

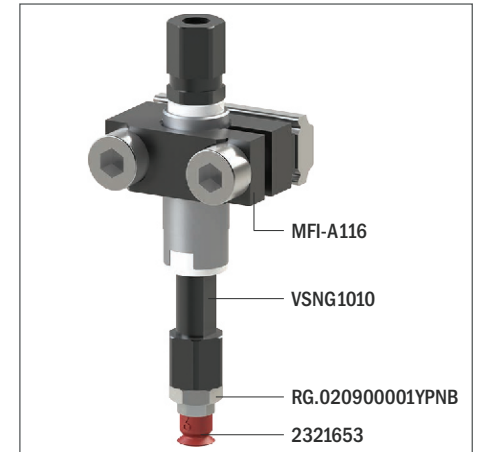
# Suction cups / Silicone

## VG.U6S flat silicone suction cups

- Silicone compound
- Suitable for high working temperatures
- Suitable for objects with fat or slightly curved surfaces



Application example



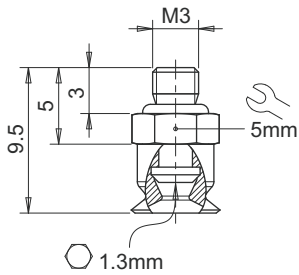
| Technical data |                                                                          |         |         |                                                                     |         |         |                              |                             |                               |                              |
|----------------|--------------------------------------------------------------------------|---------|---------|---------------------------------------------------------------------|---------|---------|------------------------------|-----------------------------|-------------------------------|------------------------------|
| Material       | Lifting force [N] perpendicular to the surface, at various vacuum levels |         |         | Lifting force [N] parallel to the surface, at various vacuum levels |         |         | Volume<br>[cm <sup>3</sup> ] | Min curve<br>radius<br>[mm] | Max vert.<br>movement<br>[mm] | Suction cup<br>weight<br>[g] |
|                | -20 kPa                                                                  | -60 kPa | -90 kPa | -20 kPa                                                             | -60 kPa | -90 kPa |                              |                             |                               |                              |
| SIL 50         | 0.5                                                                      | 1.5     | 2.5     | 0.5                                                                 | 1.3     | 2.2     | 0.05                         | 5                           | 0.3                           | 0.1                          |

| Technical features |        |          |                   |
|--------------------|--------|----------|-------------------|
| Material           | Colour | Hardness | Temperature range |
| Silicone, SIL      | Red    | 50 Shore | -70 + +200 °C     |

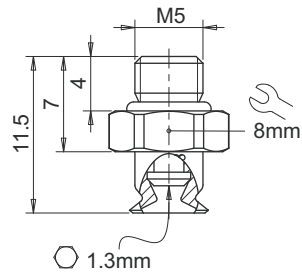
### Ordering information

| Drawing | Alphanumeric code | Suction cups with fitting                                | Order code |
|---------|-------------------|----------------------------------------------------------|------------|
| A       | VG.U6S.50.M3M.E5  | VG.U6 suction cup, silicone, 50 Shore, M3 male, 5 mm hex | 2321653    |
| B       | VG.U6S.50.M5M.E8  | VG.U6 suction cup, silicone, 50 Shore, M5 male, 8 mm hex | 2321053    |

A



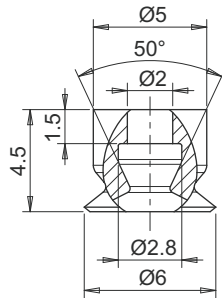
B



### Ordering information

| Drawing | Alphanumeric code | Suction cups                          | Order code |
|---------|-------------------|---------------------------------------|------------|
| A       | VG.U6S.50         | VG.U6 suction cup, silicone, 50 Shore | 2321654    |

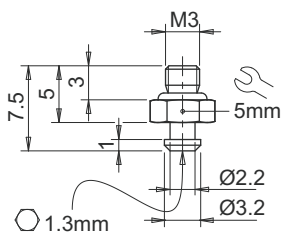
A



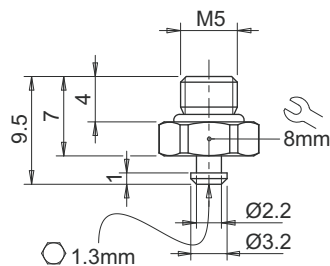
### Ordering information

| Drawing | Alphanumeric code | Fittings                  | Order code |
|---------|-------------------|---------------------------|------------|
| A       | FT.M3M.E5         | M3 male fitting, 5 mm hex | 2321402    |
| B       | FT.M5M.E8.06      | M5 male fitting, 8 mm hex | 2321005    |

A



B



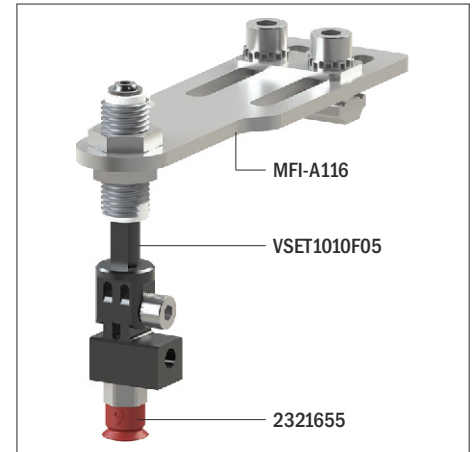
# Suction cups / Silicone

## VG.U9S flat silicone suction cups

- Silicone compound
- Suitable for high working temperatures
- Suitable for objects with fat or slightly curved surfaces



Application example



### Technical data

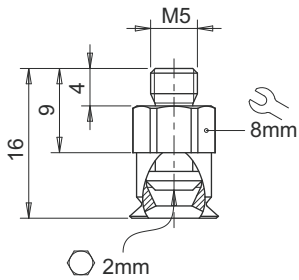
| Material | Lifting force [N] perpendicular to the surface, at various vacuum levels |         |         | Lifting force [N] parallel to the surface, at various vacuum levels |         |         | Volume<br>[cm <sup>3</sup> ] | Min curve<br>radius<br>[mm] | Max vert.<br>movement<br>[mm] | Suction cup<br>weight<br>[g] |
|----------|--------------------------------------------------------------------------|---------|---------|---------------------------------------------------------------------|---------|---------|------------------------------|-----------------------------|-------------------------------|------------------------------|
|          | -20 kPa                                                                  | -60 kPa | -90 kPa | -20 kPa                                                             | -60 kPa | -90 kPa |                              |                             |                               |                              |
| SIL 50   | 1                                                                        | 2.5     | 3.8     | 1                                                                   | 2.5     | 3.5     | 0.1                          | 6                           | 0.5                           | 0.2                          |

### Technical features

| Material      | Colour | Hardness | Temperature range |
|---------------|--------|----------|-------------------|
| Silicone, SIL | Red    | 50 Shore | -70 + +200 °C     |

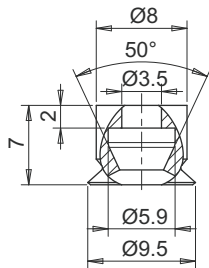
| Ordering information |                   |                                                          |            |
|----------------------|-------------------|----------------------------------------------------------|------------|
| Drawing              | Alphanumeric code | Suction cups with fitting                                | Order code |
| A                    | VG.U9S.50.M5M.E8  | VG.U9 suction cup, silicone, 50 Shore, M5 male, 8 mm hex | 2321655    |

A



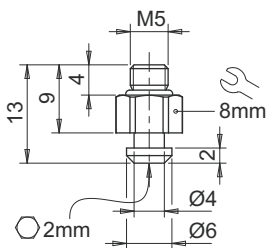
| Ordering information |                   |                                       |            |
|----------------------|-------------------|---------------------------------------|------------|
| Drawing              | Alphanumeric code | Suction cups                          | Order code |
| A                    | VG.U9S.50         | VG.U9 suction cup, silicone, 50 Shore | 2321656    |

A



| Ordering information |                   |                           |            |
|----------------------|-------------------|---------------------------|------------|
| Drawing              | Alphanumeric code | Fittings                  | Order code |
| A                    | FT.M5M.E8.05      | M5 male fitting, 8 mm hex | 2321405    |

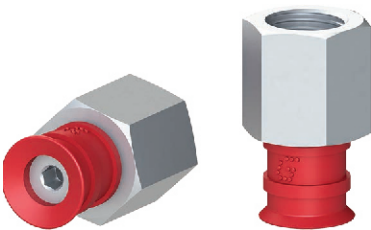
A



# Suction cups / Silicone

## VG.U11S flat silicone suction cups

- Silicone compound
- Suitable for high working temperatures
- Suitable for objects with fat or slightly curved surfaces



Application example

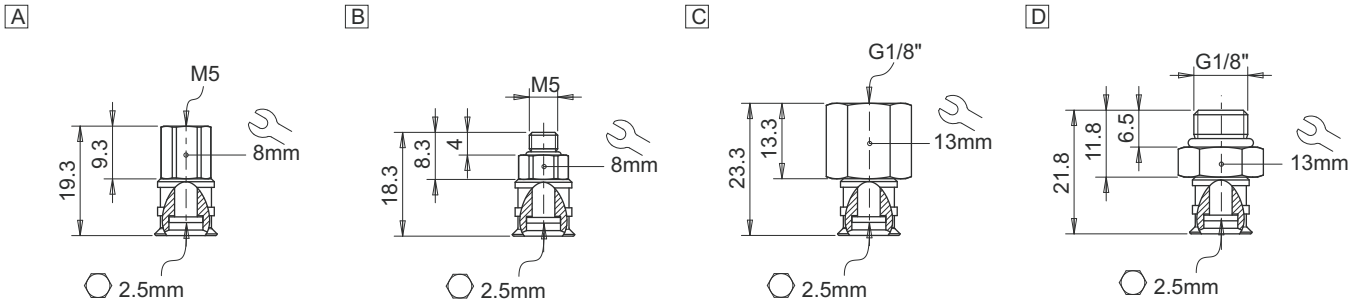


| Technical data |                                                                          |         |         |                                                                     |         |         |                 |                             |                               |                              |
|----------------|--------------------------------------------------------------------------|---------|---------|---------------------------------------------------------------------|---------|---------|-----------------|-----------------------------|-------------------------------|------------------------------|
| Material       | Lifting force [N] perpendicular to the surface, at various vacuum levels |         |         | Lifting force [N] parallel to the surface, at various vacuum levels |         |         | Volume<br>[cm³] | Min curve<br>radius<br>[mm] | Max vert.<br>movement<br>[mm] | Suction cup<br>weight<br>[g] |
|                | -20 kPa                                                                  | -60 kPa | -90 kPa | -20 kPa                                                             | -60 kPa | -90 kPa |                 |                             |                               |                              |
| SIL 50         | 1.5                                                                      | 4.1     | 6.2     | 1.5                                                                 | 4.1     | 6.2     | 0.18            | 8                           | 0.5                           | 0.5                          |

| Technical features |        |          |                   |
|--------------------|--------|----------|-------------------|
| Material           | Colour | Hardness | Temperature range |
| Silicone, SIL      | Red    | 50 Shore | -70 + +200 °C     |

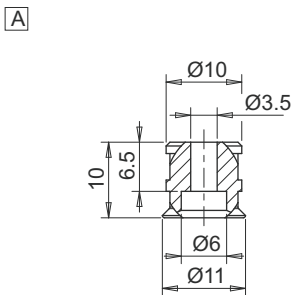
### Ordering information

| Drawing | Alphanumeric code   | Suction cups with fitting                                       | Order code |
|---------|---------------------|-----------------------------------------------------------------|------------|
| A       | VG.U11S.50.M5F.E8   | VG.U11 suction cup, silicone, 50 Shore, M5 female, 8 mm hex     | 2321657    |
| B       | VG.U11S.50.M5M.E8   | VG.U11 suction cup, silicone, 50 Shore, M5 male, 8 mm hex       | 2321659    |
| C       | VG.U11S.50.G18F.E13 | VG.U11 suction cup, silicone, 50 Shore, G1/8" female, 13 mm hex | 2321660    |
| D       | VG.U11S.50.G18M.E13 | VG.U11 suction cup, silicone, 50 Shore, G1/8" male, 13 mm hex   | 2321661    |



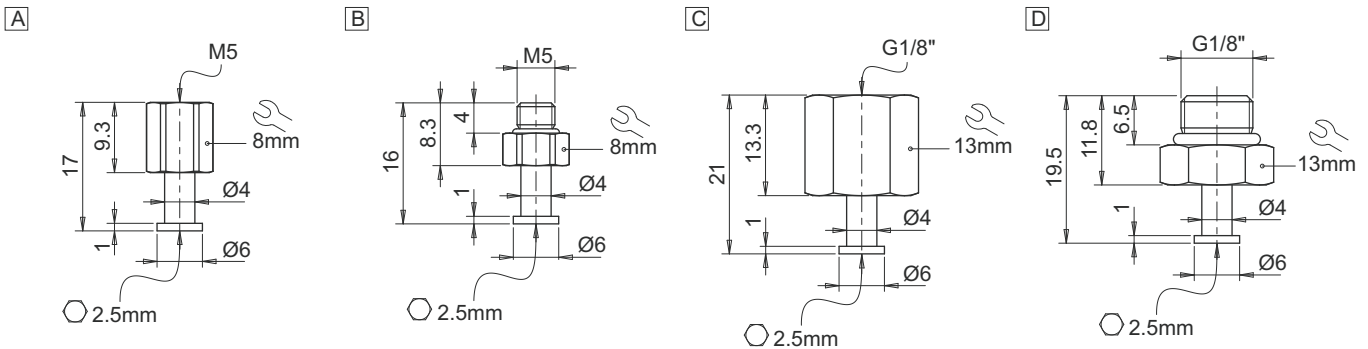
### Ordering information

| Drawing | Alphanumeric code | Suction cups                           | Order code |
|---------|-------------------|----------------------------------------|------------|
| A       | VG.U11S.50        | VG.U11 suction cup, silicone, 50 Shore | 2321658    |



### Ordering information

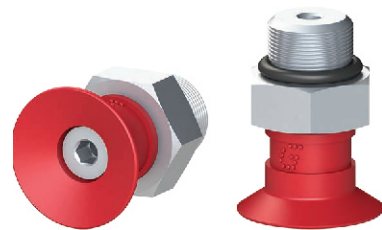
| Drawing | Alphanumeric code | Fittings                        | Order code |
|---------|-------------------|---------------------------------|------------|
| A       | FT.M5F.E8         | M5 female fitting, 8 mm hex     | 2321408    |
| B       | FT.M5M.E8         | M5 male fitting, 8 mm hex       | 2321410    |
| C       | FT.G18F.E13       | G1/8" female fitting, 13 mm hex | 2321412    |
| D       | FT.G18M.E13       | G1/8" male fitting, 13 mm hex   | 2321414    |



# Suction cups / Silicone

## VG.U16S flat silicone suction cups

- Silicone compound
- Suitable for high working temperatures
- Suitable for objects with fat or slightly curved surfaces



Application example



### Technical data

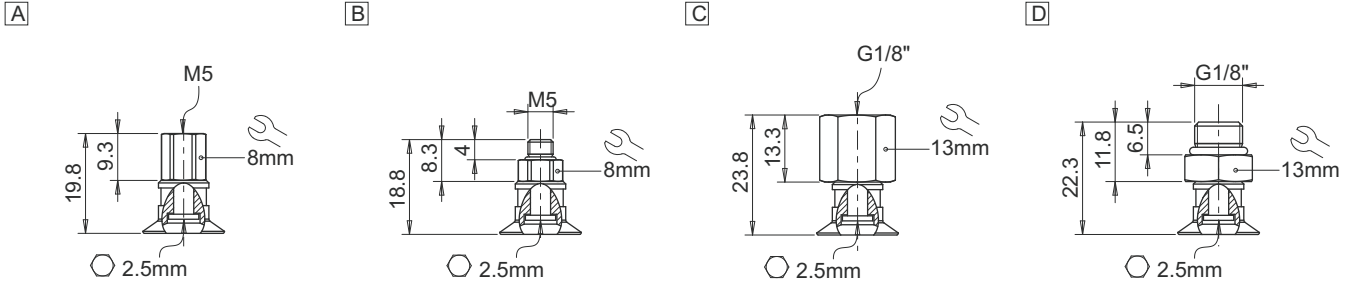
| Material | Lifting force [N] perpendicular to the surface, at various vacuum levels |         |         | Lifting force [N] parallel to the surface, at various vacuum levels |         |         | Volume<br>[cm <sup>3</sup> ] | Min curve<br>radius<br>[mm] | Max vert.<br>movement<br>[mm] | Suction cup<br>weight<br>[g] |
|----------|--------------------------------------------------------------------------|---------|---------|---------------------------------------------------------------------|---------|---------|------------------------------|-----------------------------|-------------------------------|------------------------------|
|          | -20 kPa                                                                  | -60 kPa | -90 kPa | -20 kPa                                                             | -60 kPa | -90 kPa |                              |                             |                               |                              |
| SIL 50   | 3                                                                        | 8.5     | 11      | 3                                                                   | 8.5     | 11      | 0.5                          | 8                           | 1.5                           | 0.6                          |

### Technical features

| Material      | Colour | Hardness | Temperature range |
|---------------|--------|----------|-------------------|
| Silicone, SIL | Red    | 50 Shore | -70 ÷ +200 °C     |

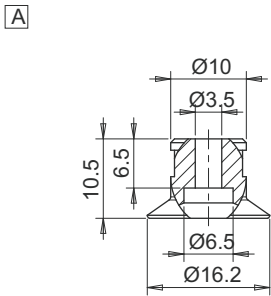
### Ordering information

| Drawing | Alphanumeric code   | Suction cups with fitting                                       | Order code |
|---------|---------------------|-----------------------------------------------------------------|------------|
| A       | VG.U16S.50.M5F.E8   | VG.U16 suction cup, silicone, 50 Shore, M5 female, 8 mm hex     | 2321662    |
| B       | VG.U16S.50.M5M.E8   | VG.U16 suction cup, silicone, 50 Shore, M5 male, 8 mm hex       | 2321664    |
| C       | VG.U16S.50.G18F.E13 | VG.U16 suction cup, silicone, 50 Shore, G1/8" female, 13 mm hex | 2321665    |
| D       | VG.U16S.50.G18M.E13 | VG.U16 suction cup, silicone, 50 Shore, G1/8" male, 13 mm hex   | 2321666    |



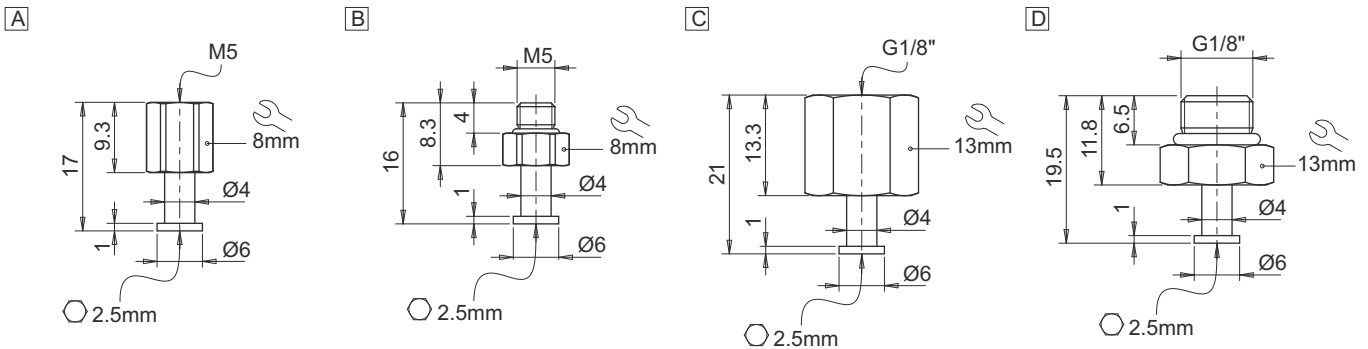
### Identification codes

| Drawing | Alphanumeric code | Suction cups                           | Order code |
|---------|-------------------|----------------------------------------|------------|
| A       | VG.U16S.50        | VG.U16 suction cup, silicone, 50 Shore | 2321663    |



### Identification codes

| Drawing | Alphanumeric code | Fittings                       | Order code |
|---------|-------------------|--------------------------------|------------|
| A       | FT.M5F.E8         | M5 female +tting, 8 mm hex     | 2321408    |
| B       | FT.M5M.E8         | M5 male +tting, 8 mm hex       | 2321410    |
| C       | FT.G18F.E13       | G1/8" female +tting, 13 mm hex | 2321412    |
| D       | FT.G18M.E13       | G1/8" male +tting, 13 mm hex   | 2321414    |



# Suction cups / Silicone

## VG.U22S flat silicone suction cups

- Silicone compound
- Suitable for high working temperatures
- Suitable for objects with fat or slightly curved surfaces



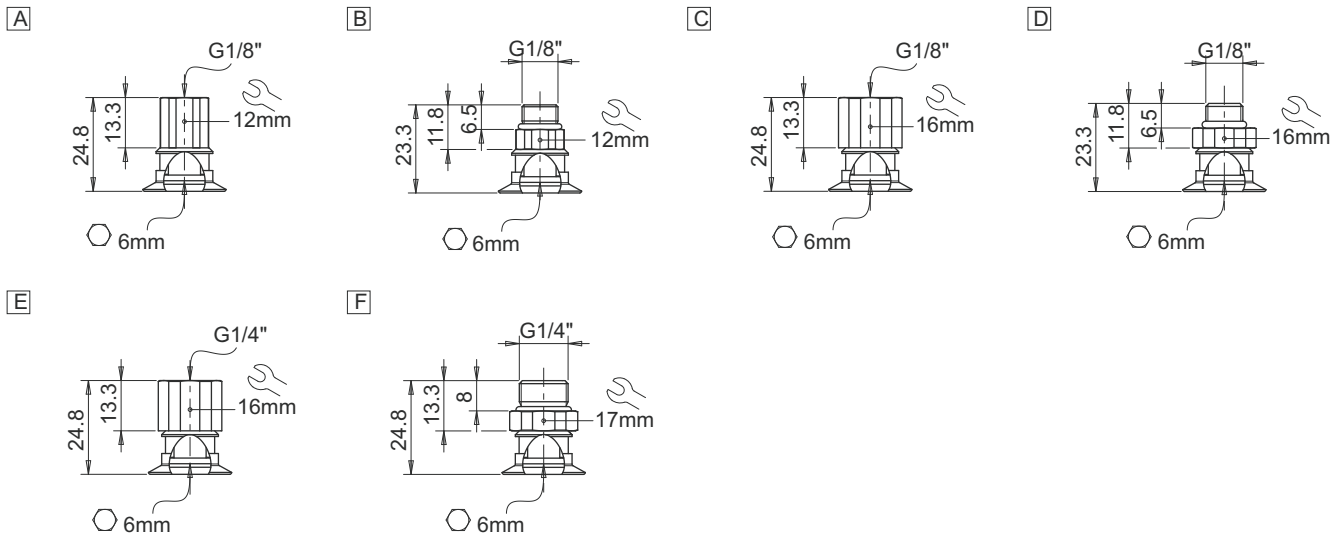
Application example



| Technical data |                                                                          |         |         |                                                                     |         |         |                 |                             |                               |                              |
|----------------|--------------------------------------------------------------------------|---------|---------|---------------------------------------------------------------------|---------|---------|-----------------|-----------------------------|-------------------------------|------------------------------|
| Material       | Lifting force [N] perpendicular to the surface, at various vacuum levels |         |         | Lifting force [N] parallel to the surface, at various vacuum levels |         |         | Volume<br>[cm³] | Min curve<br>radius<br>[mm] | Max vert.<br>movement<br>[mm] | Suction cup<br>weight<br>[g] |
|                | -20 kPa                                                                  | -60 kPa | -90 kPa | -20 kPa                                                             | -60 kPa | -90 kPa |                 |                             |                               |                              |
| SIL 50         | 5.6                                                                      | 14      | 20      | 6                                                                   | 14      | 20      | 1               | 13                          | 2.5                           | 1.1                          |

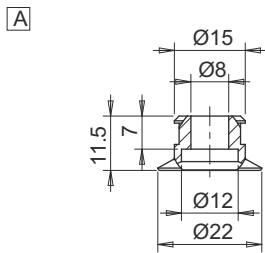
| Technical features |        |          |                   |
|--------------------|--------|----------|-------------------|
| Material           | Colour | Hardness | Temperature range |
| Silicone, SIL      | Red    | 50 Shore | -70 ÷ +200 °C     |

| Ordering information |                    |                                                                 |            |
|----------------------|--------------------|-----------------------------------------------------------------|------------|
| Drawing              | Alphanumeric code  | Suction cups with fitting                                       | Order code |
| A                    | VG.U22S.50.G18FE12 | VG.U22 suction cup, silicone, 50 Shore, G1/8" female, 12 mm hex | 2321667    |
| B                    | VG.U22S.50.G18ME12 | VG.U22 suction cup, silicone, 50 Shore, G1/8" male, 12 mm hex   | 2321669    |
| C                    | VG.U22S.50.G18FE16 | VG.U22 suction cup, silicone, 50 Shore, G1/8" female, 16 mm hex | 2321670    |
| D                    | VG.U22S.50.G18ME16 | VG.U22 suction cup, silicone, 50 Shore, G1/8" male, 16 mm hex   | 2321671    |
| E                    | VG.U22S.50.G14FE16 | VG.U22 suction cup, silicone, 50 Shore, G1/4" female, 16 mm hex | 2321672    |
| F                    | VG.U22S.50.G14ME17 | VG.U22 suction cup, silicone, 50 Shore, G1/4" male, 17 mm hex   | 2321673    |



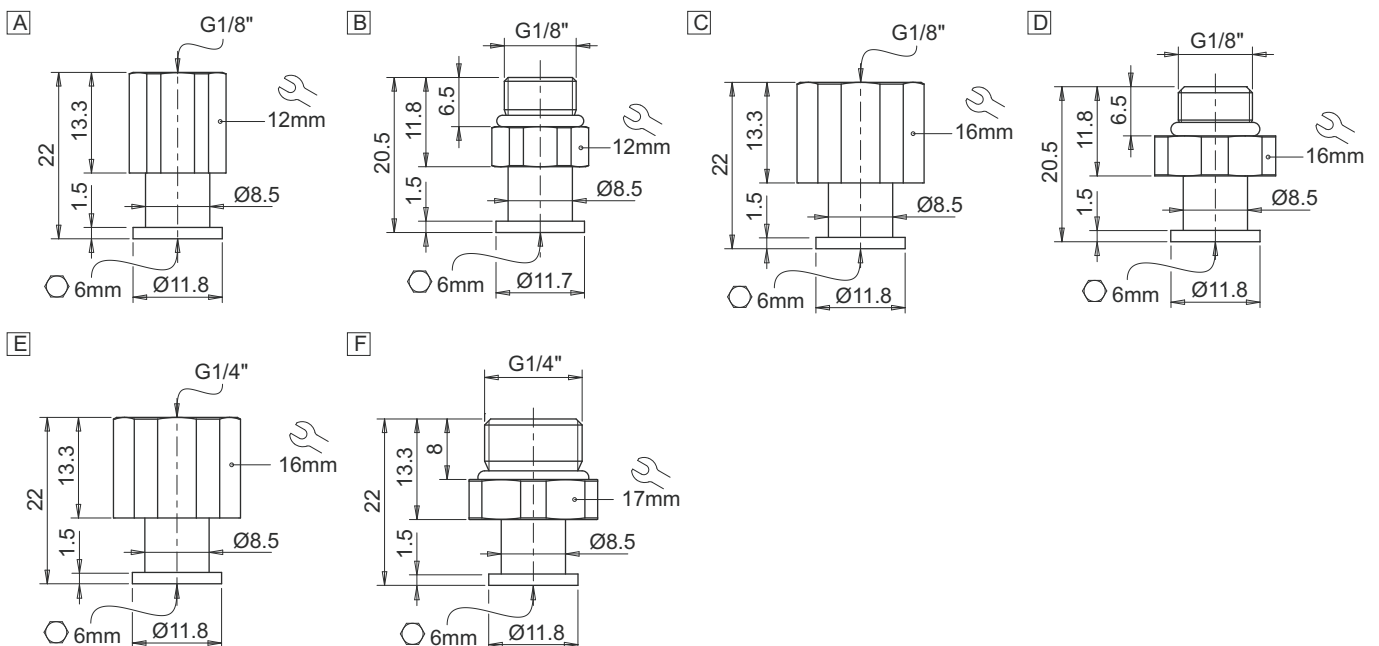
#### Ordering information

| Drawing | Alphanumeric code | Suction cups                           | Order code |
|---------|-------------------|----------------------------------------|------------|
| A       | VG.U22S.50        | VG.U22 suction cup, silicone, 50 Shore | 2321668    |



#### Ordering information

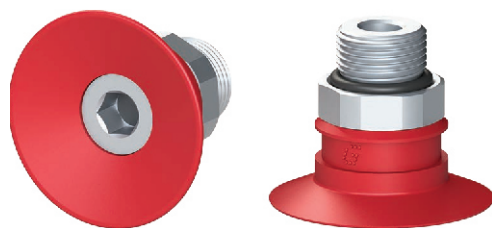
| Drawing | Alphanumeric code | Fittings                        | Order code |
|---------|-------------------|---------------------------------|------------|
| A       | FT.G18FE12        | G1/8" female fitting, 12 mm hex | 2321422    |
| B       | FT.G18ME12        | G1/8" male fitting, 12 mm hex   | 2321424    |
| C       | FT.G18FE16        | G1/8" female fitting, 16 mm hex | 2321426    |
| D       | FT.G18ME16        | G1/8" male fitting, 16 mm hex   | 2321428    |
| E       | FT.G14FE16        | G1/4" female fitting, 16 mm hex | 2321430    |
| F       | FT.G14ME17        | G1/4" male fitting, 17 mm hex   | 2321432    |



# Suction cups / Silicone

## VG.U33S flat silicone suction cups

- Silicone compound
- Suitable for high working temperatures
- Suitable for objects with fat or slightly curved surfaces



Application example



### Technical data

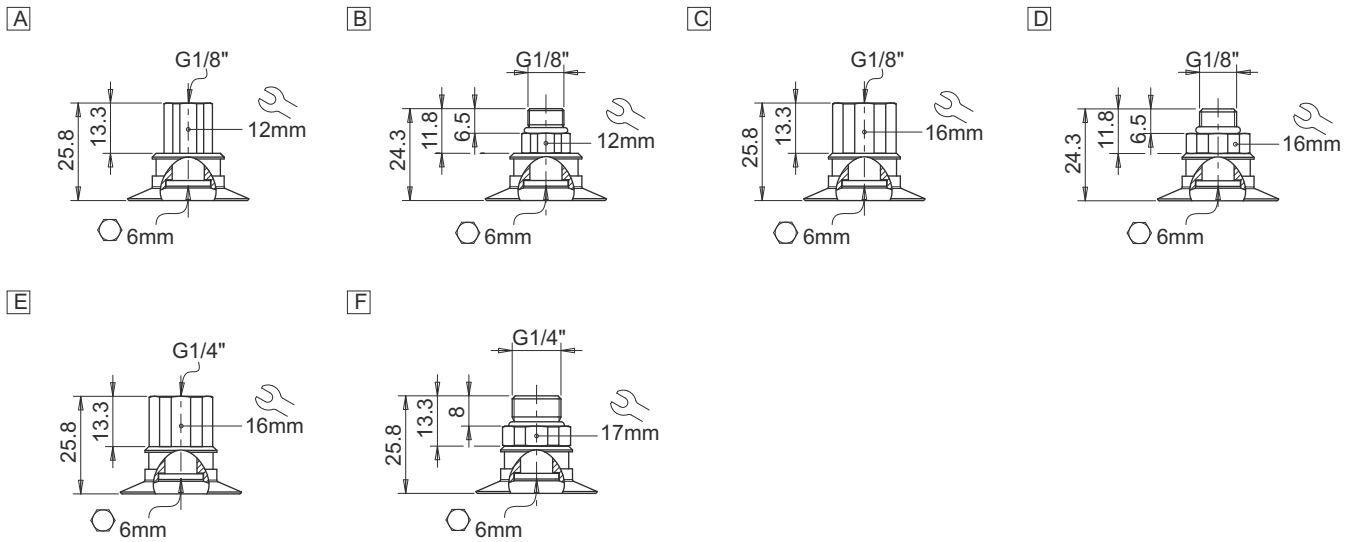
| Material | Lifting force [N] perpendicular to the surface, at various vacuum levels |         |         | Lifting force [N] parallel to the surface, at various vacuum levels |         |         | Volume<br>[cm³] | Min curve<br>radius<br>[mm] | Max vert.<br>movement<br>[mm] | Suction cup<br>weight<br>[g] |
|----------|--------------------------------------------------------------------------|---------|---------|---------------------------------------------------------------------|---------|---------|-----------------|-----------------------------|-------------------------------|------------------------------|
|          | -20 kPa                                                                  | -60 kPa | -90 kPa | -20 kPa                                                             | -60 kPa | -90 kPa |                 |                             |                               |                              |
| SIL 50   | 11                                                                       | 29      | 38      | 8.5                                                                 | 15      | 12.5    | 2               | 20                          | 3.5                           | 2.4                          |

### Technical features

| Material      | Colour | Hardness | Temperature range |
|---------------|--------|----------|-------------------|
| Silicone, SIL | Red    | 50 Shore | -70 ÷ +200 °C     |

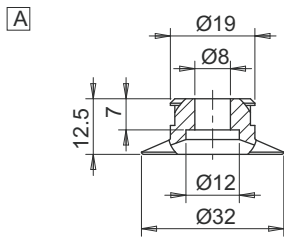
### Ordering information

| Drawing | Alphanumeric code  | Suction cups with fitting                                       | Order code |
|---------|--------------------|-----------------------------------------------------------------|------------|
| A       | VG.U33S.50.G18FE12 | VG.U33 suction cup, silicone, 50 Shore, G1/8" female, 12 mm hex | 2321674    |
| B       | VG.U33S.50.G18ME12 | VG.U33 suction cup, silicone, 50 Shore, G1/8" male, 12 mm hex   | 2321676    |
| C       | VG.U33S.50.G18FE16 | VG.U33 suction cup, silicone, 50 Shore, G1/8" female, 16 mm hex | 2321677    |
| D       | VG.U33S.50.G18ME16 | VG.U33 suction cup, silicone, 50 Shore, G1/8" male, 16 mm hex   | 2321678    |
| E       | VG.U33S.50.G14FE16 | VG.U33 suction cup, silicone, 50 Shore, G1/4" female, 16 mm hex | 2321679    |
| F       | VG.U33S.50.G14ME17 | VG.U33 suction cup, silicone, 50 Shore, G1/4" male, 17 mm hex   | 2321680    |



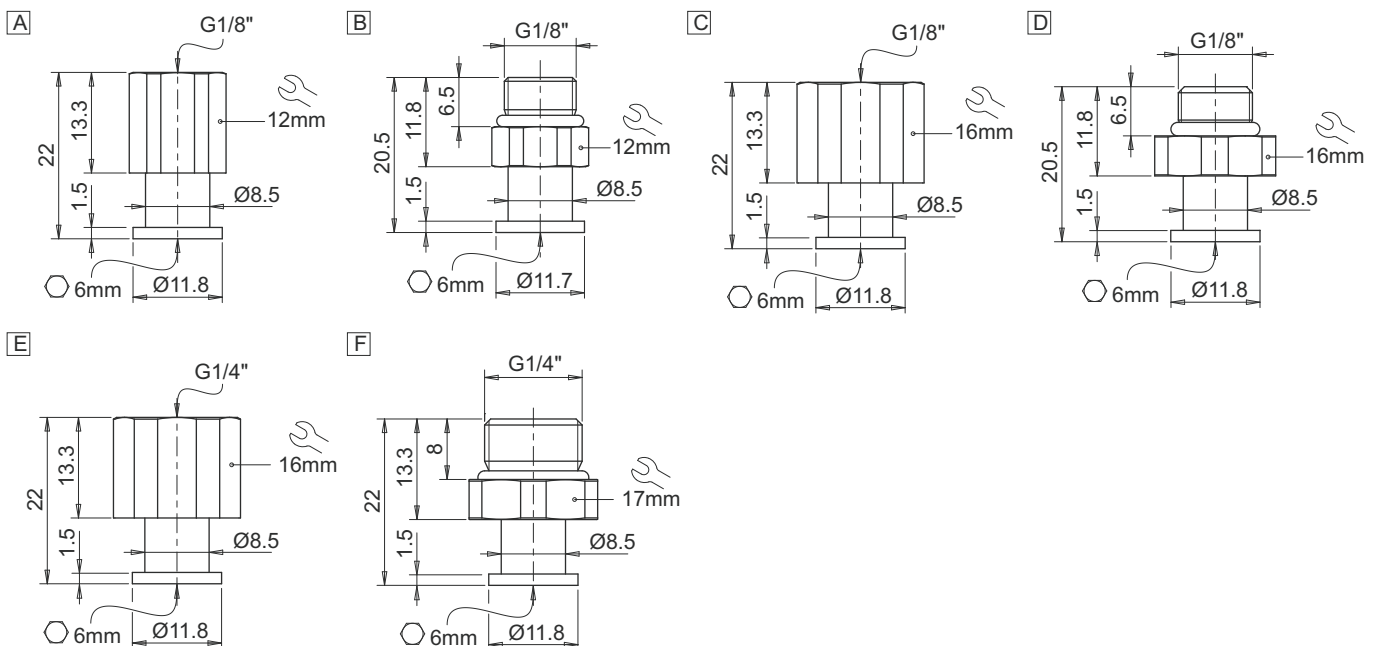
#### Ordering information

| Drawing | Alphanumeric code | Suction cups                           | Order code |
|---------|-------------------|----------------------------------------|------------|
| A       | VG.U33S.50        | VG.U33 suction cup, silicone, 50 Shore | 2321675    |



#### Ordering information

| Drawing | Alphanumeric code | Fittings                        | Order code |
|---------|-------------------|---------------------------------|------------|
| A       | FT.G18FE12        | G1/8" female fitting, 12 mm hex | 2321422    |
| B       | FT.G18ME12        | G1/8" male fitting, 12 mm hex   | 2321424    |
| C       | FT.G18FE16        | G1/8" female fitting, 16 mm hex | 2321426    |
| D       | FT.G18ME16        | G1/8" male fitting, 16 mm hex   | 2321428    |
| E       | FT.G14FE16        | G1/4" female fitting, 16 mm hex | 2321430    |
| F       | FT.G14ME17        | G1/4" male fitting, 17 mm hex   | 2321432    |



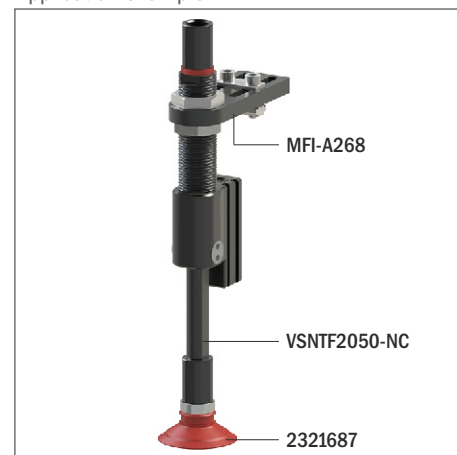
# Suction cups / Silicone

## VG.U42S flat silicone suction cups

- Silicone compound
- Suitable for high working temperatures
- Suitable for objects with fat or slightly curved surfaces



Application example



### Technical data

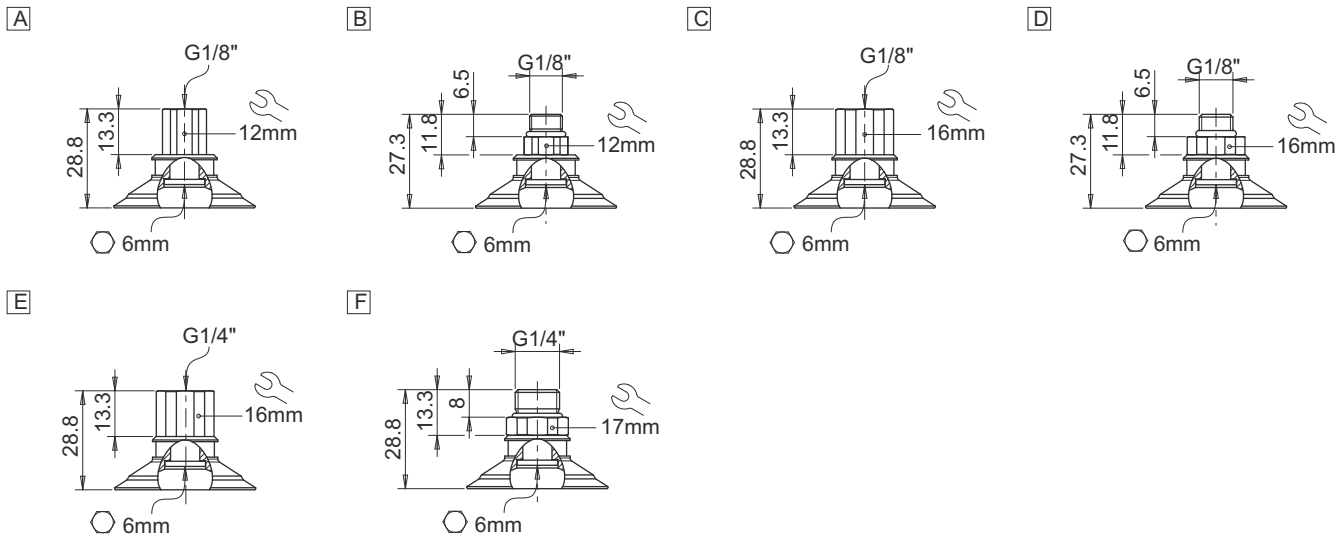
| Material | Lifting force [N] perpendicular to the surface, at various vacuum levels |         |         | Lifting force [N] parallel to the surface, at various vacuum levels |         |         | Volume<br>[cm³] | Min curve<br>radius<br>[mm] | Max vert.<br>movement<br>[mm] | Suction cup<br>weight<br>[g] |
|----------|--------------------------------------------------------------------------|---------|---------|---------------------------------------------------------------------|---------|---------|-----------------|-----------------------------|-------------------------------|------------------------------|
|          | -20 kPa                                                                  | -60 kPa | -90 kPa | -20 kPa                                                             | -60 kPa | -90 kPa |                 |                             |                               |                              |
| SIL 50   | 21                                                                       | 48.5    | 58      | 14                                                                  | 28      | 36      | 5.5             | 30                          | 4.5                           | 4.4                          |

### Technical features

| Material      | Colour | Hardness | Temperature range |
|---------------|--------|----------|-------------------|
| Silicone, SIL | Red    | 50 Shore | -70 ÷ +200 °C     |

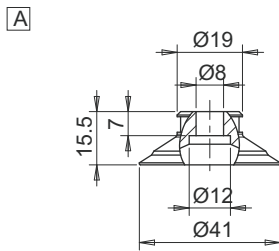
### Ordering information

| Drawing | Alphanumeric code  | Suction cups with fitting                                       | Order code |
|---------|--------------------|-----------------------------------------------------------------|------------|
| A       | VG.U42S.50.G18FE12 | VG.U42 suction cup, silicone, 50 Shore, G1/8" female, 12 mm hex | 2321681    |
| B       | VG.U42S.50.G18ME12 | VG.U42 suction cup, silicone, 50 Shore, G1/8" male, 12 mm hex   | 2321683    |
| C       | VG.U42S.50.G18FE16 | VG.U42 suction cup, silicone, 50 Shore, G1/8" female, 16 mm hex | 2321684    |
| D       | VG.U42S.50.G18ME16 | VG.U42 suction cup, silicone, 50 Shore, G1/8" male, 16 mm hex   | 2321685    |
| E       | VG.U42S.50.G14FE16 | VG.U42 suction cup, silicone, 50 Shore, G1/4" female, 16 mm hex | 2321686    |
| F       | VG.U42S.50.G14ME17 | VG.U42 suction cup, silicone, 50 Shore, G1/4" male, 17 mm hex   | 2321687    |



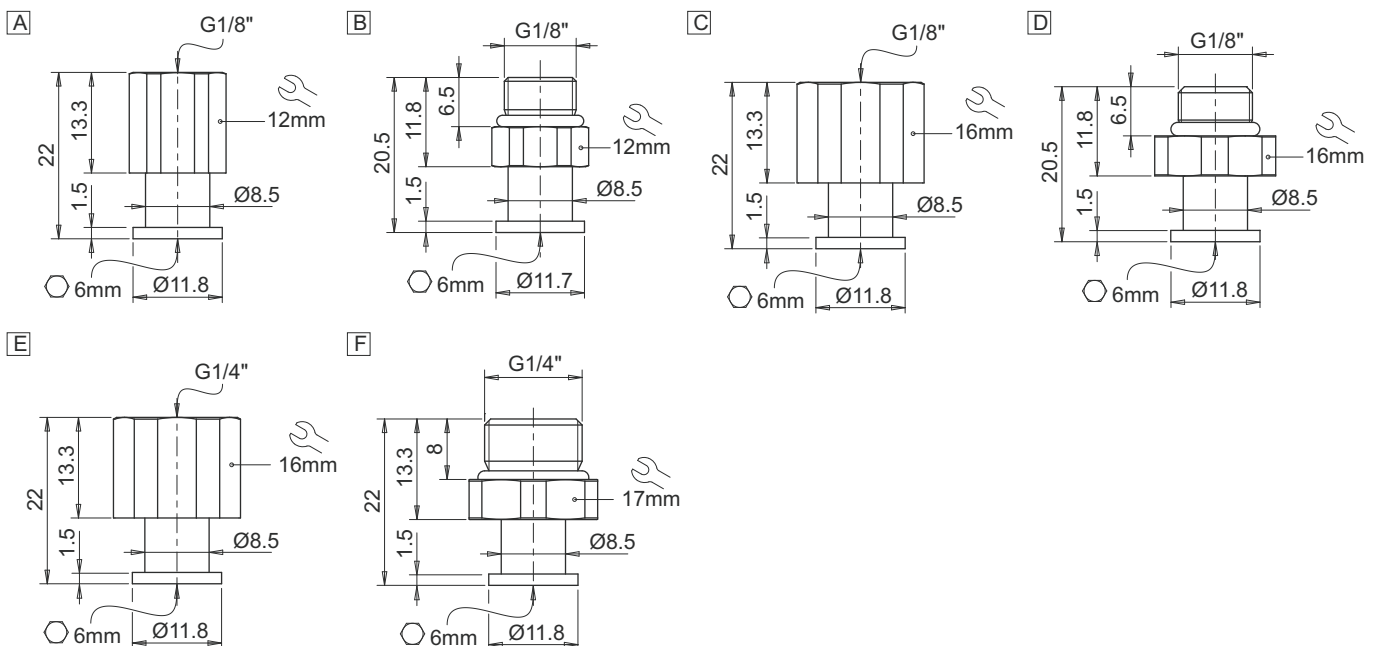
#### Ordering information

| Drawing | Alphanumeric code | Suction cups                           | Order code |
|---------|-------------------|----------------------------------------|------------|
| A       | VG.U42S.50        | VG.U42 suction cup, silicone, 50 Shore | 2321682    |



#### Ordering information

| Drawing | Alphanumeric code | Fittings                        | Order code |
|---------|-------------------|---------------------------------|------------|
| A       | FT.G18FE12        | G1/8" female fitting, 12 mm hex | 2321422    |
| B       | FT.G18ME12        | G1/8" male fitting, 12 mm hex   | 2321424    |
| C       | FT.G18FE16        | G1/8" female fitting, 16 mm hex | 2321426    |
| D       | FT.G18ME16        | G1/8" male fitting, 16 mm hex   | 2321428    |
| E       | FT.G14FE16        | G1/4" female fitting, 16 mm hex | 2321430    |
| F       | FT.G14ME17        | G1/4" male fitting, 17 mm hex   | 2321432    |



# Suction cups / Silicone

## VG.U53S flat silicone suction cups

- Silicone compound
- Suitable for high working temperatures
- Suitable for objects with fat or slightly curved surfaces



Application example



### Technical data

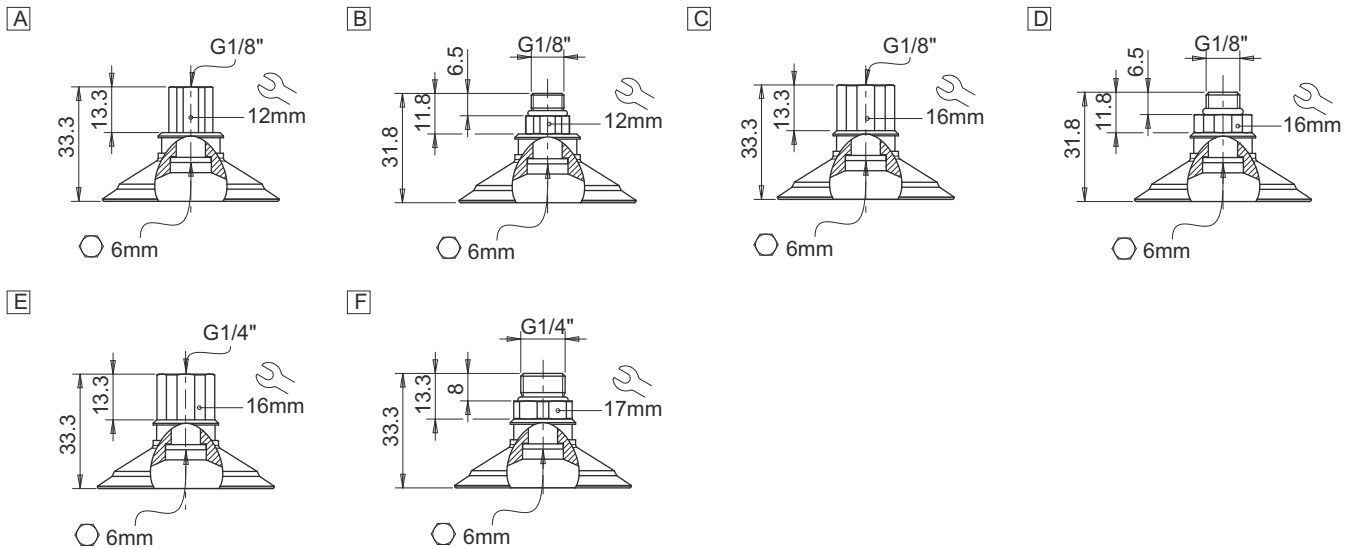
| Material | Lifting force [N] perpendicular to the surface, at various vacuum levels |         |         | Lifting force [N] parallel to the surface, at various vacuum levels |         |         | Volume<br>[cm³] | Min curve<br>radius<br>[mm] | Max vert.<br>movement<br>[mm] | Suction cup<br>weight<br>[g] |
|----------|--------------------------------------------------------------------------|---------|---------|---------------------------------------------------------------------|---------|---------|-----------------|-----------------------------|-------------------------------|------------------------------|
|          | -20 kPa                                                                  | -60 kPa | -90 kPa | -20 kPa                                                             | -60 kPa | -90 kPa |                 |                             |                               |                              |
| SIL 50   | 37                                                                       | 75      | 96      | 20                                                                  | 35      | 46      | 12              | 35                          | 6                             | 7.9                          |

### Technical features

| Material      | Colour | Hardness | Temperature range |
|---------------|--------|----------|-------------------|
| Silicone, SIL | Red    | 50 Shore | -70 ÷ +200 °C     |

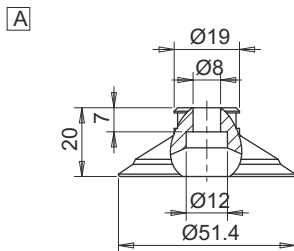
### Ordering information

| Drawing | Alphanumeric code  | Suction cups with fitting                                       | Order code |
|---------|--------------------|-----------------------------------------------------------------|------------|
| A       | VG.U53S.50.G18FE12 | VG.U53 suction cup, silicone, 50 Shore, G1/8" female, 12 mm hex | 2321688    |
| B       | VG.U53S.50.G18ME12 | VG.U53 suction cup, silicone, 50 Shore, G1/8" male, 12 mm hex   | 2321690    |
| C       | VG.U53S.50.G18FE16 | VG.U53 suction cup, silicone, 50 Shore, G1/8" female, 16 mm hex | 2321691    |
| D       | VG.U53S.50.G18ME16 | VG.U53 suction cup, silicone, 50 Shore, G1/8" male, 16 mm hex   | 2321692    |
| E       | VG.U53S.50.G14FE16 | VG.U53 suction cup, silicone, 50 Shore, G1/4" female, 16 mm hex | 2321693    |
| F       | VG.U53S.50.G14ME17 | VG.U53 suction cup, silicone, 50 Shore, G1/4" male, 17 mm hex   | 2321694    |



#### Ordering information

| Drawing | Alphanumeric code | Suction cups                           | Order code |
|---------|-------------------|----------------------------------------|------------|
| A       | VG.U53S.50        | VG.U53 suction cup, silicone, 50 Shore | 2321689    |



#### Ordering information

| Drawing | Alphanumeric code | Fittings                        | Order code |
|---------|-------------------|---------------------------------|------------|
| A       | FT.G18FE12        | G1/8" female fitting, 12 mm hex | 2321422    |
| B       | FT.G18ME12        | G1/8" male fitting, 12 mm hex   | 2321424    |
| C       | FT.G18FE16        | G1/8" female fitting, 16 mm hex | 2321426    |
| D       | FT.G18ME16        | G1/8" male fitting, 16 mm hex   | 2321428    |
| E       | FT.G14FE16        | G1/4" female fitting, 16 mm hex | 2321430    |
| F       | FT.G14ME17        | G1/4" male fitting, 17 mm hex   | 2321432    |

