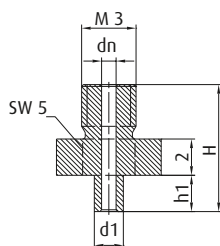
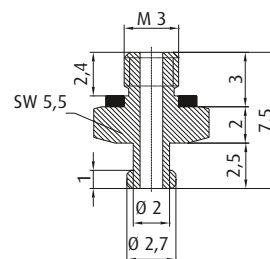


|                       |     |
|-----------------------|-----|
| Fittings .....        | 446 |
| Joints .....          | 481 |
| Spring plungers ..... | 484 |



### Technical Data

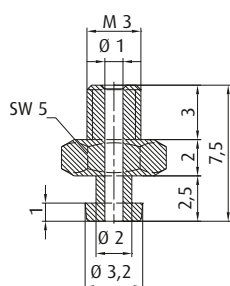
| Item no. | Thread G1 | H [mm] | h1 [mm] | Ø d1 [mm] | Ø dn [mm] |
|----------|-----------|--------|---------|-----------|-----------|
| 270.026  | M3-male   | 6      | 1       | 1,1       | 0,6       |
| 270.011  | M3-male   | 7      | 2       | 1,6       | 0,8       |
| 270.025  | M3-male   | 7,5    | 2       | 2         | 1         |



NEW

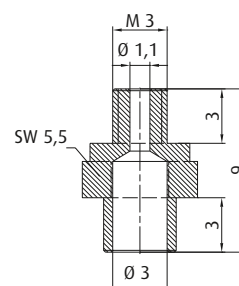
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.524  | M3-male   |



### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.014  | M3-male   |



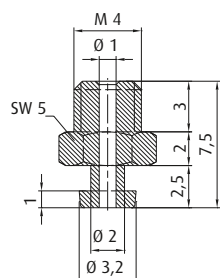
NEW

### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.427  | M3-male   |

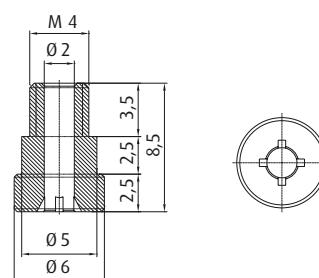
### Note

Vacuum cup is plugged into the borehole of the fitting



### Technical Data

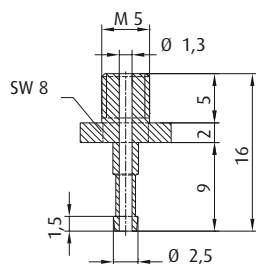
| Item no. | Thread G1 |
|----------|-----------|
| 270.111  | M4-male   |



NEW

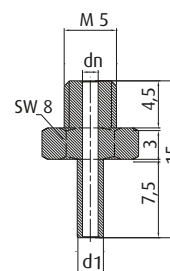
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.458  | M4-male   |



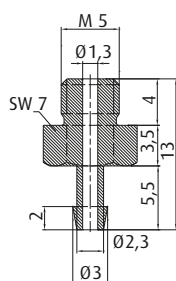
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.195  | M5-male   |



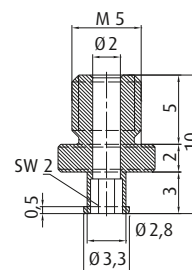
### Technical Data

| Item no. | Thread G1 | $\varnothing d1$ [mm] | $\varnothing dn$ [mm] |
|----------|-----------|-----------------------|-----------------------|
| 270.001  | M5-male   | 2,5                   | 1,5                   |
| 270.022  | M5-male   | 3,4                   | 2                     |



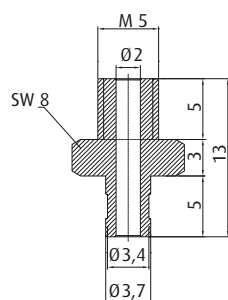
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.153  | M5-male   |



### Technical Data

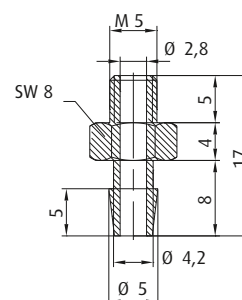
| Item no. | Thread G1 |
|----------|-----------|
| 270.283  | M5-male   |



NEW

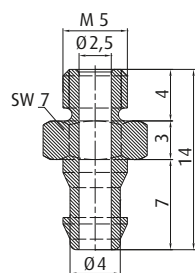
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.536  | M5-male   |



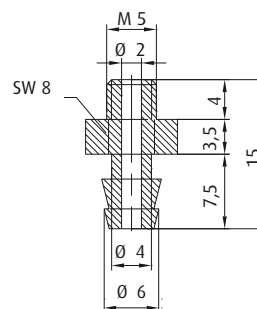
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.134  | M5-male   |



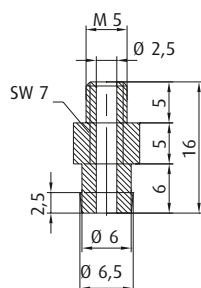
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.399  | M5-male   |



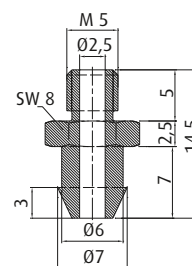
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.024  | M5-male   |



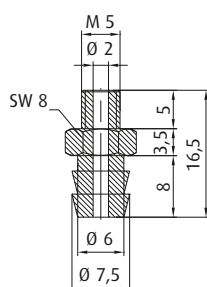
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.013  | M5-male   |



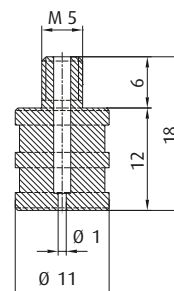
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.317  | M5-male   |



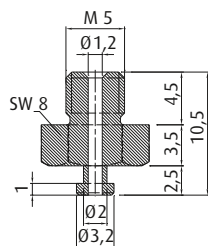
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.443  | M5-male   |



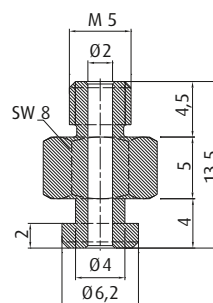
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.244  | M5-male   |



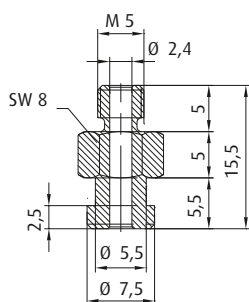
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.300  | M5-male   |



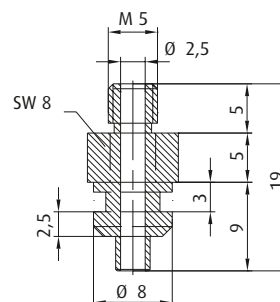
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.010  | M5-male   |



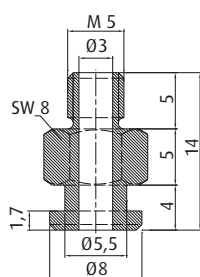
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.094  | M5-male   |



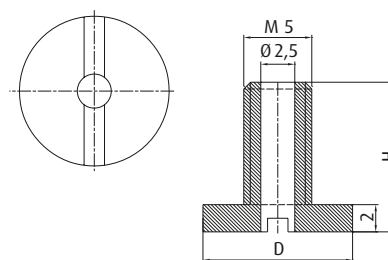
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.037  | M5-male   |



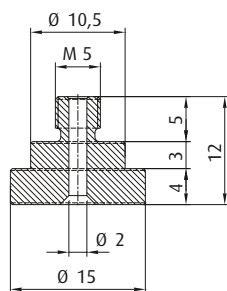
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.200  | M5-male   |



### Technical Data

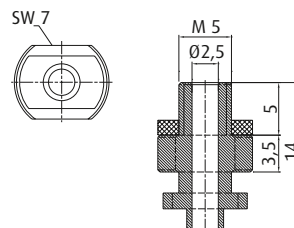
| Item no. | Thread G1 | H [mm] | Ø D [mm] |
|----------|-----------|--------|----------|
| 270.310  | M5-male   | 9      | 8        |
| 270.311  | M5-male   | 11     | 11       |



NEW

### Technical Data

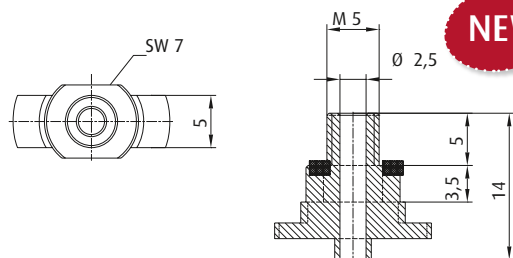
| Item no. | Thread G1 |
|----------|-----------|
| 270.521  | M5-male   |



NEW

### Technical Data

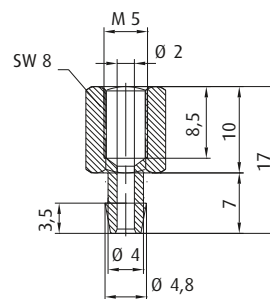
| Item no. | Thread G1 |
|----------|-----------|
| 270.463  | M5-male   |



NEW

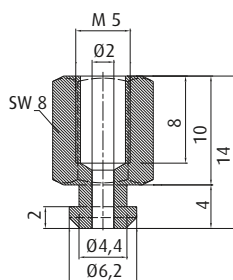
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.464  | M5-male   |



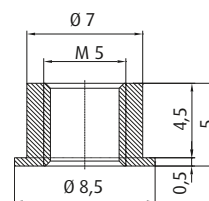
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.347  | M5-female |



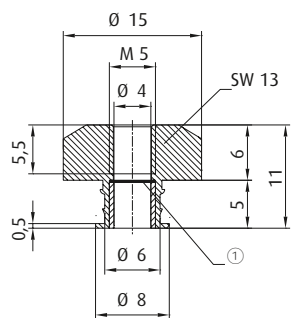
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.005  | M5-female |



### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.382  | M5-female |



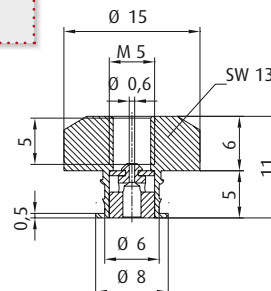
**NEW**

① = Filter screen

## Technical Data

| Item no.  | Thread G1 |
|-----------|-----------|
| 270.500-S | M5-female |

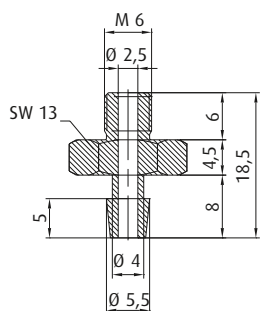
**WITH FLOW CONTROL VALVE**



**NEW**

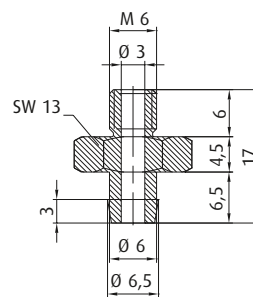
## Technical Data

| Item no.    | Thread G1 |
|-------------|-----------|
| 270.500-DRV | M5-female |



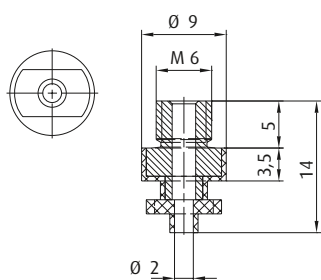
## Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.104  | M6-male   |



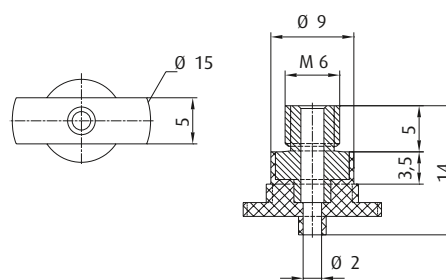
## Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.103  | M6-male   |



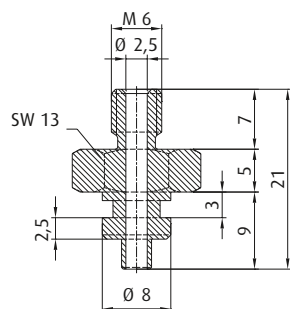
## Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.339  | M6-male   |



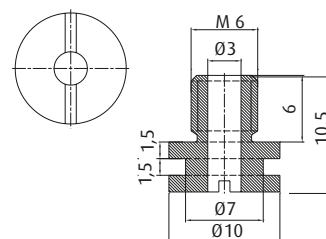
## Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.340  | M6-male   |



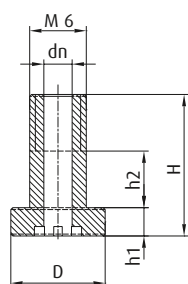
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.373  | M6-male   |



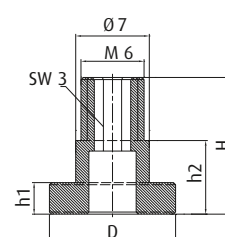
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.105  | M6-male   |



### Technical Data

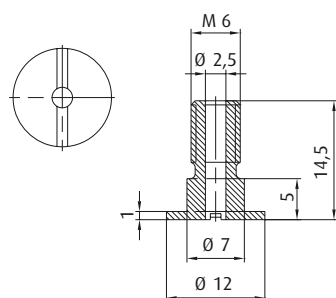
| Item no.   | Thread G1 | H [mm] | h1 [mm] | h2 [mm] | Ø D [mm] | Ø dn [mm] |
|------------|-----------|--------|---------|---------|----------|-----------|
| 270.312/19 | M6-male   | 14     | 2       | 5       | 11       | 3,5       |
| 270.457    | M6-male   | 15     | 3       | 6       | 10       | 3         |
| 270.461    | M6-male   | 16,5   | 2,5     | 8       | 10       | SW 3      |



NEW

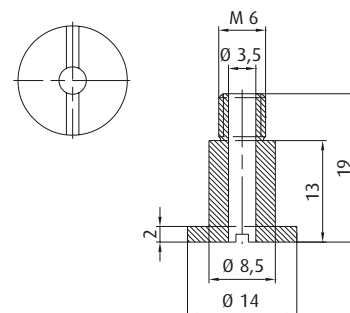
### Technical Data

| Item no. | Thread G1 | H [mm] | h1 [mm] | h2 [mm] | Ø D [mm] |
|----------|-----------|--------|---------|---------|----------|
| 270.459  | M6-male   | 11     | 2,5     | 6       | 10       |
| 270.460  | M6-male   | 13     | 3       | 7       | 10       |



### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.039  | M6-male   |



### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.315  | M6-male   |

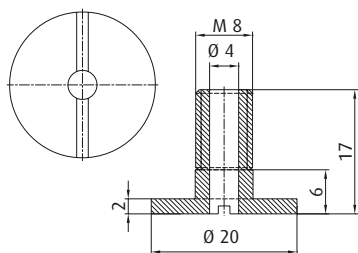






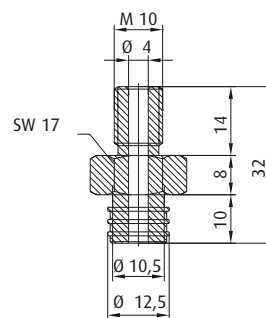
# Fittings, joints, spring plungers | Fittings

M8-male | M10-male | G1/8-male



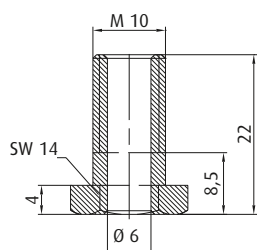
## Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.313  | M8-male   |



## Technical Data

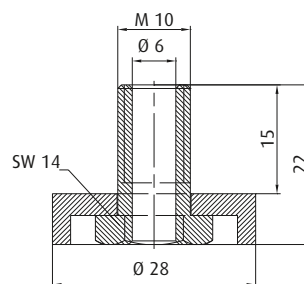
| Item no. | Thread G1 |
|----------|-----------|
| 270.177  | M10-male  |



NEW

## Technical Data

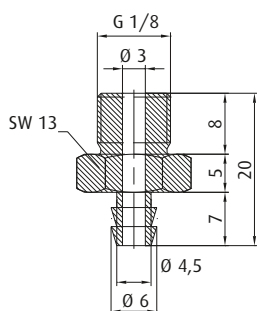
| Item no. | Thread G1 |
|----------|-----------|
| 270.462  | M10-male  |



NEW

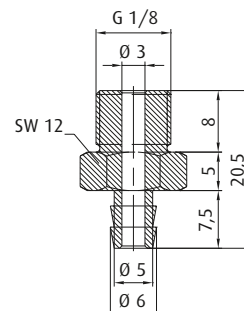
## Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.512  | M10-male  |



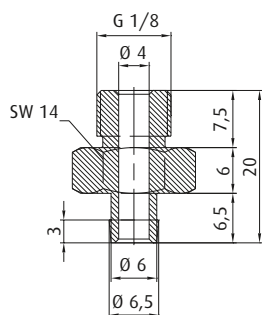
## Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.033  | G1/8-male |



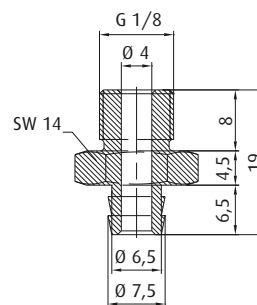
## Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.205  | G1/8-male |



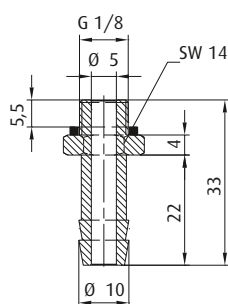
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.003  | G1/8-male |



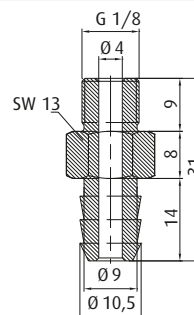
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.238  | G1/8-male |



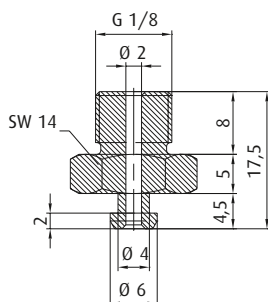
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.060  | G1/8-male |



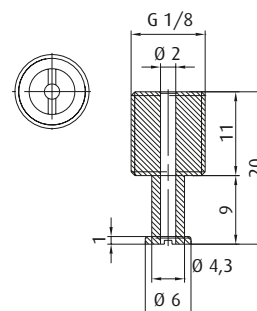
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.132  | G1/8-male |



### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.009  | G1/8-male |



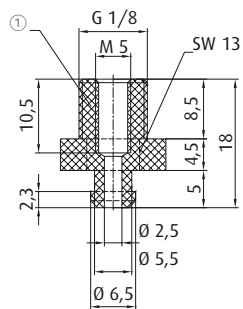
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.242  | G1/8-male |



# Fittings, joints, spring plungers | Fittings

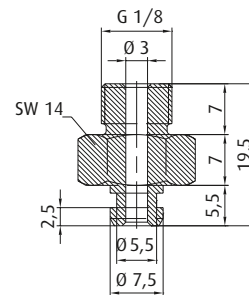
## G1/8-male



① = Material: POM

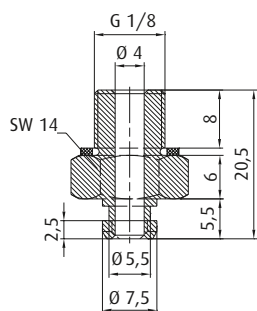
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.188  | G1/8-male |



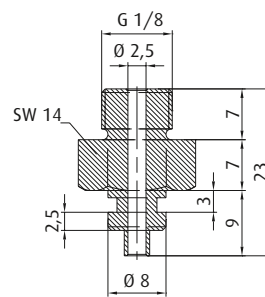
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.095  | G1/8-male |



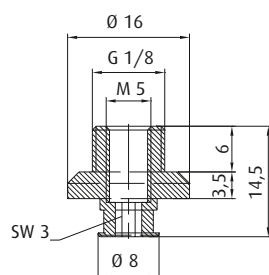
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.431  | G1/8-male |



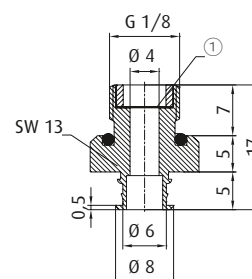
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.085  | G1/8-male |



### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.250  | G1/8-male |



① = Filter screen

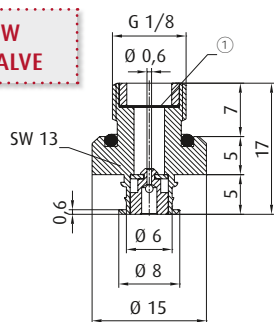
### Technical Data

| Item no.  | Thread G1 |
|-----------|-----------|
| 270.503-S | G1/8-male |

NEW



WITH FLOW  
CONTROL VALVE

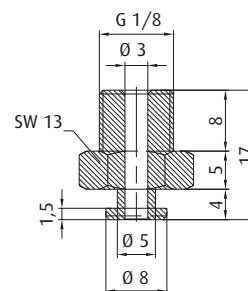


NEW

① = Filter screen

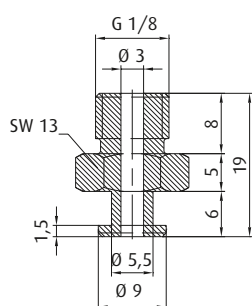
#### Technical Data

| Item no.     | Thread G1 |
|--------------|-----------|
| 270.503-SDRV | G1/8-male |



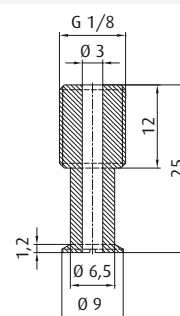
#### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.064  | G1/8-male |



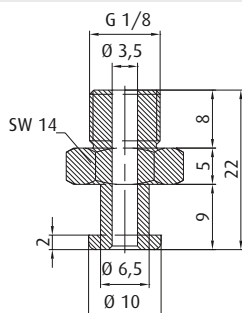
#### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.063  | G1/8-male |



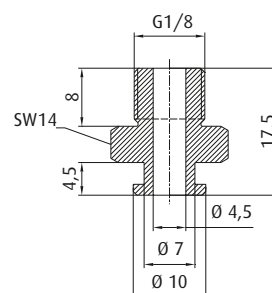
#### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.147  | G1/8-male |



#### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.030  | G1/8-male |



NEW

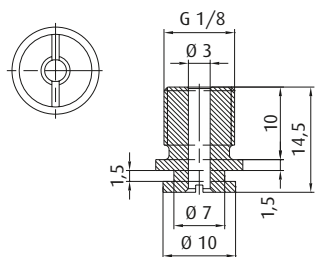
#### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.543  | G1/8-male |



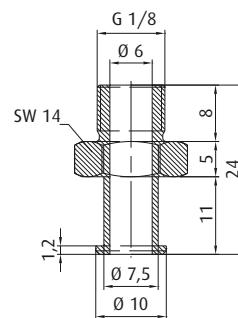
# Fittings, joints, spring plungers | Fittings

## G1/8-male



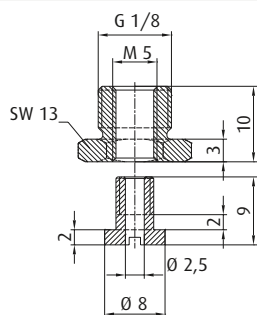
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.077  | G1/8-male |



### Technical Data

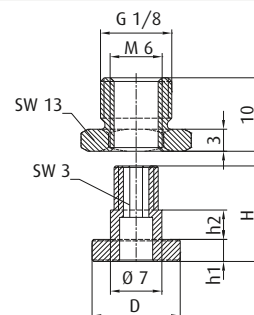
| Item no. | Thread G1 |
|----------|-----------|
| 270.112  | G1/8-male |



NEW

### Technical Data

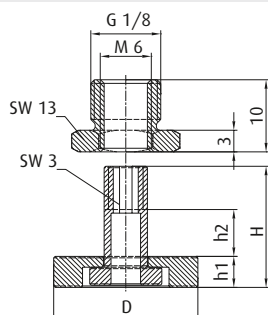
| Item no. | Thread G1 |
|----------|-----------|
| 270.493  | G1/8-male |



NEW

### Technical Data

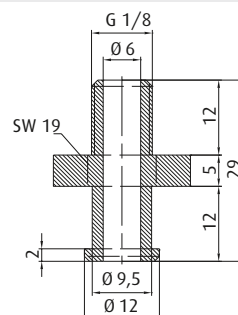
| Item no. | Thread G1 | H [mm] | h1 [mm] | h2 [mm] | Ø D [mm] |
|----------|-----------|--------|---------|---------|----------|
| 270.480  | G1/8-male | 11     | 2,5     | 3,5     | 10       |
| 270.482  | G1/8-male | 13     | 3       | 4       | 12       |



NEW

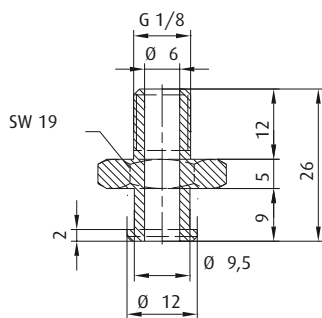
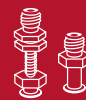
### Technical Data

| Item no. | Thread G1 | H [mm] | h1 [mm] | h2 [mm] | Ø D [mm] |
|----------|-----------|--------|---------|---------|----------|
| 270.486  | G1/8-male | 17     | 5       | 6       | 15       |
| 270.490  | G1/8-male | 17     | 4,5     | 6,5     | 20       |



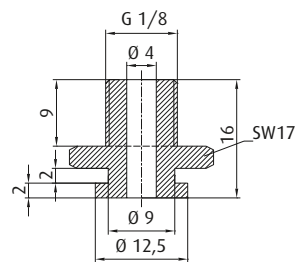
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.352  | G1/8-male |



## Technical Data

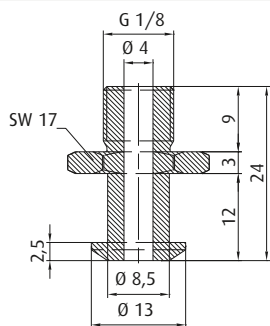
| Item no. | Thread G1 |
|----------|-----------|
| 270.354  | G1/8-male |



NEW

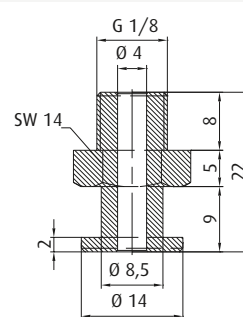
## Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.541  | G1/8-male |



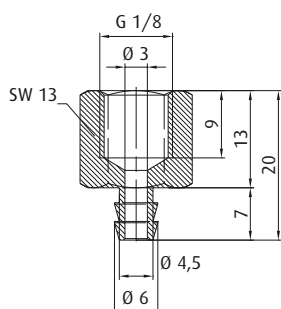
## Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.093  | G1/8-male |



## Technical Data

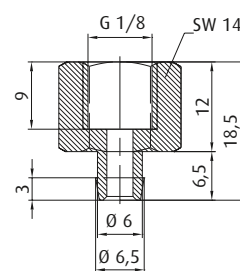
| Item no. | Thread G1 |
|----------|-----------|
| 270.012  | G1/8-male |



NEW

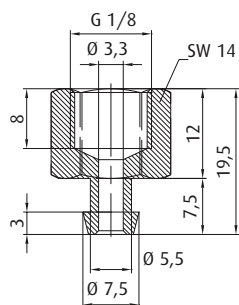
## Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.478  | G1/8-female |



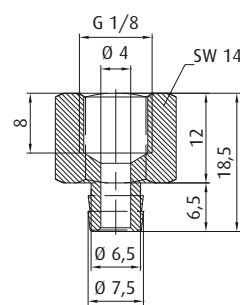
## Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.015  | G1/8-female |



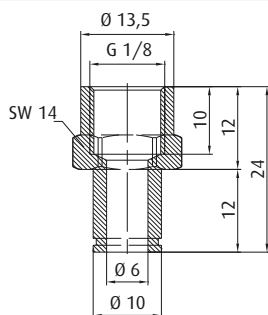
### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.109  | G1/8-female |



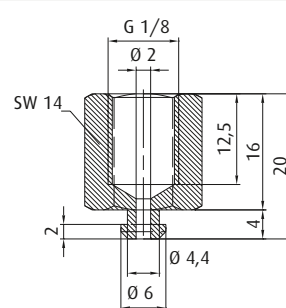
### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.110  | G1/8-female |



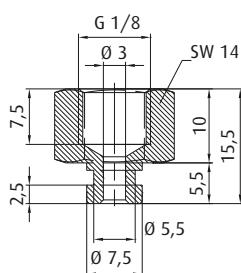
### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.114  | G1/8-female |



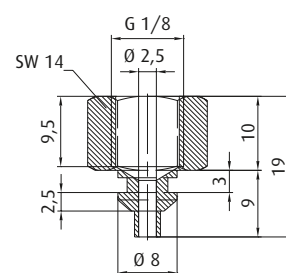
### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.007  | G1/8-female |



### Technical Data

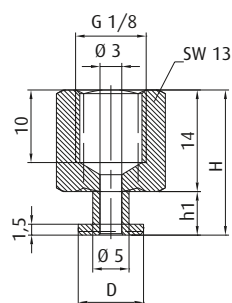
| Item no. | Thread G1   |
|----------|-------------|
| 270.096  | G1/8-female |



### Technical Data

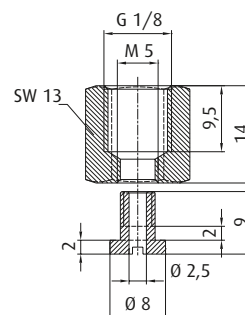
| Item no. | Thread G1   |
|----------|-------------|
| 270.086  | G1/8-female |





### Technical Data

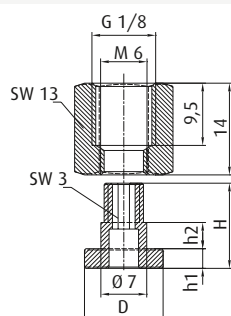
| Item no. | Thread G1   | H [mm] | h1 [mm] | Ø D [mm] |
|----------|-------------|--------|---------|----------|
| 270.065  | G1/8-female | 18     | 4       | 8,5      |
| 270.061  | G1/8-female | 20     | 6       | 9        |



NEW

### Technical Data

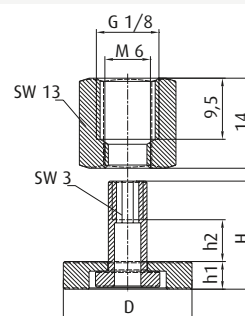
| Item no. | Thread G1   |
|----------|-------------|
| 270.494  | G1/8-female |



NEW

### Technical Data

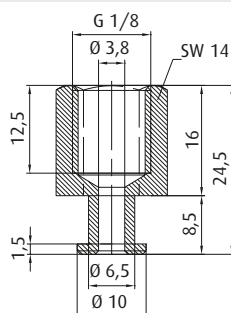
| Item no. | Thread G1   | H [mm] | h1 [mm] | h2 [mm] | Ø D [mm] |
|----------|-------------|--------|---------|---------|----------|
| 270.479  | G1/8-female | 11     | 2,5     | 3,5     | 10       |
| 270.481  | G1/8-female | 13     | 3       | 4       | 12       |



NEW

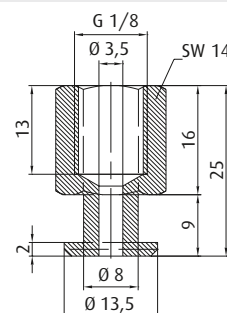
### Technical Data

| Item no. | Thread G1   | H [mm] | h1 [mm] | h2 [mm] | Ø D [mm] |
|----------|-------------|--------|---------|---------|----------|
| 270.485  | G1/8-female | 17     | 5       | 6       | 15       |
| 270.489  | G1/8-female | 17     | 4,5     | 6,5     | 20       |



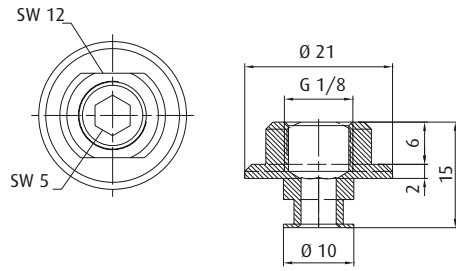
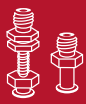
### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.019  | G1/8-female |



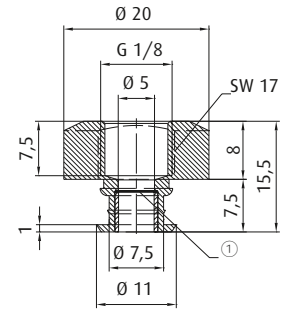
### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.020  | G1/8-female |



### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.251  | G1/8-female |



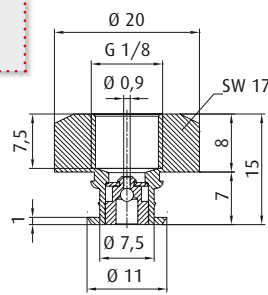
**NEW**

① = Filter screen

### Technical Data

| Item no.  | Thread G1      |
|-----------|----------------|
| 270.501-S | NPSF1/8-female |

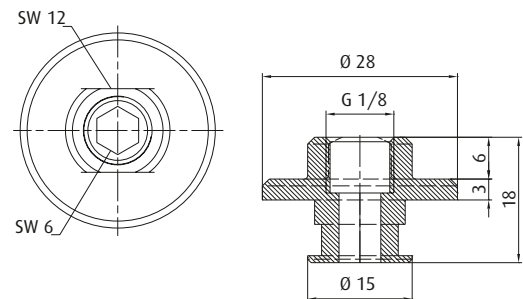
**WITH FLOW  
CONTROL VALVE**



**NEW**

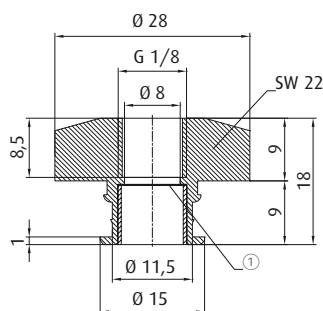
### Technical Data

| Item no.    | Thread G1      |
|-------------|----------------|
| 270.501-DRV | NPSF1/8-female |



### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.252  | G1/8-female |



**NEW**

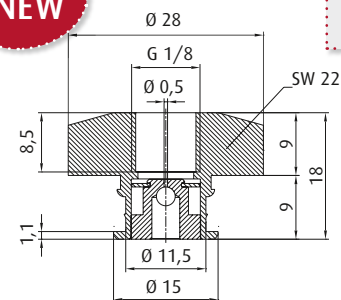
① = Filter screen

### Technical Data

| Item no.  | Thread G1      |
|-----------|----------------|
| 270.502-S | NPSF1/8-female |

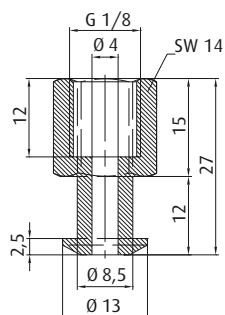
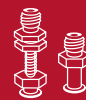
**NEW**

**WITH FLOW  
CONTROL VALVE**



### Technical Data

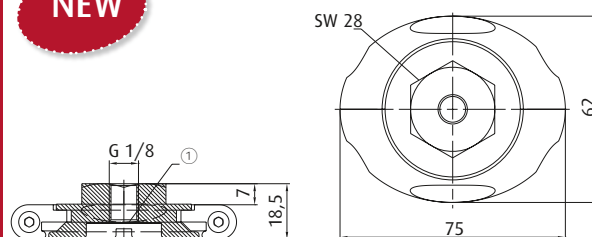
| Item no.    | Thread G1      |
|-------------|----------------|
| 270.502-DRV | NPSF1/8-female |



## Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.092  | G1/8-female |

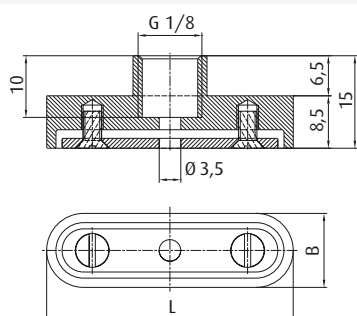
**NEW**



① = Filter screen

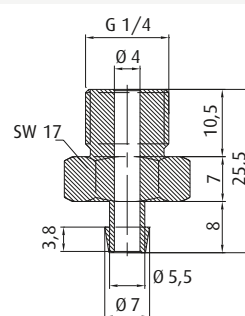
## Technical Data

| Item no.  | Thread G1   |
|-----------|-------------|
| 270.527-S | G1/8-female |



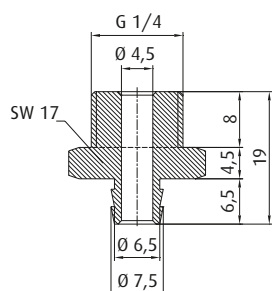
## Technical Data

| Item no. | Thread G1   | Ø L [mm] | Ø B [mm] |
|----------|-------------|----------|----------|
| 270.439  | G1/8-female | 30       | 12       |
| 270.440  | G1/8-female | 40       | 12       |
| 270.441  | G1/8-female | 55       | 12       |



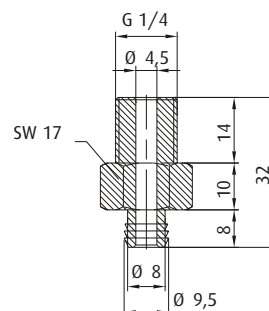
## Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.194  | G1/4-male |



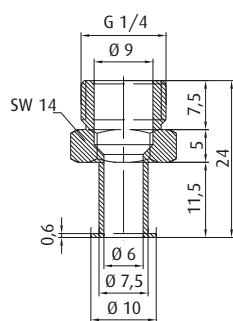
## Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.534  | G1/4-male |



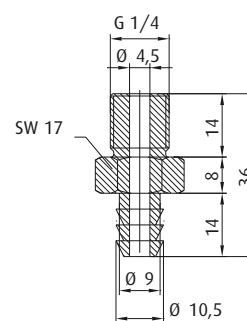
## Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.043  | G1/4-male |



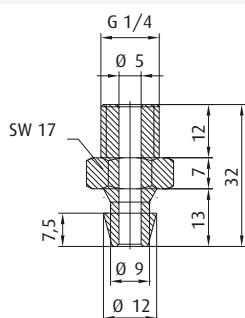
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.113  | G1/4-male |



### Technical Data

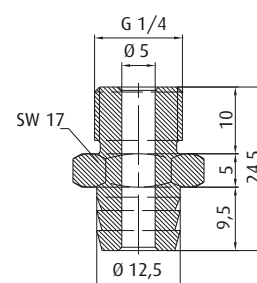
| Item no. | Thread G1 |
|----------|-----------|
| 270.208  | G1/4-male |



**NEW**

### Technical Data

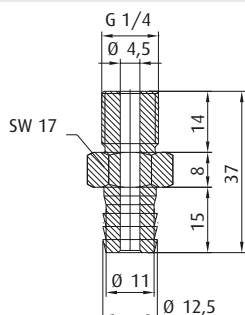
| Item no. | Thread G1 |
|----------|-----------|
| 270.515  | G1/4-male |



**NEW**

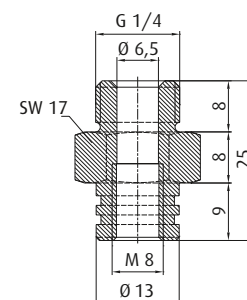
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.451  | G1/4-male |



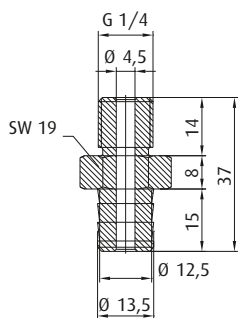
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.044  | G1/4-male |



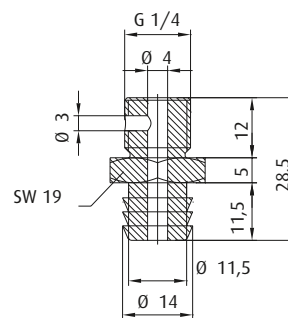
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.097  | G1/4-male |



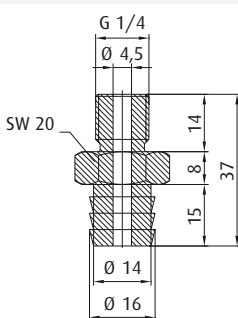
### Technical Data

| Item no.  | Thread G1 |
|-----------|-----------|
| 270.049-1 | G1/4-male |



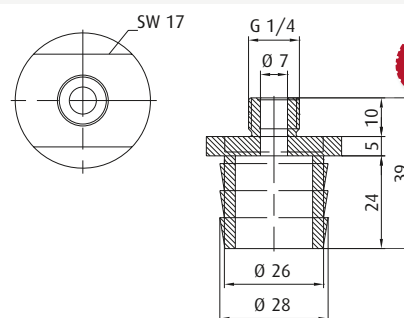
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.101  | G1/4-male |



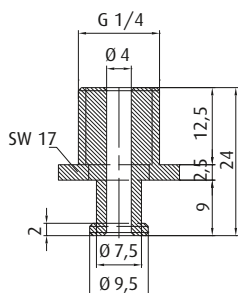
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.207  | G1/4-male |



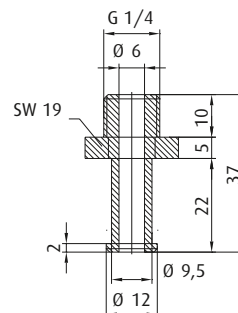
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.438  | G1/4-male |



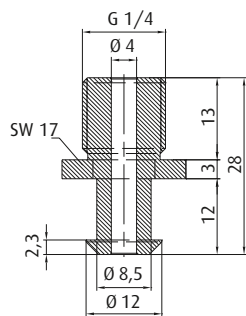
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.274  | G1/4-male |



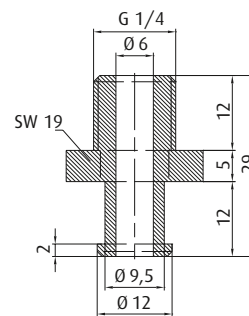
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.359  | G1/4-male |



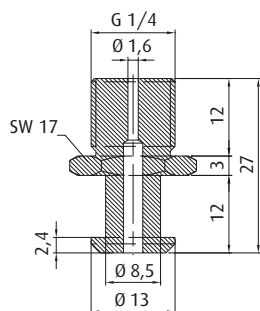
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.249  | G1/4-male |



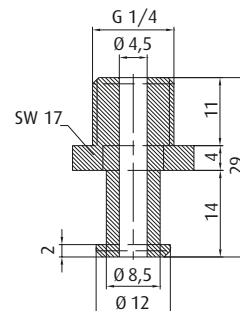
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.204  | G1/4-male |



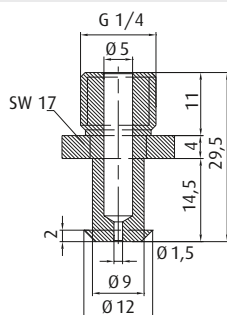
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.099  | G1/4-male |



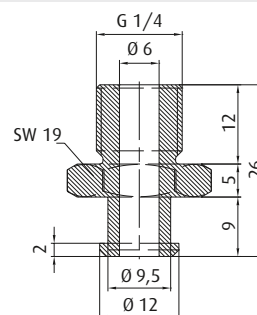
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.190  | G1/4-male |



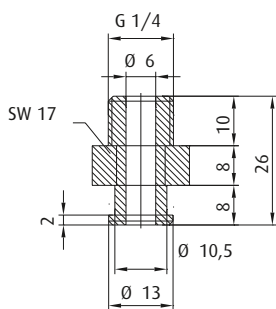
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.002  | G1/4-male |



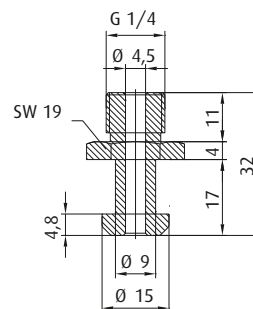
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.034  | G1/4-male |



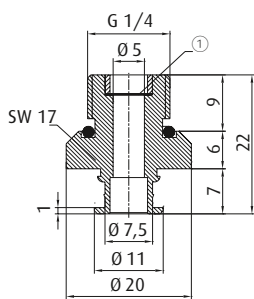
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.213  | G1/4-male |



### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.281  | G1/4-male |

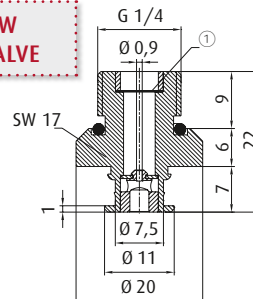


**NEW**

① = Filter screen

### Technical Data

| Item no.  | Thread G1 |
|-----------|-----------|
| 270.506-S | G1/4-male |

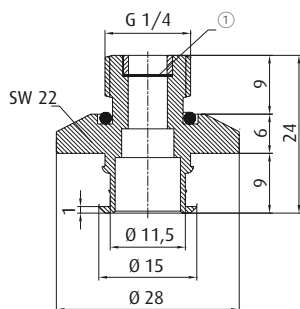


**NEW**

① = Filter screen

### Technical Data

| Item no.     | Thread G1 |
|--------------|-----------|
| 270.506-SDRV | G1/4-male |

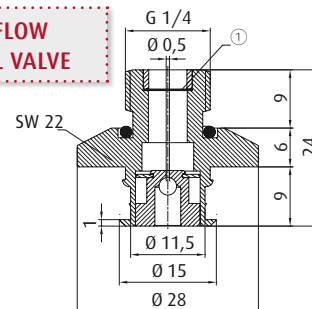


**NEW**

① = Filter screen

### Technical Data

| Item no.  | Thread G1 |
|-----------|-----------|
| 270.504-S | G1/4-male |



**NEW**

① = Filter screen

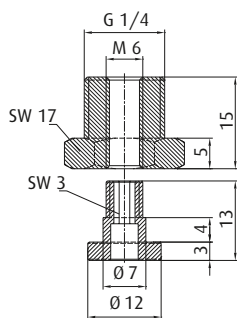
### Technical Data

| Item no.     | Thread G1 |
|--------------|-----------|
| 270.504-SDRV | G1/4-male |



# Fittings, joints, spring plungers | Fittings

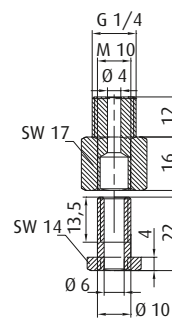
## G1/4-male



NEW

### Technical Data

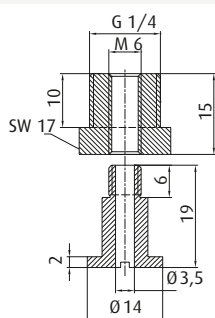
| Item no. | Thread G1 |
|----------|-----------|
| 270.483  | G1/4-male |



NEW

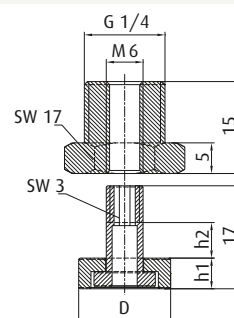
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.514  | G1/4-male |



### Technical Data

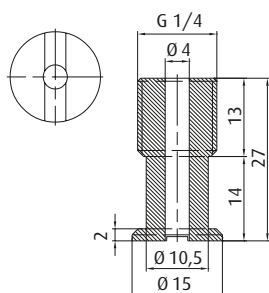
| Item no. | Thread G1 |
|----------|-----------|
| 270.540  | G1/4-male |



NEW

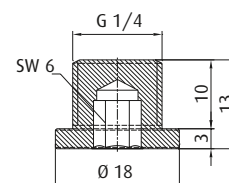
### Technical Data

| Item no. | Thread G1 | h1 [mm] | h2 [mm] | Ø D [mm] |
|----------|-----------|---------|---------|----------|
| 270.487  | G1/4-male | 5       | 6       | 15       |
| 270.491  | G1/4-male | 4,5     | 6,5     | 20       |



### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.175  | G1/4-male |



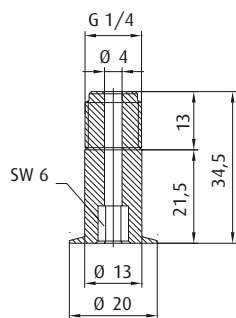
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.364  | G1/4-male |

### Ordering notes

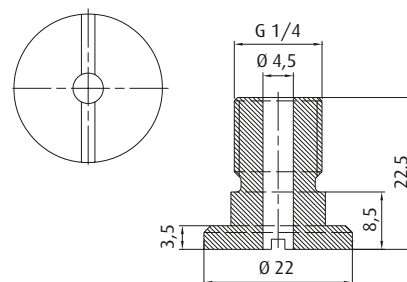
Without drilling





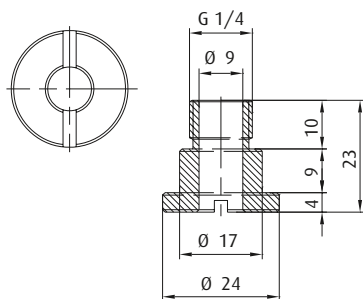
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.141  | G1/4-male |



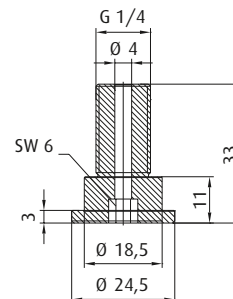
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.210  | G1/4-male |



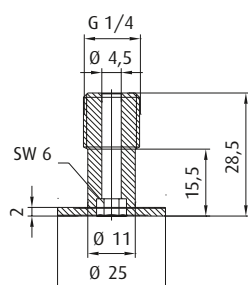
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.237  | G1/4-male |



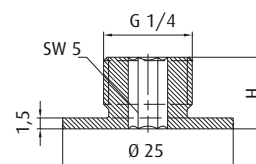
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.145  | G1/4-male |



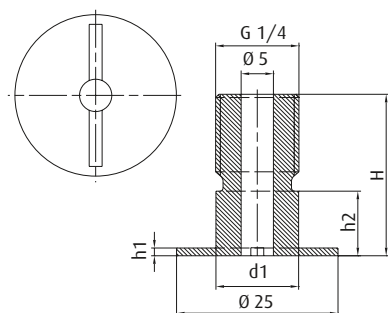
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.176  | G1/4-male |



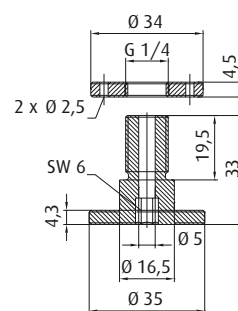
### Technical Data

| Item no.  | Thread G1 | H [mm] |
|-----------|-----------|--------|
| 270.182.U | G1/4-male | 10,5   |
| 270.183   | G1/4-male | 15     |



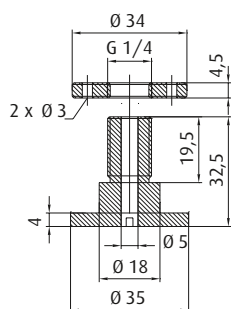
### Technical Data

| Item no. | Thread G1 | H [mm] | h1 [mm] | h2 [mm] | Ø d1 [mm] |
|----------|-----------|--------|---------|---------|-----------|
| 270.042  | G1/4-male | 25     | 1,2     | 10      | 13        |
| 270.184  | G1/4-male | 30     | 0,8     | 11      | 13        |
| 270.216  | G1/4-male | 37,5   | 1,3     | 23,5    | 15,5      |



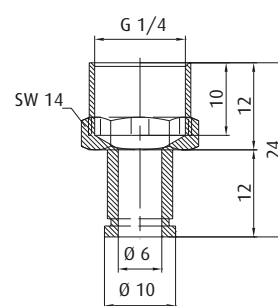
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.053  | G1/4-male |



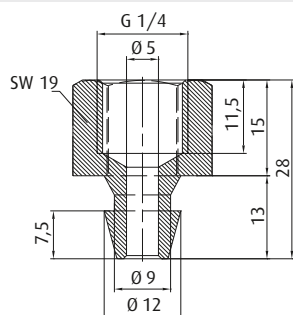
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.100  | G1/4-male |



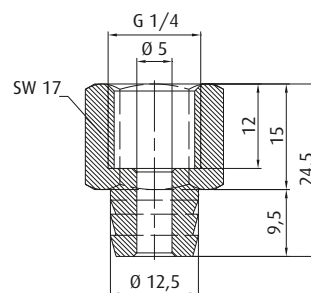
### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.178  | G1/4-female |



### Technical Data

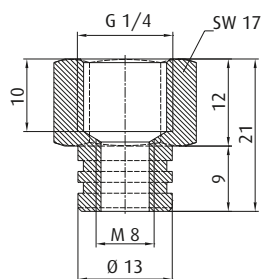
| Item no. | Thread G1   |
|----------|-------------|
| 270.434  | G1/4-female |



**NEW**

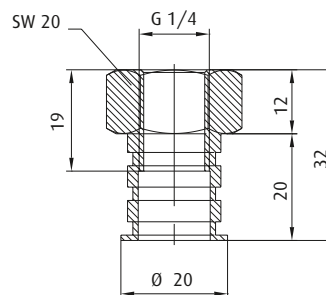
### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.452  | G1/4-female |



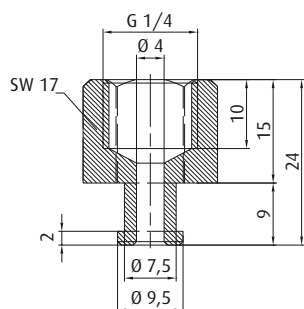
### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.098  | G1/4-female |



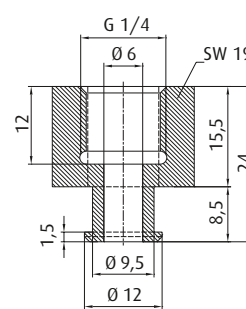
### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.116  | G1/4-female |



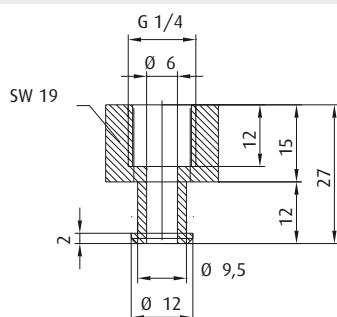
### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.275  | G1/4-female |



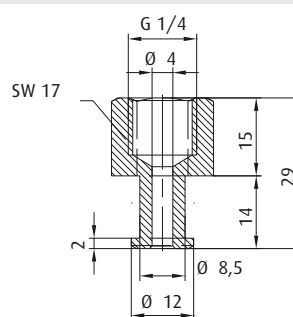
### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.038  | G1/4-female |



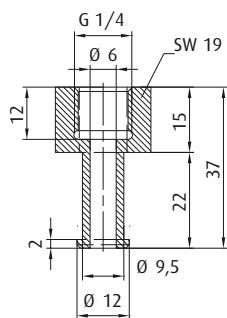
### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.324  | G1/4-female |



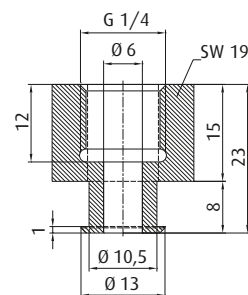
### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.192  | G1/4-female |



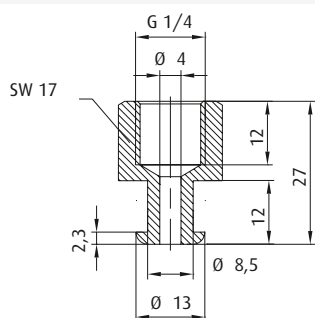
### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.361  | G1/4-female |



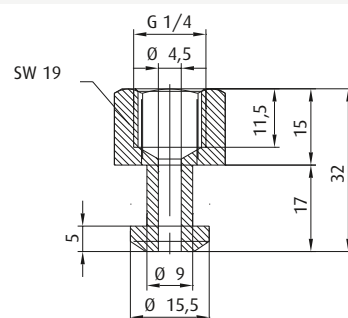
### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.356  | G1/4-female |



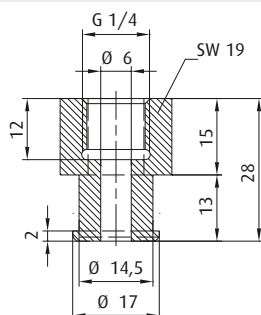
### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.248  | G1/4-female |



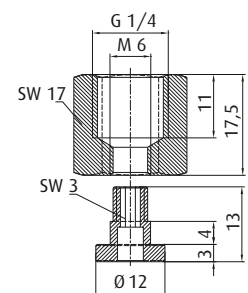
### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.282  | G1/4-female |



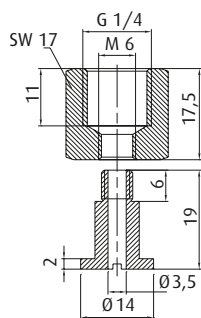
### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.358  | G1/4-female |



### Technical Data

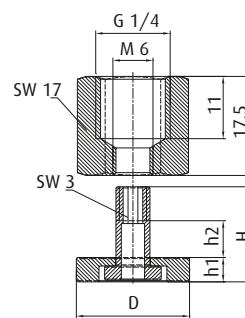
| Item no. | Thread G1   |
|----------|-------------|
| 270.484  | G1/4-female |



**NEW**

## Technical Data

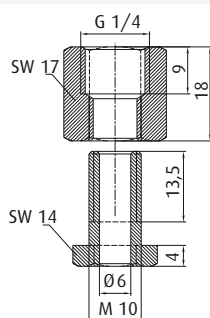
| Item no. | Thread G1   |
|----------|-------------|
| 270.539  | G1/4-female |



**NEW**

## Technical Data

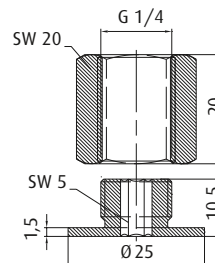
| Item no. | Thread G1   | H [mm] | h1 [mm] | h2 [mm] | Ø D [mm] |
|----------|-------------|--------|---------|---------|----------|
| 270.488  | G1/4-female | 17     | 5       | 6       | 15       |
| 270.492  | G1/4-female | 17     | 4,5     | 6,5     | 20       |



**NEW**

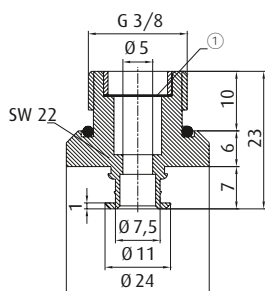
## Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.513  | G1/4-female |



## Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.182  | G1/4-female |



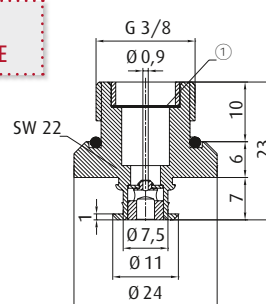
**NEW**

① = Filter screen

## Technical Data

| Item no.  | Thread G1 |
|-----------|-----------|
| 270.505-S | G3/8-male |

**WITH FLOW CONTROL VALVE**

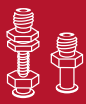


**NEW**

① = Filter screen

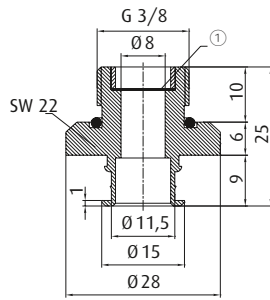
## Technical Data

| Item no.     | Thread G1 |
|--------------|-----------|
| 270.505-SDRV | G3/8-male |



# Fittings, joints, spring plungers | Fittings

## G3/8-male



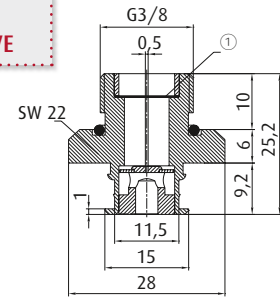
NEW

① = Filter screen

### Technical Data

| Item no.  | Thread G1 |
|-----------|-----------|
| 270.507-S | G3/8-male |

WITH FLOW  
CONTROL VALVE

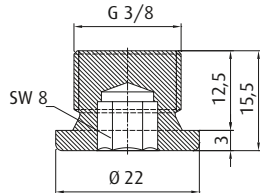


NEW

① = Filter screen

### Technical Data

| Item no.     | Thread G1 |
|--------------|-----------|
| 270.507-SDRV | G3/8-male |

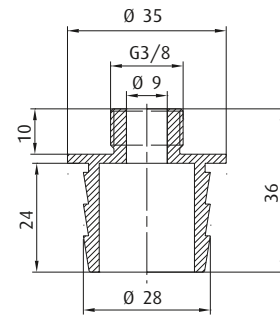


### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.326  | G3/8-male |

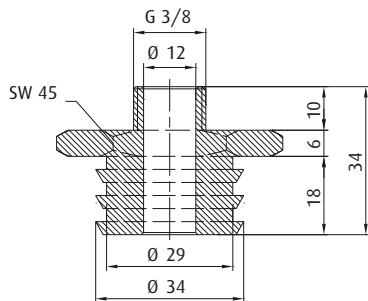
### Ordering notes

Without drilling



### Technical Data

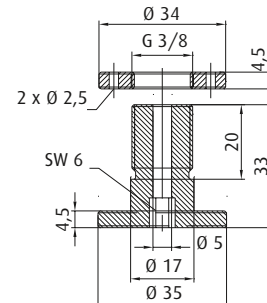
| Item no. | Thread G1 |
|----------|-----------|
| 270.442  | G3/8-male |



NEW

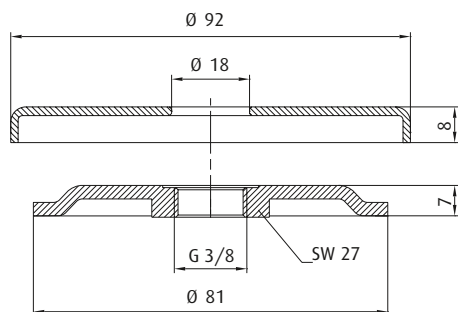
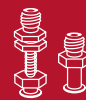
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.526  | G3/8-male |



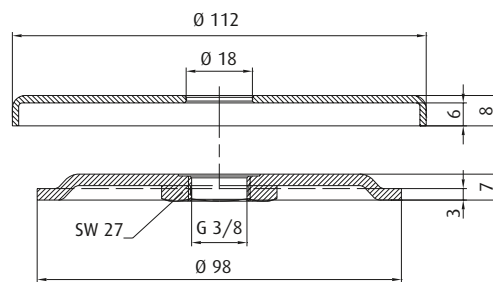
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.054  | G3/8-male |



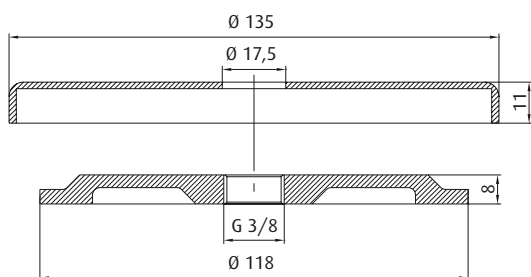
## Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.400  | G3/8-female |



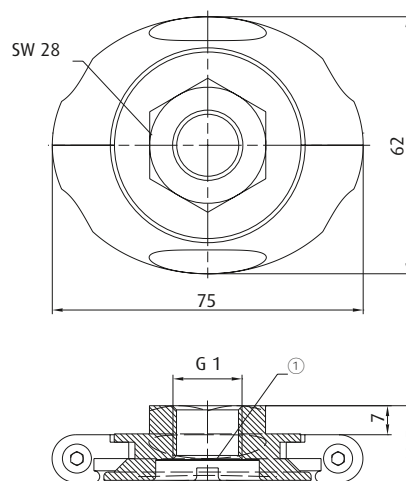
## Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.402  | G3/8-female |



## Technical Data

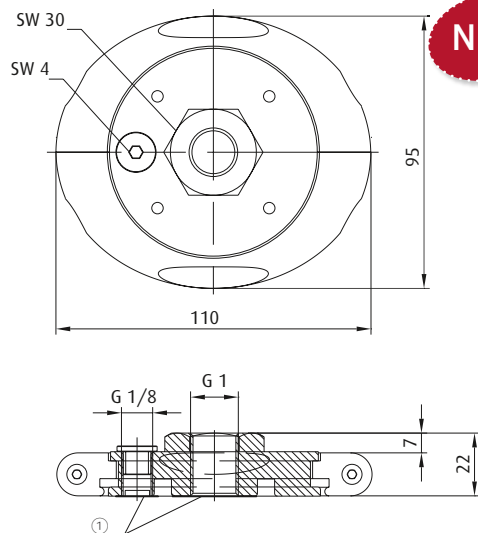
| Item no. | Thread G1   |
|----------|-------------|
| 270.404  | G3/8-female |



① = Filter screen

## Technical Data

| Item no.  | Thread G1   |
|-----------|-------------|
| 270.528-S | G3/8-female |
| 270.529-S | G1/2-female |

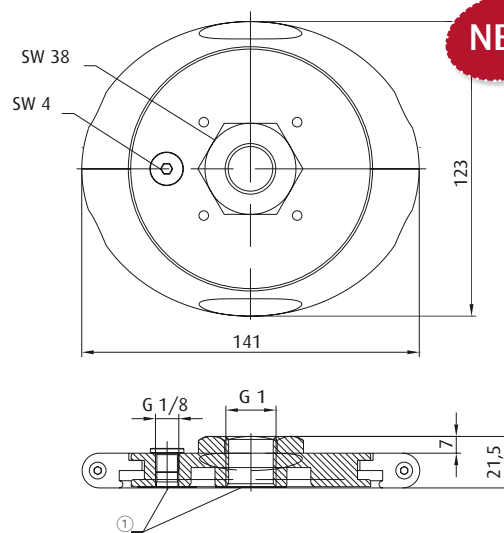


**NEW**

① = Filter screen

## Technical Data

| Item no.  | Thread G1   |
|-----------|-------------|
| 270.530-S | G3/8-female |
| 270.531-S | G1/2-female |

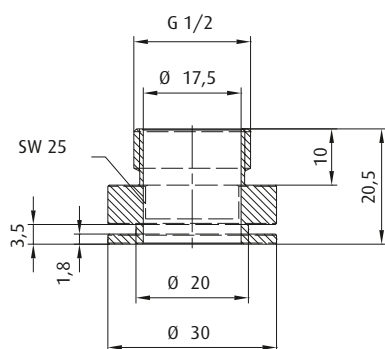


**NEW**

① = Filter screen

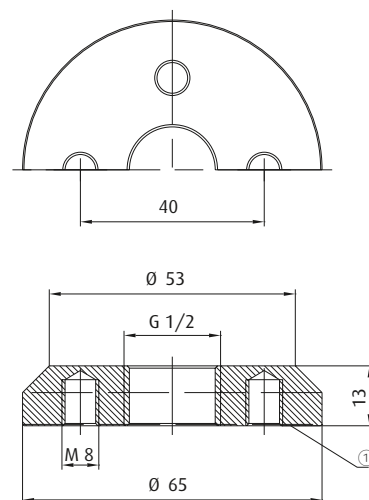
## Technical Data

| Item no.  | Thread G1   |
|-----------|-------------|
| 270.532-S | G1/2-female |
| 270.533-S | G3/4-female |



## Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.372  | G1/2-male |



① = Aluminum

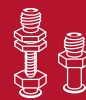
## Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.056  | G1/2-female |

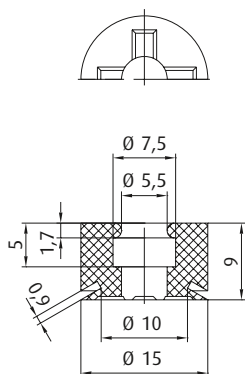
## Ordering notes

4 x M8x16 screws included





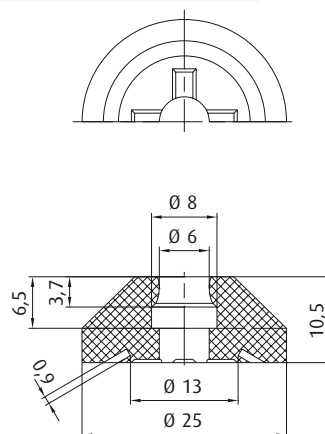
### FITTING FOR SUCTION DISCS



#### Technical Data

| Item no. | Thread G1 | Material / color   |
|----------|-----------|--------------------|
| 270.067  | Without   | NBR (sw) 80° Shore |

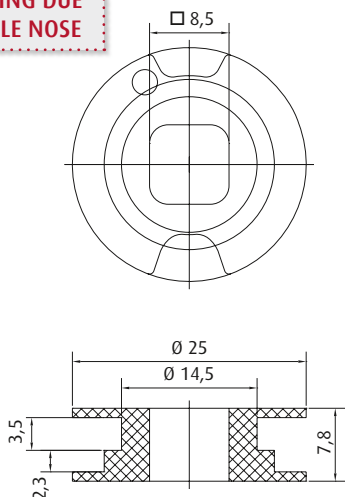
### FITTING FOR SUCTION DISCS



#### Technical Data

| Item no. | Thread G1 | Material / color   |
|----------|-----------|--------------------|
| 270.068  | Without   | NBR (sw) 80° Shore |

### EASY MOUNTING DUE TO ABRADABLE NOSE



#### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.419  | Without   |

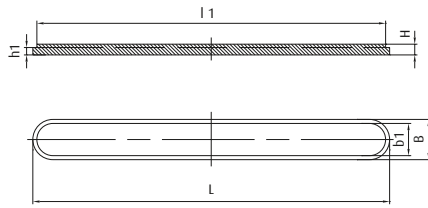
#### Ordering notes

Suitable mounting means: Item No. 90.007



## Carrier plates SZ-NIP-T

NEW



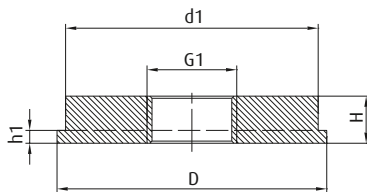
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.332  | Without   |

### Dimensions

| L [mm] | l1 [mm] | B [mm] | b1 [mm] | H [mm] | h1 [mm] |
|--------|---------|--------|---------|--------|---------|
| 266    | 260     | 30     | 24      | 8      | 5,5     |

## Carrier plates SZ-NIP-T

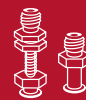


### Technical Data

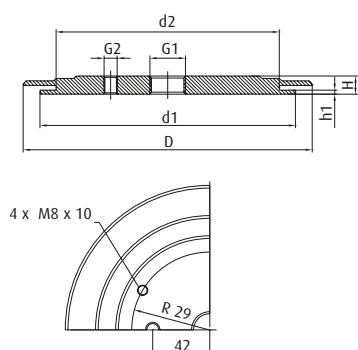
| Item no. | Thread G1       |
|----------|-----------------|
| 270.233  | G1/8-female     |
| 270.234  | G1/8-female     |
| 270.235  | G1/8-female     |
| 270.289  | G1/8-female     |
| 270.179  | G1/4-female     |
| 270.262  | G1/8-female     |
| 270.284  | G1/4-female     |
| 270.338  | M12x1,75-female |
| 270.180  | G1/4-female     |
| 270.158  | G1/8-female     |
| 270.264  | G1/4-female     |
| 270.161  | G3/8-female     |
| 270.286  | G1/2-female     |
| 270.224  | G1/4-female     |
| 270.167  | G3/8-female     |
| 270.266  | G1/2-female     |
| 270.164  | G1/8-female     |
| 270.171  | G1/4-female     |
| 270.173  | G3/8-female     |
| 270.268  | G1/2-female     |
| 270.335  | G1/2-female     |

### Dimensions

| G1       | H [mm] | h1 [mm] | Ø D [mm] | Ø d1 [mm] |
|----------|--------|---------|----------|-----------|
| G1/8     | 6      | 3,1     | 17,5     | 14,9      |
| G1/8     | 6      | 3       | 21       | 17,5      |
| G1/8     | 5,5    | 2,1     | 28,5     | 25        |
| G1/8     | 10     | 3       | 29       | 20        |
| G1/4     | 20     | 14,5    | 43       | 32        |
| G1/8     | 10     | 3       | 44       | 40        |
| G1/4     | 10     | 3       | 44       | 40        |
| M12x1,75 | 10     | 3       | 55       | 45        |
| G1/4     | 20     | 14      | 60       | 50        |
| G1/8     | 11     | 3       | 63       | 59        |
| G1/4     | 11     | 3       | 63       | 59        |
| G3/8     | 11     | 3       | 63       | 59        |
| G1/2     | 11     | 3       | 63       | 59        |
| G1/4     | 11     | 3       | 92       | 88        |
| G3/8     | 11     | 3       | 92       | 88        |
| G1/2     | 11     | 3       | 92       | 88        |
| G1/8     | 11     | 3       | 95       | 88        |
| G1/4     | 15     | 4       | 127      | 120       |
| G3/8     | 15     | 4       | 127      | 120       |
| G1/2     | 15     | 4       | 127      | 120       |
| G1/2     | 20     | 14      | 160      | 150       |



## Carrier plates SZ-NIP-T



## Technical Data

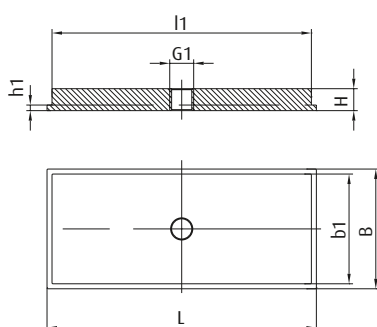
| Item no. | Thread G1   |
|----------|-------------|
| 270.070  | G3/4-female |
| 270.076  | G3/4-female |

## Dimensions

| G1   | G2   | H [mm] | h1 [mm] | Ø D [mm] | Ø d1 [mm] | Ø d2 [mm] |
|------|------|--------|---------|----------|-----------|-----------|
| G3/4 | G1/8 | 13,5   | 3       | 215      | 190       | 166       |
| G3/4 | G1/8 | 13,5   | 3       | 315      | 309       | 285       |

## Carrier plates SZ-NIP-T

NEW



## Technical Data

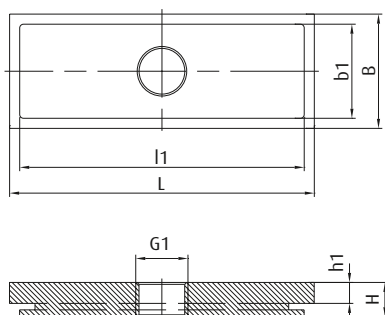
| Item no. | Thread G1  |
|----------|------------|
| 270.465  | M12-female |

## Dimensions

| L [mm] | l1 [mm] | B [mm] | b1 [mm] | H [mm] | h1 [mm] |
|--------|---------|--------|---------|--------|---------|
| 135    | 130     | 60     | 55      | 11     | 2,8     |

## Carrier plates SZ-NIP-T

NEW



## Technical Data

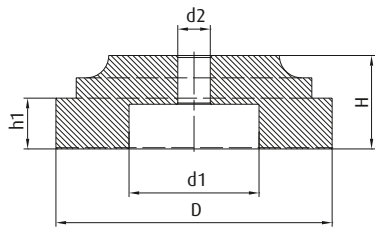
| Item no. | Thread G1   |
|----------|-------------|
| 270.508  | G1/8-female |
| 270.509  | G1/4-female |
| 270.392  | G1/4-female |
| 270.510  | G1/4-female |
| 270.511  | G1/4-female |

## Dimensions

| G1   | L [mm] | l1 [mm] | B [mm] | b1 [mm] | H [mm] | h1 [mm] |
|------|--------|---------|--------|---------|--------|---------|
| G1/8 | 52     | 48      | 25     | 22      | 9      | 5,5     |
| G1/4 | 60     | 56      | 29     | 25      | 9      | 5,5     |
| G1/4 | 80     | 75      | 30     | 25      | 9      | 5,5     |
| G1/4 | 80     | 75      | 40     | 35      | 9      | 5,5     |
| G1/4 | 80     | 75      | 50     | 44      | 9      | 5,5     |



## Carrier plates SZ-NIP-T



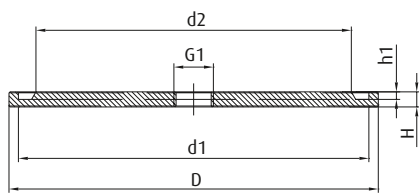
### Technical Data

| Item no. | Thread G1 |
|----------|-----------|
| 270.270  | Without   |
| 270.269  | Without   |

### Dimensions

| H [mm] | h1 [mm] | Ø D [mm] | Ø d1 [mm] | Ø d2 [mm] |
|--------|---------|----------|-----------|-----------|
| 23     | 12,5    | 68       | 32        | 8         |
| 23     | 12      | 130      | 50        | 8         |

## Carrier plates SZ-NIP-T

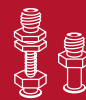


### Technical Data

| Item no. | Thread G1   |
|----------|-------------|
| 270.415  | Without     |
| 270.155  | Without     |
| 270.236  | G1/2-female |
| 270.535  | Without     |

### Dimensions

| H [mm] | h1 [mm] | Ø D [mm] | Ø d1 [mm] | Ø d2 [mm] | G1   |
|--------|---------|----------|-----------|-----------|------|
| 8      | 4,8     | 95       | 86        | 62        | ·    |
| 8      | 4       | 158      | 148       | 123       | ·    |
| 8      | 4       | 196      | 186       | 167       | G1/2 |
| 10     | 5       | 237      | 227       | 198       | ·    |



## G threaded ball joints, Series SZ-GKG



### Product Description

- > Universal articulating mount for vacuum cups
- > Version: Ball and socket with O-ring seal

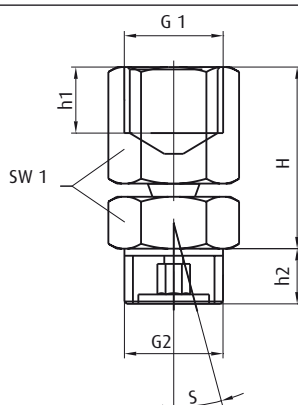
### Advantage

- > Compensation for sloping surfaces of the product
- > Angle compensation for sagging products such as sheet goods

### Technical Data

| Item no.  | Thread suction side G2 | Thread at the machine G1 | Pivoting range S [°] | Lifting force [N] | Weight [g] |
|-----------|------------------------|--------------------------|----------------------|-------------------|------------|
| 270.072   | G1/8-male              | G1/8-female              | 2x15                 | 300               | 26         |
| 270.073/1 | G1/4-male              | G1/4-female              | 2x15                 | 1500              | 49         |
| 270.075   | G1/2-male              | G1/2-female              | 2x15                 | 2500              | 116        |

### Dimensions



| Item no.  | Ø dn [mm] | G1   | G2   | H [mm] | h1 [mm] | h2 [mm] | SW1 | S [°] |
|-----------|-----------|------|------|--------|---------|---------|-----|-------|
| 270.072   | 2         | G1/8 | G1/8 | 25     | 8,5     | 7       | 14  | 2x15  |
| 270.073/1 | 3,5       | G1/4 | G1/4 | 37     | 11      | 10      | 19  | 2x15  |
| 270.075   | 4         | G1/2 | G1/2 | 38,5   | 14      | 11,5    | 24  | 2x15  |



## Metric threaded ball joints, Series SZ-GKG



### Product Description

- > Universal articulating mount for vacuum cups
- > Version: Ball and socket with O-ring seal

### Advantage

- > Compensation for sloping surfaces of the product
- > Angle compensation for sagging products such as sheet goods

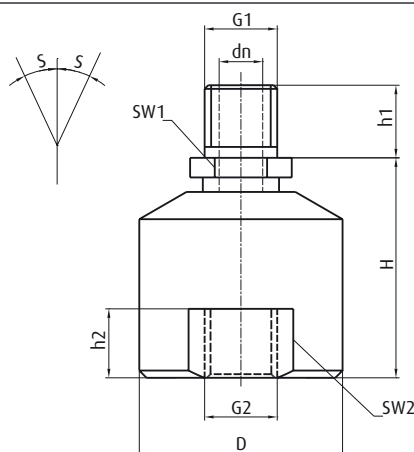
### Ordering notes

Using a vacuum filter (e.g. 71.023-71.025) prevents disruptions due to contamination

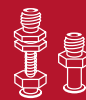
### Technical Data

| Item no. | Thread suction side G2 | Thread at the machine G1 | Pivoting range S [°] | Weight [g] |
|----------|------------------------|--------------------------|----------------------|------------|
| 270.185  | M4-female              | M4-male                  | 2x15                 | 9          |
| 270.186  | M6-female              | M6-male                  | 2x15                 | 20         |
| 270.187  | M10-female             | M10-male                 | 2x15                 | 58         |

### Dimensions



| Item no. | Ø D [mm] | Ø dn [mm] | G1  | G2  | H [mm] | h1 [mm] | h2 [mm] | SW1 | SW2 | S [°] |
|----------|----------|-----------|-----|-----|--------|---------|---------|-----|-----|-------|
| 270.185  | 15       | 2         | M4  | M4  | 19     | 4       | 7       | 4   | --  | 2x15  |
| 270.186  | 20       | 3         | M6  | M6  | 23     | 6       | 6,5     | 7   | --  | 2x15  |
| 270.187  | 28       | 6         | M10 | M10 | 30     | 10      | 9,5     | 12  | 24  | 2x15  |



## Rubber joints, Series SZ-GG



### Product Description

- > Universal articulating mount for vacuum cups
- > Version: Rubber-metal connection with vacuum channel

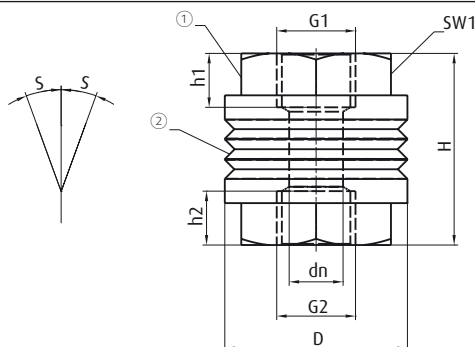
### Advantage

- > Compensation for sloping surfaces of the product
- > Angle compensation for sagging products such as sheet goods
- > Automatic reset of the vacuum cup to normal position

### Technical Data

| Item no. | Thread suction side G2 | Thread at the machine G1 | Pivoting range S [°] | Lifting force [N] | Weight [g] |
|----------|------------------------|--------------------------|----------------------|-------------------|------------|
| 270.199  | G1/4-female            | G1/4-female              | 2x25                 | 450               | 49         |
| 270.201  | G1/4-female            | G1/4-female              | 2x10                 | 850               | 75         |
| 270.202  | G3/8-female            | G3/8-female              | 2x10                 | 850               | 63         |
| 270.203  | G1/2-male              | G1/2-female              | 2x12                 | 3000              | 100        |

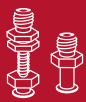
### Dimensions



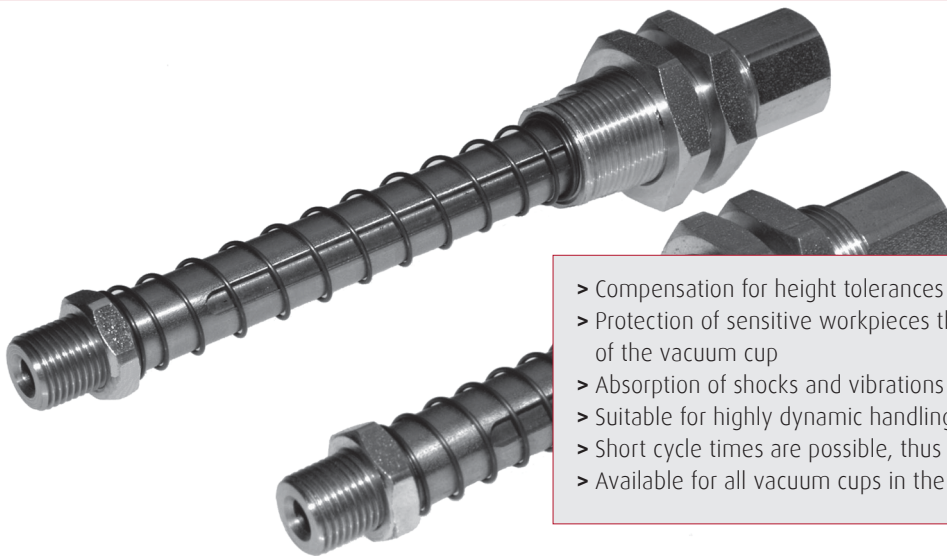
① = Brass/steel

② = Rubber

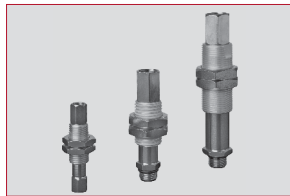
| Item no. | Ø D [mm] | Ø dn [mm] | G1   | G2   | H [mm] | h1 [mm] | h2 [mm] | SW1 | S [°] |
|----------|----------|-----------|------|------|--------|---------|---------|-----|-------|
| 270.199  | 30       | 5         | G1/4 | G1/4 | 46     | 8       | 8       | 17  | 2x25  |
| 270.201  | 30,5     | 9         | G1/4 | G1/4 | 32     | 9       | 9       | 25  | 2x10  |
| 270.202  | 30,5     | 11        | G3/8 | G3/8 | 32     | 9       | 9       | 25  | 2x10  |
| 270.203  | --       | 6         | G1/2 | G1/2 | 33,5   | 14      | 14      | 27  | 2x12  |



## FIPA spring plungers



- > Compensation for height tolerances of workpieces
- > Protection of sensitive workpieces thanks to cushioned contact of the vacuum cup
- > Absorption of shocks and vibrations
- > Suitable for highly dynamic handling applications
- > Short cycle times are possible, thus very high efficiency
- > Available for all vacuum cups in the standard range



### **Spring plungers with internal spring and threaded connection, Series SZ-NIV-I**

- > Spring is protected from contamination and damage
- > Spring deflection limiter for longer service life

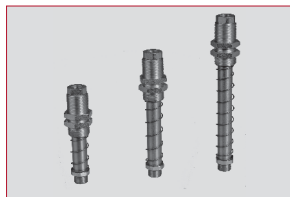
> For more information, see page 485



### **Standard spring plungers with threaded connection, Series SZ-NIV-S**

- > Universally applicable
- > Also optionally available non-rotating

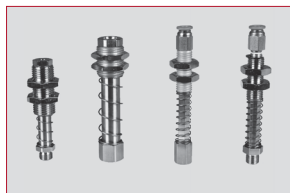
> For more information, see page 486



### **Heavy-duty spring plungers with threaded connection, Series SZ-NIV-HD**

- > Suitable for harsh operating conditions
- > Leveling with stainless steel shaft and high-quality bearings
- > Also optionally available non-rotating

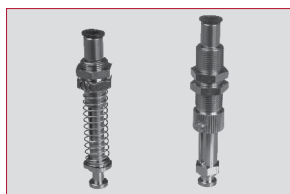
> For more information, see page 488



### **Spring plungers with threaded connection**

- > Universally applicable
- > Large selection of connection threads available

> More information from page 490

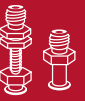


### **Spring plungers for direct mounting of vacuum cups – Series SZ-NIV-DI and -DA**

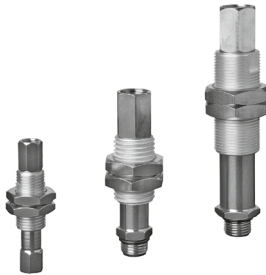
- > Mounting directly on the vacuum cup without additional fitting
- > Variants with internal or open spring available
- > Rotation-protected models available
- > Models available with spring deflection limit

> More information from page 494





**BESTSELLER**



### Spring plungers with internal spring and threaded connection Series SZ-NIV-I

#### Product Description

Leveling with internal spring protected from dirt and with spring deflection limiter. Vacuum connection on top. Vacuum channel via plunger rod.

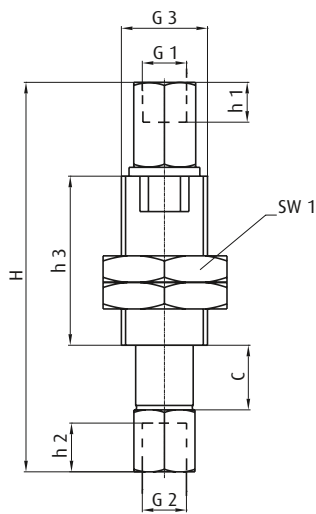
#### Advantage

- > Compensate for height differences
- > Soft attachment for sensitive products
- > Protected spring

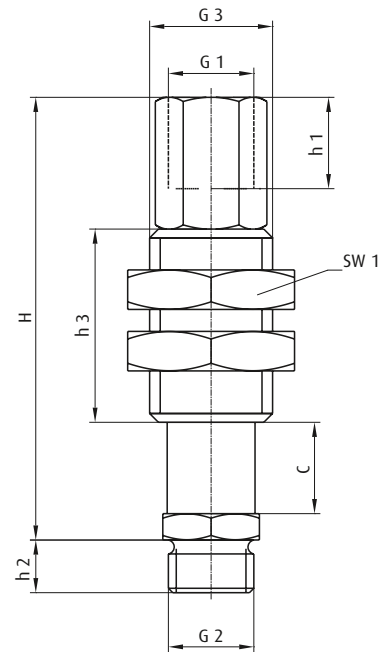
#### Technical Data

| Item no. | Model               | Thread suction side G2 | Lift C [mm] | Weight [g] |
|----------|---------------------|------------------------|-------------|------------|
| 50.120   | SZ-NIV-I-M5-IG-7    | M5-female              | 7           | 17         |
| 50.123   | SZ-NIV-I-G1/8-AG-8  | G1/8-male              | 8           | 41         |
| 50.124   | SZ-NIV-I-G1/8-AG-20 | G1/8-male              | 20          | 73         |

#### Dimensions

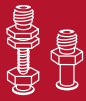


50.120



50.123 | 50.124

| Item no. | H [mm] | h1 [mm] | h2 [mm] | h3 [mm] | SW1 | G1 (female) | G2 (female) | G2 (male) | G3 (male) | C [mm] |
|----------|--------|---------|---------|---------|-----|-------------|-------------|-----------|-----------|--------|
| 50.120   | 44     | 4,3     | 5       | 19      | 14  | M5          | M5          | --        | G1/8      | 7      |
| 50.123   | 50     | 10      | 6       | 22      | 19  | G1/8        | --          | G1/8      | M14x1,5   | 8      |
| 50.124   | 73     | 12      | 5,6     | 35      | 21  | G1/8        | --          | G1/8      | M16x1     | 20     |



### Standard spring plungers with threaded connection Series SZ-NIV-S



#### Product Description

Leveling as standard version.  
Optionally also available non-rotating.  
Vacuum connection on top. Vacuum channel via spring plungers.

#### Advantage

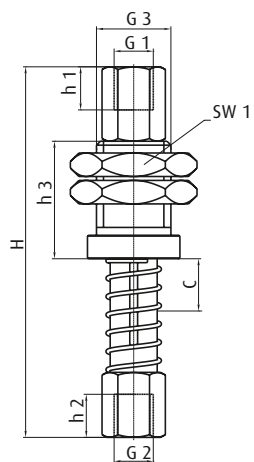
- > Compensate for height differences
- > Soft attachment for sensitive products

#### Technical Data

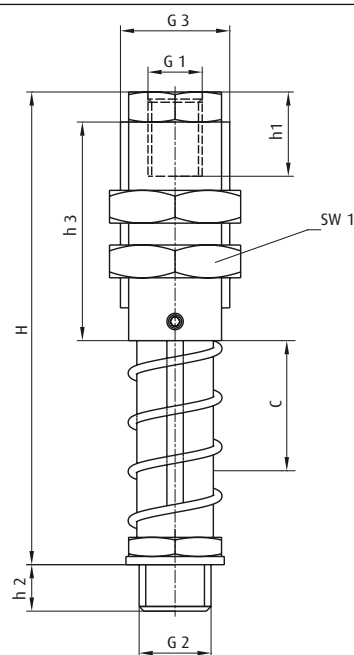
| Item no. | Model                  | Thread suction side G2 | Lift C [mm] | Weight [g] | Non-rotating |
|----------|------------------------|------------------------|-------------|------------|--------------|
| 50.158   | SZ-NIV-S-M5-IG-5       | M5-female              | 5           | 17         | --           |
| 50.149   | SZ-NIV-S-M5-IG-10      | M5-female              | 10          | 18         | --           |
| 50.152   | SZ-NIV-S-M5-IG-10-VS   | M5-female              | 10          | 19         | Yes          |
| 50.150   | SZ-NIV-S-M5-IG-20      | M5-female              | 20          | 20         | --           |
| 50.153   | SZ-NIV-S-M5-IG-20-VS   | M5-female              | 20          | 21         | Yes          |
| 50.230   | SZ-NIV-S-G1/8-AG-15    | G1/8-male              | 15          | 94         | --           |
| 50.161   | SZ-NIV-S-G1/8-AG-15-VS | G1/8-male              | 15          | 85         | Yes          |
| 50.160   | SZ-NIV-S-G1/8-AG-25    | G1/8-male              | 25          | 94         | --           |
| 50.162   | SZ-NIV-S-G1/8-AG-50    | G1/8-male              | 50          | 110        | --           |
| 50.231   | SZ-NIV-S-G1/8-AG-50-VS | G1/8-male              | 50          | 110        | Yes          |
| 50.164   | SZ-NIV-S-G1/4-AG-25    | G1/4-male              | 25          | 136        | --           |
| 50.232   | SZ-NIV-S-G1/4-AG-25-VS | G1/4-male              | 25          | 94         | Yes          |
| 50.166   | SZ-NIV-S-G1/4-AG-75    | G1/4-male              | 75          | 195        | --           |
| 50.233   | SZ-NIV-S-G1/4-AG-75-VS | G1/4-male              | 75          | 202        | Yes          |



### Dimensions



50.158 | 50.149 | 50.152 | 50.150 | 50.153



50.230 | 50.161 | 50.160 | 50.162 | 50.231  
50.164 | 50.232 | 50.166 | 50.233

| Item no. | H [mm] | h1 [mm] | h2 [mm] | h3 [mm] | SW1 | G1 (female) | G2 (male) | G2 (female) | G3 (male) | C [mm] |
|----------|--------|---------|---------|---------|-----|-------------|-----------|-------------|-----------|--------|
| 50.158   | 43     | 5,5     | 6,2     | 15      | 14  | M5          | --        | M5          | G1/8      | 5      |
| 50.149   | 47     | 5,5     | 6,2     | 15      | 14  | M5          | --        | M5          | G1/8      | 10     |
| 50.152   | 47     | 5,5     | 6,2     | 15      | 14  | M5          | --        | M5          | G1/8      | 10     |
| 50.150   | 59     | 5,5     | 6,2     | 15      | 14  | M5          | --        | M5          | G1/8      | 20     |
| 50.153   | 59     | 5,5     | 6,2     | 15      | 14  | M5          | --        | M5          | G1/8      | 20     |
| 50.230   | 73,5   | 8       | 6,5     | 30      | 22  | G1/8        | G1/8      | --          | M16x1     | 15     |
| 50.161   | 73,5   | 8       | 6,5     | 30      | 22  | G1/8        | G1/8      | --          | M16x1     | 15     |
| 50.160   | 85     | 8,5     | 6,5     | 30      | 22  | G1/8        | G1/8      | --          | M16x1     | 25     |
| 50.162   | 118    | 8,5     | 6,5     | 30      | 22  | G1/8        | G1/8      | --          | M16x1     | 50     |
| 50.231   | 118    | 8,5     | 6,5     | 30      | 22  | G1/8        | G1/8      | --          | M16x1     | 50     |
| 50.164   | 86     | 13      | 9       | 40      | 24  | G1/8        | G1/4      | --          | M20x1,5   | 25     |
| 50.232   | 86     | 13      | 9       | 40      | 24  | G1/8        | G1/4      | --          | M20x1,5   | 25     |
| 50.166   | 145    | 13      | 9       | 40      | 24  | G1/8        | G1/4      | --          | M20x1,5   | 75     |
| 50.233   | 145    | 13      | 9       | 40      | 24  | G1/8        | G1/4      | --          | M20x1,5   | 75     |

### Note

Recommendation: For the best possible service life do not exceed max. lift indicated.



# Fittings, joints, spring plungers | Spring plungers

## Heavy-duty spring plungers with threaded fitting Series SZ-NIV-HD

### Heavy-duty spring plungers with threaded fitting Series SZ-NIV-HD

NEW

#### HEAVY-DUTY DESIGN



#### Product Description

Leveling with stainless steel shaft and high-quality bearings. Optionally also available non-rotating.  
Vacuum connection on top. Vacuum channel via spring plunger.

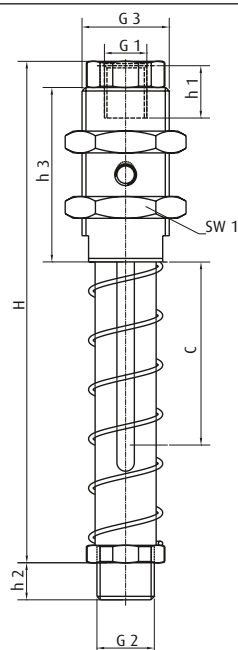
#### Advantage

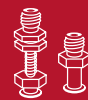
- > Long life even under the toughest conditions
- > Compensate for height differences
- > Soft attachment for sensitive products

#### Technical Data

| Item no. | Model                   | Thread suction side G2 | Lift C [mm] | Weight [g / oz] | Non-rotating |
|----------|-------------------------|------------------------|-------------|-----------------|--------------|
| 50.315   | SZ-NIV-HD-G1/8-AG-15    | G1/8-male              | 15          | 83 / 2,9        | --           |
| 50.310   | SZ-NIV-HD-G1/8-AG-15-VS | G1/8-male              | 15          | 83 / 2,9        | Yes          |
| 50.316   | SZ-NIV-HD-G1/8-AG-25    | G1/8-male              | 25          | 89 / 3,1        | --           |
| 50.311   | SZ-NIV-HD-G1/8-AG-25-VS | G1/8-male              | 25          | 89 / 3,1        | Yes          |
| 50.317   | SZ-NIV-HD-G1/8-AG-50    | G1/8-male              | 50          | 104 / 3,7       | --           |
| 50.312   | SZ-NIV-HD-G1/8-AG-50-VS | G1/8-male              | 50          | 104 / 3,7       | Yes          |
| 50.345   | SZ-NIV-HD-G1/4-AG-25    | G1/4-male              | 25          | 134 / 4,7       | --           |
| 50.340   | SZ-NIV-HD-G1/4-AG-25-VS | G1/4-male              | 25          | 134 / 4,7       | Yes          |
| 50.346   | SZ-NIV-HD-G1/4-AG-50    | G1/4-male              | 50          | 160 / 5,6       | --           |
| 50.341   | SZ-NIV-HD-G1/4-AG-50-VS | G1/4-male              | 50          | 160 / 5,6       | Yes          |
| 50.347   | SZ-NIV-HD-G1/4-AG-75    | G1/4-male              | 75          | 186 / 6,6       | --           |
| 50.342   | SZ-NIV-HD-G1/4-AG-75-VS | G1/4-male              | 75          | 186 / 6,6       | Yes          |

#### Dimensions





| Item no. | C [mm] | H [mm] | h1 [mm] | h2 [mm] | h3 [mm] | SW1 | G1 (female) | G2 (male) | G3 (male) |
|----------|--------|--------|---------|---------|---------|-----|-------------|-----------|-----------|
| 50.315   | 15     | 72     | 8       | 8       | 30      | 22  | G1/8        | G1/8      | M16x1     |
| 50.310   | 15     | 72     | 8       | 8       | 30      | 22  | G1/8        | G1/8      | M16x1     |
| 50.316   | 25     | 85     | 8       | 8       | 30      | 22  | G1/8        | G1/8      | M16x1     |
| 50.311   | 25     | 85     | 8       | 8       | 30      | 22  | G1/8        | G1/8      | M16x1     |
| 50.317   | 50     | 116    | 8       | 8       | 30      | 22  | G1/8        | G1/8      | M16x1     |
| 50.312   | 50     | 116    | 8       | 8       | 30      | 22  | G1/8        | G1/8      | M16x1     |
| 50.345   | 25     | 85,5   | 12      | 8,5     | 40      | 24  | G1/8        | G1/4      | M20x1,5   |
| 50.340   | 25     | 85,5   | 12      | 8,5     | 40      | 24  | G1/8        | G1/4      | M20x1,5   |
| 50.346   | 50     | 115    | 12      | 8,5     | 40      | 24  | G1/8        | G1/4      | M20x1,5   |
| 50.341   | 50     | 115    | 12      | 8,5     | 40      | 24  | G1/8        | G1/4      | M20x1,5   |
| 50.347   | 75     | 144,5  | 12      | 8,5     | 40      | 24  | G1/8        | G1/4      | M20x1,5   |
| 50.342   | 75     | 144,5  | 12      | 8,5     | 40      | 24  | G1/8        | G1/4      | M20x1,5   |

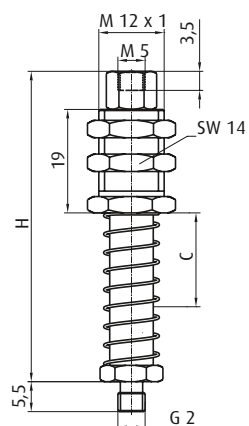
### Note

Recommendation: For the best possible service life do not exceed max. lift indicated.



# Fittings, joints, spring plungers | Spring plungers

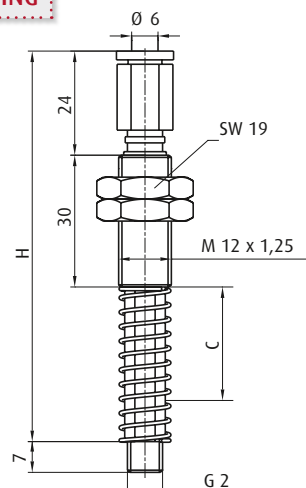
## Spring plungers with thread connection



### Technical Data

| Item no. | Thread suction side G2 | Lift C [mm] | Weight [g] | H [mm] |
|----------|------------------------|-------------|------------|--------|
| 50.121   | M5-male                | 10          | 28         | 47     |
| 50.122   | M5-male                | 20          | 31         | 57     |

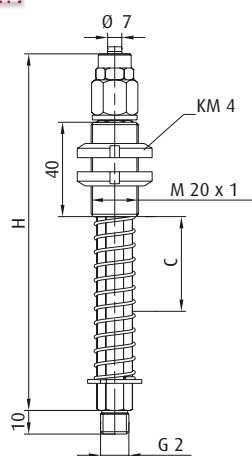
### NON-ROTATING



### Technical Data

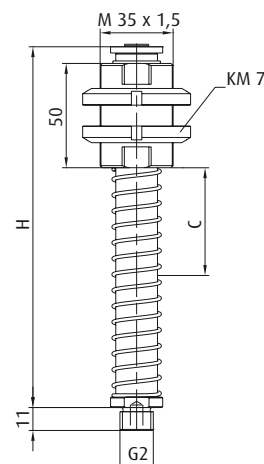
| Item no. | Thread suction side G2 | Lift C [mm] | Non-rotating | Weight [g] | H [mm] |
|----------|------------------------|-------------|--------------|------------|--------|
| 50.054   | M8-male                | 25          | Yes          | 83         | 89     |

### NON-ROTATING



### Technical Data

| Item no. | Thread suction side G2 | Lift C [mm] | Non-rotating | Weight [g] | H [mm] |
|----------|------------------------|-------------|--------------|------------|--------|
| 50.051   | M12-male               | 15          | Yes          | 196        | 115    |
| 50.052   | M12-male               | 50          | Yes          | 236        | 151    |
| 50.053   | M12-male               | 73          | Yes          | 268        | 183    |

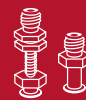


### Technical Data

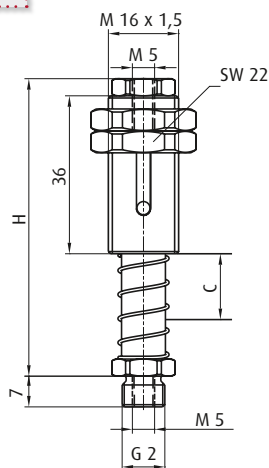
| Item no. | Thread suction side G2 | Lift C [mm] | Weight [g] | H [mm] |
|----------|------------------------|-------------|------------|--------|
| 50.101   | M16-male               | 35          | 685        | 115    |
| 50.102   | M16-male               | 80          | 798        | 173    |

### Note

Without vacuum connection



### NON-ROTATING



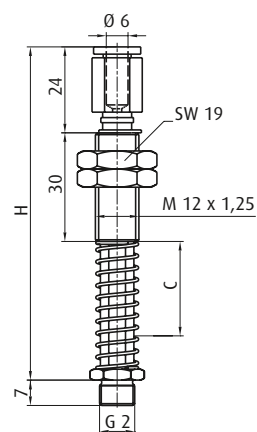
#### Technical Data

| Item no. | Thread suction side G2 | Lift C [mm] | Non-rotating | Weight [g] | H [mm] |
|----------|------------------------|-------------|--------------|------------|--------|
| 50.066   | G1/8-male              | 15          | Yes          | 70         | 68     |

#### Note

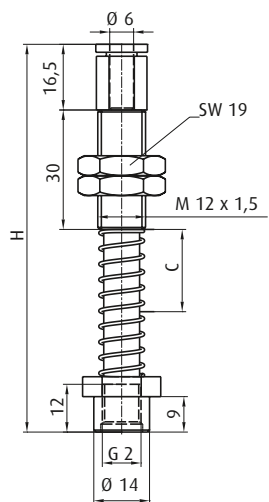
with plastic slide bearings

### NON-ROTATING



#### Technical Data

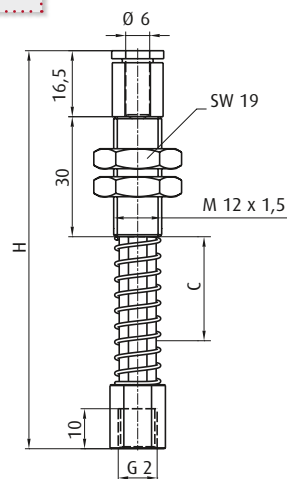
| Item no. | Thread suction side G2 | Lift C [mm] | Non-rotating | Weight [g] | H [mm] |
|----------|------------------------|-------------|--------------|------------|--------|
| 50.055   | G1/8-male              | 25          | Yes          | 64         | 92     |



#### Technical Data

| Item no. | Thread suction side G2 | Lift C [mm] | Weight [g] | H [mm] |
|----------|------------------------|-------------|------------|--------|
| 50.021   | G1/8-female            | 25          | 75         | 98     |

### NON-ROTATING



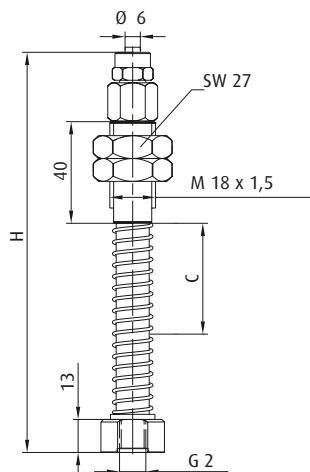
#### Technical Data

| Item no. | Thread suction side G2 | Lift C [mm] | Non-rotating | Weight [g] | H [mm] |
|----------|------------------------|-------------|--------------|------------|--------|
| 50.056   | G1/8-female            | 25          | Yes          | 63         | 100    |



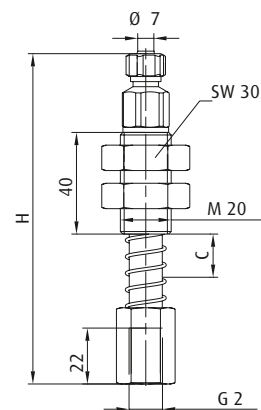
# Fittings, joints, spring plungers | Spring plungers

## Spring plungers with thread connection



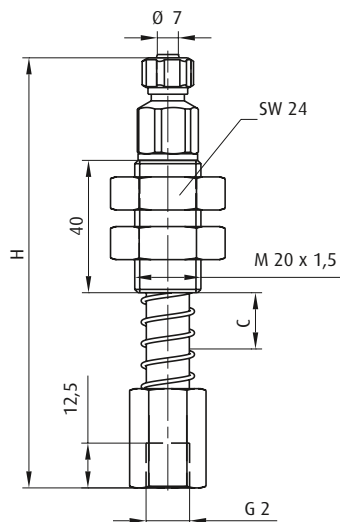
### Technical Data

| Item no. | Thread suction side G2 | Lift C [mm] | Weight [g] | H [mm] |
|----------|------------------------|-------------|------------|--------|
| 50.028   | G1/8-female            | 25          | 240        | 119    |
| 50.029   | G1/8-female            | 50          | 280        | 157    |
| 50.030   | G1/8-female            | 75          | 310        | 194    |



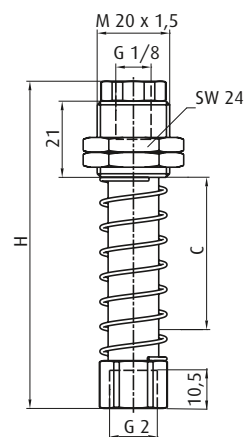
### Technical Data

| Item no. | Thread suction side G2 | Lift C [mm] | Weight [g] | H [mm] |
|----------|------------------------|-------------|------------|--------|
| 50.105   | G1/4-female            | 15          | 245        | 130    |
| 50.107   | G1/4-female            | 70          | 318        | 195    |



### Technical Data

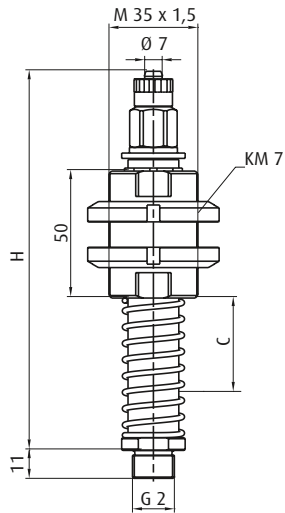
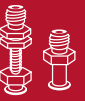
| Item no. | Thread suction side G2 | Lift C [mm] | Weight [g] | H [mm] |
|----------|------------------------|-------------|------------|--------|
| 50.106   | G1/4-female            | 45          | 250        | 167    |



### Technical Data

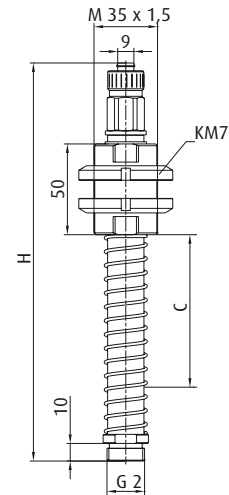
| Item no. | Thread suction side G2 | Lift C [mm] | Weight [g] | H [mm] |
|----------|------------------------|-------------|------------|--------|
| 50.050   | G1/4-female            | 42          | 122        | 90     |





### Technical Data

| Item no. | Thread suction side G2 | Lift C [mm] | Weight [g] | H [mm] |
|----------|------------------------|-------------|------------|--------|
| 50.092   | G3/8-male              | 35          | 638        | 150    |



### Technical Data

| Item no. | Thread suction side G2 | Lift C [mm] | Weight [g] | H [mm] |
|----------|------------------------|-------------|------------|--------|
| 50.138   | G1/2-male              | 35          | 631        | 150    |
| 50.139   | G1/2-male              | 80          | 750        | 210    |



### Spring plungers for direct vacuum cup mounting – internal spring, Series SZ-NIV-DI



#### Product Description

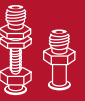
Leveling with internal spring protected from dirt and with spring deflection limiter.  
Vacuum cup is plugged directly onto the spring plunger.  
Vacuum connection on top. Vacuum channel via spring plunger.

#### Advantage

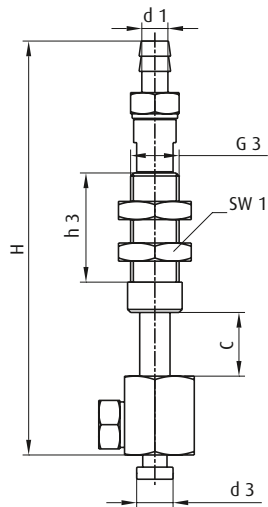
- > Compensate for height differences
- > Soft attachment for sensitive products
- > Direct mounting on the vacuum cup – no additional fitting required
- > Protected spring

#### Technical Data

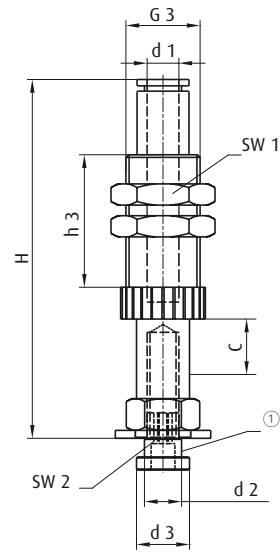
| Item no.                                     | Lift C [mm] | Weight [g] | Non-rotating | Hose outside Ø [mm] |
|----------------------------------------------|-------------|------------|--------------|---------------------|
| <b>Internal spring</b>                       |             |            |              |                     |
| 50.330                                       | 10          | 19         | --           | --                  |
| 50.103                                       | 6           | 34         | Yes          | 6                   |
| 50.104                                       | 6           | 33         | Yes          | 4                   |
| 50.125                                       | 10          | 36         | Yes          | 6                   |
| 50.126                                       | 15          | 41         | Yes          | 6                   |
| 50.127                                       | 20          | 48         | Yes          | 6                   |
| 50.085                                       | 6           | 36         | Yes          | 6                   |
| 50.086                                       | 6           | 36         | Yes          | 4                   |
| 50.128                                       | 10          | 36         | Yes          | 6                   |
| 50.129                                       | 15          | 41         | Yes          | 6                   |
| 50.130                                       | 20          | 48         | Yes          | 6                   |
| <b>With plastic body and internal spring</b> |             |            |              |                     |
| 50.018                                       | 8,5         | 21         | --           | 4                   |
| 50.019                                       | 8,5         | 22         | --           | 6                   |
| 50.020                                       | 8,5         | 23         | --           | 6                   |



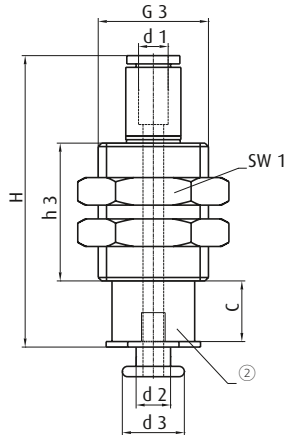
## Dimensions



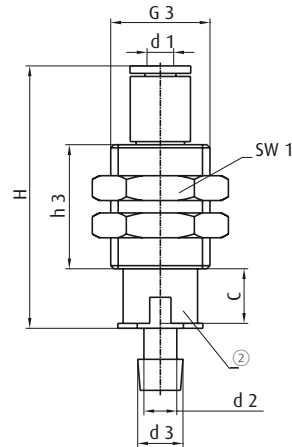
50.330



50.103 | 50.104 | 50.125 | 50.126 | 50.127  
50.085 | 50.086 | 50.128 | 50.129 | 50.130



50.018 | 50.019

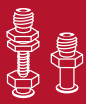


50.020

① = Mounting screw

② = Plastic body

| Item no. | Ø d1 [mm] | Ø d2 [mm] | Ø d3 [mm] | G3      | H [mm] | h3 [mm] | SW1 | SW2 | C [mm] |
|----------|-----------|-----------|-----------|---------|--------|---------|-----|-----|--------|
| 50.330   | 4,3       | --        | 6         | M8x0,75 | 68     | 18      | 12  | --  | 10     |
| 50.103   | 6         | M4        | 6,3       | M14x1   | 52     | 20      | 17  | +   | 6      |
| 50.104   | 4         | M4        | 6,3       | M14x1   | 52     | 20      | 17  | +   | 6      |
| 50.125   | 6         | 5         | 6         | M14x1   | 56     | 20      | 17  | 3   | 10     |
| 50.126   | 6         | 5         | 6         | M14x1   | 67     | 25      | 17  | 3   | 15     |
| 50.127   | 6         | 5         | 6         | M14x1   | 83     | 34      | 17  | 3   | 20     |
| 50.085   | 6         | 7         | 10        | M14x1   | 52     | 20      | 17  | 3   | 6      |
| 50.086   | 4         | 7         | 10        | M14x1   | 52     | 20      | 17  | 3   | 6      |
| 50.128   | 6         | 7         | 10        | M14x1   | 58     | 20      | 17  | 3   | 10     |
| 50.129   | 6         | 7         | 10        | M14x1   | 68     | 25      | 17  | 3   | 15     |
| 50.130   | 6         | 7         | 10        | M14x1   | 83     | 34      | 17  | 3   | 20     |
| 50.018   | 4         | 5         | 9         | M16x1   | 45     | 20      | 19  | --  | 8,5    |
| 50.019   | 6         | 5         | 9         | M16x1   | 46,5   | 20      | 19  | --  | 8,5    |
| 50.020   | 6         | 5         | 7,3       | M16x1   | 42,5   | 20      | 19  | --  | 8,5    |



### Spring plungers for direct vacuum cup mounting – spring open, Series SZ-NIV-DA



#### Product Description

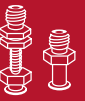
Leveling with an open spring. Vacuum cup is plugged directly onto the spring plunger.

#### Advantage

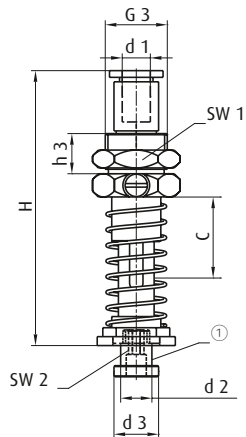
- > Compensate for height differences
- > Soft attachment for sensitive products
- > Direct mounting on the vacuum cup – no additional fitting required

#### Technical Data

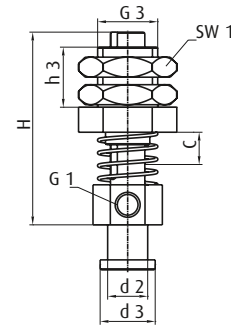
| Item no.                                                                     | Lift C [mm] | Non-rotating | Hose outside Ø [mm] | Weight [g] |
|------------------------------------------------------------------------------|-------------|--------------|---------------------|------------|
| <b>Spring open, with deflection limiter and protection against rotation.</b> |             |              |                     |            |
| 50.095                                                                       | 20          | Yes          | 6                   | 51         |
| 50.096                                                                       | 30          | Yes          | 6                   | 57         |
| 50.097                                                                       | 40          | Yes          | 6                   | 62         |
| 50.098                                                                       | 50          | Yes          | 6                   | 67         |
| 50.170                                                                       | 20          | Yes          | 6                   | 51         |
| 50.171                                                                       | 30          | Yes          | 6                   | 57         |
| 50.172                                                                       | 40          | Yes          | 6                   | 62         |
| 50.173                                                                       | 50          | Yes          | 6                   | 67         |
| 50.174                                                                       | 20          | Yes          | 6                   | 51         |
| 50.175                                                                       | 30          | Yes          | 6                   | 57         |
| 50.176                                                                       | 40          | Yes          | 6                   | 62         |
| 50.177                                                                       | 50          | Yes          | 6                   | 67         |
| <b>Open spring standard.</b>                                                 |             |              |                     |            |
| 50.141                                                                       | 10          | --           | --                  | 12         |
| 50.005                                                                       | 5           | --           | --                  | 23         |
| 50.148                                                                       | 5           | Yes          | --                  | 19         |
| 50.145                                                                       | 10          | --           | --                  | 39         |
| 50.146                                                                       | 30          | --           | --                  | 46         |
| 50.037                                                                       | 25          | --           | --                  | 69         |
| 50.039                                                                       | 25          | --           | --                  | 71         |
| 50.041                                                                       | 25          | --           | --                  | 74         |



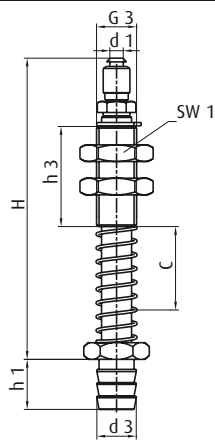
### Dimensions



50.095 | 50.096 | 50.097 | 50.098 | 50.170 | 50.171  
50.172 | 50.173 | 50.174 | 50.175 | 50.176 | 50.177



50.141 | 50.005 | 50.148 | 50.145 | 50.146



50.037 | 50.039 | 50.041

① = Mounting screw M6

| Item no. | Ø d1 [mm] | Ø d2 [mm] | Ø d3 [mm] | G1 | G3       | H [mm] | h1 [mm] | h3 [mm] | SW1 | SW2 | C [mm] |
|----------|-----------|-----------|-----------|----|----------|--------|---------|---------|-----|-----|--------|
| 50.095   | 6         | 7         | 10        | -- | M14x1    | 61     | --      | 9       | 17  | 3   | 20     |
| 50.096   | 6         | 7         | 10        | -- | M14x1    | 75     | --      | 9       | 17  | 3   | 30     |
| 50.097   | 6         | 7         | 10        | -- | M14x1    | 87     | --      | 9       | 17  | 3   | 40     |
| 50.098   | 6         | 7         | 10        | -- | M14x1    | 100    | --      | 9       | 17  | 3   | 50     |
| 50.170   | 6         | 6         | 15        | -- | M14x1    | 61     | --      | 9       | 17  | 3   | 20     |
| 50.171   | 6         | 6         | 15        | -- | M14x1    | 75     | --      | 9       | 17  | 3   | 30     |
| 50.172   | 6         | 6         | 15        | -- | M14x1    | 87     | --      | 9       | 17  | 3   | 40     |
| 50.173   | 6         | 6         | 15        | -- | M14x1    | 100    | --      | 9       | 17  | 3   | 50     |
| 50.174   | 6         | 6         | 20        | -- | M14x1    | 61     | --      | 9       | 17  | 3   | 20     |
| 50.175   | 6         | 6         | 20        | -- | M14x1    | 75     | --      | 9       | 17  | 3   | 30     |
| 50.176   | 6         | 6         | 20        | -- | M14x1    | 87     | --      | 9       | 17  | 3   | 40     |
| 50.177   | 6         | 6         | 20        | -- | M14x1    | 100    | --      | 9       | 17  | 3   | 50     |
| 50.141   | --        | 5         | 7         | M5 | M10x1    | 40     | --      | 12      | 14  | --  | 8      |
| 50.005   | --        | 8         | 11        | M5 | M12      | 43     | --      | 16      | 19  | --  | 5      |
| 50.148   | --        | 8         | 11        | M5 | M12      | 40     | --      | 12      | 17  | --  | 5      |
| 50.145   | --        | 8         | 11        | M5 | M12      | 44     | --      | 15      | 17  | --  | 10     |
| 50.146   | --        | 8         | 11        | M5 | M12      | 65     | --      | 15      | 17  | --  | 30     |
| 50.037   | 4         | --        | 5,5       | -- | M12x1,5  | 89     | 7       | 30      | 19  | --  | 25     |
| 50.039   | 4         | --        | 7,5       | -- | M12x1,25 | 89     | 10      | 30      | 19  | --  | 25     |
| 50.041   | 4         | --        | 12        | -- | M12x1,25 | 89     | 15      | 30      | 19  | --  | 25     |