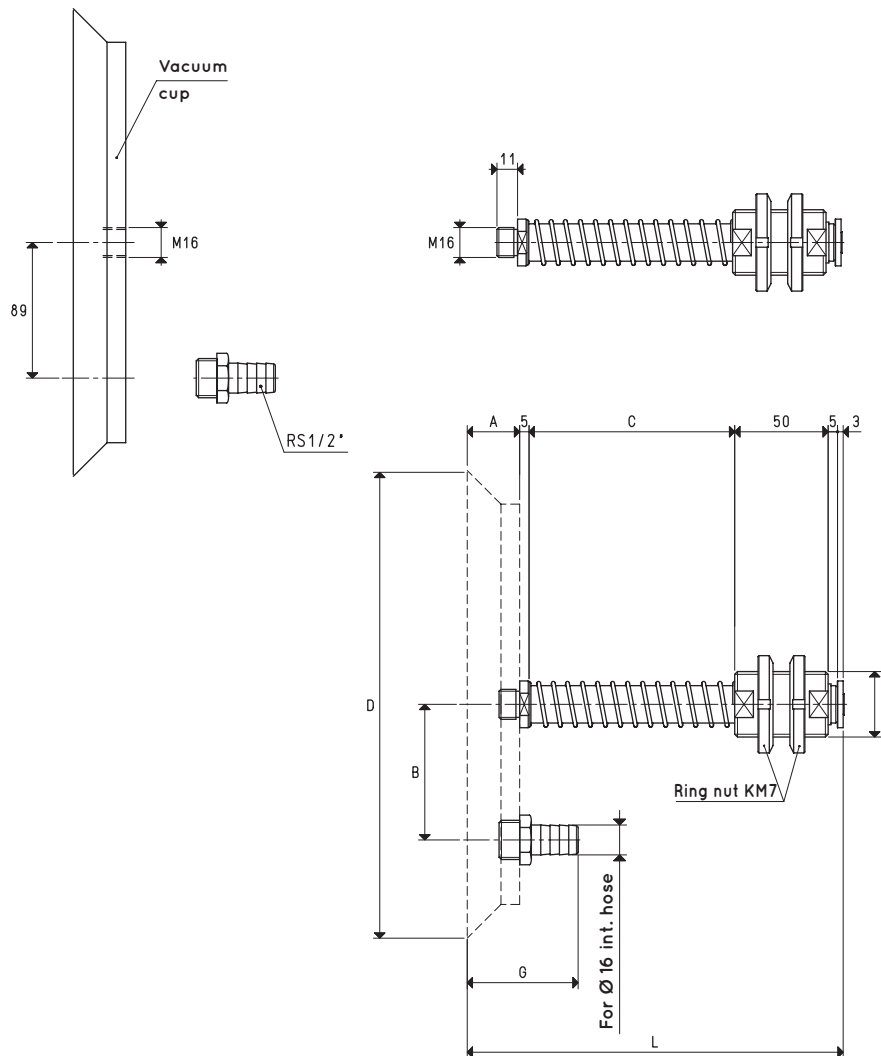
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## SPECIAL VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 55 mm      37 mm
- For height C= 110 mm      84 mm



VERSION 06 ... 10

### VACUUM CUP HOLDERS WITH HOSE-END FITTING FOR PLASTIC HOSE Ø 16 X 18

C = 110 mm

| Item             | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | G  | L   | For vacuum cup<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|----|----|----|--------|-----------|----|-----|------------------------|--------------|--------------|
| <b>06 300 10</b> | 176.6       | 31 | 89 | 55 | 300    | M35 x 1.5 | 61 | 149 | 08 300 10              | 5.42         | 5.56         |
| <b>06 350 10</b> | 240.0       | 31 | 89 | 55 | 350    | M35 x 1.5 | 61 | 149 | 08 350 10              | 7.30         | 7.43         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

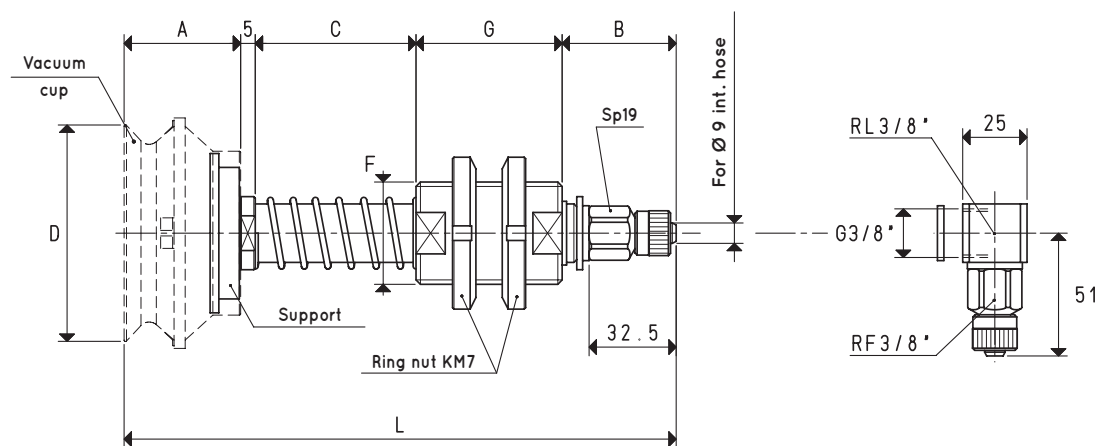
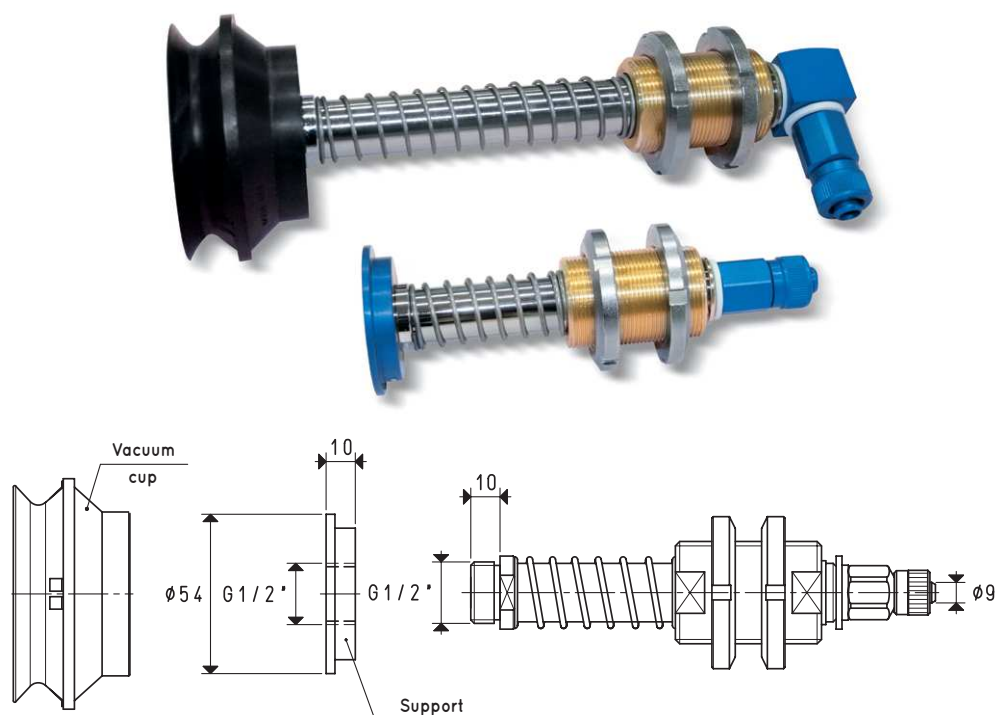
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL VACUUM CUP HOLDERS FOR BELLOWS CUPS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 75 42

VERSION 06 75 42 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 9 X 12

C = 110 mm

| Item     | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | G  | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>Kg | Weight<br>Kg |
|----------|-------------|----|----|----|--------|-----------|----|-----|------------------------|--------------------------|--------------|--------------|
| 06 75 42 | 11.93       | 42 | 45 | 55 | 78     | M35 x 1.5 | 50 | 197 | 01 75 42               | 00 08 143                | 0.76         | 0.87         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

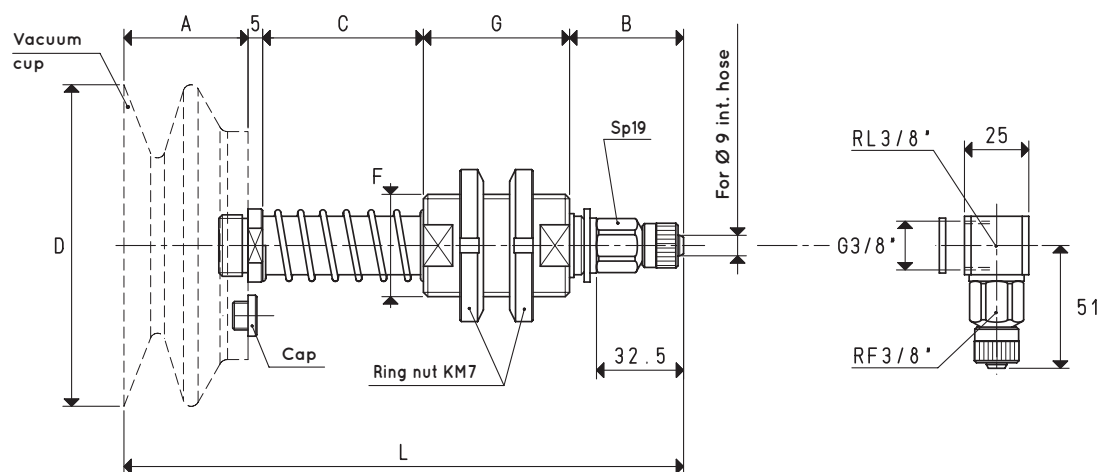
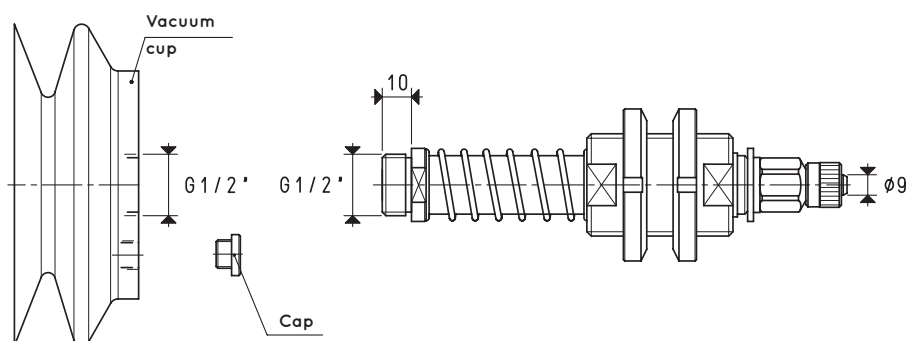
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## SPECIAL VACUUM CUP HOLDERS FOR BELLOWS CUPS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 . . . 30

VERSION 06 . . . 30 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 9 X 12

C = 110 mm

| Item             | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | G  | L   | For vacuum cup<br>item | Cap included<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|----|----|----|--------|-----------|----|-----|------------------------|----------------------|--------------|--------------|
| <b>06 110 30</b> | 23.74       | 45 | 45 | 55 | 110    | M35 x 1.5 | 50 | 200 | 08 110 30              | 00 11 44             | 0.97         | 1.08         |
| <b>06 150 30</b> | 45.00       | 60 | 45 | 55 | 150    | M35 x 1.5 | 50 | 215 | 08 150 30              | 00 11 44             | 1.09         | 1.20         |
| <b>06 180 30</b> | 63.50       | 70 | 45 | 55 | 180    | M35 x 1.5 | 50 | 225 | 08 180 30              | 00 11 44             | 1.45         | 1.56         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

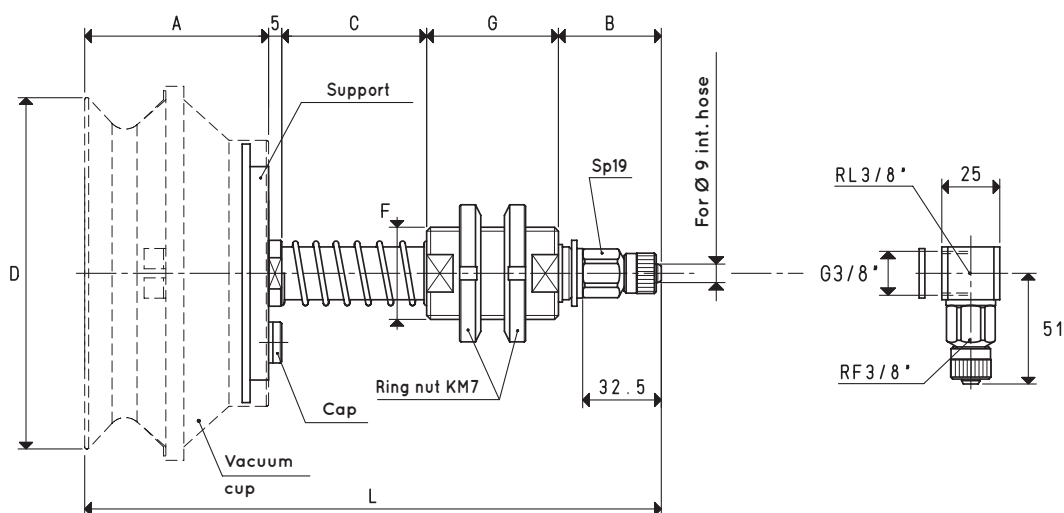
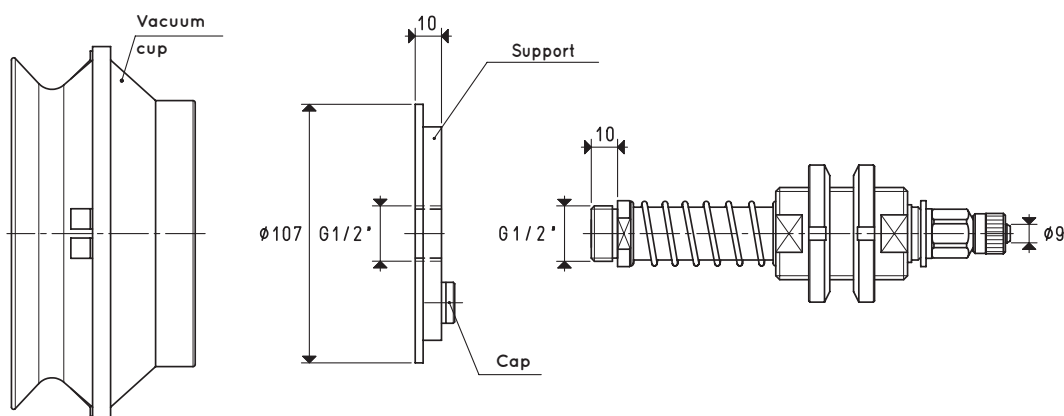
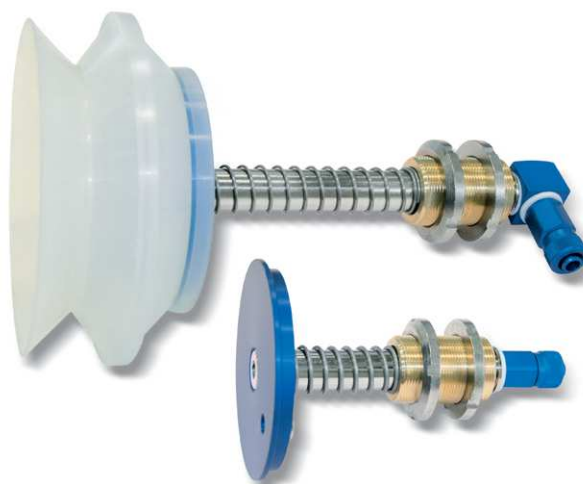
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL VACUUM CUP HOLDERS FOR BELLOWS CUPS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 150 74

VERSION 06 150 74 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 9 X 12

C = 110 mm

| Item             | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | G  | L   | For vacuum cup<br>item | Support included<br>item | Cap included<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|----|----|----|--------|-----------|----|-----|------------------------|--------------------------|----------------------|--------------|--------------|
| <b>06 150 74</b> | 45.00       | 74 | 45 | 55 | 150    | M35 x 1.5 | 50 | 229 | 01 150 74              | 00 08 163                | 00 11 44             | 1.34         | 1.45         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

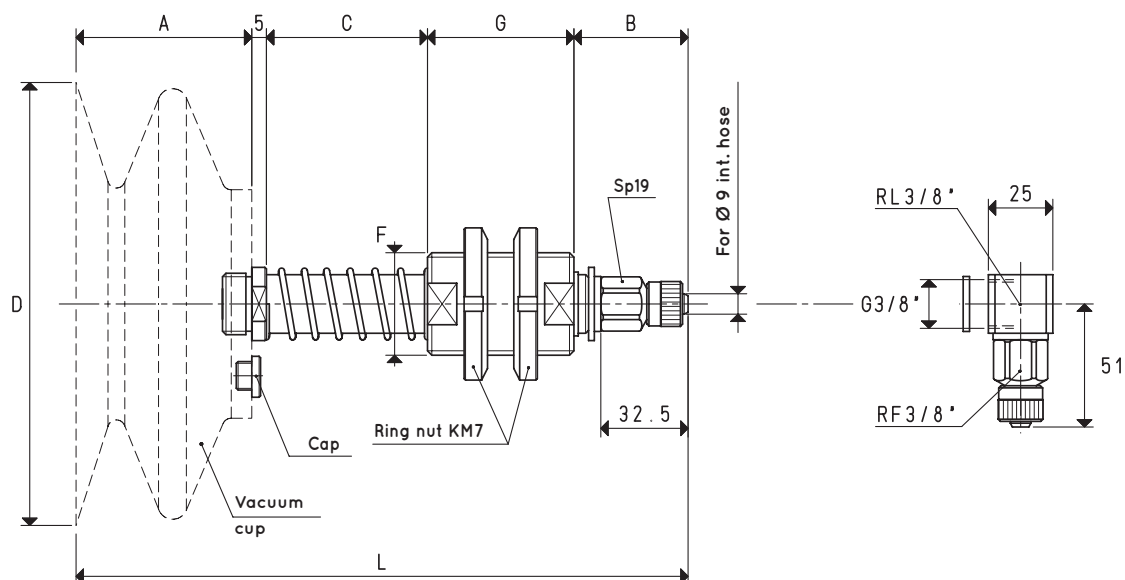
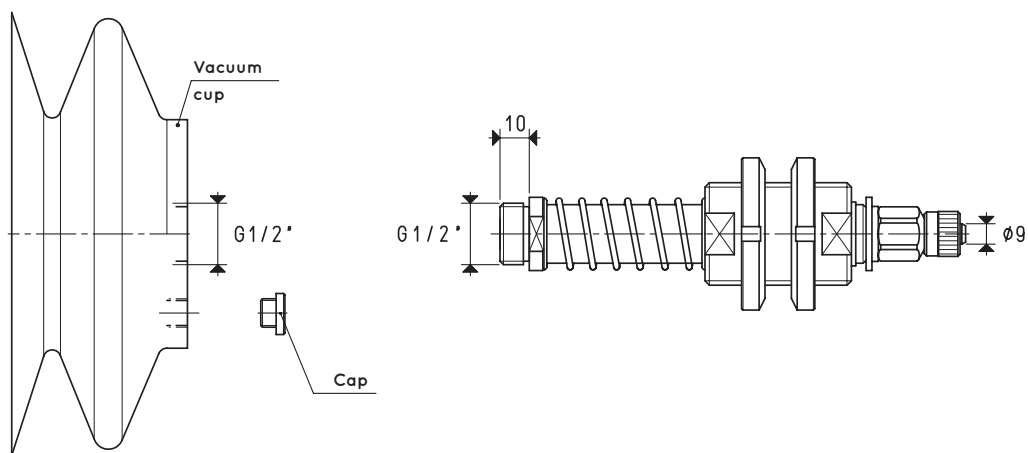
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL VACUUM CUP HOLDERS FOR BELLOWS CUPS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 250 30

VERSION 06 250 30 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 9 X 12

C = 110 mm

| Item      | Force<br>Kg | A   | B  | *C | D<br>Ø | F<br>Ø    | G  | L   | For vacuum cup<br>item | Cap included<br>item | Weight<br>Kg | Weight<br>Kg |
|-----------|-------------|-----|----|----|--------|-----------|----|-----|------------------------|----------------------|--------------|--------------|
| 06 250 30 | 122.60      | 100 | 45 | 55 | 250    | M35 x 1.5 | 50 | 255 | 08 250 30              | 00 18 33             | 2.20         | 2.31         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

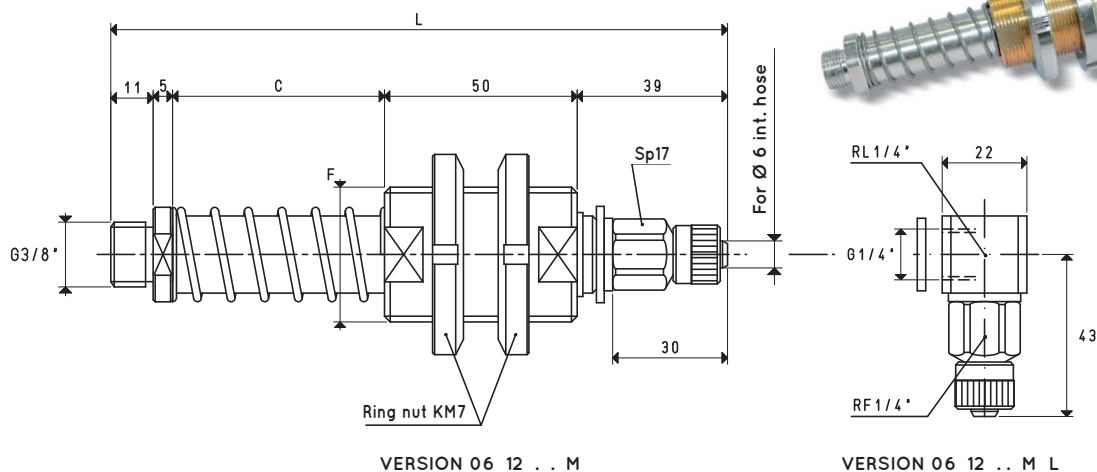


# SPECIAL VACUUM CUP HOLDERS WITH MALE AND FEMALE THREADED CONNECTORS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm

## Special vacuum cup holders with male threaded connectors

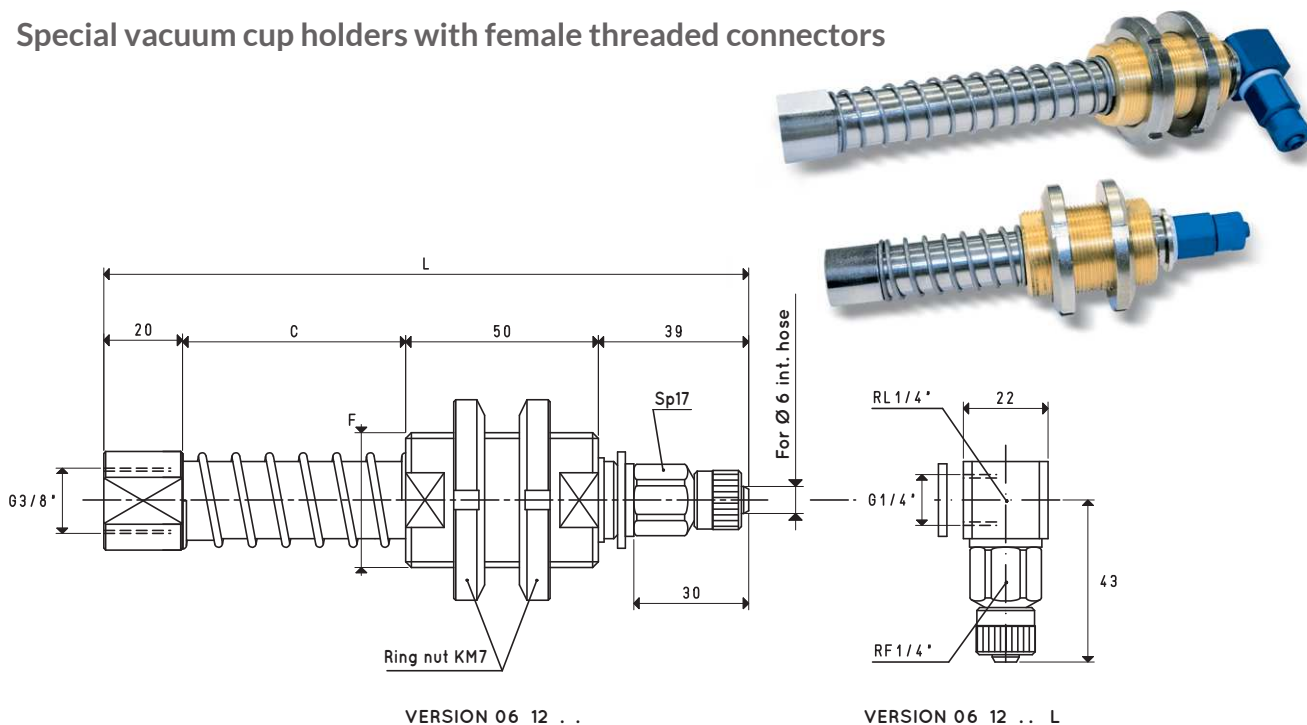


VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

| Item        | * C | F Ø       | L   | Weight Kg |
|-------------|-----|-----------|-----|-----------|
| 06 12 55 M  | 55  | M35 x 1.5 | 160 | 0.63      |
| 06 12 110 M | 110 | M35 x 1.5 | 215 | 0.77      |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.

## Special vacuum cup holders with female threaded connectors



VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

| Item      | * C | F Ø       | L   | Weight Kg |
|-----------|-----|-----------|-----|-----------|
| 06 12 55  | 55  | M35 x 1.5 | 164 | 0.62      |
| 06 12 110 | 110 | M35 x 1.5 | 219 | 0.75      |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

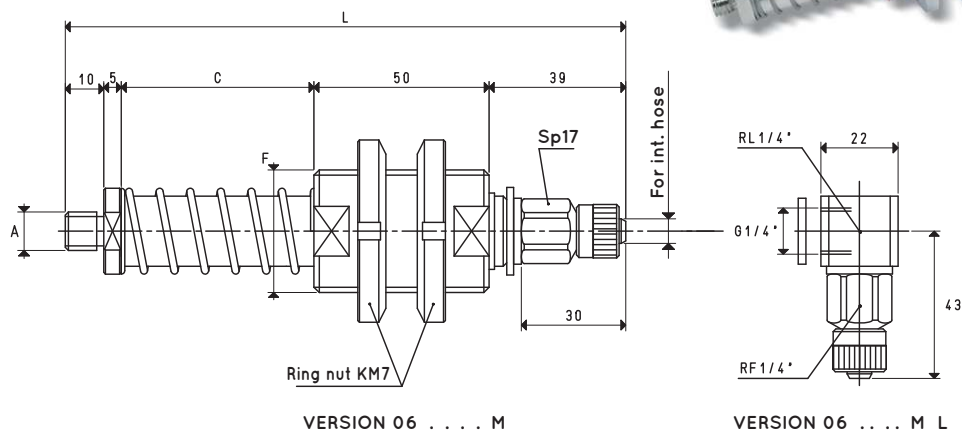




## SPECIAL VACUUM CUP HOLDERS WITH MALE THREADED CONNECTORS

The actual springing stroke is:

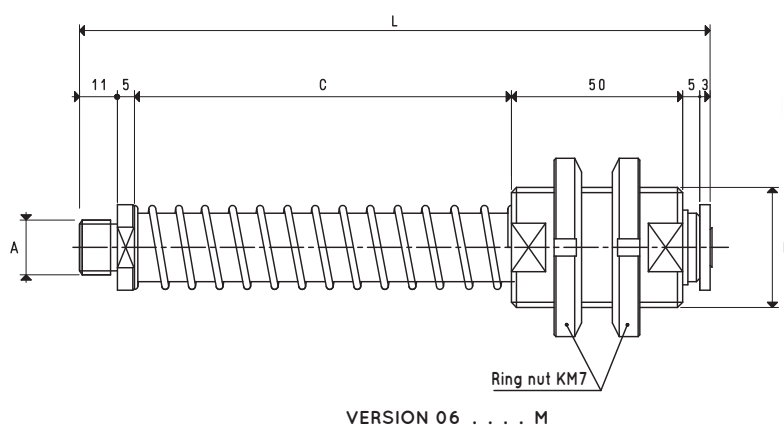
- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE

| Item               | A     | * C | F<br>Ø    | L   | Int. hose<br>Ø | Weight<br>Kg |
|--------------------|-------|-----|-----------|-----|----------------|--------------|
| <b>06 11 55 M</b>  | M12   | 55  | M35 x 1.5 | 159 | 6              | 0.63         |
| <b>06 11 110 M</b> | M12   | 110 | M35 x 1.5 | 214 | 6              | 0.77         |
| <b>06 13 55 M</b>  | G1/2" | 55  | M35 x 1.5 | 159 | 9              | 0.63         |
| <b>06 13 110 M</b> | G1/2" | 110 | M35 x 1.5 | 214 | 9              | 0.77         |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.



| Item               | A   | * C | F<br>Ø    | L   | Weight<br>Kg |
|--------------------|-----|-----|-----------|-----|--------------|
| <b>06 14 55 M</b>  | M16 | 55  | M35 x 1.5 | 129 | 0.52         |
| <b>06 14 110 M</b> | M16 | 110 | M35 x 1.5 | 184 | 0.65         |
| <b>06 15 55 M</b>  | M12 | 55  | M35 x 1.5 | 129 | 0.52         |
| <b>06 15 110 M</b> | M12 | 110 | M35 x 1.5 | 184 | 0.65         |

Note: The vacuum cup holder is not equipped with an axial vacuum passage

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

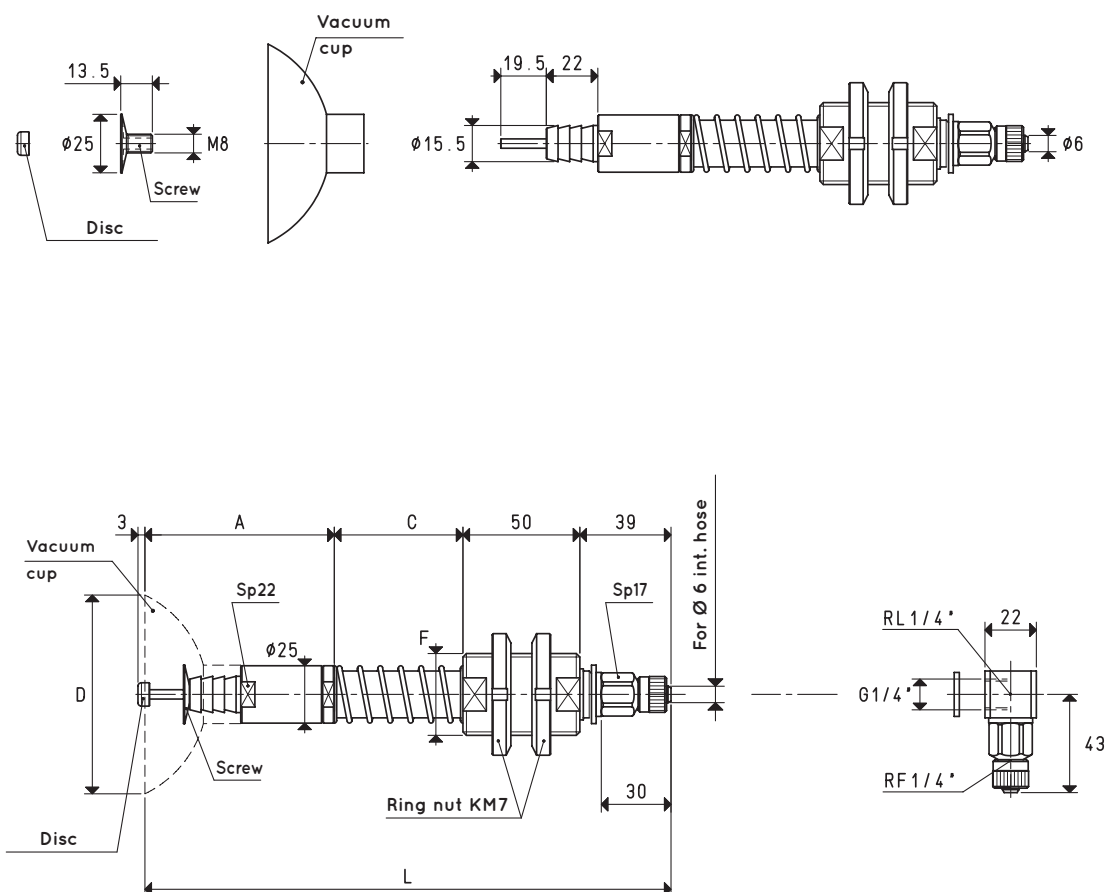
## SPECIAL VACUUM CUP HOLDERS WITH PLUNGER VALVE

They share the same mechanical features at the special vacuum cup holders. The addition of a plunger valve solidly connected to a conical spear valve, which activates suction, and therefore creates vacuum, only when the cup comes into contact with the load to be lifted.

With these cup holders, it is no longer necessary to install cocks on the suction hoses; for this reason, they are recommended in all those cases in which there is a chance that not all the cups come into contact with the load to be lifted (because of an uneven or incomplete load).

The actual springing stroke is:

- For height C= 55 mm      37 mm
- For height C= 110 mm    84 mm



VERSION 06 85 20

VERSION 06 85 20 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item            | Force<br>Kg | A  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Screw included<br>item | Disc included<br>item | Weight<br>Kg | Weight<br>Kg |
|-----------------|-------------|----|----|--------|-----------|-----|------------------------|------------------------|-----------------------|--------------|--------------|
| <b>06 85 20</b> | 14.18       | 81 | 55 | 85     | M35 x 1.5 | 225 | 01 85 10               | 00 20 13               | 00 03 22              | 0.83         | 0.95         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

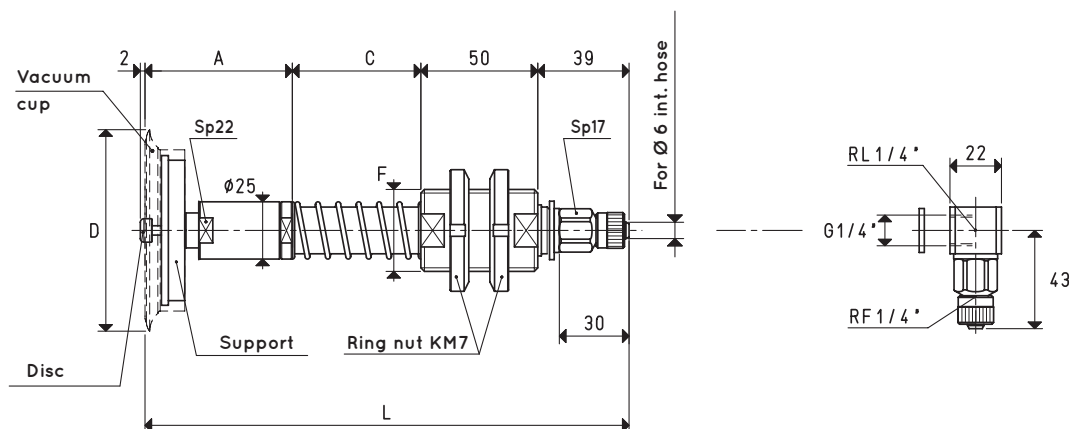
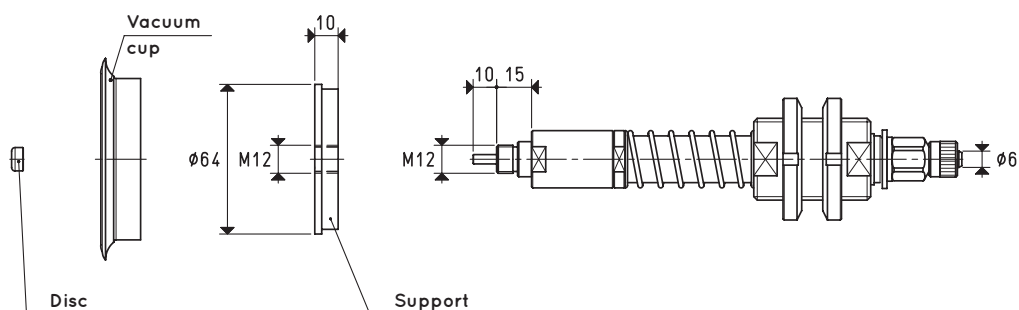
\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm

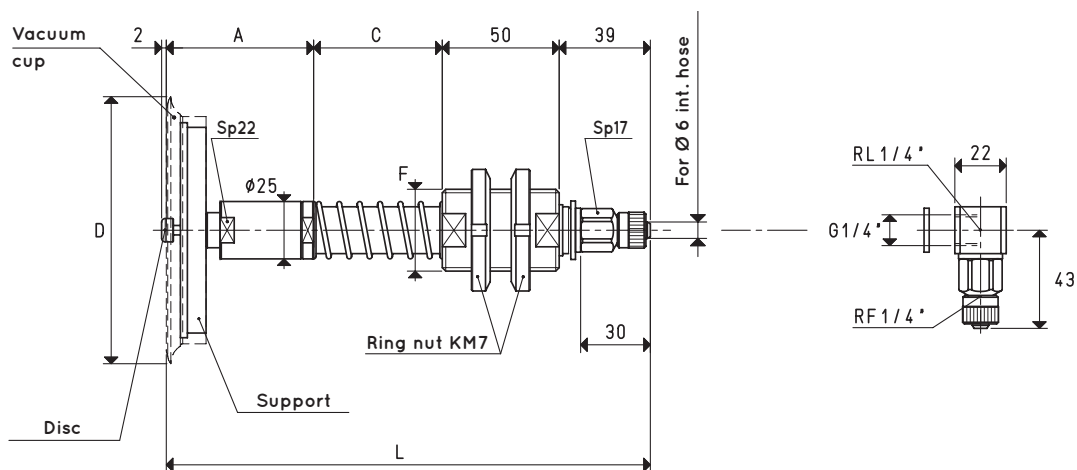


VERSION 06 85 22 L

| Item     | Force<br>Kg | A  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Support included<br>item | Disc included<br>item | Weight<br>Kg | Weight<br>Kg |
|----------|-------------|----|----|--------|-----------|-----|------------------------|--------------------------|-----------------------|--------------|--------------|
| 06 85 22 | 14.18       | 65 | 55 | 85     | M35 x 1.5 | 209 | 01 85 15               | 00 08 32                 | 00 03 22              | 0.89         | 1.01         |

\* Also available with height C of 110 mm

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6}$  =  $\frac{\text{Kg}}{0.4536}$



VERSION 06 110 20 L

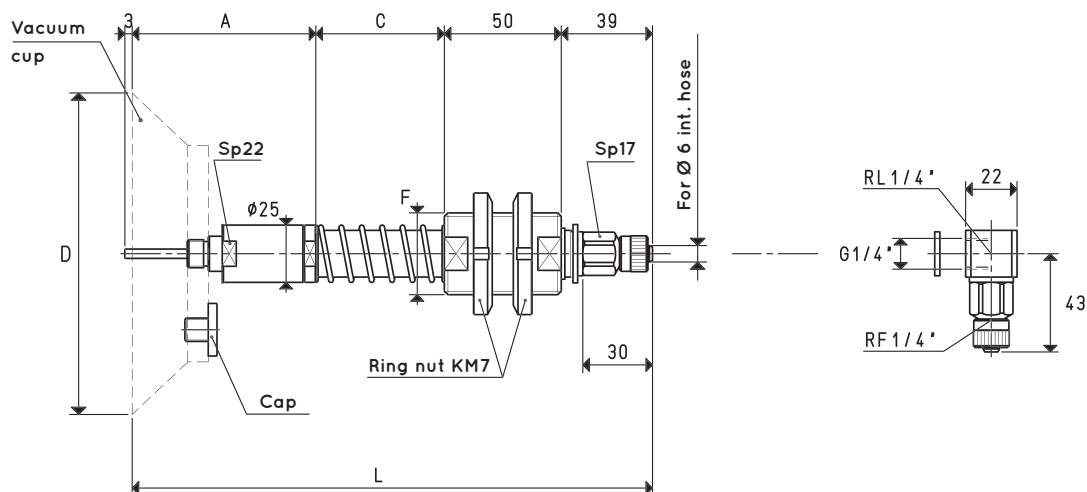
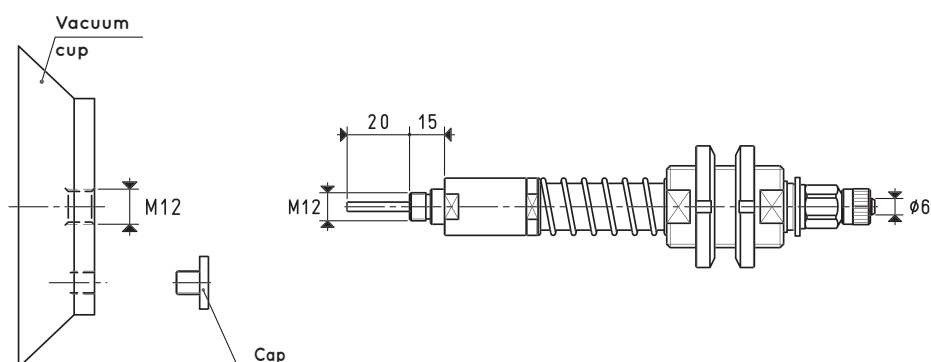
## 2.127



## SPECIAL VACUUM CUP HOLDERS WITH PLUNGER VALVE

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 110 22

VERSION 06 110 22 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item             | Force<br>Kg | A  | *C | D<br>Ø | F         | L   | For vacuum cup<br>item | Cap included<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|----|----|--------|-----------|-----|------------------------|----------------------|--------------|--------------|
| <b>06 110 22</b> | 23.74       | 74 | 55 | 110    | M35 x 1.5 | 218 | 08 110 15              | 00 11 06             | 1.48         | 1.56         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

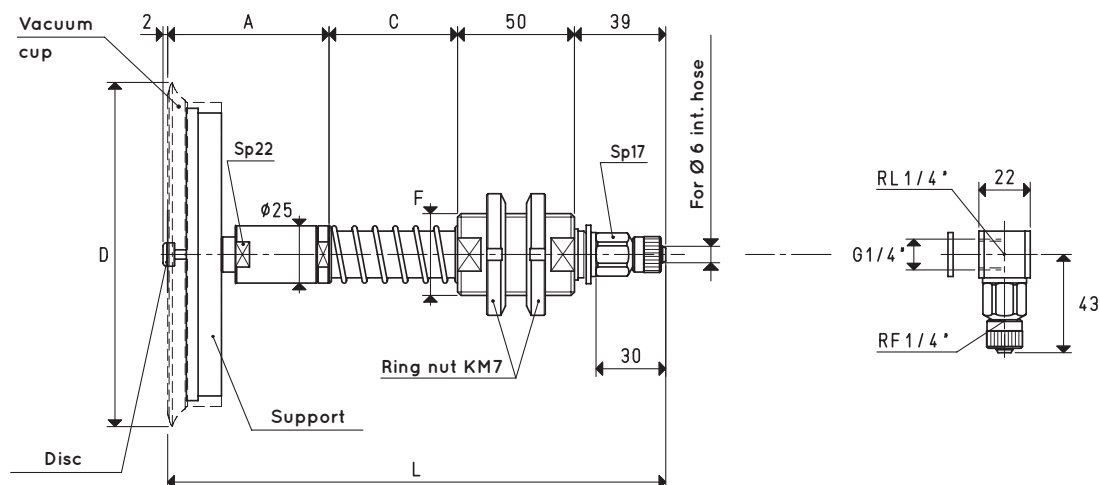
To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## 2



VERSION 06 150 20 L

**C = 110 mm**

2.129



## SPECIAL VACUUM CUP HOLDERS WITH PUSH VALVE

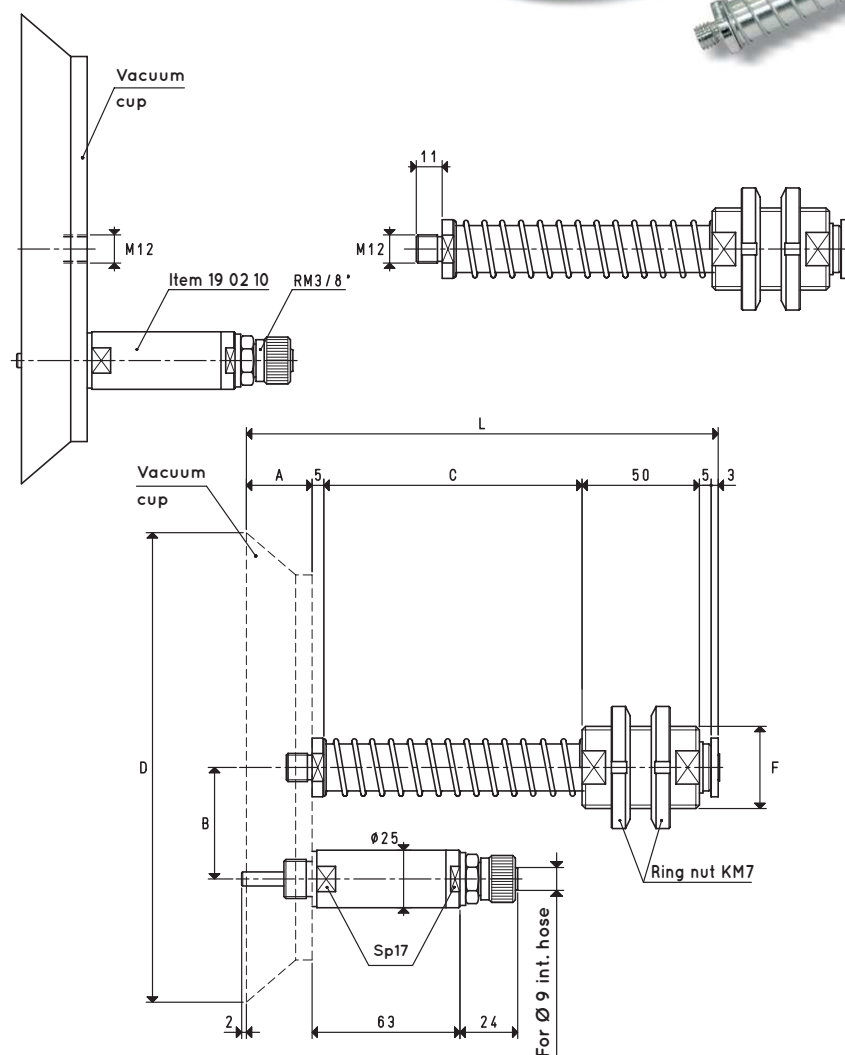
They share the same technical and mechanical features at the special vacuum cup holders. Their distinctive feature is the push valve on the cup support, which activates suction, and therefore creates vacuum, only when the cup is in contact with the load to be lifted.

With these cup holders, it is no longer necessary to install cocks on the suction hoses; for this reason, they are recommended in all those cases in which there is a chance that not all the cups come into contact with the load to be lifted (because of an uneven or incomplete load).

The same push valve can also be applied with no modification to the special articulated cup holders.

The actual springing stroke is:

- For height C= 55 mm      37 mm
- For height C= 110 mm    84 mm



VERSION 06 . . . .

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 9 X 12

C = 110 mm

| Item             | Force<br>Kg | A  | B    | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|----|------|----|--------|-----------|-----|------------------------|--------------|--------------|
| <b>06 150 22</b> | 45.0        | 26 | 40.0 | 55 | 150    | M35 x 1.5 | 144 | 08 150 15              | 1.68         | 1.80         |
| <b>06 200 20</b> | 78.5        | 28 | 47.5 | 55 | 200    | M35 x 1.5 | 146 | 08 200 10              | 2.58         | 2.71         |
| <b>06 250 20</b> | 122.6       | 28 | 72.5 | 55 | 250    | M35 x 1.5 | 146 | 08 250 10              | 3.84         | 3.97         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

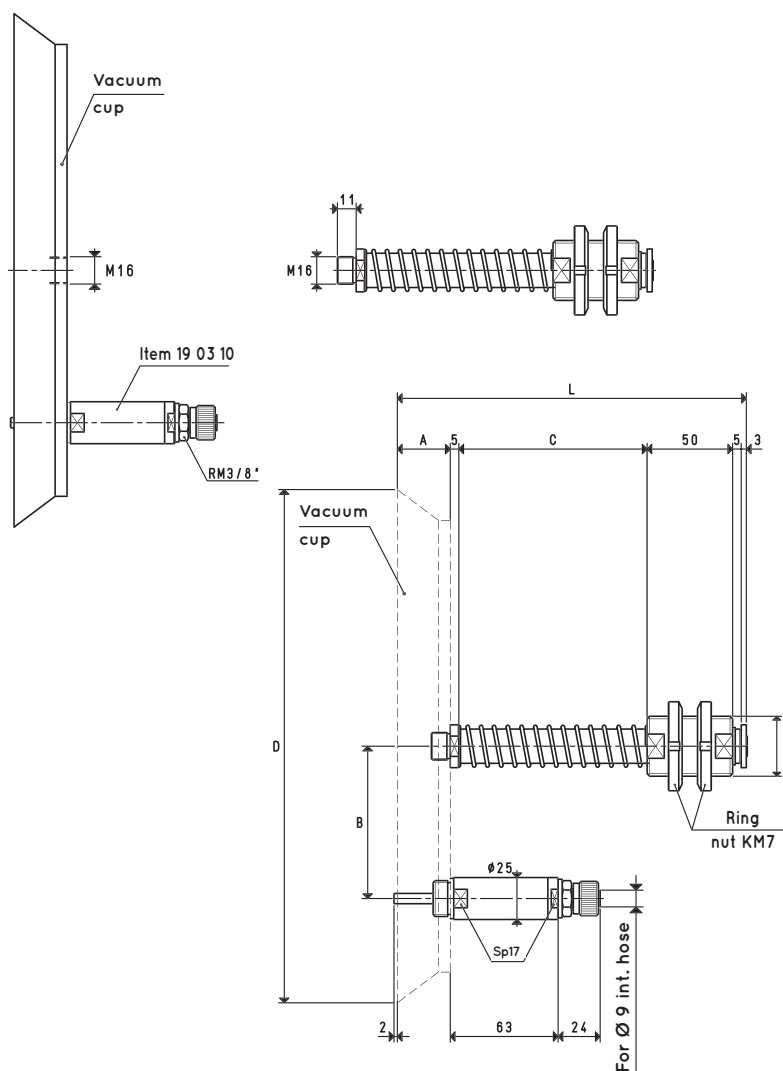
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL VACUUM CUP HOLDERS WITH PUSH VALVE

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 ... 20

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 9 X 12

C = 110 mm

| Item             | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|----|----|----|--------|-----------|-----|------------------------|--------------|--------------|
| <b>06 300 20</b> | 176.6       | 31 | 89 | 55 | 300    | M35 x 1.5 | 149 | 08 300 10              | 5.56         | 5.69         |
| <b>06 350 20</b> | 240.0       | 31 | 89 | 55 | 350    | M35 x 1.5 | 149 | 08 350 10              | 7.42         | 7.55         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL VACUUM CUP HOLDERS WITH BUILT-IN SHUT-OFF VALVE

Along with all the other features they share with the other special cup holders, these also have a built-in shut-off valve.

The purpose of the shut-off valve is to automatically close suction when the cup is not in contact with the surface of the load to be handled or in case of a faulty grip or of considerable transpiration.

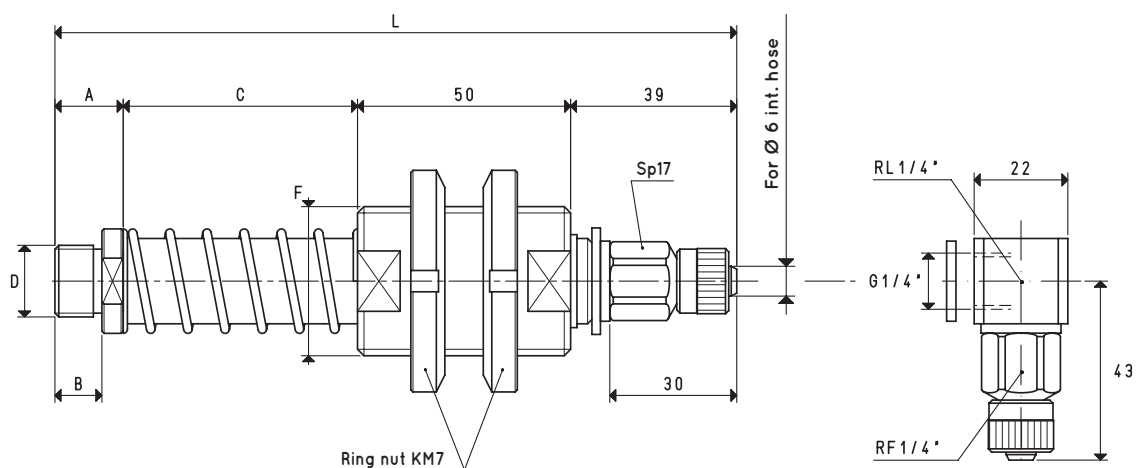
This thus prevents the reduction of the level of vacuum on the remaining cups of the system which are regularly handling the load.

The clear advantage of this system is that the positioning or the exclusion of the non-gripping cups are no longer binding.

Cups with diameters between 85 mm and 150 mm can be assembled onto these cup holders, as long as they are provided with a threaded 3/8" gas female support.

The actual springing stroke is:

- For height C= 55 mm      37 mm
- For height C= 110 mm    84 mm



VERSION 06 ... ..

VERSION 06 ... .. L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

| Item             | A  | B  | C   | D<br>Ø | F<br>Ø    | L   | Weight<br>Kg |
|------------------|----|----|-----|--------|-----------|-----|--------------|
| <b>06 99 55</b>  | 16 | 11 | 55  | G3/8"  | M35 x 1.5 | 160 | 0.63         |
| <b>06 99 110</b> | 16 | 11 | 110 | G3/8"  | M35 x 1.5 | 215 | 0.77         |

Minimum trigger flow = 4 m³/h

Minimum level of vacuum = -250 mbar

Note: To order vacuum cup holders with L fittings, add the letter L to the code.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

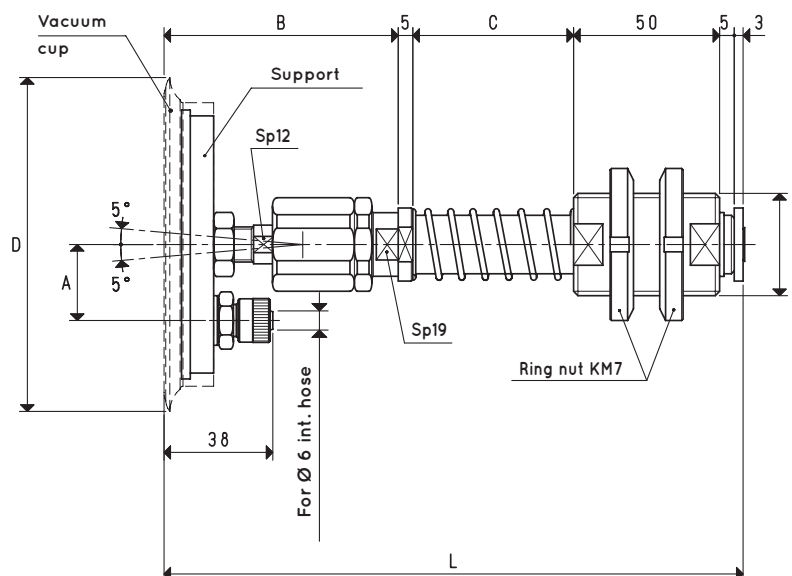
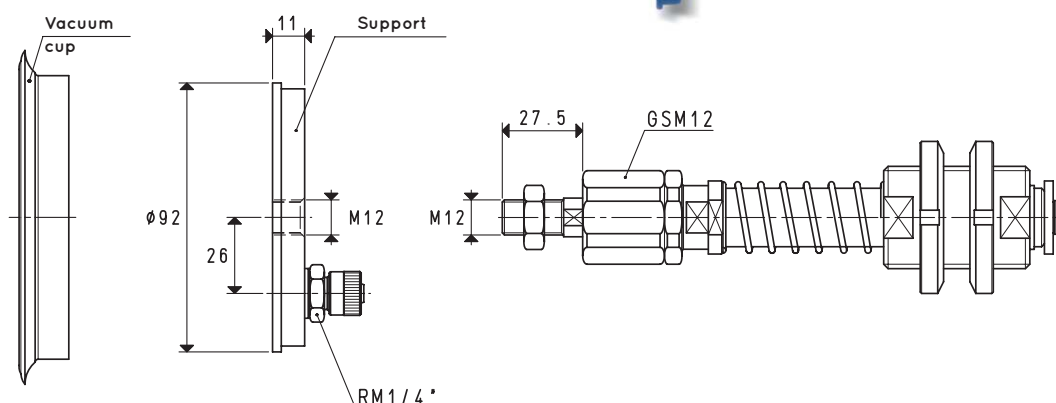
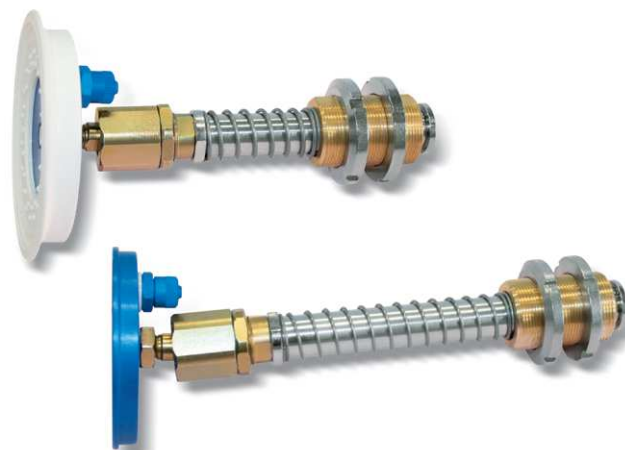
## SPECIAL ARTICULATED VACUUM CUP HOLDERS

The distinctive feature of these cup holders is their articulated joint in hardened steel, which allows the flat cups installed on these cup holders to adapt themselves to the loads to be lifted even if not completely parallel with the cup plane, as well as to compensate possible verticality errors that can arise between the cup holder and the automation fixing support.

Their technical and mechanical features are the same as the other previously described special vacuum cup holders.

The actual springing stroke is:

- For height C= 55 mm      37 mm
- For height C= 110 mm    84 mm



VERSION 06 110 12

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item             | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|----|----|----|--------|-----------|-----|------------------------|--------------------------|--------------|--------------|
| <b>06 110 12</b> | 23.74       | 26 | 77 | 55 | 114    | M35 x 1.5 | 195 | 01 110 10              | 00 06 14                 | 1.15         | 1.27         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

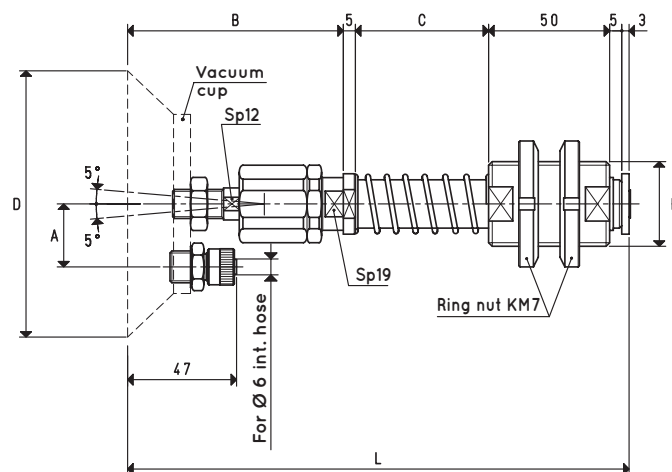
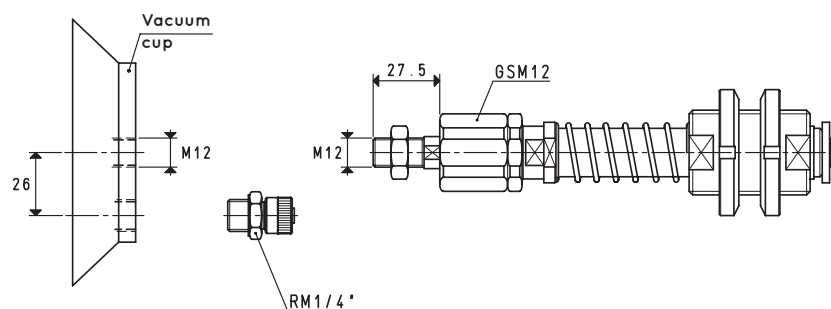
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL ARTICULATED VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 110 17

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item             | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|----|----|----|--------|-----------|-----|------------------------|--------------|--------------|
| <b>06 110 17</b> | 23.74       | 26 | 86 | 55 | 110    | M35 x 1.5 | 204 | 08 110 15              | 1.22         | 1.34         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

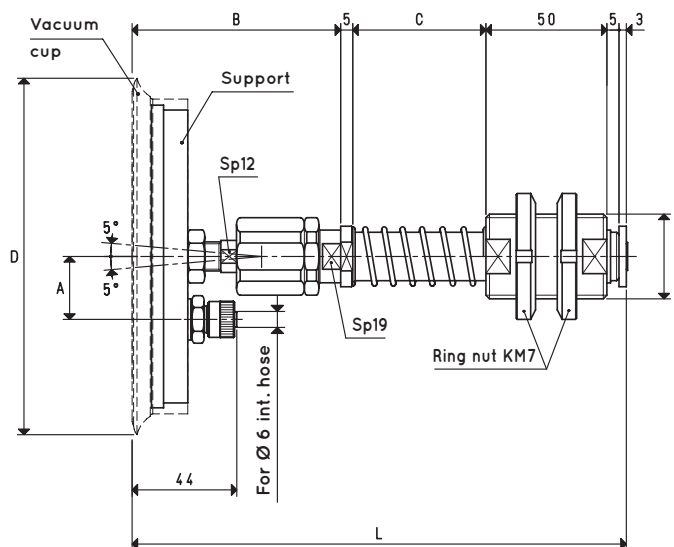
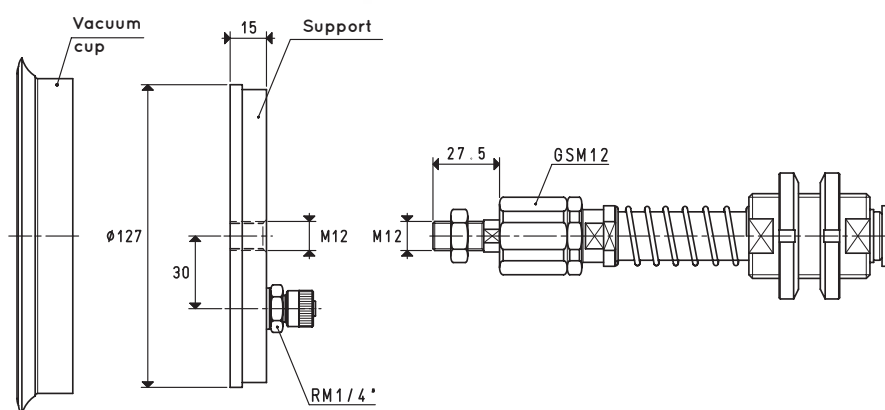
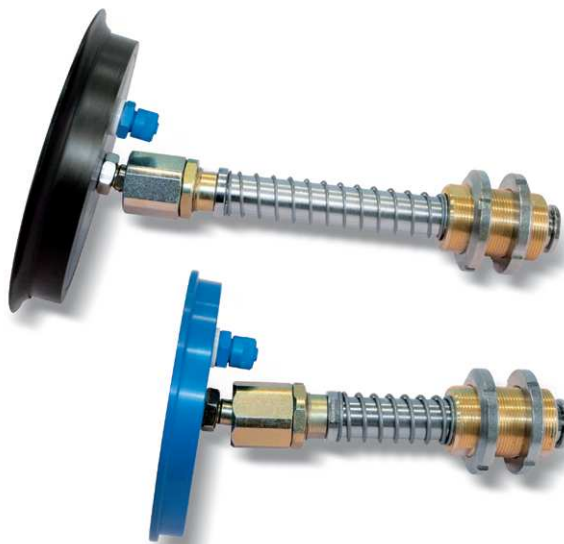
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## SPECIAL ARTICULATED VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 150 12

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item      | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>Kg | Weight<br>Kg |
|-----------|-------------|----|----|----|--------|-----------|-----|------------------------|--------------------------|--------------|--------------|
| 06 150 12 | 45.00       | 30 | 83 | 55 | 154    | M35 x 1.5 | 201 | 01 150 10              | 00 06 15                 | 1.56         | 1.69         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

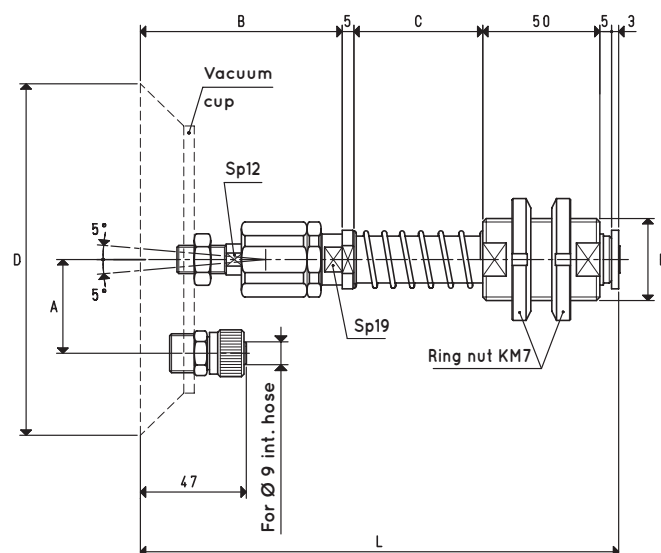
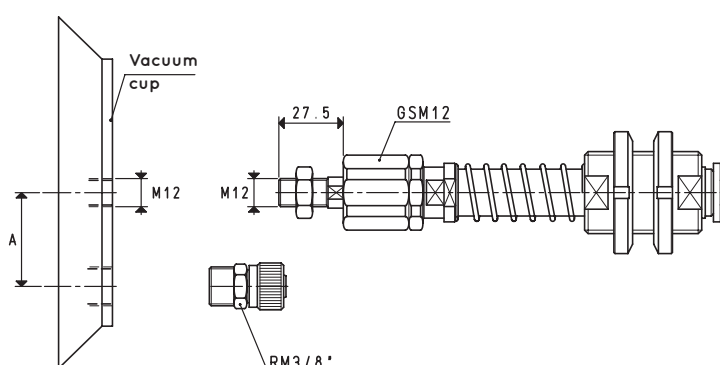
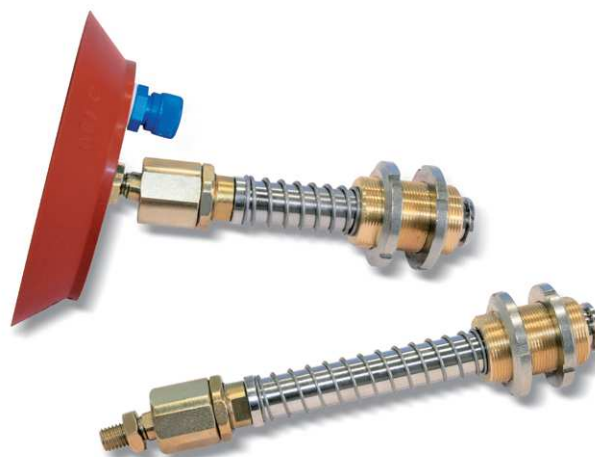
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL ARTICULATED VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 55 mm      37 mm
- For height C= 110 mm    84 mm



VERSION 06 . . . .

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 9 X 12

C = 110 mm

| Item             | Force<br>Kg | A    | B  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|------|----|----|--------|-----------|-----|------------------------|--------------|--------------|
| <b>06 150 17</b> | 45.00       | 40.0 | 86 | 55 | 150    | M35 x 1.5 | 204 | 08 150 15              | 1.73         | 1.85         |
| <b>06 200 12</b> | 78.50       | 47.5 | 88 | 55 | 200    | M35 x 1.5 | 206 | 08 200 10              | 2.63         | 2.75         |
| <b>06 250 12</b> | 122.60      | 72.5 | 88 | 55 | 250    | M35 x 1.5 | 206 | 08 250 10              | 3.89         | 4.02         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

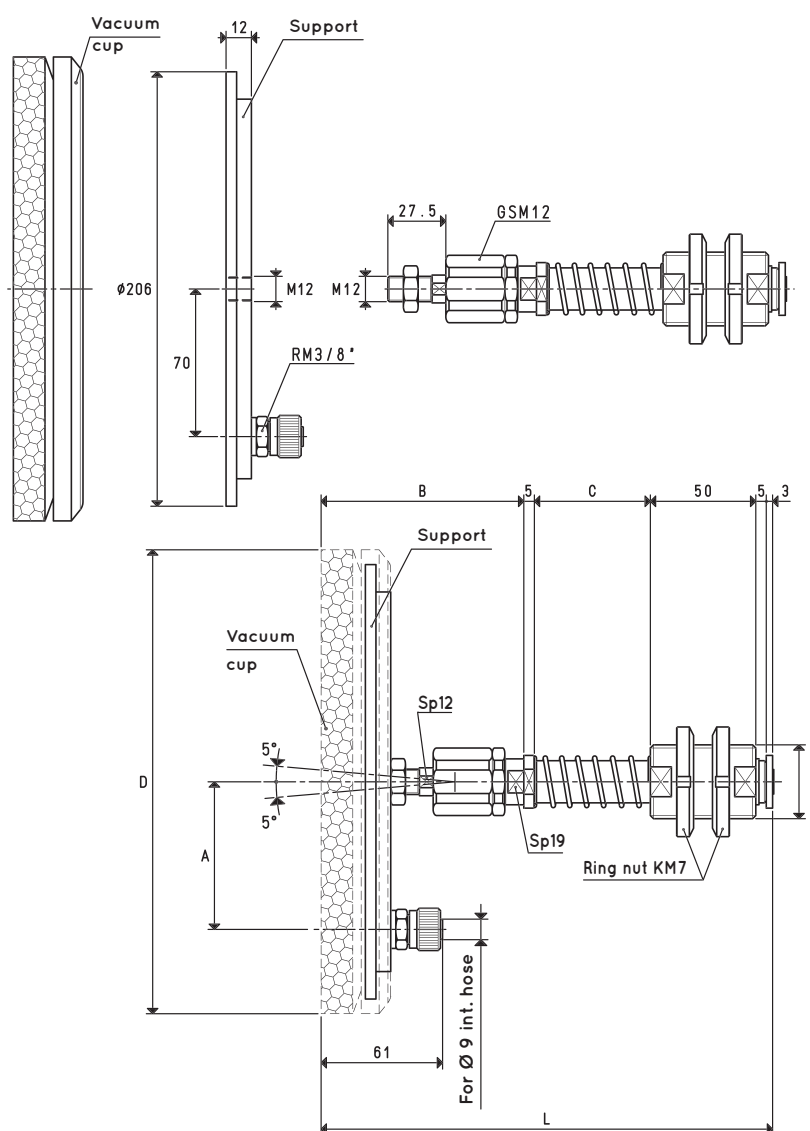
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## SPECIAL ARTICULATED VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 220 12 ..

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 9 X 12

C = 110 mm

| Item                | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>Kg | Weight<br>Kg |
|---------------------|-------------|----|----|----|--------|-----------|-----|------------------------|--------------------------|--------------|--------------|
| <b>06 220 12 OF</b> | 63.60       | 70 | 97 | 55 | 220    | M35 x 1.5 | 215 | 01 220 10 OF           | 00 08 37                 | 2.08         | 2.21         |
| <b>06 220 12 NF</b> | 63.60       | 70 | 97 | 55 | 220    | M35 x 1.5 | 215 | 01 220 10 NF           | 00 08 37                 | 2.07         | 2.20         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

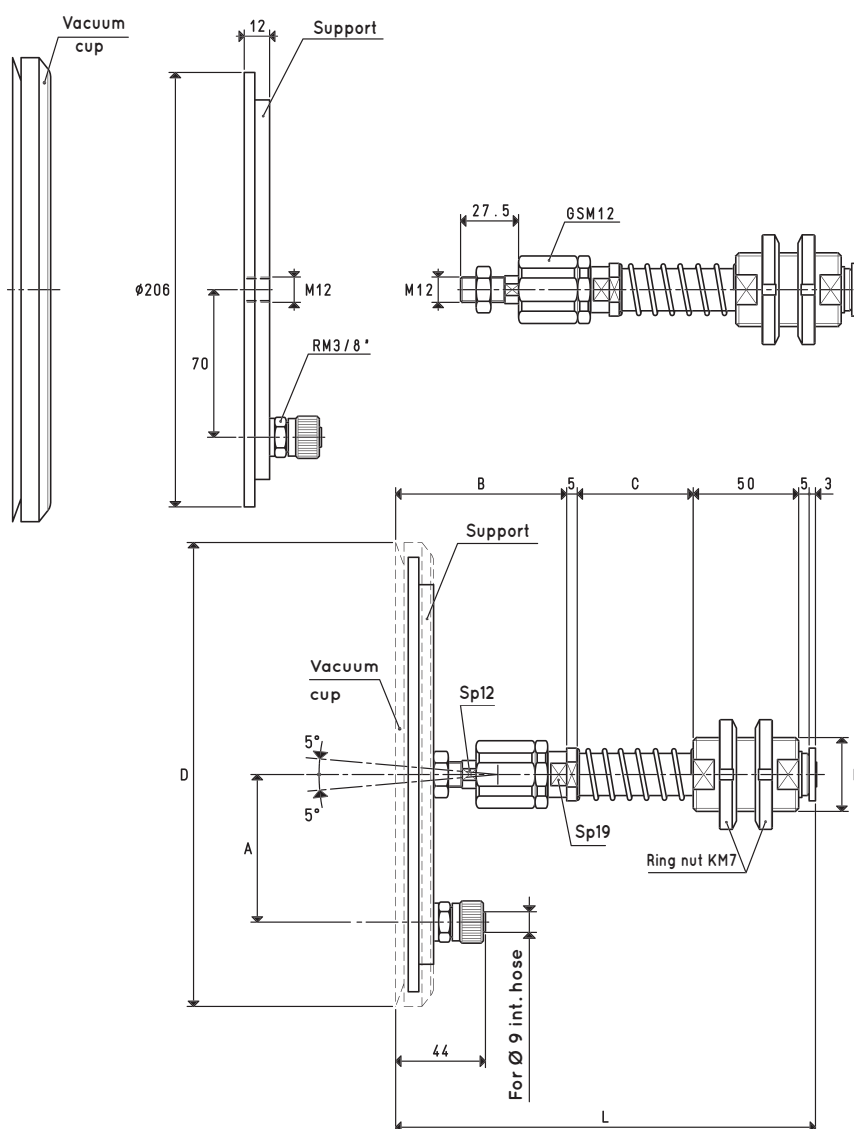
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL ARTICULATED VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 220 12 A

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 9 X 12

C = 110 mm

| Item        | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>Kg | Weight<br>Kg |
|-------------|-------------|----|----|----|--------|-----------|-----|------------------------|--------------------------|--------------|--------------|
| 06 220 12 A | 78.50       | 70 | 80 | 55 | 220    | M35 x 1.5 | 198 | 01 220 10 A            | 00 08 37                 | 2.03         | 2.16         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

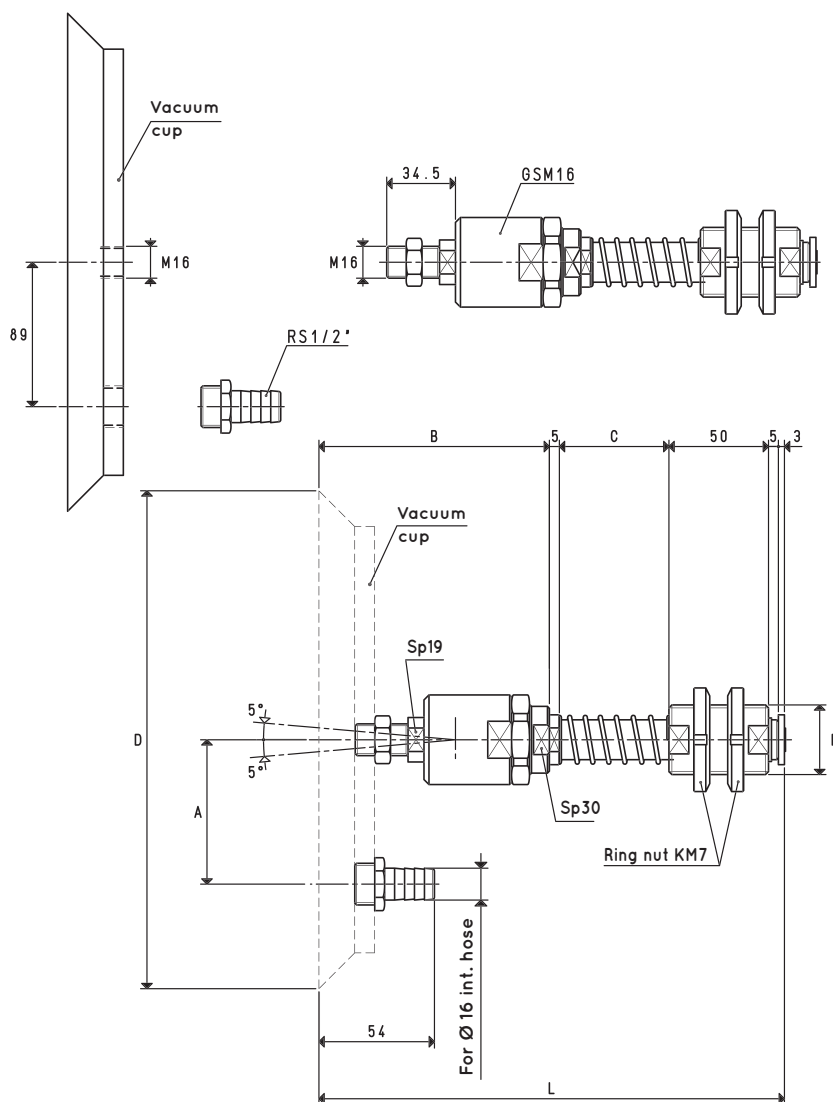
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



# SPECIAL ARTICULATED VACUUM CUP HOLDERS

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 ... 12

## VACUUM CUP HOLDERS WITH HOSE-END FITTING FOR PLASTIC HOSE Ø 16 X 18

C = 110 mm

| Item             | Force<br>Kg | A  | B   | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|----|-----|----|--------|-----------|-----|------------------------|--------------|--------------|
| <b>06 300 12</b> | 176.6       | 89 | 115 | 55 | 300    | M35 x 1.5 | 233 | 08 300 10              | 6.09         | 6.22         |
| <b>06 350 12</b> | 240.0       | 89 | 115 | 55 | 350    | M35 x 1.5 | 233 | 08 350 10              | 7.95         | 8.08         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

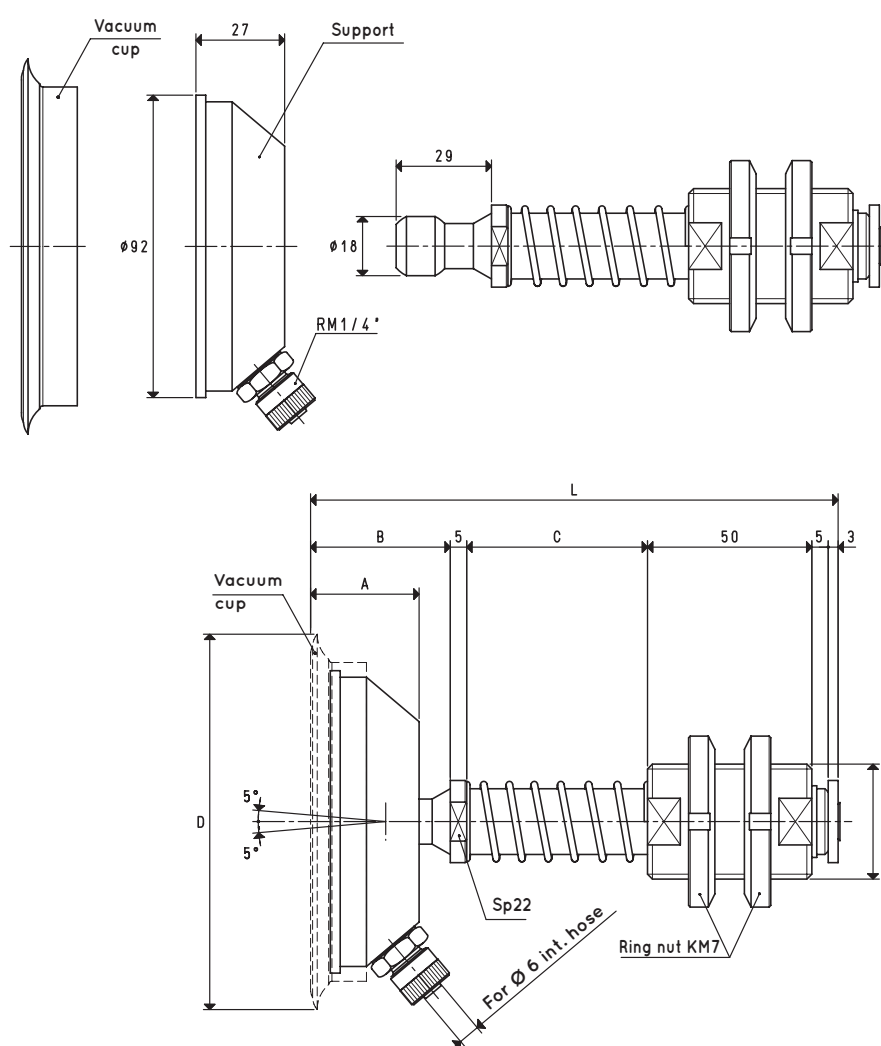


## SPECIAL ARTICULATED VACUUM CUP HOLDERS WITHOUT GS ARTICULATED JOINT

Unlike the ones previously described, these special articulated vacuum cup holders have an articulated joint housed in the cup support. This has allowed a reduction of the overall dimensions without affecting performance.

The actual springing stroke is:

- For height C= 55 mm      37 mm
- For height C= 110 mm      84 mm



VERSION 06 110 32

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item      | Force<br>Kg | A  | B    | *C | D<br>Ø | F<br>Ø    | L     | For vacuum cup<br>item | Support included<br>item | Weight<br>Kg | Weight<br>Kg |
|-----------|-------------|----|------|----|--------|-----------|-------|------------------------|--------------------------|--------------|--------------|
| 06 110 32 | 23.74       | 33 | 42.5 | 55 | 114    | M35 x 1.5 | 160.5 | 01 110 10              | 00 06 62                 | 1.15         | 1.27         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

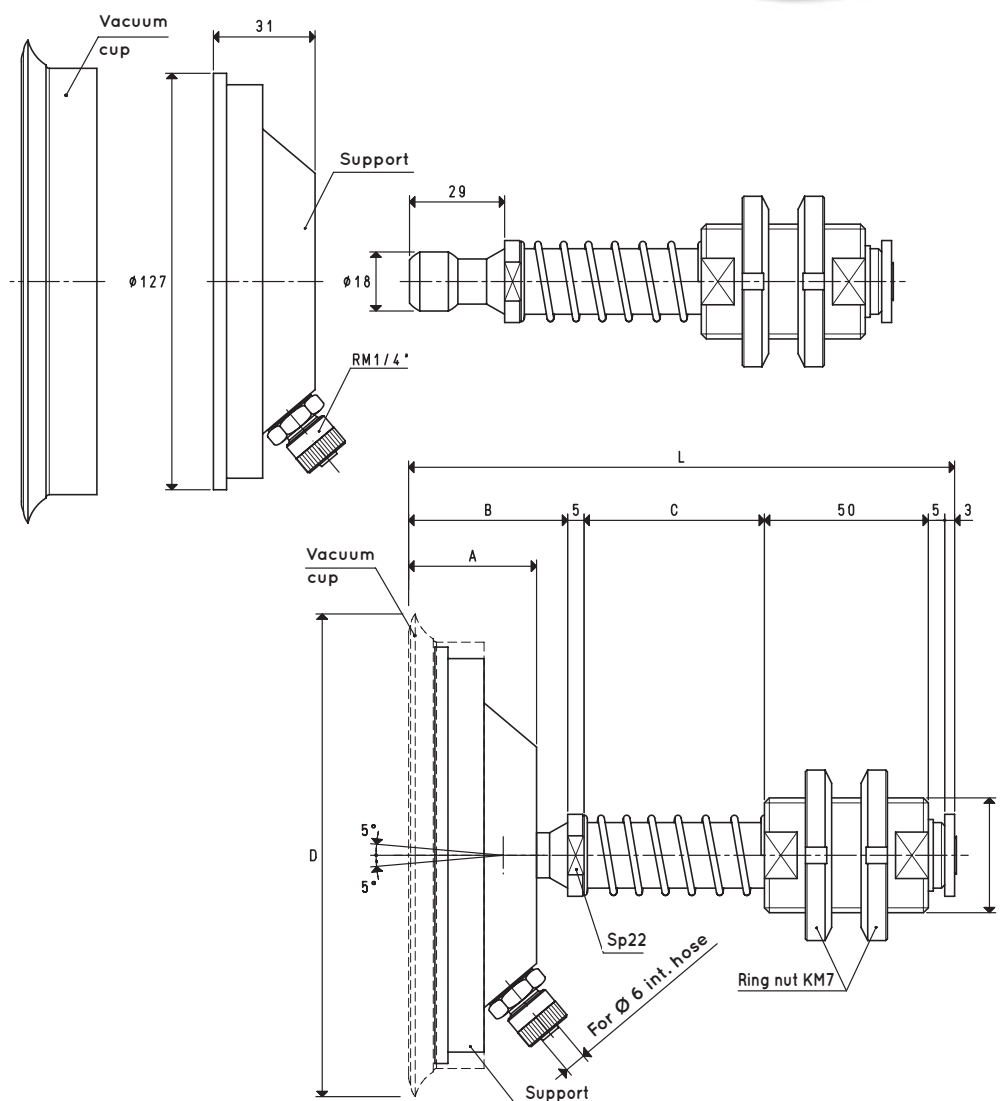
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

# SPECIAL ARTICULATED VACUUM CUP HOLDERS WITHOUT GS ARTICULATED JOINT

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 150 32

## VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item      | Force<br>Kg | A  | B    | *C | D<br>Ø | F<br>Ø    | L     | For vacuum cup<br>item | Support included<br>item | Weight<br>Kg | Weight<br>Kg |
|-----------|-------------|----|------|----|--------|-----------|-------|------------------------|--------------------------|--------------|--------------|
| 06 150 32 | 45.00       | 39 | 48.5 | 55 | 154    | M35 x 1.5 | 166.5 | 01 150 10              | 00 06 49                 | 1.63         | 1.76         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



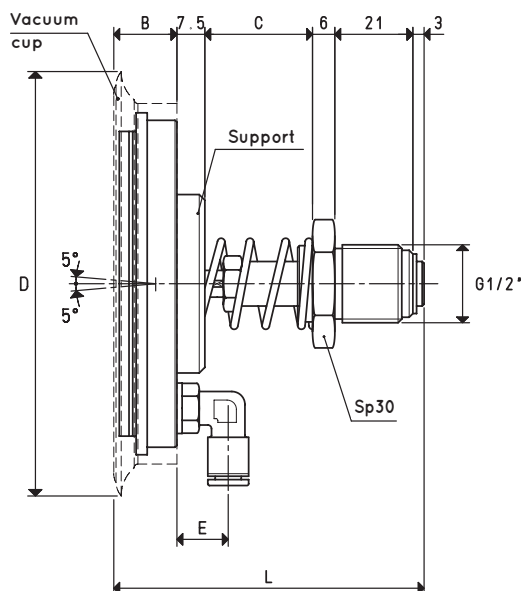
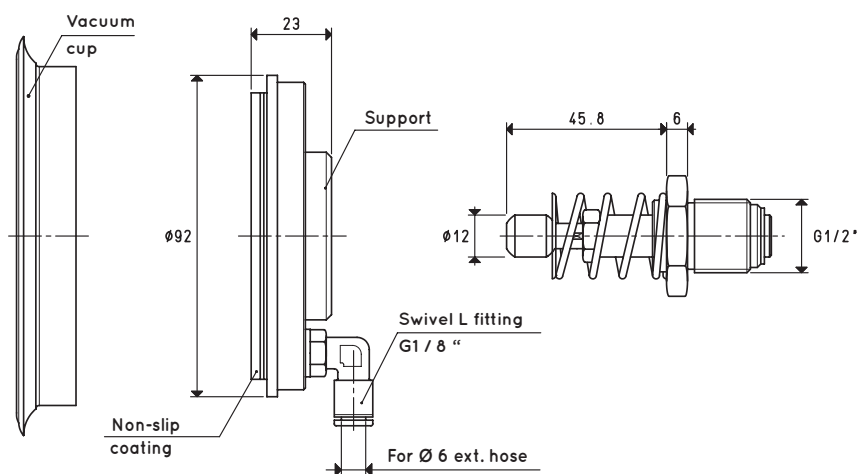


## SPECIAL ARTICULATED VACUUM CUP HOLDERS WITH COMPACT STROKE

Marble and glass sheets are usually handled with cups that take them from a horizontal plane and place them vertically or vice-versa. These special cup holders with compact stroke have been designed to minimise the lever forces between the cup and the automation fixing bush during the rotation of the sheets, as well as their sliding on the cups. They share all the technical features of the other previously described special cup holders but their overall dimensions are reduced to minimum by housing the articulated joint in the cup support, thus reducing the steel stem and the spring stroke length and modifying the brass bush, in order to allow it to be screwed directly onto the automation. Moreover, a special non-slip plastic coating fixed onto the cup support prevents the lifted load from slipping.

The actual springing stroke is:

- For height C= 29 mm      13 mm



VERSION 06 110 42

### VACUUM CUP HOLDERS WITH L QUICK COUPLER FOR PLASTIC HOSE Ø 4 X 6

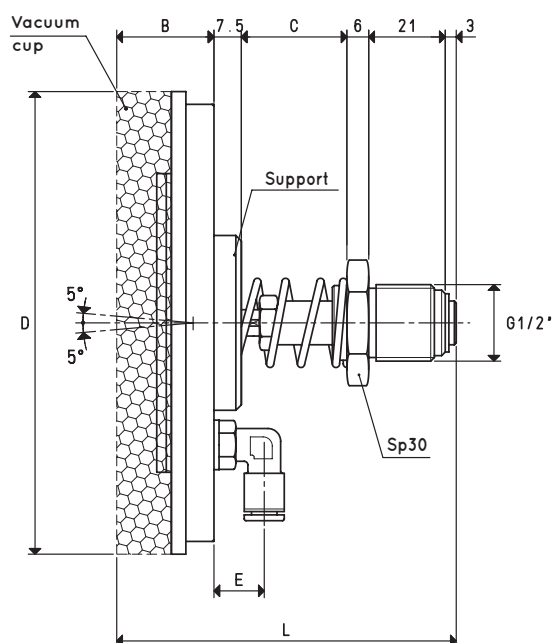
| Item             | Force<br>Kg | B  | C  | D   | E<br>Ø | L    | For vacuum cup<br>item | Support included<br>item | Weight<br>Kg |
|------------------|-------------|----|----|-----|--------|------|------------------------|--------------------------|--------------|
| <b>06 110 42</b> | 23.74       | 17 | 29 | 114 | 13     | 83.5 | 01 110 10 M            | 00 06 59                 | 0.49         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## 2



VACUUM CUP HOLDERS WITH L QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



The actual springing stroke is:  
- For height C= 29 mm                      13 mm



Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)       $\text{inch} = \frac{\text{mm}}{25.4}$  ;  $\text{pounds} = \frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## SPECIAL STAINLESS STEEL ANTI-ROTATION VACUUM CUP HOLDERS

Designed for the robot-automotive sector, these cup holders offer ideal solutions to various handling problems that arise in all industrial sectors.

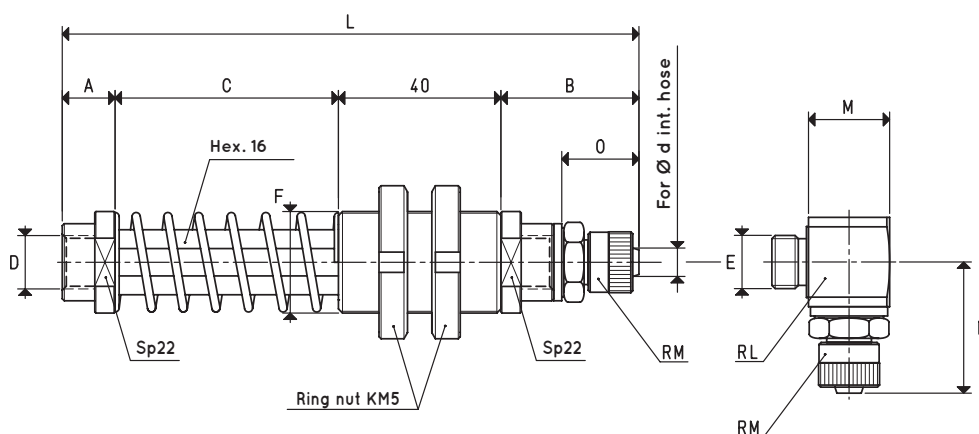
In addition to the characteristics of the previously described special vacuum cup holders, their distinctive features are their brass stem with hexagonal cross-section and the steel drive bush, also with hexagonal hole. This structure prevents the stem and, as a result, the cup assembled onto it from rotating on its axis.

The drive bush is equipped with two fine thread ring nuts to guarantee an accurate fastening of the cup holder to the automation. Moreover, the two ends of the stem, also in stainless steel, are threaded male or female and interchangeable. The straight quick coupler for the connection to the suction hose is screwed to one end, while the cup with support is assembled onto the other end.

They are suited for cups with a diameter between 40 mm and 200 mm, although they are especially useful for the assembly of rectangular or elliptical vacuum cups.

The actual springing stroke is:

- For height C= 55 mm      37 mm
- For height C= 110 mm    84 mm



VERSION 06 . . . . .

VERSION 06 . . . . . L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE

| Item             | A  | B  | C   | D<br>Ø | d<br>Ø | E<br>Ø | F<br>Ø    | L   | M    | N    | O    | RL    | RM    | Weight<br>g |
|------------------|----|----|-----|--------|--------|--------|-----------|-----|------|------|------|-------|-------|-------------|
| <b>06 55 80</b>  | 13 | 34 | 55  | G1/4"  | 6      | G1/4"  | M25 x 1.5 | 142 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 318         |
| <b>06 55 81</b>  | 15 | 40 | 55  | G3/8"  | 9      | G3/8"  | M25 x 1.5 | 150 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 330         |
| <b>06 55 82</b>  | 15 | 34 | 55  | G3/8"  | 6      | G1/4"  | M25 x 1.5 | 144 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 320         |
| <b>06 110 80</b> | 13 | 34 | 110 | G1/4"  | 6      | G1/4"  | M25 x 1.5 | 197 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 386         |
| <b>06 110 81</b> | 15 | 40 | 110 | G3/8"  | 9      | G3/8"  | M25 x 1.5 | 205 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 398         |
| <b>06 110 82</b> | 15 | 34 | 110 | G3/8"  | 6      | G1/4"  | M25 x 1.5 | 199 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 388         |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

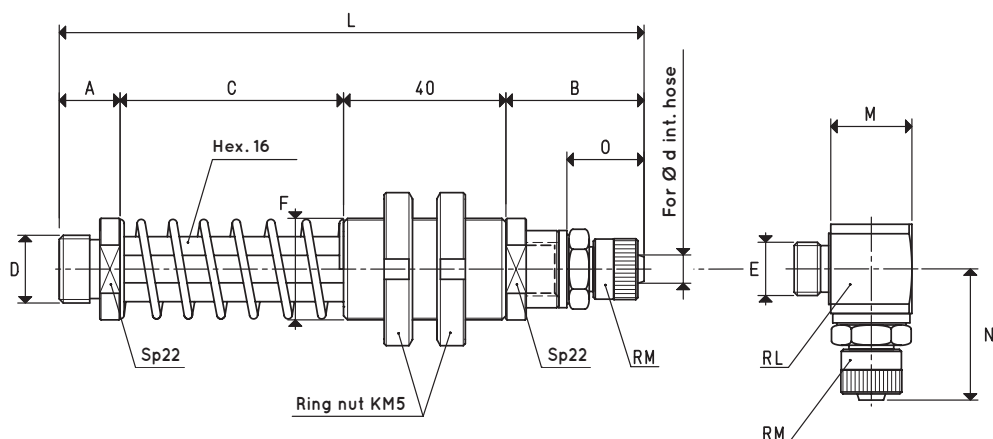




## SPECIAL ANTI-ROTATION VACUUM CUP HOLDERS WITH MALE THREADED CONNECTOR

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 . . . .

VERSION 06 . . . . L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE

| Item             | A  | B  | C   | D<br>Ø | d<br>Ø | E<br>Ø | F<br>Ø    | L   | M    | N    | O    | RL    | RM    | Weight<br>g |
|------------------|----|----|-----|--------|--------|--------|-----------|-----|------|------|------|-------|-------|-------------|
| <b>06 55 90</b>  | 15 | 34 | 55  | G1/4"  | 6      | G1/4"  | M25 x 1.5 | 144 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 314         |
| <b>06 55 91</b>  | 15 | 34 | 55  | G3/8"  | 6      | G1/4"  | M25 x 1.5 | 144 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 320         |
| <b>06 55 92</b>  | 15 | 40 | 55  | G3/8"  | 9      | G3/8"  | M25 x 1.5 | 150 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 330         |
| <b>06 55 93</b>  | 15 | 40 | 55  | G1/2"  | 9      | G3/8"  | M25 x 1.5 | 150 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 332         |
| <b>06 55 94</b>  | 15 | 34 | 55  | M12    | 6      | G1/4"  | M25 x 1.5 | 144 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 318         |
| <b>06 55 95</b>  | 15 | 40 | 55  | M12    | 9      | G3/8"  | M25 x 1.5 | 150 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 328         |
| <b>06 55 96</b>  | 15 | 40 | 55  | M16    | 9      | G3/8"  | M25 x 1.5 | 150 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 330         |
| <b>06 110 90</b> | 15 | 34 | 110 | G1/4"  | 6      | G1/4"  | M25 x 1.5 | 199 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 374         |
| <b>06 110 91</b> | 15 | 34 | 110 | G3/8"  | 6      | G1/4"  | M25 x 1.5 | 199 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 380         |
| <b>06 110 92</b> | 15 | 40 | 110 | G3/8"  | 9      | G3/8"  | M25 x 1.5 | 205 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 390         |
| <b>06 110 93</b> | 15 | 40 | 110 | G1/2"  | 9      | G3/8"  | M25 x 1.5 | 205 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 392         |
| <b>06 110 94</b> | 15 | 34 | 110 | M12    | 6      | G1/4"  | M25 x 1.5 | 199 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 378         |
| <b>06 110 95</b> | 15 | 40 | 110 | M12    | 9      | G3/8"  | M25 x 1.5 | 205 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 388         |
| <b>06 110 96</b> | 15 | 40 | 110 | M16    | 6      | G3/8"  | M25 x 1.5 | 205 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 390         |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL ANTI-ROTATION VACUUM CUP HOLDERS WITH SPHERICAL SWIVEL SUPPORT

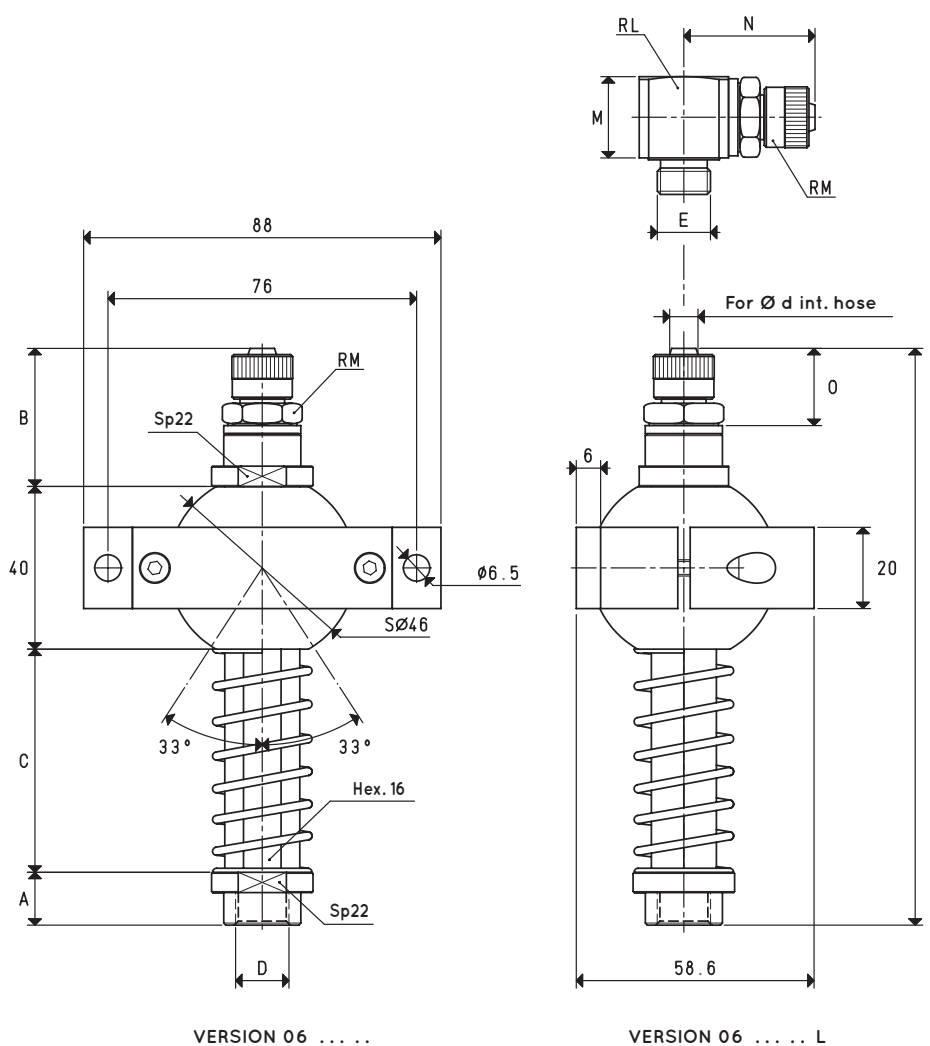
In addition the characteristics of the previously described special anti-rotation vacuum cups, these cup holders are provided with a nylon spherical swivel support which allows to place and keep the cup in the desired place.

Their fixing support is made with aluminium and is composed of two parts that, screwed together, allow to block the spherical joint, thus keeping the vacuum cup holder in place.

They are suited for cups with a diameter between 40 mm and 200 mm, although they are especially useful for the assembly of rectangular or elliptical vacuum cups.

The actual springing stroke is:

- For height C= 55 mm      37 mm
- For height C= 110 mm    84 mm



### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE

| Item              | A  | B  | C   | D<br>Ø | d<br>Ø | E<br>Ø | L   | M    | N    | O    | RL    | RM    | Weight<br>g |
|-------------------|----|----|-----|--------|--------|--------|-----|------|------|------|-------|-------|-------------|
| <b>06 55 100</b>  | 13 | 34 | 55  | G1/4"  | 6      | G1/4"  | 142 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 338         |
| <b>06 55 101</b>  | 15 | 40 | 55  | G3/8"  | 9      | G3/8"  | 150 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 350         |
| <b>06 55 102</b>  | 15 | 34 | 55  | G3/8"  | 6      | G1/4"  | 144 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 340         |
| <b>06 110 100</b> | 13 | 34 | 110 | G1/4"  | 6      | G1/4"  | 197 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 406         |
| <b>06 110 101</b> | 15 | 40 | 110 | G3/8"  | 9      | G3/8"  | 205 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 418         |
| <b>06 110 102</b> | 15 | 34 | 110 | G3/8"  | 6      | G1/4"  | 199 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 408         |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

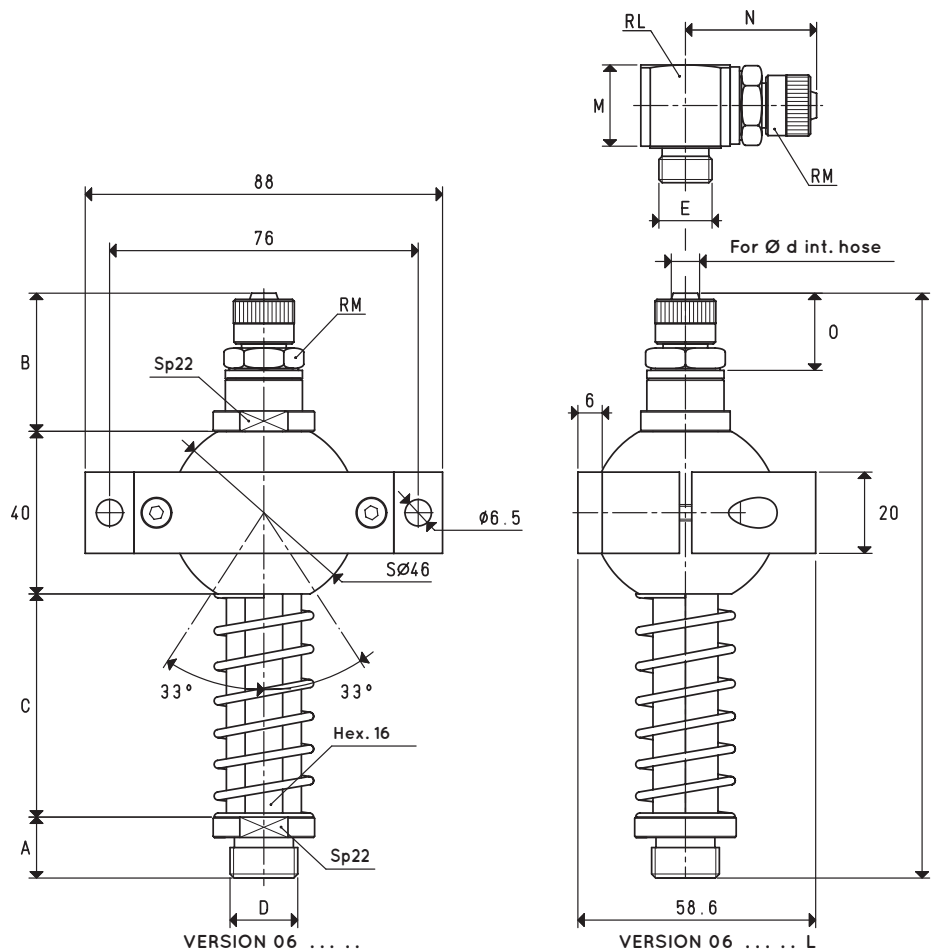
inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL ANTI-ROTATION VACUUM CUP HOLDERS WITH SPHERICAL SWIVEL SUPPORT

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE

| Item       | A  | B  | C   | D<br>Ø | d<br>Ø | E<br>Ø | L   | M    | N    | O    | RL    | RM    | Weight<br>g |
|------------|----|----|-----|--------|--------|--------|-----|------|------|------|-------|-------|-------------|
| 06 55 110  | 15 | 34 | 55  | G1/4"  | 6      | G1/4"  | 144 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 334         |
| 06 55 111  | 15 | 34 | 55  | G3/8"  | 6      | G1/4"  | 144 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 340         |
| 06 55 112  | 15 | 40 | 55  | G3/8"  | 9      | G3/8"  | 150 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 350         |
| 06 55 113  | 15 | 40 | 55  | G1/2"  | 9      | G3/8"  | 150 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 352         |
| 06 55 114  | 15 | 34 | 55  | M12    | 6      | G1/4"  | 144 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 338         |
| 06 55 115  | 15 | 40 | 55  | M12    | 9      | G3/8"  | 150 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 348         |
| 06 55 116  | 15 | 40 | 55  | M16    | 9      | G3/8"  | 150 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 350         |
| 06 110 110 | 15 | 34 | 110 | G1/4"  | 6      | G1/4"  | 199 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 394         |
| 06 110 111 | 15 | 34 | 110 | G3/8"  | 6      | G1/4"  | 199 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 400         |
| 06 110 112 | 15 | 40 | 110 | G3/8"  | 9      | G3/8"  | 205 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 410         |
| 06 110 113 | 15 | 40 | 110 | G1/2"  | 9      | G3/8"  | 205 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 412         |
| 06 110 114 | 15 | 34 | 110 | M12    | 6      | G1/4"  | 199 | 21.0 | 32.0 | 18.5 | G1/4" | G1/4" | 398         |
| 06 110 115 | 15 | 40 | 110 | M12    | 9      | G3/8"  | 205 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 408         |
| 06 110 116 | 15 | 40 | 110 | M16    | 9      | G3/8"  | 205 | 21.5 | 35.5 | 22.0 | G3/8" | G3/8" | 410         |

Note: To order vacuum cup holders with L fittings, add the letter L to the code.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## SPECIAL VACUUM CUP HOLDERS WITH DOUBLE SPRINGING

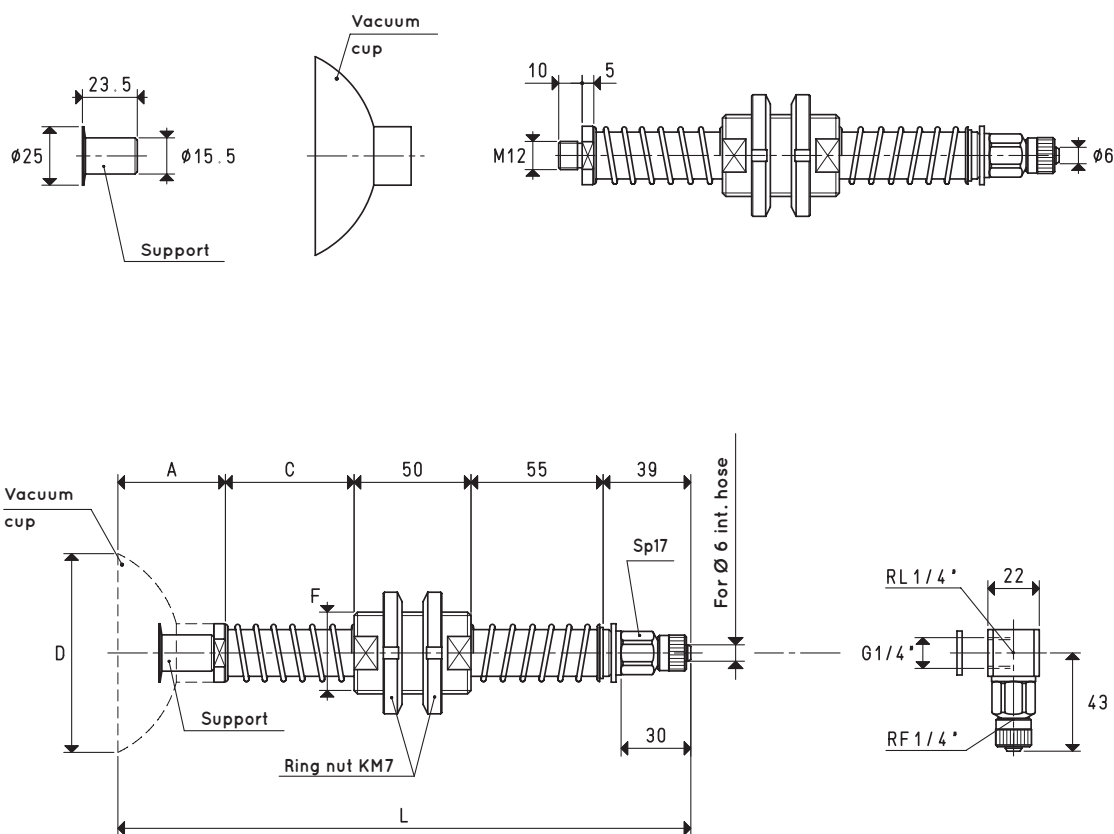
All the special vacuum cup holders previously described can be provided in the double springing version.

The cup holder fixing bush is located between two springs: the lower one cushions the impact of the cup with the load to be lifted during the approach phase, while the upper one cushions the impact of the bush with the cup holder end and gradually loads the cup during the lifting phase.

These cup holders are especially recommended when the load to be lifted is very heavy, rough or not perfectly flat.

The actual springing stroke is:

- For height C= 55 mm      37 mm
- For height C= 110 mm    84 mm



VERSION 06 85 13

VERSION 06 85 13 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item            | Force<br>Kg | A  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>Kg | Weight<br>Kg |
|-----------------|-------------|----|----|--------|-----------|-----|------------------------|--------------------------|--------------|--------------|
| <b>06 85 13</b> | 14.18       | 46 | 55 | 85     | M35 x 1.5 | 245 | 01 85 10               | 00 08 29                 | 0.87         | 0.99         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

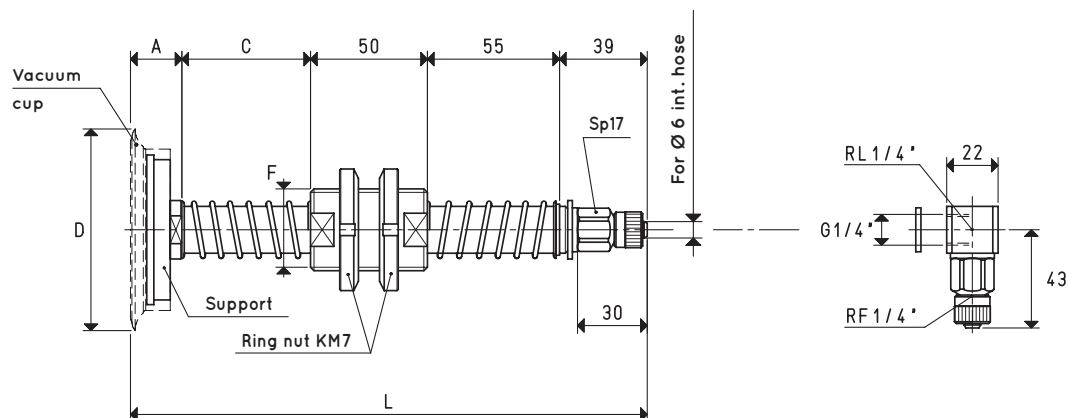
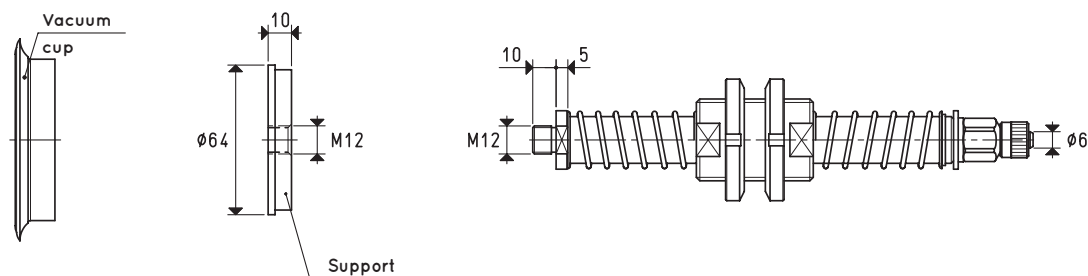
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL VACUUM CUP HOLDERS WITH DOUBLE SPRINGING

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 85 17

VERSION 06 85 17 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item     | Force<br>Kg | A  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>Kg | Weight<br>Kg |
|----------|-------------|----|----|--------|-----------|-----|------------------------|--------------------------|--------------|--------------|
| 06 85 17 | 14.18       | 22 | 55 | 85     | M35 x 1.5 | 221 | 01 85 15               | 00 08 32                 | 0.90         | 1.04         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

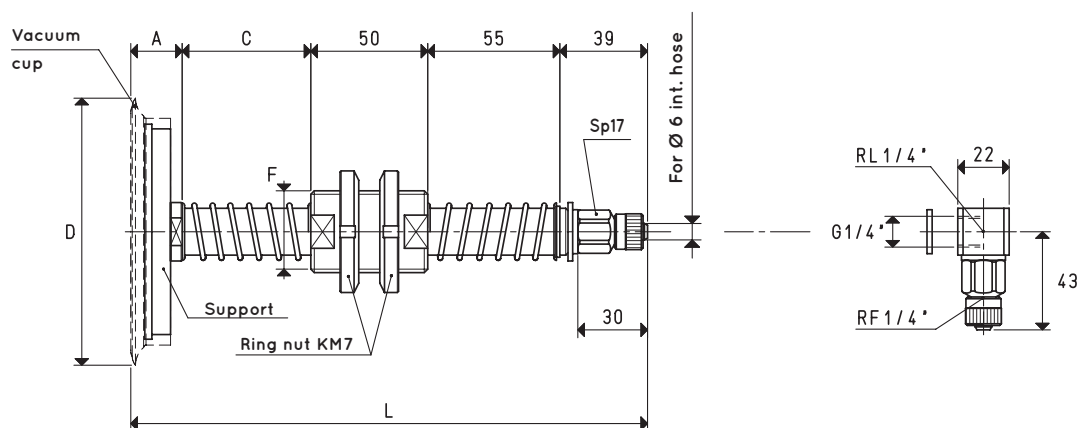
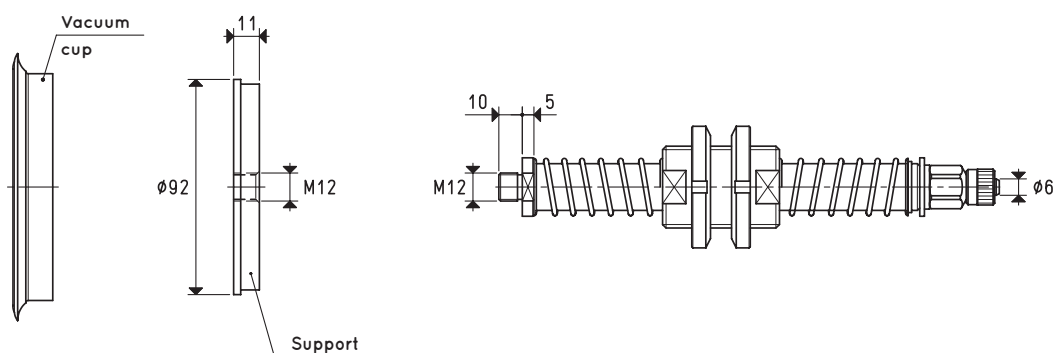
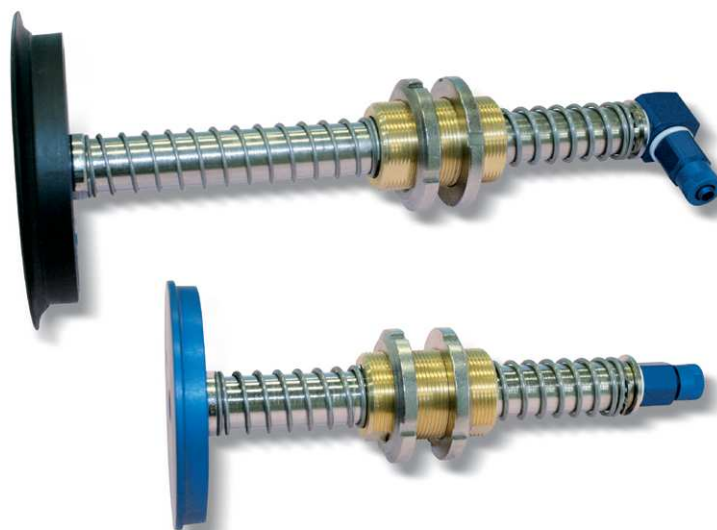
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## SPECIAL VACUUM CUP HOLDERS WITH DOUBLE SPRINGING

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 110 13

VERSION 06 110 13 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item      | Force<br>Kg | A  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>Kg | Weight<br>Kg |
|-----------|-------------|----|----|--------|-----------|-----|------------------------|--------------------------|--------------|--------------|
| 06 110 13 | 23.74       | 22 | 55 | 114    | M35 x 1.5 | 221 | 01 110 10              | 00 08 33                 | 1.05         | 1.18         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

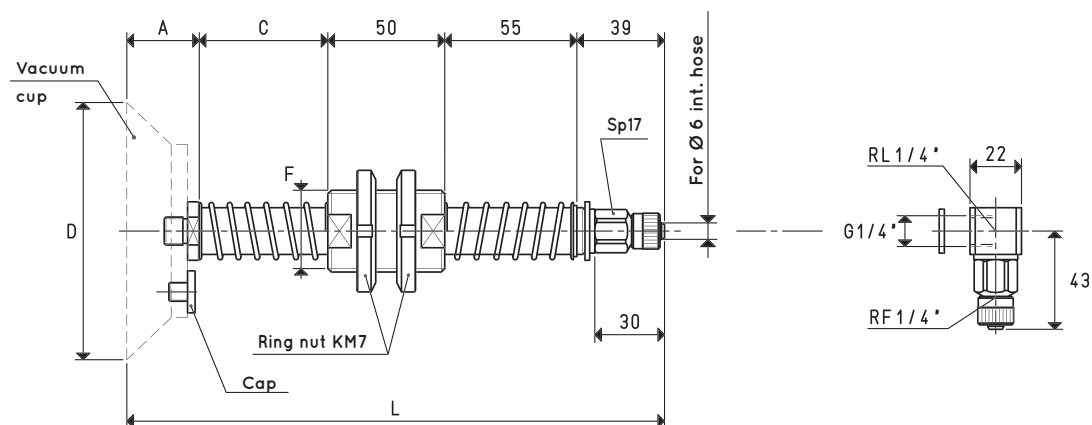
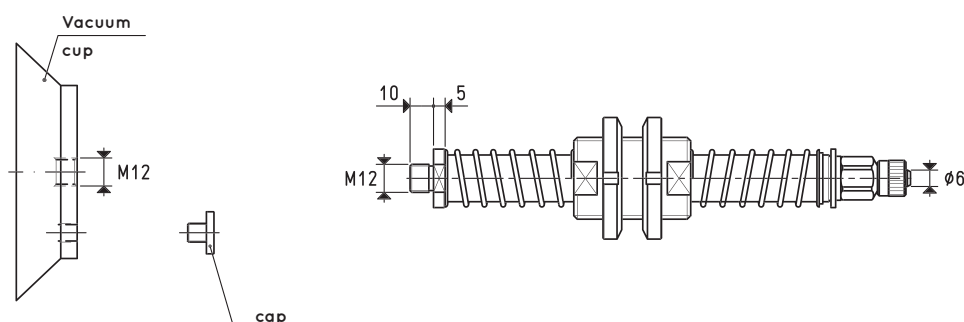
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL VACUUM CUP HOLDERS WITH DOUBLE SPRINGING

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 110 16

VERSION 06 110 16 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item             | Force<br>Kg | A  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Cap included<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|----|----|--------|-----------|-----|------------------------|----------------------|--------------|--------------|
| <b>06 110 16</b> | 23.74       | 31 | 55 | 110    | M35 x 1.5 | 230 | 08 110 15              | 00 11 06             | 1.12         | 1.25         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

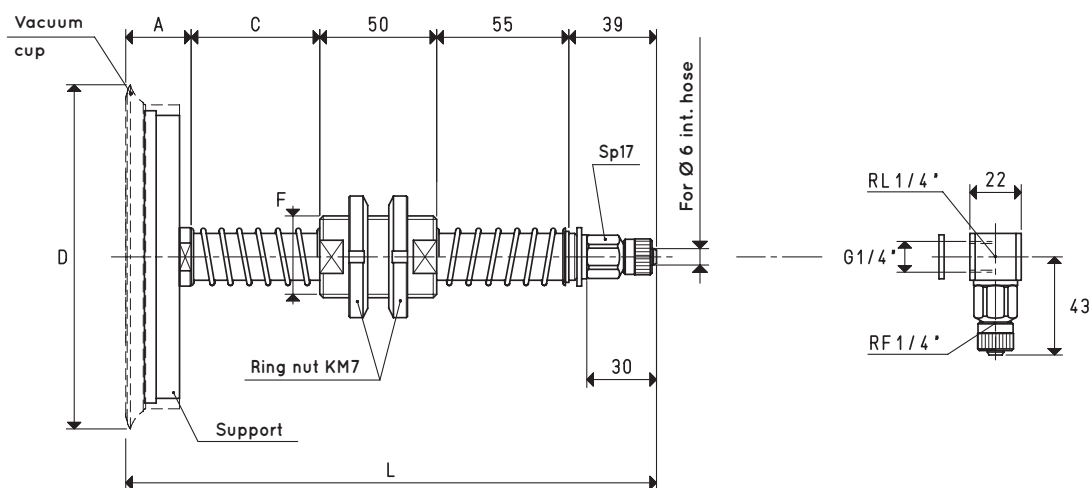
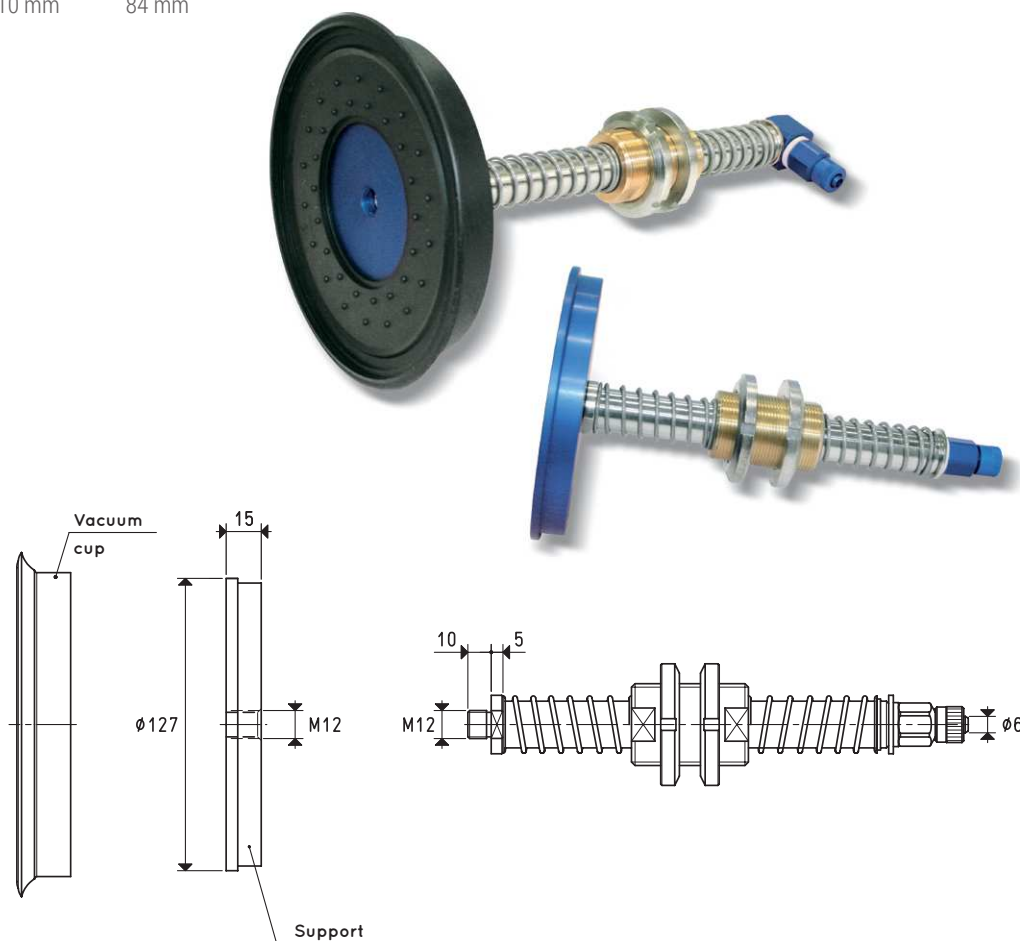
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## SPECIAL VACUUM CUP HOLDERS WITH DOUBLE SPRINGING

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 150 13

VERSION 06 150 13 L

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item             | Force<br>Kg | A  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|----|----|--------|-----------|-----|------------------------|--------------------------|--------------|--------------|
| <b>06 150 13</b> | 45.00       | 28 | 55 | 154    | M35 x 1.5 | 227 | 01 150 10              | 00 08 35                 | 1.46         | 1.58         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

To order vacuum cup holders with L fittings, add the letter L to the code.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

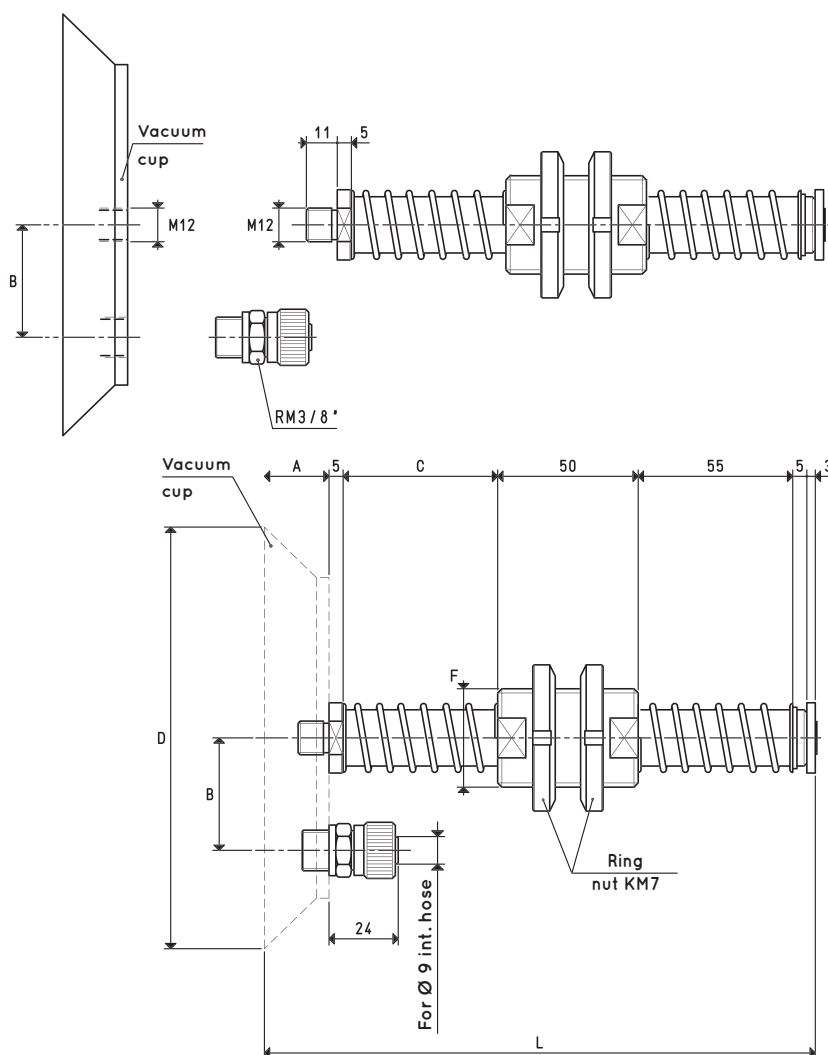
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL VACUUM CUP HOLDERS WITH DOUBLE SPRINGING

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 . . . .

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 9 X 12

C = 110 mm

| Item             | Force<br>Kg | A  | B    | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|----|------|----|--------|-----------|-----|------------------------|--------------|--------------|
| <b>06 150 18</b> | 45.0        | 26 | 40.0 | 55 | 150    | M35 x 1.5 | 199 | 08 150 15              | 1.65         | 1.79         |
| <b>06 200 13</b> | 78.5        | 28 | 47.5 | 55 | 200    | M35 x 1.5 | 201 | 08 200 10              | 2.55         | 2.69         |
| <b>06 250 13</b> | 122.6       | 28 | 72.5 | 55 | 250    | M35 x 1.5 | 201 | 08 250 10              | 3.82         | 3.96         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

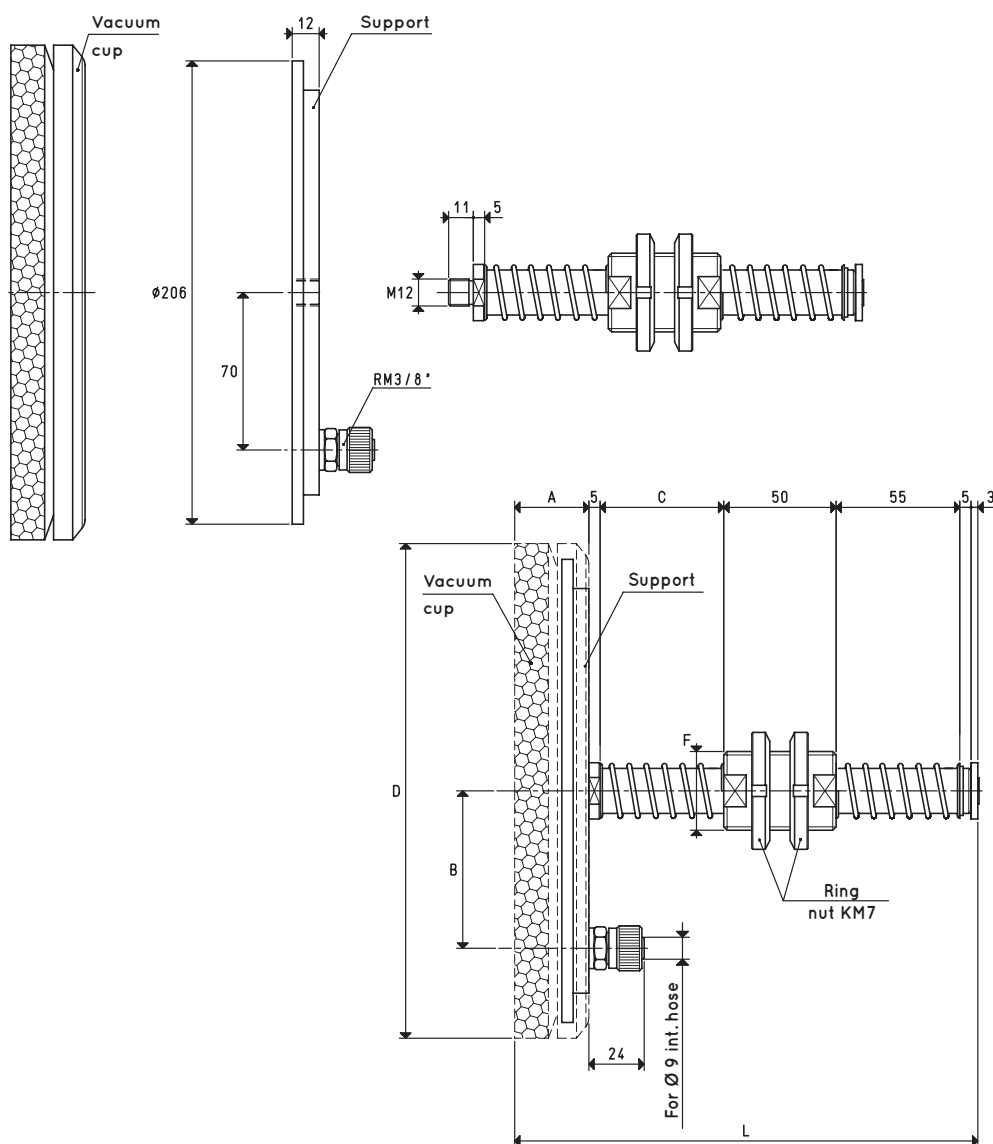
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL VACUUM CUP HOLDERS WITH DOUBLE SPRINGING

The actual springing stroke is:

- For height C= 55 mm      37 mm
- For height C= 110 mm    84 mm



VERSION 06 220 13 ...

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 9 X 12

C = 110 mm

| Item                | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>Kg | Weight<br>Kg |
|---------------------|-------------|----|----|----|--------|-----------|-----|------------------------|--------------------------|--------------|--------------|
| <b>06 220 13 OF</b> | 63.6        | 35 | 70 | 55 | 220    | M35 x 1.5 | 208 | 01 220 10 OF           | 00 08 37                 | 2.01         | 2.15         |
| <b>06 220 13 NF</b> | 63.6        | 35 | 70 | 55 | 220    | M35 x 1.5 | 208 | 01 220 10 NF           | 00 08 37                 | 2.00         | 2.14         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

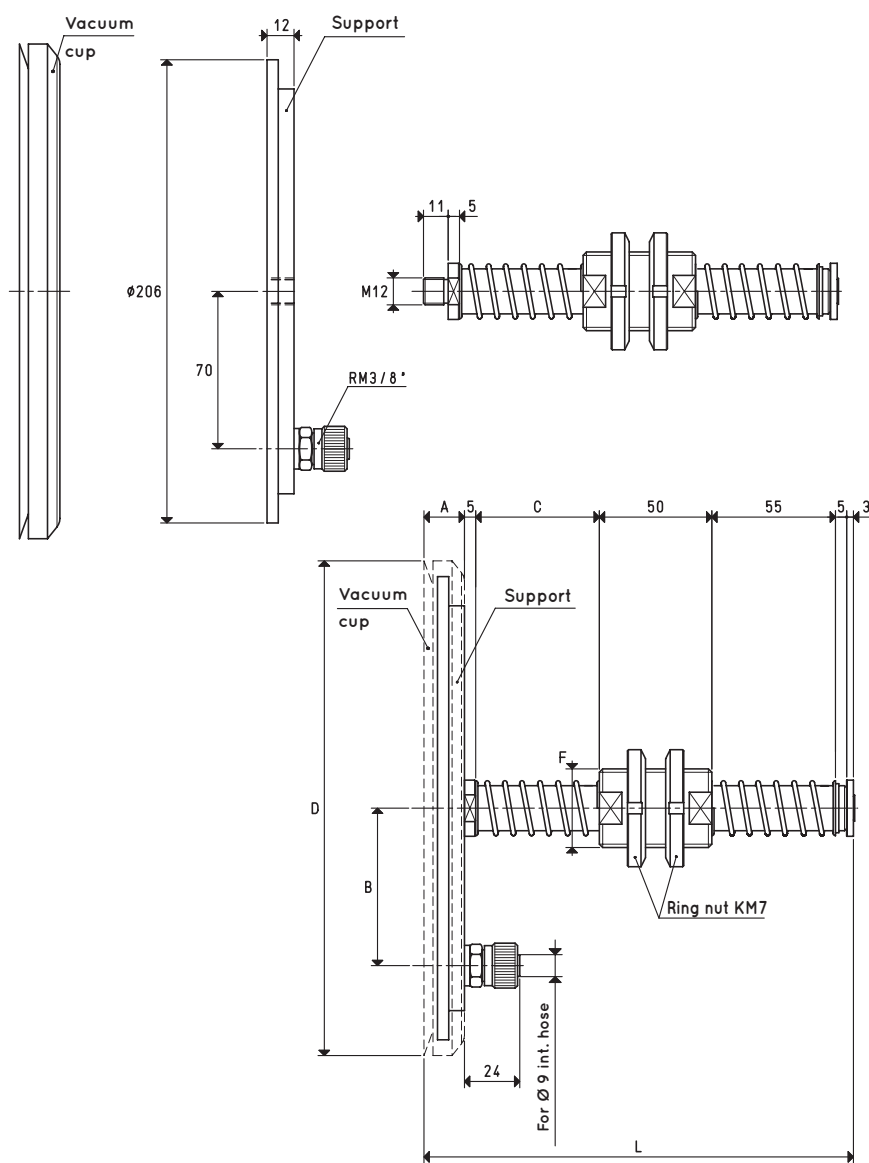
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL VACUUM CUP HOLDERS WITH DOUBLE SPRINGING

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 220 13 A

VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 9 X 12

C = 110 mm

| Item        | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>Kg | Weight<br>Kg |
|-------------|-------------|----|----|----|--------|-----------|-----|------------------------|--------------------------|--------------|--------------|
| 06 220 13 A | 78.5        | 20 | 70 | 55 | 220    | M35 x 1.5 | 193 | 01 220 10 A            | 00 08 37                 | 1.96         | 2.09         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

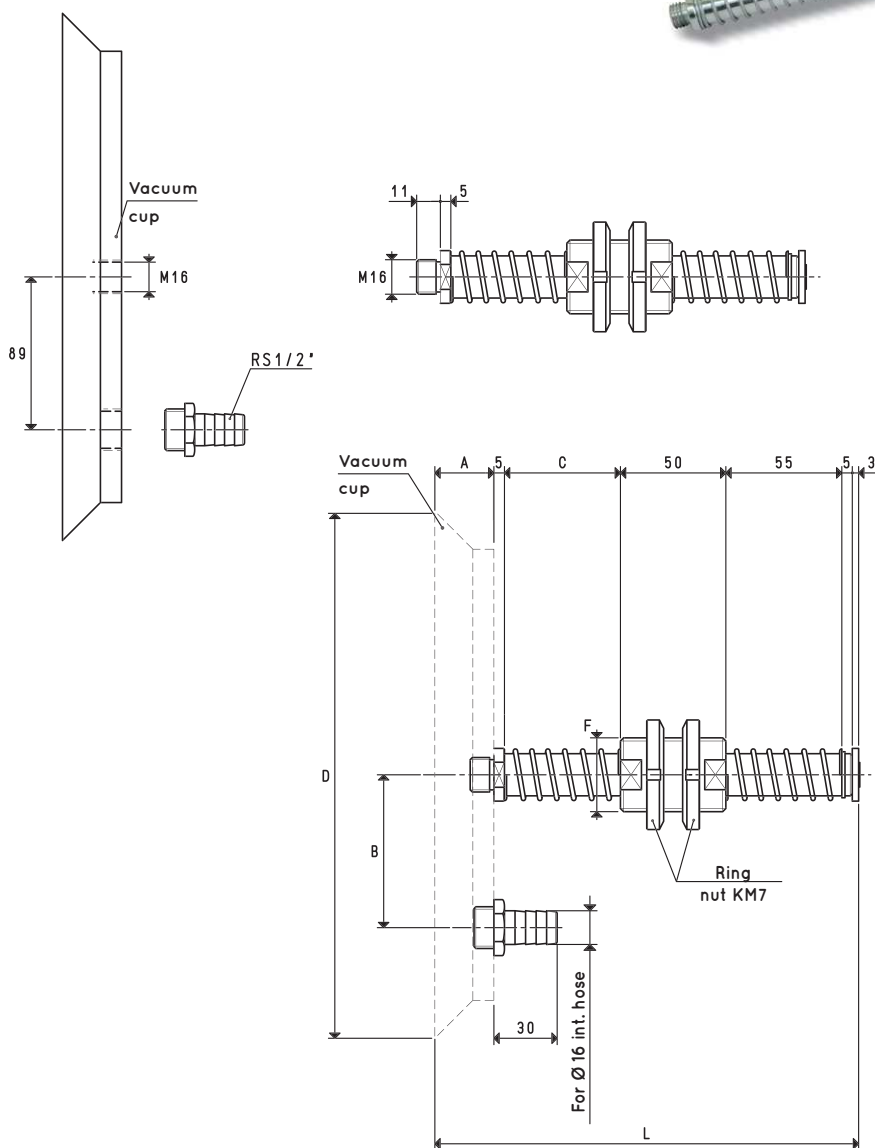
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## SPECIAL VACUUM CUP HOLDERS WITH DOUBLE SPRINGING

The actual springing stroke is:

- For height C= 55 mm      37 mm
- For height C= 110 mm      84 mm



VERSION 06 ... 13

### VACUUM CUP HOLDERS WITH HOSE-END FITTING FOR PLASTIC HOSE Ø 16 X 18

C = 110 mm

| Item             | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|----|----|----|--------|-----------|-----|------------------------|--------------|--------------|
| <b>06 300 13</b> | 176.6       | 31 | 89 | 55 | 300    | M35 x 1.5 | 204 | 08 300 10              | 5.57         | 5.70         |
| <b>06 350 13</b> | 240.0       | 31 | 89 | 55 | 350    | M35 x 1.5 | 204 | 08 350 10              | 7.43         | 7.57         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL ARTICULATED VACUUM CUP HOLDERS WITH DOUBLE SPRINGING

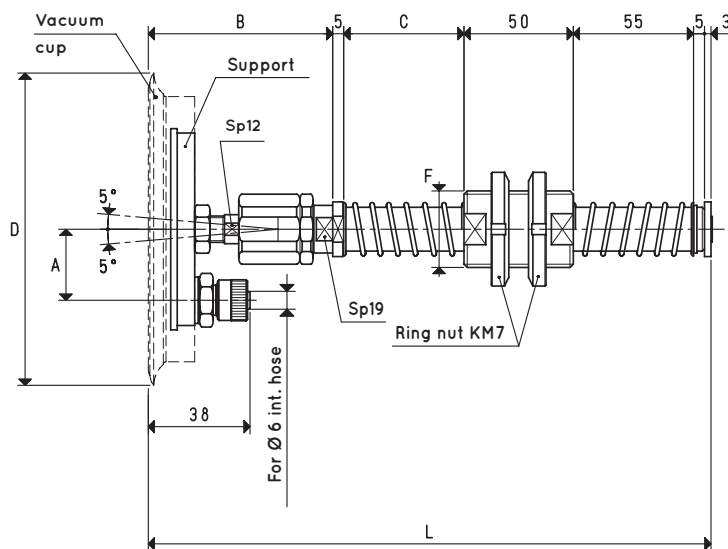
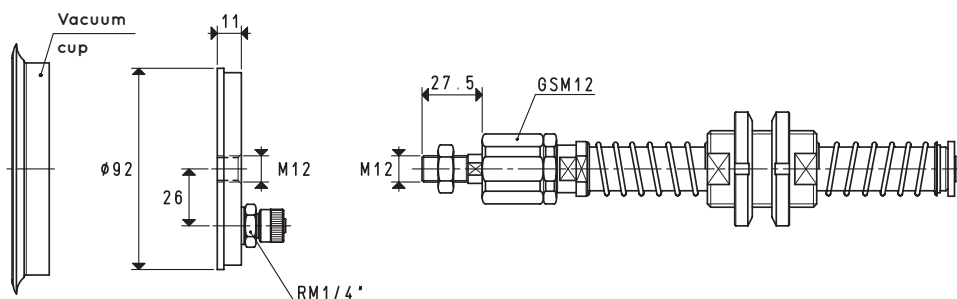
The distinctive feature of these cup holders is their articulated joint in hardened steel, which allows the flat cups installed on these cup holders to adapt themselves to the loads to be lifted even if not completely parallel with the cup plane, as well as to compensate possible verticality errors that can arise between the cup holder and the automation fixing support.

The cup holder fixing bush is located between two springs: the lower one cushions the impact of the cup with the load to be lifted during the approach phase, while the upper one cushions the impact of the bush with the cup holder end and gradually loads the cup during the lifting phase.

These cup holders are especially recommended when the load to be lifted is very heavy, rough or not perfectly flat.

The actual springing stroke is:

- For height C= 55 mm      37 mm
- For height C= 110 mm    84 mm



VERSION 06 110 14

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item             | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|----|----|----|--------|-----------|-----|------------------------|--------------------------|--------------|--------------|
| <b>06 110 14</b> | 23.74       | 26 | 77 | 55 | 114    | M35 x 1.5 | 250 | 01 110 10              | 00 06 14                 | 1.29         | 1.39         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

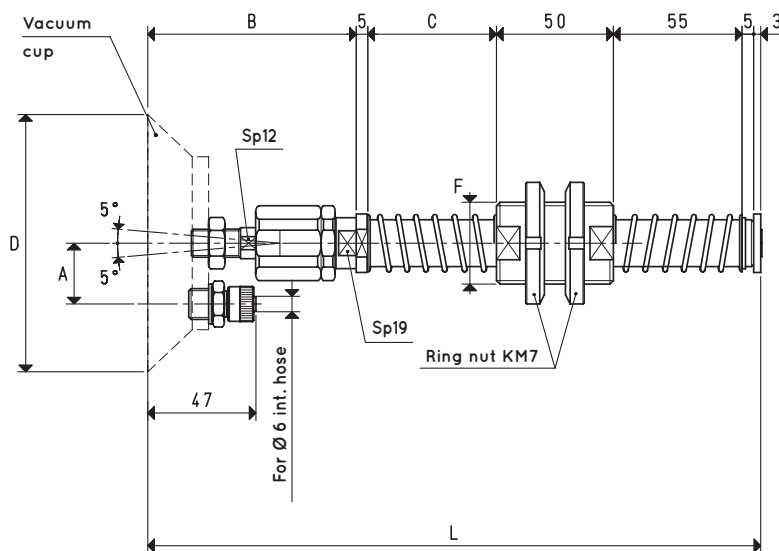
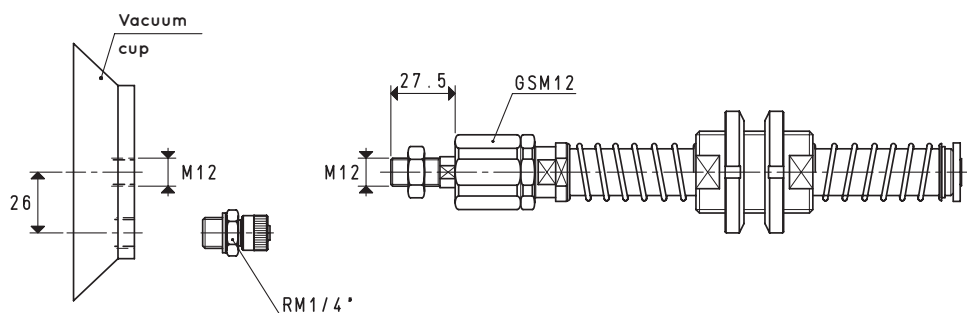
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## SPECIAL ARTICULATED VACUUM CUP HOLDERS WITH DOUBLE SPRINGING

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 110 18

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item      | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Weight<br>Kg | Weight<br>Kg |
|-----------|-------------|----|----|----|--------|-----------|-----|------------------------|--------------|--------------|
| 06 110 18 | 23.74       | 26 | 86 | 55 | 110    | M35 x 1.5 | 259 | 08 110 15              | 1.36         | 1.46         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

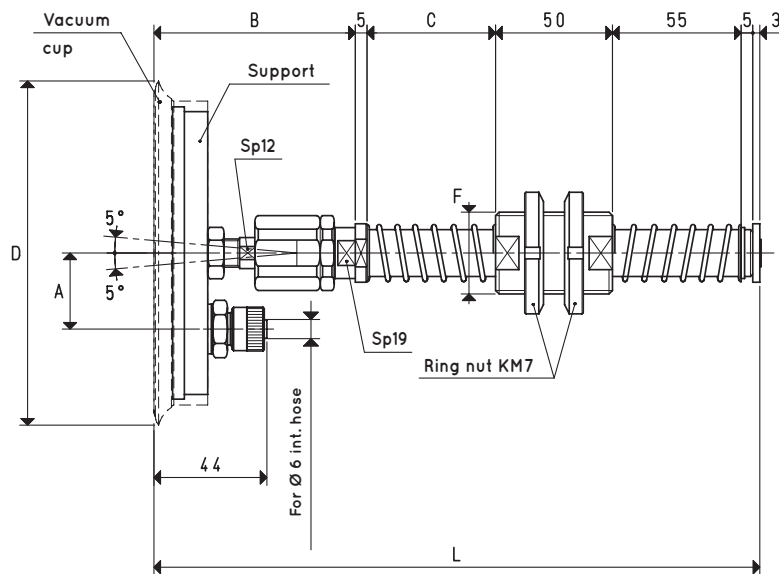
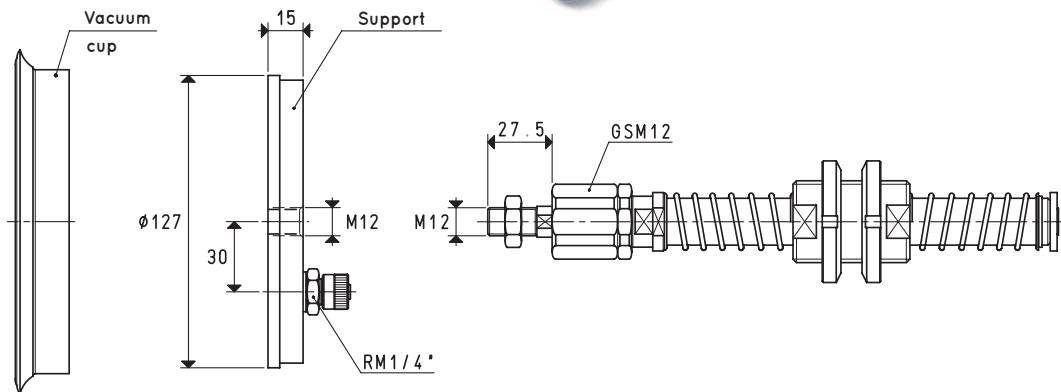
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL ARTICULATED VACUUM CUP HOLDERS WITH DOUBLE SPRINGING

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 150 14

VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 6 X 8

C = 110 mm

| Item      | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>Kg | Weight<br>Kg |
|-----------|-------------|----|----|----|--------|-----------|-----|------------------------|--------------------------|--------------|--------------|
| 06 150 14 | 45.00       | 30 | 83 | 55 | 154    | M35 x 1.5 | 256 | 01 150 10              | 00 06 15                 | 1.71         | 1.81         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

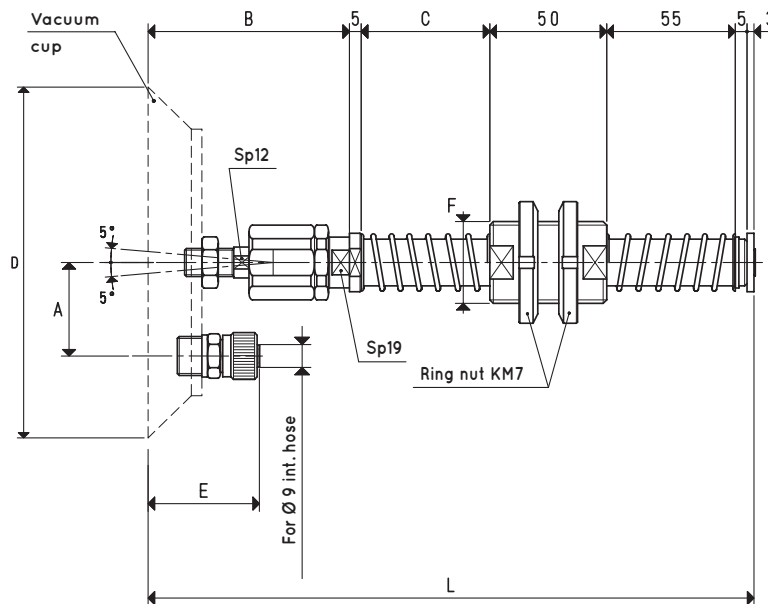
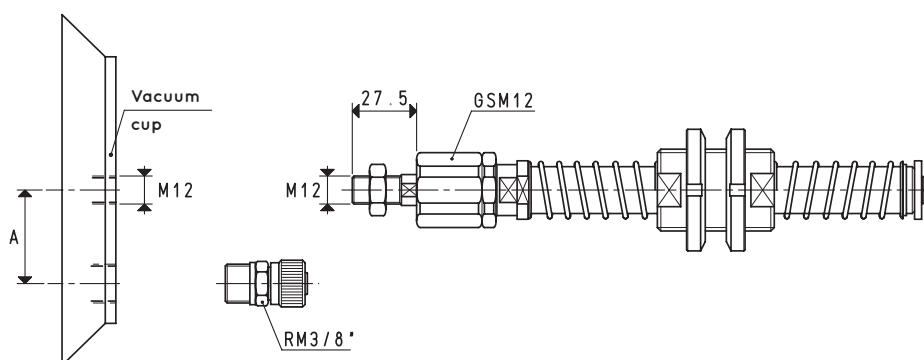
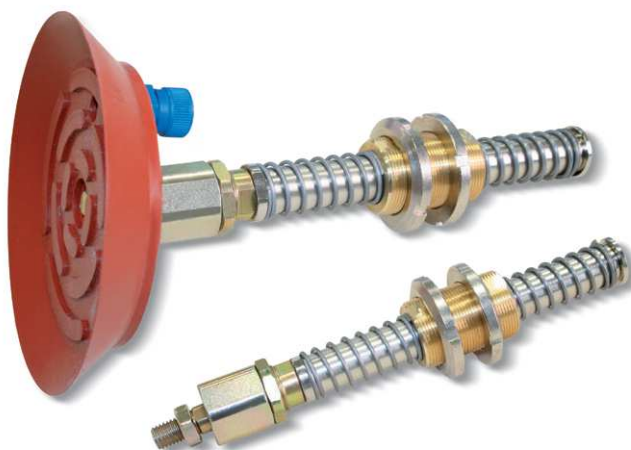
Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

# SPECIAL ARTICULATED VACUUM CUP HOLDERS WITH DOUBLE SPRINGING

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 . . . .

## VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 9 X 12

C = 110 mm

| Item             | Force<br>Kg | A    | B  | *C | D<br>Ø | E  | F<br>Ø    | L   | For vacuum cup<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|------|----|----|--------|----|-----------|-----|------------------------|--------------|--------------|
| <b>06 150 19</b> | 45.00       | 40.0 | 86 | 55 | 150    | 50 | M35 x 1.5 | 259 | 08 150 15              | 1.86         | 1.97         |
| <b>06 200 14</b> | 78.50       | 47.5 | 88 | 55 | 200    | 52 | M35 x 1.5 | 261 | 08 200 10              | 2.77         | 2.87         |
| <b>06 250 14</b> | 122.60      | 72.5 | 88 | 55 | 250    | 52 | M35 x 1.5 | 261 | 08 250 10              | 4.03         | 4.14         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

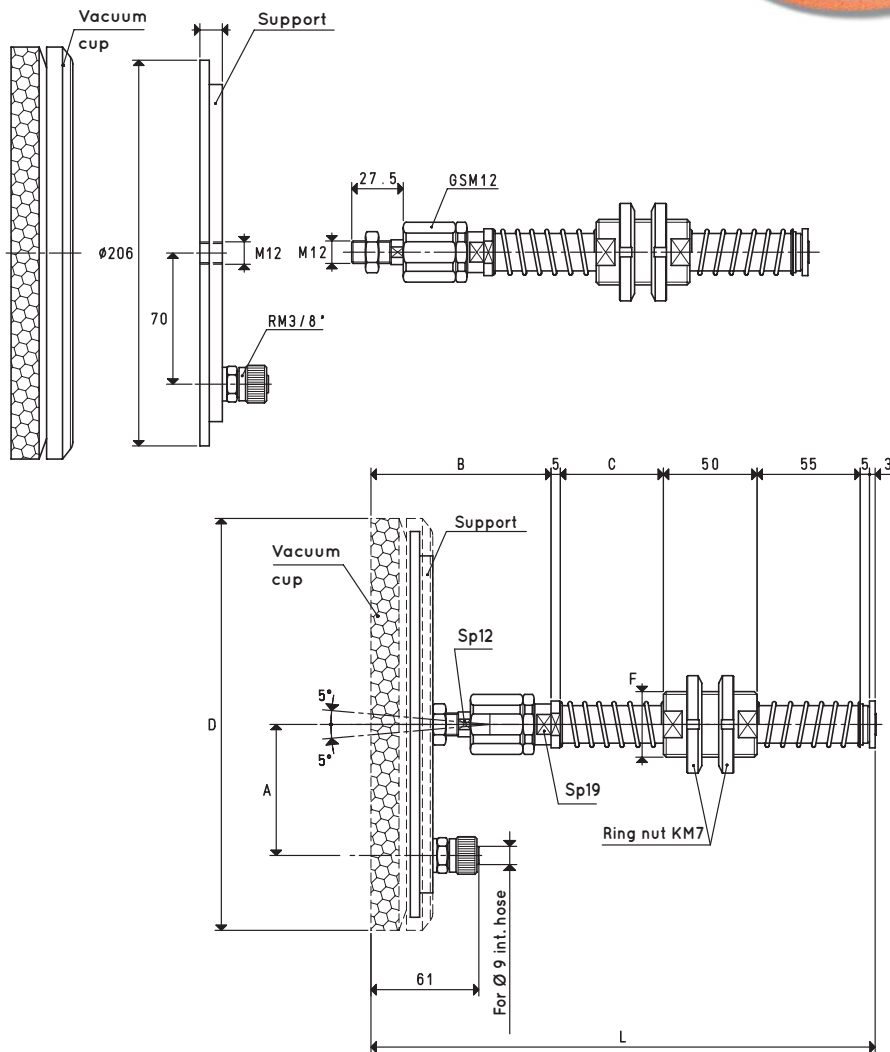
\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



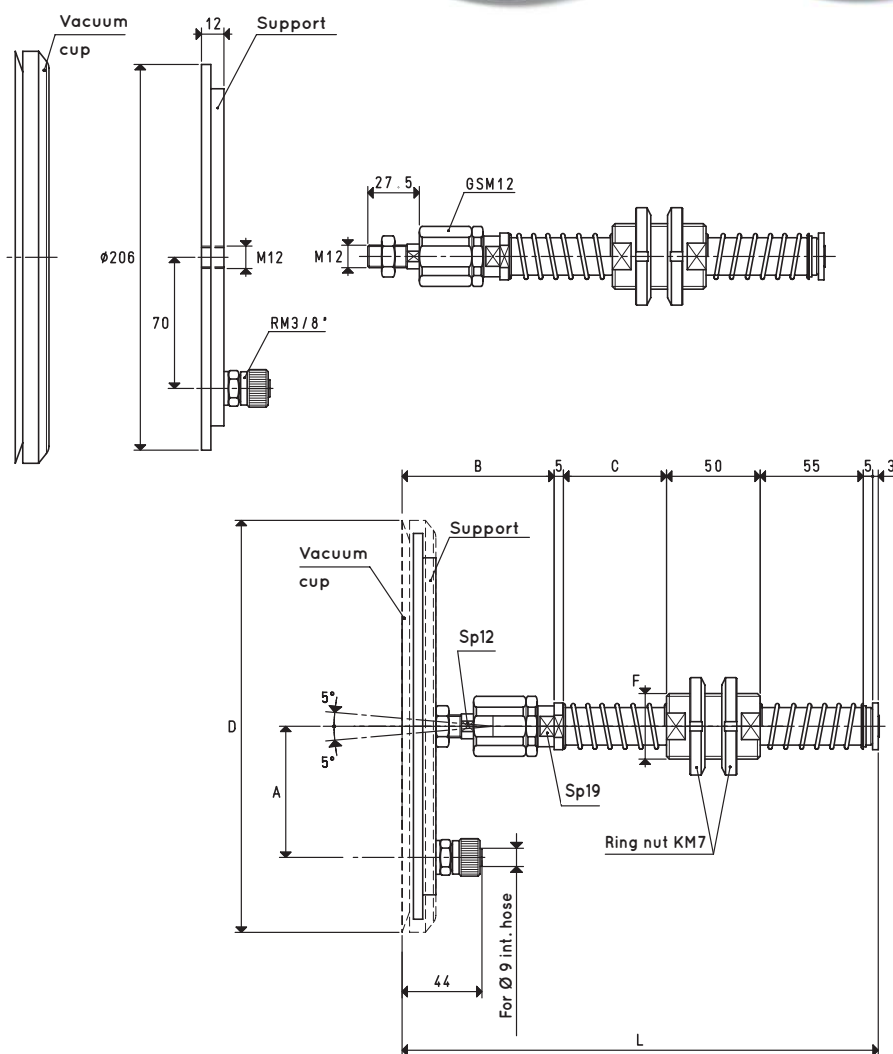
2.162



## SPECIAL ARTICULATED VACUUM CUP HOLDERS WITH DOUBLE SPRINGING

The actual springing stroke is:

- For height C= 55 mm      37 mm
- For height C= 110 mm    84 mm



VERSION 06 220 14 A

### VACUUM CUP HOLDERS WITH STRAIGHT QUICK COUPLER FOR PLASTIC HOSE Ø 9 X 12

C = 110 mm

| Item               | Force<br>Kg | A  | B  | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Support included<br>item | Weight<br>Kg | Weight<br>Kg |
|--------------------|-------------|----|----|----|--------|-----------|-----|------------------------|--------------------------|--------------|--------------|
| <b>06 220 14 A</b> | 78.5        | 70 | 80 | 55 | 220    | M35 x 1.5 | 253 | 01 220 10 A            | 00 08 37                 | 2.17         | 2.27         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

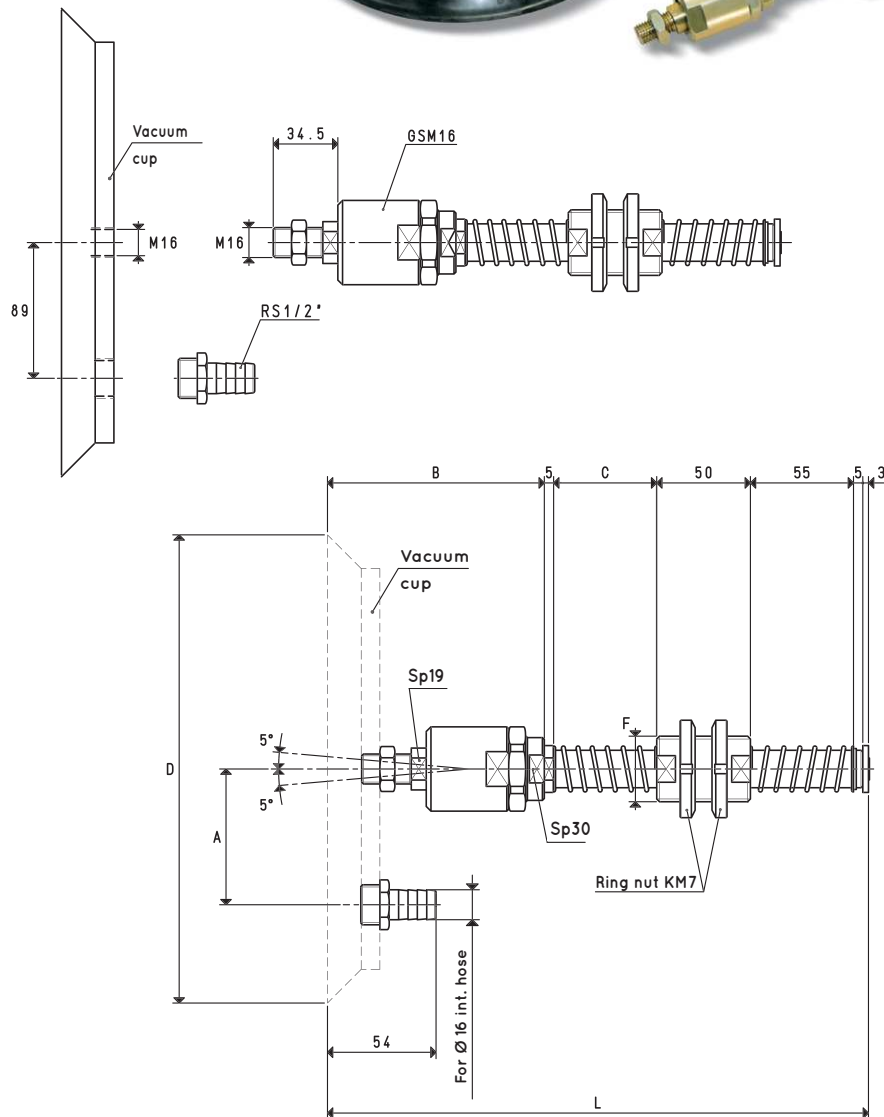
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$



## SPECIAL ARTICULATED VACUUM CUP HOLDERS WITH DOUBLE SPRINGING

The actual springing stroke is:

- For height C= 55 mm 37 mm
- For height C= 110 mm 84 mm



VERSION 06 ... 14

VACUUM CUP HOLDERS WITH HOSE-END FITTING FOR PLASTIC HOSE Ø 16 X 18

C = 110 mm

| Item             | Force<br>Kg | A  | B   | *C | D<br>Ø | F<br>Ø    | L   | For vacuum cup<br>item | Weight<br>Kg | Weight<br>Kg |
|------------------|-------------|----|-----|----|--------|-----------|-----|------------------------|--------------|--------------|
| <b>06 300 14</b> | 176.6       | 89 | 115 | 55 | 300    | M35 x 1.5 | 288 | 08 300 10              | 6.24         | 6.63         |
| <b>06 350 14</b> | 240.0       | 89 | 115 | 55 | 350    | M35 x 1.5 | 288 | 08 350 10              | 8.10         | 8.22         |

Note: The vacuum cups are not integral parts of the cup holders and, therefore, must be ordered separately.

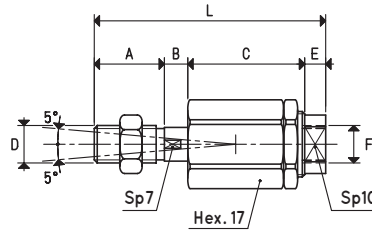
\* Also available with height C of 110 mm

Note: The force of the vacuum cups indicated in the table represents 1/3 of the value of the theoretical force calculated at a level of vacuum of -75 KPa and a factor of safety 3.

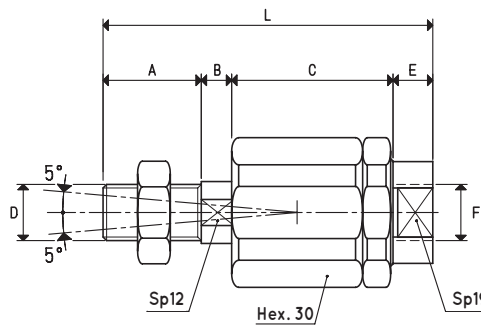
Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)      inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

## SPHERICAL ARTICULATED JOINTS

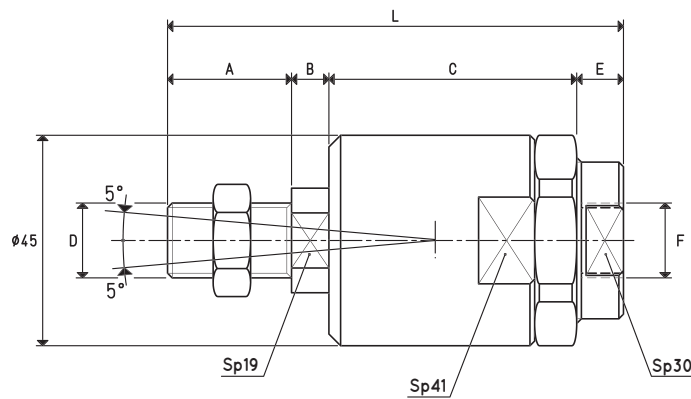
Our spherical articulated joints are made with hardened steel. Assembled to the cup holders, they compensate offsets, orthogonality and flatness errors that often arise between the cups and the surface of the load to be lifted.



| Item        | A  | B | C  | D<br>Ø | E   | F<br>Ø | L    | Weight<br>g |
|-------------|----|---|----|--------|-----|--------|------|-------------|
| <b>GSM8</b> | 15 | 5 | 25 | M8     | 4.5 | M8     | 49.5 | 55          |



| Item         | A  | B   | C    | D<br>Ø | E   | F<br>Ø | L    | Weight<br>g |
|--------------|----|-----|------|--------|-----|--------|------|-------------|
| <b>GSM12</b> | 21 | 6.5 | 34.5 | M12    | 8.5 | M12    | 70.5 | 220         |



| Item         | A    | B | C  | D<br>Ø | E  | F<br>Ø | L    | Weight<br>g |
|--------------|------|---|----|--------|----|--------|------|-------------|
| <b>GSM16</b> | 26.5 | 8 | 53 | M16    | 10 | M16    | 97.5 | 670         |

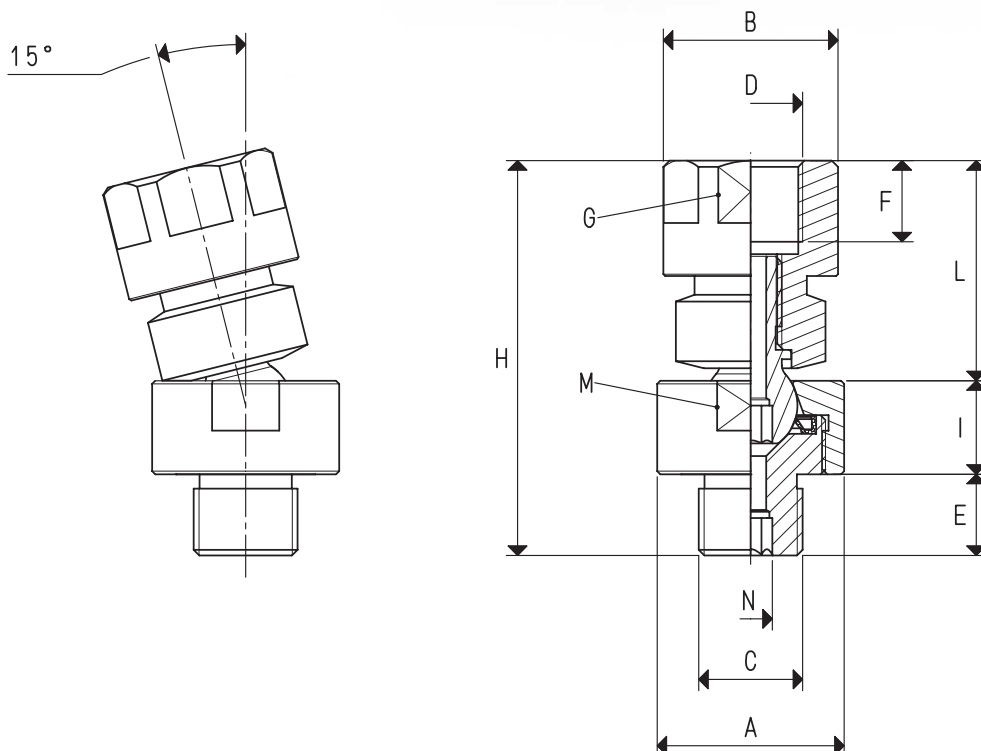


## BALL JOINT COUPLINGS WITH AXIAL VACUUM CONNECTION

This series of couplings was designed to be installed on suckers with support, especially those that are flat or that have little lip, in order to allow them to easily adapt to the gripping surface of the load to be picked up, even if not perfectly parallel to the plane of the sucker itself or to compensate for any perpendicularity errors that often occur between the sucker holder and the fixing support of the automation. The vacuum connection is axial and the hold is guaranteed by a special seal, always in contact with the ball joint. The sucker installed on them is free to rotate 360° degrees on its axis and to tilt up to 15°.

The couplings are made entirely of brass, except for the ball pin and its retention nut which are made of stainless steel.

They can be fastened to the sucker using either the female or male threaded connection.



BALL JOINT COUPLINGS WITH AXIAL VACUUM CONNECTION

| Item            | A<br>Ø | B<br>Ø | C<br>Ø | D<br>Ø | E    | F  | G<br>hex | H    | I  | L    | M<br>wr. | N<br>hex | Material              | Max load<br>admissible Kg | Weight<br>g |
|-----------------|--------|--------|--------|--------|------|----|----------|------|----|------|----------|----------|-----------------------|---------------------------|-------------|
| <b>GSL 1/8"</b> | 20     | 12     | G1/8"  | G1/8"  | 8.5  | 8  | 11       | 43.0 | 12 | 22.5 | 18       | 4        | brass/stainless steel | 10.5                      | 40          |
| <b>GSL 1/4"</b> | 20     | 16     | G1/4"  | G1/4"  | 10.0 | 8  | 15       | 44.6 | 12 | 22.6 | 18       | 4        | brass/stainless steel | 19.6                      | 56          |
| <b>GSL 3/8"</b> | 30     | 28     | G3/8"  | G3/8"  | 13.0 | 13 | 26       | 63.3 | 15 | 35.3 | 28       | 6        | brass/stainless steel | 33.4                      | 206         |
| <b>GSL 1/2"</b> | 30     | 28     | G1/2"  | G1/2"  | 17.0 | 15 | 26       | 72.3 | 15 | 40.3 | 28       | 6        | brass/stainless steel | 51.5                      | 232         |



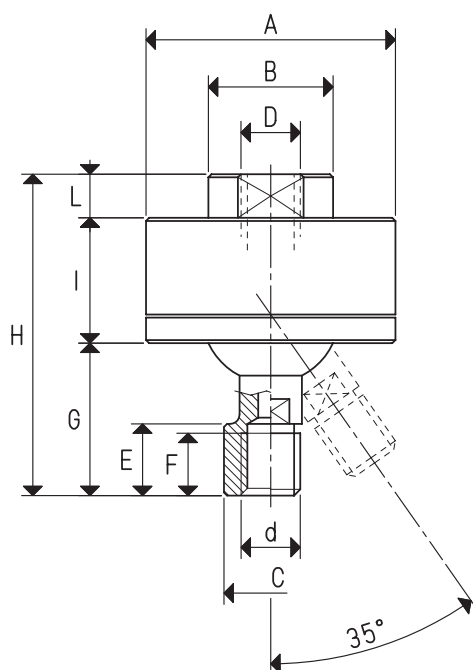
## POSITIONABLE BALL JOINT COUPLINGS WITH AXIAL VACUUM CONNECTION

The positionable ball joints couplings in anodised aluminium allow the installed vacuum cups to be rotated 360° and to be tilted by up to 35° in order to properly position them with respect to the gripping surface on the object to be handled, while at the same time ensuring a perfect grip and proper suction through the joint itself.



3D drawings are available on [vuototecnica.net](http://vuototecnica.net)

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POSITIONABLE BALL JOINT COUPLINGS WITH AXIAL VACUUM CONNECTION

| Item             | A<br>Ø | B<br>Ø | C<br>Ø | D<br>Ø | d<br>Ø | E    | F  | G    | H    | I  | L  | Material  | Max load<br>admissible Kg | Weight<br>g |
|------------------|--------|--------|--------|--------|--------|------|----|------|------|----|----|-----------|---------------------------|-------------|
| <b>GSV 1/8"</b>  | 40     | 20     | –      | G1/8"  | G1/8"  | 11.5 | 10 | 24.5 | 51.5 | 20 | 7  | aluminium | 18.24                     | 77.6        |
| <b>GSV 1/4"</b>  | 45     | 25     | –      | G1/4"  | G1/4"  | 14.5 | 12 | 28.5 | 60.5 | 25 | 7  | aluminium | 23.54                     | 126.7       |
| <b>GSV 3/8"</b>  | 50     | 30     | –      | G3/8"  | G3/8"  | 14.0 | 12 | 34.5 | 69.5 | 25 | 10 | aluminium | 33.91                     | 171.2       |
| <b>GSVF 1/8"</b> | 40     | 20     | 15     | G1/8"  | G1/8"  | 11.5 | 10 | 24.5 | 51.5 | 20 | 7  | aluminium | 18.24                     | 80.4        |
| <b>GSVF 1/4"</b> | 45     | 25     | 20     | G1/4"  | G1/4"  | 14.5 | 12 | 28.5 | 60.5 | 25 | 7  | aluminium | 23.54                     | 129.2       |
| <b>GSVF 3/8"</b> | 50     | 30     | 21     | G3/8"  | G3/8"  | 17.0 | 12 | 34.5 | 69.5 | 25 | 10 | aluminium | 33.91                     | 167.6       |

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

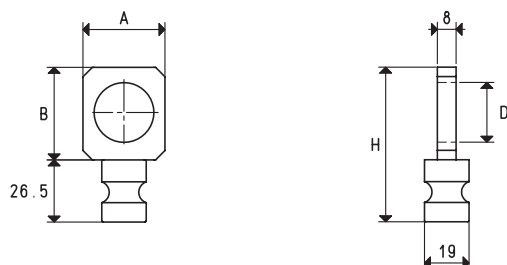
inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$

Adapters for GAS - NPT threading available on page 1.130



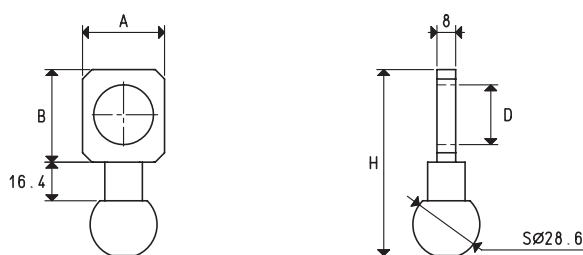
## VACUUM CUP HOLDER FIXING SUPPORTS

The first two supports shown in this page are made with stainless steel and are suited for fastening the cup holder to the machine by means of a slotted cylindrical pin or a spherical pin housed in the automation. The third support, on the other hand, is made with aluminium and it is composed of two parts that, screwed together, block the spherical joint, allowing to keep the cup holder in the desired position.



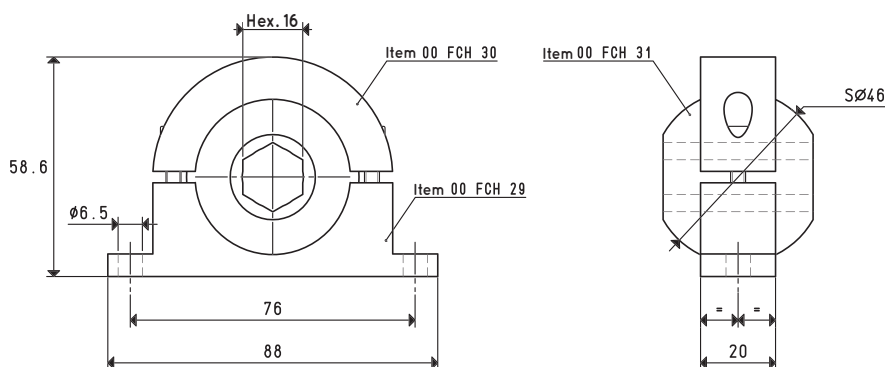
SUPPORTS WITH SLOTTED CYLINDRICAL PIN

| Item      | A  | B    | D<br>Ø | H    | By<br>vacuum cup holders | Weight<br>g |
|-----------|----|------|--------|------|--------------------------|-------------|
| 00 FCH 10 | 35 | 39.5 | 25.5   | 79.5 | special anti-rotation    | 102         |
| 00 FCH 11 | 30 | 33.5 | 20.5   | 73.5 | basic                    | 90          |



SUPPORTS WITH SPHERICAL PIN

| Item      | A  | B    | D<br>Ø | H    | By<br>vacuum cup holders | Weight<br>g |
|-----------|----|------|--------|------|--------------------------|-------------|
| 00 FCH 20 | 35 | 39.5 | 25.5   | 79.5 | special anti-rotation    | 168         |
| 00 FCH 21 | 30 | 33.5 | 20.5   | 73.5 | basic                    | 154         |

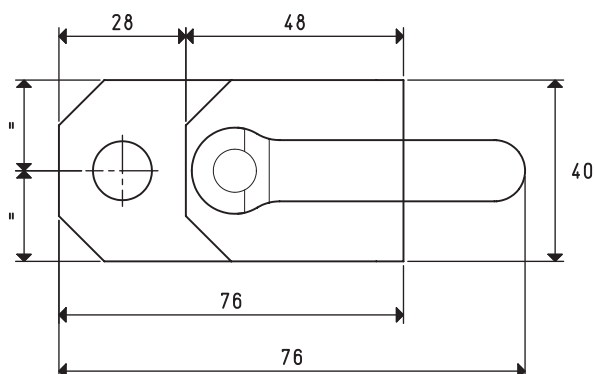
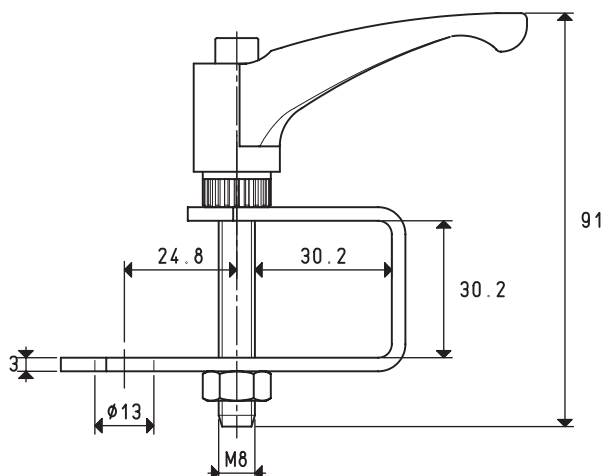


SUPPORTS WITH BUILT-IN BALL JOINT COUPLING

| Item   | By<br>vacuum cup holders | Weight<br>g |
|--------|--------------------------|-------------|
| FCH 16 | special anti-rotation    | 156         |

## VACUUM CUP HOLDER FIXING SUPPORTS

The supports described in the following in these pages are made with galvanised sheet steel and they are used to fasten the various types of cup holders to the automation, generally made up of a square tube frame. The screw or the handle with which they are equipped quickly block the support in position.



SUPPORT FOR TUBE  $\varnothing 30$

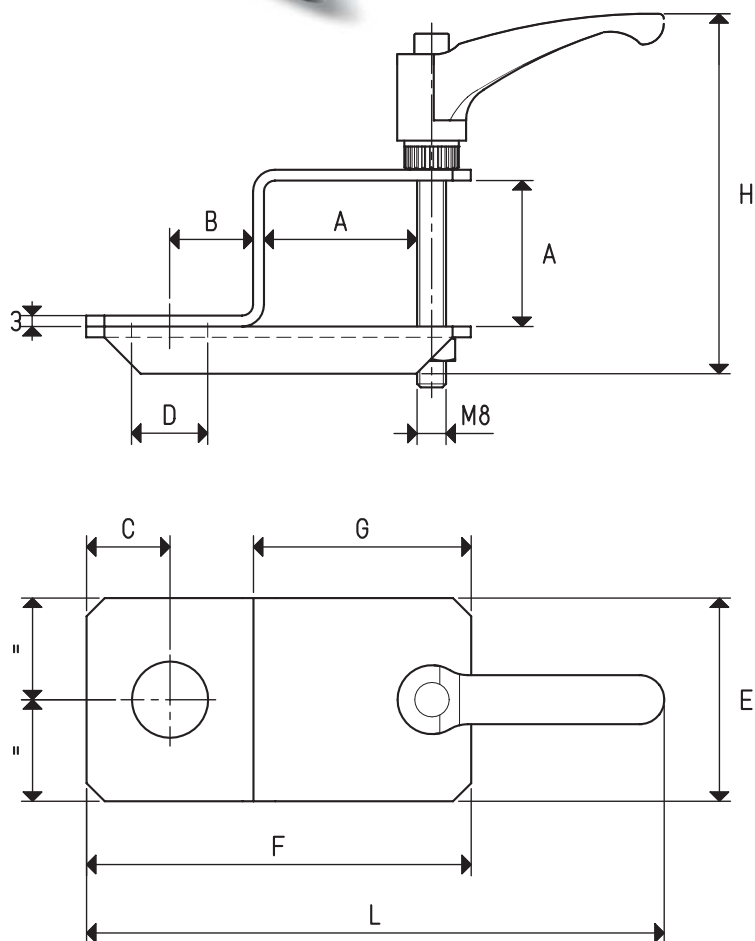
| Item   | Tube cross-sect.<br>$\varnothing$ | By<br>vacuum cup holders | Weight<br>g |
|--------|-----------------------------------|--------------------------|-------------|
| SFP 01 | 30                                | mini                     | 160         |



## VACUUM CUP HOLDER FIXING SUPPORTS

3D drawings are available on [vuototecnica.net](http://vuototecnica.net)

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SUPPORTS FOR TUBES  $\varnothing$  40-50

| Item          | Tube cross-sect.<br>$\varnothing$ | A    | B  | C  | D<br>$\varnothing$ | E  | F   | G  | H   | L   | By<br>vacuum cup holders | Weight<br>g |
|---------------|-----------------------------------|------|----|----|--------------------|----|-----|----|-----|-----|--------------------------|-------------|
| <b>SFP 02</b> | 40                                | 40.2 | 23 | 23 | 21                 | 56 | 106 | 60 | 99  | 159 | basic                    | 350         |
| <b>SFP 03</b> | 40                                | 40.2 | 23 | 23 | 25                 | 56 | 106 | 60 | 99  | 159 | special anti-rotation    | 338         |
| <b>SFP 04</b> | 40                                | 40.2 | 30 | 30 | 36                 | 70 | 120 | 60 | 99  | 173 | special                  | 438         |
| <b>SFP 05</b> | 50                                | 50.2 | 23 | 23 | 21                 | 56 | 116 | 70 | 109 | 169 | basic                    | 370         |
| <b>SFP 06</b> | 50                                | 50.2 | 23 | 23 | 25                 | 56 | 116 | 70 | 109 | 169 | special anti-rotation    | 377         |
| <b>SFP 07</b> | 50                                | 50.2 | 30 | 30 | 36                 | 70 | 130 | 70 | 109 | 183 | special                  | 490         |

Transformation ratio: N (newton) = Kg x 9.81 (force of gravity)

inch =  $\frac{\text{mm}}{25.4}$  ; pounds =  $\frac{\text{g}}{453.6} = \frac{\text{Kg}}{0.4536}$