

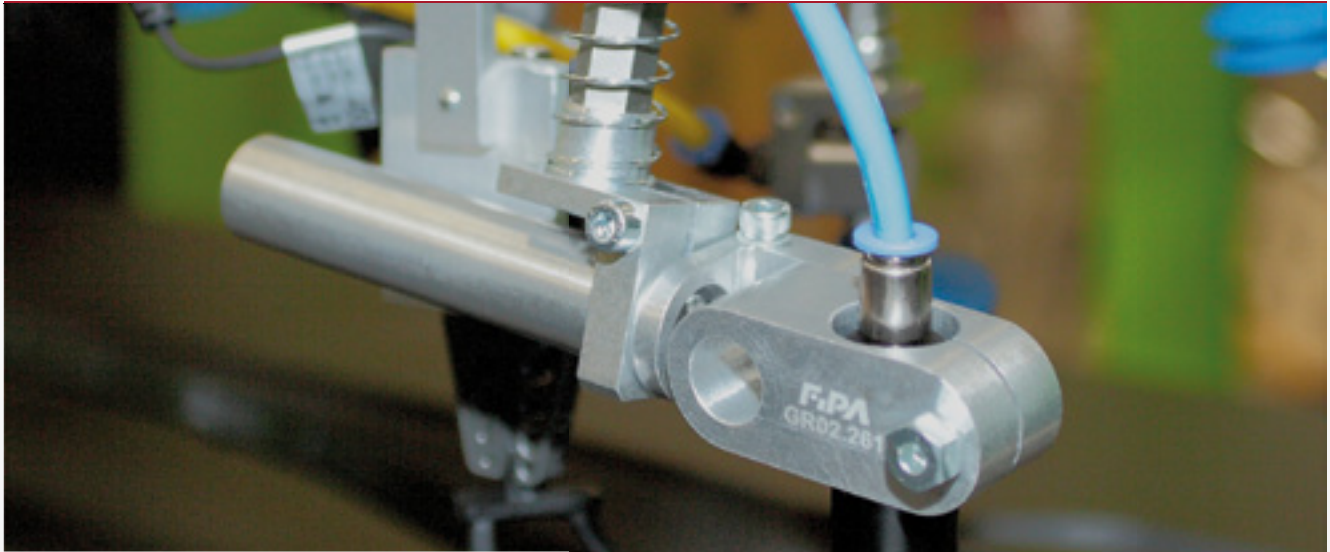
Gripper arms at a glance 94

Angle arms 95

Elbow arms 101



FIPA Gripper arms, clamping diameter 10, 14, 20, 30 mm



Angle arms, elbow or rigid

- > Elements for integration of gripper components
- > Secure clamping even under high load

GR03.160 - 166

- > Spring-loaded elbow, rotatable, torsionally rigid
- > Compensates lift when product is ejected from sprue mould
- > Precise function even with angular loads



GR02.070A - 100

- > Rigid arms

GR02.240 - 262

- > Modular elbow, heavy duty
- > Clamping heads can be exchanged with suction heads of GR03.240 - 262

> See page 95



Arms for suction cups, elbow or rigid

- > Elements for integration of suction cups in gripper systems

GR03.120B - 153B

- > Spring-loaded elbow, with torsionally rigid
- > Compensates lift when product is ejected from sprue mould
- > Precise function even with angular loads



GR03.080A - 115

- > Spring-loaded, rigid arms, torsionally rigid

GR03.240 - 262

- > Modular, heavy duty
- > Suction heads can be exchanged with clamping heads of GR02.240 - 262

> See page 101



Angle arms - rigid



Product description

> Components for mounting grippers or gripper fingers via clamping elements to extrusions

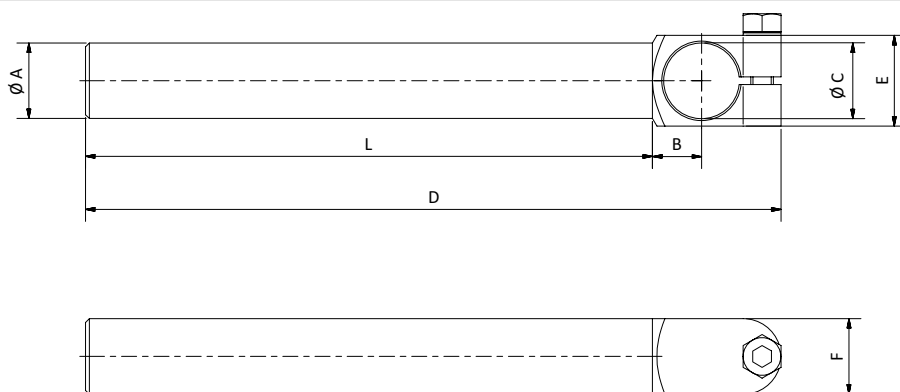
Technical data

| Item no. | Weight [g] |
|-----------|------------|
| GR02.070A | 20 |
| GR02.071A | 24 |
| GR02.072A | 28 |
| GR02.083 | 36 |
| GR02.084 | 45 |
| GR02.085 | 52 |
| GR02.100 | 61 |
| GR02.101A | 80 |
| GR02.102A | 95 |
| GR02.104 | 137 |
| GR02.105 | 171 |
| GR02.106 | 205 |
| GR02.107 | 239 |

Dimensions

| $\varnothing A$ [mm] | $\varnothing C$ [mm] | B [mm] | D [mm] | E [mm] | F [mm] | L [mm] |
|----------------------|----------------------|--------|--------|--------|--------|--------|
| 10 | 10 | 7 | 51 | 16 | 10 | 30 |
| 10 | 10 | 7 | 81 | 16 | 10 | 60 |
| 10 | 10 | 7 | 111 | 16 | 10 | 90 |
| 14 | 14 | 9.5 | 70.5 | 18 | 14 | 45 |
| 14 | 14 | 9.5 | 115.5 | 18 | 14 | 90 |
| 14 | 14 | 9.5 | 155.5 | 18 | 14 | 130 |
| 20 | 20 | 15 | 84 | 24 | 20 | 50 |
| 20 | 20 | 15 | 134 | 24 | 20 | 100 |
| 20 | 20 | 15 | 184 | 24 | 20 | 150 |
| 30 | 30 | 21 | 98 | 36 | 30 | 50 |
| 30 | 30 | 21 | 148 | 36 | 30 | 100 |
| 30 | 30 | 21 | 198 | 36 | 30 | 150 |
| 30 | 30 | 21 | 248 | 36 | 30 | 200 |

Dimensions





Gripper arms | Angle arms

Elbow arms - adjustable

Elbow arms - adjustable



Product description

- > Components for mounting grippers or gripper fingers via clamping elements to extrusions
- > Angle can be freely adjusted

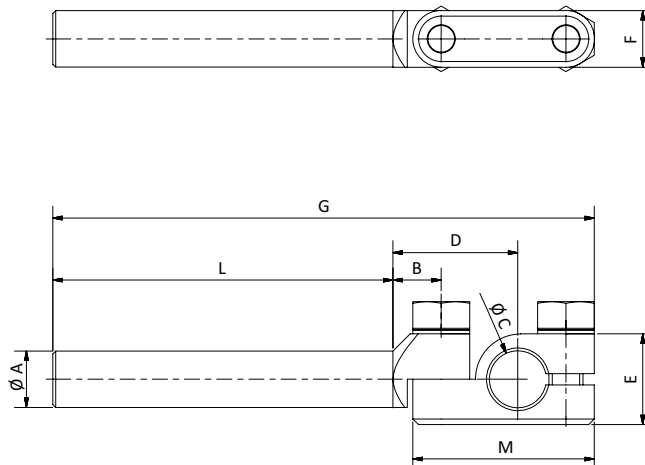
Technical data

| Item no. | Weight [g] |
|----------|------------|
| GR02.140 | 36 |
| GR02.141 | 40 |
| GR02.142 | 45 |
| GR02.180 | 42 |
| GR02.181 | 51 |
| GR02.182 | 59 |
| GR02.153 | 60 |
| GR02.154 | 68 |
| GR02.155 | 78 |
| GR02.170 | 87 |
| GR02.171 | 103 |
| GR02.172 | 120 |

Dimensions

| $\varnothing A$ [mm] | $\varnothing C$ [mm] | B [mm] | D [mm] | E [mm] | F [mm] | G [mm] | L [mm] | M [mm] |
|----------------------|----------------------|--------|--------|--------|--------|--------|--------|--------|
| 10 | 10 | 11 | 27 | 16 | 10 | 65.5 | 30 | 36.5 |
| 10 | 10 | 11 | 27 | 16 | 10 | 95.5 | 60 | 36.5 |
| 10 | 10 | 11 | 27 | 16 | 10 | 125.5 | 90 | 36.5 |
| 14 | 10 | 13 | 29 | 16 | 14 | 90 | 45 | 36.5 |
| 14 | 10 | 13 | 29 | 16 | 14 | 135 | 90 | 36.5 |
| 14 | 10 | 13 | 29 | 16 | 14 | 175 | 130 | 36.5 |
| 14 | 14 | 13 | 36 | 18 | 14 | 90 | 45 | 36.5 |
| 14 | 14 | 13 | 36 | 18 | 14 | 135 | 90 | 36.5 |
| 14 | 14 | 13 | 36 | 18 | 14 | 175 | 130 | 36.5 |
| 20 | 20 | 15 | 36 | 24 | 20 | 111 | 50 | 49 |
| 20 | 20 | 15 | 36 | 24 | 20 | 161 | 100 | 49 |
| 20 | 20 | 15 | 36 | 24 | 20 | 211 | 150 | 49 |

Dimensions





Elbow arms - heavy duty, clamping- \varnothing 10, 14, 20 mm



Product description

- > Components for mounting grippers or gripper fingers via clamping elements to extrusions
- > Secure clamping even under heavy load
- > Angle can be freely adjusted

Notes

- > Rotary heads are exchangeable with heads of suction fingers GR03.240 -242, GR03.250-252, GR03.260-262

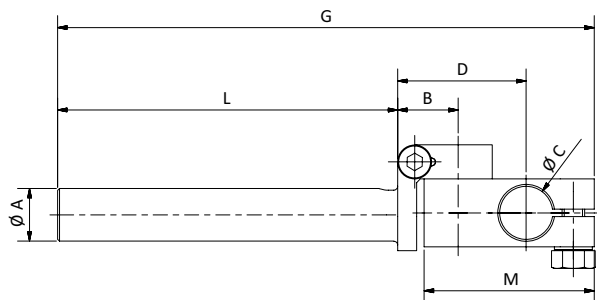
Technical data

| Item no. | Weight [g] |
|----------|------------|
| GR02.240 | 29 |
| GR02.241 | 32 |
| GR02.242 | 35 |
| GR02.250 | 50 |
| GR02.251 | 58 |
| GR02.252 | 66 |
| GR02.260 | 89 |
| GR02.261 | 104 |
| GR02.262 | 119 |

Dimensions

| $\varnothing A$ [mm] | $\varnothing C$ [mm] | B [mm] | D [mm] | L [mm] | M [mm] |
|----------------------|----------------------|--------|--------|--------|--------|
| 10 | 10 | 14 | 26 | 30 | 35 |
| 10 | 10 | 14 | 26 | 60 | 35 |
| 10 | 10 | 14 | 26 | 90 | 35 |
| 14 | 14 | 16 | 34 | 45 | 45 |
| 14 | 14 | 16 | 34 | 90 | 45 |
| 14 | 14 | 16 | 34 | 130 | 45 |
| 20 | 20 | 19 | 43 | 50 | 59 |
| 20 | 20 | 19 | 43 | 100 | 59 |
| 20 | 20 | 19 | 43 | 150 | 59 |

Dimensions



Clamping a gripper at 90° without using rotatable clamping head





Gripper arms | Angle arms

Rotary heads for angle arms \varnothing 30 mm - heavy duty

Rotary heads for angle arms \varnothing 30 mm - heavy duty

NEW



Rotary head GR02.270 with angle arm GR02.107

Product description

- > Rotary heads for angle arms with shaft diameter 30 mm
- > Integration of gripper elements with clamping diameter 20 or 30 mm
- > Secure clamping even under heavy load
- > Pivoting range 0° to ~130°, can be freely adjusted in two directions

Ordering notes

- > Please order your combination of gripper arm and rotary head

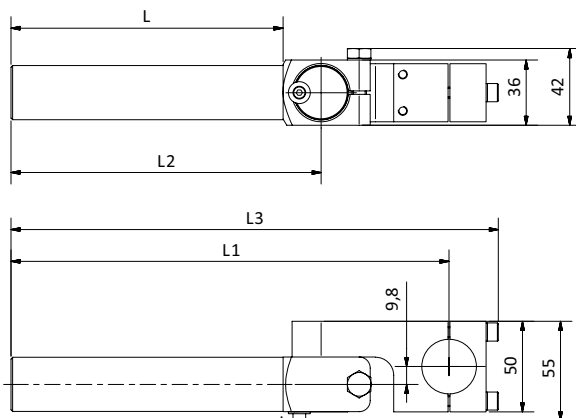
Technical data

| Item no. | Clamping- \varnothing [mm] | Weight [g] | Suitable for angle arms |
|----------|------------------------------|------------|--|
| GR02.270 | 20 | 332 | GR02.104, GR02.105, GR02.106, GR02.107 |
| GR02.273 | 30 | 319 | GR02.104, GR02.105, GR02.106, GR02.107 |

Suitable combination of gripper arm and rotary head

| Length [mm] | Gripper arms | Clamping- \varnothing 20 mm | Clamping- \varnothing 30 mm |
|-------------|--------------|-------------------------------|-------------------------------|
| 50 | GR02.104 | GR02.270 | GR02.273 |
| 100 | GR02.105 | GR02.270 | GR02.273 |
| 150 | GR02.106 | GR02.270 | GR02.273 |
| 200 | GR02.107 | GR02.270 | GR02.273 |

Dimensions



| Gripper arm + Rotary head | L [mm] | L1 [mm] | L2 [mm] | L3 [mm] |
|--------------------------------|--------|---------|---------|---------|
| GR02.104 + GR02.270 / GR02.273 | 50 | 141.5 | 71 | 169 |
| GR02.105 + GR02.270 / GR02.273 | 100 | 191.5 | 121 | 219 |
| GR02.106 + GR02.270 / GR02.273 | 150 | 241.5 | 171 | 269 |
| GR02.107 + GR02.270 / GR02.273 | 200 | 291.5 | 221 | 319 |

* = Locking screw



Angle arm - spring-loaded, rotatable, torsionally rigid

NEW



Clamping a gripper at 90° without using rotatable clamping head

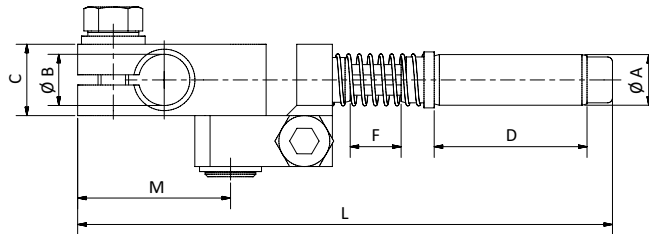
Product description

- > Components for mounting grippers or gripper fingers via clamping elements to extrusions
- > Torsionally rigid spring-load compensates lift when product is ejected from sprue mould
- > Novel clamping of gripper elements even under heavy load

Technical data

| Item no. | Lift [mm] | Weight [g] |
|----------|-----------|------------|
| GR03.160 | 10 | 60 |
| GR03.161 | 20 | 65 |
| GR03.162 | 15 | 125 |
| GR03.163 | 35 | 134 |
| GR03.164 | 20 | 288 |
| GR03.165 | 40 | 310 |

Dimensions



| Item no. | Ø A [mm] | Ø B [mm] | C [mm] | D [mm] | F [mm] | L [mm] | M [mm] |
|----------|----------|----------|--------|--------|--------|--------|--------|
| GR03.160 | 10 | 10 | 14 | 30 | 10 | 105 | 30 |
| GR03.161 | 10 | 10 | 14 | 30 | 20 | 115 | 30 |
| GR03.162 | 14 | 14 | 20 | 35 | 15 | 133 | 37.5 |
| GR03.163 | 14 | 14 | 20 | 35 | 35 | 153 | 37.5 |
| GR03.164 | 20 | 20 | 25 | 55 | 20 | 179.5 | 52 |
| GR03.165 | 20 | 20 | 25 | 55 | 40 | 200 | 52 |



Gripper arms | Angle arms

Spring-loaded elbow arms with ball guide and torsionally rigid

Spring-loaded elbow arms with ball guide and torsionally rigid



HIGHLY PRECISE OPERATION, EVEN UNDER LOAD

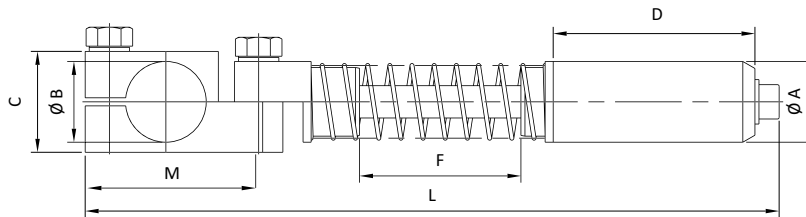
Product description

- > Components for integration of grippers
- > Torsionally rigid ball guide absorbs lateral forces and torque for high precision movement
- > Spring-load compensates lift when product is ejected from mold

Technical data

| Item no. | Lift [mm] | Weight [g] |
|----------|-----------|------------|
| GR03.200 | 40 | 182 |
| GR03.201 | 40 | 202 |

Dimensions



| Item no. | Ø A [mm] | Ø B [mm] | C [mm] | D [mm] | F [mm] | L [mm] | M [mm] |
|----------|----------|----------|--------|--------|--------|--------|--------|
| GR03.200 | 20 | 10 | 16 | 50 | 40 | 165 | 39 |
| GR03.201 | 20 | 20 | 20x25 | 50 | 40 | 175 | 49 |



Gripper arms for vacuum cups - rigid



Product description

- > Components for the integration of vacuum cups via internal threads
- > Installation flexibility thanks to two vacuum connections on head and shaft end

Ordering notes

- > Sealing plug suitable for both connections included in scope of delivery

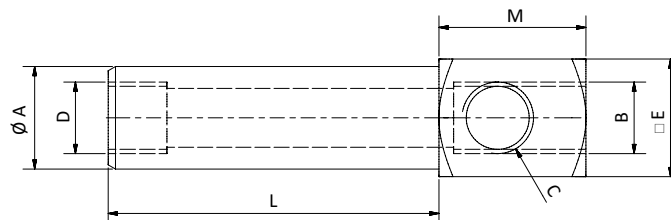
Technical data

| Item no. | Weight [g] |
|-----------|------------|
| GR03.001A | 11 |
| GR03.002A | 16 |
| GR03.003A | 22 |
| GR03.010A | 27 |
| GR03.011A | 39 |
| GR03.012A | 49 |
| GR03.036 | 64 |
| GR03.037 | 100 |
| GR03.038 | 137 |
| GR03.039 | 203 |

Dimensions

| B | C | D | $\varnothing A$ [mm] | E [mm] | L [mm] | M [mm] |
|------|------|------|----------------------|--------|--------|--------|
| M5 | M5 | M5 | 10 | 12 | 30 | 13 |
| M5 | M5 | M5 | 10 | 12 | 60 | 13 |
| M5 | M5 | M5 | 10 | 12 | 90 | 13 |
| G1/8 | G1/8 | G1/8 | 14 | 16 | 45 | 20 |
| G1/8 | G1/8 | G1/8 | 14 | 16 | 90 | 20 |
| G1/8 | G1/8 | G1/8 | 14 | 16 | 130 | 20 |
| G1/4 | G1/8 | G1/8 | 20 | 22 | 50 | 23 |
| G1/4 | G1/8 | G1/8 | 20 | 22 | 100 | 23 |
| G1/4 | G1/8 | G1/8 | 20 | 22 | 150 | 23 |
| G1/4 | G1/4 | G1/8 | 30 | 30 | 200 | 30 |

Dimensions





Gripper arms | Elbow arms

Elbow gripper arms for vacuum cups

Elbow gripper arms for vacuum cups



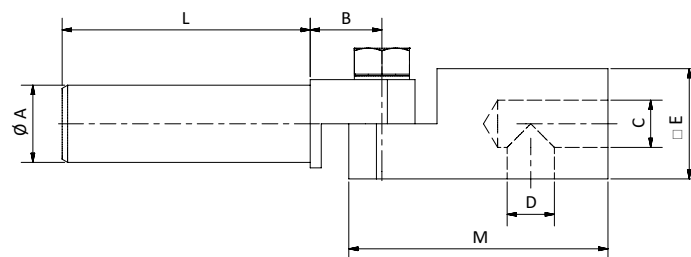
Product description

- > Components for the integration of vacuum cups via internal threads
- > Ease of assembly due to use of screws with internal and external hex bits

Technical data

| Item no. | Weight [g] | Dimensions | | | | | | |
|-----------|------------|------------|------|----------|--------|--------|--------|--------|
| | | C | D | ∅ A [mm] | B [mm] | E [mm] | L [mm] | M [mm] |
| GR03.040 | 35 | M5 | M5 | 10 | 11 | 16 | 30 | 36.5 |
| GR03.041A | 38 | M5 | M5 | 10 | 11 | 16 | 60 | 36.5 |
| GR03.042A | 43 | M5 | M5 | 10 | 11 | 16 | 90 | 36.5 |
| GR03.050A | 58 | G1/8 | G1/8 | 14 | 13 | 20 | 45 | 47 |
| GR03.051A | 69 | G1/8 | G1/8 | 14 | 13 | 20 | 90 | 47 |
| GR03.052A | 78 | G1/8 | G1/8 | 14 | 13 | 20 | 130 | 47 |
| GR03.070A | 72 | G1/8 | G1/8 | 20 | 15 | 20 | 50 | 47 |
| GR03.071A | 87 | G1/8 | G1/8 | 20 | 15 | 20 | 100 | 47 |
| GR03.072A | 103 | G1/8 | G1/8 | 20 | 15 | 20 | 150 | 47 |
| GR03.073A | 93 | G1/4 | G1/4 | 20 | 15 | 25 | 50 | 49 |
| GR03.074A | 106 | G1/4 | G1/4 | 20 | 15 | 25 | 100 | 49 |
| GR03.075A | 123 | G1/4 | G1/4 | 20 | 15 | 25 | 150 | 49 |

Dimensions





Elbow gripper arms for vacuum cups, standard



Clamping a gripper at 90° without using rotatable clamping head

Product description

- > Components for the integration of vacuum cups via internal threads
- > Infinitely variable angle adjustment
- > Up to 50 % less weight compared to GR03.040 ff.
- > Innovative suction head design which requires no snap ring

Notes

- > Alternatively to the vacuum head, a gripper can be directly mounted:
 - GR03.240-242: Suitable for grippers, series 80, 90, 100
 - GR03.260-263: Suitable for grippers, series 130, 140
- > Suction heads can be easily exchanged with clamping heads GR02.240-242, GR02.250-252, GR02.260-262

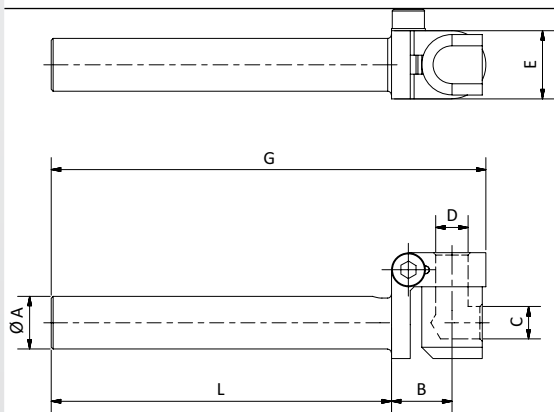
Technical data

| Item no. | Weight [g] |
|----------|------------|
| GR03.240 | 15 |
| GR03.241 | 18 |
| GR03.242 | 21 |
| GR03.250 | 29 |
| GR03.251 | 37 |
| GR03.252 | 46 |
| GR03.260 | 57 |
| GR03.261 | 71 |
| GR03.262 | 86 |

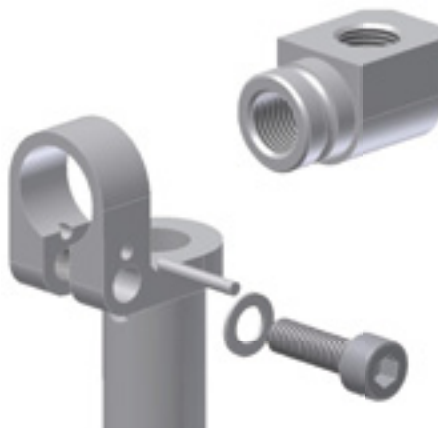
Dimensions

| C | D | ∅ A [mm] | B [mm] | E [mm] | L [mm] |
|------|------|----------|--------|--------|--------|
| M5 | M5 | 10 | 14 | 14 | 30 |
| M5 | M5 | 10 | 14 | 14 | 60 |
| M5 | M5 | 10 | 14 | 14 | 90 |
| G1/8 | G1/8 | 14 | 16 | 18 | 45 |
| G1/8 | G1/8 | 14 | 16 | 18 | 90 |
| G1/8 | G1/8 | 14 | 16 | 18 | 130 |
| G1/4 | G1/4 | 20 | 19 | 24 | 50 |
| G1/4 | G1/4 | 20 | 19 | 24 | 100 |
| G1/4 | G1/4 | 20 | 19 | 24 | 150 |

Dimensions



Mounting illustration





Gripper arms | Elbow arms

Spring-loaded elbow arms for vacuum cups

Spring-loaded elbow arms for vacuum cups



Product description

- > Components for integration of vacuum cups via internal threads
- > Spring-load compensates lift when product is ejected from mould
- > Smooth motion through use of plastic bushing
- > Second air connection at the shaft end for GR03.090A and above

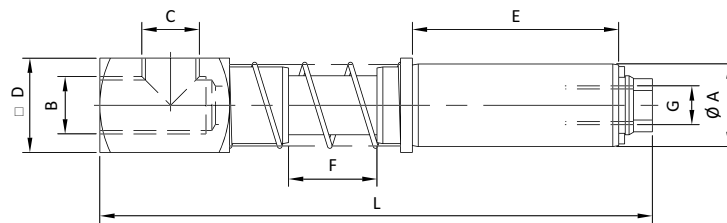
Technical data

| Item no. | Lift [mm] | Weight [g] |
|-----------|-----------|------------|
| GR03.080A | 10 | 18 |
| GR03.081A | 20 | 18 |
| GR03.090A | 15 | 45 |
| GR03.091A | 35 | 48 |
| GR03.114 | 20 | 127 |
| GR03.115 | 40 | 136 |

Dimensions

| B | C | G | ∅ A [mm] | □ D [mm] | E [mm] | F [mm] | L [mm] |
|------|------|------|----------|----------|--------|--------|--------|
| M5 | M5 | -- | 10 | 10 | 25 | 10 | 67 |
| M5 | M5 | -- | 10 | 10 | 25 | 20 | 77 |
| G1/8 | G1/8 | M5 | 14 | 16 | 35 | 15 | 93.5 |
| G1/8 | G1/8 | M5 | 14 | 16 | 35 | 35 | 113.5 |
| G1/4 | G1/8 | G1/8 | 20 | 20 | 55 | 20 | 128.5 |
| G1/4 | G1/8 | G1/8 | 20 | 20 | 55 | 40 | 148.5 |

Dimensions





Spring-loaded elbow arms for vacuum cups, torsionally rigid

NEW



Product description

- > Components for integration of vacuum cups via internal threads
- > Torsionally rigid spring-load compensates lift when product is ejected from mould

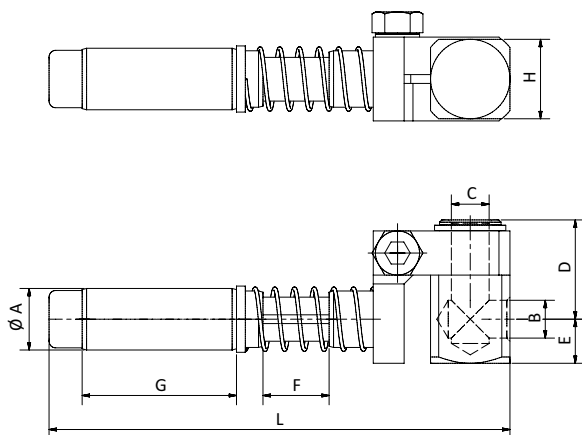
Technical data

| Item no. | Lift [mm] | Weight [g] |
|-----------|-----------|------------|
| GR03.120B | 10 | 35 |
| GR03.121B | 20 | 37 |
| GR03.130B | 15 | 75 |
| GR03.131B | 35 | 84 |
| GR03.152B | 20 | 207 |
| GR03.153B | 40 | 229 |

Dimensions

| B | C | Ø A [mm] | D [mm] | E [mm] | F [mm] | G [mm] | H [mm] | L [mm] |
|------|------|----------|--------|--------|--------|--------|--------|--------|
| M5 | M5 | 10 | 19 | 7 | 10 | 30 | 14 | 82 |
| M5 | M5 | 10 | 19 | 7 | 20 | 30 | 14 | 92 |
| G1/8 | G1/8 | 14 | 22.5 | 10 | 15 | 35 | 18 | 104.5 |
| G1/8 | G1/8 | 14 | 22.5 | 10 | 35 | 35 | 18 | 124.5 |
| G1/4 | G1/4 | 20 | 25 | 12.5 | 20 | 55 | 24 | 139.5 |
| G1/4 | G1/4 | 20 | 25 | 12.5 | 40 | 55 | 24 | 159.5 |

Dimensions



Clamping a gripper at 90° without using rotatable clamping head

