



FPS SERVICES AUTOMATION

# EOAT19

GB-IT

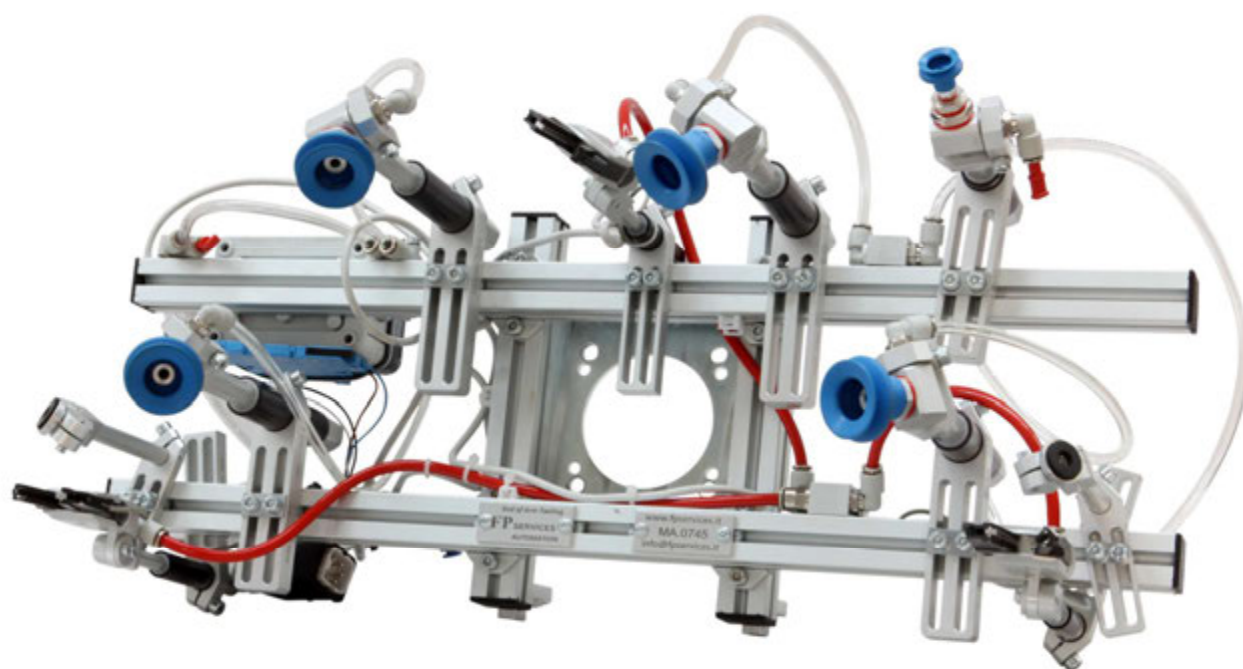


## End Of Arm Tooling

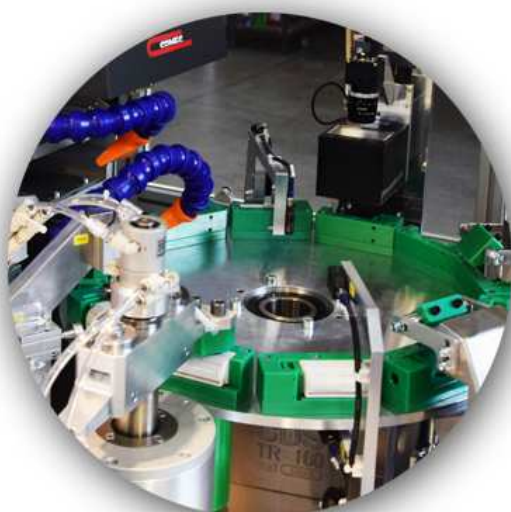
*Mani di Presa*



**Customized Gripper 96 Cavities - *Mano di presa con 96 Cavità***



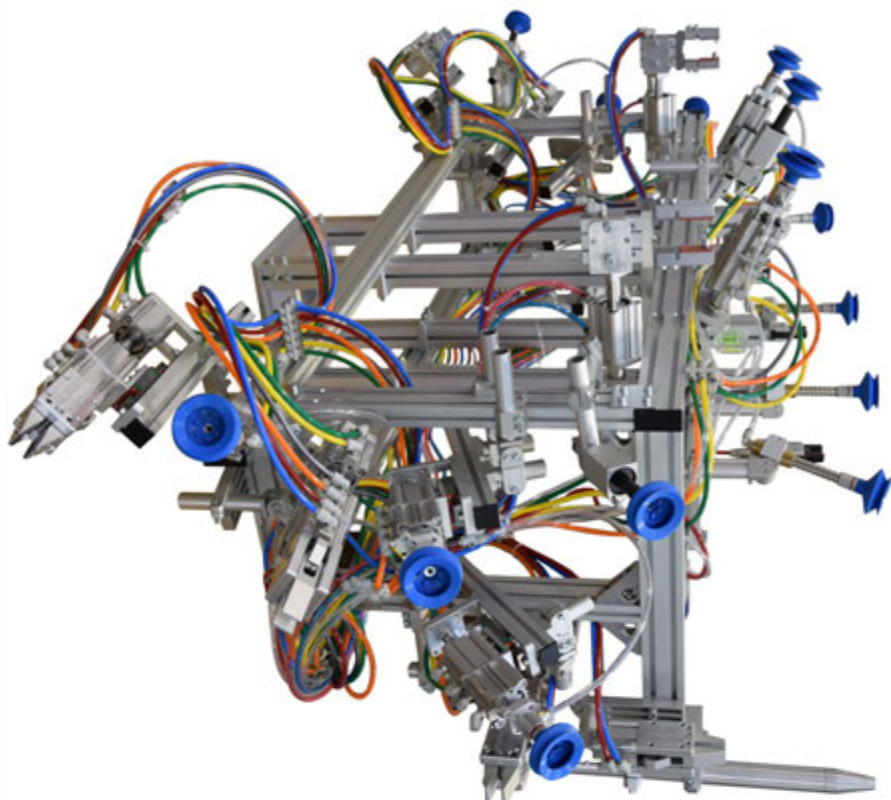
**Standard EOAT**



Pad Printing and  
**Vision System**  
Capacity **60/PCS/min**

*Tampografica*  
**Con Sistema Video**  
*Dalle capacità di 60/pz/min*





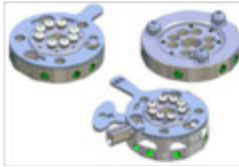
Car **Bumper Gripper**

***Mani di Presa***  
*per paraurti*

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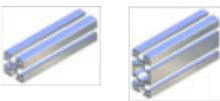
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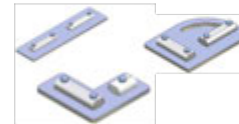
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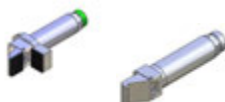
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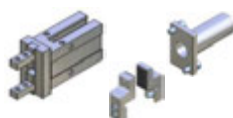
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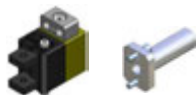
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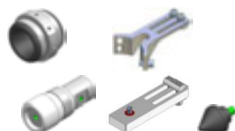
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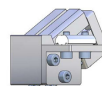
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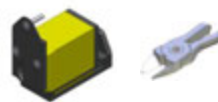
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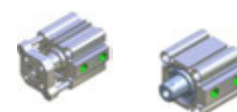
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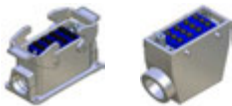
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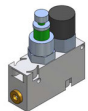
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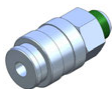
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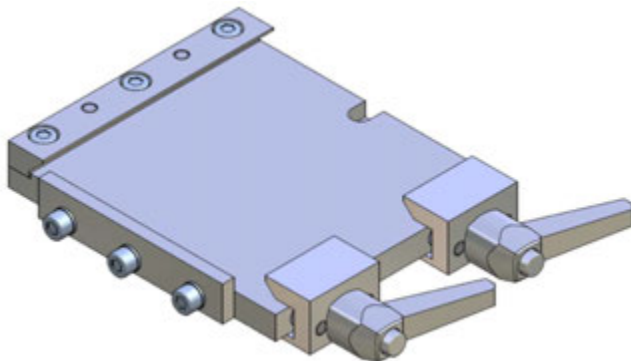


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## CA.01 SWM

. Quick changer (robot side)



. Cambia utensile (lato robot)

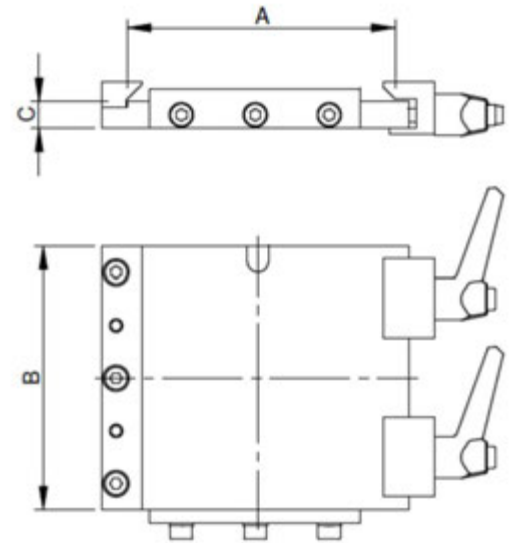


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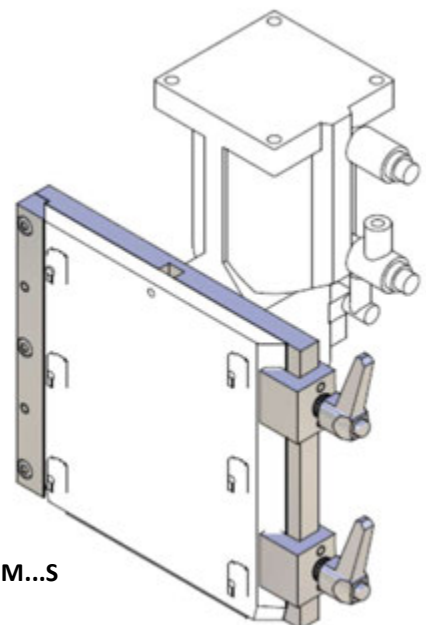
H = Handling weight as approx. value  
*Peso approssimativo sostenuto in movimento*M = Suitable for EOAT Groundplate GPM....  
*Applicabile ad EOAT piastra GPM...*

Remarks / Osservazioni

Material / Materiale:  
Aluminium / Alluminio  
Steel / Acciaio

| Article no. | A   | B   | C  | H     |           | M        | Weight |
|-------------|-----|-----|----|-------|-----------|----------|--------|
| CA.SWM0     | 60  | 60  | 10 | 5 kg  | ALUMINIUM | CA.GPM0  | 140 g  |
| CA.SWM1     | 100 | 100 |    | 10 kg |           | CA.GPM1  | 441 g  |
| CA.SWM1S*   |     |     |    | ...   | STEEL     | CA.GPM1S | 1138 g |
| CA.SWM2     | 160 | 160 | 12 | 20 kg | ALUMINIUM | CA.GPM2  | 1132 g |
| CA.SWM2S*   |     |     |    | ...   | STEEL     | CA.GPM2S | 3099 g |
| CA.SWM3     | 250 | 250 |    | 40 kg | ALUMINIUM | CA.GPM3  | 2962 g |
| CA.SWM3S*   |     |     |    | ...   | STEEL     | CA.GPM3S | 8173 g |

Application example/ Esempio applicativo



CA.GPM...

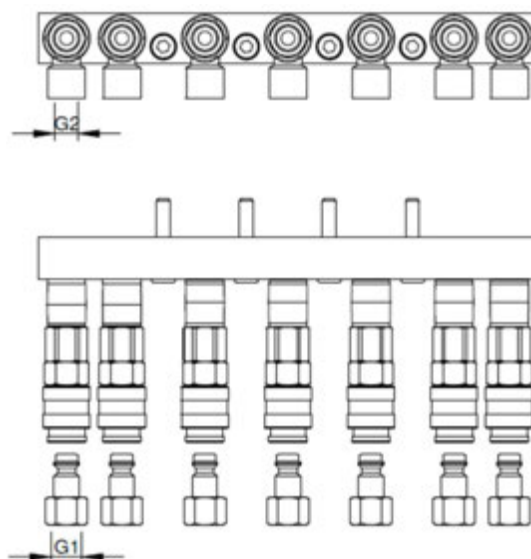
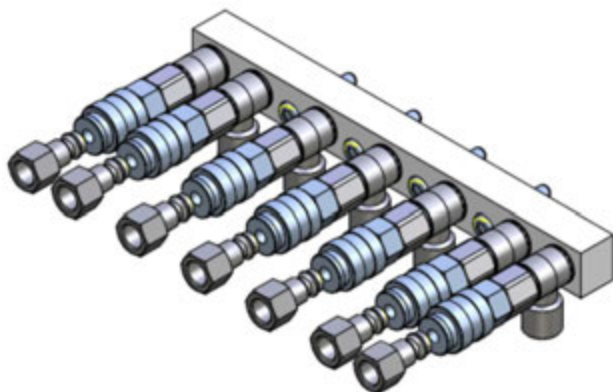
CA.GPM...S

Surface: Silver anodized / \*Galvanized  
*Superficie: Argento anodizzato / \*Zincato*

## CA.01 LAL - SWM

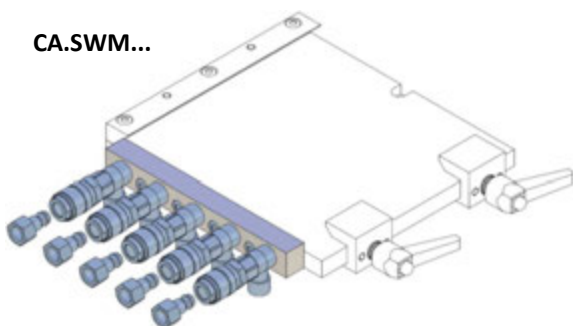
. Pneumatic connection for CA.SWM

. Connessione aria per CA.SWM

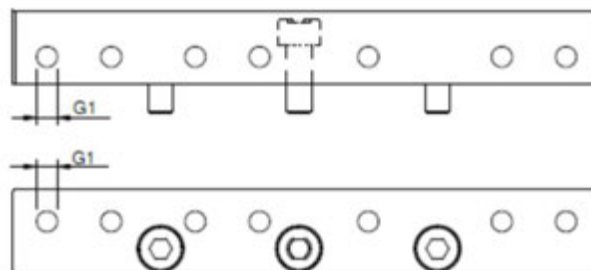
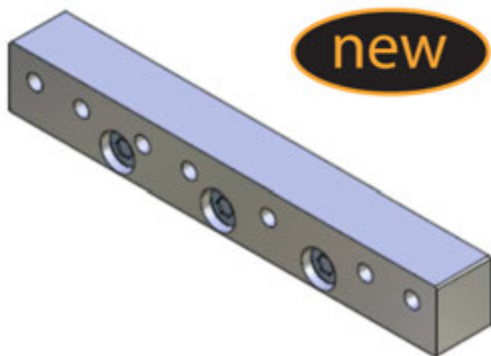


Application example / Esempio applicativo

CA.SWM...

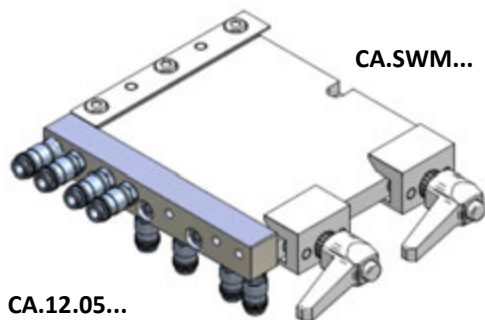


| Article no. | G1    | G2    | L | M       | Weight |
|-------------|-------|-------|---|---------|--------|
| CA.LAL.1.5  | M5    | M5    | 5 | CA.SWM1 | 154 g  |
| CA.LAL.1.7  |       |       | 7 |         | 225 g  |
| CA.LAL.2.5  | G 1/8 | G1/8  | 5 | CA.SWM2 | 631 g  |
| CA.LAL.2.7  |       |       | 7 |         | 742 g  |
| CA.LAL.3.6  | G 1/4 | G 1/4 | 6 | CA.SWM3 | 902 g  |
| CA.LAL.3.8  |       |       | 8 |         | 1504 g |



Application example / Esempio applicativo

CA.SWM...



CA.12.05...

| Article no. | G1    | G2    | L | M       | Weight |
|-------------|-------|-------|---|---------|--------|
| SWM1.8      | M5    | M5    | 7 | CA.SWM1 | 71 g   |
| SWM2.8      | G 1/8 | G1/8  |   | CA.SWM2 | 136 g  |
| SWM3.8      | G 1/4 | G 1/4 | 8 | CA.SWM3 | 325 g  |

## CA.01 GPM

. Quick changer (gripper side)

L/X/JU

. Cambia utensile (lato mano)

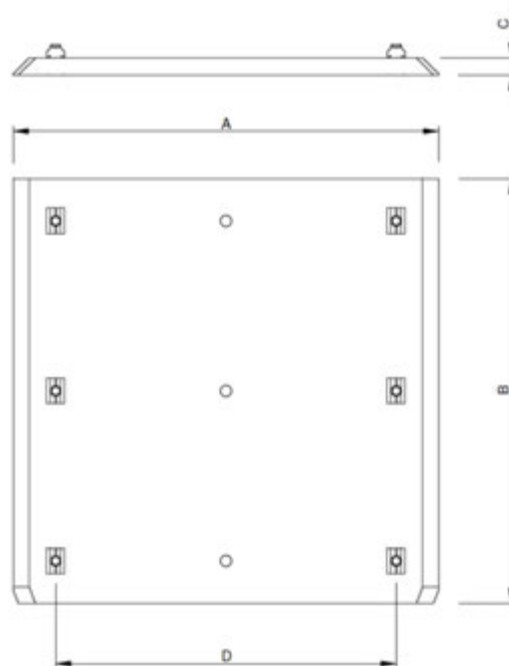
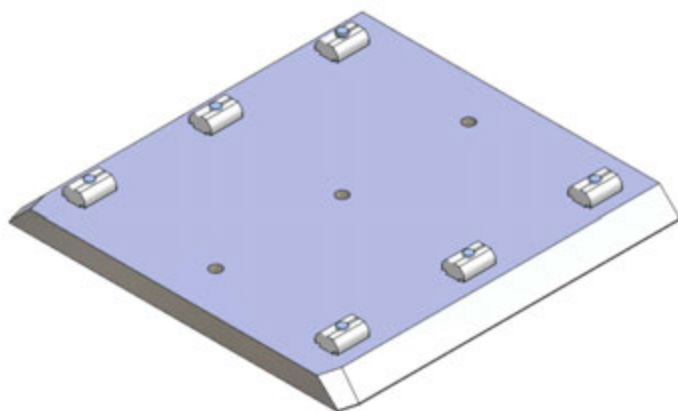


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**M** = Suitable for Profile  
Applicabile a tutti i Profili

Remarks / Osservazioni

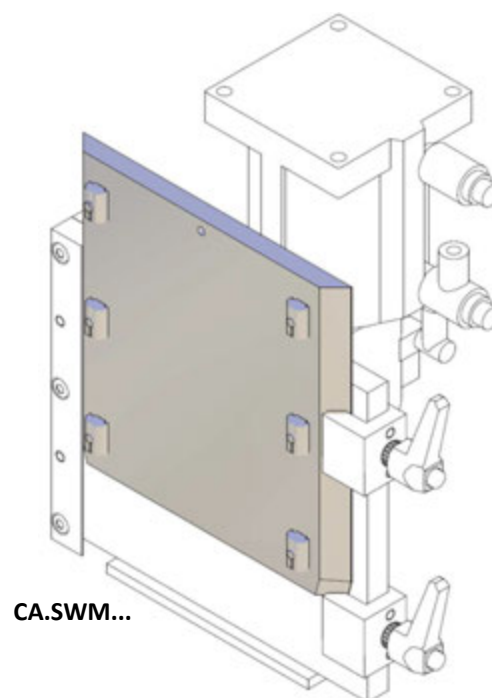
Material / Materiali

Aluminium / Alluminio

Steel /\*Acciaio

| Article no. | A   | B   | C   | D     |           | M      | Weight |
|-------------|-----|-----|-----|-------|-----------|--------|--------|
| CA.GPM0     | 60  | 60  | 8   | ...   | ALUMINIUM | ...    | 69 g   |
| CA.GPM0.X   |     |     |     | 35    |           | L      | 104 g  |
| CA.GPM1     | 100 | 100 |     | ...   |           | ...    | 201 g  |
| CA.GPM1.X   |     |     |     | 70    |           | L/X    | 242 g  |
| CA.GPM1S*   |     |     | ... | STEEL | ...       | 583 g  |        |
| CA.GPM2     | 160 | 160 | 10  | ...   | ALUMINIUM | ...    | 653 g  |
| CA.GPM2.X   |     |     |     | 120   |           | L/X/JU | 695 g  |
| CA.GPM2S*   |     |     |     | ...   | STEEL     | ...    | 1892 g |
| CA.GPM3     | 250 | 250 |     | ...   | ALUMINIUM | ...    | 1613 g |
| CA.GPM3.X   |     |     |     | 200   |           | L/X/JU | 1677 g |
| CA.GPM3S*   |     |     |     | ...   | STEEL     | ...    | 4673 g |

Application example / Esempio applicativo



Surface: Silver anodized / \*Galvanized  
Superficie: Argento anodizzato / \*Zincato

## CA.01 GPG

X/JU

. Ground Plate Spring Loaded

. Piastra ammortizzata

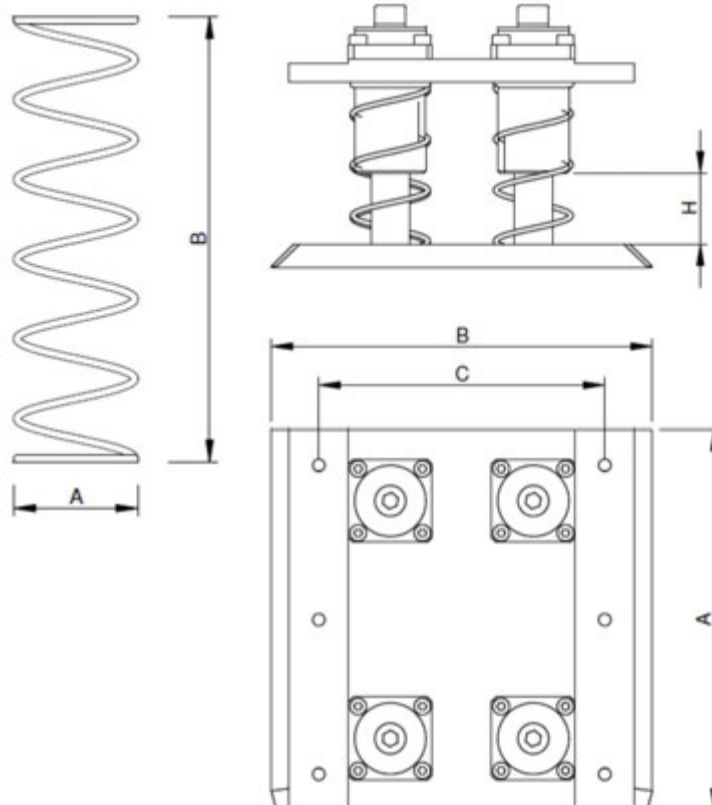
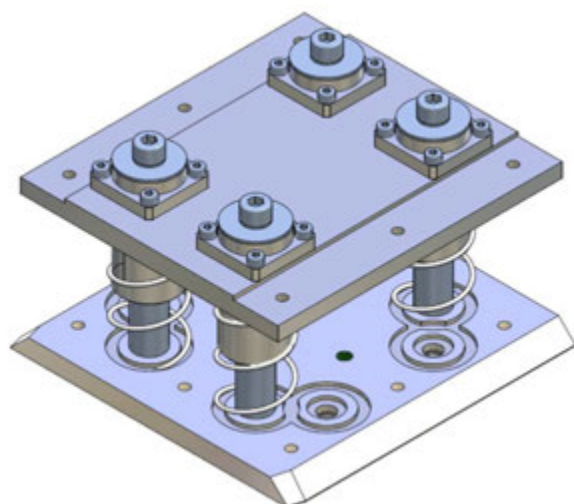


Table / Tabella

**H** = Stroke  
Corsa

**L** = Number of guides  
Numero di guide

Remarks / Osservazioni:

Material /Materiali : Aluminium / Alluminio

Surface: Silver anodized  
Superficie: Argento anodizzato

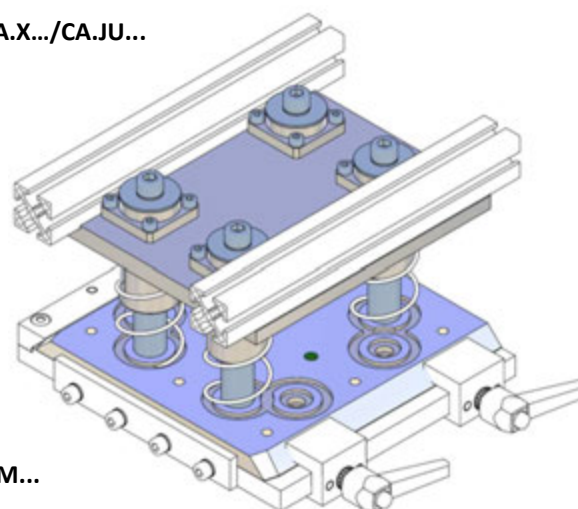
Application example / Esempio applicativo

| Article no. | A   | B   | C   | H  | F(N) | L | Weight |
|-------------|-----|-----|-----|----|------|---|--------|
| CA.GPG.1    | 100 | 100 | 70  | 22 | 36   | 2 | 486 g  |
| CA.GPG.2    | 160 | 160 | 120 | 30 | 50   | 4 | 1345 g |
| CA.GPG.3    | 250 | 250 | 200 |    |      |   | 3800 g |

**M** = Suitable for ...  
Adatto per ...

| Article no.  | A  | B   | F(N) | M                    |
|--------------|----|-----|------|----------------------|
| M.28X58.24N  | 28 | 58  | 24   | CA.GPG.1             |
| M.33X120.35N | 33 | 120 | 35   | CA.GPG.2<br>CA.GPG.3 |

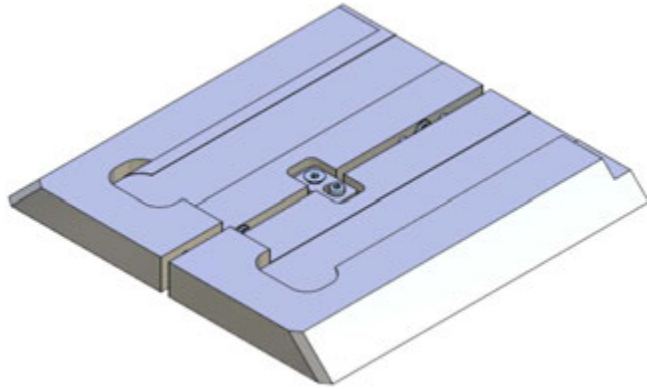
CA.X.../CA.JU...



CA.SWM...

## CA.01 GPR

### . Ground Plate Reduction



### . Riduzione Piastra

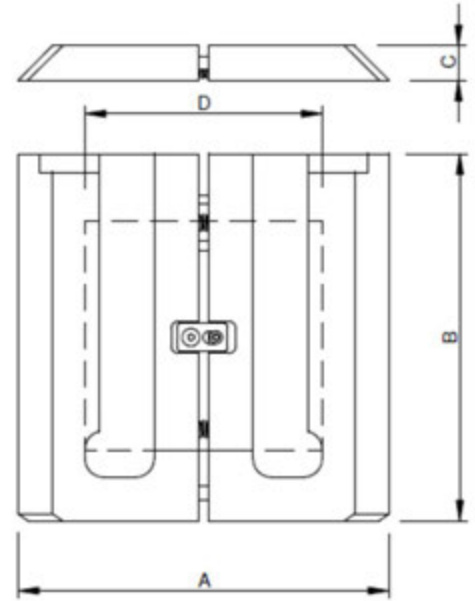


Table / Tabella

**M** = Suitable for EOAT Groundplate GPM....  
*Applicabile ad EOAT piastra GPM...*

| Article no.      | A   | B   | C  | D   | M                  | Weight |
|------------------|-----|-----|----|-----|--------------------|--------|
| <b>CA.GPR1.0</b> | 100 | 100 | 15 | 60  | CA.GPM0<br>CA.SWM1 | 263 g  |
| <b>CA.GPR2.1</b> | 160 | 160 |    | 100 | CA.GPM1<br>CA.SWM2 | 703 g  |
| <b>CA.GPR3.2</b> | 250 | 250 | 20 | 160 | CA.GPM2<br>CA.SWM3 | 2441 g |

Remarks / Osservazioni:

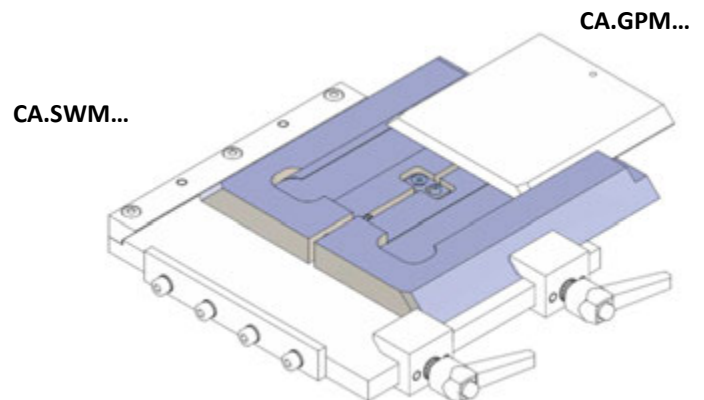
Material / Materiale: Aluminium / Alluminio

Surface: Silver anodized  
*Superficie: Argento anodizzato*

Adapter plate allows a smaller GPM size in a larger SWM  
*La riduzione piastra permette una taglia di GPM più piccola in un SWM più largo*

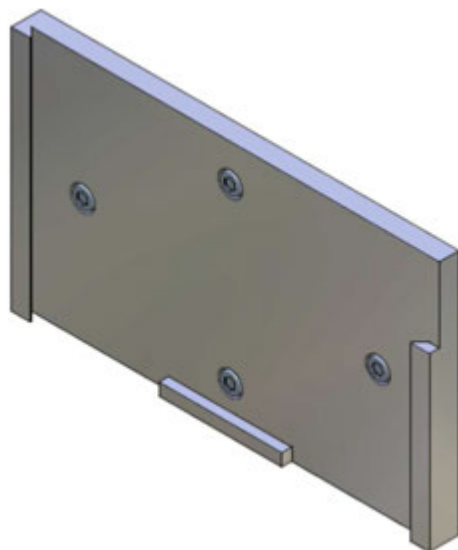
No need to convert the robots side  
*Non c'è bisogno di trasformare il lato robot*

### Application example / Esempio applicativo



## CA.01 GHV

### . Holding Fixture



### . Porta Mano

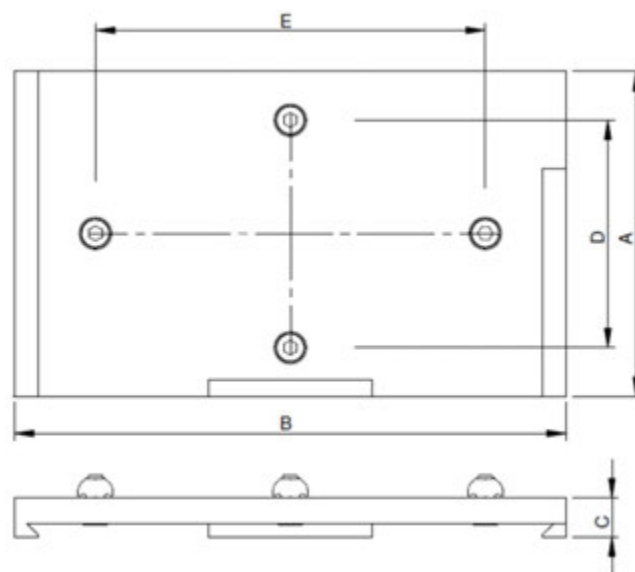


Table / Tabella

**M** = Suitable for EOAT Groundplate GPM...  
Applicabile ad EOAT piastra GPM...

| Article no. | A   | B   | C  | D  | E   | M       | Weight |
|-------------|-----|-----|----|----|-----|---------|--------|
| CA.GHV.60   | 60  | 70  | 10 | 35 | 30  | CA.GPM0 | 128 g  |
| CA.GHV.100  |     | 110 |    |    | 70  | CA.GPM1 | 182 g  |
| CA.GHV.160  | 100 | 170 | 12 | 70 | 120 | CA.GPM2 | 412 g  |
| CA.GHV.250  | 120 | 270 | 15 | 90 | 220 | CA.GPM3 | 1033 g |

The holding fixture, once fixed to the wall or frame, is used to store your EOAT when it is not in function

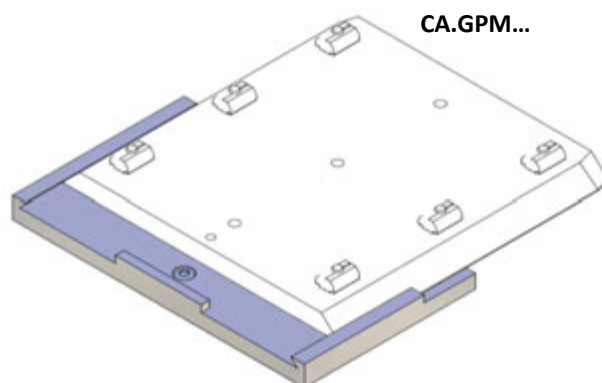
*Il porta mano può essere utilizzato con fissaggio su telaio o a muro per immagazzinare le vostre EOAT quando non sono in lavoro*

Remarks / Osservazioni:

Material / Materiali: Aluminium / Alluminio

Surface: Silver anodized  
Superficie: Argento Anodizzato

### Application example / Esempio applicativo



## CA.CUDL.90

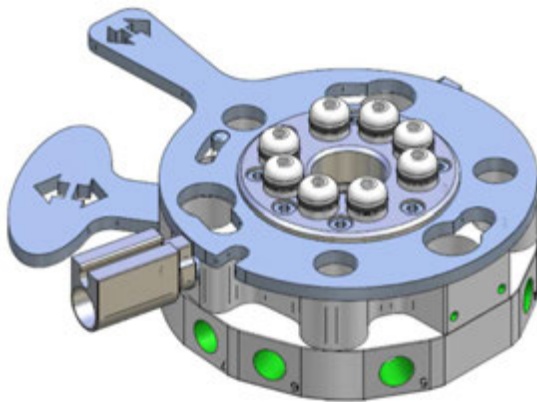
. Quick changer

. Cambia utensile

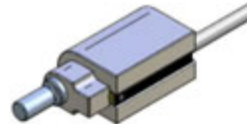
Robot side RS Lato Robot

Security lock

Blocco di sicurezza



new



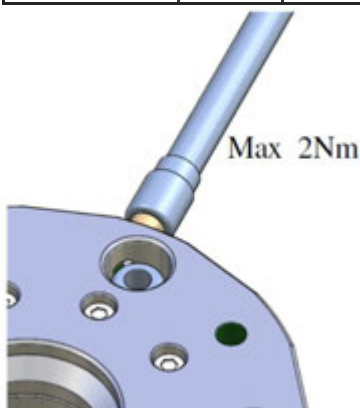
OPTIONAL

- Quick changer for easy replacement of EOAT on the robot
- Suitable for vacuum connectors as well
- Avoids mistakes in pneumatic/electrical connections
- Available with 8, 10 or 12 pneumatic interface
- 15 pins D-SUB electrical interface
- Robot side and Gripper side part are supplied separately
- CUDL Robot side can cut the air separately from the release lever

- Cambio rapido dell'attrezzatura sul robot
- Adatto anche per canalizzazioni in depressione
- Aiuta ad evitare problemi nelle connessioni pneumatiche/ elettriche
- Disponibile in 8, 10 o 12 connessioni pneumatiche
- Disponibile in 15 connessioni elettriche
- Lato mano e lato robot sono fornite separatamente
- il lato robot CUDL può tagliare l'aria separatamente dalla leva di sgancio

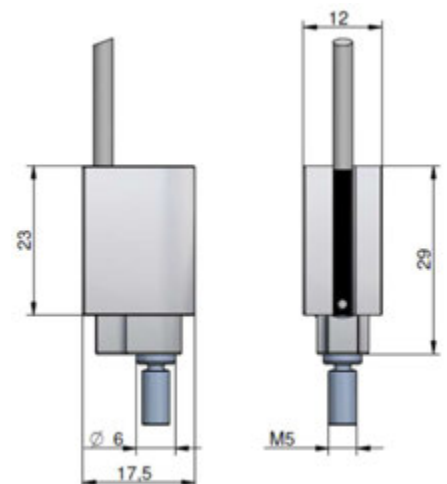
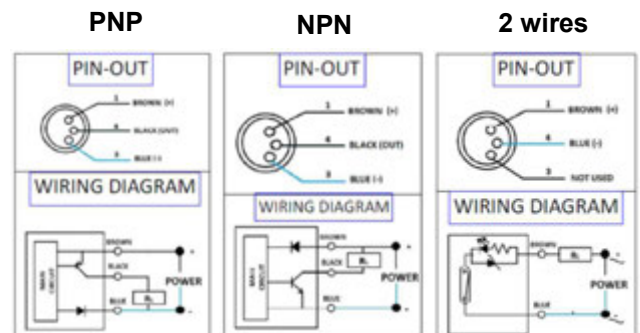
| Article no. | Sensor with cable<br>Optional                          | Weight |
|-------------|--------------------------------------------------------|--------|
| CA.CUDL.01  | 3 wires electronic PNP normally Open M8 plug connector | 18 g   |
| CA.CUDL.02  | 3 wires electronic NPN normally Open M8 plug connector |        |
| CA.CUDL.03  | 2 wires electronic                                     |        |

| Article no. |        | F      | Mt     | Mb     | Weight |
|-------------|--------|--------|--------|--------|--------|
| CA.CUDL.90  | RS/90  | 400 N  | 100 Nm | 60 Nm  | 520 g  |
| CA.CUDL.150 | RS/150 | 1000 N | 250 Nm | 100 Nm | ...    |
| CA.CUDL.160 | RS/160 |        |        |        |        |



After assembly it is possible to use the screw set in order to eliminate any play between the two sides with "zero tolerance"

Dopo l'unione è possibile coinvolgere il set viti, per eliminare ogni gioco tra i due lati con "tolleranza zero"

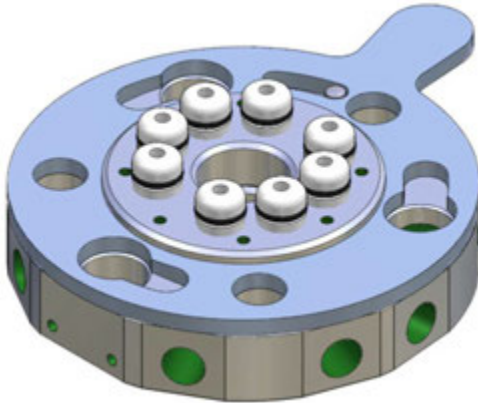


## CA.01.01/CUSL

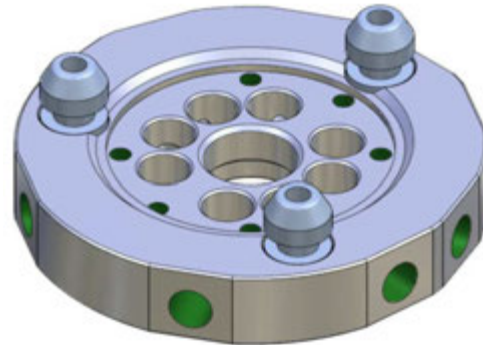
. Quick changer

. *Cambia utensile*

Robot side RS Lato Robot



Gripper side GS Lato Mano



- Quick changer for easy replacement of EOAT on the robot
- Suitable for vacuum connectors as well
- Avoids mistakes in pneumatic/electrical connections
- Available with 8, 10 or 12 pneumatic interface
- 15 pins D-SUB electrical interface
- Robot side and Gripper side part are supplied separately

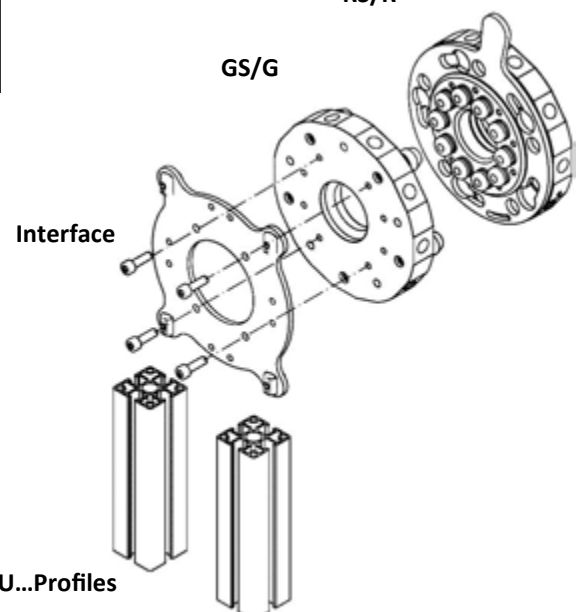
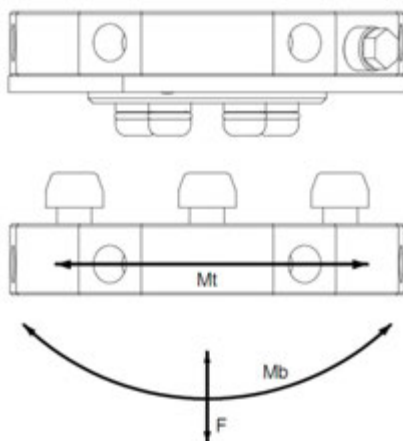
- *Cambio rapido dell'attrezzatura sul robot*
- *Adatto anche per canalizzazioni in depressione*
- *Aiuta ad evitare problemi nelle connessioni pneumatiche/elettriche*
- *Disponibile in 8, 10 o 12 connessioni pneumatiche*
- *15 connessioni elettriche*
- *Lato mano e lato robot sono fornite separatamente*

| Article no.              | Model  | F      | Mt     | Mb     | Weight |
|--------------------------|--------|--------|--------|--------|--------|
| CA.01.01.001             | RS/90  | 400 N  | 100 Nm | 60 Nm  | 317 g  |
| CA.01.01.002             | GS/90  |        |        |        | 225 g  |
| CA.01.01.003             | RS/150 | 1000 N | 250 Nm | 100 Nm | 1156 g |
| CA.01.01.004             | GS/150 |        |        |        | 842 g  |
| CA.01.01.013             | RS/160 |        |        |        | 1218 g |
| CA.01.01.014             | GS/160 |        |        |        | 922 g  |
| <b>new</b> CA.CUSL.200.R | RS/200 | 2000 N | 600 Nm | 300 Nm | 2496 g |
| <b>new</b> CA.CUSL.200.G | GS/200 |        |        |        | 1757 g |

Application example / Esempio applicativo

RS/R

GS/G

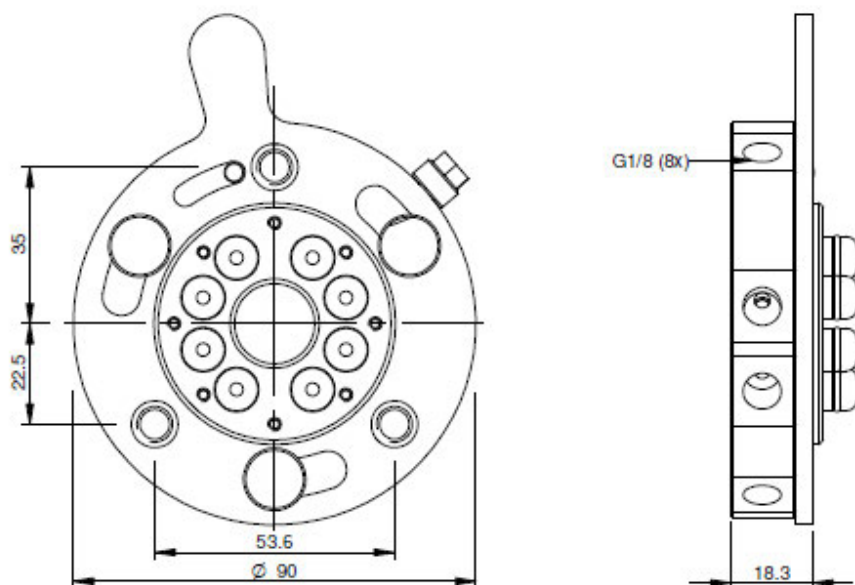
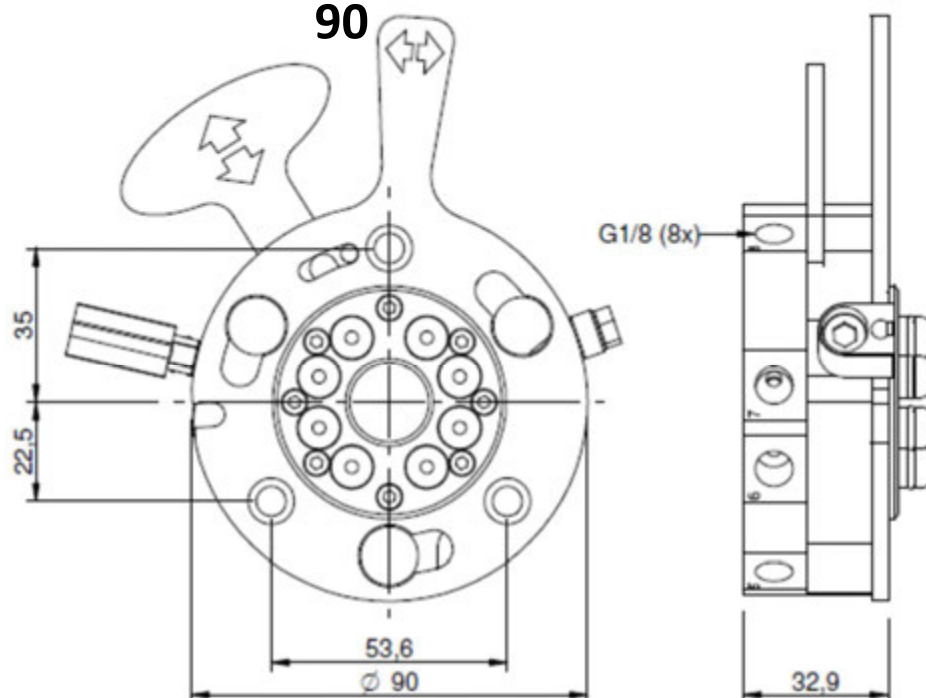


# CA.CUDL.90

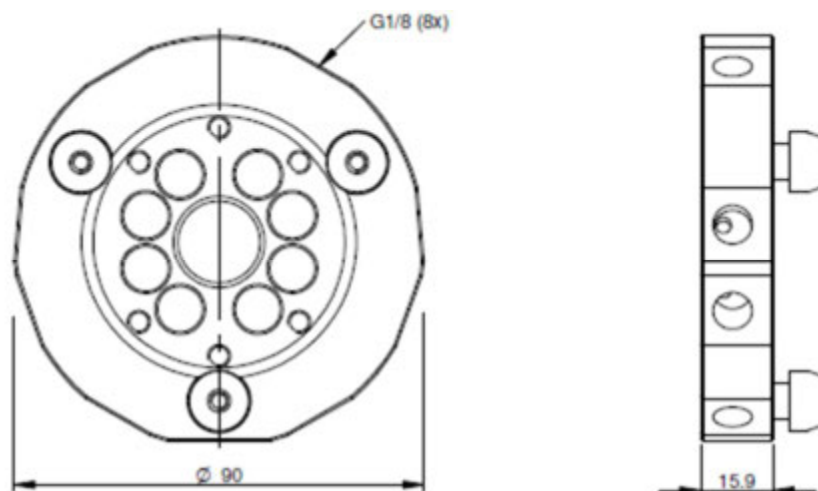
. Dimensions

90

. Dimensioni



CA.01.01

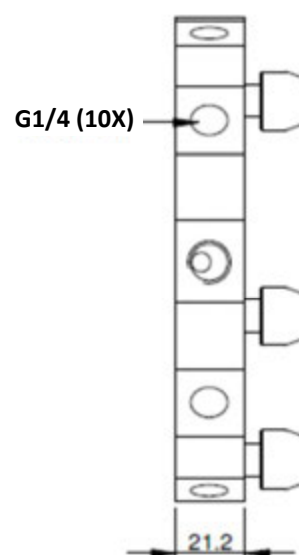
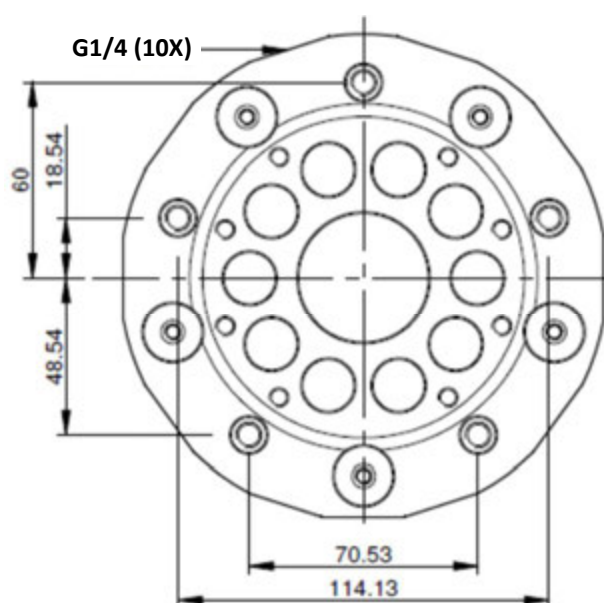
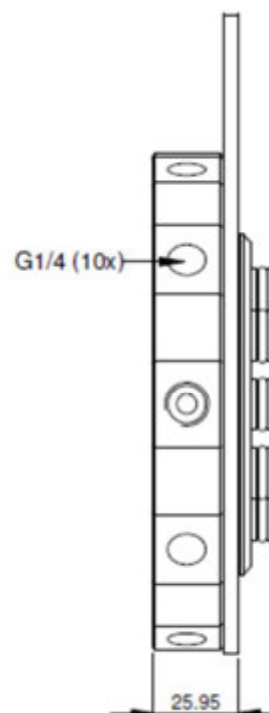
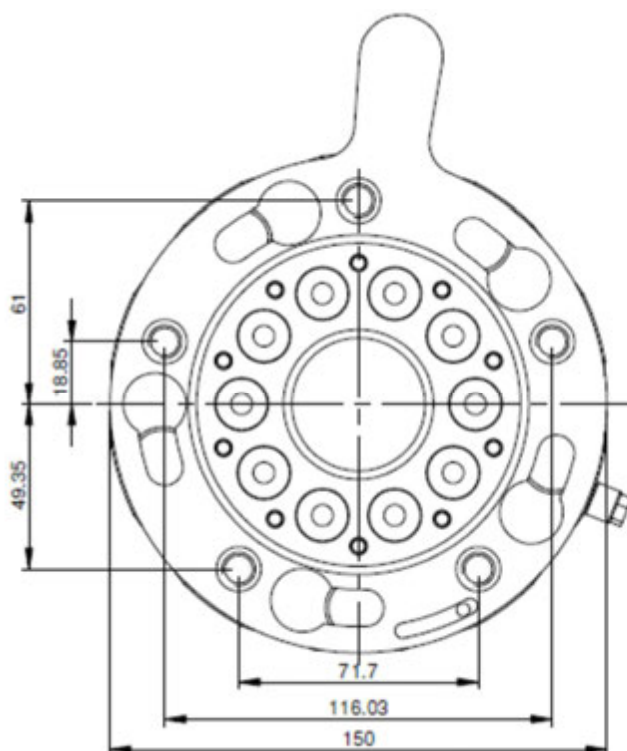


## CA.01.01

. Dimensions

# 150

. Dimensioni

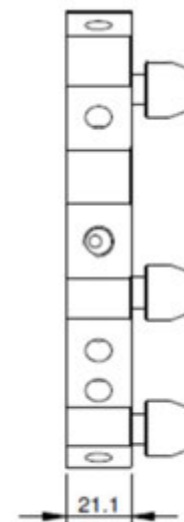
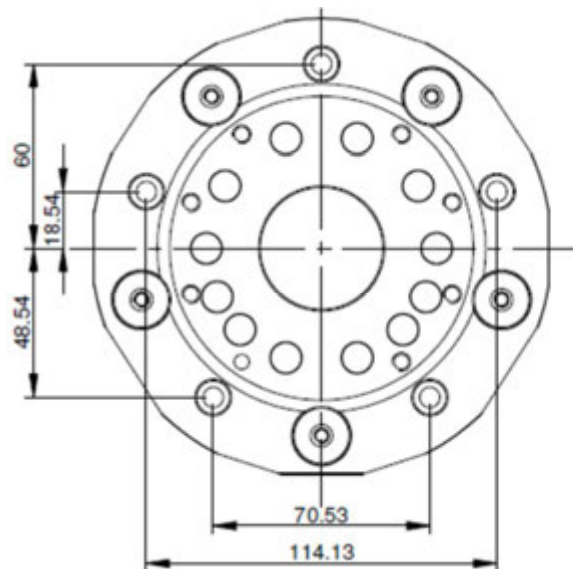
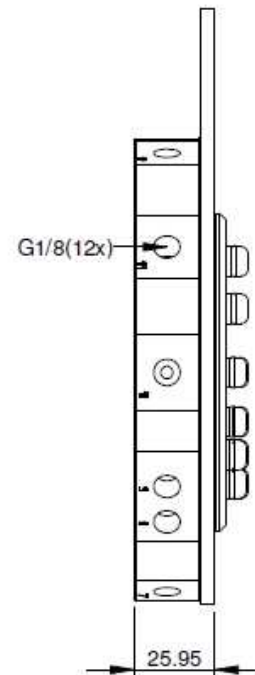
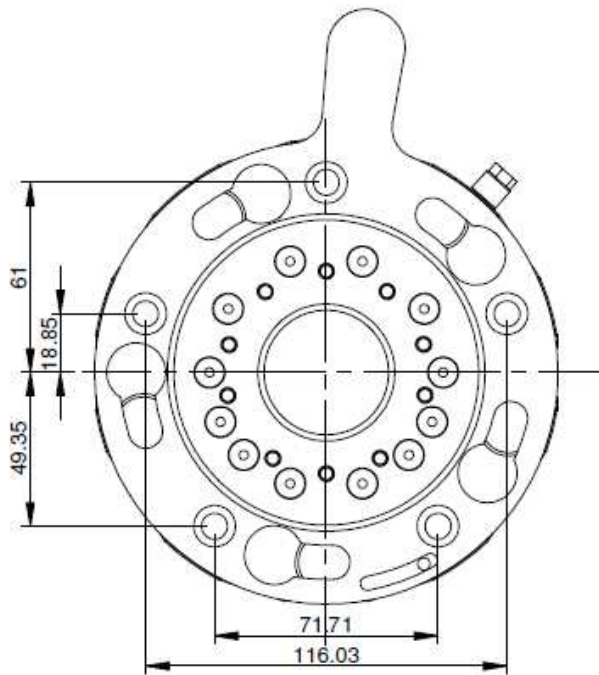


## CA.01.01

. Dimensions

160

. Dimensioni



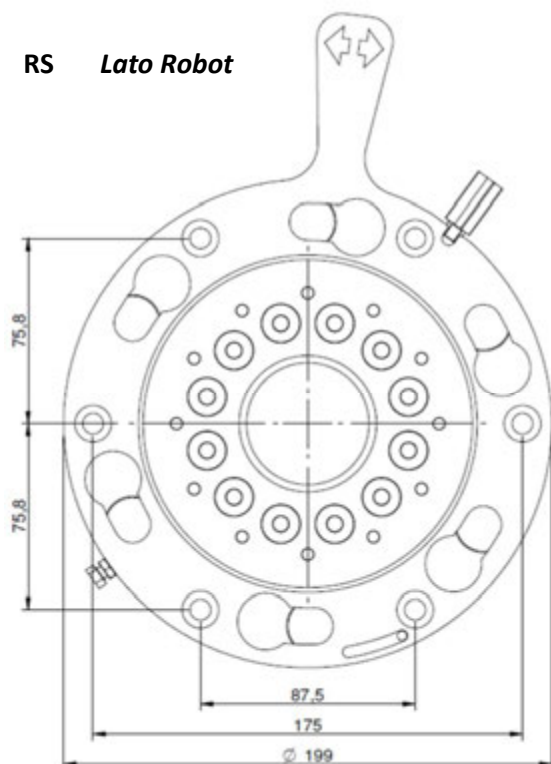
## CA.CUSL.200.R/G

. Dimensions

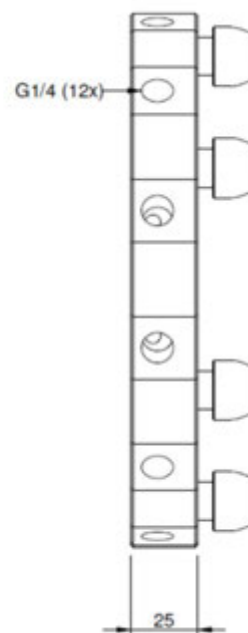
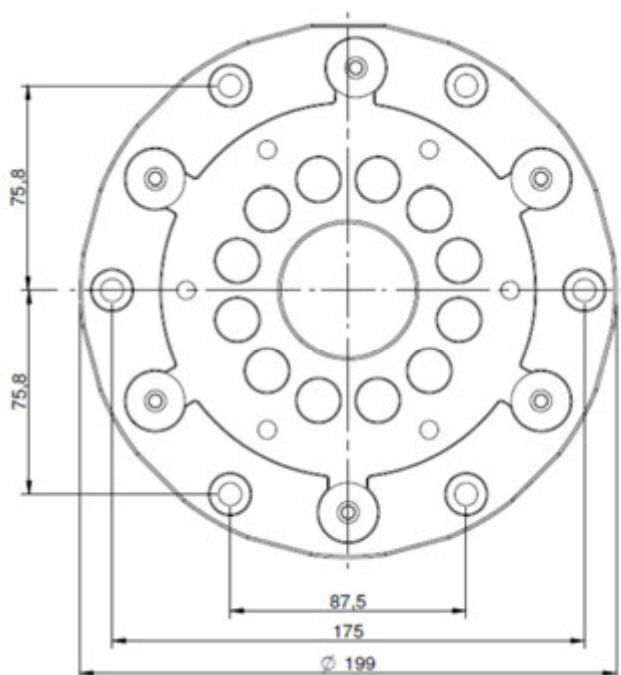
**200**

. Dimensioni

Robot side RS Lato Robot



Gripper side GS Lato Mano



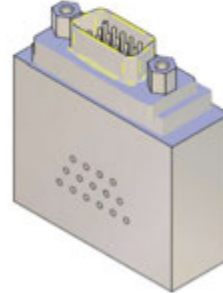
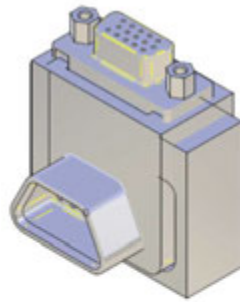
## CA.01.01

## . Electrical connector

## . Connettore elettrico

Robot side

Lado Robot



Gripper Side

Lato Mano

- 15 pins Ø1 mm
- I/O quick change by VGA connector
- Self-cleaning sliding contacts
- The two parts are supplied separately:
  - CA.01.01.008 robot side
  - CA.01.01.009 gripper side

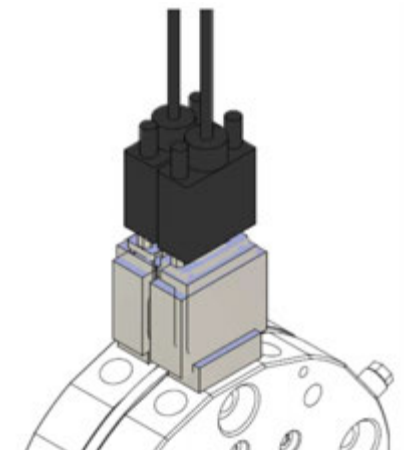
- 15 connessioni elettriche Ø1 mm
- Attacco rapido I/O attraverso connettore VGA
- Connessione a sfregamento autopulente
- Le due parti sono fornite separatamente:
  - CA.01.01.008 lato robot
  - CA.01.01.009 lato mano

Table / Tabella

**M** = Suitable for EOAT Groundplate CA.01.01...  
Applicabile ad EOAT cambio utensile CA.01.01...

| Article no.         |              |                                                                             |
|---------------------|--------------|-----------------------------------------------------------------------------|
| <b>CA.01.01.008</b> | Robot side   | CA.01.01.001<br>CA.01.01.003<br>CA.01.01.013<br>CA.CUDL...<br>CA.CUSL.200.R |
| <b>CA.01.01.009</b> | Gripper side | CA.01.01.002<br>CA.01.01.004<br>CA.01.01.014<br>CA.CUSL.200.G               |

| I/O connection type<br>I/O tipo di connessione                   | 15 pins D-SUB - High density elbow type - VGA type<br>15 pin D-SUB - Connettore alta densità ad angolo retto - tipo VGA |
|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Maximum contact resistance<br>Massima resistenza del contatto    | 30 mW @ 100 mA DC                                                                                                       |
| Minimum insulation resistance<br>Minima resistenza di isolamento | 500 MW @ 500 V DC                                                                                                       |
| Working Current<br>Corrente d'Esercizio                          | 3 A                                                                                                                     |
| Break down voltage<br>Tensione di Scarica                        | 1000 V AC (1 minute)                                                                                                    |
| Temperature range<br>Temperatura d'Esercizio                     | -55°C ÷ +105°C                                                                                                          |

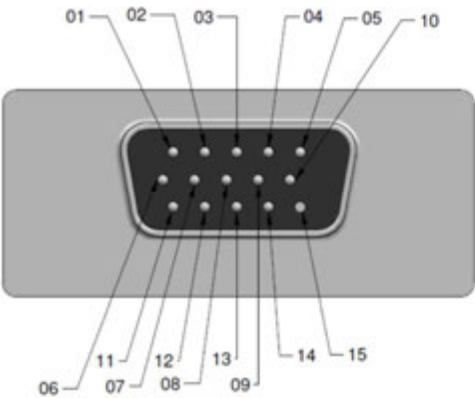


CA.01.01

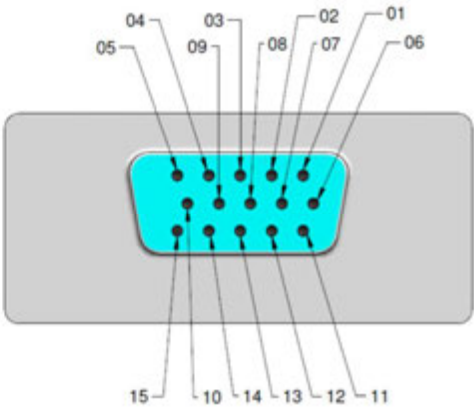
. Cable

. Cavo

The male and female cables are supplied separately.  
*Il cavo femmina e il cavo maschio sono forniti separatamente.*



Male cable



Female cable

- 15 pins Ø1 mm
- I/O quick change by VGA connector
- Self-cleaning sliding contacts
- The two parts are supplied separately

- 15 connessioni elettriche Ø1 mm
- Attacco rapido I/O attraverso connettore VGA
- Connessione a sfregamento autopulente
- Le due parti sono fornite separatamente

| Article no.  |              |              |
|--------------|--------------|--------------|
| CA.01.01.011 | Female cable | Robot side   |
| CA.01.01.012 | Male cable   | Gripper side |

|    | Colour      |
|----|-------------|
| 01 | BLUE        |
| 02 | PURPLE      |
| 03 | ORANGE      |
| 04 | PINK        |
| 05 | TURQUOISE   |
| 06 | GREY        |
| 07 | YELLOW      |
| 08 | GREEN       |
| 09 | RED         |
| 10 | BROWN       |
| 11 | BLACK       |
| 12 | WHITE       |
| 13 | YELLOW/RED  |
| 14 | GREEN/BROWN |
| 15 | RED / BLUE  |

CA.01.01.GS

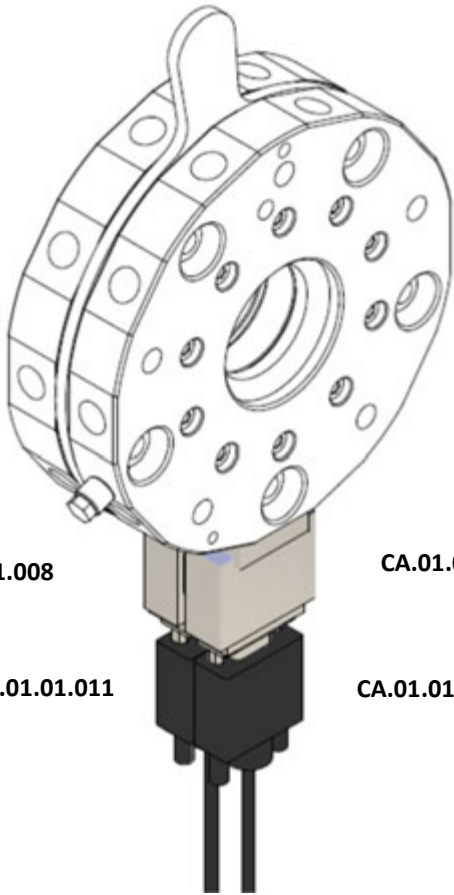
CA.01.01.RS

CA.01.01.008

CA.01.01.009

CA.01.01.011

CA.01.01.012



## CA.01.01

. Holding Fixture

. Porta Mano

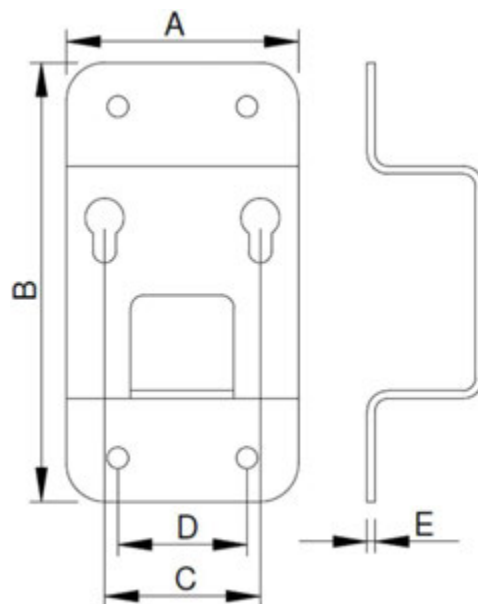
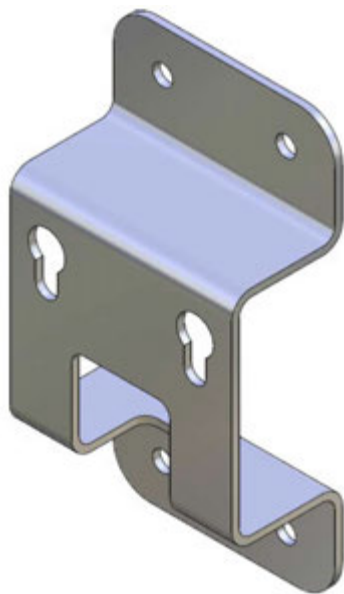


Table / Tabella

**M** = Suitable for ...  
Applicabile a ...

Remarks / Osservazioni:

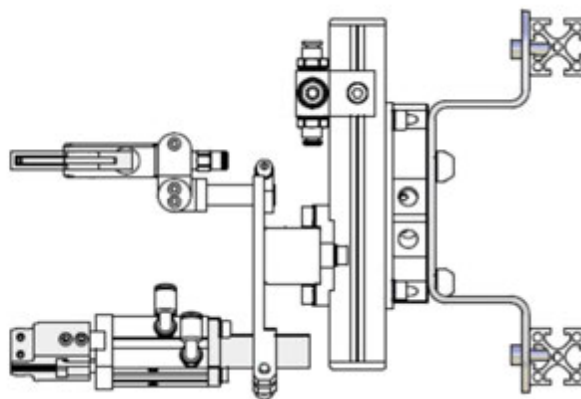
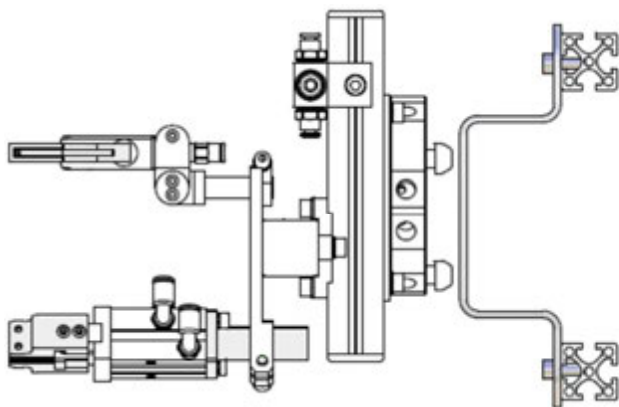
Material : Stainless Steel  
Materiale : Acciaio Inox

The holding fixture, once fixed to the wall or frame, is used to store your EOAT when it is not in function

| Article no.                                                                                      | A   | B   | C     | D   | E | M                            | Weight |
|--------------------------------------------------------------------------------------------------|-----|-----|-------|-----|---|------------------------------|--------|
| CA.01.01.015                                                                                     | 90  | 170 | 60.3  | 50  | 3 | CA.01.01.002<br>CA.CUDL.90   | 440 g  |
| CA.01.01.016                                                                                     | 150 | 230 | 71.7  | 90  |   | CA.01.01.004<br>CA.01.01.014 | 926 g  |
|  CA.01.01.017 | 200 | 270 | 142.8 | 160 |   | CA.CUSL.200.G                | 1188 g |

Il porta mano può essere utilizzato con fissaggio su telaio o a muro per immagazzinare le vostre EOAT quando non sono in lavoro

### Application examples / Esempi applicativi



CA.01.01

. Holding Fixture

. Porta Mano

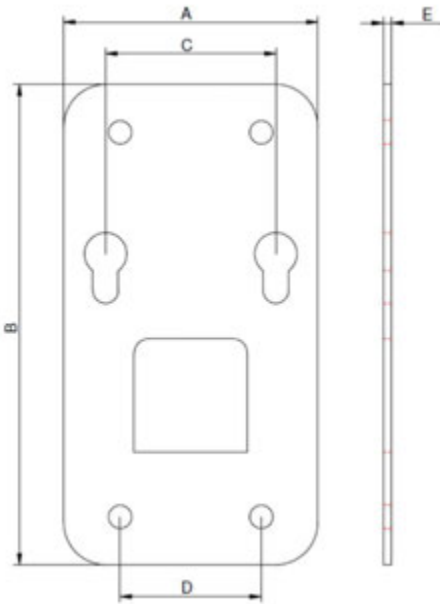
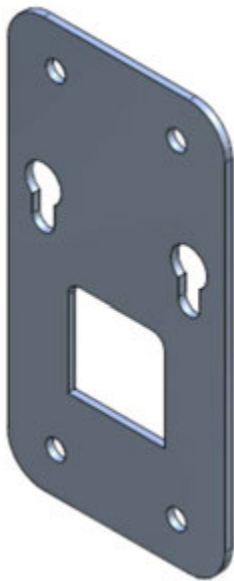
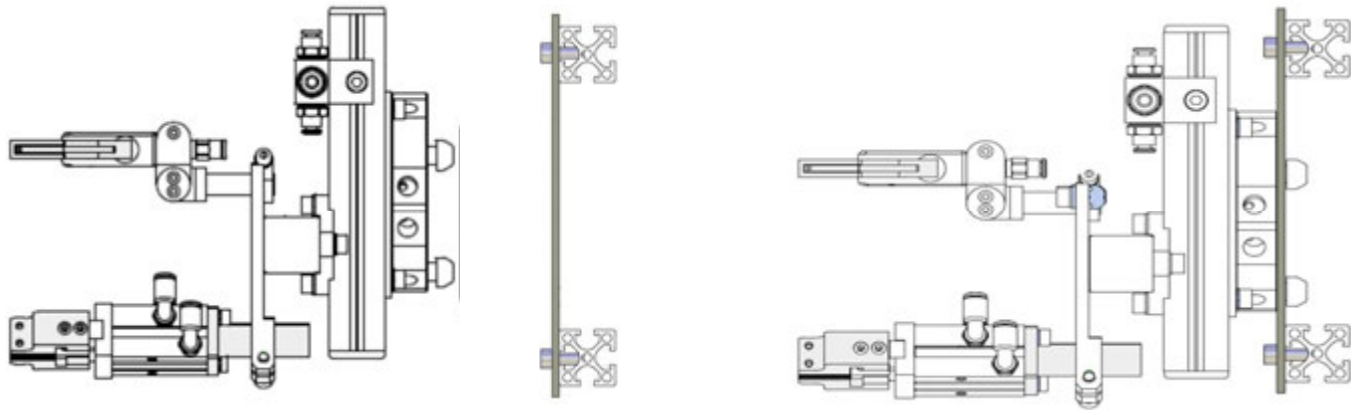


Table / Tabella  
M = Suitable for ...  
Applicabile a ...

Remarks / Osservazioni:  
Material : Stainless Steel  
Materiale : Acciaio Inox

| Article no.    | A   | M                            | B   | C   | D     | E | Weight |
|----------------|-----|------------------------------|-----|-----|-------|---|--------|
| CA.01.01.015.F | 90  | CA.01.01.002                 | 170 | 60  | 50    | 3 | 307 g  |
| CA.01.01.016.F | 150 | CA.01.01.004<br>CA.01.01.014 | 230 | 71  | 90    |   | 720 g  |
| CA.01.01.017.F | 200 | CA.CUSL.200G                 | 300 | 220 | 142.8 |   | 1398 g |

Application example / Esempio applicativo



## CA.01.01

L/X/JU

. Interface for CA.01.01

. Interfaccia per CA.01.01

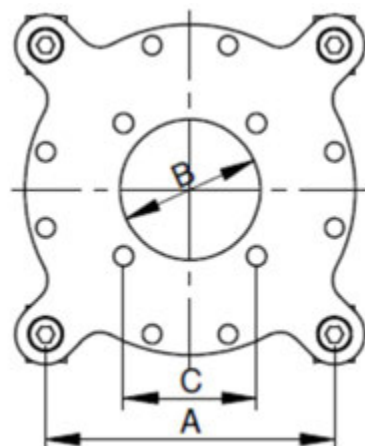
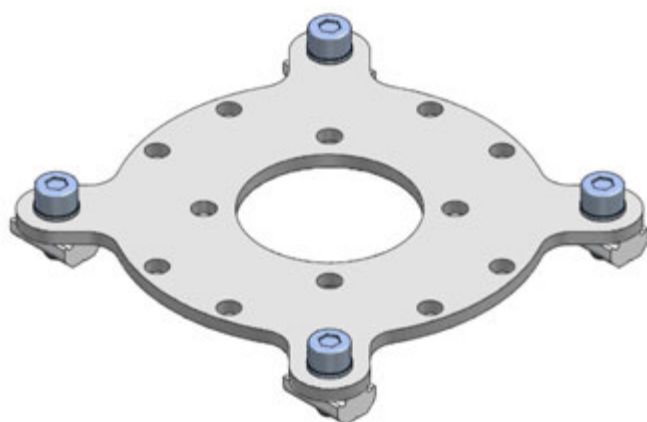


Table / Tabella  
M = Suitable for ...  
Applicabile per...

Remarks / Osservazioni:

Material : Steel Galvanized  
Materiale : Acciaio Zincato

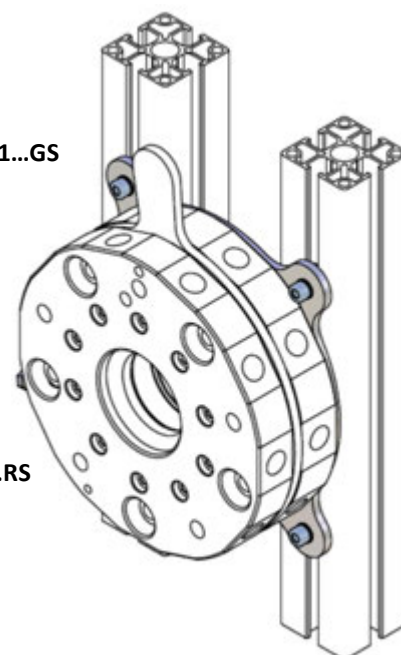
| Article no.              | A   | B   | C     | D | M                            | Weight |
|--------------------------|-----|-----|-------|---|------------------------------|--------|
| CA.01.01.006             | 76  | 37  | 35    | 3 | CA.01.01.002<br>CA.CUDL.90   | 170 g  |
| CA.01.01.007             | 110 | 70  | 52    | 4 | CA.01.01.004<br>CA.01.01.014 | 497 g  |
| <b>new</b> CA.CUSL.200.I | 192 | 140 | 151.6 | 8 | CA.CUSL.200.G                | 1850 g |

CA.L.../CA.X.../CA.JU...

CA.01.01...GS

Application example / Esempio applicativo

CA.01.01...RS





## CA.01.02 (FP 60-90-120)

RS

. Quick changer (robot side)

. Cambia Utensile (lato robot)

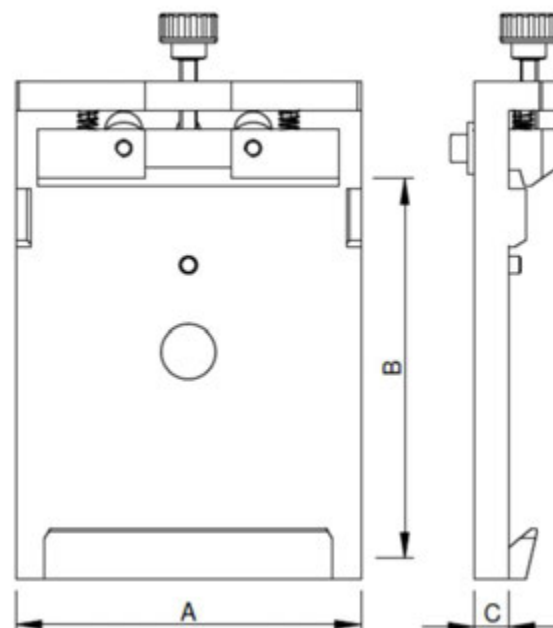
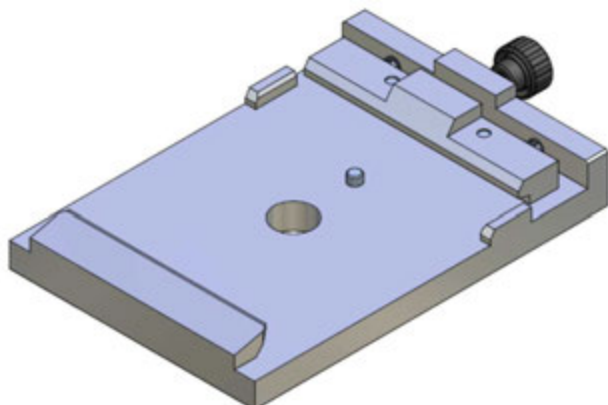


Table / Tabella

**H** = Handling weight as approx value  
*Peso approssimativo sostenuto in movimento*

**M** = Suitable for EOAT Groundplate CA.01.02...  
*Applicabile a piastra CA.01.02...*

Remarks / Osservazioni :

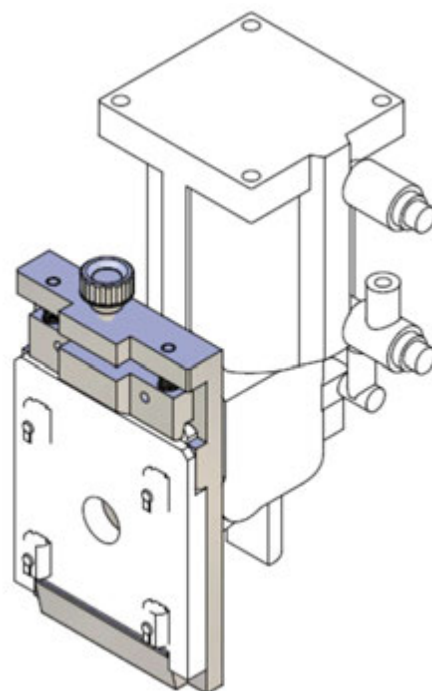
Material / Materiale: Aluminium / Alluminio

Surface: Silver anodized  
*Superficie: Argento anodizzato*

| Article no.   | A   | B   | C  | H     | M             | Weight |
|---------------|-----|-----|----|-------|---------------|--------|
| CA.01.02.001  | 60  | 72  | 8  | 5 kg  | CA.01.02.002  | 237 g  |
| CA.01.02.003  | 120 | 130 | 12 | 20 kg | CA.01.02.004  | 727 g  |
| CA.01.02.003B |     |     |    |       | CA.01.02.004A |        |
| CA.01.02.007  | 90  | 108 | 8  | 10 kg | CA.01.02.008  | 390 g  |

Application example / Esempio applicativo

CA.01... GS



## CA.01.02 (FP 60-90-120)

GS

. Quick changer (gripper side)

. Cambia Utensile (lato mano)

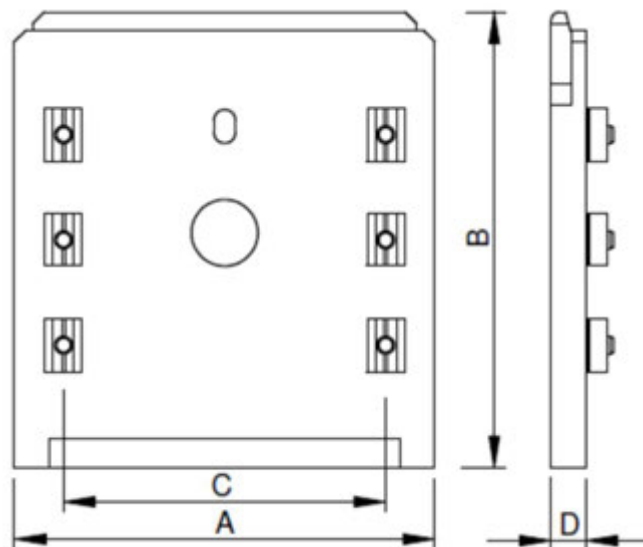
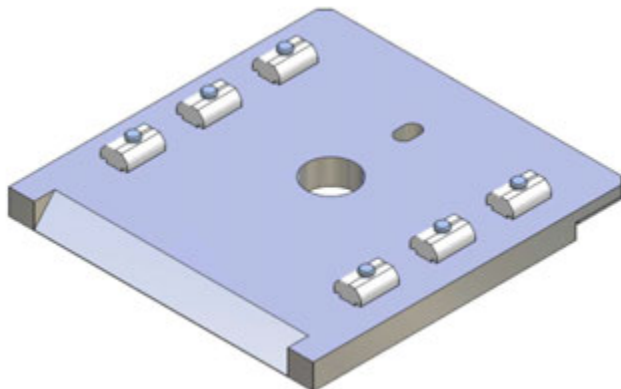


Table / Tabella

**M** = Suitable for EOAT Groundplate CA.01.02...  
*Applicabile a piastra CA.01.02...*

**M1** = Suitable for Profile  
*Adatto per Profili*

Remarks / Osservazioni:

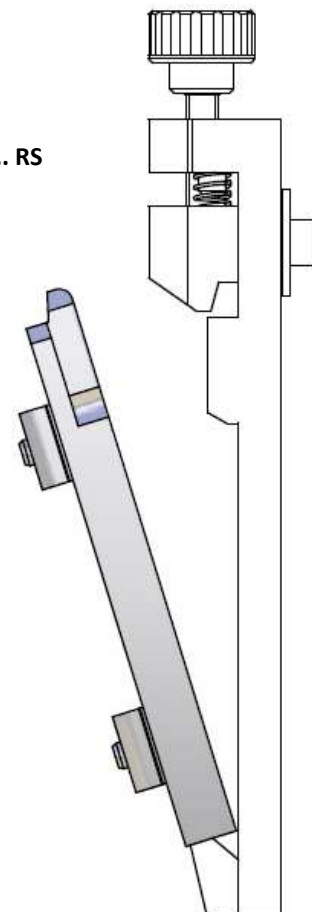
Material / Materiale: Aluminium / Alluminio

Surface: Silver anodized  
*Superficie: Argento anodizzato*

CA.01... RS

| Article no.     | A   | B   | C  | D  | M             | M1     | Weight |
|-----------------|-----|-----|----|----|---------------|--------|--------|
| CA.01.02.002    | 60  | 72  | 20 | 10 | CA.01.02.001  | ...    | 93 g   |
| CA.01.02.002.X  |     |     |    |    |               | L/X    | 130 g  |
| CA.01.02.004    | 120 | 130 | 92 |    | CA.01.02.003  | ...    | 377 g  |
| CA.01.02.004.X  |     |     |    |    |               | L/X/JU | 432 g  |
| CA.01.02.004A   |     |     |    |    | CA.01.02.003B | ...    | 371 g  |
| CA.01.02.004A.X |     |     |    |    |               | L/X/JU | 426 g  |
| CA.01.02.008    | 90  | 108 | 62 |    | CA.01.02.007  | ...    | 225 g  |
| CA.01.02.008.X  |     |     |    |    |               | L/X    | 262 g  |

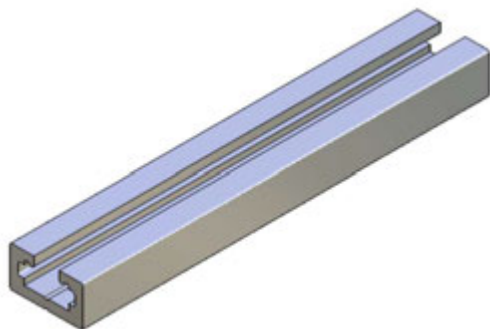
Application example / Esempio applicativo



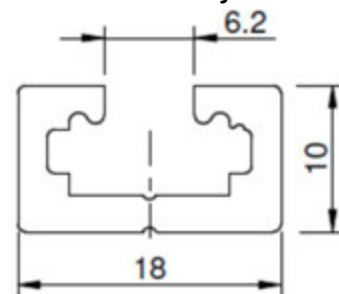
## CA.02 L

L

## . Profile L.1810



## . Profilo L.1810



Surface: Silver anodized  
Superficie: Argento anodizzato

Table / Tabella  
L = Length  
Lunghezza

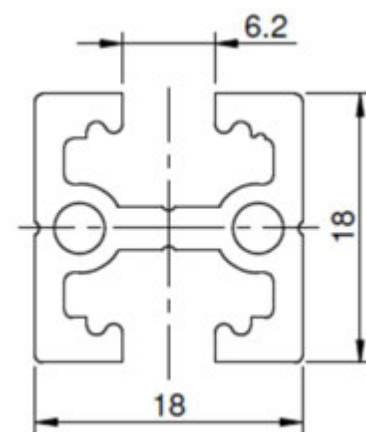
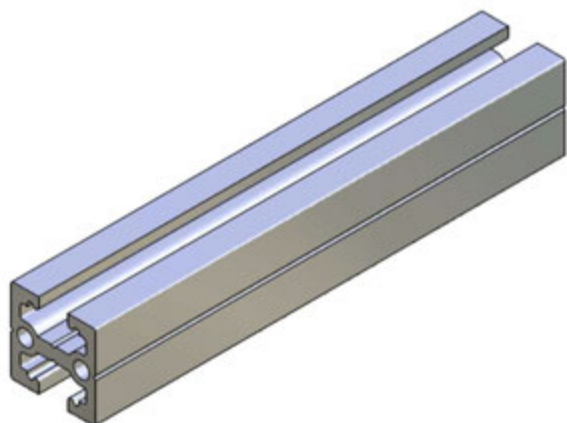
M = T-Nut  
Tassello

M1 = Caps  
Calotta

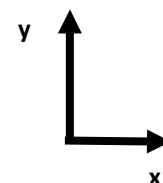
| Article no.    | $I_x$<br>[mm <sup>4</sup> ] | $I_y$<br>[mm <sup>4</sup> ] | L   | M      | M1            | Weight |
|----------------|-----------------------------|-----------------------------|-----|--------|---------------|--------|
| CA.L.1810.1000 | 1060                        | 3820                        | 1 m | CA.GWP | CA.ADK.L.1810 | 267 g  |
| CA.L.1810.2000 |                             |                             | 2 m |        |               | 534 g  |

## . Profile L.1818

## . Profilo L.1818



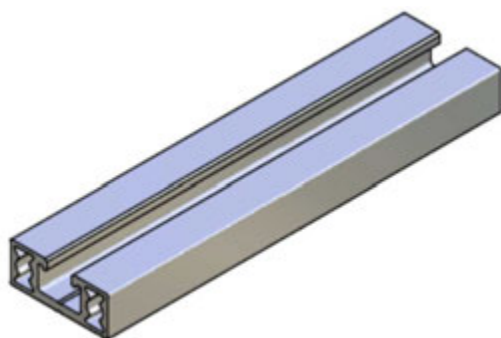
| Article no.    | $I_x$<br>[mm <sup>4</sup> ] | $I_y$<br>[mm <sup>4</sup> ] | L   | M      | M1            | Weight |
|----------------|-----------------------------|-----------------------------|-----|--------|---------------|--------|
| CA.L.1818.1000 | 4360                        | 6230                        | 1 m | CA.GWP | CA.ADK.L.1818 | 410 g  |
| CA.L.1818.2000 |                             |                             | 2 m |        |               | 820 g  |



## CA.02 X

**X**

### . Profile X.2510



Surface: Silver anodized  
Superficie: Argento anodizzato

### . Profilo X.2510

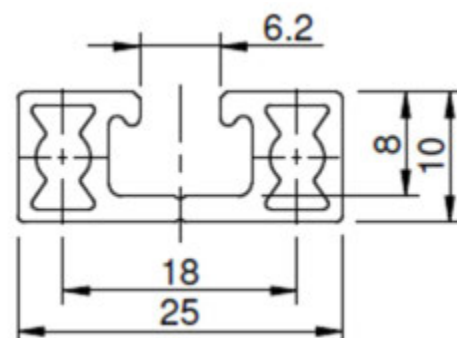


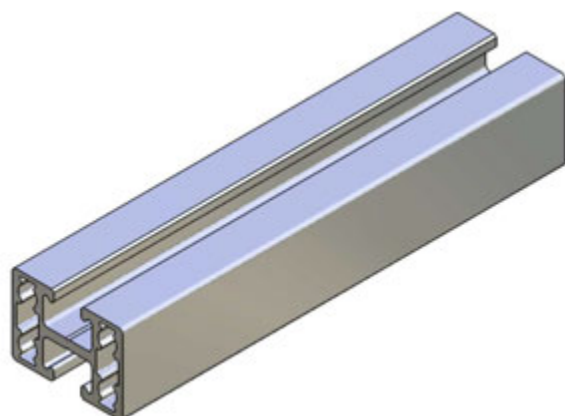
Table / Tabella  
L = Length  
Lunghezza

**M** = T-Nut  
Tassello

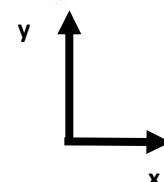
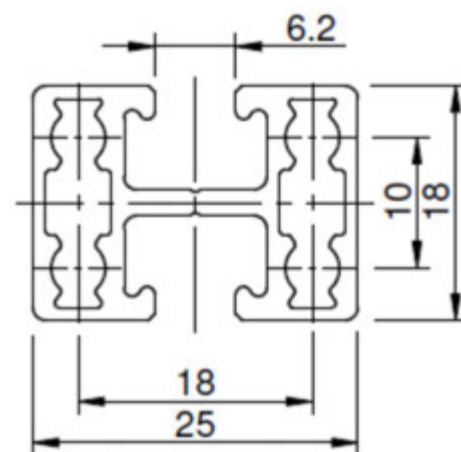
**M1** = Caps  
Calotta

| Article no.    | Ix [mm <sup>4</sup> ] | Iy [mm <sup>4</sup> ] | L   | M      | M1            | Weight |
|----------------|-----------------------|-----------------------|-----|--------|---------------|--------|
| CA.X.2510.1000 | 1300                  | 7280                  | 1 m | CA.GWP | CA.ADK.X.2510 | 290 g  |
| CA.X.2510.2000 |                       |                       | 2 m |        |               | 580 g  |

### . Profile X.2518



### . Profilo X.2518

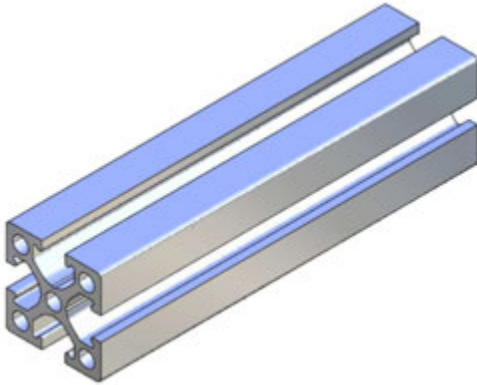


| Article no.    | Ix [mm <sup>4</sup> ] | Iy [mm <sup>4</sup> ] | L   | M      | M1            | Weight |
|----------------|-----------------------|-----------------------|-----|--------|---------------|--------|
| CA.X.2518.1000 | 5600                  | 11500                 | 1 m | CA.GWP | CA.ADK.X.2518 | 400 g  |
| CA.X.2518.2000 |                       |                       | 2 m |        |               | 800 g  |

## CA.02 X

**X**

### . Profile X.2525



Surface: Silver anodized  
Superficie: Argento anodizzato

### . Profilo X.2525

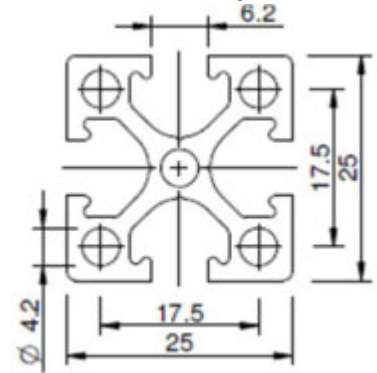


Table / Tabella  
L = Length  
Lunghezza

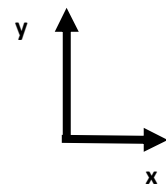
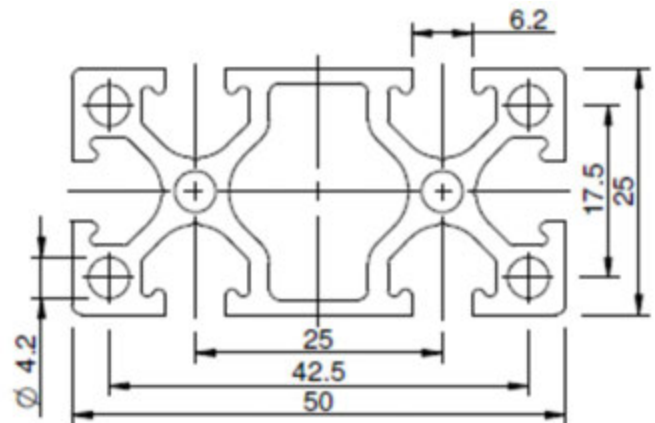
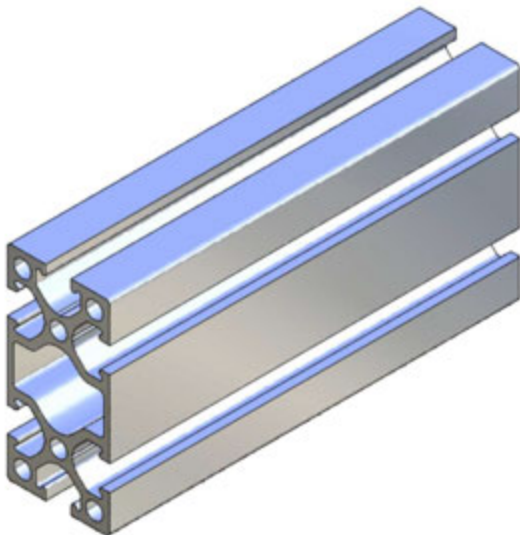
M = T-Nut  
Tassello

M1 = Caps  
Calotta

| Article no.    | lx<br>[mm <sup>4</sup> ] | ly<br>[mm <sup>4</sup> ] | L   | M      | M1            | Weight |
|----------------|--------------------------|--------------------------|-----|--------|---------------|--------|
| CA.X.2525.1000 | 16260                    | 16260                    | 1 m | CA.GWP | CA.ADK.X.2525 | 683 g  |
| CA.X.2525.2000 |                          |                          | 2 m |        |               | 1366 g |

### . Profile X.5025

### . Profilo X.5025

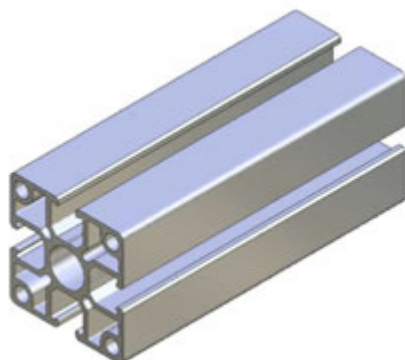


| Article no.    | lx<br>[mm <sup>4</sup> ] | ly<br>[mm <sup>4</sup> ] | L   | M      | M1            | Weight |
|----------------|--------------------------|--------------------------|-----|--------|---------------|--------|
| CA.X.5025.1000 | 28800                    | 111100                   | 1 m | CA.GWP | CA.ADK.X.5025 | 1050 g |
| CA.X.5025.2000 |                          |                          | 2 m |        |               | 2100 g |

## CA.02 JU

JU

### . Profile JU.4040



Surface: Silver anodized  
Superficie: Argento anodizzato

### . Profilo JU.4040

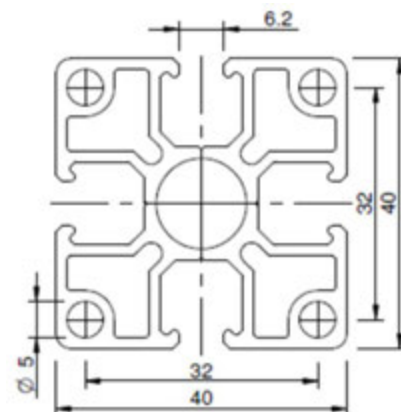


Table / Tabella  
L = Length  
Lunghezza

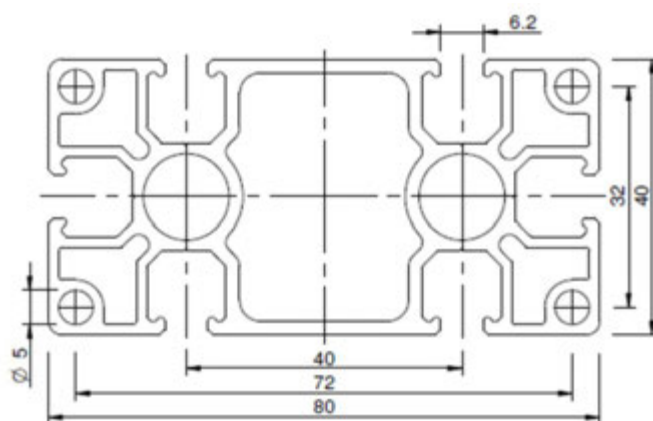
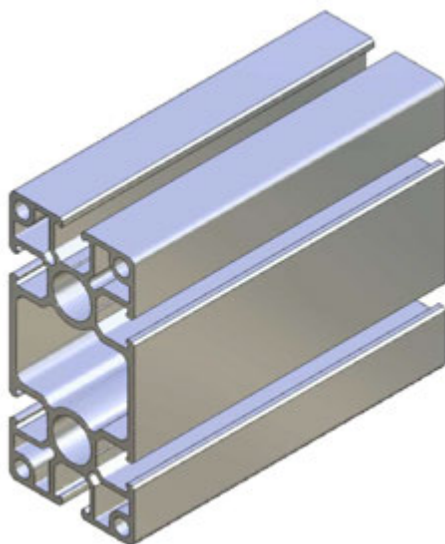
M = T-Nut  
Tassello

M1 = Caps  
Calotta

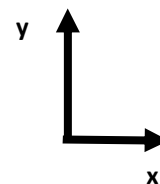
| Article no.     | Ix [mm <sup>4</sup> ] | Iy [mm <sup>4</sup> ] | L   | M      | M1             | Weight |
|-----------------|-----------------------|-----------------------|-----|--------|----------------|--------|
| CA.JU.4040.1000 | 86200                 | 86200                 | 1 m | CA.GWP | CA.ADK.JU.4040 | 1408 g |
| CA.JU.4040.2000 |                       |                       | 2 m |        |                | 2816 g |

### . Profile JU.8040

### . Profilo JU.8040



| Article no.     | Ix [mm <sup>4</sup> ] | Iy [mm <sup>4</sup> ] | L   | M      | M1             | Weight |
|-----------------|-----------------------|-----------------------|-----|--------|----------------|--------|
| CA.JU.8040.1000 | 155400                | 587050                | 1 m | CA.GWP | CA.ADK.JU.8040 | 2303 g |
| CA.JU.8040.2000 |                       |                       | 2 m |        |                | 4606 g |



## CA.02 ADK

. Profile end cap

L/X/JU

. Tappo Profilo

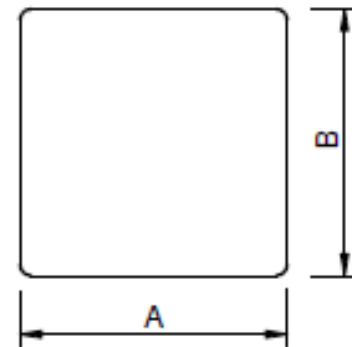
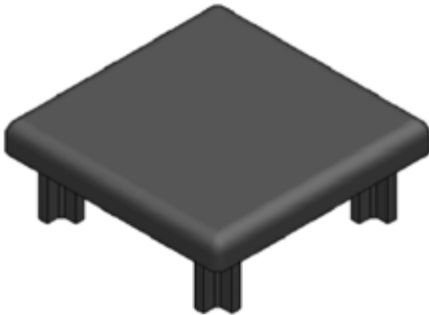


Table / Tabella

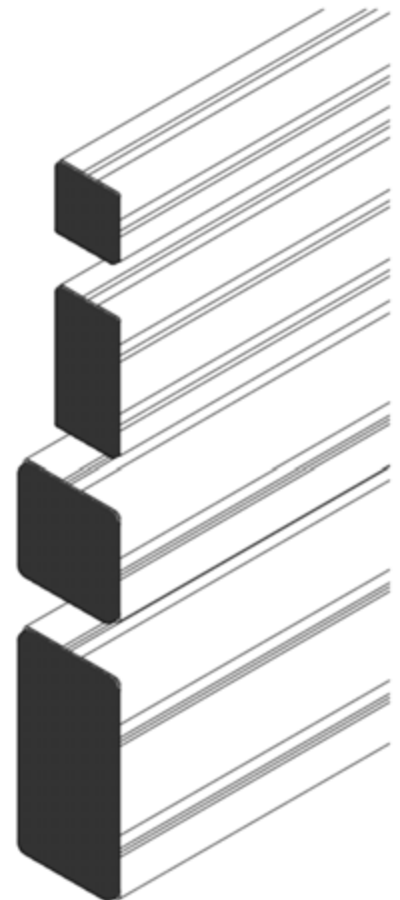
M = Suitable for Profiles  
Applicabile ai profili

Remarks / Osservazioni:

Shipping unit: VE = 10 pieces  
Unità per ogni invio VE = 10 pezzi

Material / Materiale: PP / Polipropilene

| Article no.    | A  | B  | M             | Weight    |
|----------------|----|----|---------------|-----------|
| CA.ADK.L.1810  | 18 | 10 | CA.L.1810...  | 2 g x 10  |
| CA.ADK.L.1818  |    | 18 | CA.L.1818...  |           |
| CA.ADK.X.2510  | 25 | 10 | CA.X.2510...  |           |
| CA.ADK.X.2518  |    | 18 | CA.X.2518...  |           |
| CA.ADK.X.2525  |    | 25 | CA.X.2525...  | 3 g x 10  |
| CA.ADK.X.5025  | 50 |    | CA.X.5025...  | 4 g x 10  |
| CA.ADK.JU.4040 | 40 | 40 | CA.JU.4040... | 7 g x 10  |
| CA.ADK.JU.8040 | 80 |    | CA.JU.8040    | 13 g x 10 |

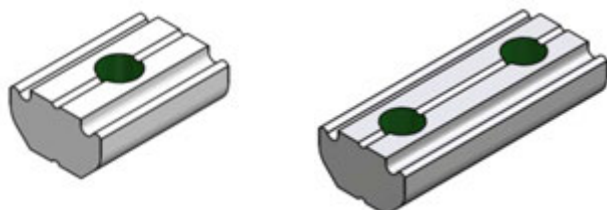


## CA.02 GWP

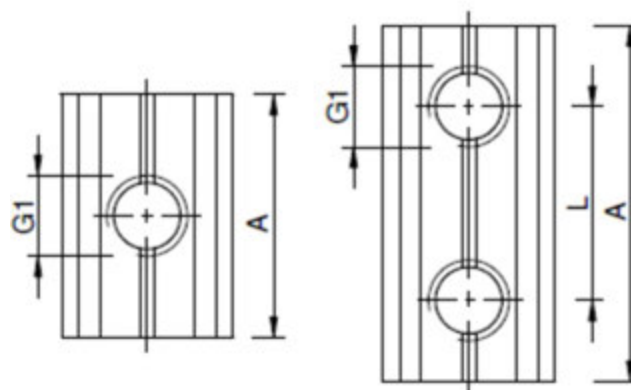
L/X/JU

. T-Nut

. Tassello per Profilo



Suitable for Profiles L/X/JU  
Applicabile ai Profili L/X/JU



| Article no. | G1 | L   | A  | Weight |
|-------------|----|-----|----|--------|
| CA.GWP.3U   | M3 | ... | 15 | 6 g    |

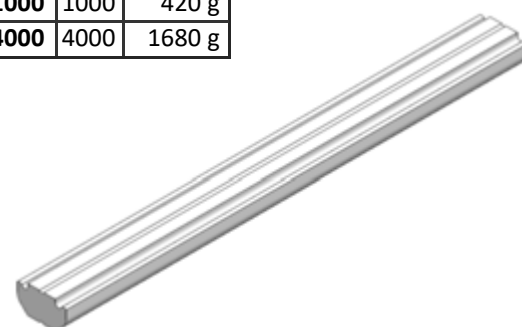
| Article no. | G1 | L   | A  | Weight |
|-------------|----|-----|----|--------|
| CA.GWP.4U   | M4 | ... | 15 | 6 g    |
| CA.GWP.4.8  |    | 8   | 16 |        |
| CA.GWP.4.9  |    | 9   | 19 | 7 g    |
| CA.GWP.4.16 |    | 16  | 24 | 9 g    |
| CA.GWP.4.17 |    | 17  | 25 | 10 g   |
| CA.GWP.4.25 |    | 25  | 32 | 13 g   |

| Article no.   | G1 | L      | A  | Weight |
|---------------|----|--------|----|--------|
| CA.GWP.5U     | M5 | ...    | 15 | 6 g    |
| CA.GWP.5.9    |    | 9      | 18 |        |
| CA.GWP.5.10   |    | 10     | 18 |        |
| CA.GWP.5.11   |    | 11     | 19 | 7 g    |
| CA.GWP.5.12   |    | 12     | 22 | 8 g    |
| CA.GWP.5.15   |    | 15     | 25 | 9 g    |
| CA.GWP.5.17   |    | 17     |    |        |
| CA.GWP.5.20   |    | 20     | 30 | 11 g   |
| CA.GWP.5.22   |    | 22     | 32 | 12 g   |
| CA.GWP.5.25   |    | 25     | 33 |        |
| CA.GWP.5.25.3 |    | 25 x 2 | 58 | 22 g   |
| CA.GWP.5.28   |    | 28     | 38 | 13 g   |
| CA.GWP.5.30   |    | 30     | 40 | 16 g   |
| CA.GWP.5.35   |    | 35     | 45 | 18 g   |
| CA.GWP.5.38   |    | 38     | 48 | 19 g   |
| CA.GWP.5.40   |    | 40     |    |        |
| CA.GWP.5.40.3 |    | 40     | 88 | 35 g   |
| CA.GWP.5.50   |    | 50     | 58 | 23 g   |
| CA.GWP.5.52   |    | 52     | 64 | 26 g   |
| CA.GWP.5.60   |    | 60     | 68 | 27 g   |
| CA.GWP.5.75   |    | 75     | 83 | 34 g   |

| Article no.   | G1 | L   | A   | Weight |
|---------------|----|-----|-----|--------|
| CA.GWP.6U     | M6 | ... | 15  | 6 g    |
| CA.GWP.6.12   |    | 12  | 24  | 8 g    |
| CA.GWP.6.16   |    | 16  | 26  | 10 g   |
| CA.GWP.6.20   |    | 20  | 30  | 11 g   |
| CA.GWP.6.22   |    | 22  | 32  | 12 g   |
| CA.GWP.6.25   |    | 25  | 35  | 13 g   |
| CA.GWP.6.25.3 |    |     | 58  | 22 g   |
| CA.GWP.6.28   |    | 28  | 40  | 15 g   |
| CA.GWP.6.35   |    | 35  | 45  | 17 g   |
| CA.GWP.6.40   |    | 40  | 50  | 19 g   |
| CA.GWP.6.50   |    | 50  | 60  | 24 g   |
| CA.GWP.6.52   |    | 52  | 64  | 25 g   |
| CA.GWP.6.90   |    | 90  | 100 | 40 g   |

Material : Steel galvanized  
Materiale: Acciaio zincato

| Article no. | L    | Weight |
|-------------|------|--------|
| CA.GWP.500  | 500  | 212 g  |
| CA.GWP.1000 | 1000 | 420 g  |
| CA.GWP.4000 | 4000 | 1680 g |



## CA.02 EPL

**X**

. End Plate for Profile

. Piastra Testa Profilo

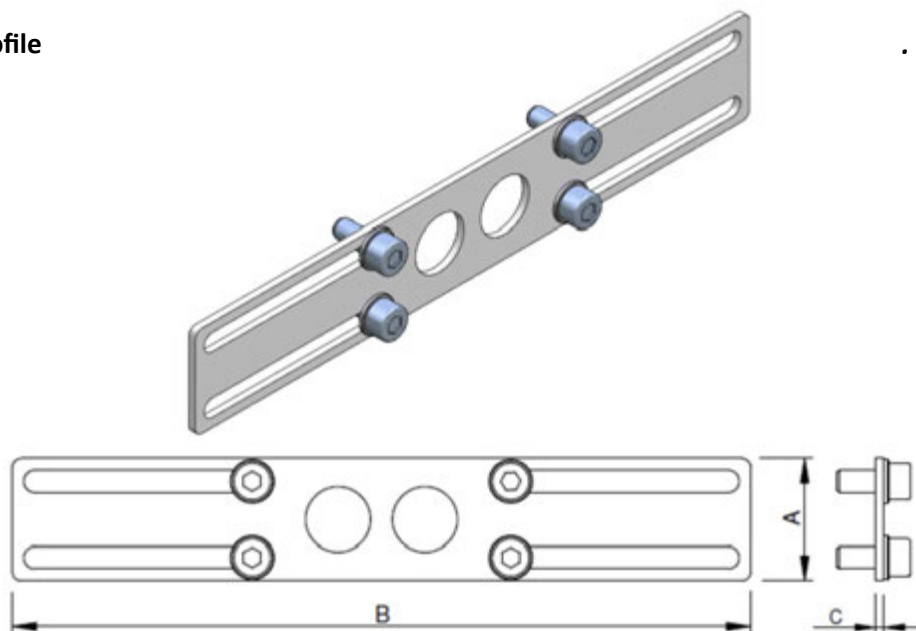
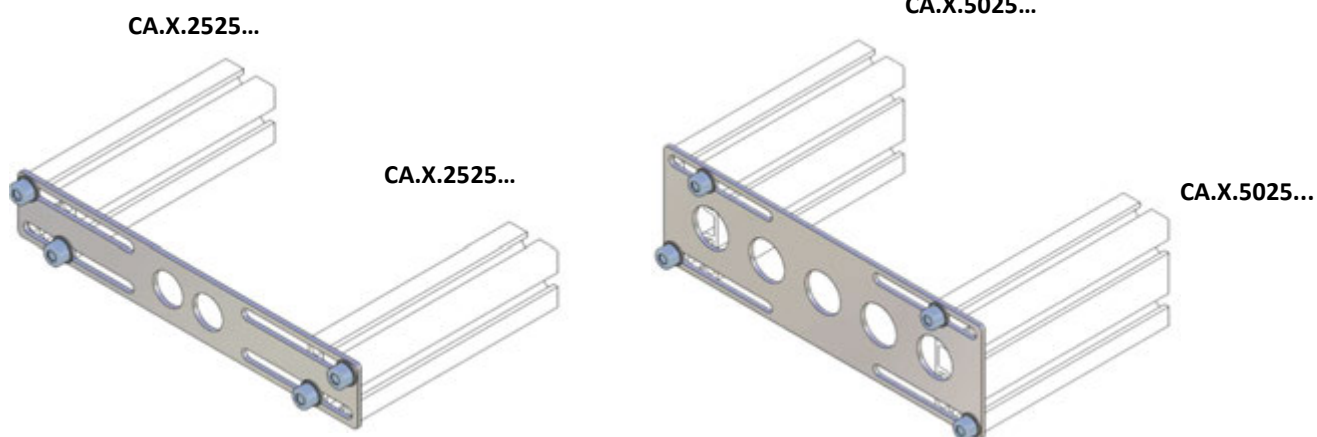


Table / Tabella  
M = Suitable for Profiles  
Applicabile ai profili

Material : Steel galvanized  
Materiale: Acciaio zincato

| Article no.      | A  | B   | C | M            | Weight |
|------------------|----|-----|---|--------------|--------|
| CA.EPL.25.170    | 25 | 170 | 2 | CA.X.2525... | 69 g   |
| CA.EPL.25.220    |    | 220 |   |              | 82 g   |
| CA.EPL.25.270    |    | 270 |   |              | 91 g   |
| CA.EPL.25.320    |    | 320 |   |              | 108 g  |
| CA.EPL.50.25.170 | 50 | 170 |   | CA.X.5025... | 119 g  |
| CA.EPL.50.25.220 |    | 220 |   |              | 152 g  |
| CA.EPL.50.25.270 |    | 270 |   |              | 185 g  |
| CA.EPL.50.25.320 |    | 320 |   |              | 217 g  |

### Application examples / Esempi Applicativi

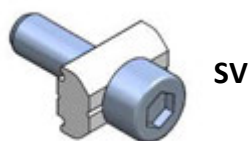


## CA.02 SV - UVV

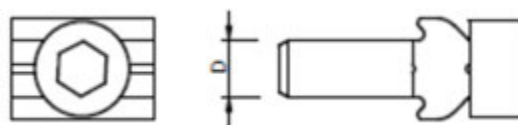
**X/JU**

. Butt Connector

. Connessione Profilo



SV



Remarks / Osservazioni:

Shipping unit: VE = 10 pieces  
Unità per ogni invio VE = 10 pezzi

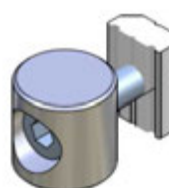
Material : Steel galvanized  
Materiale: Acciaio zincato

| Article no. | D  | M  | Weight |
|-------------|----|----|--------|
| CA.SV.X.5   | M5 | X  | 15 g   |
| CA.SV.JU.6  | M6 | JU | 15 g   |

Table / Tabella

M = Suitable for Profiles  
Applicabile ai profili

UVV



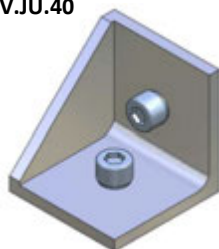
| Article no.    | M  |
|----------------|----|
| CA.UVV.X.25.S  | X  |
| CA.UVV.JU.40.S | JU |

## CA.02 WIV

. Corner Connector

. Connessione angolare

CA.WIV.JU.40



CA.WIV.X.25.0



CA.WIV.X.50.25



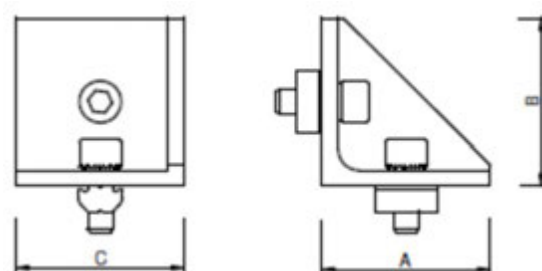
CA.WIV....E or M



Remarks / Osservazioni:

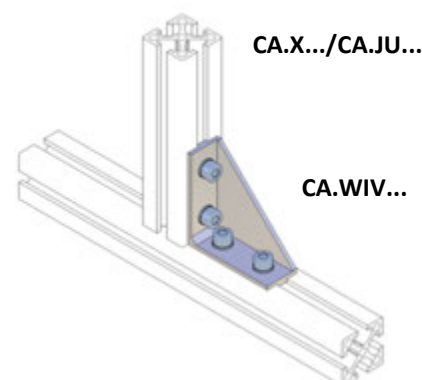
Material / Materiale:  
Aluminium / Alluminio

Surface: Silver anodized  
Superficie: Argento Anodizzato



Application example / Esempio applicativo

| Article no.    | A  | B  | C  | M  | Weight |
|----------------|----|----|----|----|--------|
| CA.WIV.X.25.0  | 22 | 22 | 16 | X  | 28 g   |
| CA.WIV.X.50.25 | 50 | 50 | 16 |    | 80 g   |
| CA.WIV.X.25.M  | 18 | 18 | 18 |    | 21 g   |
| CA.WIV.X.25.E  | 38 | 38 | 18 |    | 51 g   |
| CA.WIV.JU.40   | 40 | 40 | 40 | JU | 60 g   |
| CA.WIV.JU.40.E | 38 | 38 | 38 |    | 68 g   |
| CA.WIV.JU.80.E | 78 | 78 | 37 |    | 184 g  |



CA.X.../CA.JU...

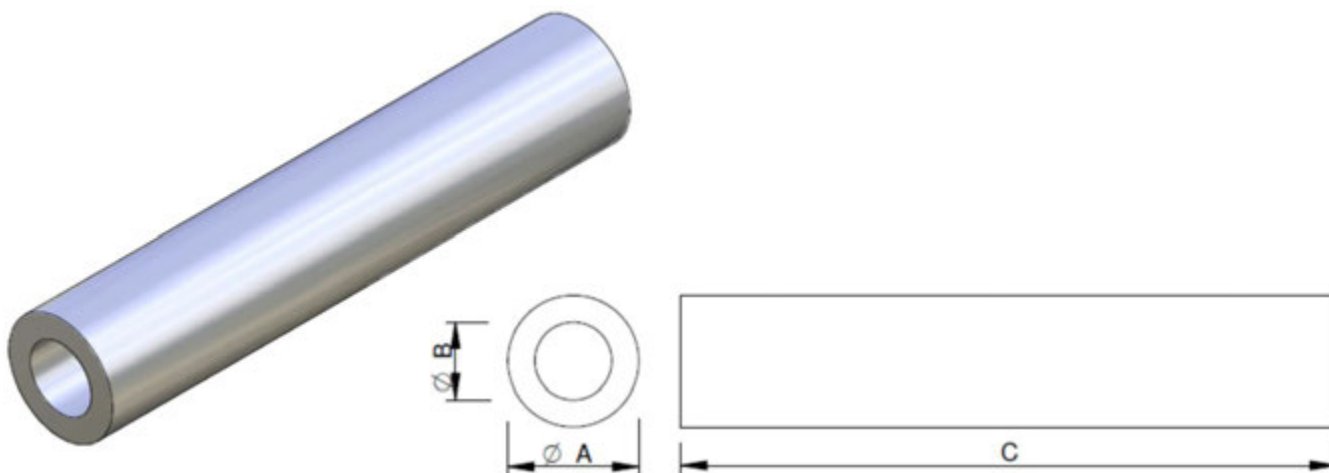
CA.WIV...

## CA.02 GAR

. Round profile tube

Ø 10-14-20-30

. Tubo Alluminio



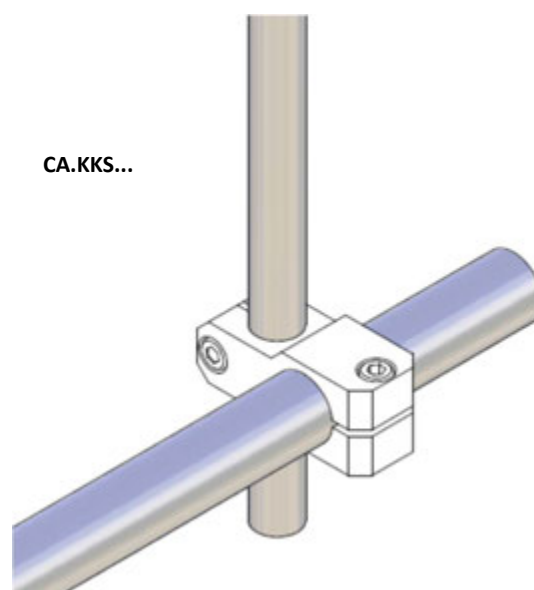
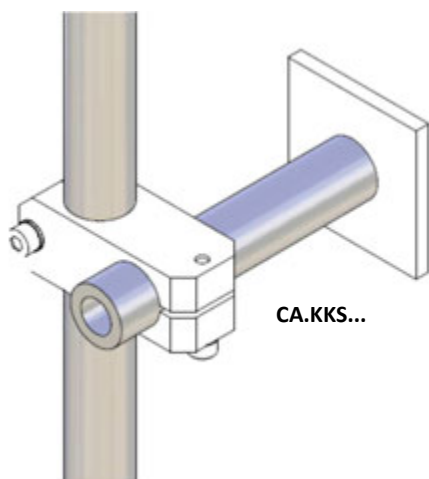
Remarks / Osservazioni :

Material / Materiali:  
Aluminium / Alluminio

Surface: Silver anodized  
Superficie: Argento Anodizzato

| Article no.    | A  | B  | C    | Weight |
|----------------|----|----|------|--------|
| CA.GAR.10.1000 | 10 | 5  | 1000 | 160 g  |
| CA.GAR.14.1000 | 14 | 7  |      | 313 g  |
| CA.GAR.20.1000 | 20 | 12 |      | 545 g  |
| CA.GAR.30.1000 | 30 | 26 |      | 477 g  |

### Application examples / Esempi applicativi





## CA.03 KPL

L/X/JU

. Cross Joint Connector

. Connessione a Croce

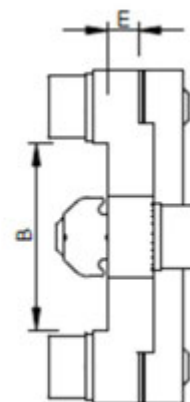
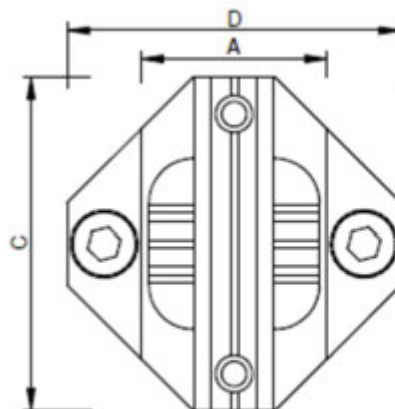
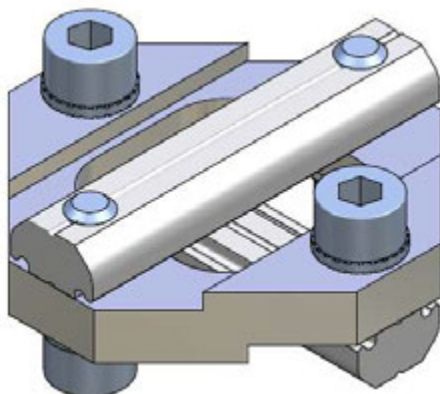


Table / Tabella  
M = Suitable for Profiles  
Applicabile ai Profili

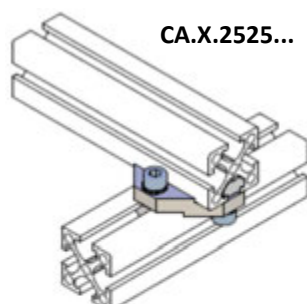
Remarks / Osservazioni :

Material / Materiale: Aluminium / Alluminio

Surface: Silver anodized  
Superficie: Argento Anodizzato

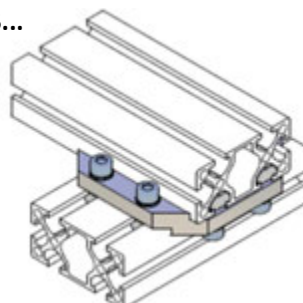
| Article no.   | A  | B  | C    | D   | E | M    | Weight |
|---------------|----|----|------|-----|---|------|--------|
| CA.KPLL.1818  | 18 | 18 | 38   | 38  | 4 | L    | 55 g   |
| CA.KPLX.2518  | 25 |    | 45   | 45  |   | L/X  | 72 g   |
| CA.KPLX.2525  |    | 45 |      | X   |   | 67 g |        |
| CA.KPLX.5025  | 50 | 70 | 76 g |     |   |      |        |
| CA.KPLX.5050  |    |    | 50   |     |   | 70   | 192 g  |
| CA.KPLJU.4040 | 40 | 40 | 65   | 65  |   | JU   | 81 g   |
| CA.KPLJU.4025 |    | 25 | 45   | 60  |   | JU/X | 77 g   |
| CA.KPLJU.8040 | 80 | 40 | 100  |     |   | 100  | JU     |
| CA.KPLJU.8080 |    | 80 |      | 100 |   |      |        |

Application examples / Esempi applicativi

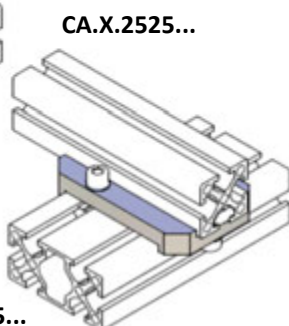


CA.X.2525...

CA.X.5025...

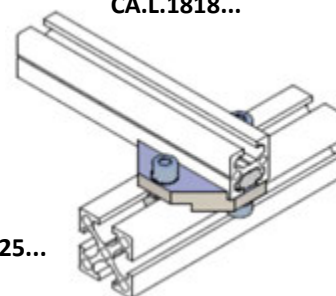


CA.X.5025...



CA.X.5025...

CA.L.1818...



CA.X.2525...

## CA.03 KBV

L/X/JU

. Square Joint Connector

. Staffa Quadra per Profilo

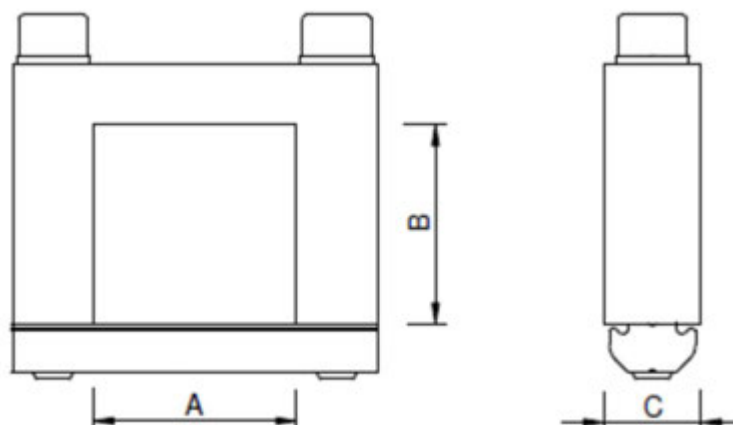
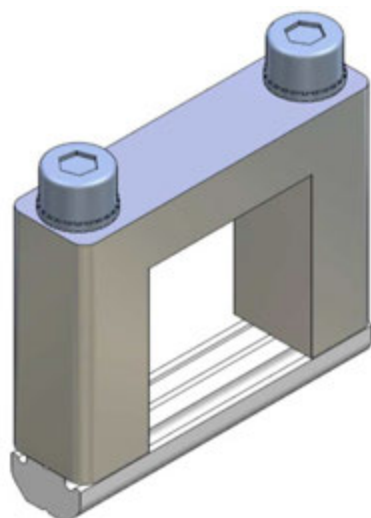


Table / Tabella

**M** = Suitable for Profiles  
*Applicabile ai profili*

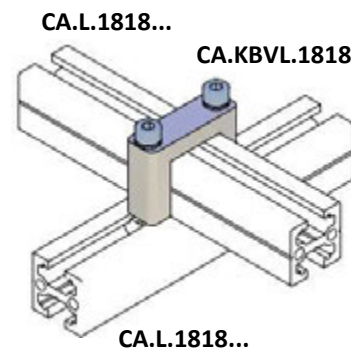
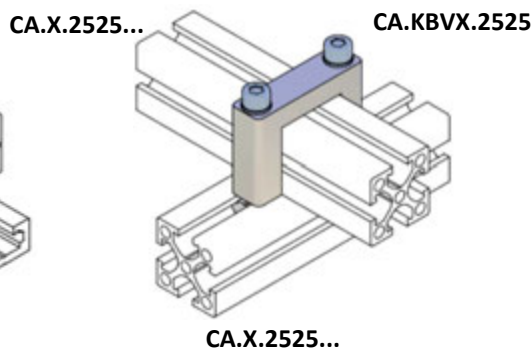
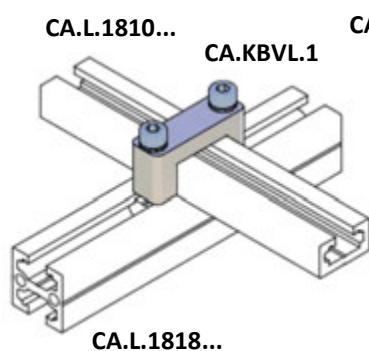
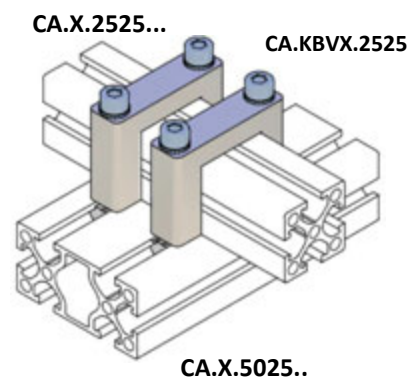
Remarks / Osservazioni:

Material / Materiale : Aluminium / Alluminio

Surface: Silver anodized  
*Superficie: Argento Anodizzato*

| Article no.   | A  | B  | C  | M  | Weight |
|---------------|----|----|----|----|--------|
| CA.KBVL.1810  | 18 | 10 | 10 | L  | 26 g   |
| CA.KBVL.1818  |    | 18 |    |    | 30 g   |
| CA.KBVX.2510  | 25 | 10 | 12 | X  | 42 g   |
| CA.KBVX.2518  |    | 18 |    |    | 48 g   |
| CA.KBVX.2525  |    | 25 |    |    | 58 g   |
| CA.KBVX.2550  |    | 50 |    |    | 79 g   |
| CA.KBVX.5025  | 50 | 25 | 15 | JU | 74 g   |
| CA.KBVJU.4040 | 40 | 40 |    |    | 107 g  |
| CA.KBVJU.4080 |    | 80 |    |    | 150 g  |
| CA.KBVJU.8040 |    | 40 |    |    | 140 g  |

Application examples / Esempi applicativi



## CA.03 SVB

**X**

. Profile End connector 25

. Connessione terminale per Profilo 25

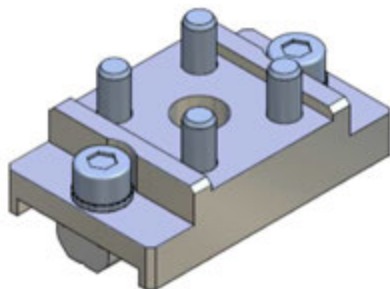


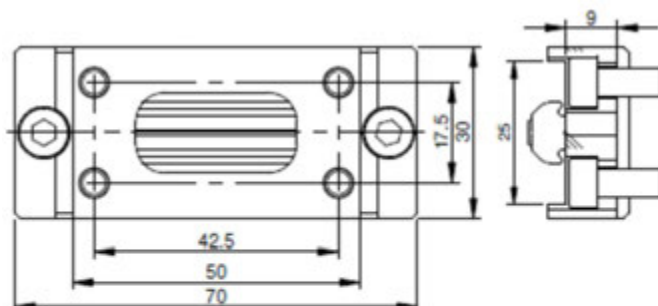
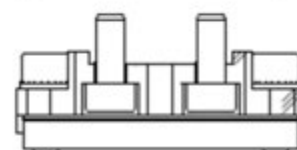
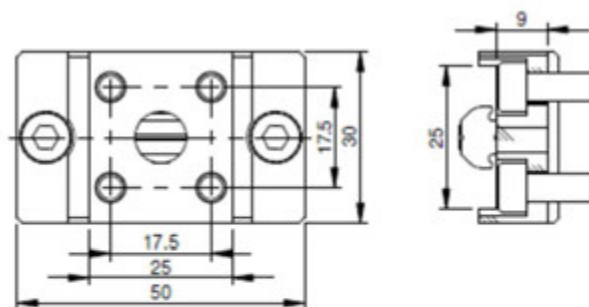
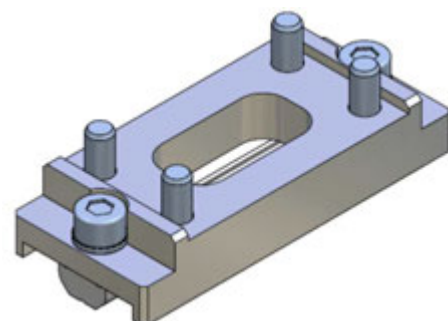
Table / Tabella

**M** = Suitable for Profiles  
*Applicabile ai Profili*

Remarks / Osservazioni:

Material / Materiale : Aluminium / Alluminio

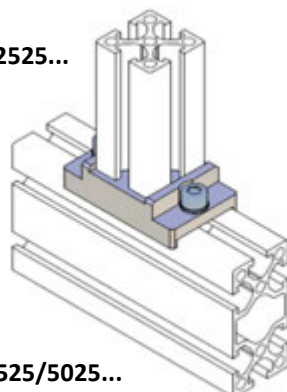
Surface: Silver anodized  
*Superficie: Argento Anodizzato*



| Article no.    | M | Weight |
|----------------|---|--------|
| CA.SVB.X.25.25 | X | 69 g   |
| CA.SVB.X.25.50 |   | 87 g   |

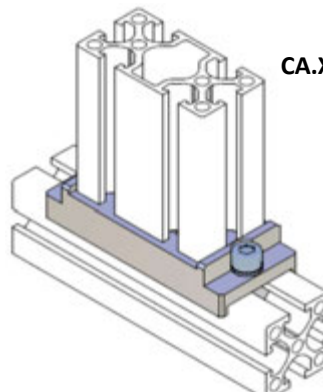
Application examples / Esempi applicativi

CA.X.2525...



CA.X.2525/5025...

CA.X.2550...



## CA.03 SVB

X

. Profile End connector 50

. Connessione terminale per Profilo 50

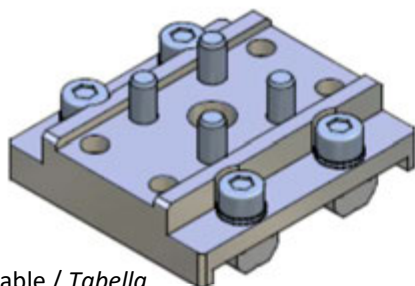


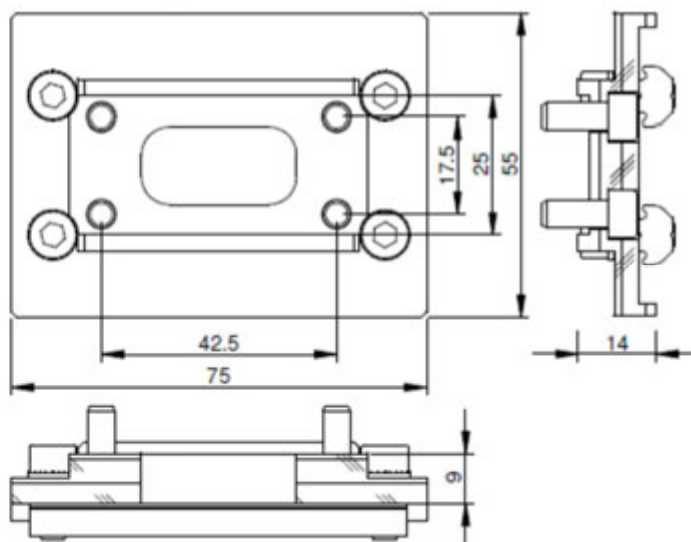
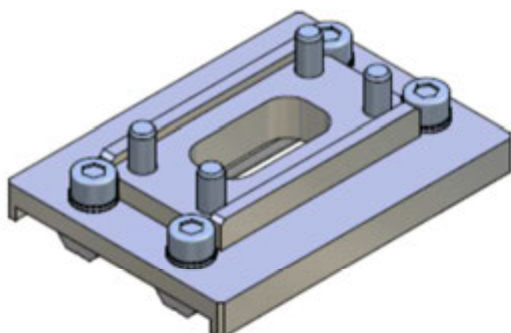
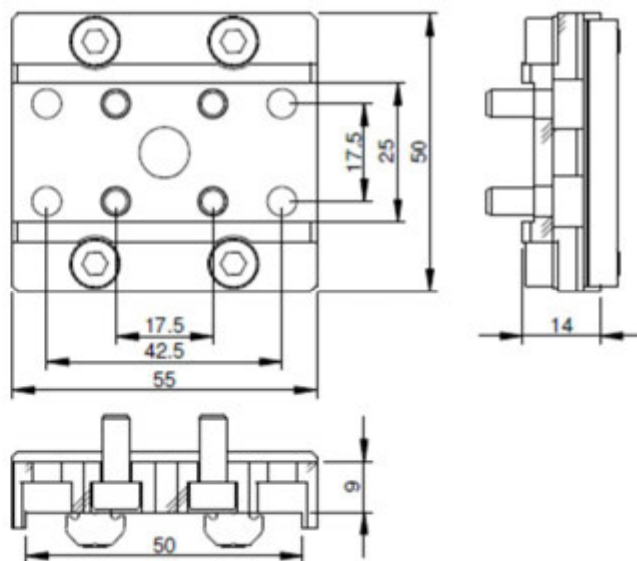
Table / Tabella

**M** = Suitable for Profiles  
Applicabile ai profili

Remarks / Osservazioni:

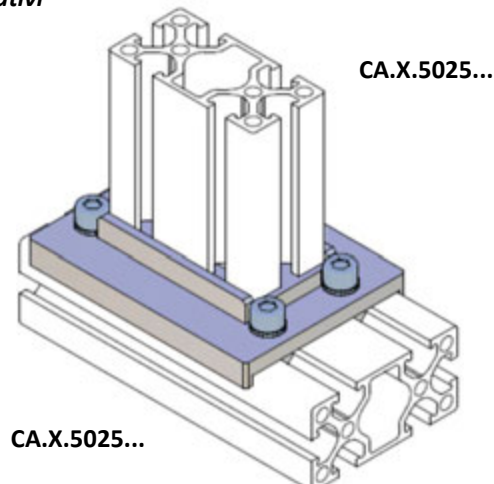
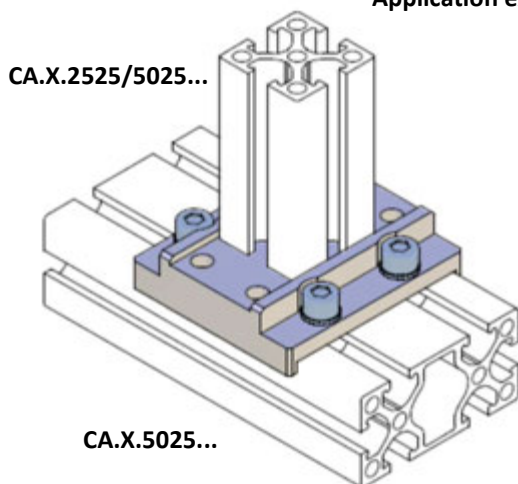
Material / Materiale : Aluminium / Alluminio

Surface: Silver anodized  
Superficie: Argento Anodizzato



| Article no.    | M | Weight |
|----------------|---|--------|
| CA.SVB.X.50.25 | X | 114 g  |
| CA.SVB.X.50.50 |   | 149 g  |

### Application examples / Esempi applicativi



## CA.03 SVB

**JU**

. Profile End connector 40

. Connessione terminale per Profilo 40

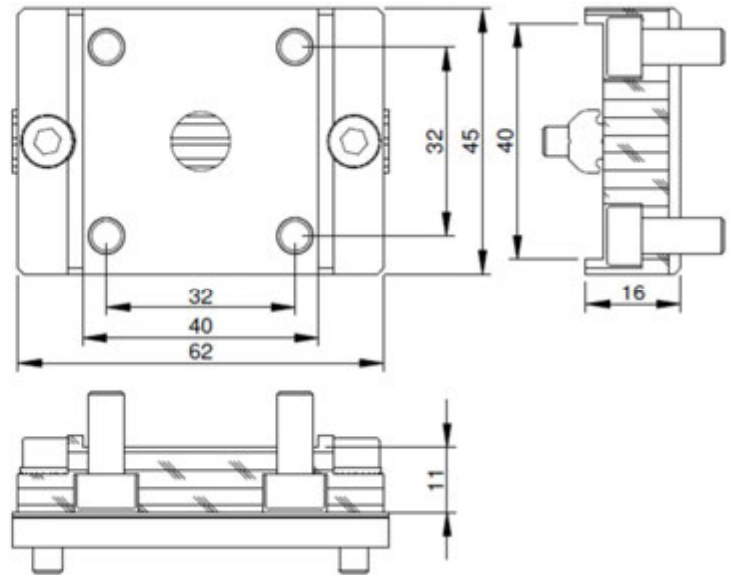
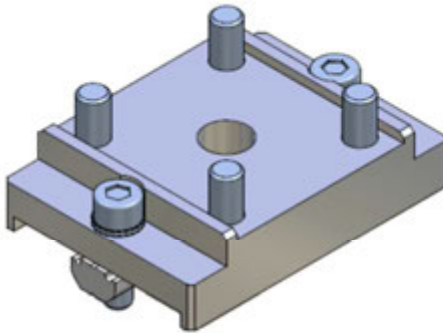


Table / Tabella

**M** = Suitable for Profiles  
*Applicabile ai profili*

Remarks / Osservazioni:

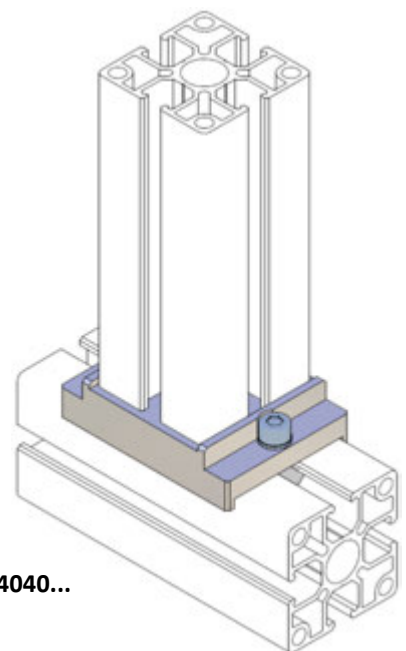
Material / Materiale : Aluminium / Alluminio

Surface: Silver anodized  
*Superficie: Argento Anodizzato*

| Article no.     | M  | Weight |
|-----------------|----|--------|
| CA.SVB.JU.40.40 | JU | 129 g  |

CA.JU.4040...

Application example / Esempio applicativo



CA.JU.4040...

## CA.03 VBG

X/JU

. Straight Connector

. Connessione Lineare

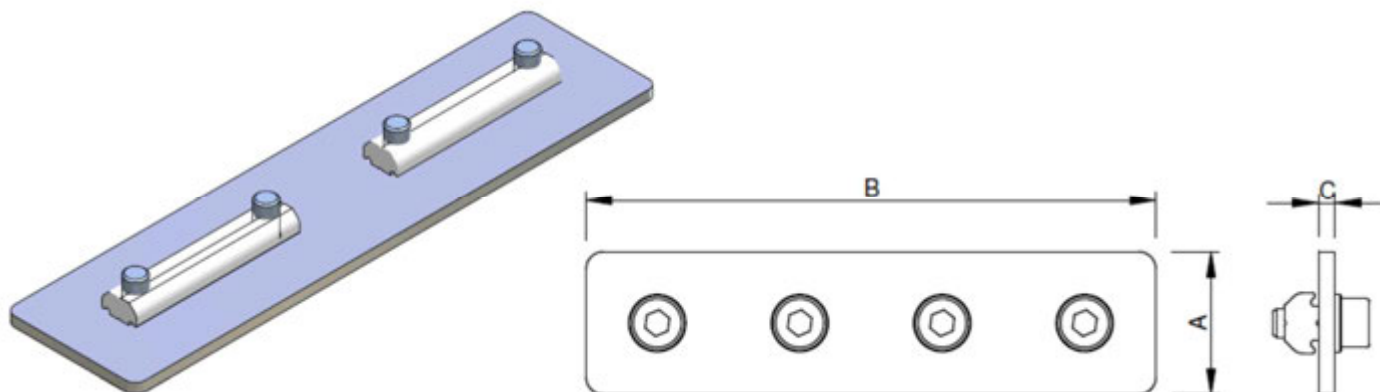


Table / Tabella

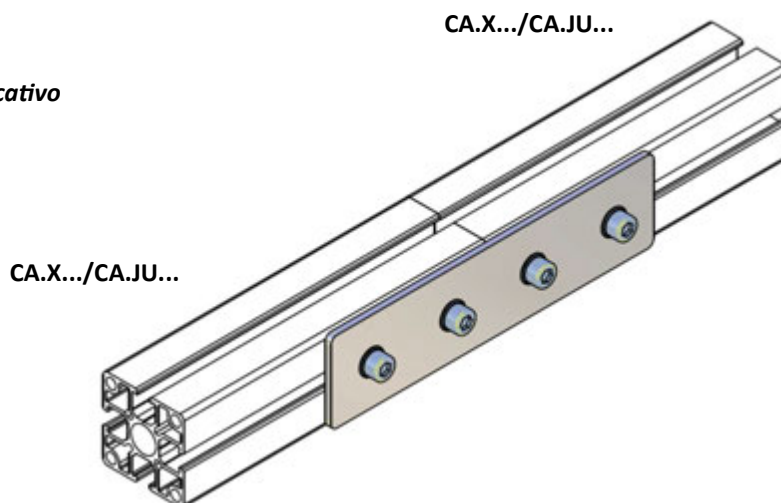
**M** = Suitable for Profiles  
Applicabile ai profili

Remarks / Osservazioni:

Material : Steel galvanized  
Materiale: Acciaio zincato

| Article no.      | A  | B   | C | M  | Weight |
|------------------|----|-----|---|----|--------|
| CA.VBG.X.25.50   | 25 | 50  | 3 | X  | 48 g   |
| CA.VBG.X.50.50   | 50 |     |   |    | 94 g   |
| CA.VBG.X.25.100  | 25 | 100 |   |    | 99 g   |
| CA.VBG.JU.40.80  | 40 | 80  |   | JU | 97 g   |
| CA.VBG.JU.40.160 |    | 160 |   |    | 215 g  |

Application example / Esempio applicativo



## CA.03 VBL - VBT

X/JU

### . Connector L-Style

### . Connessione ad L

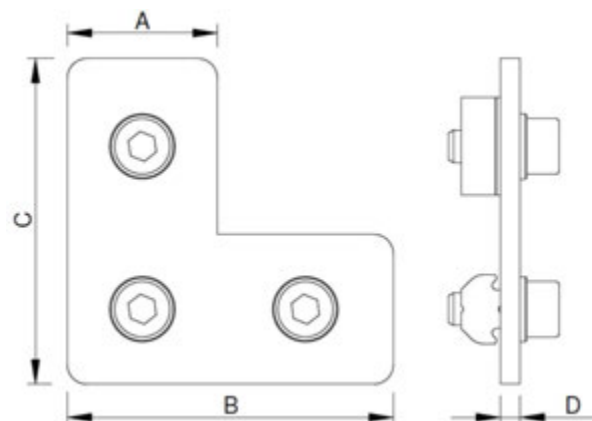
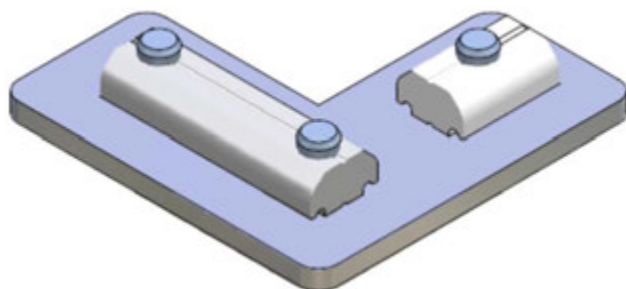


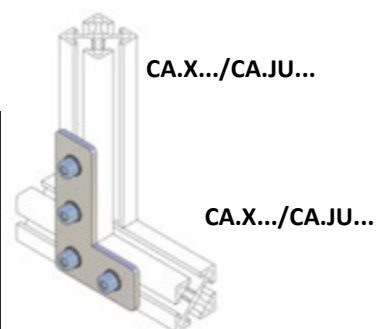
Table / Tabella

**M** = Suitable for Profiles  
*Applicabile ai profili*

Remarks / Osservazioni:

Material : Steel galvanized  
*Materiale: Acciaio zincato*

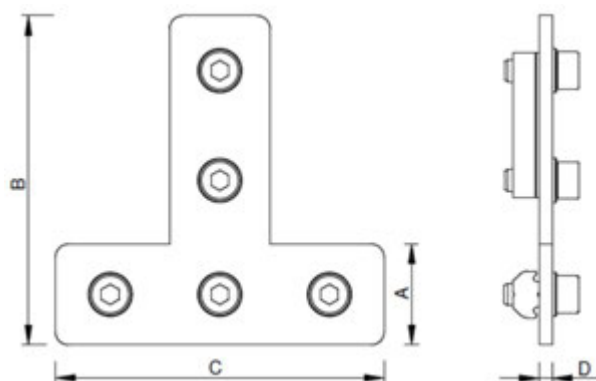
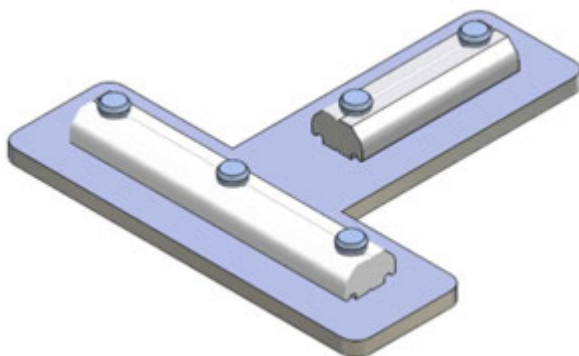
### Application example / Esempio applicativo



| Article no.      | A  | B  | C   | D | M  | Weight |
|------------------|----|----|-----|---|----|--------|
| CA.VBL.50.50     | 23 | 50 | 50  | 3 | X  | 71 g   |
| CA.VBL.50.75     |    |    | 75  |   |    | 96 g   |
| CA.VBL.80.80.JU  | 40 | 80 | 80  |   | JU | 145 g  |
| CA.VBL.80.120.JU |    |    | 120 |   |    | 200 g  |

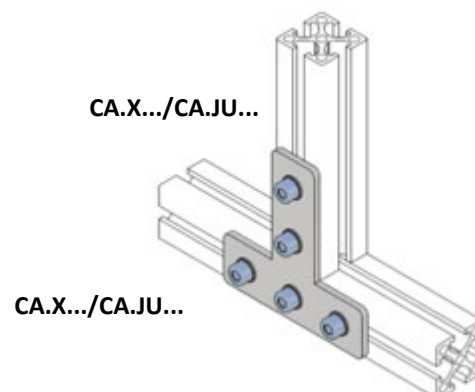
### . Connector T-Style

### . Connessione a T



### Application example / Esempio applicativo

| Article no.     | A  | B   | C   | D | M  | Weight |
|-----------------|----|-----|-----|---|----|--------|
| CA.VBT.X.50.75  | 25 | 75  | 75  | 3 | X  | 123 g  |
| CA.VBT.X.75.100 |    |     | 100 |   |    | 149 g  |
| CA.VBT.JU.120   | 40 | 120 | 120 |   | JU | 261 g  |



## CA.03 VBW - EVB

X/JU

. Adjustable Connector 0-90°

. Connessione regolabile 0-90°

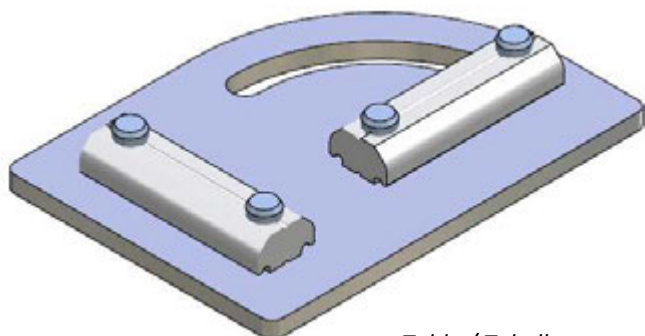
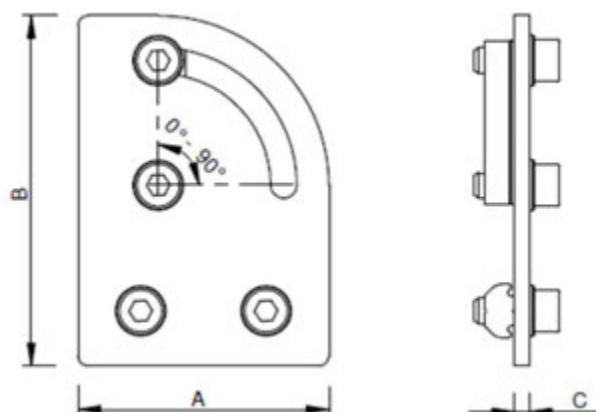


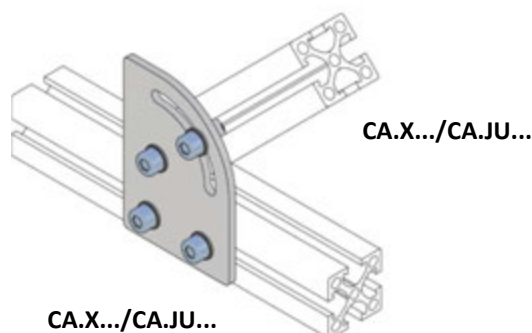
Table / Tabella

M = Suitable for Profiles  
Applicabile ai profili



Application example / Esempio applicativo

| Article no.    | A  | B   | C | M  | Weight |
|----------------|----|-----|---|----|--------|
| CA.VBW.X.0.90  | 50 | 70  | 3 | X  | 112 g  |
| CA.VBW.JU.0.90 | 80 | 120 |   | JU | 249 g  |

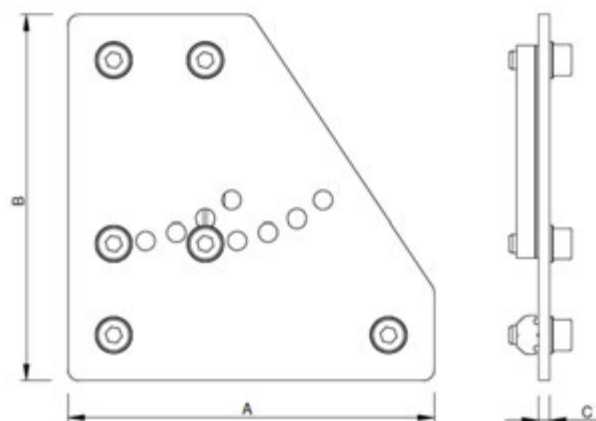
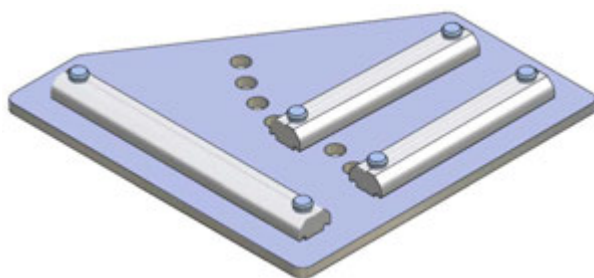


Remarks / Osservazioni:

Material : Steel galvanized  
Materiale: Acciaio zincato

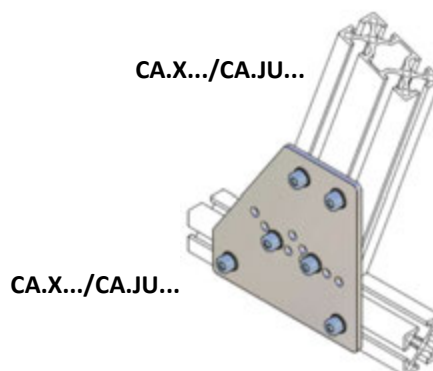
. Corner Joint Plate

. Connessione Angolare



Application example / Esempio applicativo

| Article no.   | A   | B   | C | M  | Weight |
|---------------|-----|-----|---|----|--------|
| CA.EVB.75.X   | 75  | 100 | 3 | X  | 193 g  |
| CA.EVB.100.X  | 100 |     |   | X  | 292 g  |
| CA.EVB.100.JU | 80  |     |   | JU | 206 g  |



## CA.03 KVB

. Cross Connector Round

L/X/JU

. Connessione Tubo

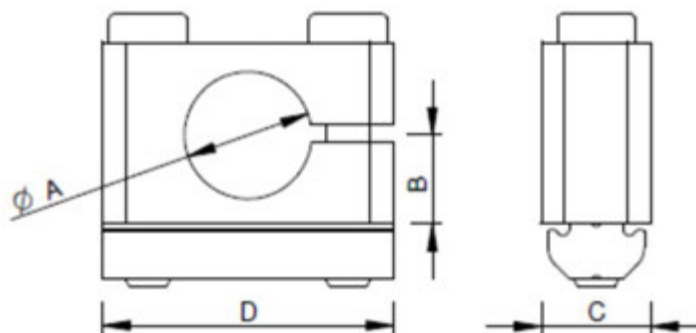
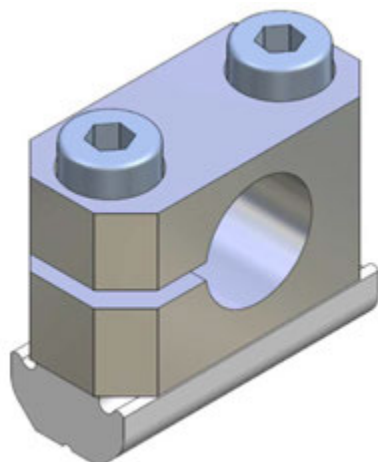


Table / Tabella

**M** = Suitable for Profiles  
Applicabile ai profili

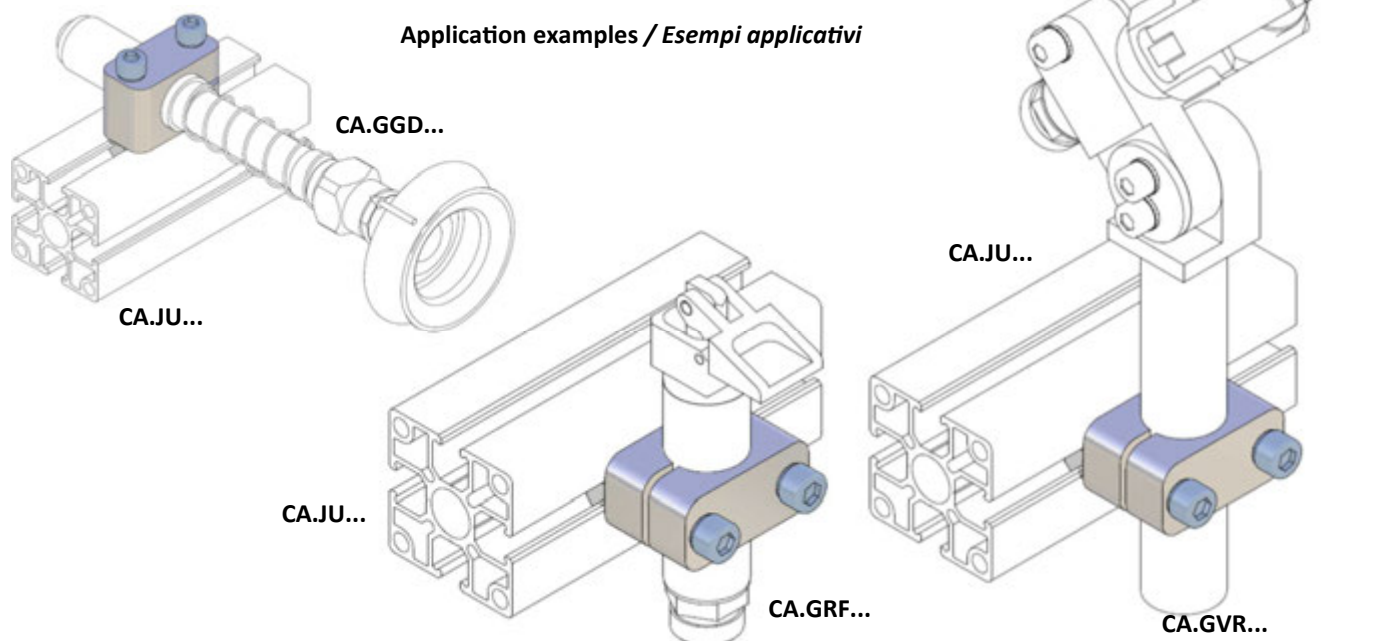
Remarks / Osservazioni:

Material / Materiale : Aluminium / Alluminio

Surface: Silver anodized  
Superficie: Argento Anodizzato

| Article no. | A  | B  | C  | D  | M  | Weight |
|-------------|----|----|----|----|----|--------|
| CA.KVB.L10  | 10 | 8  | 12 | 25 | L  | 17 g   |
| CA.KVB.X14  | 14 | 10 |    | 32 | X  | 36 g   |
| CA.KVB.X20  | 20 | 13 | 20 | 40 | JU | 45 g   |
| CA.KVB.JU20 |    |    |    | 52 |    | 68 g   |
| CA.KVB.JU30 | 30 | 18 |    |    |    | 70 g   |

Application examples / Esempi applicativi



## CA.03 KVB.KG

X/JU

. Cross Connector Round With Ball Joint

. Connessione Tubo con Sfera

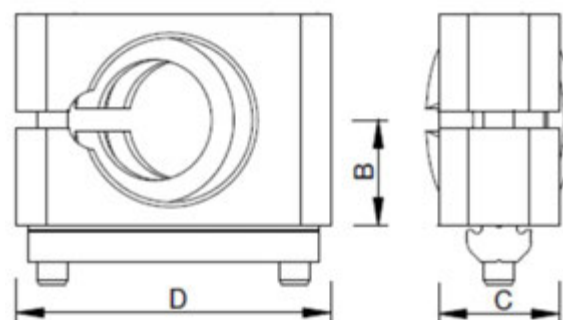
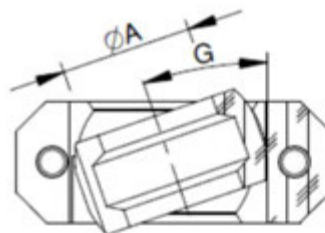
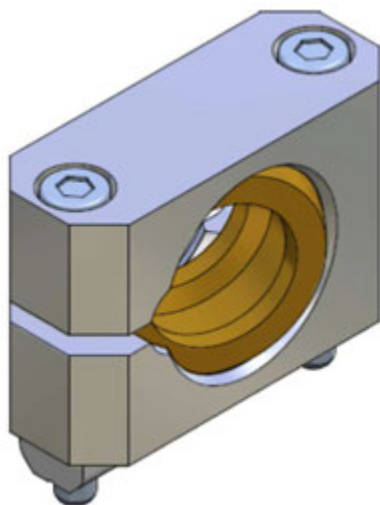
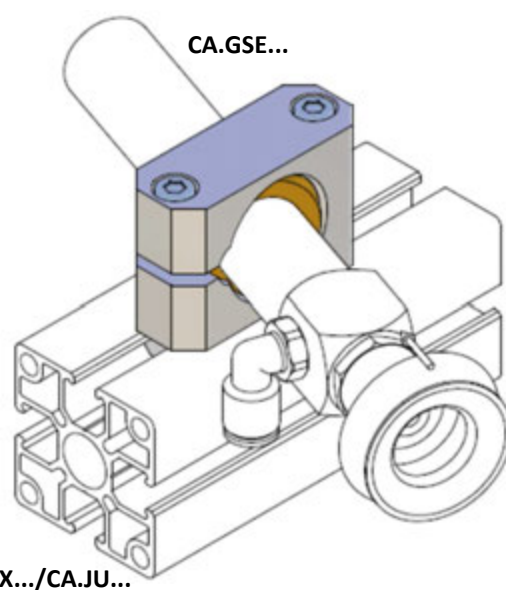
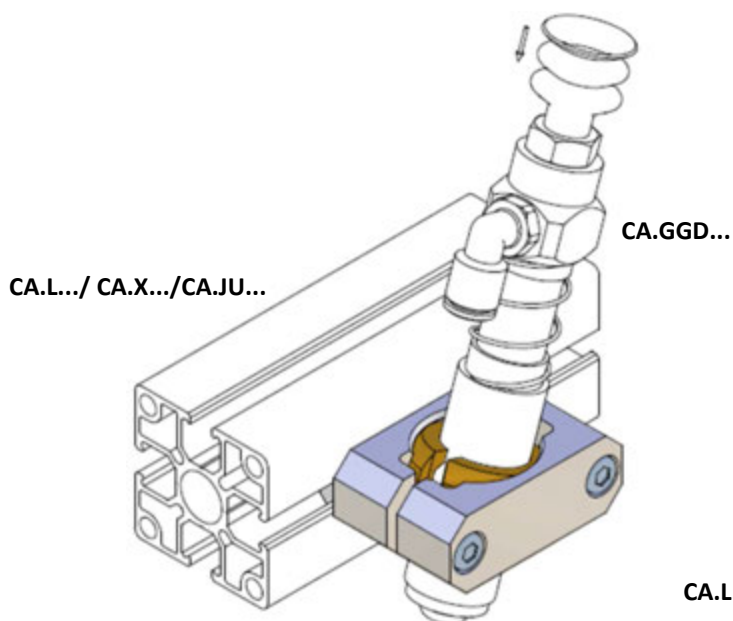


Table / Tabella

**M** = Suitable for Profiles  
Applicabile ai profili

| Article no.    | A  | B    | C  | D  | G°     | M  | Weight |
|----------------|----|------|----|----|--------|----|--------|
| CA.KVB.KG.X10  | 10 | 10   | 12 | 32 | 0°-13° | X  | 42 g   |
| CA.KVB.KG.X14  | 14 | 12.5 | 15 | 40 | 0°-17° |    | 60 g   |
| CA.KVB.KG.JU20 | 20 | 17.5 | 20 | 52 | 0°-19° | JU | 113 g  |

### Application examples / Esempi applicativi

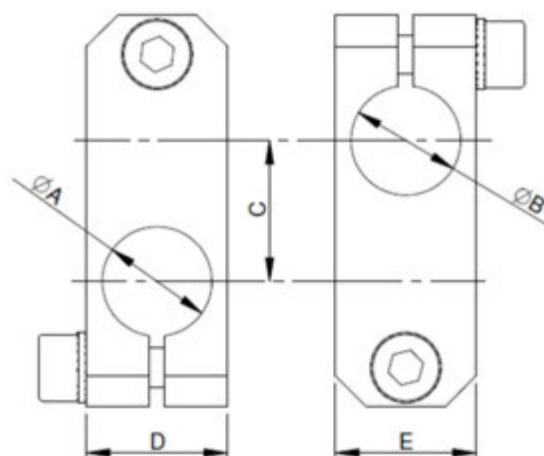
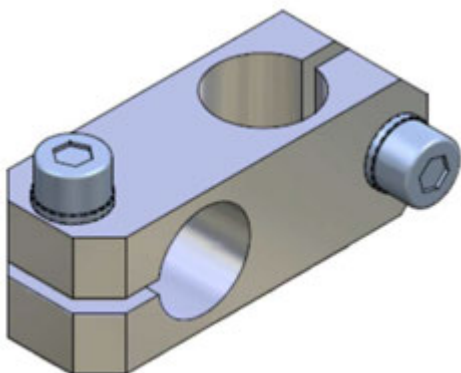


## CA.03 KKS

Ø 10-14-20

. Cross connector Tube

. Connessione a Croce Tubo

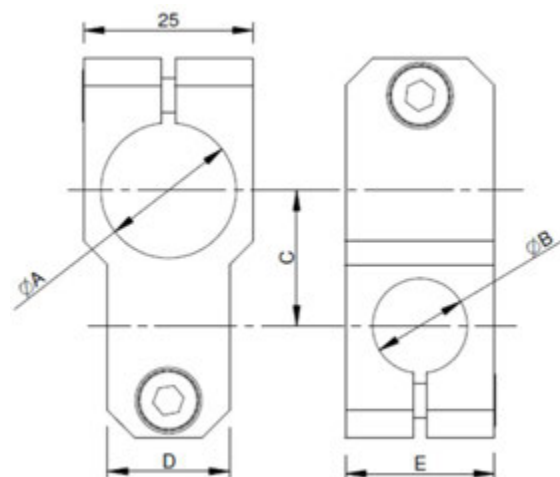
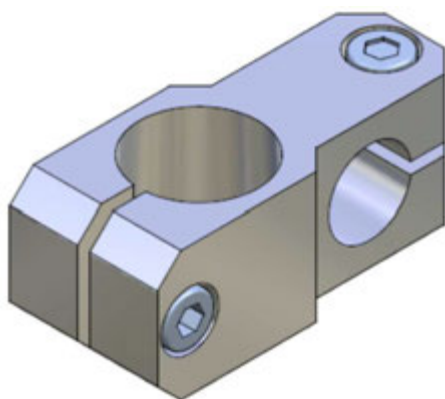


Remarks / Osservazioni:

Material / Materiale : Aluminium / Alluminio

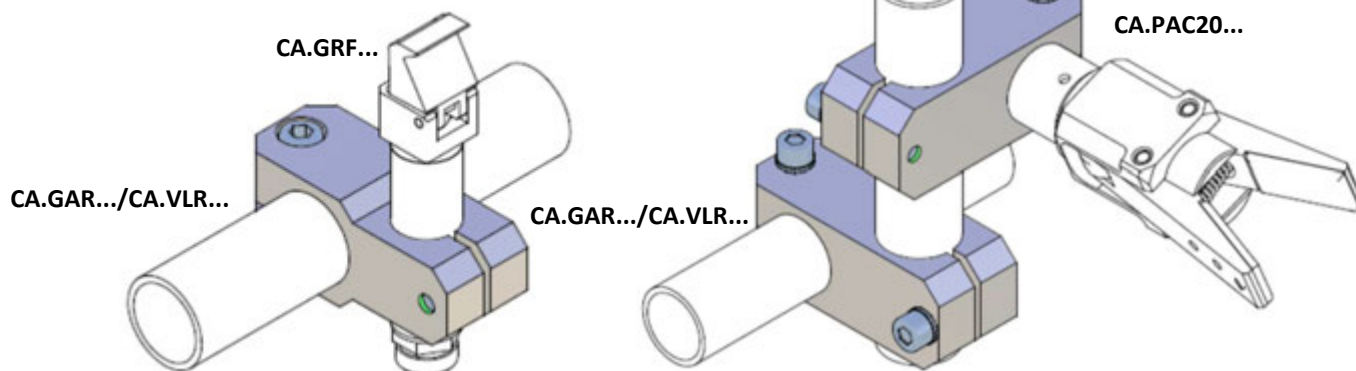
Surface: Silver anodized

Superficie: Argento Anodizzato



| Article no.  | A  | B  | C  | D  | E  | Weight |
|--------------|----|----|----|----|----|--------|
| CA.KKS.10.10 | 10 | 10 | 16 | 14 | 14 | 17 g   |
| CA.KKS.14.14 | 14 | 14 | 18 | 18 | 18 | 35 g   |
| CA.KKS.20.20 | 20 | 20 | 26 | 25 | 25 | 71 g   |
| CA.KKS.20.10 |    | 10 | 20 | 14 | 20 | 41 g   |
| CA.KKS.20.14 |    | 14 |    | 18 | 22 | 48 g   |

Application examples / Esempi applicativi



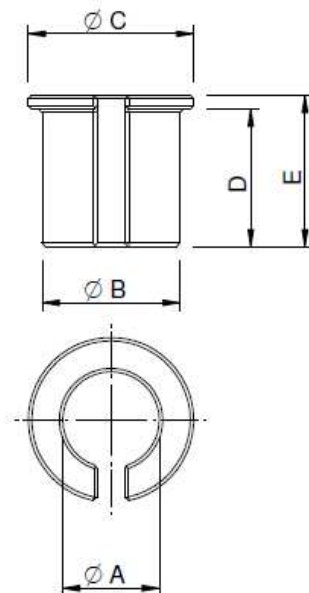
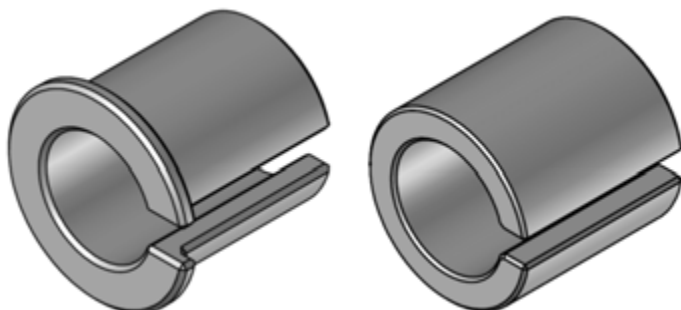


## CA.04 RID

. Reducer

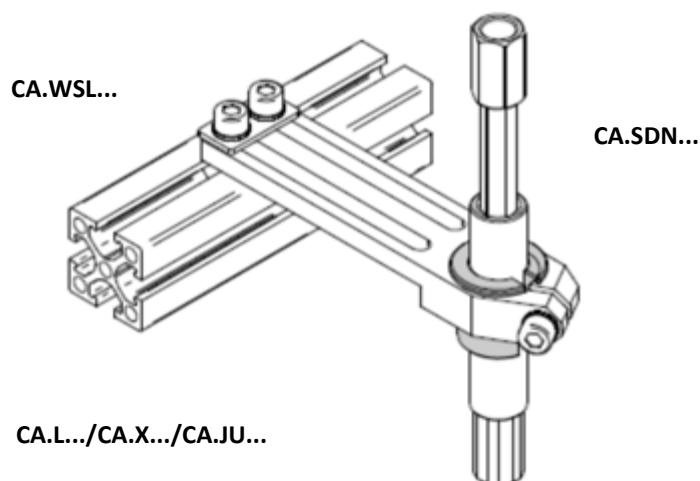
. Riduzione

**new**



| Article no. | A  | B  | C  | D  | E  | Weight |
|-------------|----|----|----|----|----|--------|
| CA.RID.1410 | 10 | 14 | 18 | 14 | 16 | 4 g    |
| CA.RID.2014 | 14 | 20 | 24 | 20 | 22 | 9 g    |
| CA.RID.3020 | 20 | 30 | 30 | 30 | 30 | 30 g   |

Application example / Esempio applicativo



## CA.04 WSL.VU

L/X/JU

. Long Angle Clamp Heavy Duty

. Staffa rinforzata

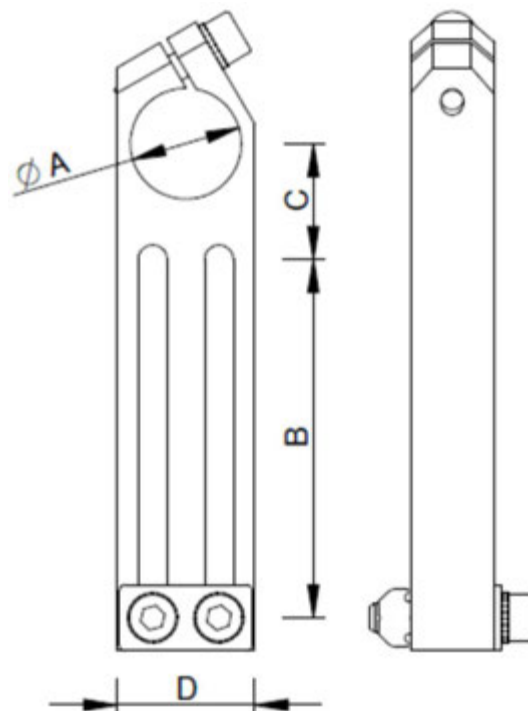
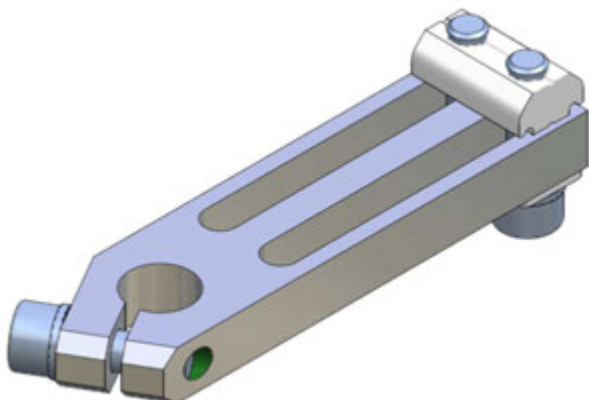


Table / Tabella

M = Suitable for Profiles  
Applicabile ai profili

| Article no.      | A  | B  | C    | D  | M    | Weight |
|------------------|----|----|------|----|------|--------|
| CA.WSL.1040.VU.X | 10 | 40 | 15   | 20 | L    | 41 g   |
| CA.WSL.1060.VU.X |    | 60 |      |    | L/X  | 48 g   |
| CA.WSL.1080.VU.X |    | 80 |      |    |      | 49 g   |
| CA.WSL.1440.VU.X | 14 | 40 | 19   | 25 | X    | 38 g   |
| CA.WSL.1450.VU.X |    | 50 | 22   |    |      | 59 g   |
| CA.WSL.2060.VU.X | 20 | 65 | 21   | 30 | X/JU | 94 g   |
| CA.WSL.2070.VU.X |    | 70 | 25.5 |    | JU   | 93 g   |
| CA.WSL.2080.VU.X |    | 80 |      |    |      | 98 g   |
| CA.WSL.2570.VU.X | 25 | 70 | 21   | 35 | JU   | 120 g  |
| CA.WSL.3060.VU.J | 30 | 60 | 30   | 35 |      | 188 g  |
| CA.WSL.3070.VU.J |    | 70 |      |    |      | 200 g  |

Remarks / Osservazioni:

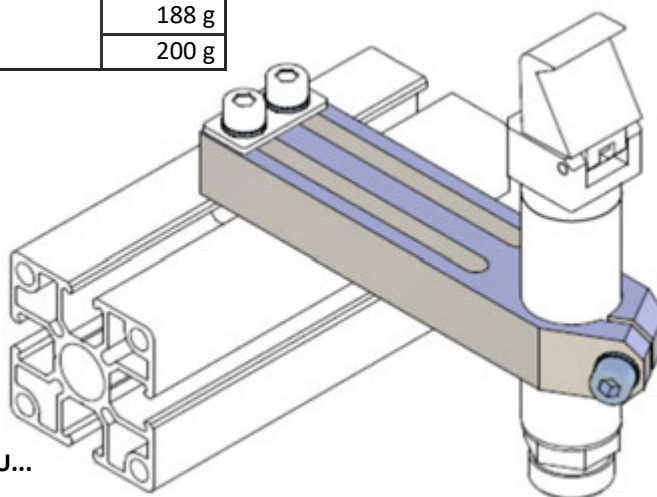
Material / Materiale : Aluminium / Alluminio

Surface: Silver anodized  
Superficie: Argento anodizzato

CA.GRF...

Application example / Esempio applicativo

CA.L/CA.X../CA.JU...



## CA.04 WST

. Adjustable Clamp

L/X/JU

. Staffa Angolare

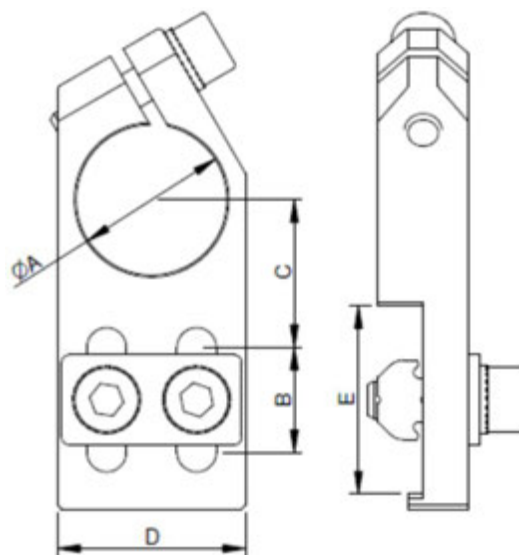
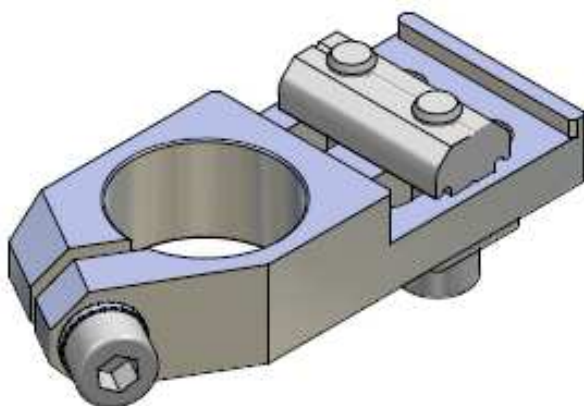


Table / Tabella

**M** = Suitable for Profiles  
Applicabile ai profili

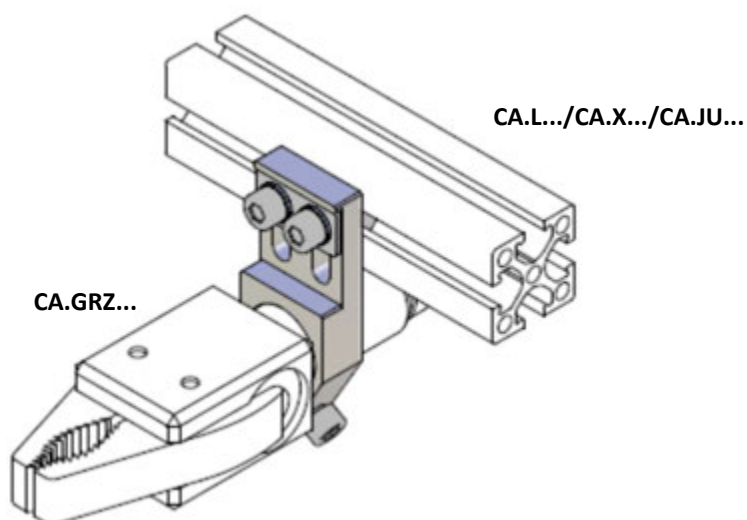
Remarks / Osservazioni:

Material / Materiale : Aluminium / Alluminio

Surface: Silver anodized  
Superficie: Argento anodizzato

| Article no.    | A  | B  | C    | D  | E  | M  | Weight |
|----------------|----|----|------|----|----|----|--------|
| CA.WST.1010.L  | 10 | 10 | 12   | 16 | 18 | L  | 20 g   |
| CA.WST.1014.X  |    |    | 13.5 |    |    |    | 21 g   |
| CA.WST.1414.X  | 14 | 14 | 15.5 | 20 | 25 | X  | 33 g   |
| CA.WST.2014.X  |    |    | 19.5 |    |    |    | 46 g   |
| CA.WST.2022.JU | 20 | 22 | 23   | 25 | 40 | JU | 51 g   |

Application example / Esempio applicativo



## CA.04 WST

L/X/JU

. Adjustable Clamp

. Staffa Angolare

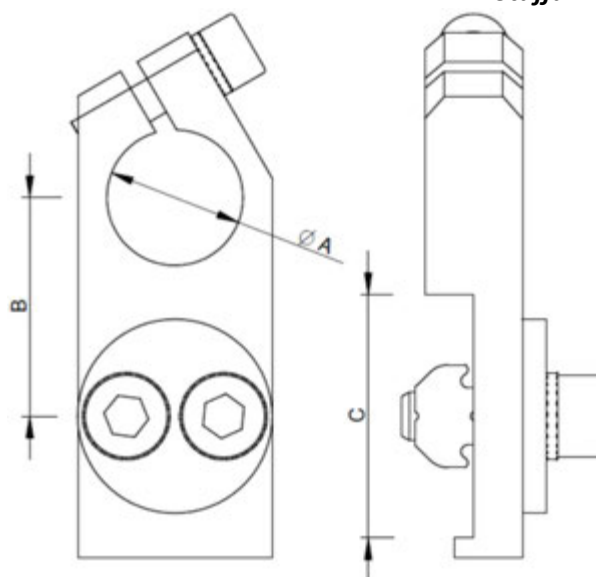
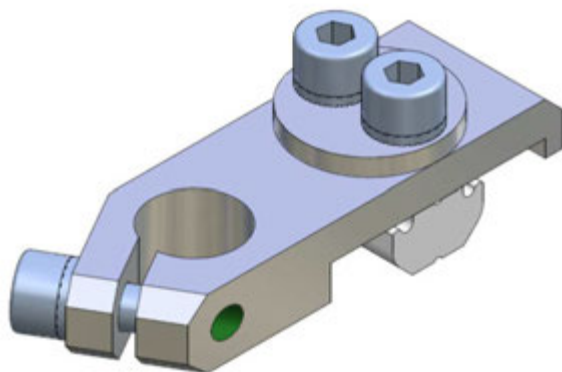
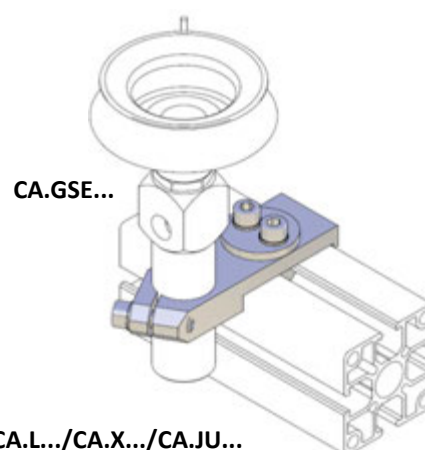


Table / Tabella

**M** = Suitable for Profiles  
Applicabile ai profili

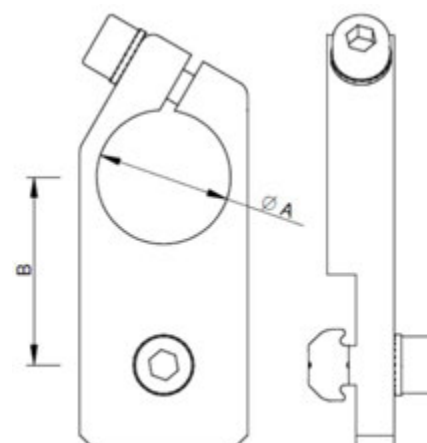
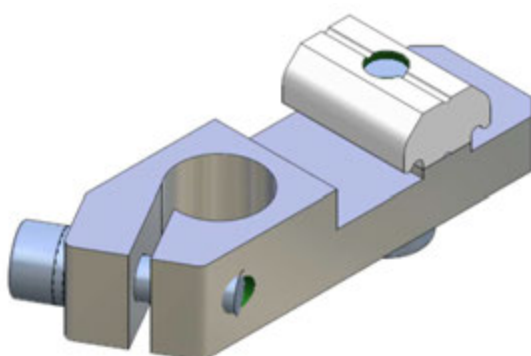
| Article no.  | A  | B  | C  | M  | Weight |
|--------------|----|----|----|----|--------|
| CA.WST.10.L  | 10 | 17 | 18 | L  | 20 g   |
| CA.WST.10.X  |    | 21 | 25 | X  |        |
| CA.WST.14.L  | 14 | 19 | 18 | L  | 31 g   |
| CA.WST.14.X  |    | 23 | 25 | X  | 34 g   |
| CA.WST.20.X  | 20 | 27 | 40 | JU | 49 g   |
| CA.WST.20.JU |    | 34 | 40 | JU | 55 g   |
| CA.WST.30.X  | 30 | 30 | 25 | X  | 95 g   |
| CA.WST.30.JU |    | 38 | 40 | JU | 109 g  |

Application example / Esempio applicativo



CA.L.../CA.X.../CA.JU...

## CA.04 WST (easy)



Remarks / Osservazioni:

Material / Materiale : Aluminium / Alluminio

Surface: Silver anodized  
Superficie: Argento anodizzato

| Article no. | A  | B  | M | Weight |
|-------------|----|----|---|--------|
| CA.WST.10   | 10 | 21 | X | 23 g   |
| CA.WST.14   | 14 | 24 |   | 31 g   |
| CA.WST.20   | 20 | 28 |   | 36 g   |

## CA.04 WSL.U

. Universal Long Angle Clamp

L/X/JU

. Staffa universale

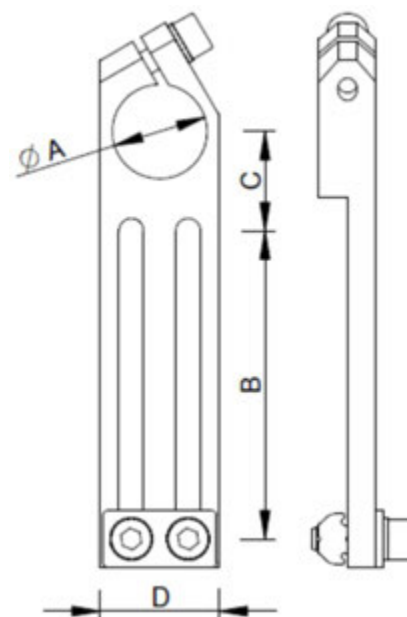
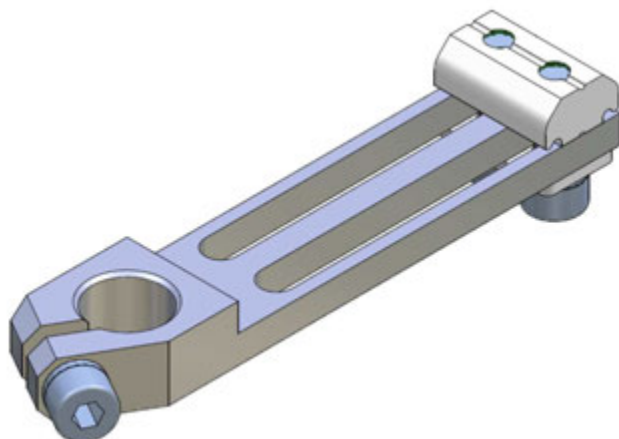


Table / Tabella

**M** = Suitable for Profiles  
Applicabile ai profili

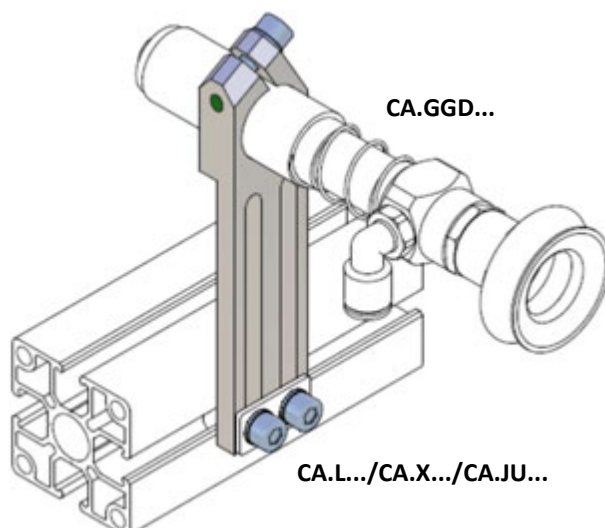
Remarks / Osservazioni:

Material / Materiale : Aluminium / Alluminio

Surface: Silver anodized  
Superficie: Argento anodizzato

| Article no.      | A  | B  | C    | D  | M    | Weight |
|------------------|----|----|------|----|------|--------|
| CA.WSL.1040.U.L  | 10 | 40 | 17.5 | 16 | L    | 23 g   |
| CA.WSL.1040.U.X  |    |    |      |    | X    |        |
| CA.WSL.1440.U.L  | 14 | 19 | 20   | 25 | L    | 32 g   |
| CA.WSL.1440.U.X  |    |    |      |    | X    | 33 g   |
| CA.WSL.1450.U.X  |    | 50 |      |    |      | 39 g   |
| CA.WSL.2060.U.X  | 20 | 65 | 21   | 35 | X/JU | 58 g   |
| CA.WSL.2070.U.X  |    | 70 | 25.5 |    | JU   | 64 g   |
| CA.WSL.2070.U.JU |    |    |      |    |      | 67 g   |
| CA.WSL.3070.U.JU | 30 |    | 30   |    |      | 118 g  |

Application example / Esempio applicativo



## CA.04 WSL.G

X/JU

. Long Angle Clamp With Ball joint

. Staffa con Sfera

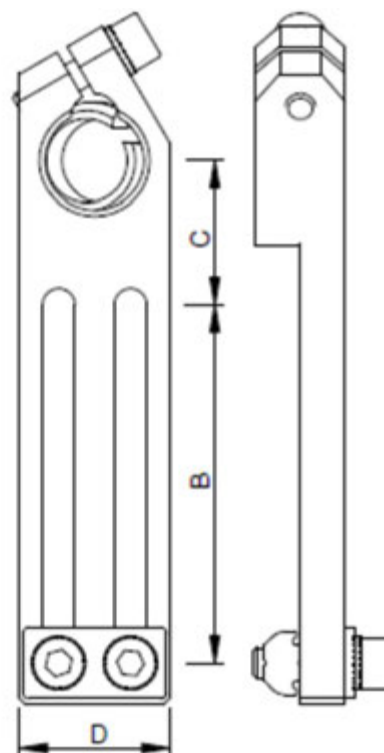
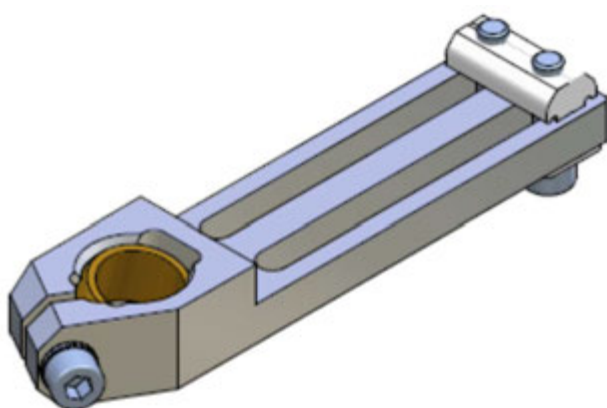


Table / Tabella

**M** = Suitable for Profiles  
Applicabile ai profili

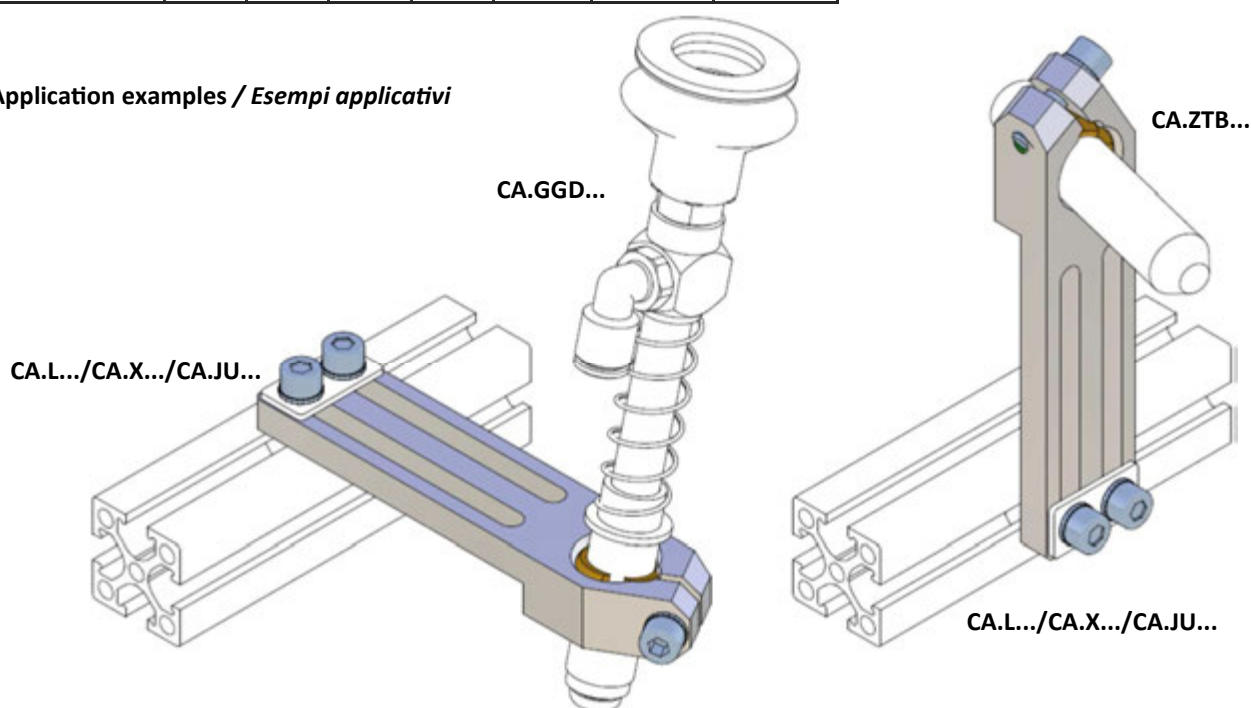
Remarks / Osservazioni:

Material / Materiale : Aluminium / Alluminio

Surface: Silver anodized  
Superficie: Argento anodizzato

| Article no.     | A  | B  | C  | D  | G°     | M    | Weight |
|-----------------|----|----|----|----|--------|------|--------|
| CA.WSL.1050.G.X | 10 | 50 | 20 | 20 | 0°-13° | X    | 51 g   |
| CA.WSL.1460.G.X | 14 | 60 |    | 25 | 0°-17° |      | 78 g   |
| CA.WSL.2060.G.X | 20 |    | 29 | 35 | 0°-19° | X/JU | 159 g  |

Application examples / Esempi applicativi



## CA.04 WSL.GA

. Long Angle Clamp - Swivel Head

L/X/JU

. Staffa Snodata

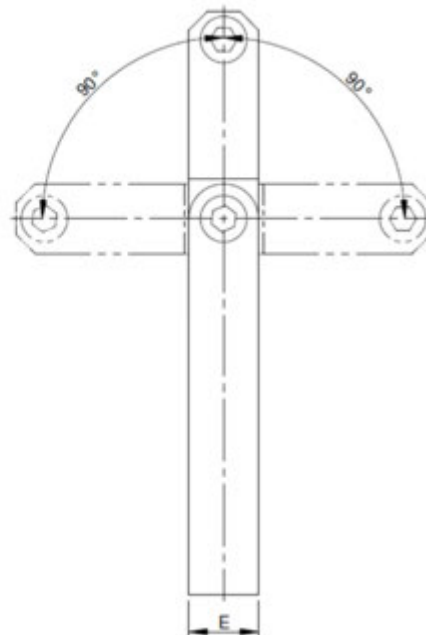
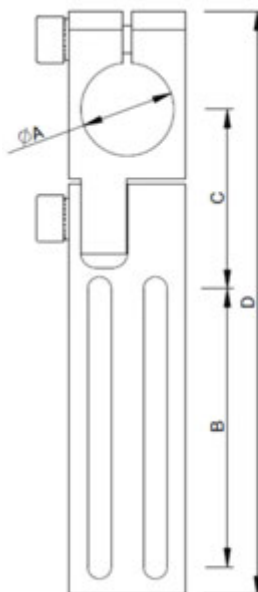
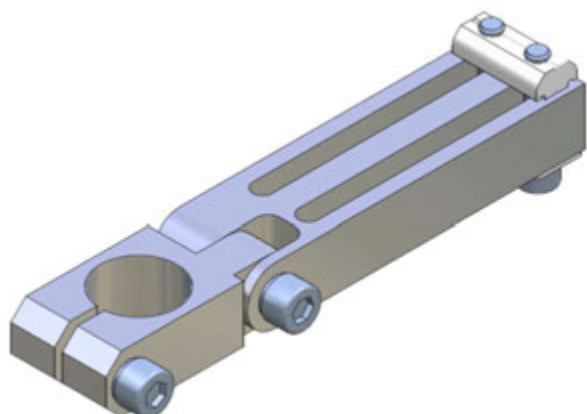


Table / Tabella

**M** = Suitable for Profiles  
Applicabile ai profili

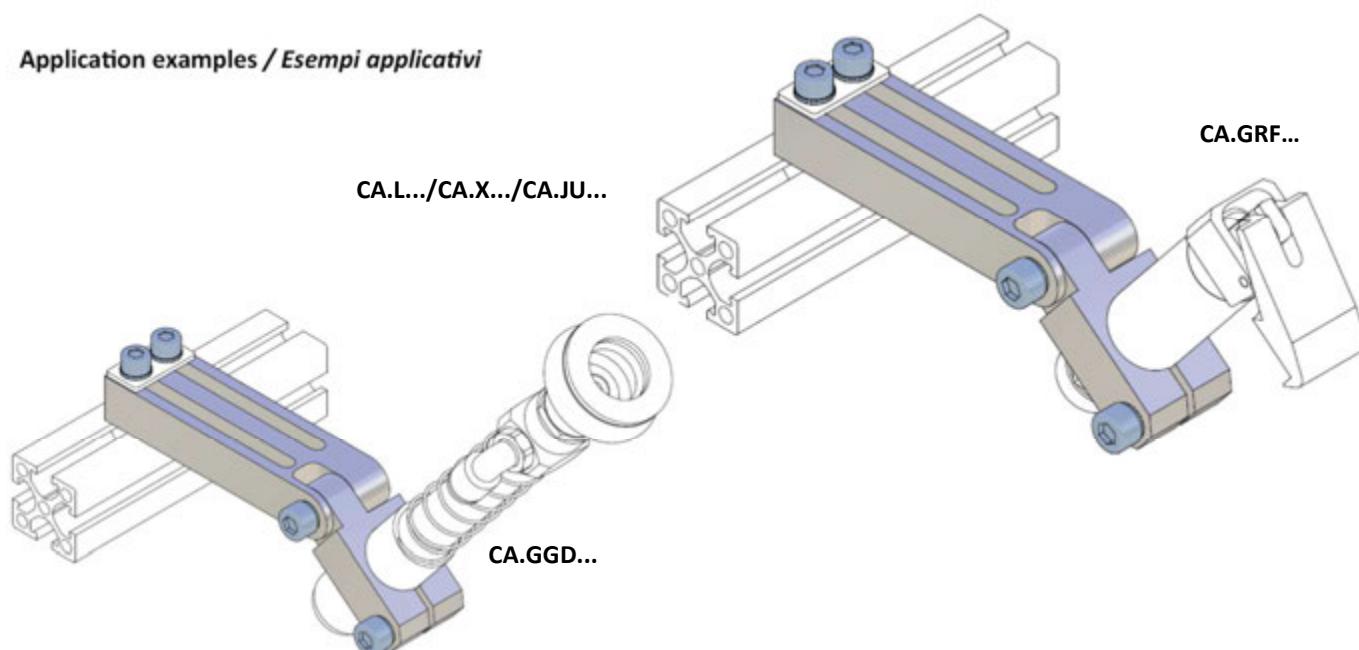
Remarks / Osservazioni:

Material / Materiale : Aluminium / Alluminio

Surface: Silver anodized  
Superficie: Argento anodizzato

| Article no.    | A  | B  | C    | D     | E  | M    | Weight |
|----------------|----|----|------|-------|----|------|--------|
| CA.WSL.GA.10.X | 10 | 40 | 32   | 93    | 10 | L/X  | 57 g   |
| CA.WSL.GA.14.X | 14 |    | 33   | 96    |    | X    |        |
| CA.WSL.GA.20.X | 20 | 60 | 38.5 | 125.5 | 15 | X/JU | 118 g  |
| CA.WSL.GA.30.X | 30 | 82 | 53   | 168.5 | 20 | JU   | 261 g  |

Application examples / Esempi applicativi



## CA.04 WSL.KG

X/JU

. Long Angle Clamp Swivel Head and Ball Joint

. Staffa Snodata con Sfera

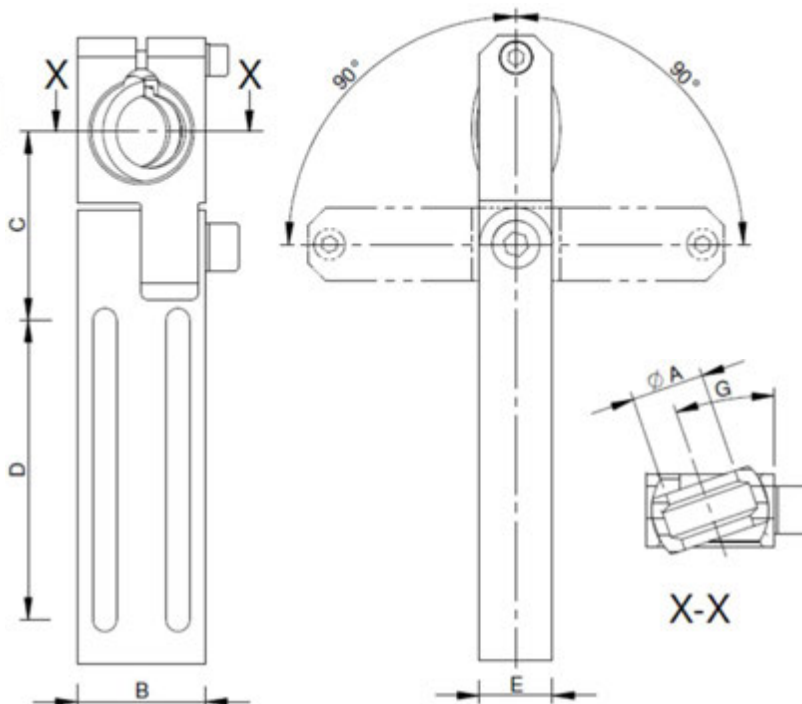
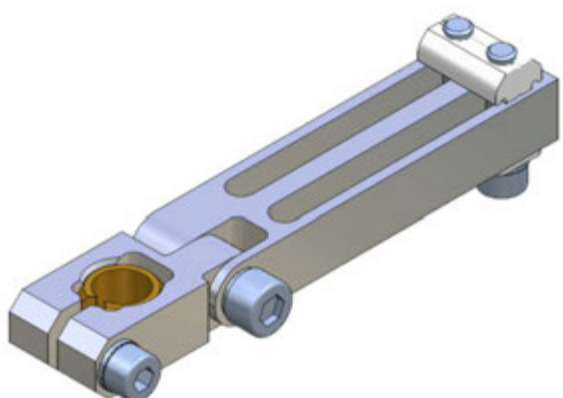


Table / Tabella

M = Suitable for Profiles  
Applicabile ai profili

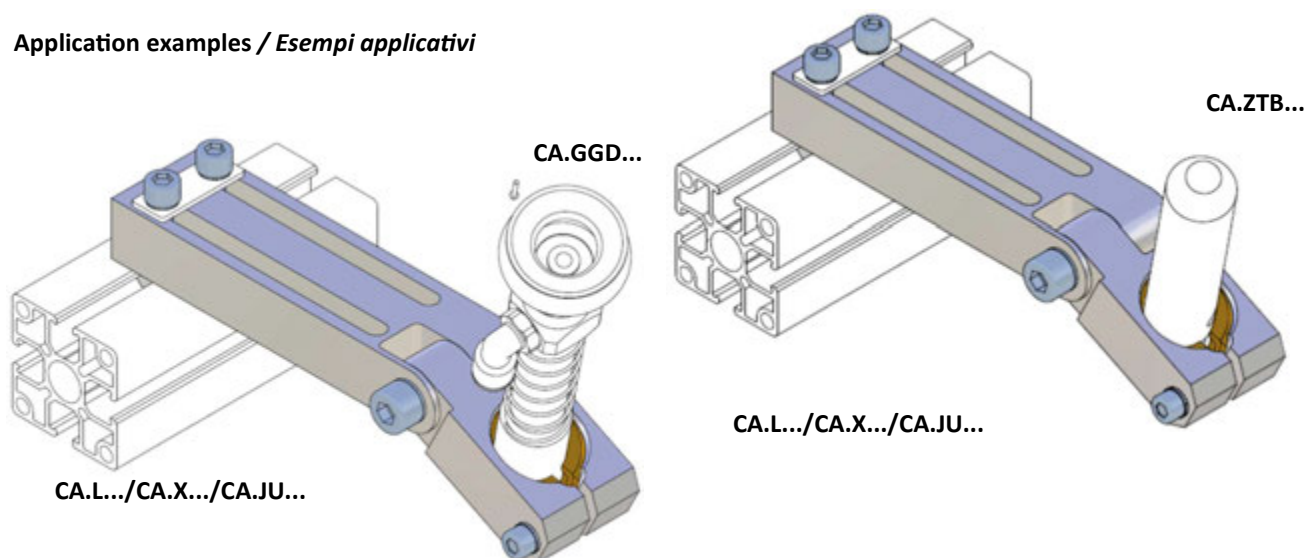
Remarks / Osservazioni:

Material / Materiale : Aluminium / Alluminio

Surface: Silver anodized  
Superficie: Argento anodizzato

| Article no.     | A  | B  | C    | D  | E  | G°     | M    | Weight |
|-----------------|----|----|------|----|----|--------|------|--------|
| CA.WSL.KG.X.10  | 10 | 20 | 32.5 | 50 | 12 | 0°-13° | X    | 78 g   |
| CA.WSL.KG.X.14  | 14 | 25 | 39.5 | 60 | 15 | 0°-17° |      | 117 g  |
| CA.WSL.KG.JU.20 | 20 | 35 | 51.5 | 82 | 20 | 0°-19° | X/JU | 320 g  |

Application examples / Esempi applicativi



## CA.04.20

X/JU

. Mounting Bracket

. Staffa Passaparete

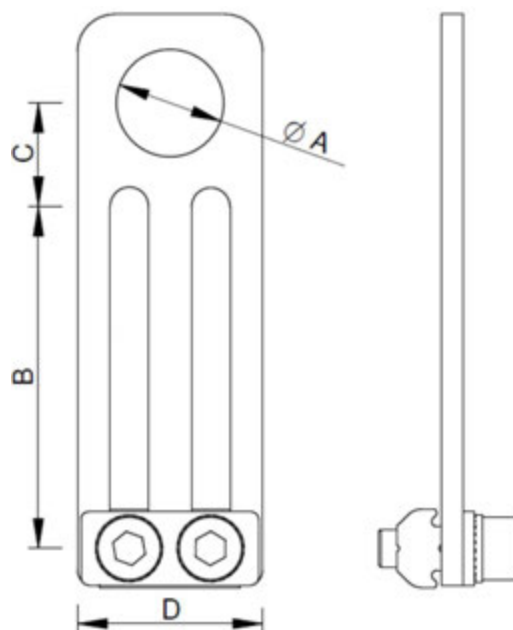
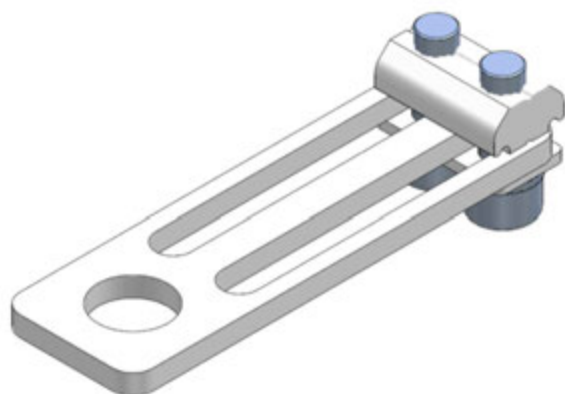


Table / Tabella

**M** = Suitable for Profiles  
Applicabile ai profili

Remarks / Osservazioni:

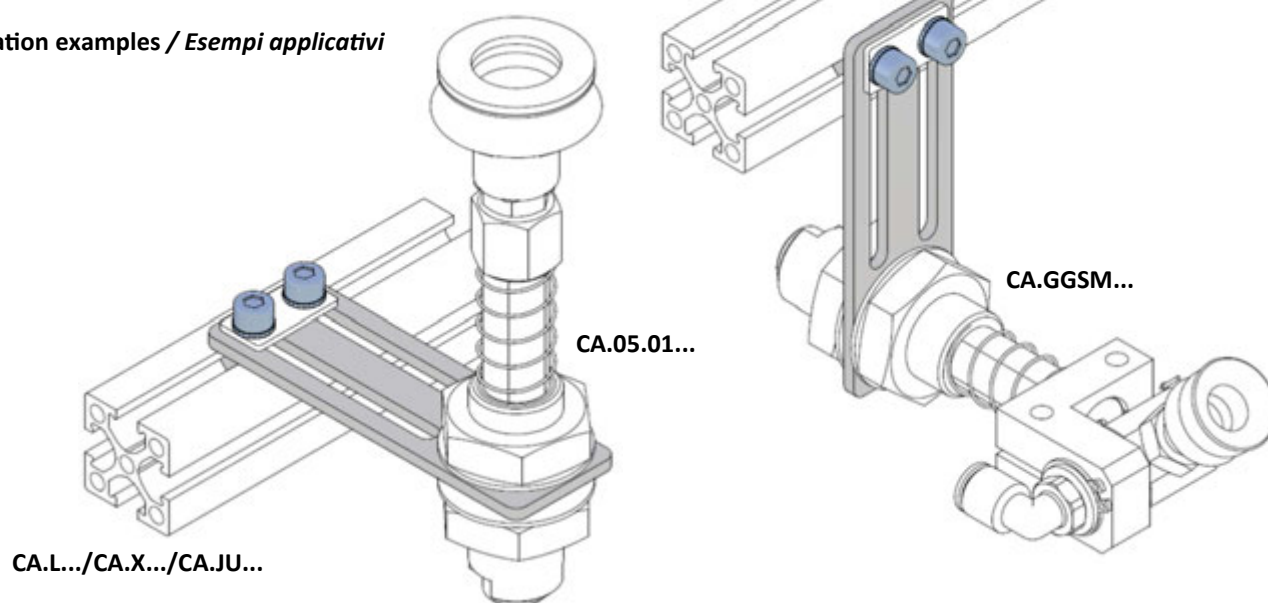
Material / Materiale:

Surface: Steel galvanized  
Superficie: Acciaio zincato

| Article no.   | A  | B    | C  | D  | M    | Weight |
|---------------|----|------|----|----|------|--------|
| CA.04.20.10.X | 10 | 40   | 11 | 20 | X    | 35 g   |
| CA.04.20.12.X | 12 |      |    |    |      | 47 g   |
| CA.04.20.14.X | 14 | 46   | 14 | 25 | X/JU | 65 g   |
| CA.04.20.20.X | 20 | 51.5 | 19 | 30 |      |        |

CA.L.../CA.X.../CA.JU...

Application examples / Esempi applicativi



## CA.04 SCM

. Short Mounting bracket

**new**

**X/JU**

. Staffa Corta Passaparete

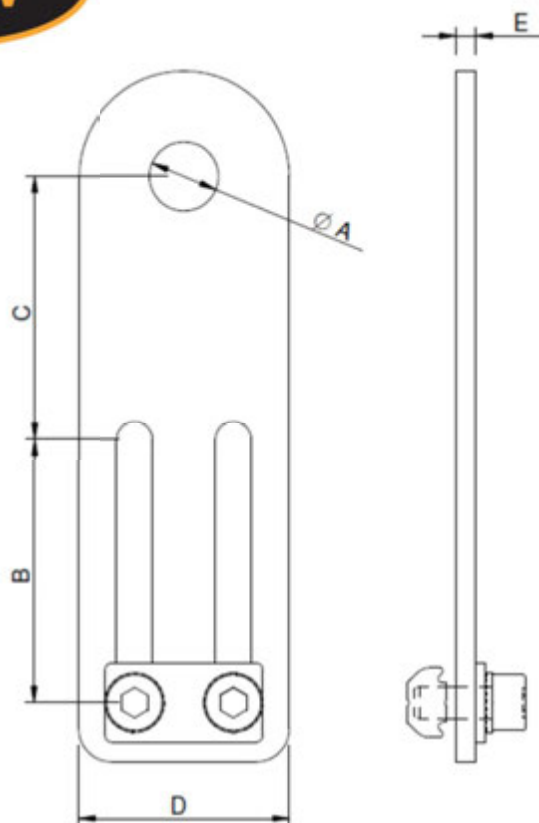
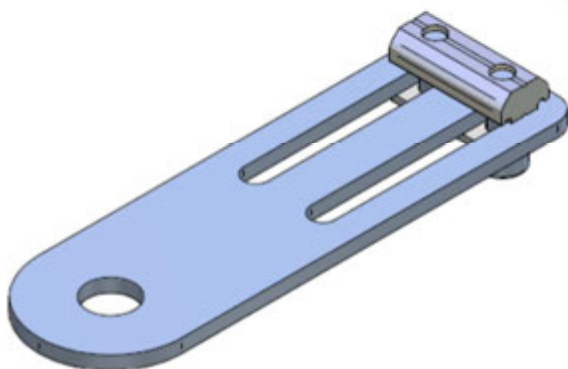


Table / Tabella

**M** = Suitable for Profiles  
Applicabile ai profili

Remarks / Osservazioni:

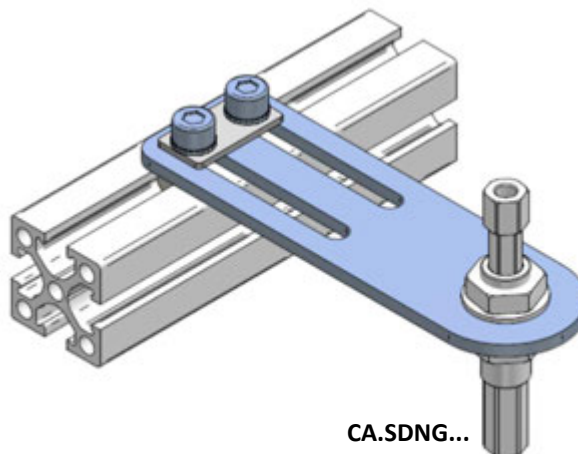
Material / Materiale:

Surface: Steel galvanized  
Superficie: Acciaio zincato

| Article no. | A    | B  | C  | D  | E | M    | Weight |
|-------------|------|----|----|----|---|------|--------|
| CA.SCM.10.X | 10.5 | 40 | 40 | 32 | 3 | X    | 84 g   |
| CA.SCM.12.X | 12.5 |    |    |    |   |      | 83 g   |
| CA.SCM.14.X | 14.5 |    |    |    |   | X/JU | 82 g   |
| CA.SCM.20.X | 20.5 |    |    |    |   |      | 78 g   |

Application example / Esempio applicativo

CA.L.../CA.X.../CA.JU...



CA.SDNG...

## CA.04.02

. Long Angle Clamp

**X/JU**

. Staffa Lunga

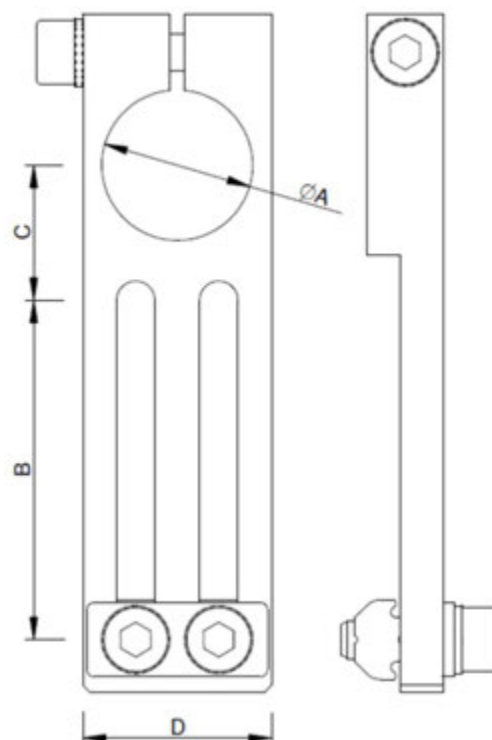
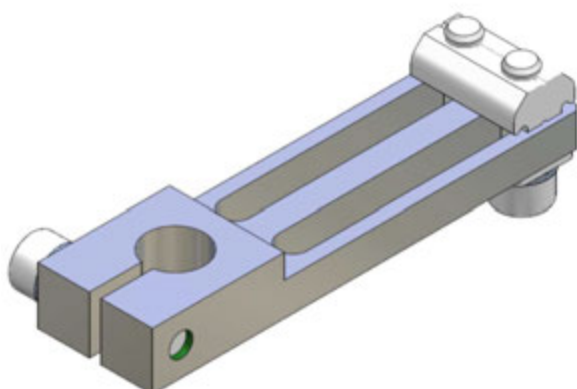


Table / Tabella

**M** = Suitable for Profiles  
*Applicabile ai profili*

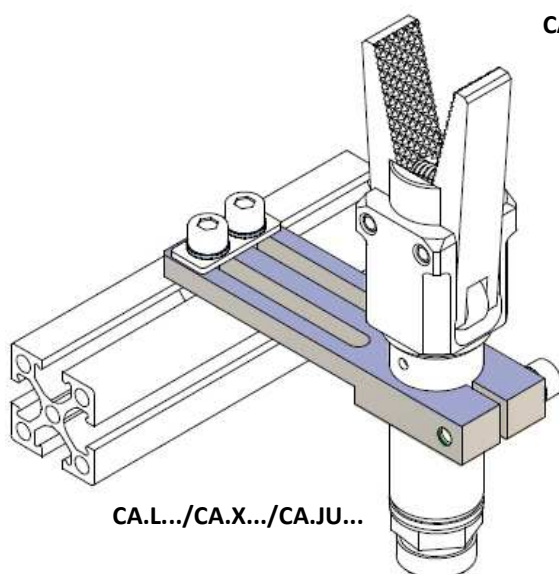
Remarks / Osservazioni:

Material / Materiale : Aluminium / Alluminio

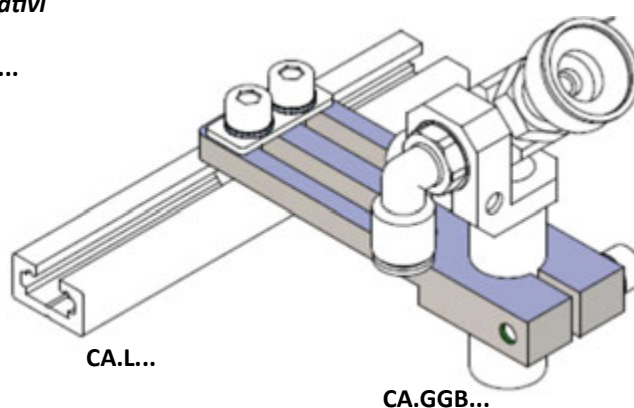
Surface: Silver anodized  
*Superficie: Argento anodizzato*

| Article no.   | A  | B  | C    | D  | M  | Weight |
|---------------|----|----|------|----|----|--------|
| CA.04.02.10.X | 10 | 40 | 15.5 | 20 | X  | 41 g   |
| CA.04.02.14.X | 14 | 45 | 16.5 | 25 |    |        |
| CA.04.02.20.X | 20 |    |      |    | 18 | X/JU   |
| CA.04.02.30.X | 30 | 70 | 34   | 35 | JU | 128 g  |

Application examples / Esempi applicativi



CA.PAC20...



CA.L...

CA.GGB...

## CA.04 KSW

L/X/JU

. Clamp angle

. Staffa Angolare

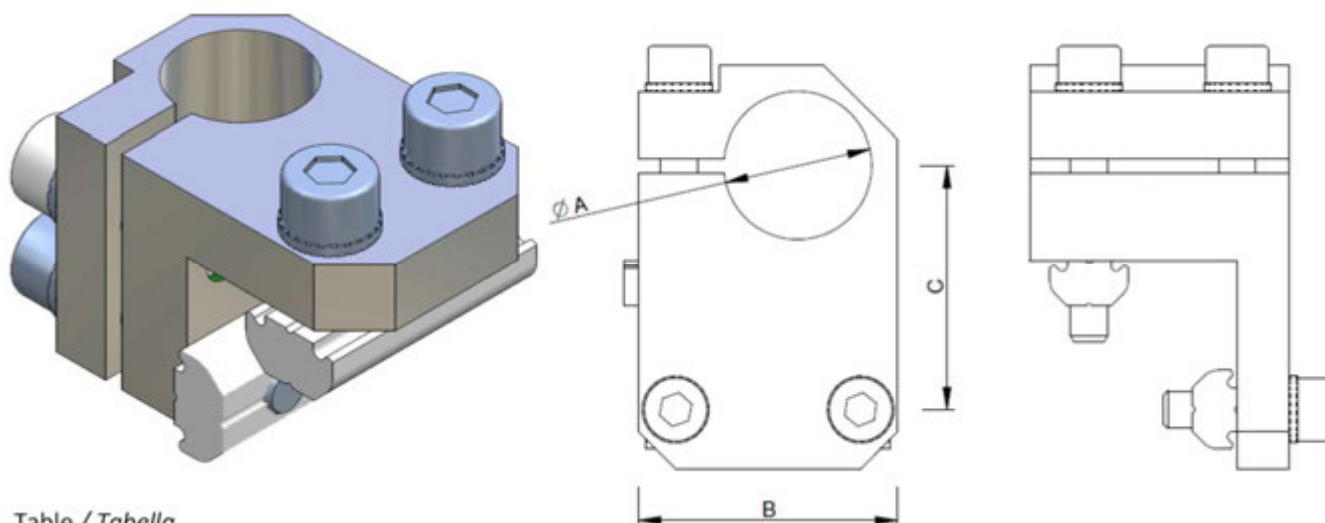


Table / Tabella

**M** = Suitable for Profiles  
Applicabile ai profili

Remarks / Osservazioni:

Material / Materiale : Aluminium / Alluminio

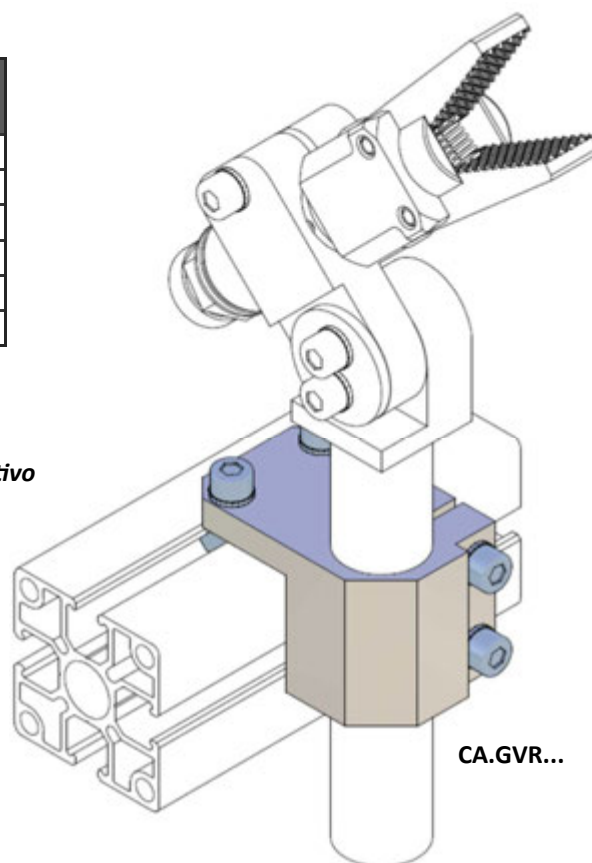
Surface: Silver anodized

Superficie: Argento anodizzato

| Article no.  | A  | B  | C    | M  | Weight |
|--------------|----|----|------|----|--------|
| CA.KSW.10.L  | 10 | 20 | 16,5 | L  | 27 g   |
| CA.KSW.10.X  |    | 25 | 19.5 | X  | 56 g   |
| CA.KSW.14.X  | 14 |    | 21.5 |    | 59 g   |
| CA.KSW.20.X  | 20 | 32 | 24.5 | JU | 80 g   |
| CA.KSW.20.JU |    | 35 | 33   |    | 103 g  |
| CA.KSW.30.JU | 30 | 45 | 39   |    | 148 g  |

Application example / Esempio applicativo

CA.L.../CA.X.../CA.JU...



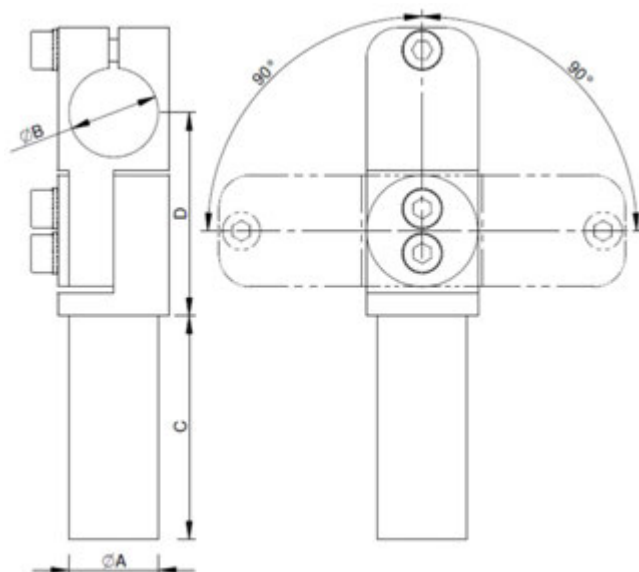
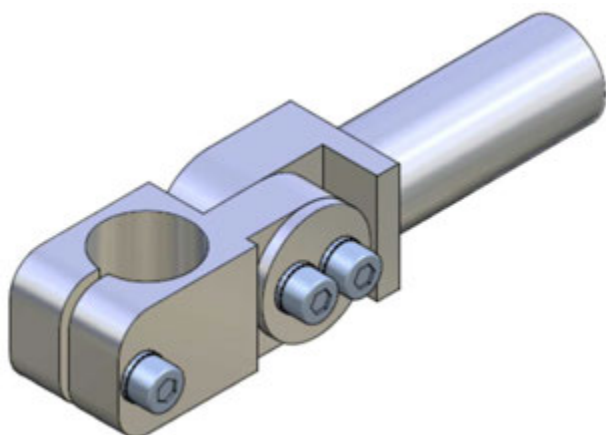
CA.GVR...

## CA.04 GVR

. Elbow Gripper Arm

Ø 10-14-20-30

. Giunto Supporto Orientabile



Remarks / Osservazioni:

Material / Materiale : Aluminium / Alluminio

Surface: Silver anodized

Superficie: Argento anodizzato

| Article no.     | A  | B  | C   | D    | Weight |
|-----------------|----|----|-----|------|--------|
| CA.GVR.1010.30  | 10 | 10 | 30  | 30   | 27 g   |
| CA.GVR.1010.60  |    |    | 60  |      | 31 g   |
| CA.GVR.1010.90  |    |    | 90  |      | 37 g   |
| CA.GVR.1414.40  | 14 | 14 | 40  | 36   | 56 g   |
| CA.GVR.1414.80  |    |    | 80  |      | 66 g   |
| CA.GVR.1414.120 |    |    | 120 |      | 83 g   |
| CA.GVR.2020.50  | 20 | 20 | 50  | 45.5 | 111 g  |
| CA.GVR.2020.100 |    |    | 100 |      | 127 g  |
| CA.GVR.2020.150 |    |    | 150 |      | 169 g  |
| CA.GVR.3030.80  | 30 | 30 | 80  | 60   | 302 g  |
| CA.GVR.3030.140 |    |    | 140 |      | 394 g  |
| CA.GVR.3030.200 |    |    | 200 |      | 509 g  |

Application examples / Esempi applicativi

CA.ZTB...

CA.L.../CA.X.../CA.JU...

CA.KVB...

CA.GRF...

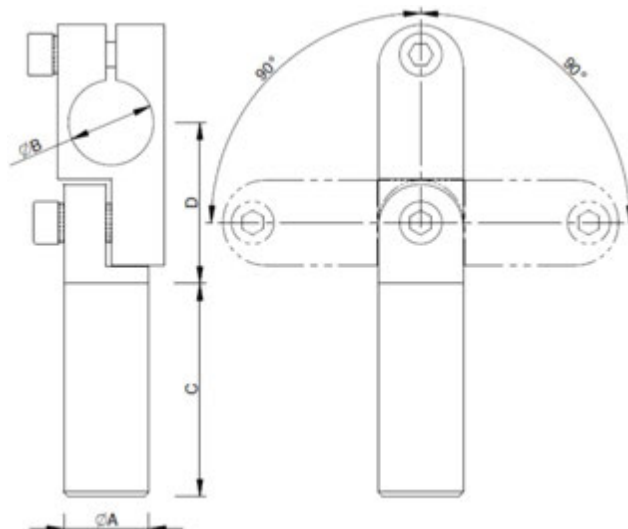
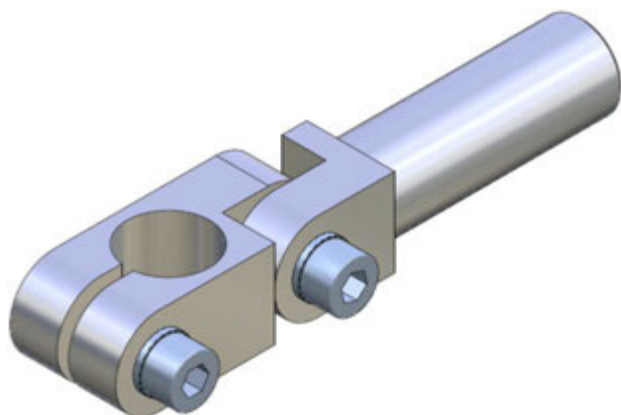
CA.L.../CA.X.../CA.JU...

## CA.04 GLA

. Elbow gripper arm

Ø 10-14-20-30

. Giunto Supporto Orientabile



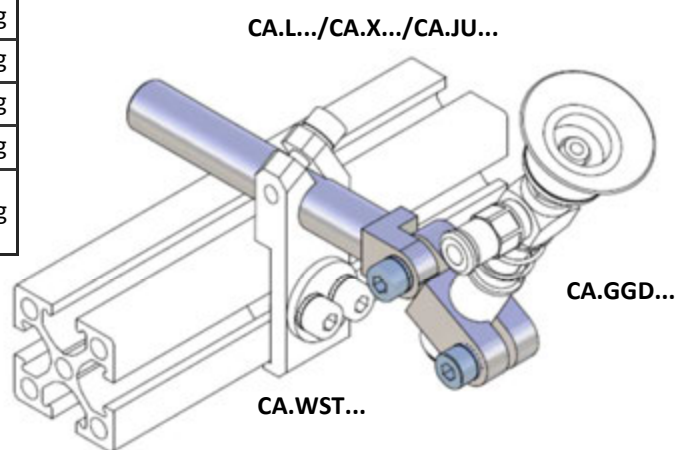
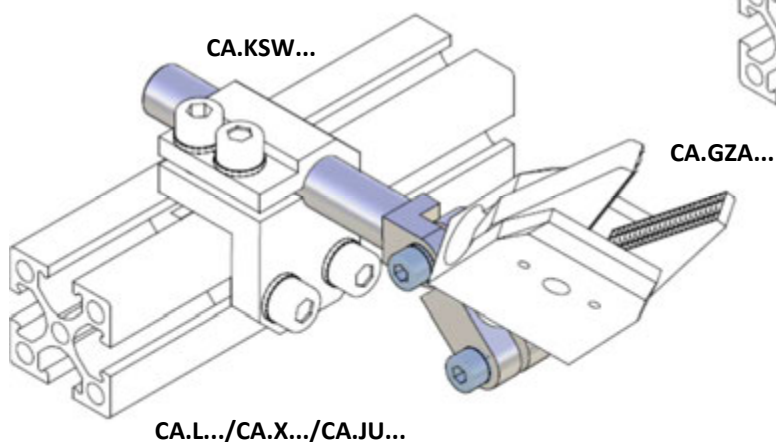
Remarks / Osservazioni:

Material / Materiale : Aluminium / Alluminio

Surface: Silver anodized  
Superficie: Argento anodizzato

| Article no.     | A  | B  | C   | D    | Weight |
|-----------------|----|----|-----|------|--------|
| CA.GLA.1010.30  | 10 | 10 | 30  | 22   | 17 g   |
| CA.GLA.1010.60  |    |    | 60  |      | 21 g   |
| CA.GLA.1010.90  |    |    | 90  |      | 28 g   |
| CA.GLA.1414.40  | 14 | 14 | 40  | 30   | 43 g   |
| CA.GLA.1414.80  |    |    | 80  |      | 51 g   |
| CA.GLA.1414.120 |    |    | 120 |      | 70 g   |
| CA.GLA.2020.50  | 20 | 20 | 50  | 38   | 99 g   |
| CA.GLA.2020.100 |    |    | 100 |      | 106 g  |
| CA.GLA.2020.150 |    |    | 150 |      | 165 g  |
| CA.GLA.2030     | 20 | 30 | 100 | 47   | 315 g  |
| CA.GLA.3030     | 30 |    |     | 52.5 |        |

Application examples / Esempi applicativi

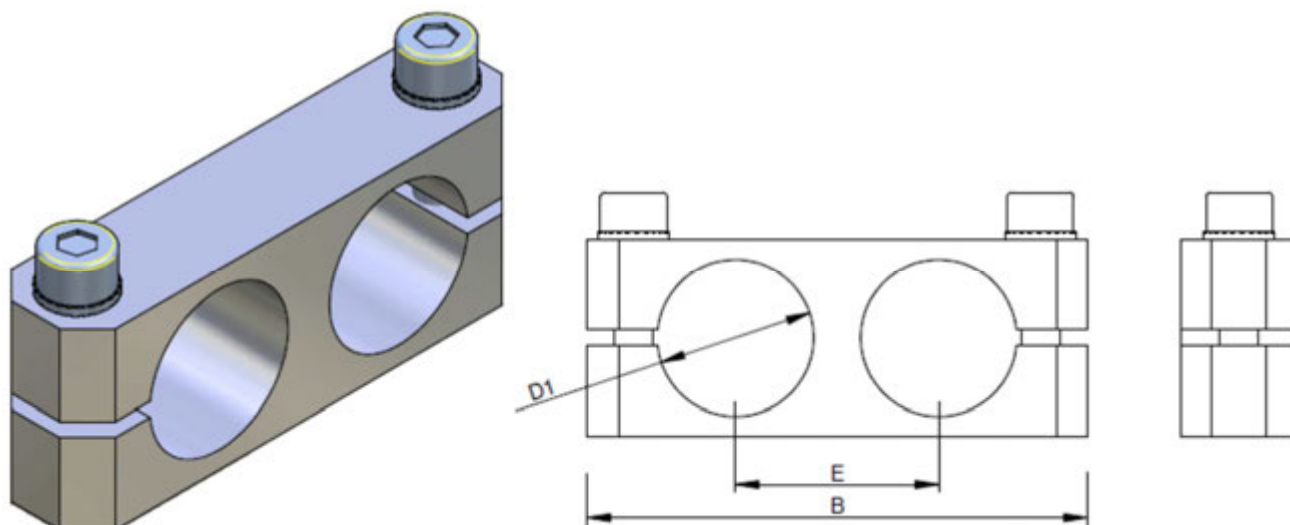


## CA.04 PKS

Ø 10-14-20-30

. Parallel Clamp

. Staffa Parallela



Remarks / Osservazioni:

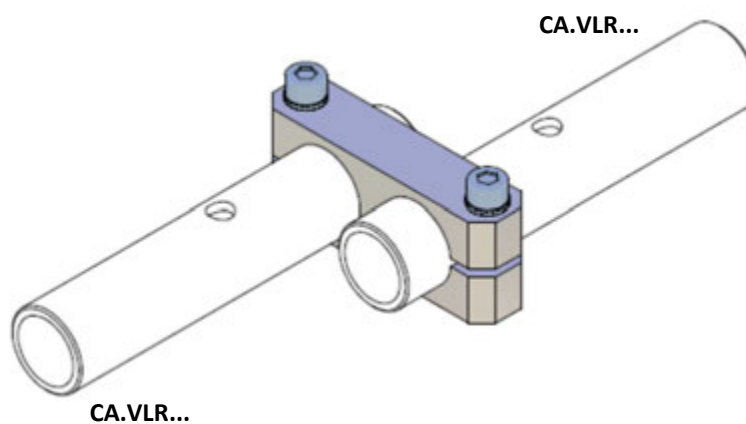
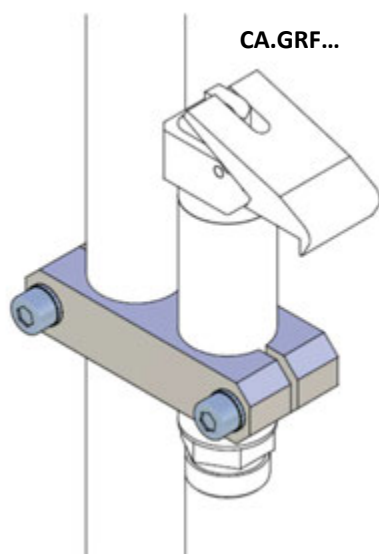
Material / Materiale : Aluminium / Alluminio

Surface: Silver anodized

Superficie: Argento anodizzato

| Article no.    | D1 | B  | E  | Weight |
|----------------|----|----|----|--------|
| CA.PKS.1010.15 | 10 | 38 | 15 | 12 g   |
| CA.PKS.1414.20 | 14 | 52 | 20 | 27 g   |
| CA.PKS.2020.26 | 20 | 64 | 26 | 47 g   |
| CA.PKS.3030.38 | 30 | 88 | 38 | 104 g  |

Application examples / Esempi applicativi

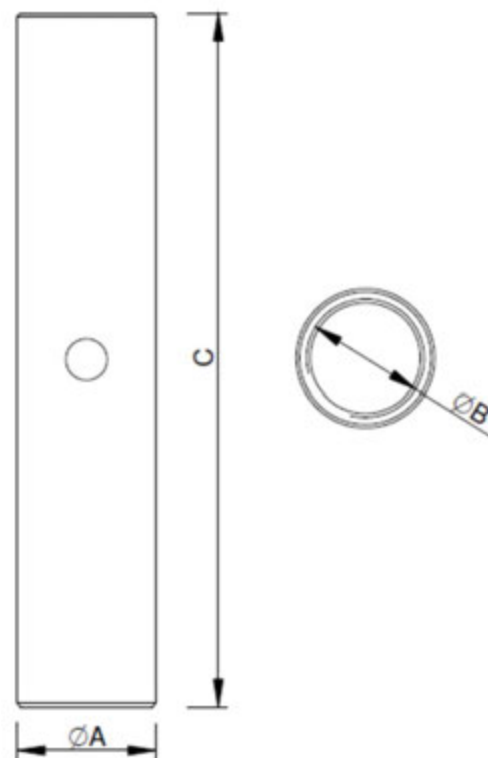
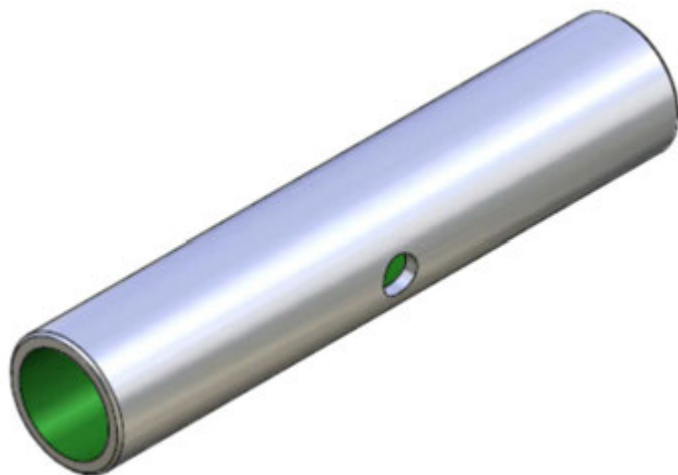


## CA.04 VLR

Ø 10-14-20-30

. Extension tube

. Prolunga



Remarks / Osservazioni:

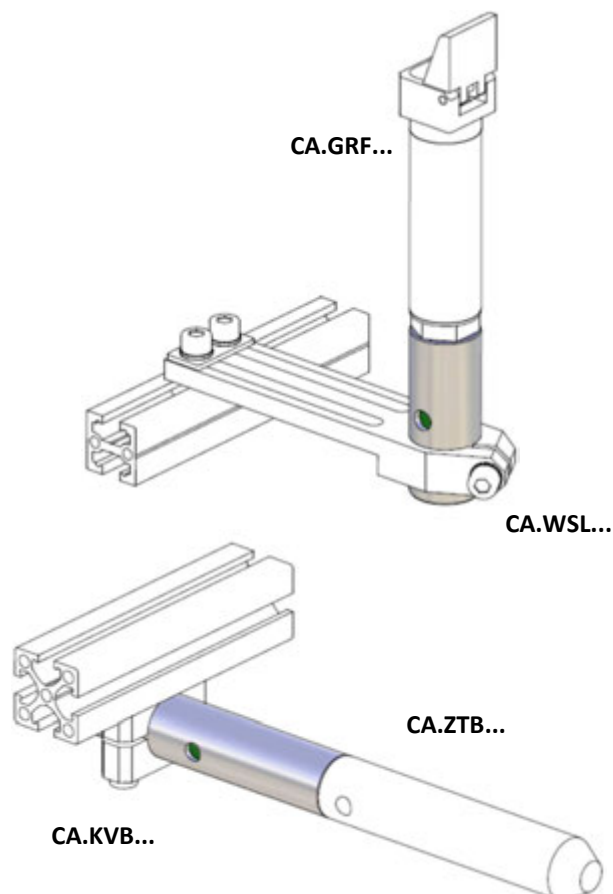
Extension tubes are compatible with:  
CA.ZTB - CA.GRF - CA.PAC - CA.APG - CA.GRZ - CA.PMA

Le prolunghe sono compatibili con:  
CA.ZTB - CA.GRF - CA.PAC - CA.AGP - CA.GRZ - CA.PMA

Material / Materiale : Aluminium / Alluminio  
Surface: Silver anodized  
Superficie: Argento anodizzato

Application examples / Esempi applicativi

| Article no.   | A  | B     | C   | Weight |
|---------------|----|-------|-----|--------|
| CA.VLR.10.30  | 10 | M8X1  | 30  | 3 g    |
| CA.VLR.10.60  |    |       | 60  | 6 g    |
| CA.VLR.10.90  |    |       | 90  | 10 g   |
| CA.VLR.14.40  | 14 | M12X1 | 40  | 6 g    |
| CA.VLR.14.80  |    |       | 80  | 13 g   |
| CA.VLR.14.120 |    |       | 120 | 19 g   |
| CA.VLR.20.50  | 20 | M17X1 | 50  | 15 g   |
| CA.VLR.20.100 |    |       | 100 | 31 g   |
| CA.VLR.20.150 |    |       | 150 | 46 g   |
| CA.VLR.30.80  | 30 | M27X1 | 80  | 38 g   |
| CA.VLR.30.140 |    |       | 140 | 67 g   |
| CA.VLR.30.200 |    |       | 200 | 97 g   |



## CA.04 ZTB

. Centering pin

Ø 10-14-20-30

. Centratori

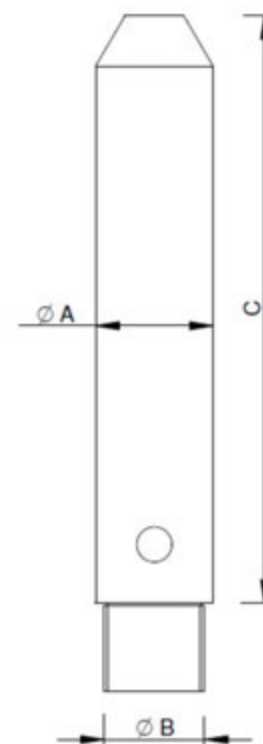
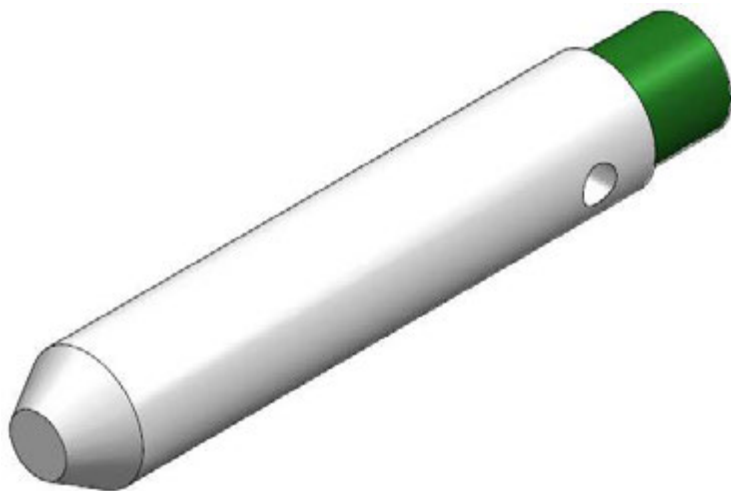


Table / Tabella

**M** = Suitable for...  
Applicabile a...

Remarks / Osservazioni:

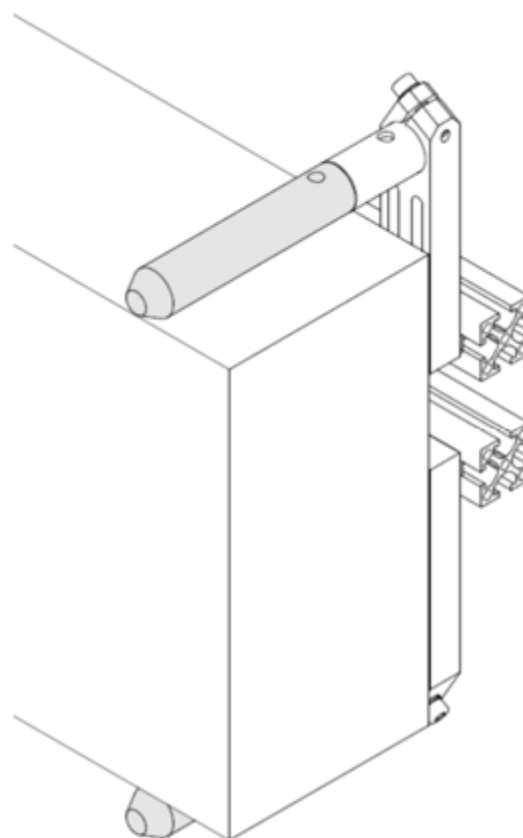
Centering pin made of POM  
Thread D2 allows the ZTB to connect to a VLR extension tube

*I centratori sono fatti di POM*  
*Il filetto B permette al ZTB di collegarsi ad una prolunga VLR*

Material / Materiale:  
POM

| Article no.  | A  | B     | C   | M         | Weight |
|--------------|----|-------|-----|-----------|--------|
| CA.ZTB.1040  | 10 | M8X1  | 40  | CA.VLR.10 | 5 g    |
| CA.ZTB.1060  |    |       | 60  |           | 7 g    |
| CA.ZTB.1460  | 14 | M12X1 | 80  | CA.VLR.14 | 16 g   |
| CA.ZTB.1480  |    |       | 100 |           | 18 g   |
| CA.ZTB.20100 | 20 | M17X1 | 100 | CA.VLR.20 | 47 g   |
| CA.ZTB.30100 | 30 |       | 100 |           | 104 g  |

Application example / Esempio applicativo

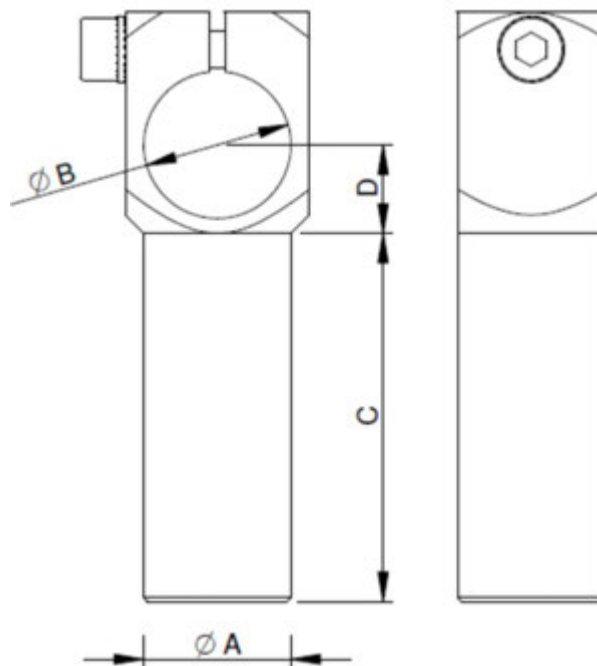
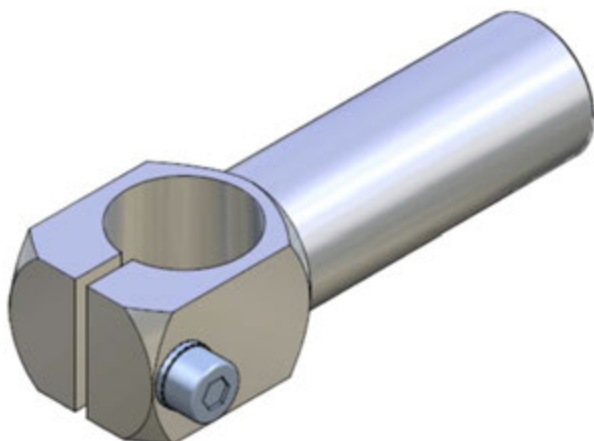


## CA.04 WKA

. Angle gripper arm

Ø 10-14-20-30

. Giunto Fisso ad Angolo



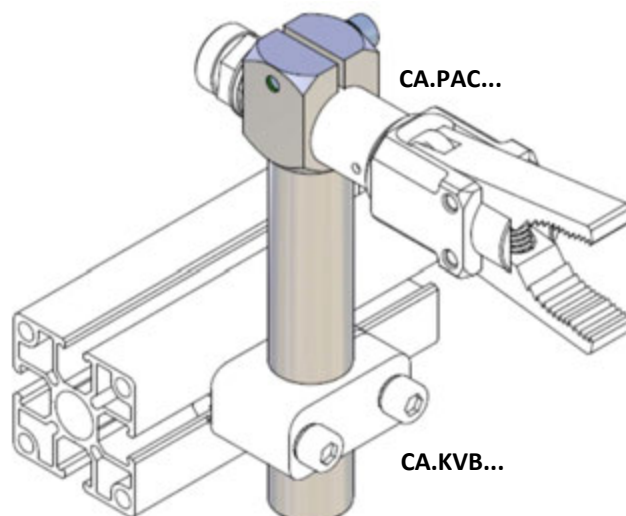
Remarks / Osservazioni:

Material / Materiale: Aluminium / Alluminio

Surface: Silver anodized

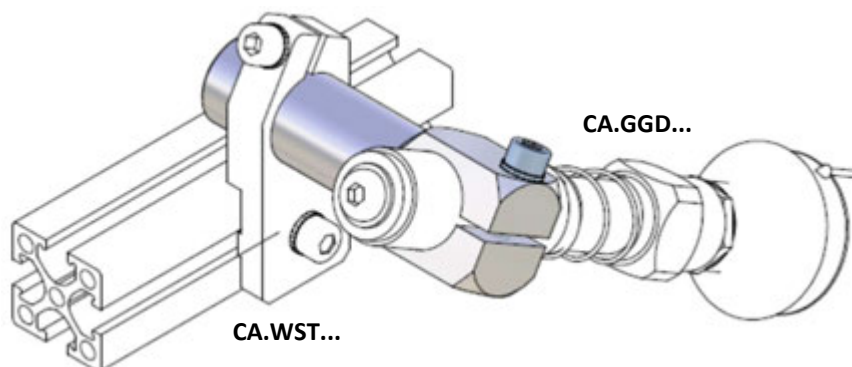
Superficie: Argento anodizzato

| Article no.      | A  | B  | C   | D  | Weight |
|------------------|----|----|-----|----|--------|
| CA.WKA.10.10.30  | 10 | 10 | 30  | 8  | 13 g   |
| CA.WKA.10.10.60  |    |    | 60  |    | 17 g   |
| CA.WKA.10.10.90  |    |    | 90  |    | 22 g   |
| CA.WKA.14.14.40  | 14 | 14 | 40  | 10 | 35 g   |
| CA.WKA.14.14.80  |    |    | 80  |    | 48 g   |
| CA.WKA.14.14.120 |    |    | 120 |    | 47 g   |
| CA.WKA.20.20.50  | 20 | 20 | 50  | 12 | 78 g   |
| CA.WKA.20.20.100 |    |    | 100 |    | 96 g   |
| CA.WKA.20.20.150 |    |    | 150 |    | 136 g  |
| CA.WKA.30.30.80  | 30 | 30 | 80  | 17 | 178 g  |
| CA.WKA.30.30.140 |    |    | 140 |    | 278 g  |
| CA.WKA.30.30.200 |    |    | 200 |    |        |



Application examples / Esempi applicativi

CA.L.../CA.X.../CA.JU...



CA.L.../CA.X.../CA.JU...

## CA.05 SMN

Ø 14 - 20

. Smooth-body non-rotative suspension

. Sospensione anti-Rotazionale

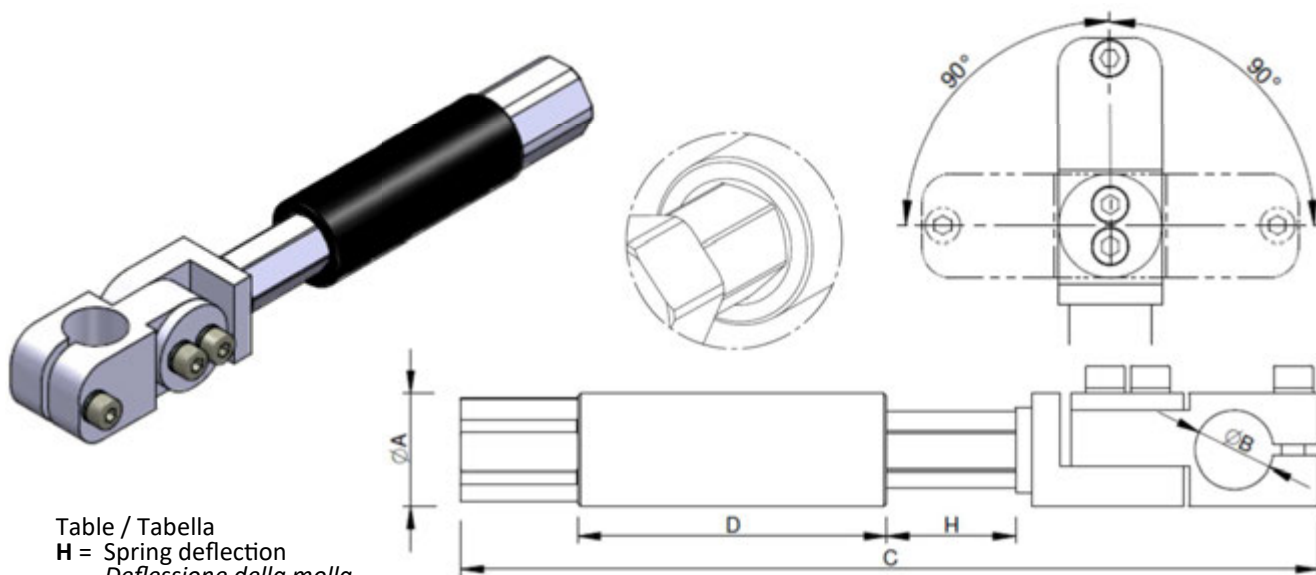


Table / Tabella  
**H** = Spring deflection  
Deflessione della molla

Remarks / Osservazioni:

Material / Materiale: Aluminium / Alluminio

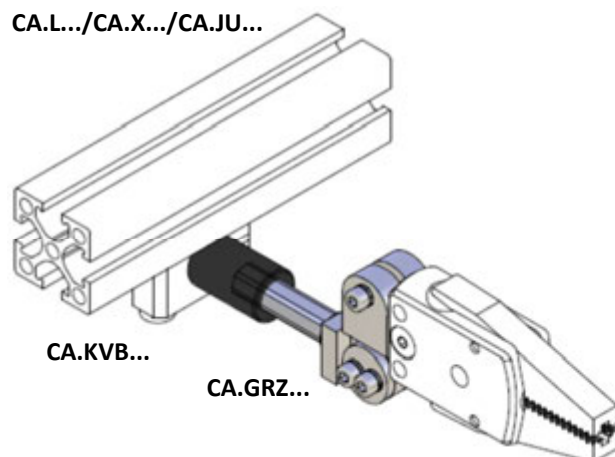
Guide (Tube and shaft) hard coated  
Guida (Tubo e Asta) fortemente protetta

Non rotational  
Anti-Rotazionale

| Article no.   | A  | B  | C     | D    | H  | Weight |
|---------------|----|----|-------|------|----|--------|
| CA.SMN.142010 | 14 | 10 | 129   | 42   | 20 | 43 g   |
| CA.SMN.143510 |    |    | 160   | 60   | 35 | 50 g   |
| CA.SMN.202514 | 20 | 14 | 150   | 55   | 25 | 95 g   |
| CA.SMN.202520 |    | 20 | 163.5 |      |    | 103 g  |
| CA.SMN.205014 |    | 14 | 208   | 82.5 | 50 | 100 g  |
| CA.SMN.205020 |    | 20 | 221.5 |      |    | 109 g  |

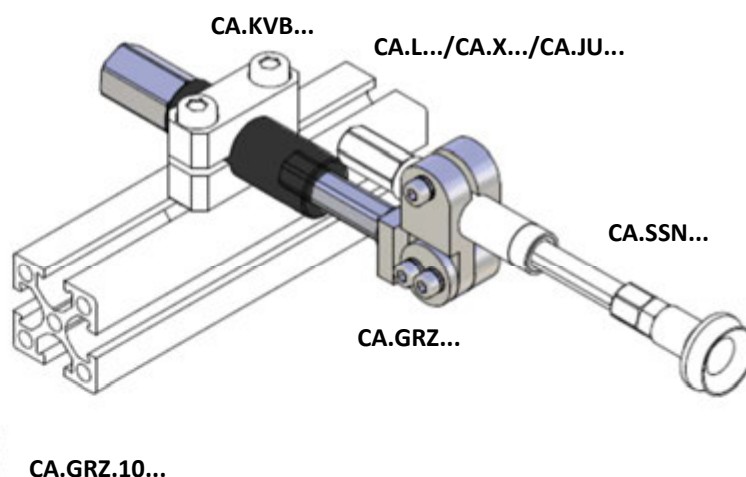
Application examples / Esempi applicativi

CA.L.../CA.X.../CA.JU...



CA.KVB...

CA.L.../CA.X.../CA.JU...



CA.SSN...

CA.GRZ...

CA.GRZ.10...

## CA.05 SMNG

Ø 14 - 20

. Threaded-body non-rotative suspension

. Sospensione Anti-Rotazionale Filettata

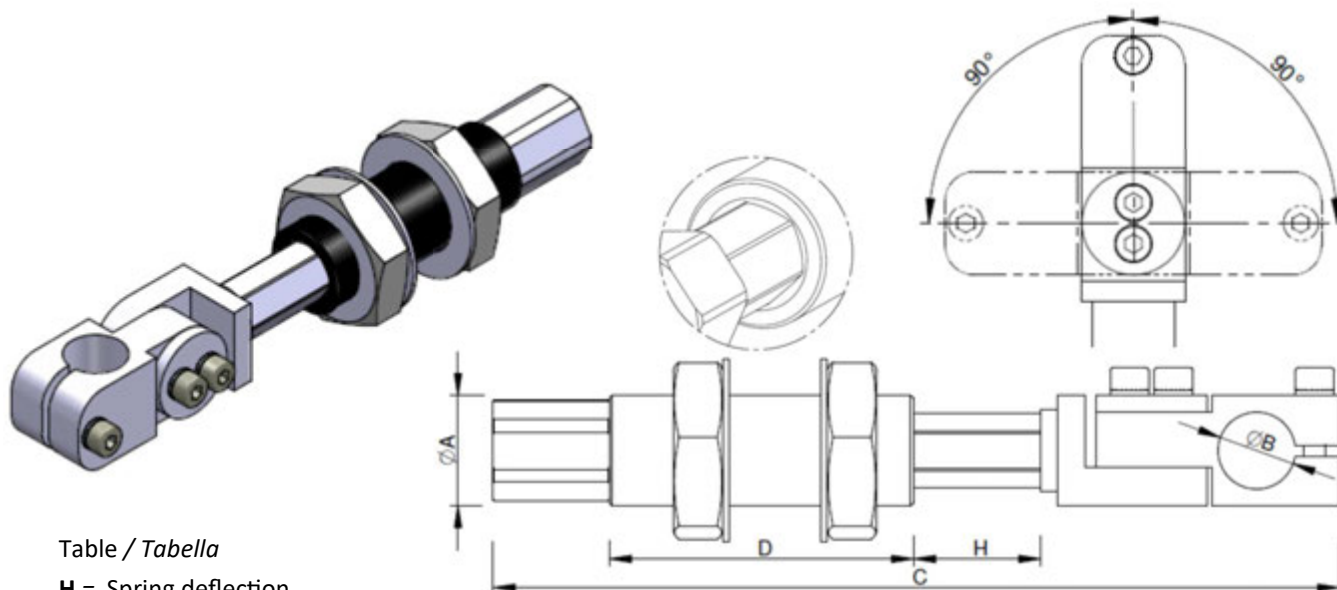


Table / Tabella

H = Spring deflection  
Deflessione della molla

Remarks / Osservazioni:

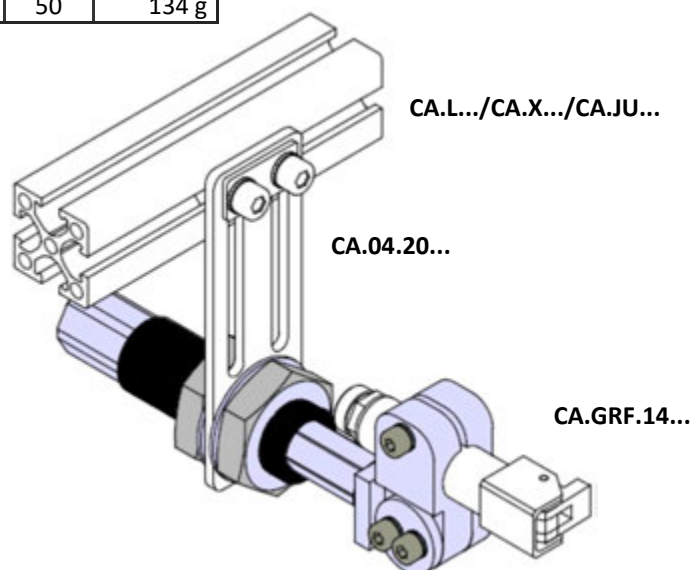
Material / Materiale: Aluminium / Alluminio

Guide (Tube and shaft) hard coated  
Guida (Tubo e Asta) fortemente protetta

Non rotational  
Anti-Rotazionale

| Article no.    | A       | B  | C   | D    | H  | Weight |
|----------------|---------|----|-----|------|----|--------|
| CA.SMNG.142010 | M14x1.5 | 10 | 129 | 42   | 20 | 55 g   |
| CA.SMNG.143510 |         |    | 160 | 60   | 35 | 61 g   |
| CA.SMNG.202514 | M20x1.5 | 14 | 150 | 55   | 25 | 129 g  |
| CA.SMNG.205014 |         |    | 208 | 82.5 | 50 | 134 g  |

Application example / Esempio applicativo

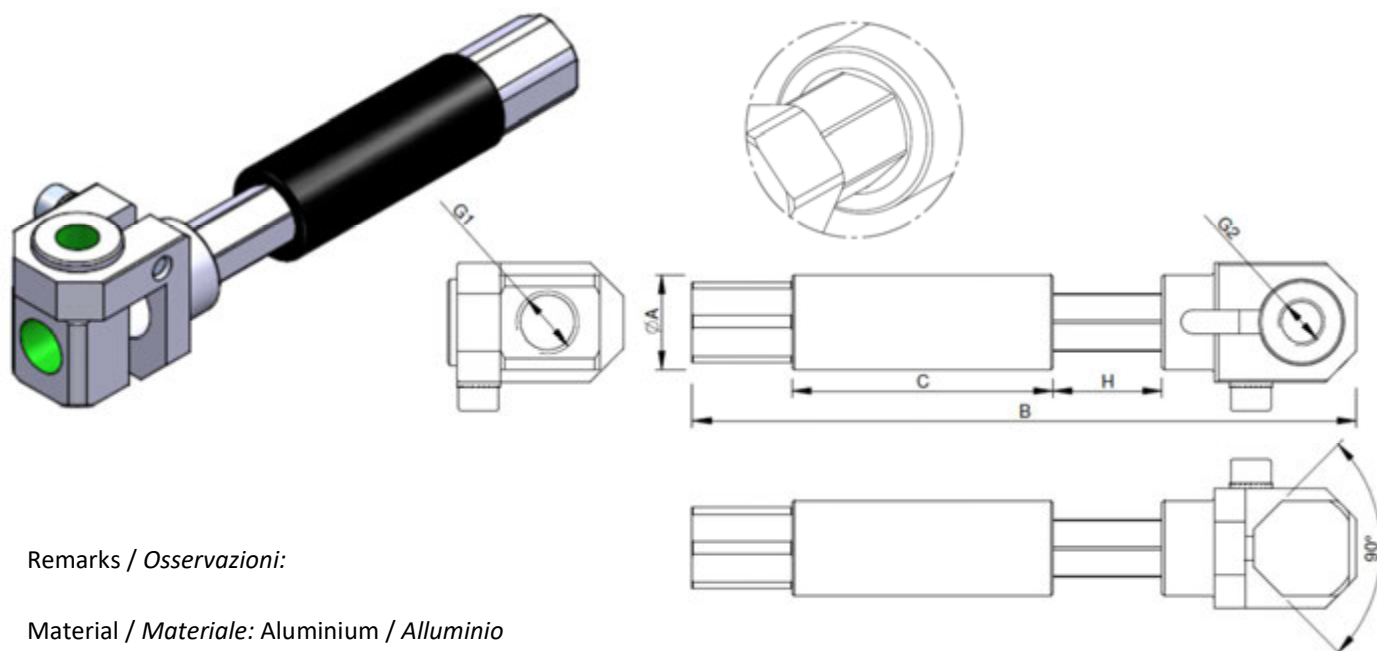


## CA.05 SSN

## Ø 10 - 14 - 20

. Smooth-body non-rotative telescopic suspension

. Sospensione Anti-Rotazionale Liscia



Remarks / Osservazioni:

Material / Materiale: Aluminium / Alluminio

Guide (Tube and shaft) hard coated  
Guida (Tubo e Asta) fortemente protetta

Non rotational  
Anti-Rotazionale

Table / Tabella

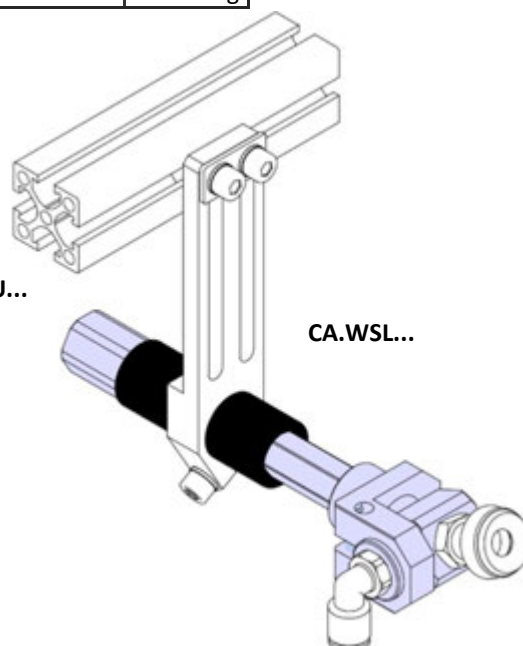
H = Spring deflection  
Deflessione della molla

| Article no.     | A  | B     | C    | G1    | G2    | H  | F(N) | Weight |
|-----------------|----|-------|------|-------|-------|----|------|--------|
| CA.SSN.10100505 | 10 | 56    | 21   | M5    | M5    | 10 | 3.6  | 19 g   |
| CA.SSN.10250505 |    | 90.5  | 40.5 |       |       | 25 | 3.7  | 22 g   |
| CA.SSN.14201818 | 14 | 98.5  | 38.5 | G 1/8 | G 1/8 | 20 | 8.9  | 45 g   |
| CA.SSN.14351818 |    | 148   | 60   |       |       | 35 | 9.5  | 51 g   |
| CA.SSN.20251418 | 20 | 110   | 49   | G 1/4 | G 1/4 | 25 | 11   | 105 g  |
| CA.SSN.20501418 |    | 167.5 | 81.5 |       |       | 50 | 11.4 | 110 g  |

Application example / Esempio applicativo

CA.L.../CA.X.../CA.JU...

CA.WSL...

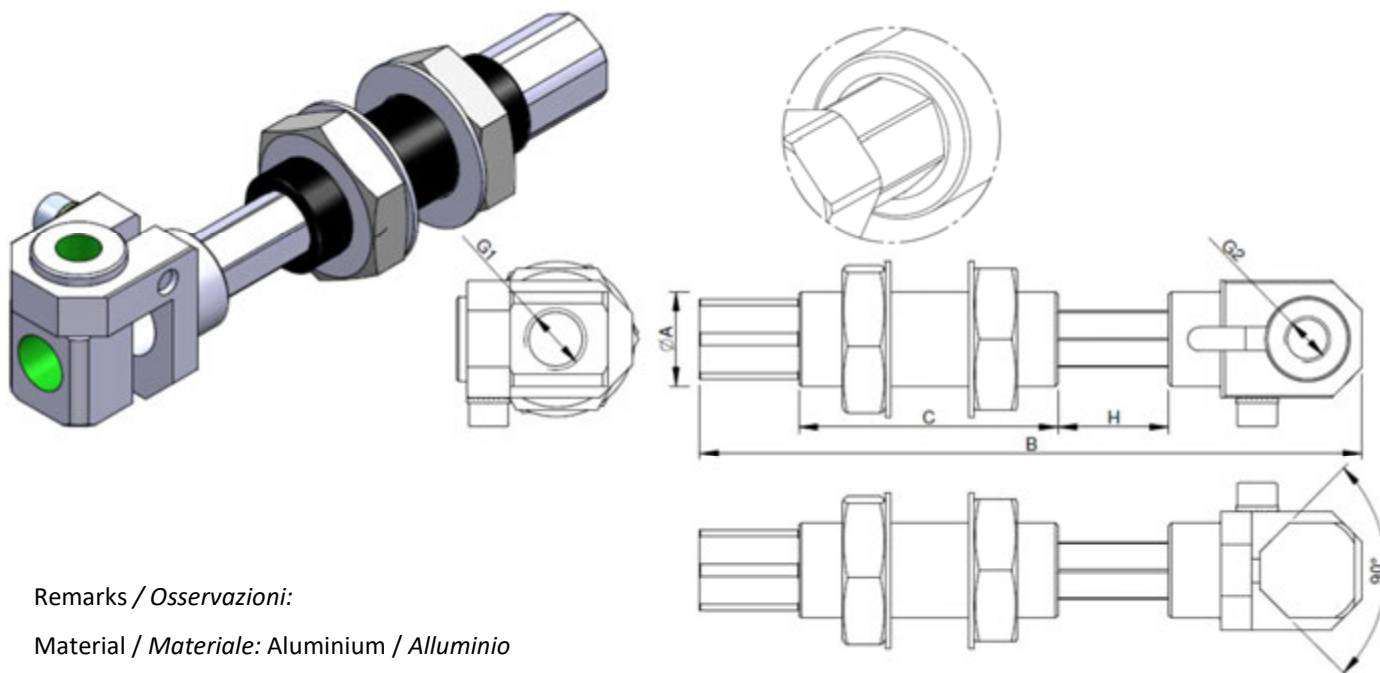


## CA.05 SSNG

Ø 10 - 14 - 20

. Threaded-body non-rotative suspension

. Sospensione Anti-Rotazionale Filettata



Remarks / Osservazioni:

Material / Materiale: Aluminium / Alluminio

Guide (Tube and shaft) hard coated  
Guida (Tubo e Asta) fortemente  
protetta

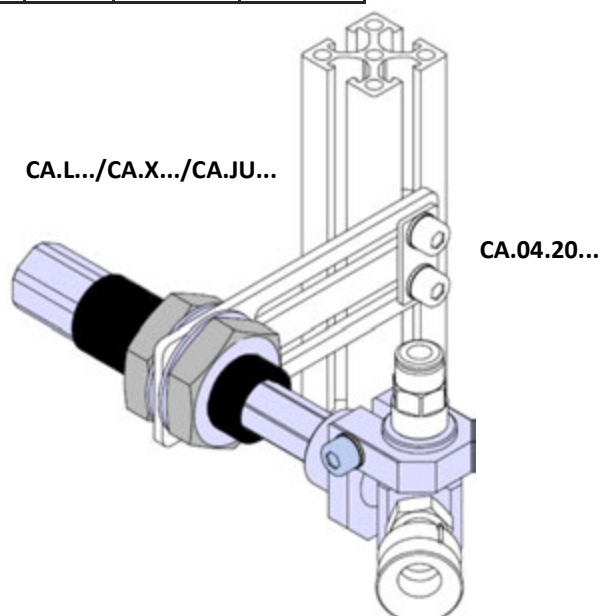
Non rotational  
Anti-Rotazionale

Table / Tabella

H = Spring deflection  
Deflessione della molla

| Article no.      | A       | B     | C    | G1    | G2    | H  | F(N) | Weight |
|------------------|---------|-------|------|-------|-------|----|------|--------|
| CA.SSNG.10100505 | M10X1   | 56    | 21   | M5    | M5    | 10 | 3.6  | 25 g   |
| CA.SSNG.10250505 |         | 90.5  | 40.5 |       |       | 25 | 3.7  | 28 g   |
| CA.SSNG.14201818 | M14X1.5 | 98.5  | 38.5 | G 1/8 | G 1/8 | 20 | 8.9  | 57 g   |
| CA.SSNG.14351818 |         | 148   | 60   |       |       | 35 | 9.5  | 63 g   |
| CA.SSNG.20251418 | M20X1.5 | 110   | 49   | G 1/4 | G 1/4 | 25 | 11   | 139 g  |
| CA.SSNG.20501418 |         | 167.5 | 81.5 |       |       | 50 | 11.4 | 144 g  |

Application example / Esempio applicativo



## CA.05 SDN

Ø 10 - 14 - 20

. Smooth-body non-rotative telescopic suspension

. Sospensione Anti-Rotazionale Liscia

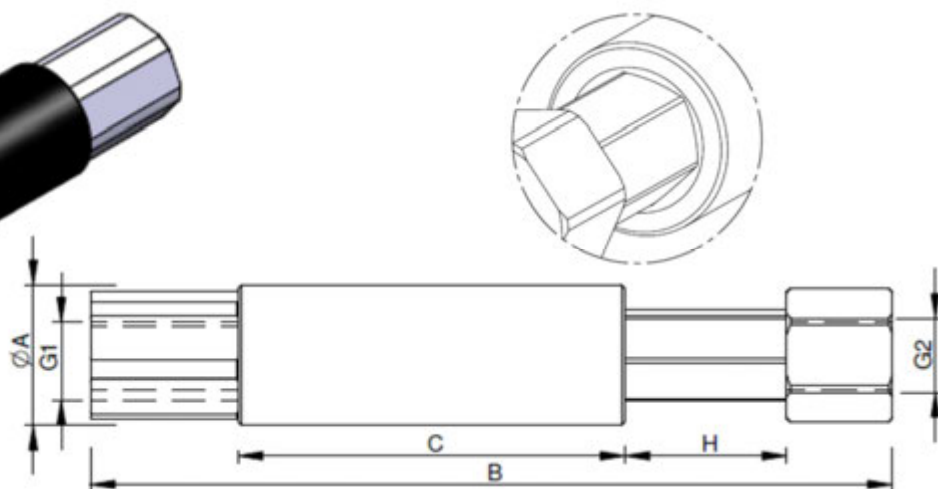
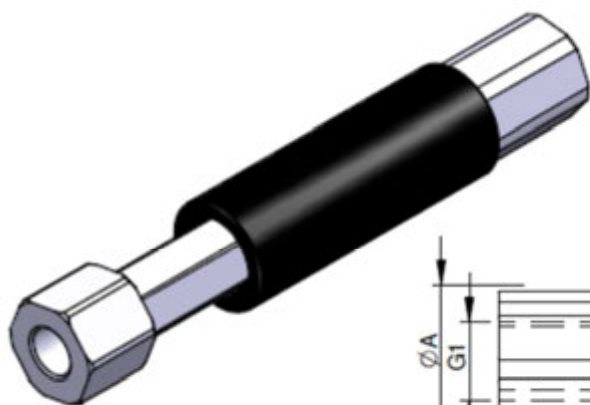


Table / Tabella

**H** = Spring deflection  
Deflessione della molla

**F** = Spring force  
Forza della molla

Remarks / Osservazioni:

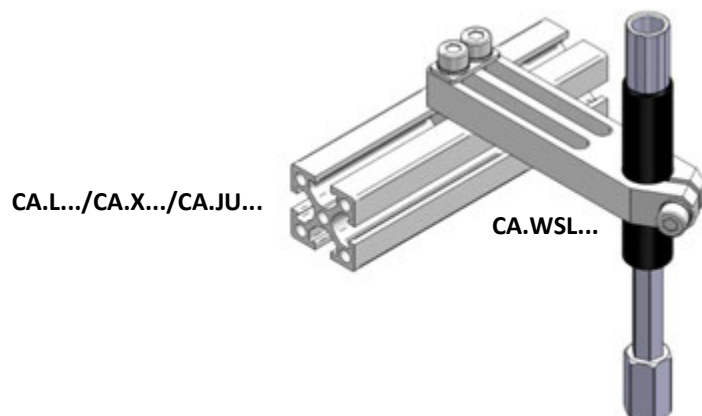
Material / Materiale: Aluminium / Alluminio

Guide (Tube and shaft ) hard coated  
Guida (Tubo e Asta) fortemente protetta

Non rotational  
Anti-Rotazionale

| Article no. | A  | B     | C    | G1    | G2    | H  | F(N) | Weight |
|-------------|----|-------|------|-------|-------|----|------|--------|
| CA.SDN.1010 | 10 | 60.5  | 26.5 | M5    | M5    | 10 | 3.6  | 8 g    |
| CA.SDN.1025 |    | 89.5  | 41.5 |       |       | 25 | 3.7  | 11 g   |
| CA.SDN.1420 | 14 | 102.5 | 42   | G 1/8 | G 1/8 | 20 | 8.9  | 25 g   |
| CA.SDN.1435 |    | 135   | 60   |       |       | 35 | 9.5  | 31 g   |
| CA.SDN.2025 | 20 | 114   | 55   |       |       | 25 | 11   | 65 g   |
| CA.SDN.2050 |    | 169   | 82.5 |       |       | 50 | 11.4 | 71 g   |

Application example / Esempio applicativo



## CA.05 SDNG

Ø 10 - 14 - 20

. Threaded-body non-rotative suspension

. Sospensione Anti-Rotazionale Filettata

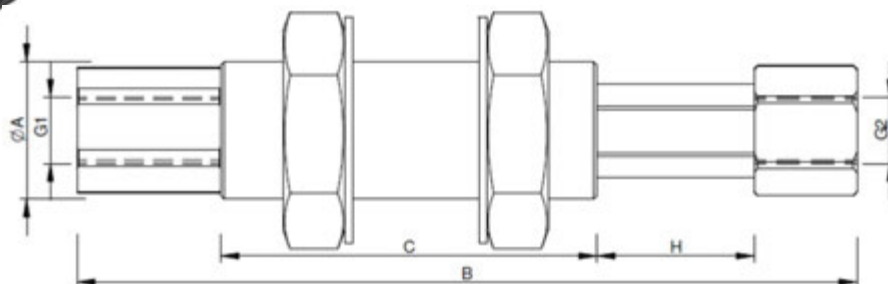
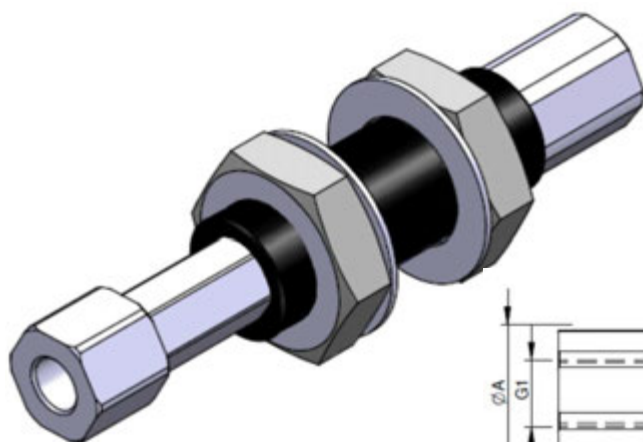


Table / Tabella

H = Spring deflection  
Deflessione della molla

Remarks / Osservazioni:

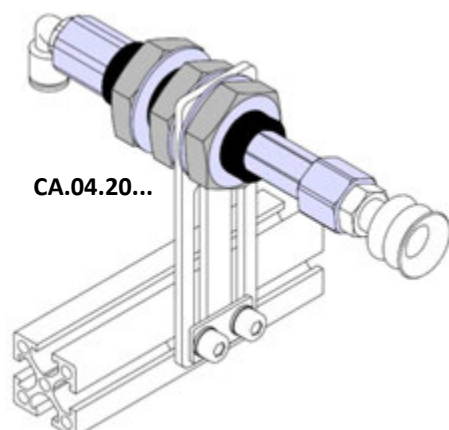
Material / Materiale: Aluminium / Alluminio

Guide (Tube and shaft ) hard coated  
Guida (Tubo e Asta) fortemente protetta

Non rotational  
Anti-Rotazionale

| Article no.  | A       | B     | C    | G1    | G2    | H  | Weight |
|--------------|---------|-------|------|-------|-------|----|--------|
| CA.SDNG.1010 | M10X1   | 60.5  | 26.5 | M5    | M5    | 10 | 13 g   |
| CA.SDNG.1025 |         | 89.5  | 41.5 |       |       | 25 | 16 g   |
| CA.SDNG.1420 | M14X1.5 | 102.5 | 42   | G 1/8 | G 1/8 | 20 | 37 g   |
| CA.SDNG.1435 |         | 135   | 60   |       |       | 35 | 43 g   |
| CA.SDNG.2025 | M20X1.5 | 114.5 | 55   |       |       | 25 | 99 g   |
| CA.SDNG.2050 |         | 169   | 82.5 |       |       | 50 | 105 g  |

Application example / Esempio applicativo



CA.04.20...

CA.L.../CA.X.../CA.JU...

## CA.05 SDR

Ø 10 - 14 - 20

. Smooth-body rotative telescopic suspension

. Sospensione rotazionale Liscia

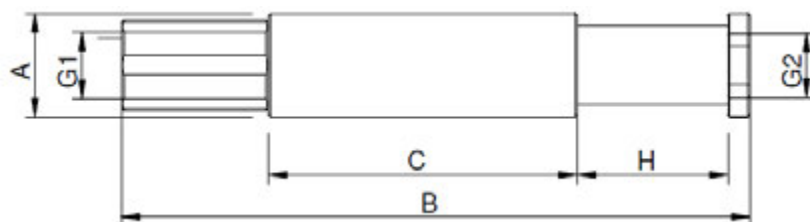
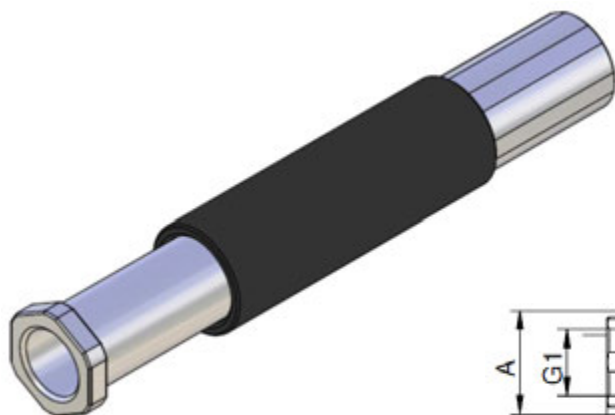


Table / Tabella

H = Spring deflection  
*Deflessione della molla*F = Spring force  
*Forza della molla*

Remarks / Osservazioni:

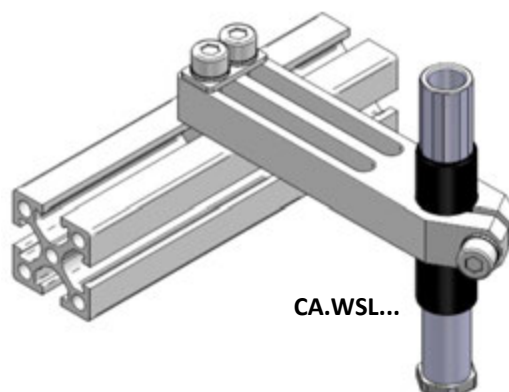
Material / Materiale: Aluminium / Alluminio

Guide (Tube and shaft ) hard coated  
*Guida (Tubo e Asta) fortemente protetta*Rotational  
*Rotazionale*

| Article no. | A  | B     | C    | G1    | G2    | H  | F(N) | Weight |
|-------------|----|-------|------|-------|-------|----|------|--------|
| CA.SDR.1010 | 10 | 51    | 20.5 | M5    | M5    | 10 | 3.6  | 7 g    |
| CA.SDR.1025 |    | 86    | 40.5 |       |       | 25 | 3.7  | 11 g   |
| CA.SDR.1420 | 14 | 85.5  | 42   | G 1/8 | G 1/8 | 20 | 8.9  | 19 g   |
| CA.SDR.1435 |    | 120.5 | 62   |       |       | 35 | 9.5  | 25 g   |
| CA.SDR.2025 | 20 | 97    | 47.5 |       |       | 25 | 11   | 55 g   |
| CA.SDR.2050 |    | 147   | 72.5 |       | M10   | 50 | 11.4 | 73 g   |

Application example / Esempio applicativo

CA.L.../CA.X.../CA.JU...



CA.WSL...

## CA.05 SDRG

Ø 10 - 14 - 20

. Threaded-body rotative telescopic suspension

. Sospensione rotazionale Filettata

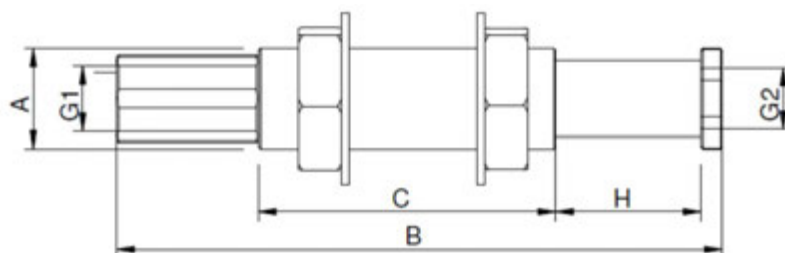
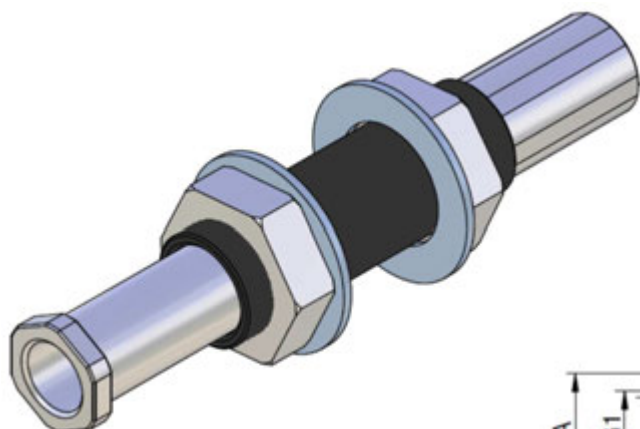


Table / Tabella

H = Spring deflection  
Deflessione della molla

F = Spring force  
Forza della molla

Remarks / Osservazioni:

MateMaterial / Materiale: Aluminium / Alluminio

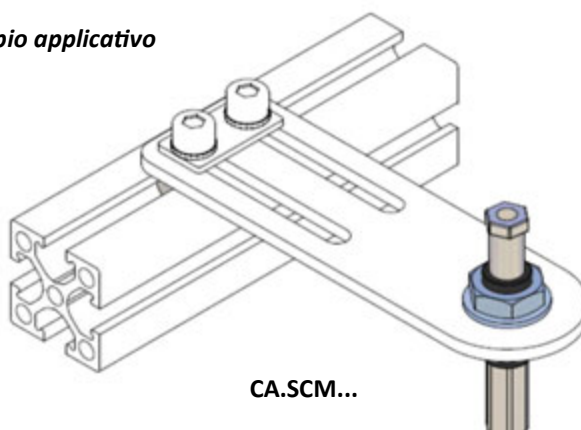
Guide (Tube and shaft) hard coated  
Guida (Tubo e Asta) fortemente protetta

Rotational  
Rotazionale

| Article no.  | A       | B     | C    | G1    | G2    | H  | F(N) | Weight |
|--------------|---------|-------|------|-------|-------|----|------|--------|
| CA.SDRG.1010 | M10X1   | 51    | 20.5 | M5    | M5    | 10 | 3.6  | 12 g   |
| CA.SDRG.1025 |         | 86    | 40.5 |       |       | 25 | 3.7  | 16 g   |
| CA.SDRG.1420 | M14X1.5 | 85.5  | 42   | G 1/8 | G 1/8 | 20 | 8.9  | 27 g   |
| CA.SDRG.1435 |         | 120.5 | 62   |       |       | 35 | 9.5  | 33 g   |
| CA.SDRG.2025 | M20X1.5 | 97    | 47.5 |       | M10   | 25 | 11   | 81 g   |
| CA.SDRG.2050 |         | 147   | 72.5 |       |       | 50 | 11.4 | 94 g   |

Application example / Esempio applicativo

CA.L.../CA.X.../CA.JU...



CA.SCM...

## CA.05.02

Ø 10-14-20

. Spring loaded vacuum cup arm (Non-rotational shaft)

. Sospensione Anti-Rotazionale

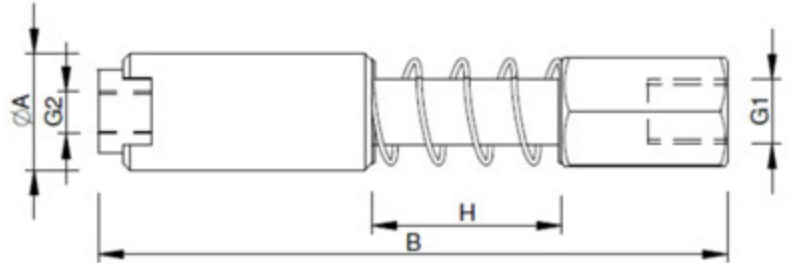
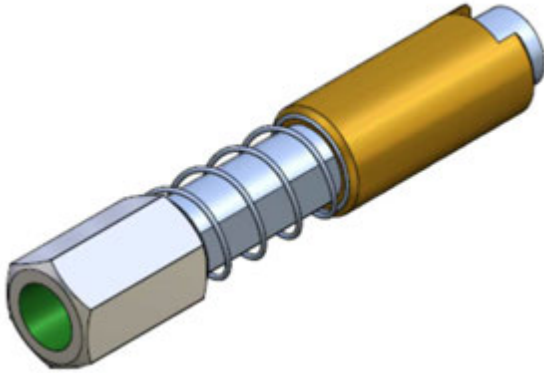


Table / Tabella

H = Spring deflection  
Deflessione della molla

F = Spring force  
Forza della molla

Remarks / Osservazioni:

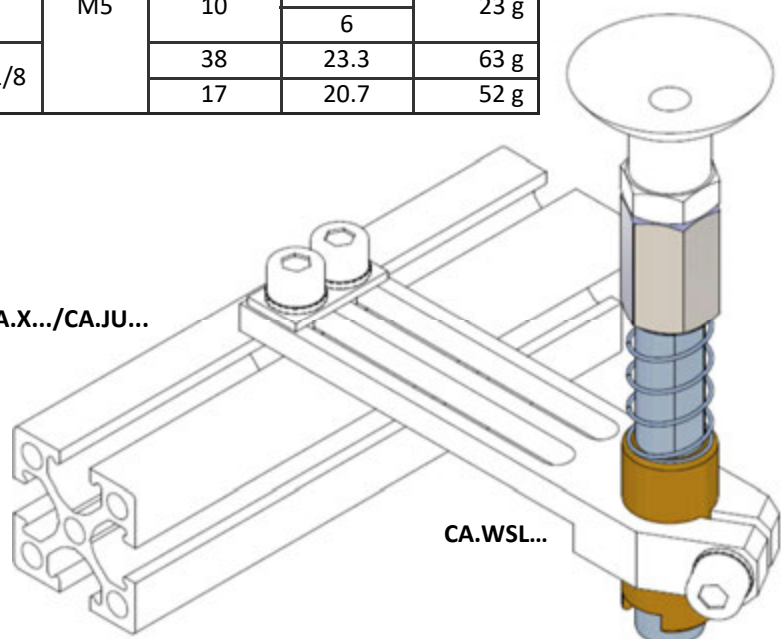
Material: Brass  
Materiale: Ottone

Non rotational  
Anti-Rotazionale

| Article no.     | A  | B   | G1    | G2    | H  | F(N) | Weight |
|-----------------|----|-----|-------|-------|----|------|--------|
| CA.05.02.002    | 20 | 125 | G 1/4 | G 1/8 | 48 | 16.6 | 155 g  |
| CA.05.02.004    |    | 100 |       |       | 25 | 18.4 | 135 g  |
| CA.05.02.009    | 10 | 69  | M5    | M5    | 20 | 3.4  | 26 g   |
| CA.05.02.009.6N |    |     |       |       |    | 6    |        |
| CA.05.02.010    |    | 59  |       |       | 10 | 4.8  | 23 g   |
| CA.05.02.010.6N |    |     |       |       |    | 6    |        |
| CA.05.02.011    | 14 | 100 | G 1/8 |       | 38 | 23.3 | 63 g   |
| CA.05.02.012    |    | 76  |       |       | 17 | 20.7 | 52 g   |

Application example / Esempio applicativo

CA.L.../CA.X.../CA.JU...



## CA.05.01

Ø 10-14-20

. Spring loaded vacuum cup arm (Non-rotational shaft)

. Sospensione Anti-Rotazionale

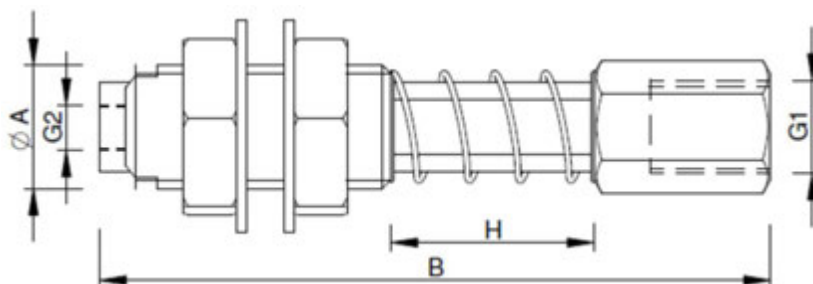
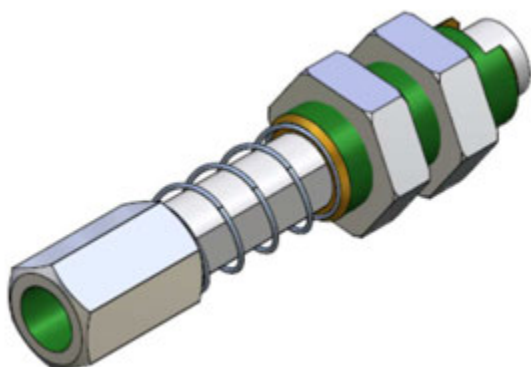


Table / Tabella

H = Spring deflection  
Deflessione della molla

F = Spring force  
Forza della molla

Remarks / Osservazioni:

Material: Brass  
Materiale: Ottone

Non rotational  
Anti-Rotazionale

Threaded tube  
Tubo Filettato

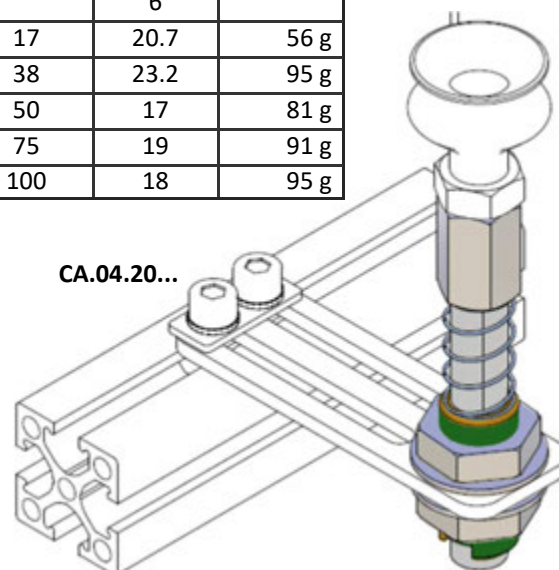
| Article no.     | A       | B   | G1    | G2    | H   | F(N) | Weight |
|-----------------|---------|-----|-------|-------|-----|------|--------|
| CA.05.01.001    | M14x1.5 | 100 | G 1/8 | M5    | 38  | 23.2 | 71 g   |
| CA.05.01.002    | M20x1.5 | 125 | G 1/4 | G 1/8 | 48  | 16.7 | 183 g  |
| CA.05.01.003    | M14x1.5 | 76  | G 1/8 | M5    | 17  | 20.7 | 58 g   |
| CA.05.01.004    | M20x1.5 | 100 | G 1/4 | G 1/8 | 25  | 18.4 | 163 g  |
| CA.05.01.005    | M10x1   | 70  | M5    | M5    | 20  | 3.4  | 36 g   |
| CA.05.01.005.6N |         |     |       |       |     | 6    |        |
| CA.05.01.006    |         | 59  |       |       | 10  | 4.8  | 33 g   |
| CA.05.01.006.6N |         |     |       |       |     | 6    |        |
| CA.05.01.010    | M16x1.5 | 76  | G 1/8 | M5    | 17  | 20.7 | 56 g   |
| CA.05.01.011    |         | 97  |       |       | 38  | 23.2 | 95 g   |
| CA.05.01.50     | M14x1.5 | 123 |       |       | 50  | 17   | 81 g   |
| CA.05.01.75     |         | 153 |       |       | 75  | 19   | 91 g   |
| CA.05.01.100    |         | 193 |       |       | 100 | 18   | 95 g   |

new  
new

Application example / Esempio applicativo

CA.04.20...

CA.L.../CA.X.../CA.JU...



## CA.05 GGS

Ø 10-14-20

. Spring loaded vacuum cup arm (Non-rotational shaft)

. *Supporto Ammortizzato Anti-Rotazionale*

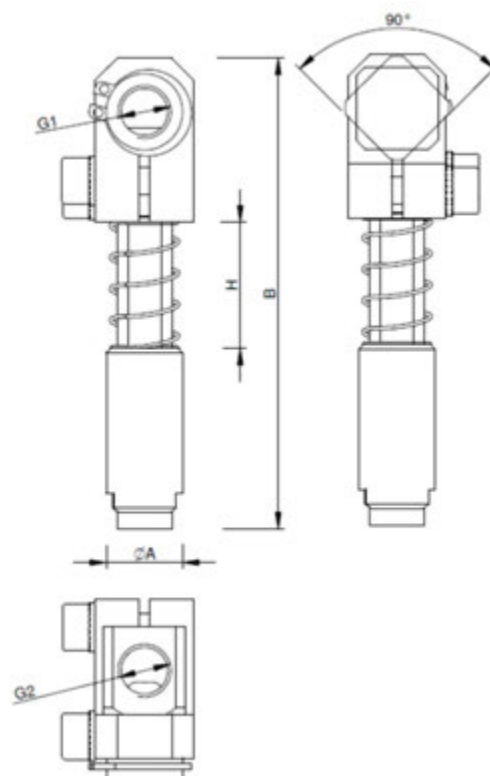
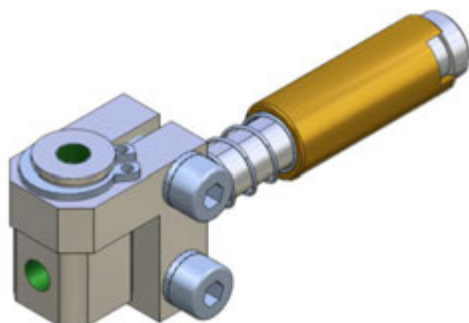


Table / Tabella

H = Spring deflection  
*Deflessione della molla*

F = Spring force  
*Forza della molla*

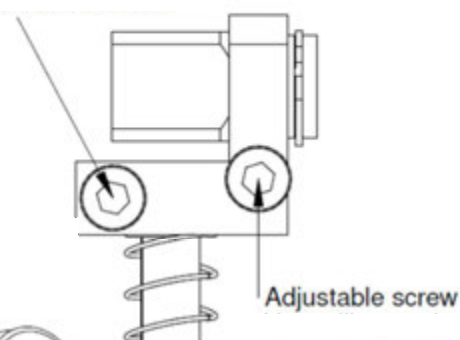
Remarks / Osservazioni:

Material: Brass  
*Materiale: Ottone*

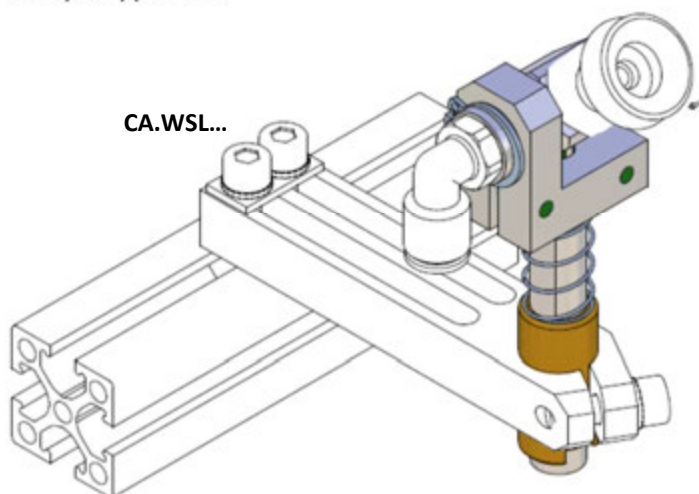
Non rotational  
*Anti-Rotazionale*

| Article no.  | A  | B   | G1    | G2    | H  | F(N) | Weight |
|--------------|----|-----|-------|-------|----|------|--------|
| CA.GGS100515 | 10 | 69  | M5    | M5    | 10 | 3.6  | 37 g   |
| CA.GGS100520 |    | 79  |       |       | 20 | 6    | 40 g   |
| CA.GGS100530 |    | 98  |       |       | 30 | 8.6  | 45 g   |
| CA.GGS141815 | 14 | 86  | G 1/8 | G 1/8 | 17 | 20.7 | 82 g   |
| CA.GGS141840 |    | 110 |       |       | 38 | 23.3 | 89 g   |
| CA.GGS201425 | 20 | 116 |       | G 1/4 | 23 | 18.4 | 196 g  |
| CA.GGS201445 |    | 141 |       |       | 45 | 16.7 | 206 g  |

Fixed screw



Application example / *Esempio applicativo*



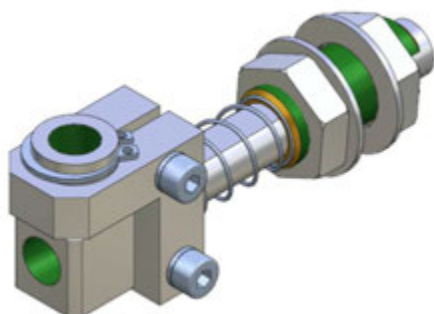
CA.L.../CA.X.../CA.JU...

## CA.05 GGSM

Ø 10-14-20

. Spring loaded vacuum cup arm (Non-rotational shaft)

. Supporto Ammortizzato Anti-Rotazionale



Threaded tube  
Tubo Filettato

Table / Tabella

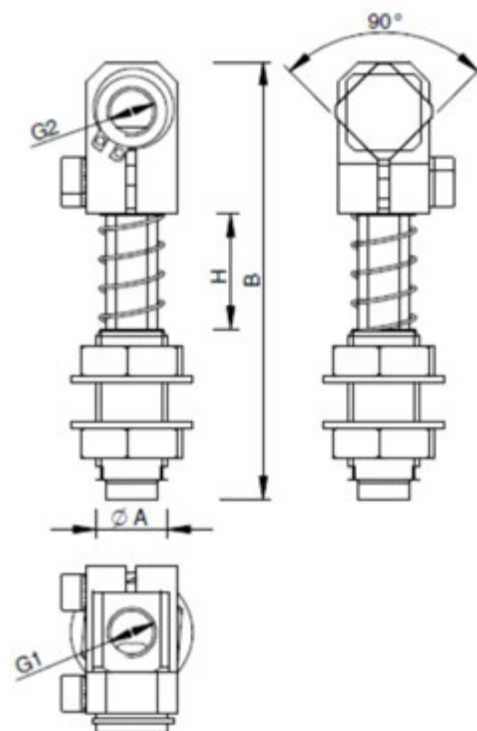
H = Spring deflection  
Deflessione della molla

F = Spring force  
Forza della molla

Remarks / Osservazioni:

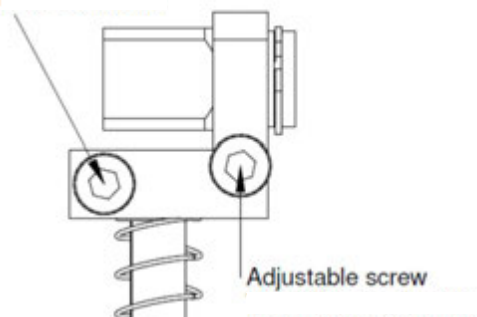
Material: Brass  
Materiale: Ottone

Non rotational  
Anti-Rotazionale

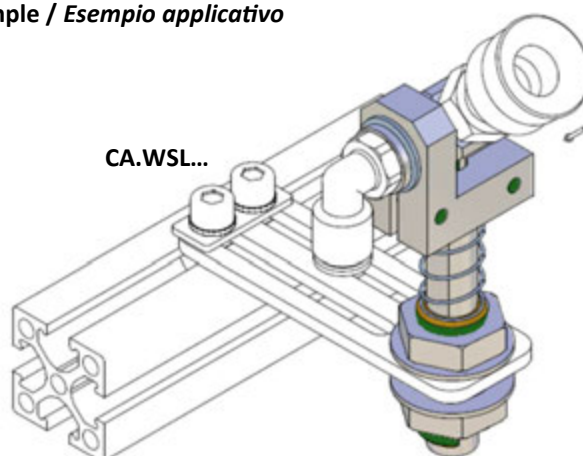


| Article no.   | A       | B   | G1    | G2    | H  | F(N) | Weight |
|---------------|---------|-----|-------|-------|----|------|--------|
| CA.GGSM100515 | M10X1   | 69  | M5    | M5    | 10 | 6    | 42g    |
| CA.GGSM100520 |         | 79  |       |       | 20 |      | 45g    |
| CA.GGSM100530 |         | 98  |       |       | 30 |      | 8.6    |
| CA.GGSM141815 | M14X1.5 | 86  | G 1/8 | G 1/8 | 17 | 20.7 | 85 g   |
| CA.GGSM141840 |         | 110 |       |       | 38 | 23.3 | 101 g  |
| CA.GGSM201425 | M20X1.5 | 116 | G 1/4 |       | 23 | 18.4 | 216 g  |
| CA.GGSM201445 |         | 141 |       |       | 45 | 16.7 | 242 g  |

Fixed screw



Application example / Esempio applicativo



CA.L.../CA.X.../CA.JU...

## CA.05 GGD

Ø 10-14-20

. Spring loaded vacuum cup arm

. Supporto Ammortizzato

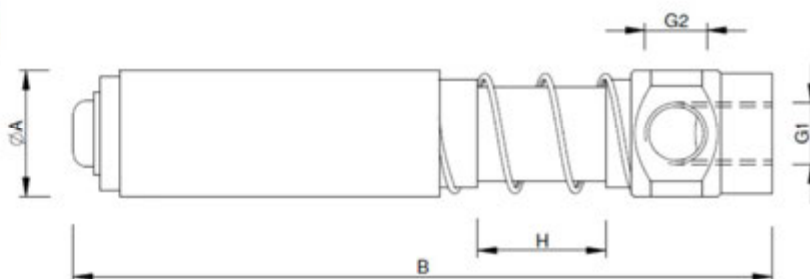
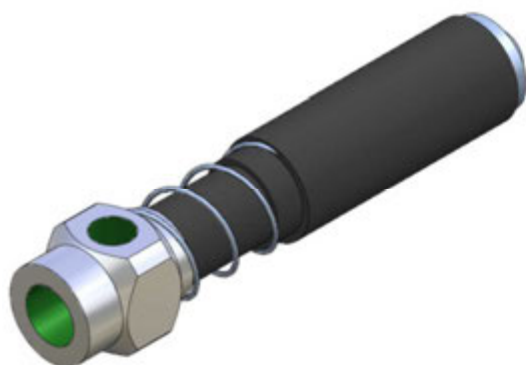


Table / Tabella

H = Spring deflection  
 Deflessione della molla

F = Spring force  
 Forza della molla

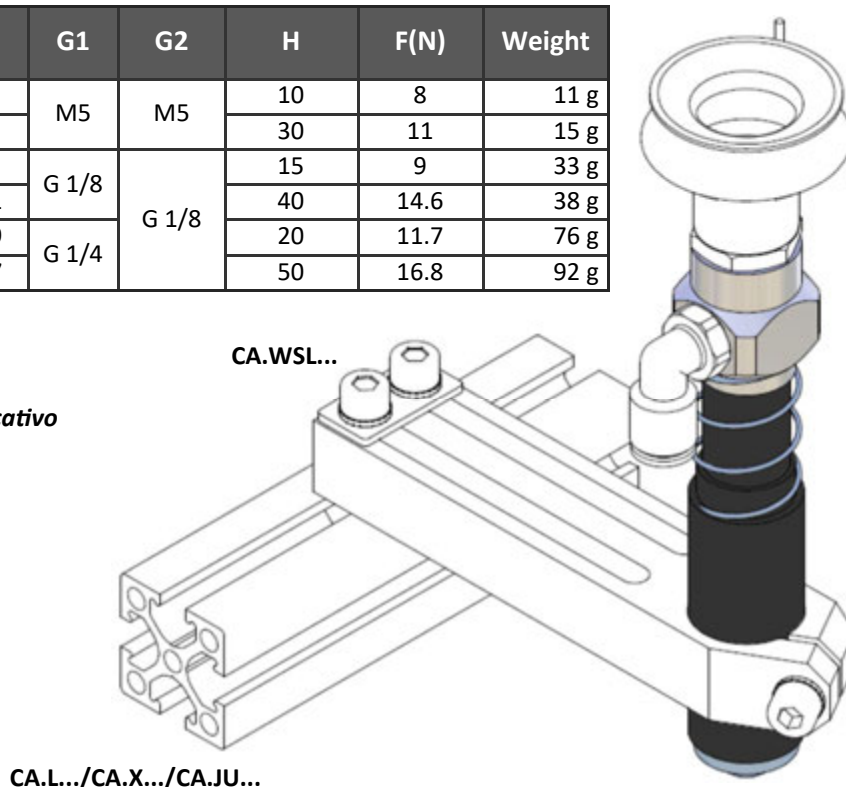
Remarks / Osservazioni:

Extremely light weight (Material Aluminium)  
 Peso estremamente leggero (Materiale Alluminio)

Guide (Tube and shaft) hard coated  
 Guida (Tubo e Asta) fortemente protetta

| Article no.     | A  | B   | G1    | G2    | H  | F(N) | Weight |
|-----------------|----|-----|-------|-------|----|------|--------|
| CA.GGD.10050510 | 10 | 59  | M5    | M5    | 10 | 8    | 11 g   |
| CA.GGD.10050530 |    | 85  |       |       | 30 | 11   | 15 g   |
| CA.GGD.14181815 | 14 | 86  | G 1/8 | G 1/8 | 15 | 9    | 33 g   |
| CA.GGD.14181840 |    | 111 |       |       | 40 | 14.6 | 38 g   |
| CA.GGD.20141820 | 20 | 109 | G 1/4 | G 1/4 | 20 | 11.7 | 76 g   |
| CA.GGD.20141850 |    | 147 |       |       | 50 | 16.8 | 92 g   |

Application example / Esempio applicativo



## CA.05 GGDG

Ø 10-14-20

. Spring loaded vacuum cup arm (Threaded tube)

. Supporto Ammortizzato con Filetto

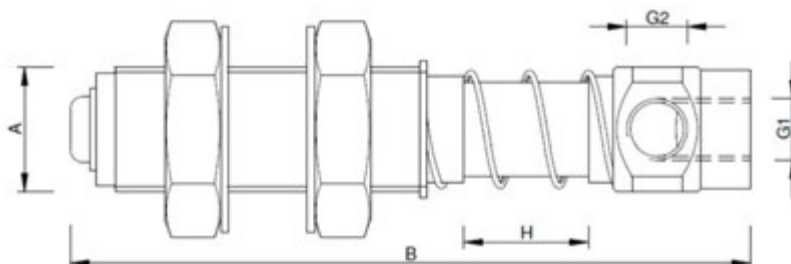
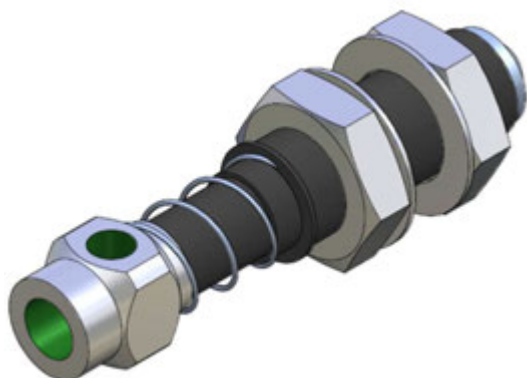


Table / Tabella

**H** = Spring deflection  
*Deflessione della molla*

**F** = Spring force  
*Forza della molla*

Remarks / Osservazioni:

Extremely light weight (Material Aluminium)  
*Peso estremamente leggero (Materiale Alluminio)*

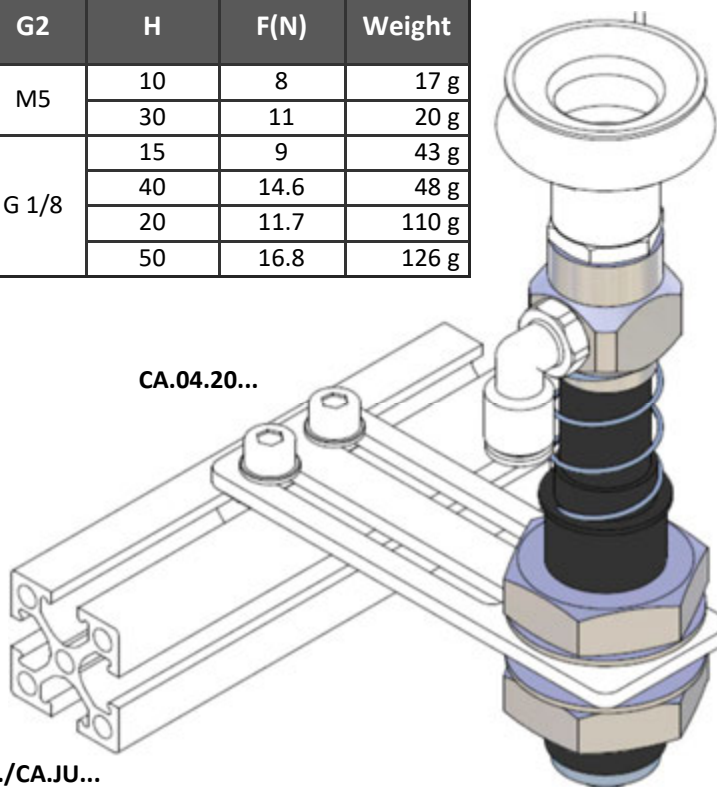
Guide (Tube and shaft) hard coated  
*Guida (Tubo e Asta) fortemente protetta*

| Article no.      | A       | B   | G1    | G2    | H  | F(N) | Weight |
|------------------|---------|-----|-------|-------|----|------|--------|
| CA.GGDG.10050510 | M10x1   | 59  | M5    | M5    | 10 | 8    | 17 g   |
| CA.GGDG.10050530 |         | 85  |       |       | 30 | 11   | 20 g   |
| CA.GGDG.14181815 | M14x1.5 | 86  | G 1/8 | G 1/8 | 15 | 9    | 43 g   |
| CA.GGDG.14181840 |         | 111 |       |       | 40 | 14.6 | 48 g   |
| CA.GGDG.20141820 | M20x1.5 | 109 | G 1/4 |       | 20 | 11.7 | 110 g  |
| CA.GGDG.20141850 |         | 147 |       |       | 50 | 16.8 | 126 g  |

Application example / Esempio applicativo

CA.04.20...

CA.L.../CA.X.../CA.JU...



## CA.05 GGV

Ø 10-14-20

. Spring loaded vacuum cup arm (Non-rotational shaft)

. *Supporto Ammortizzato Anti-Rotazionale*

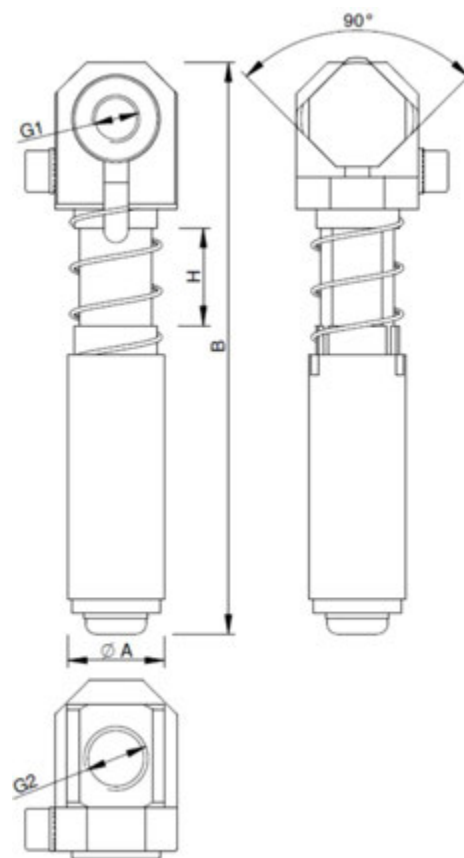
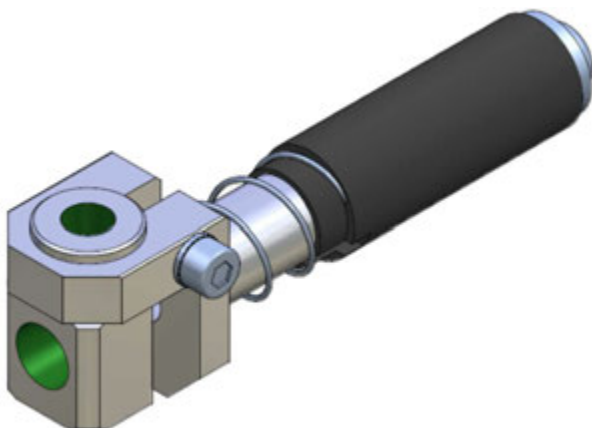


Table / Tabella

H = Spring deflection  
*Deflessione della molla*

F = Spring force  
*Forza della molla*

Remarks / Osservazioni:

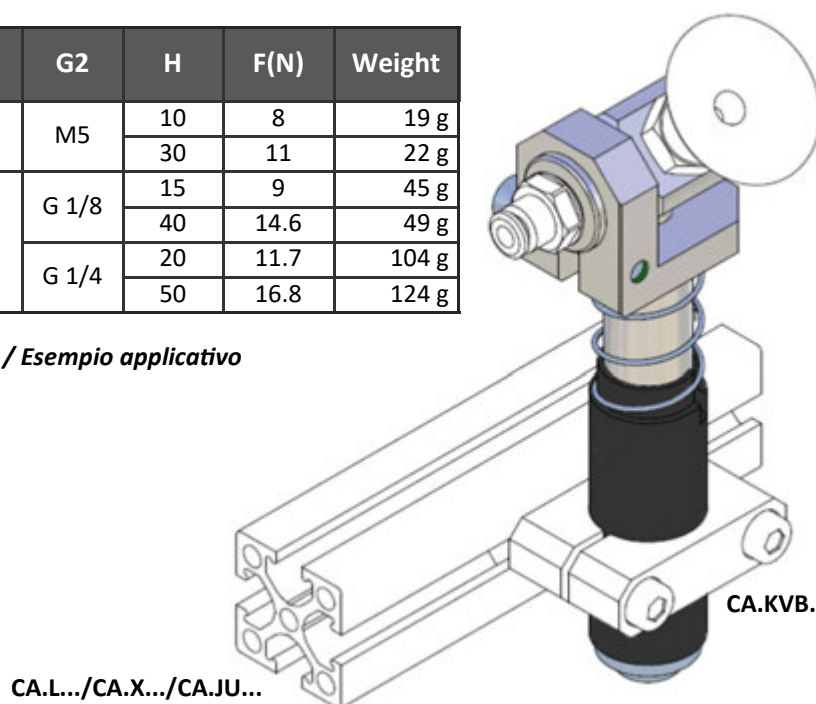
Extremely light weight (Material Aluminium)  
*Peso estremamente leggero (Materiale Alluminio)*

Guide (Tube and shaft) hard coated  
*Guida (Tubo e Asta) fortemente protetta*

Non rotational  
*Anti-Rotazionale*

| Article no.     | A  | B   | G1    | G2    | H  | F(N) | Weight |
|-----------------|----|-----|-------|-------|----|------|--------|
| CA.GGV.10050510 | 10 | 64  | M5    | M5    | 10 | 8    | 19 g   |
| CA.GGV.10050530 |    | 90  |       |       | 30 | 11   | 22 g   |
| CA.GGV.14181815 | 14 | 91  | G 1/8 | G 1/8 | 15 | 9    | 45 g   |
| CA.GGV.14181840 |    | 116 |       |       | 40 | 14.6 | 49 g   |
| CA.GGV.20141820 | 20 | 117 |       | G 1/4 | 20 | 11.7 | 104 g  |
| CA.GGV.20141850 |    | 155 |       |       | 50 | 16.8 | 124 g  |

Application example / Esempio applicativo



## CA.05 GGVG

Ø 10-14-20

. Spring loaded vacuum cup arm

. Supporto Filettato Ammortizzato Anti-Rotazionale

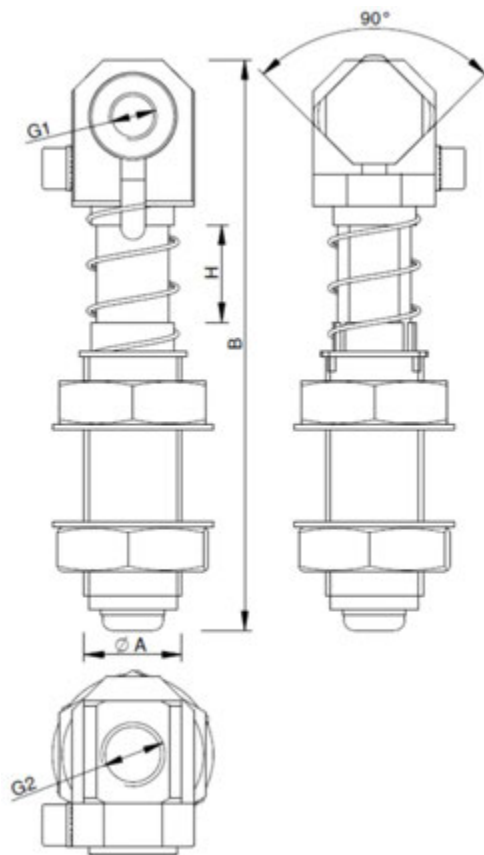
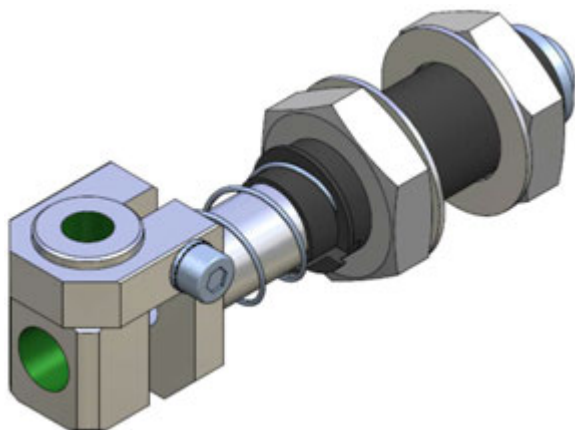


Table / Tabella

H = Spring deflection  
Deflessione della molla

F = Spring force  
Forza della molla

Remarks / Osservazioni

Extremely light weight (Material Aluminium)  
Peso estremamente leggero (Materiale Alluminio)

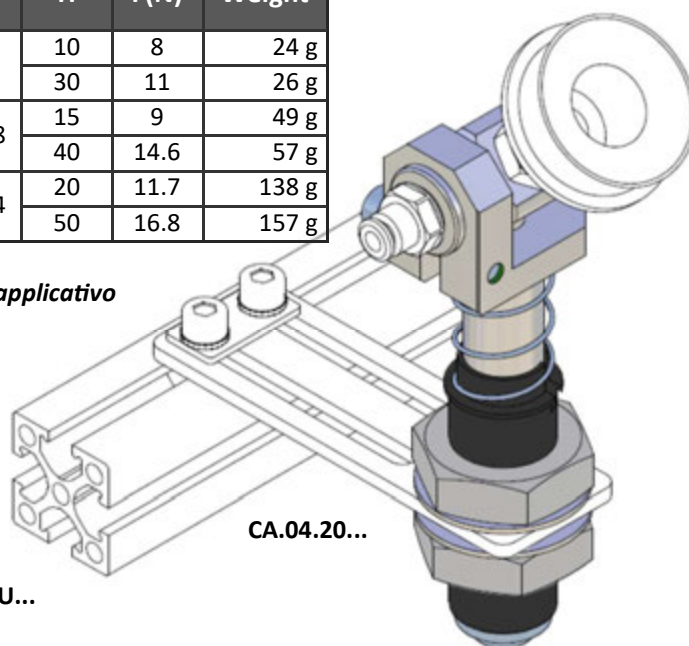
Guide (Tube and shaft) hard coated  
Guida (Tubo e Asta) fortemente protetta

Non rotational  
Anti-Rotazionale

| Article no.      | A       | B   | G1    | G2    | H  | F(N) | Weight |
|------------------|---------|-----|-------|-------|----|------|--------|
| CA.GGVG.10050510 | M10x1   | 64  | M5    | M5    | 10 | 8    | 24 g   |
| CA.GGVG.10050530 |         | 90  |       |       | 30 | 11   | 26 g   |
| CA.GGVG.14181815 | M14x1.5 | 91  | G 1/8 | G 1/8 | 15 | 9    | 49 g   |
| CA.GGVG.14181840 |         | 116 |       |       | 40 | 14.6 | 57 g   |
| CA.GGVG.20141820 | M20x1.5 | 117 |       | G 1/4 | 20 | 11.7 | 138 g  |
| CA.GGVG.20141850 |         | 155 |       |       | 50 | 16.8 | 157 g  |

Application example / Esempio applicativo

CA.L.../CA.X.../CA.JU...



## CA.05 GGVE

Ø 10-14-20

. Spring loaded vacuum cup arm easy (Non-rotational shaft)

. Supporto Ammortizzato Anti-Rotazionale Easy

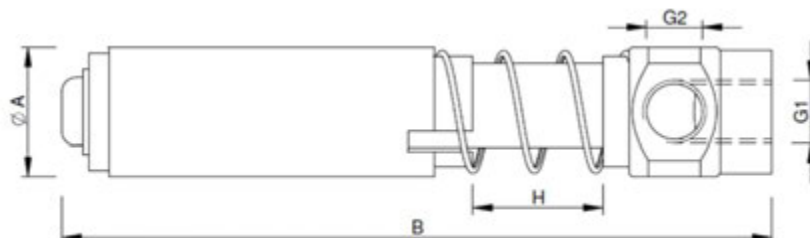
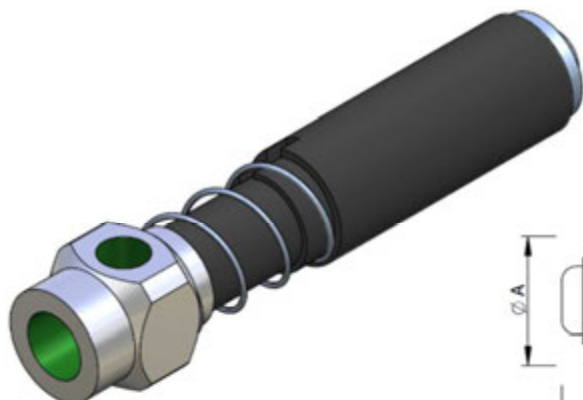


Table / Tabella

H = Spring deflection  
*Deflessione della molla*F = Spring force  
*Forza della molla*

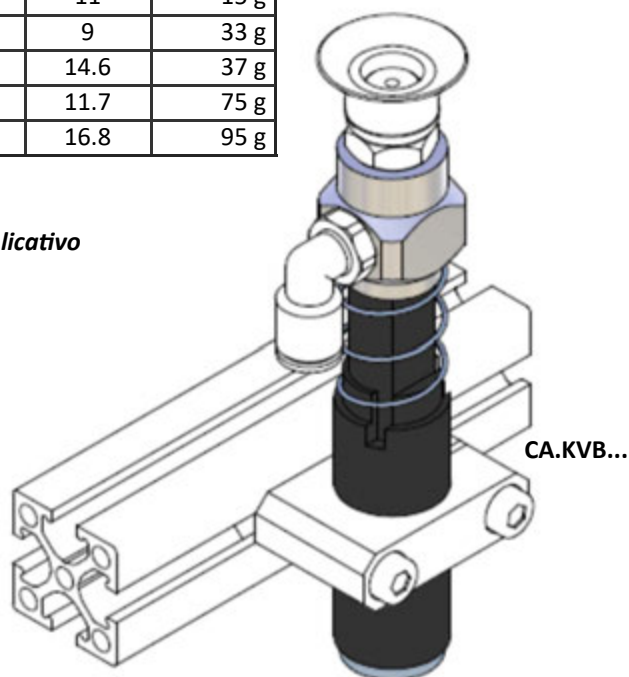
Remarks / Osservazioni:

Extremely light weight (Material Aluminium)  
*Peso estremamente leggero (Materiale Alluminio)*Guide (Tube and shaft) hard coated  
*Guida (Tubo e Asta) fortemente protetta*Non rotational  
*Anti-Rotazionale*

| Article no.      | A  | B   | G1    | G2    | H  | F(N) | Weight |
|------------------|----|-----|-------|-------|----|------|--------|
| CA.GGVE.10050510 | 10 | 59  | M5    | M5    | 10 | 8    | 11 g   |
| CA.GGVE.10050530 |    | 85  |       |       | 30 | 11   | 15 g   |
| CA.GGVE.14181815 | 14 | 86  | G 1/8 | G 1/8 | 15 | 9    | 33 g   |
| CA.GGVE.14181840 |    | 111 |       |       | 40 | 14.6 | 37 g   |
| CA.GGVE.20141820 | 20 | 109 | G 1/4 | G 1/4 | 20 | 11.7 | 75 g   |
| CA.GGVE.20141850 |    | 147 |       |       | 50 | 16.8 | 95 g   |

Application example / Esempio applicativo

CA.L.../CA.X.../CA.JU...



## CA.05 SAR

Ø 20

. Telescopic self-retracting suspension

. Sospensione Auto Retrattile

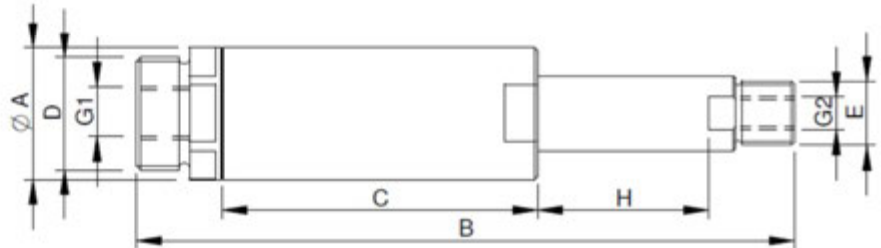
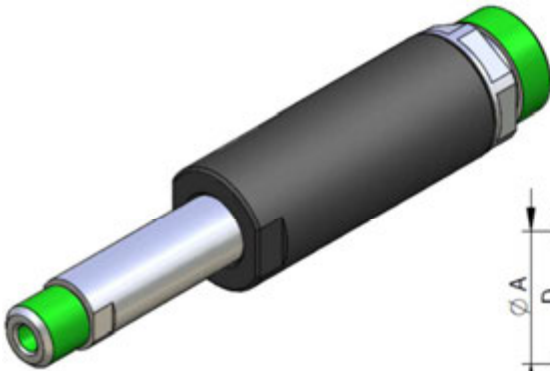


Table / Tabella

H = Spring deflection  
Deflessione della molla

F = Spring force  
Forza della molla

| Article no. | A  | B   | C  | D     | E     | G1    | G2 | H  | F(N) | Weight |
|-------------|----|-----|----|-------|-------|-------|----|----|------|--------|
| CA.SAR.2025 | 20 | 100 | 48 | M17x1 | G 1/8 | G 1/8 | M5 | 25 | 3.6  | 42 g   |
| CA.SAR.2050 |    | 150 | 73 |       |       |       |    | 50 | 4.2  | 68 g   |

### Remarks / Osservazioni:

Extremely leight weight (Material Aluminium)  
Peso estremamente leggero (Materiale Alluminio)

Guide (Tube and shaft) hard coated  
Guida (Tubo e Asta) fortemente protetta

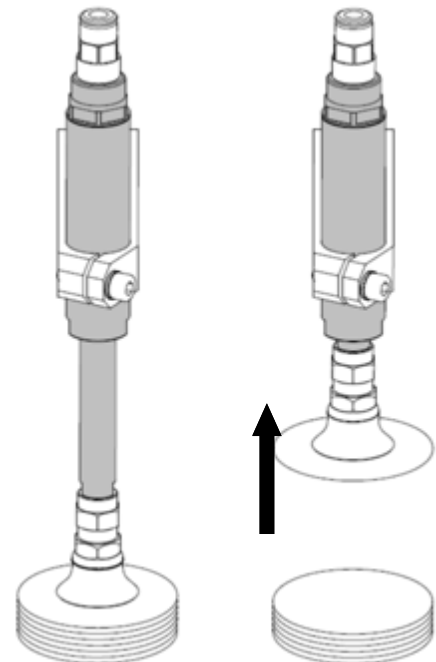
Sealing with no seals  
Guarnizione senza sigillo

Only for vacuum applications  
Solo per applicazioni su ventose

The speed of the retraction movement can be adjusted by a standard throttle valve  
La velocità del movimento retrattile può essere regolata da una valvola acceleratrice standard

When the vacuum is removed the part is released and the internal spring resets the rod  
Quando la ventosa viene rimossa, il pezzo viene lasciato e la molla interna resetta l'asta

Pressure range: -1 ÷ 0 bar  
Rango di Pressione: -1 ÷ 0 bar



## CA.05 VSX

Ø 14

. Spring rod

. Pressore a Molla

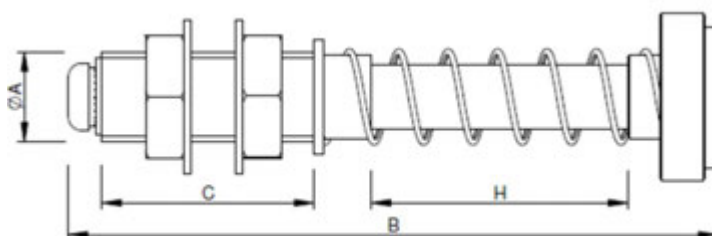
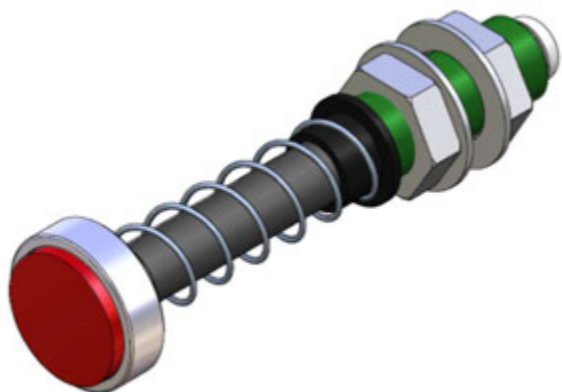


Table / Tabella

H = Spring deflection  
Deflessione della molla

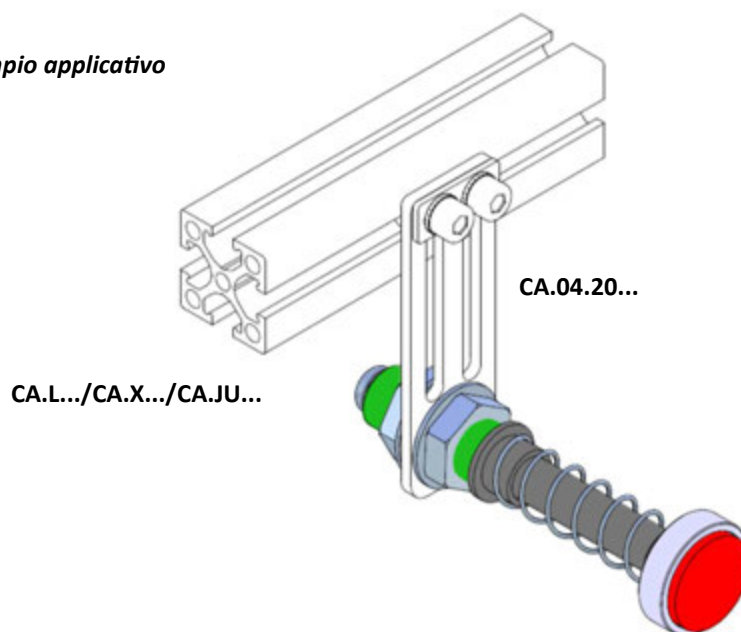
Remarks / Osservazioni:

Extremely light weight (Material Aluminium)  
Peso estremamente leggero (Materiale Alluminio)

Guide (Tube and shaft) hard coated  
Guida (Tubo e Asta) fortemente protetta

| Article no. | A       | B   | C  | H  | Weight |
|-------------|---------|-----|----|----|--------|
| CA.VSX.1440 | M14X1.5 | 101 | 33 | 40 | 47 g   |

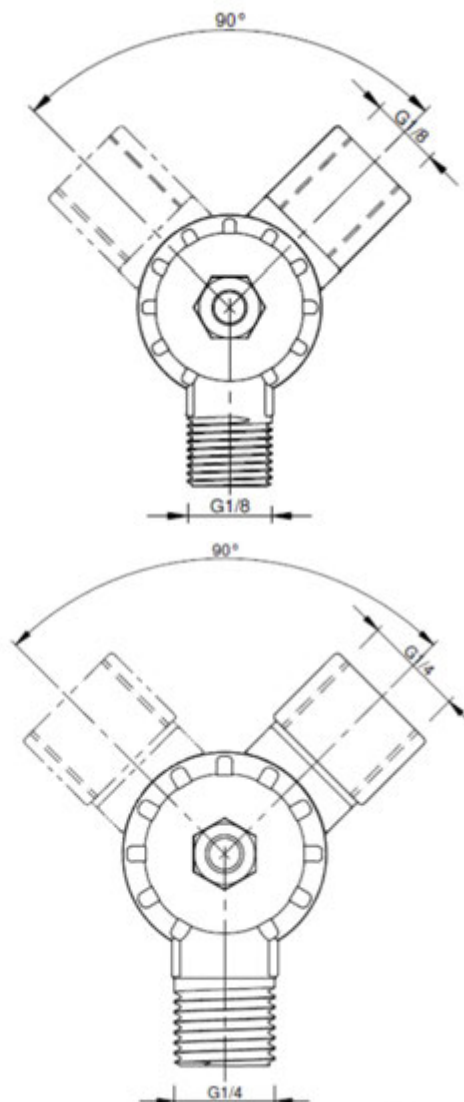
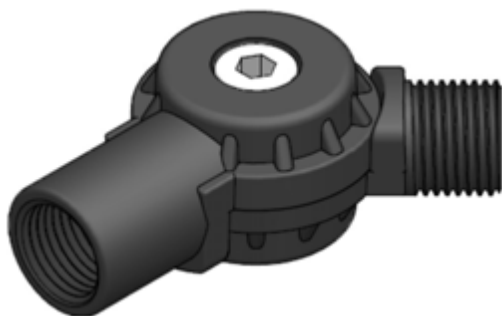
Application example / Esempio applicativo



## CA.07.01

. Elbow arm

. Snodo direzionabile



Remarks / Osservazioni :

Materiale / Material: POM

Not for compressed air (only vacuum).

Non è adatto per aria compressa (solo ventose).

It is possible to set continuously the angle from 0° to +/- 90°  
È possibile impostare continuamente l'angolo da 0° a +/- 90°

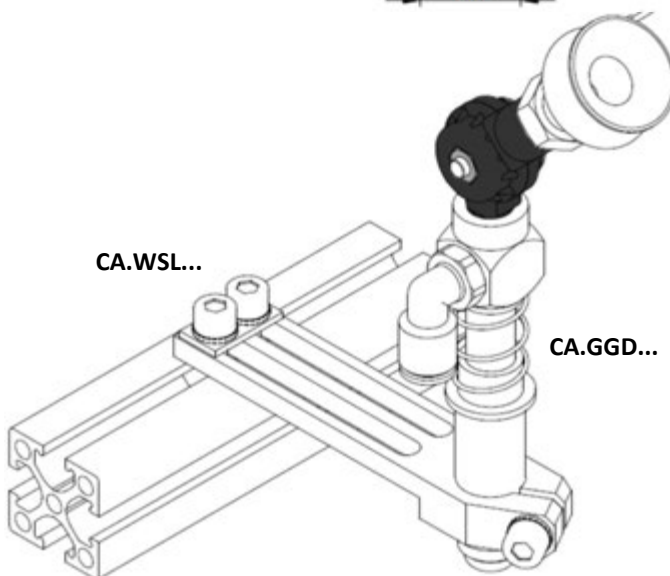
| Article no.  | G1    | G2    | Weight |
|--------------|-------|-------|--------|
| CA.07.01.001 | G 1/8 | G 1/8 | 7 g    |
| CA.07.01.002 | G 1/4 | G 1/4 | 15 g   |

Application example / Esempio applicativo

CA.L.../CA.X.../CA.JU...

CA.WSL...

CA.GGD...

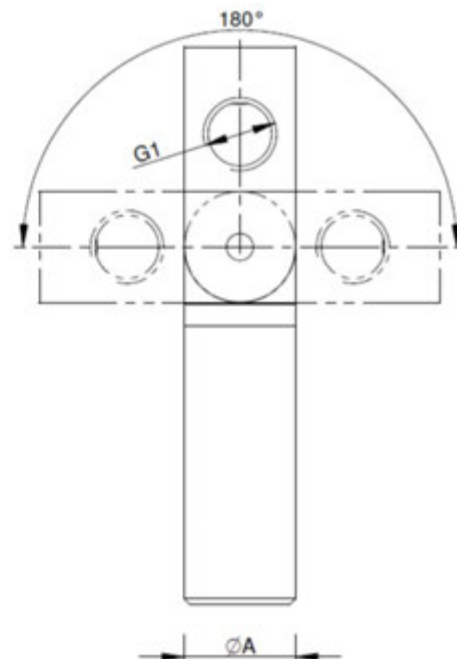
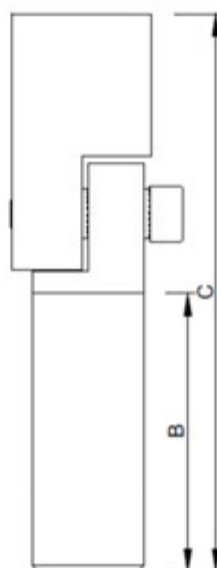
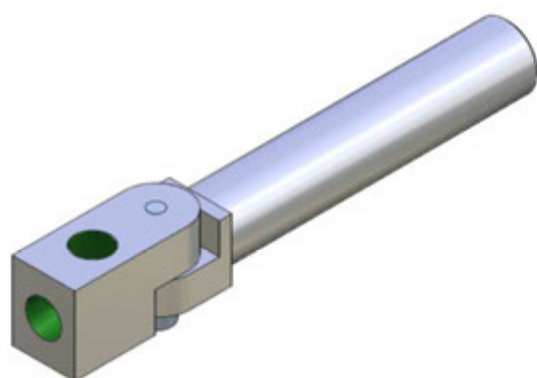


## CA.05 GGE

. Swivel Gripper Arm for Vacuum Cups

Ø 10-14-20

. Giunto Supporto Ventosa

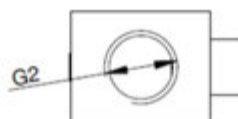


Remarks / Osservazioni:

Material / Materiale: Aluminium / Alluminio

Surface: Silver anodized

Superficie: Argento anodizzato

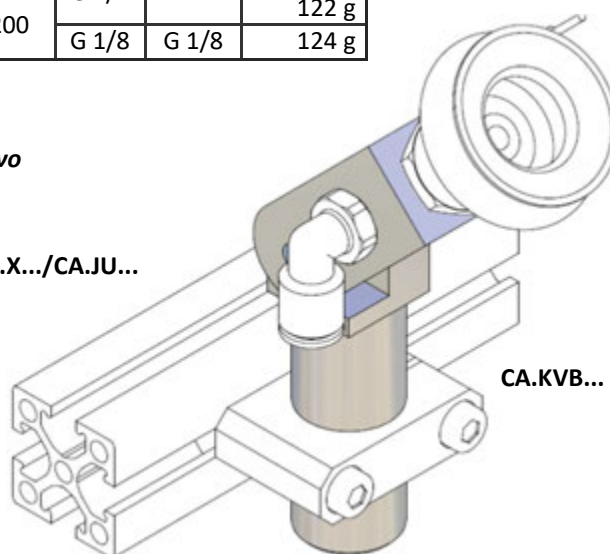


| Article no.      | A  | B   | C   | G1    | G2    | Weight |
|------------------|----|-----|-----|-------|-------|--------|
| CA.GGE.10.M5.M5  | 10 | 60  | 90  | M5    | M5    | 22 g   |
| CA.GGE.14.18.18  | 14 | 80  | 120 | G 1/8 | G 1/8 | 42 g   |
| CA.GGE.20.14.18  | 20 | 100 | 150 |       | G 1/4 | G 1/4  |
| CA.GGE.20.14.14  |    |     |     | G 1/4 |       | 84 g   |
| CA.GGE.201414150 |    | 150 | 200 | G 1/8 | G 1/8 | 122 g  |
| CA.GGE.201818150 |    |     |     |       |       | 124 g  |

new

Application example / Esempio applicativo

CA.L.../CA.X.../CA.JU...



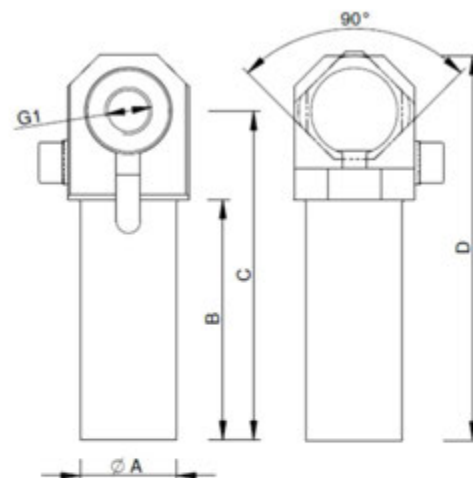
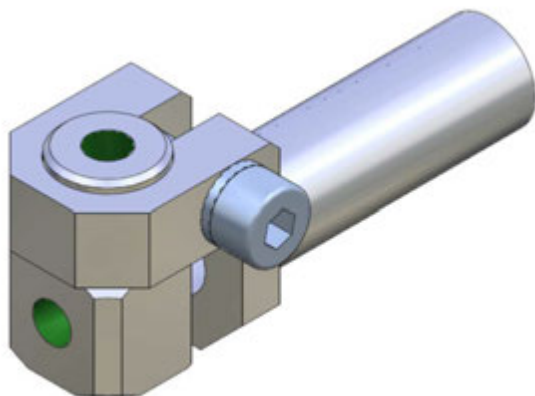
CA.KVB...

## CA.05 GGB

Ø 10-14-20

. Swivel Gripper Arm for Vacuum Cups

. Giunto Supporto Ventosa

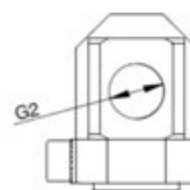


Remarks / Osservazioni:

Material / Materiale: Aluminium / Alluminio

Surface: Silver anodized

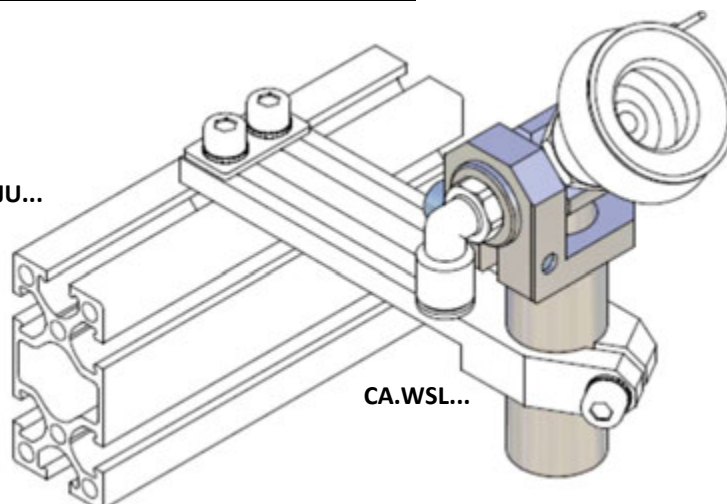
Superficie: Argento anodizzato



| Article no.      | A  | B   | C   | D   | G1    | G2    | Weight |
|------------------|----|-----|-----|-----|-------|-------|--------|
| CA.GGB.10050530  | 10 | 30  | 41  | 48  | M5    | M5    | 14 g   |
| CA.GGB.10050560  |    | 60  | 71  | 78  |       |       | 17 g   |
| CA.GGB.10050590  |    | 90  | 101 | 108 |       |       | 20 g   |
| CA.GGB.14181840  | 14 | 40  | 56  | 65  | G 1/8 | G 1/8 | 29 g   |
| CA.GGB.14181880  |    | 80  | 96  | 105 |       |       | 38 g   |
| CA.GGB.141818120 |    | 120 | 136 | 145 |       |       | 45 g   |
| CA.GGB.20141850  | 20 | 50  | 68  | 80  | G 1/8 | G 1/4 | 56 g   |
| CA.GGB.201418100 |    | 100 | 118 | 130 |       |       | 70 g   |
| CA.GGB.201418150 |    | 150 | 168 | 180 |       |       | 87 g   |
| CA.GGB.20141450  |    | 50  | 68  | 80  | G 1/4 |       | 55 g   |
| CA.GGB.201414100 |    | 100 | 118 | 130 |       |       | 69 g   |
| CA.GGB.201414150 |    | 150 | 168 | 180 |       |       | 86 g   |

Application example / Esempio applicativo

CA.L.../CA.X.../CA.JU...

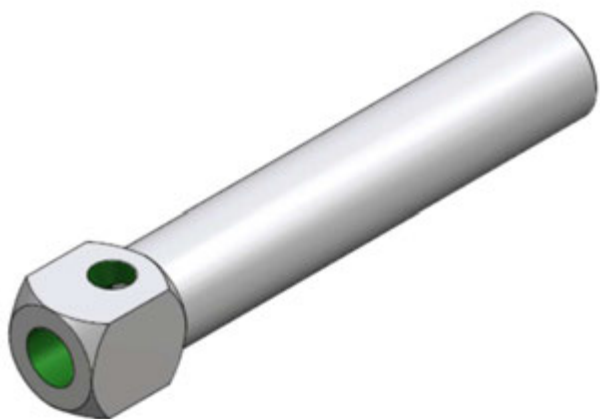


## CA.05 GSE

. Gripper Arm for Vacuum Cups

## Ø 10-14-20-30

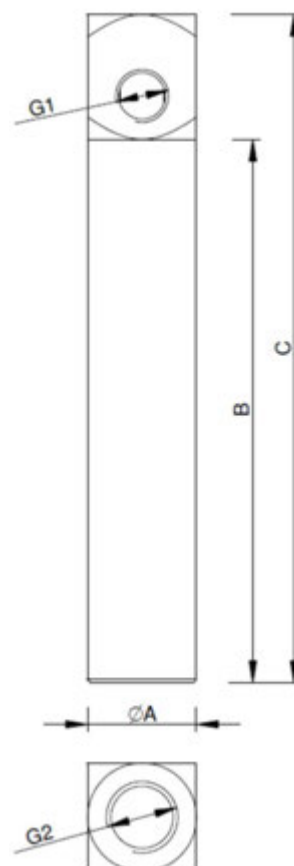
. Gambo per Ventosa



Remarks / Osservazioni:

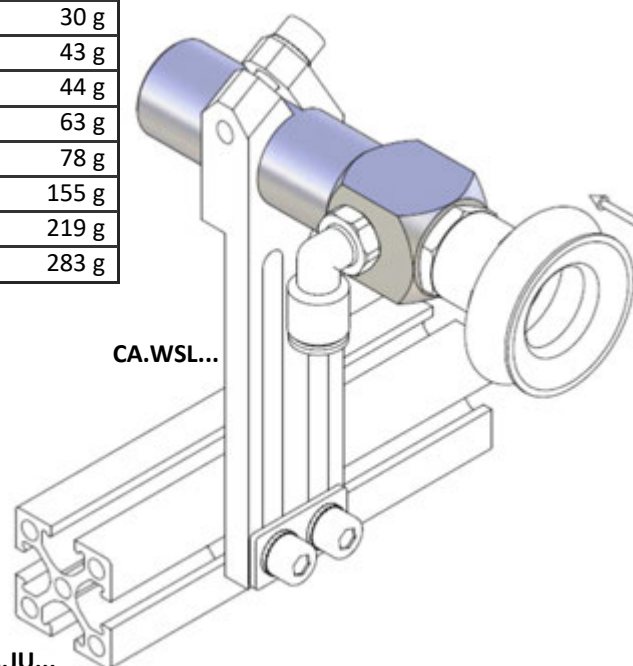
Material / Materiale: Aluminium / Alluminio

Surface: Silver anodized  
 Superficie: Argento anodizzato



| Article no.      | A   | B   | C   | G1    | G2    | Weight |       |
|------------------|-----|-----|-----|-------|-------|--------|-------|
| CA.GSE.1018M530  | 10  | 30  | 52  | M5    | G 1/8 | 15 g   |       |
| CA.GSE.1018M560  |     | 60  | 82  |       |       | 18 g   |       |
| CA.GSE.1018M590  |     | 90  | 112 |       |       | 25 g   |       |
| CA.GSE.10M5M530  |     | 30  | 46  |       | M5    | M5     | 9 g   |
| CA.GSE.10M5M560  |     | 60  | 76  |       |       |        | 15 g  |
| CA.GSE.10M5M590  |     | 90  | 106 |       |       |        | 24 g  |
| CA.GSE.14181840  |     | 40  | 62  |       |       |        | G 1/8 |
| CA.GSE.14181880  | 14  | 80  | 102 | 30 g  |       |        |       |
| CA.GSE.141818120 |     | 120 | 142 | 43 g  |       |        |       |
| CA.GSE.20141850  |     | 20  | 50  | 73    | G 1/4 | 44 g   |       |
| CA.GSE.201418100 | 100 |     | 123 | 63 g  |       |        |       |
| CA.GSE.201418150 | 150 |     | 173 | 78 g  |       |        |       |
| CA.GSE.30141480  | 30  | 80  | 108 | G 1/4 |       | 155 g  |       |
| CA.GSE.301414140 |     | 140 | 168 |       |       | 219 g  |       |
| CA.GSE.301414200 |     | 200 | 228 |       |       | 283 g  |       |

Application example / Esempio applicativo

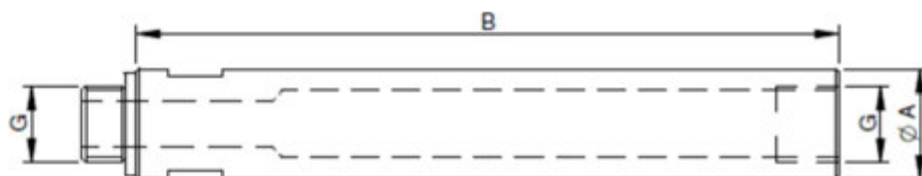
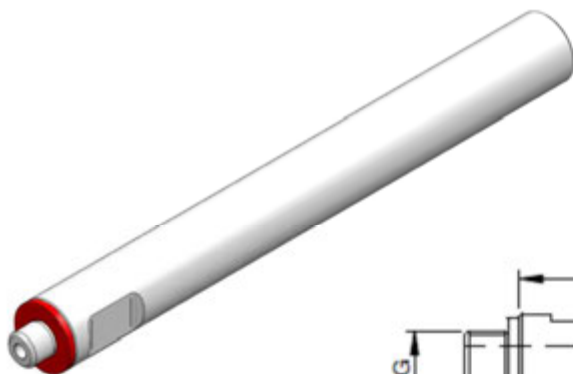


## CA.05 GSEG

Ø 10-12-14-20

. Extension tube with air lead

. Prolunga per Ventosa



Remarks / Osservazioni:

Material / Materiale: Aluminium / Alluminio

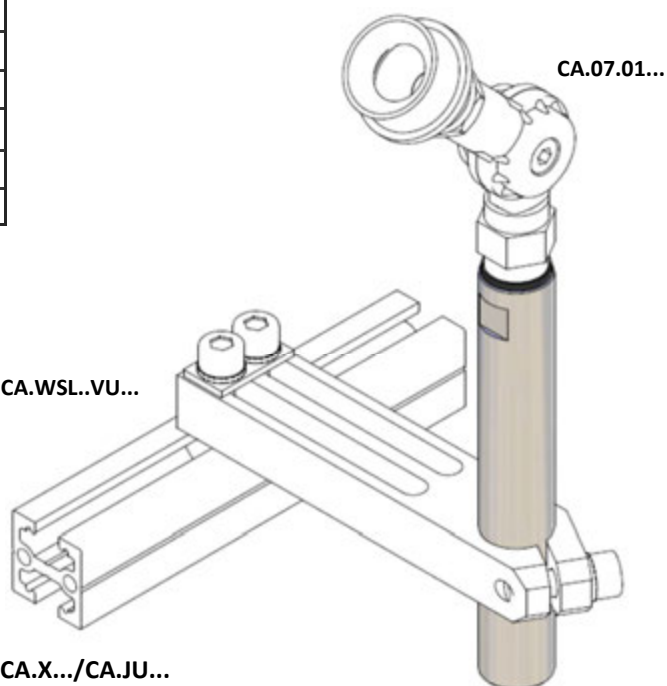
Surface: Silver anodized  
Superficie: Argento anodizzato

|     | Article no.    | A  | B  | G     | Weight |
|-----|----------------|----|----|-------|--------|
| new | CA.GSEG.100515 | 10 | 15 | M5    | 3 g    |
| new | CA.GSEG.100530 |    | 30 |       | 6 g    |
|     | CA.GSEG.100545 |    | 45 |       | 9 g    |
|     | CA.GSEG.100590 |    | 90 |       | 16 g   |
| new | CA.GSEG.120545 | 12 | 45 | M5    | 12 g   |
| new | CA.GSEG.120590 |    | 90 |       | 24 g   |
| new | CA.GSEG.141815 | 14 | 15 | G 1/8 | 5 g    |
| new | CA.GSEG.141830 |    | 30 |       | 10 g   |
|     | CA.GSEG.141845 |    | 45 |       | 14 g   |
|     | CA.GSEG.141890 |    | 90 |       | 26 g   |
|     | CA.GSEG.201445 | 20 | 45 | G 1/4 | 30 g   |
|     | CA.GSEG.201490 |    | 90 |       | 58 g   |

Application example / Esempio applicativo

CA.WSL.VU...

CA.L.../CA.X.../CA.JU...



## CA.05 WSS

. Threadclamp fixed

L/X/JU

. Staffa per Ventosa

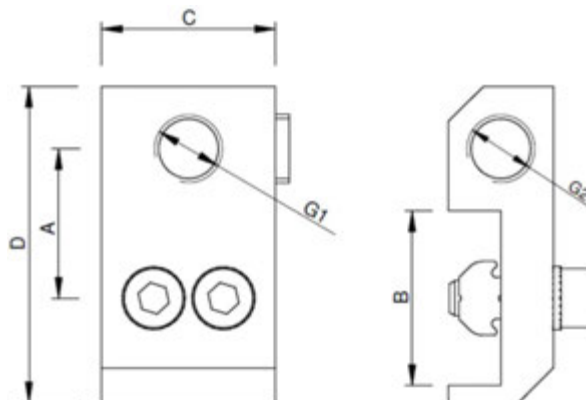
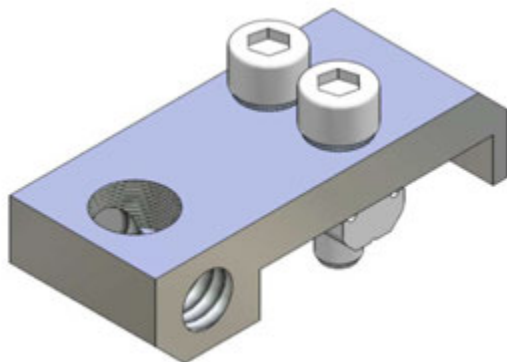


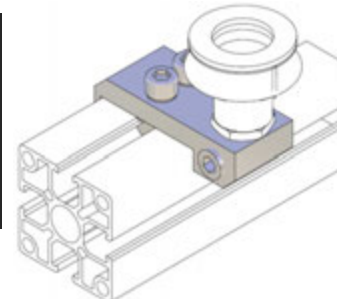
Table / Tabella

M = Suitable for Profiles  
Applicabile ai Profili

Application example / Esempio applicativo

| Article no.     | A  | B  | C  | D  | G1    | G2    | M  | Weight |
|-----------------|----|----|----|----|-------|-------|----|--------|
| CA.WSS.L.M5.M5  | 17 | 18 | 16 | 32 | M5    | M5    | L  | 18 g   |
| CA.WSS.X.18.18  | 22 | 25 | 25 | 46 | G 1/8 | G 1/8 | X  | 46 g   |
| CA.WSS.X.14.18  |    |    |    |    | G 1/4 |       |    |        |
| CA.WSS.JU.14.18 | 29 | 40 |    | 60 |       |       | JU | 49 g   |

Vacuum cup

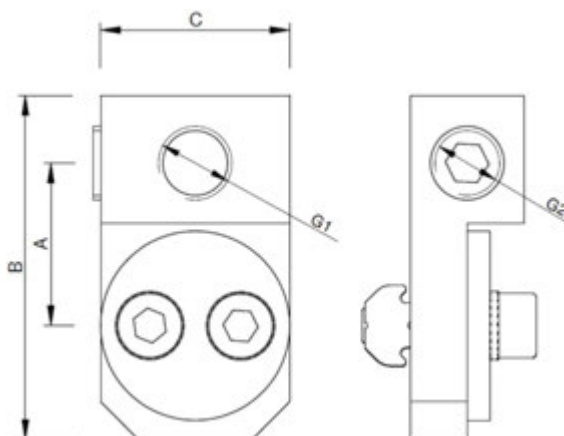
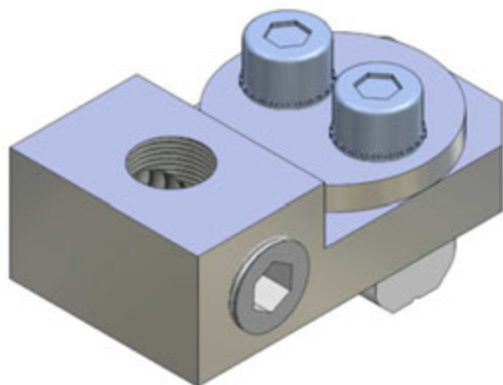


## CA.05 WSD

. Adjustable connector for vacuum cups

CA.L.../CA.X.../CA.JU...

. Staffa per Attacco Ventosa Orientabile



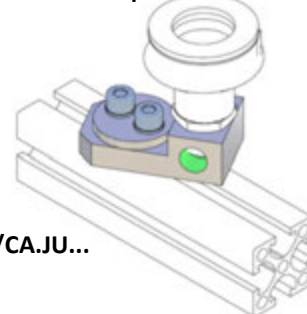
Remarks / Osservazioni:

Material / Materiale: Aluminium / Alluminio

Surface: Silver anodized  
Superficie: Argento anodizzato

| Article no.    | A  | B  | C  | G1    | G2    | M | Weight |
|----------------|----|----|----|-------|-------|---|--------|
| CA.WSD.L.M5.M5 | 14 | 28 | 16 | M5    | M5    | L | 19 g   |
| CA.WSD.X.18.18 | 21 | 46 | 25 | G 1/8 | G 1/8 | X | 44 g   |
| CA.WSD.X.14.18 |    |    |    | G 1/4 |       |   |        |

Vacuum cup



CA.L.../CA.X.../CA.JU...

## CA.05 SGB

L/X/JU

. Clamp for Vacuum Cups

. Staffa attacco diretto Ventosa

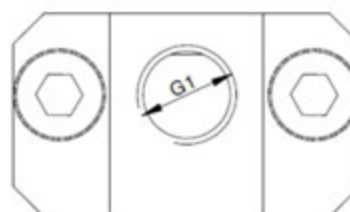
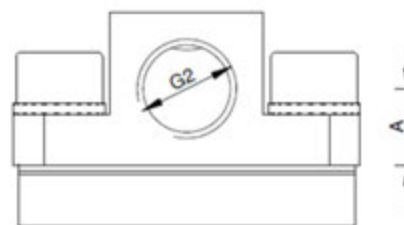
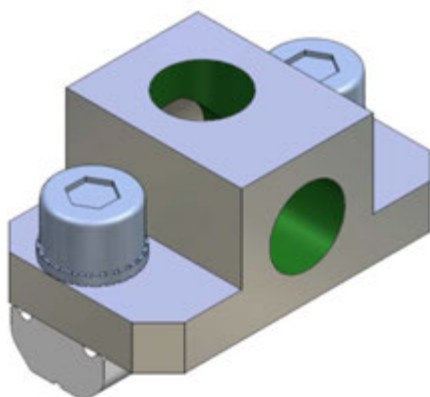


Table / Tabella

**M** = Suitable for Profiles  
*Applicabile ai Profili*

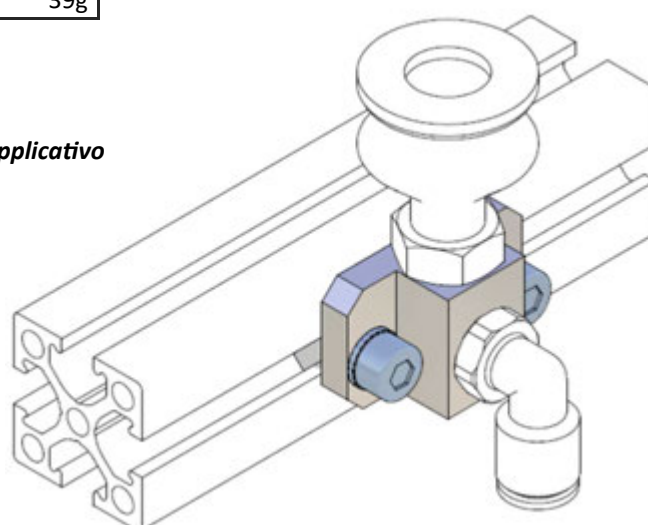
Remarks / Osservazioni:

Material / Materiale: Aluminium / Alluminio

Surface: Silver anodized  
*Superficie: Argento anodizzato*

| Article no.    | A   | G1    | G2    | M    | Weight |
|----------------|-----|-------|-------|------|--------|
| CA.SGB.5.5.X   | 4   | M5    | M5    | L    | 27g    |
| CA.SGB.18.18.X | 7.5 | G 1/8 | G 1/8 | X/JU | 35g    |
| CA.SGB.14.14.X | 10  | G 1/4 | G 1/4 |      | 39g    |

Application example / Esempio applicativo



CA.L.../CA.X.../CA.JU...

## CA.05 WLS

L/X/JU

. Thread Clamp Adjustable

. Staffa lunga per Ventosa

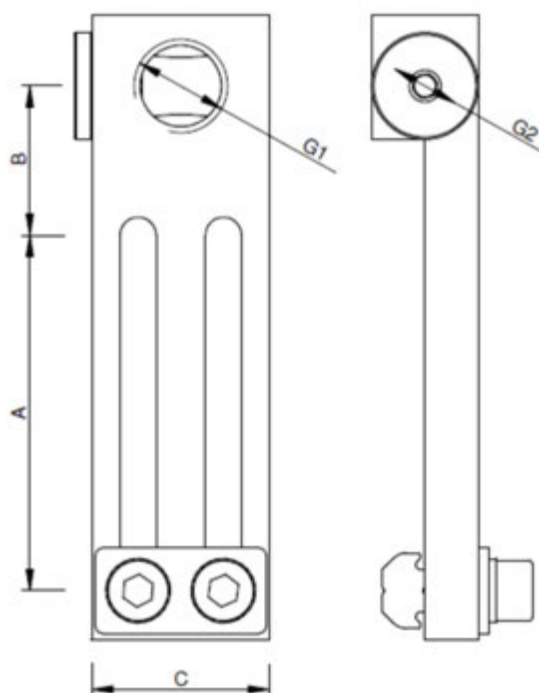
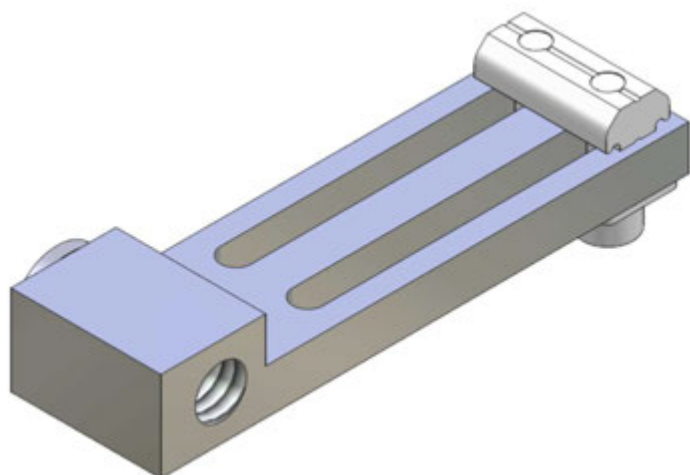


Table / Tabella

**M** = Suitable for Profiles  
Applicabile ai Profili

Remarks / Osservazioni:

Material / Materiale: Aluminium / Alluminio

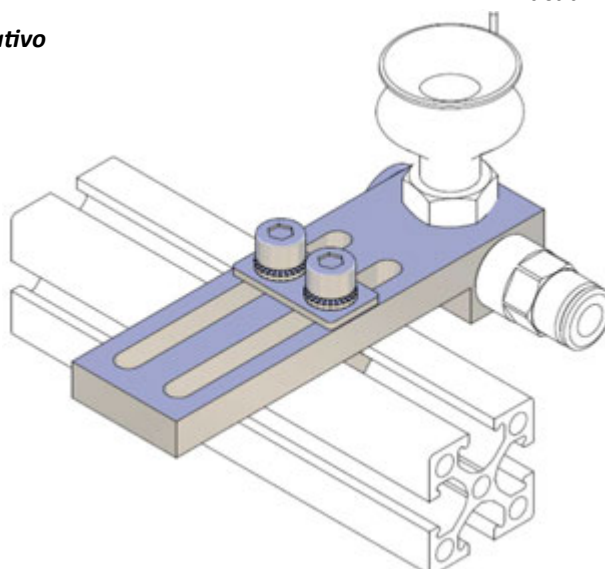
Surface: Silver anodized  
Superficie: Argento anodizzato

| Article no.    | G1    | G2    | A  | B  | C  | M    | Weight |
|----------------|-------|-------|----|----|----|------|--------|
| CA.WLS.M5.M5.X | M5    | M5    | 40 | 14 | 16 | L/X  | 24 g   |
| CA.WLS.18.18.X | G 1/8 | G 1/8 | 50 | 21 | 25 | X/JU | 65 g   |
| CA.WLS.14.18.X | G 1/4 |       |    | 23 |    | JU   | 73 g   |

Vacuum cup

Application example / Esempio applicativo

CA.L.../CA.X.../CA.JU...

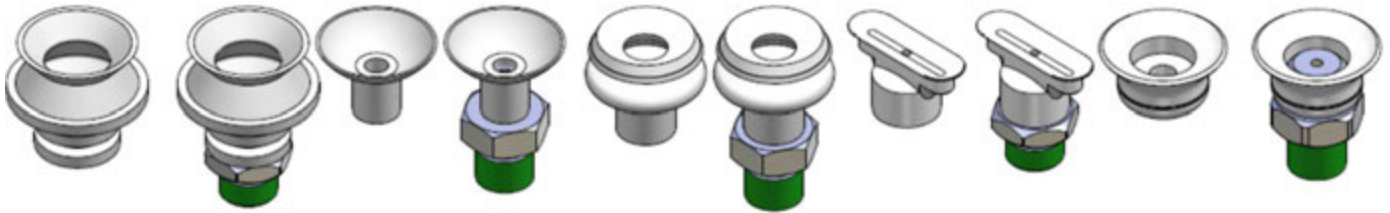




## CA.08

### . Vacuum Cup properties

### . Proprietà Ventose

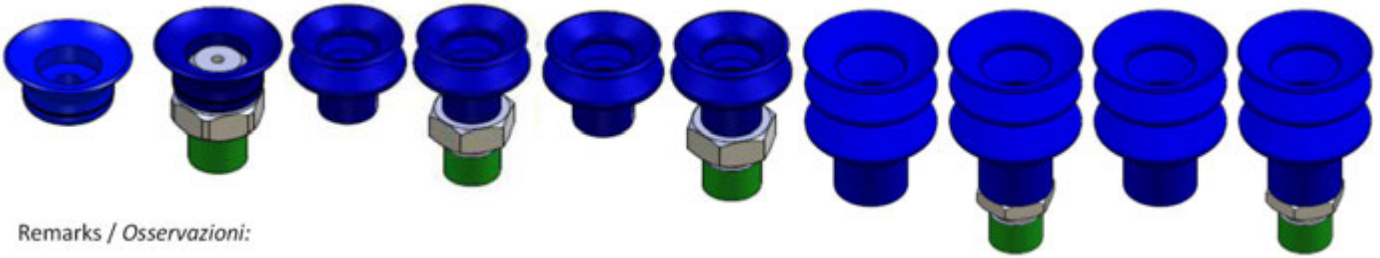


| Styles                                                                    | Series                                          | Applications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Oval vacuum cup</b><br><i>Ventosa ovale in silicone</i>                | <b>CA.08.27..</b>                               | The oval series of suction cups is used for handling oblong products, such as pens, tubes and bottles, and flat or cylindrical objects.<br><i>La serie ovale di ventose è usata per la presa di prodotti oblungi, tipo penne, tubi e bottiglie, e oggetti cilindrici o piatti.</i>                                                                                                                                                                                                                                                                                                     |
| <b>With 1 bellows</b><br><i>Con 1 soffietto</i>                           | <b>CA.08.03..<br/>CA.08.28..<br/>CA.08.29..</b> | The suction cups with 1 bellows provide accuracy in load gripping and speeds up throughput rates. These suction cups are used for flat surfaces only.<br><i>La serie di ventose con un soffietto, grazie al loro profilo, garantiscono un'elevata precisione di presa e permettono di aumentare la cadenza operativa. Queste ventose sono indicate per oggetti con superfici piane.</i>                                                                                                                                                                                                |
| <b>With 2 bellows</b><br><i>Con 2 soffietti</i>                           | <b>CA.08.01..<br/>CA.08.30..<br/>CA.08.31..</b> | The suction cups with 2 bellows combine the advantages of flat suction cups (precision and positioning) with the freedom of bellows (angle and flexibility). They provide flexibility, precision and low internal volume suitable for high-speed applications.<br><i>Le ventose con 2 soffietti combinano i vantaggi delle ventose piane con un movimento verticale più elevato, una maggiore elasticità e precisione. Permettono la presa di oggetti leggermente concavi e convessi.</i>                                                                                              |
| <b>With 3 bellows</b><br><i>Con 3 soffietti</i>                           | <b>CA.08.32..<br/>CA.08.33..<br/>CA.08.36..</b> | The suction cups with 3 bellows are recommended for gripping products on different planes (large deflection) - thus replacing spring systems - and for gripping spherical or cylindrical objects at an angle (ball-joint effect).<br><i>Le ventose con 3 soffietti sono indicate per la presa di prodotti con differenze di altezza (grazie al grande movimento verticale), evitando l'utilizzo di compensatori di livello, nonché per la presa di oggetti sferici o con superfici a forte curvatura.</i>                                                                              |
| <b>With 2 bellows and foam strip</b><br><i>Con 2 soffietti con anella</i> | <b>CA.08.26..</b>                               | The suction cups with foam ring is designed for gripping products with an uneven or ridged surface, Ex. Sawn wood, sheet metal, flat surfaces with bumps or hollows. All granular surfaces to which suction cups cannot adhere correctly and therefore cannot be airtight.<br><i>Le ventose con anella sono ideate per prodotti di presa per superfici irregolari. Es. legno segato, foglio di metallo, superfici piate con protuberanze o vuoti. Tutte le superfici granulari alle quali le ventose non possono aderire correttamente, non possono quindi essere a tenuta d'aria.</i> |

## CA.08

### . Vacuum Cup properties

### . Proprietà Ventose



Remarks / Osservazioni:

The holding force of the suction pads increases proportionally with the difference between the ambient pressure and the pressure inside the pad.

The holding force of a suction pad is calculated with the formula:

$$F = \Delta p \times A$$

F = Holding force

$\Delta p$  = Difference between ambient pressure and pressure of the system

A = Effective suction area (the effective area of a suction pad under vacuum)

This means the holding force is proportional to the pressure difference and the suction area. The greater the difference between ambient pressure and pressure in the suction pad or the larger the effective suction area, the greater the holding force. The force can vary depending on a change of the pressure difference and area parameters.

*La forza di resistenza delle ventose aumenta proporzionalmente con la differenza tra la pressione ambiente e la pressione all'interno del cuscinetto.*

*La forza di resistenza delle ventose è calcolata con la formula:*

$$F = \Delta p \times A$$

F = Forza di resistenza

$\Delta p$  = Differenza tra la pressione ambiente e la pressione del sistema

A = Area effettiva della ventosa (l'area effettiva del cuscinetto della ventosa sotto la ventosa)

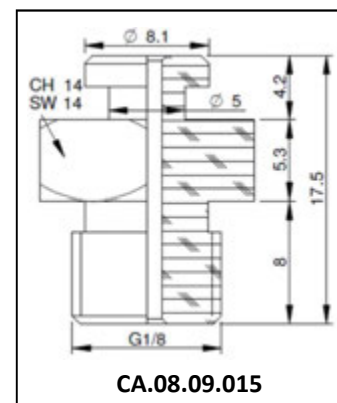
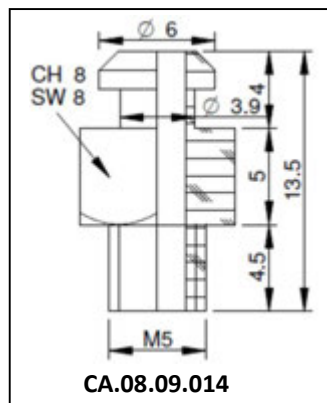
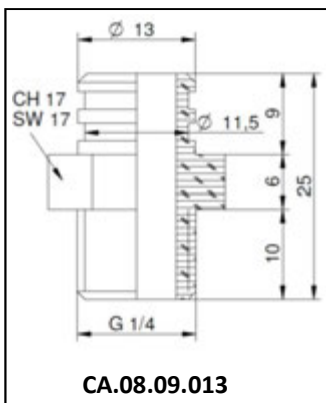
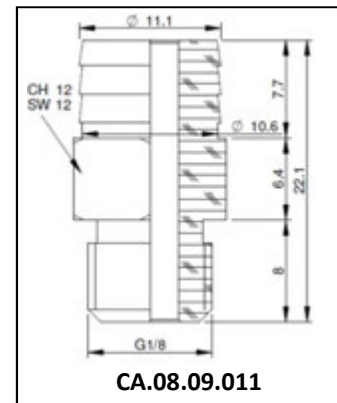
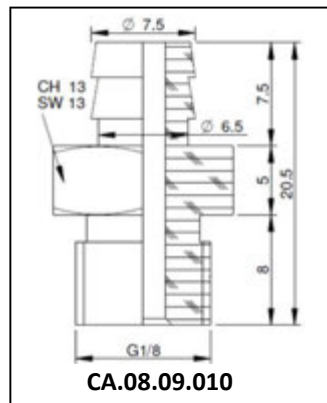
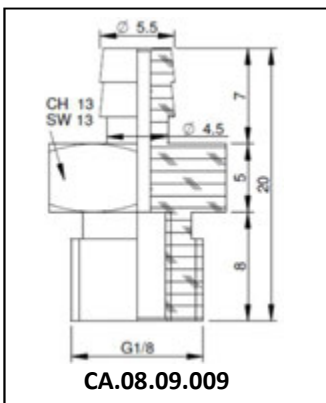
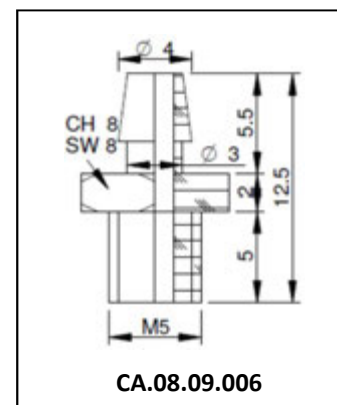
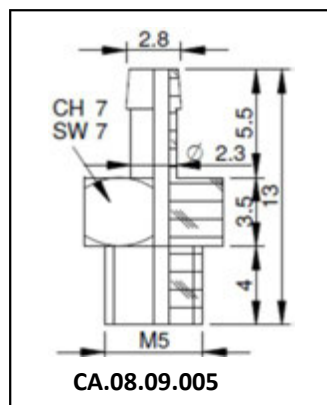
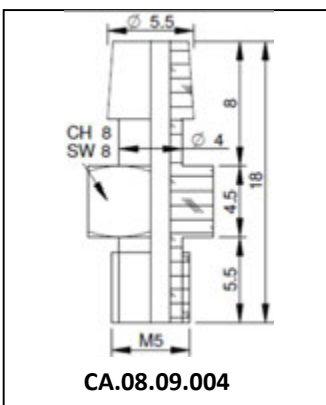
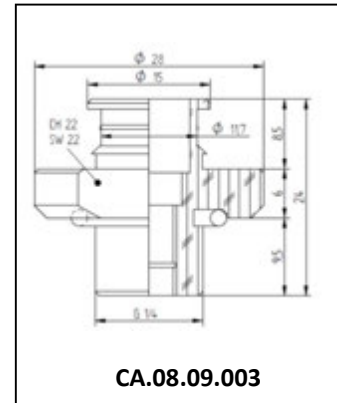
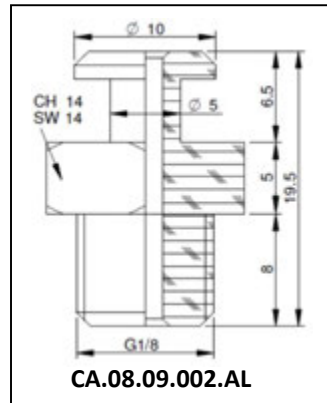
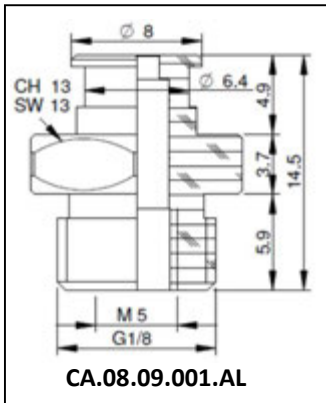
*Ciò significa che la forza di resistenza è proporzionale alla differenza di pressione e l'area della ventosa. Maggiore la differenza tra la pressione ambiente e la pressione nella ventosa o maggiore l'area effettiva della ventosa, maggiore sarà la forza di resistenza. La forza può variare a causa di un cambio della differenza di pressione e parametri dell'area.*

|                                                                                                                | HT1           | SILICONE<br>(translucid) | POLYURETHANE |
|----------------------------------------------------------------------------------------------------------------|---------------|--------------------------|--------------|
| Ozone resistance<br><i>Resistenza all'ozono</i>                                                                | 😊😊😊           | 😊                        | 😞            |
| Oil resistance<br><i>Resistenza all'olio</i>                                                                   | 😊😊😊           | 😞                        | 😊            |
| Wear resistance<br><i>Resistenza all'usura</i>                                                                 | 😊😊            | 😞                        | 😊😊😊          |
| Tensile strength<br><i>Forza di tensione</i>                                                                   | 😊             | 😞                        | 😞            |
| Temperature resistance / <i>Resistenza alla temperatura</i>                                                    |               |                          |              |
| Short-term in °C (< 30 sec.)<br><i>Nel breve intervallo in °C (&lt; 30 sec.)</i>                               | -25° to +170° | -50° to +220°            | +10° to +50° |
| Longer-term in °C<br><i>Nel lungo intervallo in °C</i>                                                         | -10° to +140° | -30° to +180°            |              |
| Leaving few marks<br><i>Rimanenza di segno</i>                                                                 | 😊             | 😞                        | 😊            |
| Absence of PWIS (paint-wetting impairment substances)<br><i>Assenza di sostanze che danneggiano la vernice</i> | 😊             | 😞                        | 😊            |

## CA.08.09

. Adapters for vacuum cups

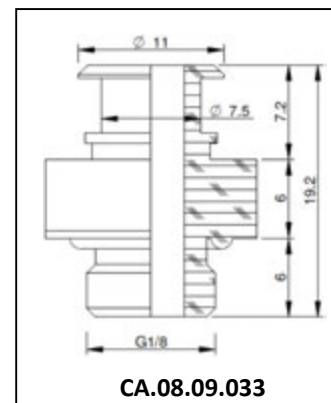
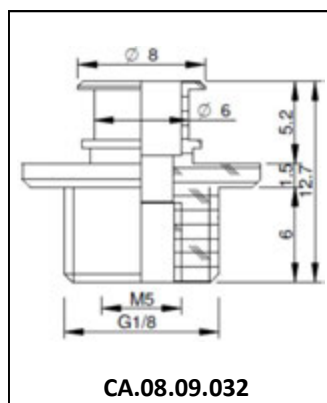
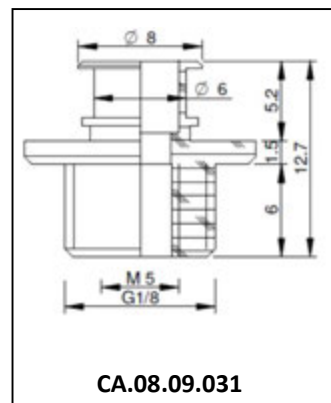
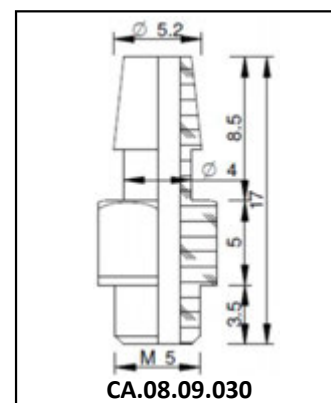
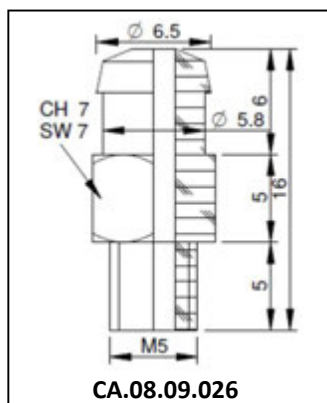
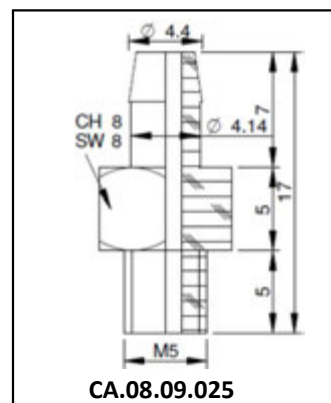
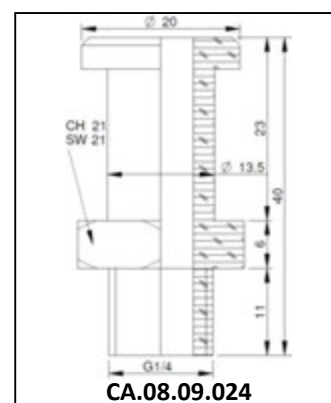
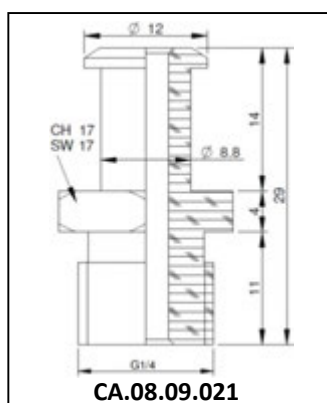
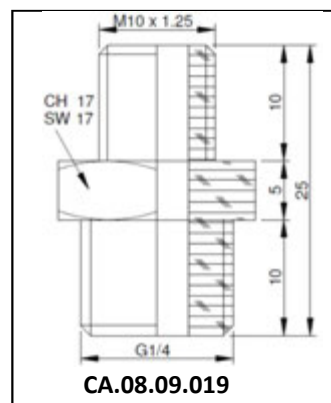
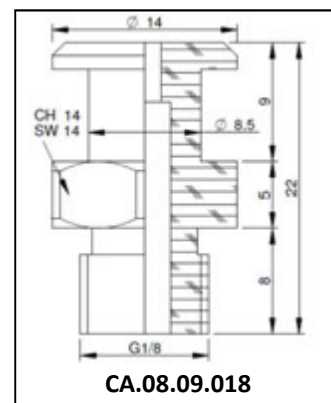
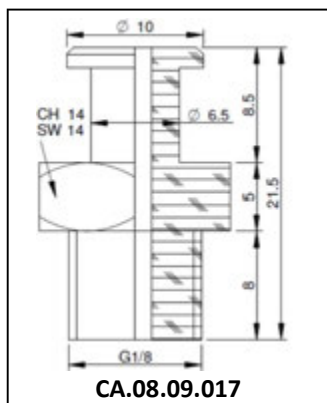
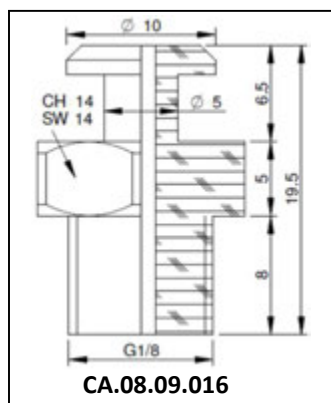
. Adattatori per Ventose



## CA.08.09

. Adapters for vacuum cups

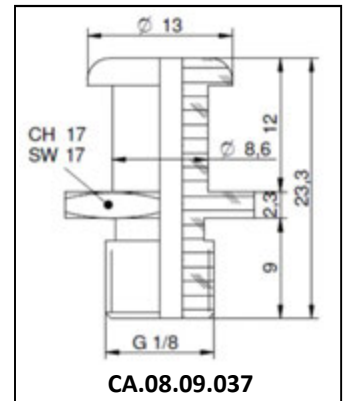
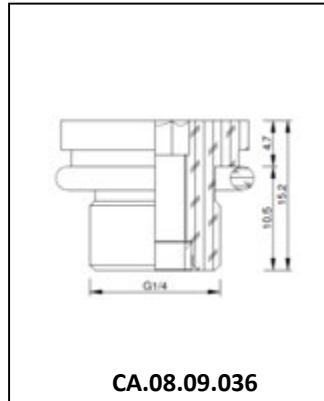
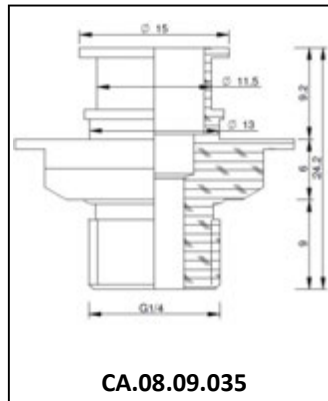
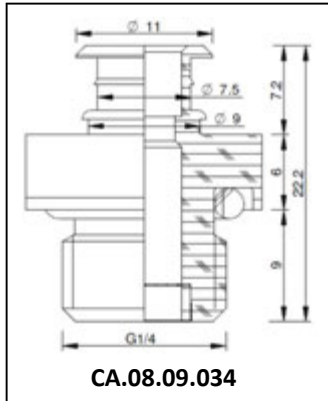
. Adattatori per Ventose



## CA.08.09

. Adapters for vacuum cups

. Adattatori per Ventose



| Article no.     | Vacuum cups     | Weight | Article no.  | Vacuum cups     | Weight | Article no.  | Vacuum cups     | Weight |
|-----------------|-----------------|--------|--------------|-----------------|--------|--------------|-----------------|--------|
| CA.08.09.001.AL | CA.08.01.003    | 3 g    | CA.08.09.009 | CA.08.01.001    | 3 g    | CA.08.09.011 | CA.08.03.009    | 4 g    |
|                 | CA.08.27.001    |        |              | CA.08.01.002    |        |              | CA.08.03.010    |        |
|                 | CA.08.27.002    |        |              | CA.08.03.003    |        |              | CA.08.03.011    |        |
|                 | CA.08.27.003    |        |              | CA.08.03.004    |        |              | CA.08.26.D33.AS |        |
| CA.08.09.002.AL | CA.08.01.004    | 12 g   |              | CA.08.03.005    |        |              | CA.08.26.D43.AS |        |
|                 | CA.08.01.005    |        |              | CA.08.09.006    |        |              | CA.08.26.D53.AS |        |
| CA.08.09.003    | CA.08.01.006    | 3 g    |              | CA.08.26.D20.AS |        |              | CA.08.26.D63.AS |        |
| CA.08.09.004    | CA.08.01.001    | 1 g    |              | CA.08.30.001    |        |              | CA.08.30.006    |        |
|                 | CA.08.01.002    |        |              | CA.08.30.002    |        |              | CA.08.30.007    |        |
|                 | CA.08.03.003    |        |              | CA.08.30.003    |        |              | CA.08.30.008    |        |
|                 | CA.08.03.004    |        |              | CA.08.30.004    |        | CA.08.30.009 |                 |        |
|                 | CA.08.03.005    |        |              | CA.08.30.005    |        | CA.08.31.006 |                 |        |
|                 | CA.08.03.006    |        |              | CA.08.31.001    |        | CA.08.31.007 |                 |        |
|                 | CA.08.26.D20.AS |        |              | CA.08.31.002    |        | CA.08.31.008 |                 |        |
|                 | CA.08.26.D25.AS |        |              | CA.08.31.003    |        | CA.08.32.D32 |                 |        |
|                 | CA.08.30.001    |        |              | CA.08.31.004    |        | CA.08.32.D42 |                 |        |
|                 | CA.08.30.002    |        |              | CA.08.31.005    |        | CA.08.33.D32 |                 |        |
|                 | CA.08.30.003    |        |              | CA.08.32.D12    |        | CA.08.33.D42 |                 |        |
|                 | CA.08.30.004    |        |              | CA.08.32.D14    |        | CA.08.33.D52 |                 |        |
|                 | CA.08.30.005    |        |              | CA.08.32.D20    |        |              |                 |        |
|                 | CA.08.31.001    |        |              | CA.08.32.D25    |        |              |                 |        |
|                 | CA.08.31.002    |        | CA.08.33.D12 |                 |        |              |                 |        |
|                 | CA.08.31.003    |        | CA.08.33.D14 |                 |        |              |                 |        |
|                 | CA.08.31.004    |        | CA.08.33.D20 |                 |        |              |                 |        |
|                 | CA.08.31.005    |        | CA.08.33.D25 |                 |        |              |                 |        |
|                 | CA.08.32.D12    |        |              |                 |        |              |                 |        |
|                 | CA.08.32.D14    |        |              |                 |        |              |                 |        |
|                 | CA.08.32.D20    |        |              |                 |        |              |                 |        |
|                 | CA.08.32.D25    |        |              |                 |        |              |                 |        |
|                 | CA.08.33.D12    |        |              |                 |        |              |                 |        |
|                 | CA.08.33.D14    |        |              |                 |        |              |                 |        |
|                 | CA.08.33.D20    |        |              |                 |        |              |                 |        |
|                 | CA.08.33.D25    |        |              |                 |        |              |                 |        |
| CA.08.09.005    | CA.08.03.001    | 2 g    | CA.08.09.010 | CA.08.03.007    | 4 g    | CA.08.09.013 | CA.08.27.004    | 19 g   |
| CA.08.09.006    | CA.08.03.002    | 1 g    | CA.08.03.008 | CA.08.27.005    |        | CA.08.27.006 |                 |        |
|                 |                 |        |              |                 |        | CA.08.09.014 | CA.08.28.001    |        |
|                 |                 |        |              |                 |        |              | CA.08.28.002    |        |
|                 |                 |        |              |                 |        |              | CA.08.28.003    |        |
|                 |                 |        |              |                 |        |              | CA.08.28.004    |        |
|                 |                 |        |              |                 |        |              | CA.08.29.001    |        |
|                 |                 |        |              |                 |        |              | CA.08.29.002    | 4 g    |
|                 |                 |        |              |                 |        |              | CA.08.29.003    |        |
|                 |                 |        |              |                 |        |              | CA.08.29.004    |        |
|                 |                 |        |              |                 |        | CA.08.09.015 | CA.08.28.005    |        |
|                 |                 |        |              |                 |        |              | CA.08.29.005    |        |

## CA.08.09

### . Adapters for vacuum cups

| Article no.         | Vacuum cups                                                                                                                                                                                                                                                                              | Weight |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| <b>CA.08.09.016</b> | CA.08.28.006<br>CA.08.29.006                                                                                                                                                                                                                                                             | 4 g    |
| <b>CA.08.09.017</b> | CA.08.28.007<br>CA.08.28.008<br>CA.08.28.009<br>CA.08.28.010<br>CA.08.29.007<br>CA.08.29.008<br>CA.08.29.009<br>CA.08.29.010                                                                                                                                                             | 5 g    |
| <b>CA.08.09.018</b> | CA.08.29.011<br>CA.08.28.011                                                                                                                                                                                                                                                             | 5 g    |
| <b>CA.08.09.019</b> | CA.08.28.012<br>CA.08.28.013<br>CA.08.29.012<br>CA.08.29.013                                                                                                                                                                                                                             | 8 g    |
| <b>CA.08.09.021</b> | CA.08.26.D33.AS<br>CA.08.26.D43.AS<br>CA.08.26.D53.AS<br>CA.08.26.D63.AS<br>CA.08.30.006<br>CA.08.30.007<br>CA.08.30.008<br>CA.08.30.009<br>CA.08.31.006<br>CA.08.31.007<br>CA.08.31.008<br>CA.08.31.009<br>CA.08.32.D32<br>CA.08.32.D42<br>CA.08.33.D32<br>CA.08.33.D42<br>CA.08.33.D52 | 8 g    |
| <b>CA.08.09.024</b> | CA.08.26.D78.AS<br>CA.08.30.010<br>CA.08.31.011                                                                                                                                                                                                                                          | 15 g   |
| <b>CA.08.09.025</b> | CA.08.33.D5<br>CA.08.33.D9                                                                                                                                                                                                                                                               | 1 g    |
| <b>CA.08.09.026</b> | CA.08.32.D09<br>CA.08.33.D07                                                                                                                                                                                                                                                             |        |

### . Adattatori per Ventose

| Article no.         | Vacuum cups                                                        | Weight |
|---------------------|--------------------------------------------------------------------|--------|
| <b>CA.08.09.030</b> | CA.08.36.D10<br>CA.08.36.D10.60<br>CA.08.36.D15<br>CA.08.36.D15.60 | 1 g    |
| <b>CA.08.09.031</b> | CA.08.36.D20<br>CA.08.36.D20.60                                    | 2 g    |
| <b>CA.08.09.032</b> | CA.08.36.D25<br>CA.08.36.D25.60                                    |        |
| <b>CA.08.09.033</b> | CA.08.36.D35                                                       | 5 g    |
| <b>CA.08.09.034</b> | CA.08.36.D35<br>CA.08.36.D35.60                                    | 8 g    |
| <b>CA.08.09.035</b> | CA.08.36.D52<br>CA.08.36.D52.60                                    | 11 g   |
| <b>CA.08.09.036</b> | CA.08.36.D75<br>CA.08.36.D75.60                                    | 18 g   |
| <b>CA.08.09.037</b> | CA.08.01.005                                                       | 19 g   |

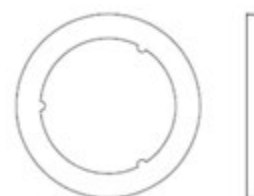


Table / Tabella

M = Suitable for...  
Applicabile a...

| Article no.        | M            |
|--------------------|--------------|
| <b>CA.08.09.05</b> | <b>M5</b>    |
| <b>CA.08.09.18</b> | <b>G 1/8</b> |
| <b>CA.08.09.14</b> | <b>G 1/4</b> |



## CA.08.29

## HT1

. Vacuum Cup with 1 Bellows only

. Ventosa con 1 soffiETTO

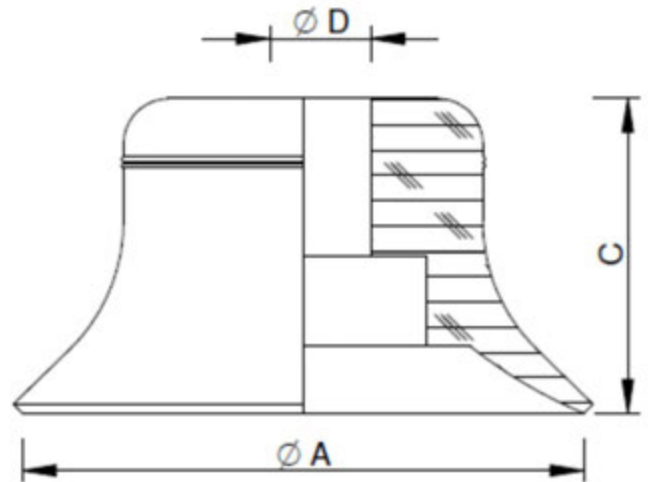
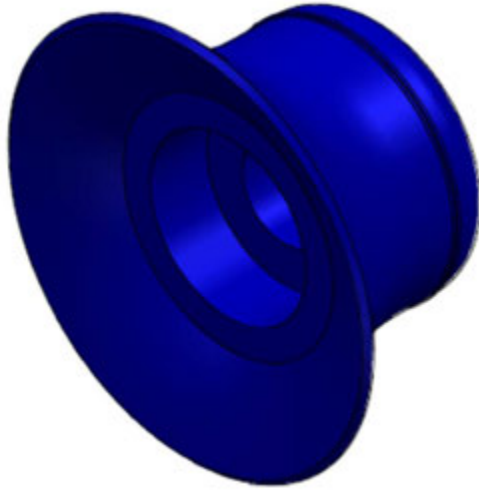


Table / Tabella

F = Holding force  
Forza di tenuta

| Article no.  | A   | C    | D        | F(N) | Weight |
|--------------|-----|------|----------|------|--------|
| CA.08.29.001 | Ø5  | 6.5  | Ø4       | 0.75 | 0.2 g  |
| CA.08.29.002 | Ø6  |      |          | 1.2  |        |
| CA.08.29.003 | Ø8  | 7    |          | 2.3  |        |
| CA.08.29.004 | Ø10 | 7.5  |          | 4    | 0.3 g  |
| CA.08.29.005 | Ø15 | 8    | Ø4.5     | 9    | 0.7 g  |
| CA.08.29.006 | Ø20 | 10   |          | 15.5 | 1.4 g  |
| CA.08.29.007 | Ø25 | 14   | Ø6       | 26.5 | 2.4 g  |
| CA.08.29.008 | Ø30 | 12   |          | 34   | 3.5 g  |
| CA.08.29.009 | Ø35 | 14   |          | 44   | 5.9 g  |
| CA.08.29.010 | Ø40 |      |          | 57.7 | 7.6 g  |
| CA.08.29.011 | Ø50 | 15   | Ø8       | 91   | 10.6 g |
| CA.08.29.012 | Ø60 | 18   | M10x1.25 | 125  | 24.2 g |
| CA.08.29.013 | Ø80 | 20.5 |          | 260  | 51.2 g |

## Remarks / Osservazioni:

Temperature resistance / Temperatura di resistenza  
Short-term in °C (< 30 sec.)

Nel breve periodo in °C (&lt; 30 sec.)

**-25° to +170°**

Longer-term in °C

Nel lungo periodo in °C

**-10° to +140°**

Leaving few marks ☺

Rimanenza di segno

Absence of PWIS (paint-wetting impairment substances) ☺

Assenza di sostanze che danneggiano la vernice

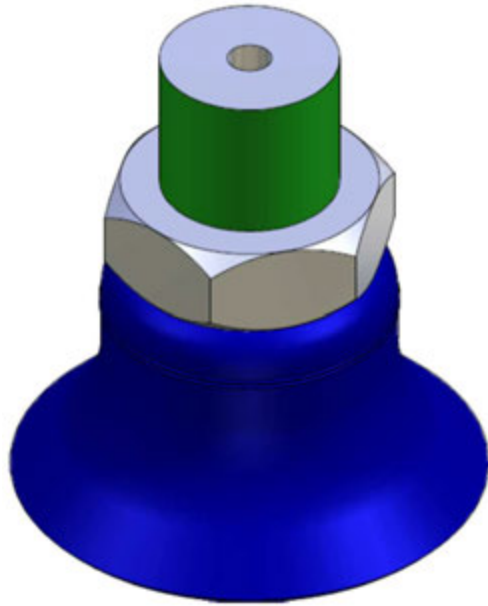
The suction cups with 1 bellows provide accuracy in load gripping and speeds up throughput rates. These suction cups are used for flat surfaces only.

La serie di ventose con un soffiETTO, grazie al loro profilo, garantiscono un'elevata precisione di presa e permettono di aumentare la cadenza operativa. Queste ventose sono indicate per oggetti con superfici piane.

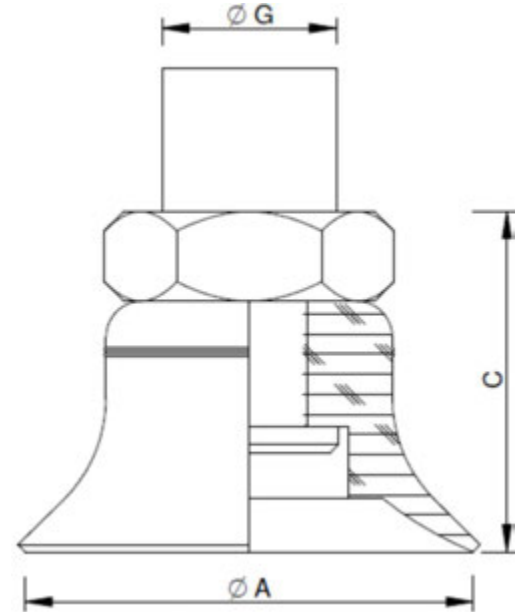
## CA.08.29

HT1

. Vacuum Cup with 1 bellows (complete)



. Ventosa con 1 soffietto (Completa)



| Article no.   | VACUUM CUP   | NIPPLE       | A   | C    | G     | Weight |
|---------------|--------------|--------------|-----|------|-------|--------|
| KIT.08.29.D05 | CA.08.29.001 | CA.08.09.014 | Ø5  | 9.5  | M5    | 5 g    |
| KIT.08.29.D06 | CA.08.29.002 |              | Ø6  |      |       |        |
| KIT.08.29.D08 | CA.08.29.003 |              | Ø8  | 12   |       |        |
| KIT.08.29.D10 | CA.08.29.004 |              | Ø10 | 12.5 |       |        |
| KIT.08.29.D15 | CA.08.29.005 | CA.08.09.015 | Ø15 | 13.3 | G 1/8 | 6 g    |
| KIT.08.29.D20 | CA.08.29.006 | CA.08.09.016 | Ø20 | 15   |       |        |
| KIT.08.29.D25 | CA.08.29.007 | CA.08.09.017 | Ø25 | 19   |       | 7 g    |
| KIT.08.29.D30 | CA.08.29.008 |              | Ø30 | 17   |       | 8 g    |
| KIT.08.29.D35 | CA.08.29.009 |              | Ø35 | 19   |       | 10 g   |
| KIT.08.29.D40 | CA.08.29.010 |              | Ø40 |      |       | 12 g   |
| KIT.08.29.D50 | CA.08.29.011 | CA.08.09.018 | Ø50 | 20   | G 1/4 | 20 g   |
| KIT.08.29.D60 | CA.08.29.012 | CA.08.09.019 | Ø60 | 23   |       | 24 g   |
| KIT.08.29.D80 | CA.08.29.013 |              | Ø80 | 25   |       | 43 g   |

## CA.08.31

## HT1

. Vacuum Cup with 2 bellows only

. Ventosa con 2 soffietti

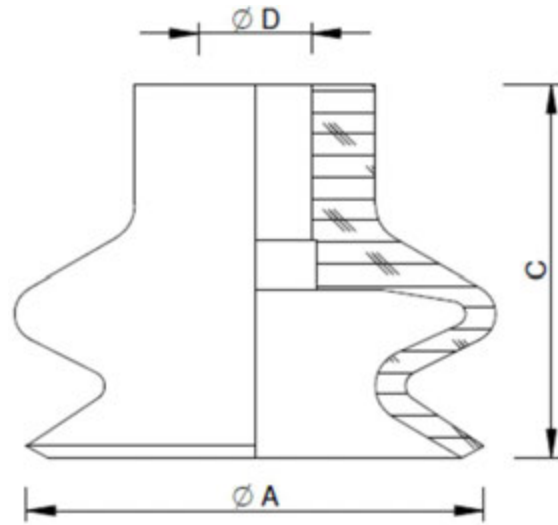
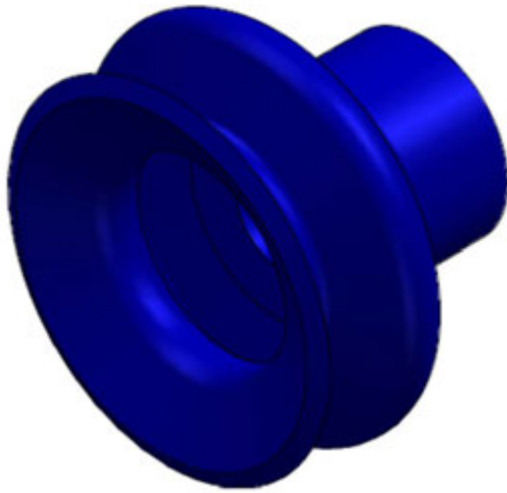


Table / Tabella

F = Holding force  
Forza di tenuta

| Article no.  | A     | C    | D    | F(N) | Weight |
|--------------|-------|------|------|------|--------|
| CA.08.31.012 | Ø5.7  | 9    | Ø3.7 | 0.4  | 0.2 g  |
| CA.08.31.001 | Ø10.4 | 16   | Ø4.5 | 1.2  | 0.9 g  |
| CA.08.31.002 | Ø12.5 | 15.5 |      |      | 1.1 g  |
| CA.08.31.003 | Ø15.6 | 19.2 |      | 2.3  | 1.2 g  |
| CA.08.31.004 | Ø18.1 | 15.2 |      | 4.7  | 1.7 g  |
| CA.08.31.005 | Ø21.5 | 19   |      | 5.7  | 2 g    |
| CA.08.31.006 | Ø22.5 | 23   |      | 5.3  | 2.7 g  |
| CA.08.31.007 | Ø30   | 27   | Ø8   | 13.6 | 6.8 g  |
| CA.08.31.008 | Ø38   | 27.6 |      | 22.8 | 11 g   |
| CA.08.31.009 | Ø50   | 34   |      | 51.3 | 18.3 g |
| CA.08.31.010 | Ø60   |      |      | 85   | 23.8 g |
| CA.08.31.011 | Ø74   | 47   | Ø12  | 137  | 55.6 g |

## Remarks / Osservazioni:

Temperature resistance / Temperatura di resistenza  
Short-term in °C (< 30 sec.)  
Nel breve periodo in °C (< 30 sec.)

-25° to +170°

Longer-term in °C

Nel lungo periodo in °C

-10° to +140°

Leaving few marks ☺

Rimanenza di segno

Absence of PWIS (paint-wetting impairment substances) ☺

Assenza di sostanze che danneggiano la vernice

The suction cups with 2 bellows combine the advantages of flat suction cups (precision and positioning) with the freedom of bellows (angle and flexibility). They provide flexibility, precision and low internal volume suitable for high-speed applications.

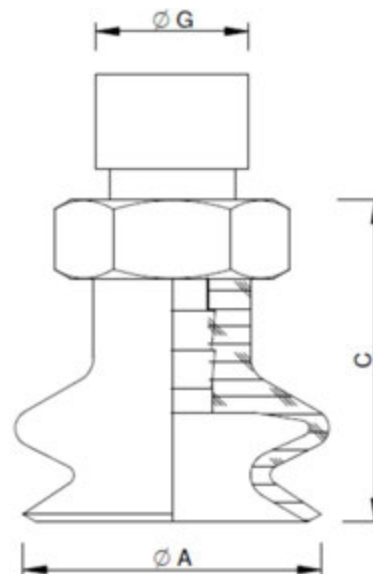
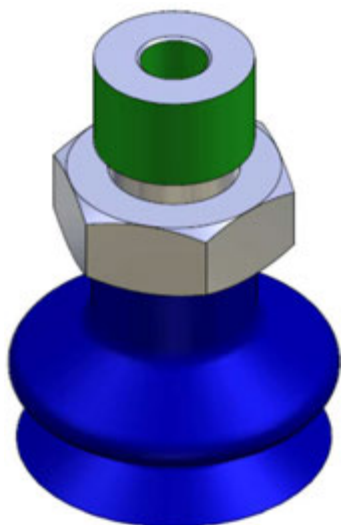
Le ventose con 2 soffietti combinano i vantaggi delle ventose piane con un movimento verticale più elevato, una maggiore elasticità e precisione. Permettono la presa di oggetti leggermente concavi e convessi.

## CA.08.31

HT1

. Vacuum Cup with 2 bellows (complete)

. Ventosa de 2 fuelles (completa)



| Article no.                          | VACUUM CUP   | NIPPLE                       | A   | C            | G              | Weight       |
|--------------------------------------|--------------|------------------------------|-----|--------------|----------------|--------------|
| KIT.08.31.D06.14                     | CA.08.31.012 | CA.08.09.014                 | Ø6  | 14           | M5             | 2 g          |
| KIT.08.31.D11.4<br>KIT.08.31.D11.9   | CA.08.31.001 | CA.08.09.004<br>CA.08.09.009 | Ø11 | 20.5<br>21   | M5<br>G 1/8    | 2 g<br>4 g   |
| KIT.08.31.D14.4<br>KIT.08.31.D14.9   | CA.08.31.002 | CA.08.09.004<br>CA.08.09.009 | Ø14 | 20.5<br>21   | M5<br>G 1/8    | 2 g<br>4 g   |
| KIT.08.31.D16.4<br>KIT.08.31.D16.9   | CA.08.31.003 | CA.08.09.004<br>CA.08.09.009 | Ø16 | 23.5<br>24   | M5<br>G 1/8    | 4 g<br>6 g   |
| KIT.08.31.D20.4<br>KIT.08.31.D20.9   | CA.08.31.004 | CA.08.09.004<br>CA.08.09.009 | Ø20 | 20.5<br>21   | M5<br>G 1/8    | 5 g<br>7 g   |
| KIT.08.31.D22.4<br>KIT.08.31.D22.9   | CA.08.31.005 | CA.08.09.004<br>CA.08.09.009 | Ø22 | 20.5<br>21   | M5<br>G 1/8    | 6 g<br>8 g   |
| KIT.08.31.D25.4<br>KIT.08.31.D25.9   | CA.08.31.006 | CA.08.09.004<br>CA.08.09.009 | Ø25 | 27.5<br>28   | M5<br>G 1/8    | 6 g<br>8 g   |
| KIT.08.31.D33.11<br>KIT.08.31.D33.21 | CA.08.31.007 | CA.08.09.011<br>CA.08.09.021 | Ø33 | 33.5<br>31.5 | G 1/8<br>G 1/4 | 11 g<br>15 g |
| KIT.08.31.D43.11<br>KIT.08.31.D43.21 | CA.08.31.008 | CA.08.09.011<br>CA.08.09.021 | Ø43 | 34<br>32     | G 1/8<br>G 1/4 | 16 g<br>20 g |
| KIT.08.31.D53.11<br>KIT.08.31.D53.21 | CA.08.31.009 | CA.08.09.011<br>CA.08.09.021 | Ø53 | 40.5<br>38   | G 1/8<br>G 1/4 | 22 g<br>26 g |
| KIT.08.31.D63.21                     | CA.08.31.010 | CA.08.09.021                 | Ø63 | 38           | G 1/4          | 31 g         |
| KIT.08.31.D78.24                     | CA.08.31.011 | CA.08.09.024                 | Ø78 | 52.8         |                | 47 g         |

## CA.08.32

## HT1

. Vacuum Cup with 3 bellows only

. Ventosa con 3 soffietti

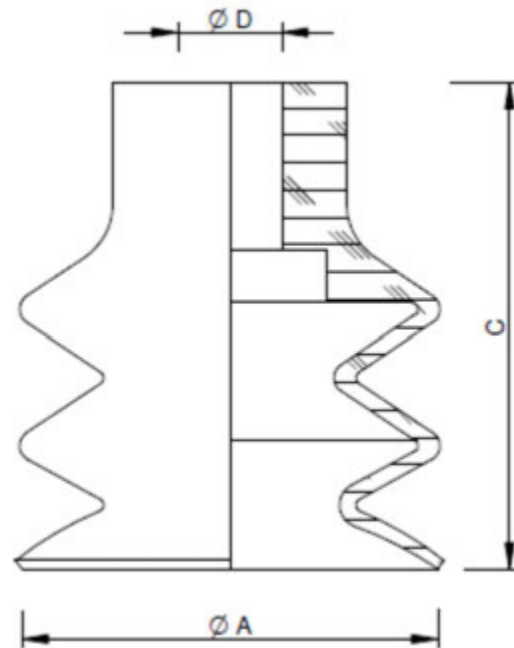
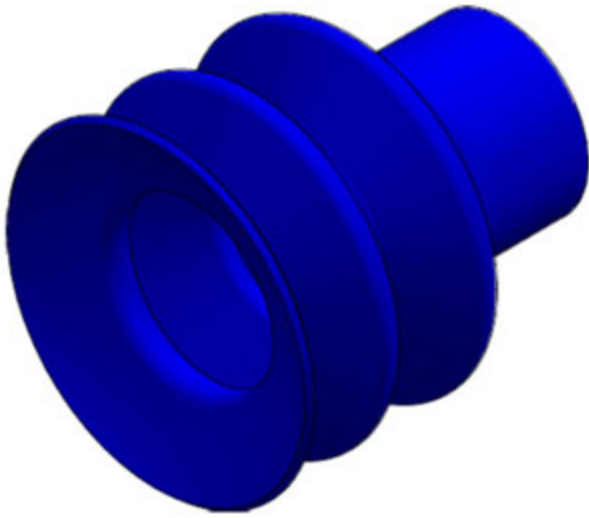


Table / Tabella

F = Holding force  
Forza di tenuta

| Article no.  | A   | C  | D  | F(N) | Weight |
|--------------|-----|----|----|------|--------|
| CA.08.32.D09 | Ø9  | 15 | Ø4 | 0.7  | 2 g    |
| CA.08.32.D12 | Ø12 | 21 |    | 0.9  | 3 g    |
| CA.08.32.D14 | Ø14 | 23 |    | 1.2  | 4 g    |
| CA.08.32.D20 | Ø20 | 22 |    | 3.8  | 6 g    |
| CA.08.32.D25 | Ø25 | 34 |    | 4.5  | 7 g    |
| CA.08.32.D32 | Ø32 | 37 | Ø8 | 12   | 8 g    |
| CA.08.32.D42 | Ø42 | 46 |    | 13.6 | 10 g   |
| CA.08.32.D52 | Ø52 | 49 |    | 28.5 | 25 g   |
| CA.08.32.D62 | Ø62 | 54 |    | 41   | 39 g   |

## Remarks / Osservazioni:

Temperature resistance / Temperatura di resistenza  
Short-term in °C (< 30 sec.)

Nel breve periodo in °C (&lt; 30 sec.)

**-25° to +170°**

Longer-term in °C

Nel lungo periodo in °C

**-10° to +140°**

Leaving few marks ☺

Rimanenza di segno

Absence of PWIS (paint-wetting impairment substances) ☺

Assenza di sostanze che danneggiano la vernice

The suction cups with 3 bellows are recommended for gripping products on different planes (large deflection) - thus replacing spring systems - and for gripping spherical or cylindrical objects at an angle (ball-joint effect).

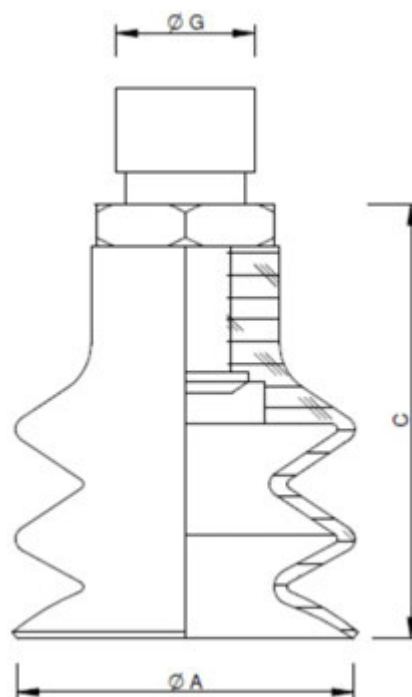
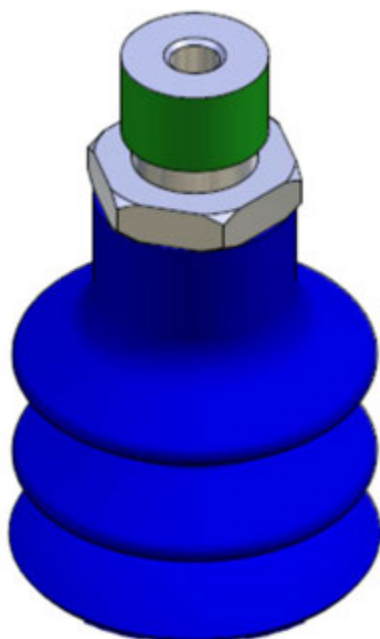
Le ventose con 3 soffietti sono indicate per la presa di prodotti con differenze di altezza (grazie al grande movimento verticale), evitando l'utilizzo di compensatori di livello, nonché per la presa di oggetti sferici o con superfici a forte curvatura.

## CA.08.32

HT1

. Vacuum Cup with 3 bellows (complete)

. Ventosa con 3 soffietti (Completa)



| Article no.                          | VACUUM CUP   | NIPPLE                       | A   | C          | G              | Weight       |
|--------------------------------------|--------------|------------------------------|-----|------------|----------------|--------------|
| KIT.08.32.D09.26                     | CA.08.32.D09 | CA.08.09.026                 | Ø9  | 20         | M5             | 3 g          |
| KIT.08.32.D12.4<br>KIT.08.32.D12.9   | CA.08.32.D12 | CA.08.09.004<br>CA.08.09.009 | Ø12 | 25.5<br>26 | M5<br>G 1/8    | 4 g<br>6 g   |
| KIT.08.32.D14.4<br>KIT.08.32.D14.9   | CA.08.32.D14 | CA.08.09.004<br>CA.08.09.009 | Ø14 | 27.5<br>28 | M5<br>G 1/8    | 5 g<br>7 g   |
| KIT.08.32.D20.4<br>KIT.08.32.D20.9   | CA.08.32.D20 | CA.08.09.004<br>CA.08.09.009 | Ø20 | 26.5<br>27 | M5<br>G 1/8    | 10 g<br>12 g |
| KIT.08.32.D25.4<br>KIT.08.32.D25.9   | CA.08.32.D25 | CA.08.09.004<br>CA.08.09.009 | Ø25 | 38.5<br>39 | M5<br>G 1/8    | 11 g<br>13 g |
| KIT.08.32.D32.11<br>KIT.08.32.D32.21 | CA.08.32.D32 | CA.08.09.011<br>CA.08.09.021 | Ø32 | 43.3<br>41 | G 1/8<br>G 1/4 | 12 g<br>16 g |
| KIT.08.32.D42.11<br>KIT.08.32.D42.21 | CA.08.32.D42 | CA.08.09.011<br>CA.08.09.021 | Ø42 | 52.3<br>50 | G 1/8<br>G 1/4 | 14 g<br>18 g |
| KIT.08.32.D52.21                     | CA.08.32.D52 | CA.08.09.021                 | Ø52 | 64         | G1/4           | 33 g         |
| KIT.08.32.D62.21                     | CA.08.32.D62 | CA.08.09.021                 | Ø62 | 59         |                | 50 g         |

## CA.08.26

## SILICONE

. Vacuum Cup with 2 bellows and foam strip

. Ventosa con 2 soffiotti con anello in spugna

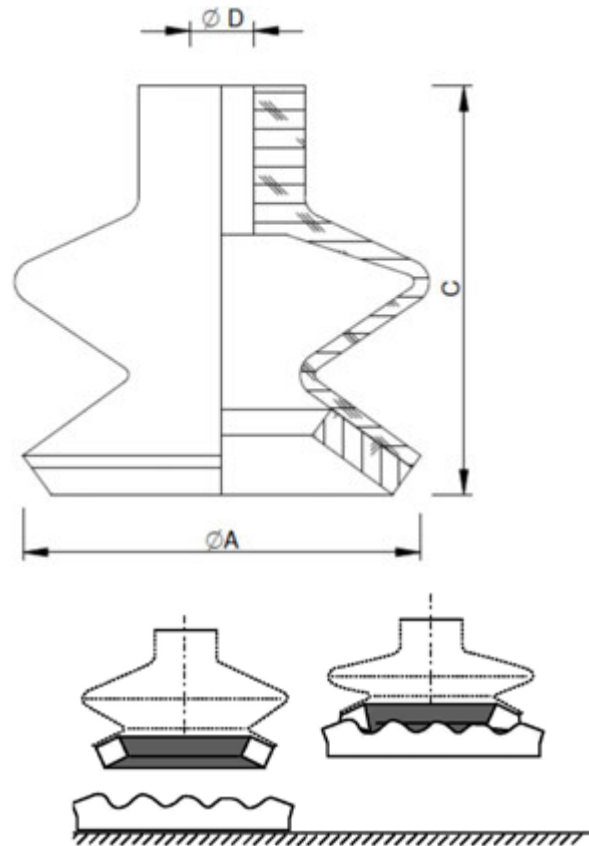
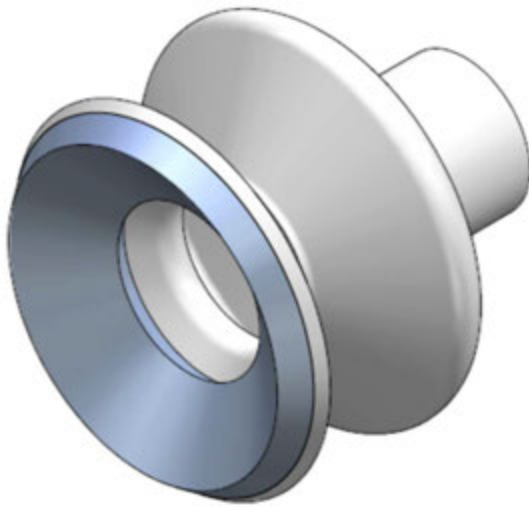


Table / Tabella

F = Holding force  
Forza di tenuta

| Article no.     | A   | C  | D    | F(N) | Weight |
|-----------------|-----|----|------|------|--------|
| CA.08.26.D16.AS | Ø16 | 21 | Ø3.8 | 7    | 2 g    |
| CA.08.26.D20.AS | Ø20 | 18 |      | 9    |        |
| CA.08.26.D25.AS | Ø25 | 25 |      | 11   |        |
| CA.08.26.D33.AS | Ø33 | 29 | Ø8   | 19.2 | 7 g    |
| CA.08.26.D43.AS | Ø43 | 32 |      | 28   | 13 g   |
| CA.08.26.D53.AS | Ø53 | 38 |      | 59   | 22 g   |
| CA.08.26.D63.AS | Ø63 | 37 |      | 82   | 26 g   |
| CA.08.26.D78.AS | Ø78 | 51 | Ø12  | 152  | 51 g   |

Remarks / Osservazioni:

Temperature resistance /  
Temperatura di resistenza  
Short-term in °C (< 30 sec.)  
Nel breve periodo in °C (< 30 sec.)  
-50° to +220°  
Longer-term in °C  
Nel lungo periodo in °C  
-30° to +180°

Leaving few marks ☹  
Rimane di segno

Absence of PWIS (paint-wetting impairment  
substances) ☹  
Assenza di sostanze che danneggiano la vernice

The suction cups with foam ring are designed for gripping products with an uneven or ridged surface, Ex. Sawn wood, sheet metal, flat surfaces with bumps or hollows. Those suction cups cannot adhere correctly to any granular surface and therefore cannot be airtight.

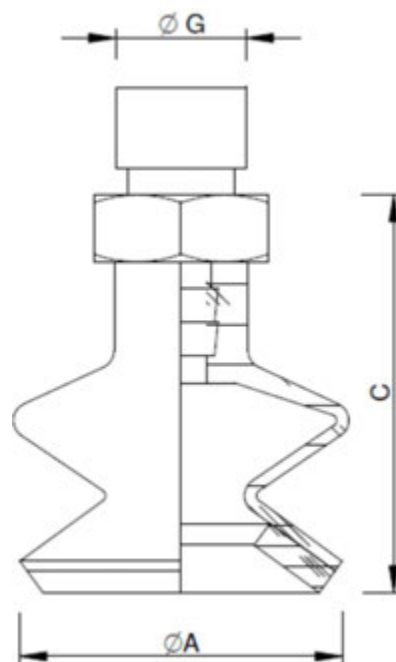
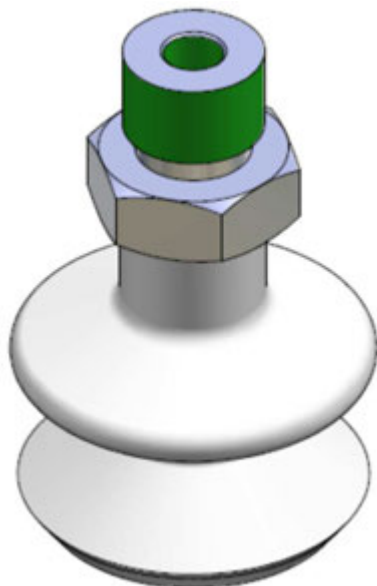
Le ventose con anella sono ideate per prodotti di presa per superfici irregolari. Es. legno segato, foglio di metallo, superfici piane con protuberanze o vuoti. Tutte le superfici granulari alle quali le ventose non possono aderire correttamente, non possono quindi essere a tenuta d'aria.

## CA.08.26

## SILICONE

.Vacuum Cup with 2 bellows  
and foam strip (complete)

.Ventosa con 2 soffiatti  
con anello in spugna (completa)



| Article no.                          | VACUUM CUP      | NIPPLE                       | A   | C          | G            | Weight       |
|--------------------------------------|-----------------|------------------------------|-----|------------|--------------|--------------|
| KIT.08.26.D16.4<br>KIT.08.26.D16.9   | CA.08.26.D16.AS | CA.08.09.004<br>CA.08.09.009 | Ø16 | 25.5<br>26 | M5<br>G 1/8  | 3 g<br>6 g   |
| KIT.08.26.D20.4<br>KIT.08.26.D20.9   | CA.08.26.D20.AS | CA.08.09.004<br>CA.08.09.009 | Ø20 | 22.5<br>23 | M5<br>1/8    | 3 g<br>6 g   |
| KIT.08.26.D25.4<br>KIT.08.26.D25.9   | CA.08.26.D25.AS | CA.08.09.004<br>CA.08.09.009 | Ø25 | 29.5<br>30 | M5<br>1/8"   | 4 g<br>6 g   |
| KIT.08.26.D33.11<br>KIT.08.26.D33.21 | CA.08.26.D33.AS | CA.08.09.011<br>CA.08.09.021 | Ø33 | 35.3<br>33 | 1/8"<br>1/4" | 11 g<br>15 g |
| KIT.08.26.D43.11<br>KIT.08.26.D43.21 | CA.08.26.D43.AS | CA.08.09.011<br>CA.08.09.021 | Ø43 | 38.3<br>36 | 1/8"<br>1/4" | 17 g<br>21 g |
| KIT.08.26.D53.11<br>KIT.08.26.D53.21 | CA.08.26.D53.AS | CA.08.09.011<br>CA.08.09.021 | Ø53 | 44.3<br>42 | 1/8"<br>1/4" | 26 g<br>30 g |
| KIT.08.26.D63.11<br>KIT.08.26.D63.21 | CA.08.26.D63.AS | CA.08.09.011<br>CA.08.09.021 | Ø63 | 43.3<br>41 | 1/8"<br>1/4" | 30 g<br>34 g |
| KIT.08.26.D78.24                     | CA.08.26.D78.AS | CA.08.09.024                 | Ø78 | 57         | 1/4"         | 57 g         |

## CA.08.27

## SILICONE

. Vacuum Cup oval only

. Ventosa Ovale

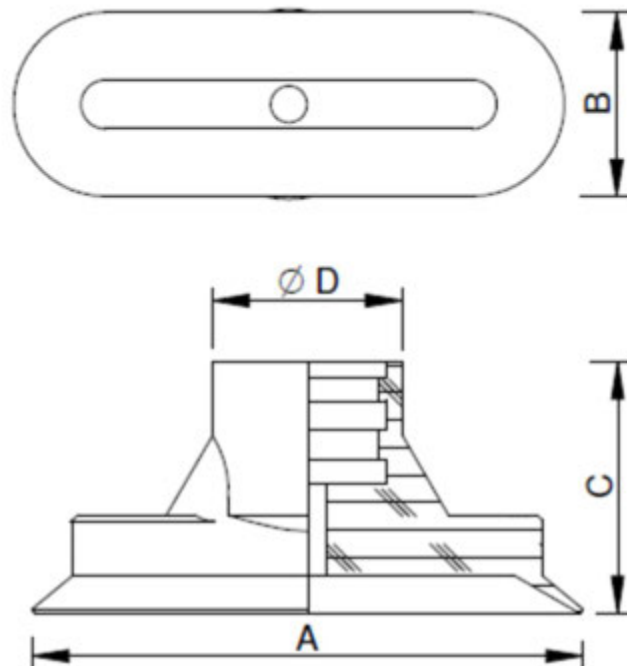
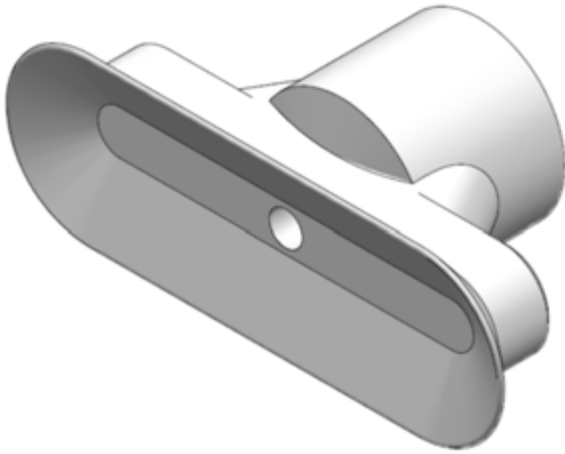


Table / Tabella

F = Holding force  
Forza di tenuta

Remarks / Osservazioni:

| Article no.  | A  | B  | C  | D   | F(N) | Weight |
|--------------|----|----|----|-----|------|--------|
| CA.08.27.001 | 24 | 8  | 12 | Ø12 | 8    | 2.6 g  |
| CA.08.27.002 | 30 | 10 |    |     | 12.2 |        |
| CA.08.27.003 | 36 | 12 |    |     | 20   |        |
| CA.08.27.004 | 45 | 15 | 21 | Ø17 | 28   | 4 g    |
| CA.08.27.005 | 60 | 20 |    | Ø18 | 50   | 7 g    |
| CA.08.27.006 | 75 | 25 |    |     | 78   | 14 g   |

Temperature resistance /  
Temperatura di resistenza  
Short-term in °C (< 30 sec.)  
Nel breve periodo in °C (< 30 sec.)

-50° to +220°

Longer-term in °C  
Nel lungo periodo in °C  
-30° to +180°

Leaving few marks ☹  
Rimanezza di segno

Absence of PWIS (paint-wetting impairment  
substances) ☹  
Assenza di sostanze che danneggiano la vernice

The oval series of suction cups is used for handling oblong products, such as pens, tubes and bottles, and flat or cylindrical objects.

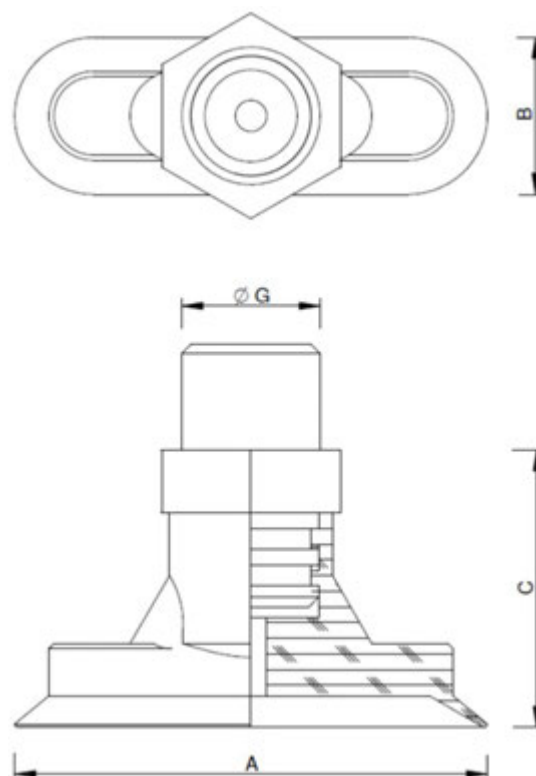
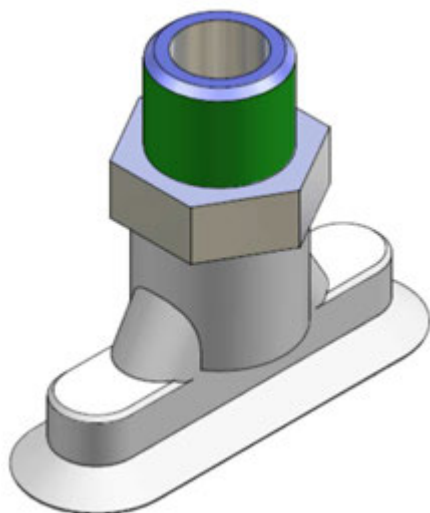
La serie ovale di ventose è usata per la presa di prodotti oblungi, tipo penne, tubi e bottiglie, e oggetti cilindrici o piatti.

## CA.08.27

## SILICONE

. Vacuum Cup Oval (complete)

. Ventosa ovale (completa)



| Article no.      | VACUUM CUP   | NIPPLE          | A  | B  | C    | G     | Weight |
|------------------|--------------|-----------------|----|----|------|-------|--------|
| KIT.08.27.L24.1A | CA.08.27.001 | CA.08.09.001.AL | 24 | 8  | 15.7 | G 1/8 | 4 g    |
| KIT.08.27.L30.1A | CA.08.27.002 |                 | 30 | 10 |      |       | 10 g   |
| KIT.08.27.L36.1A | CA.08.27.003 |                 | 36 | 12 |      |       | 23 g   |
| KIT.08.27.L45.13 | CA.08.27.004 | CA.08.09.013    | 45 | 15 | 27   | G 1/4 | 26 g   |
| KIT.08.27.L60.13 | CA.08.27.005 |                 | 60 | 20 |      |       | 33 g   |
| KIT.08.27.L75.13 | CA.08.27.006 |                 | 75 | 25 |      |       |        |

## CA.08.28

## SILICONE

. Vacuum Cup with 1 bellow only

. Ventosa con 1 soffiETTO

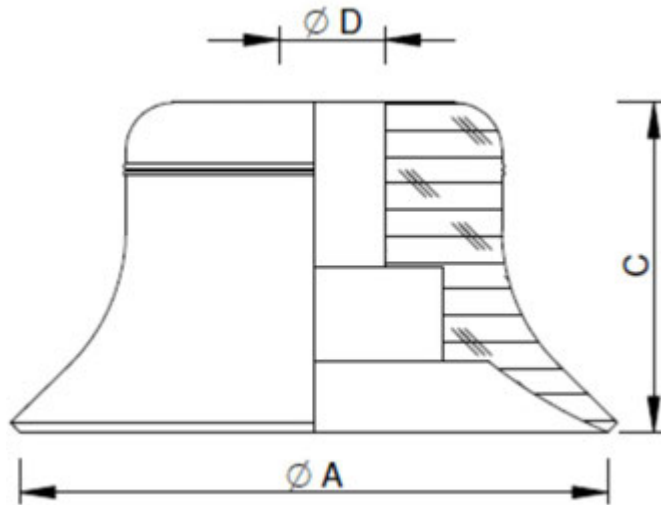
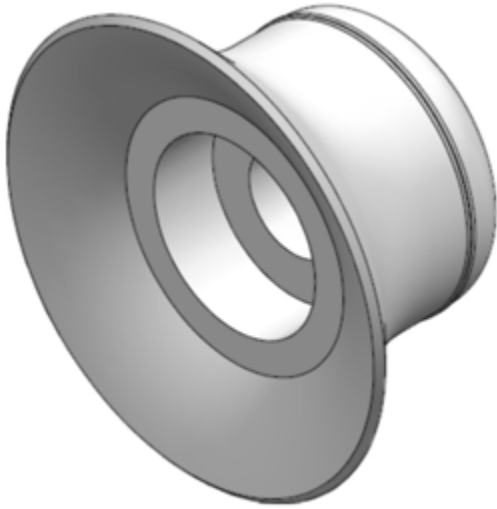


Table / Tabella

F = Holding force  
Forza di tenuta

Remarks / Osservazioni:

| Article no.  | A   | C   | D        | F(N) | Weight |
|--------------|-----|-----|----------|------|--------|
| CA.08.28.001 | Ø5  | 6.5 | Ø4       | 0.75 | 1 g    |
| CA.08.28.002 | Ø6  |     |          | 1.2  |        |
| CA.08.28.003 | Ø8  | 7   |          | 2.3  |        |
| CA.08.28.004 | Ø10 | 7.5 |          | 4    |        |
| CA.08.28.005 | Ø15 | 8   | Ø4.5     | 9    |        |
| CA.08.28.006 | Ø20 | 10  |          | 15.5 |        |
| CA.08.28.007 | Ø25 | 14  | Ø6       | 26.5 | 2 g    |
| CA.08.28.008 | Ø30 | 12  |          | 34   | 3 g    |
| CA.08.28.009 | Ø35 | 14  |          | 44   | 5 g    |
| CA.08.28.010 | Ø40 |     |          | 57.7 | 7 g    |
| CA.08.28.011 | Ø50 | 15  | Ø8       | 91   | 15 g   |
| CA.08.28.012 | Ø60 | 18  | M10x1.25 | 125  | 19 g   |
| CA.08.28.013 | Ø80 | 20  |          | 260  | 38 g   |

Temperature resistance / Temperatura di resistenza  
Short-term in °C (< 30 sec.)

Nel breve periodo in °C (< 30 sec.)

-50° to +220°

Longer-term in °C

Nel lungo periodo in °C

-30° to +180°

Leaving few marks ☹

Rimane di segno

Absence of PWIS (paint-wetting impairment substances) ☹

Assenza di sostanze che danneggiano la vernice

The suction cups with 1 bellow provide accuracy in load gripping and speed up throughput rates. These suction cups are used for flat surfaces only.

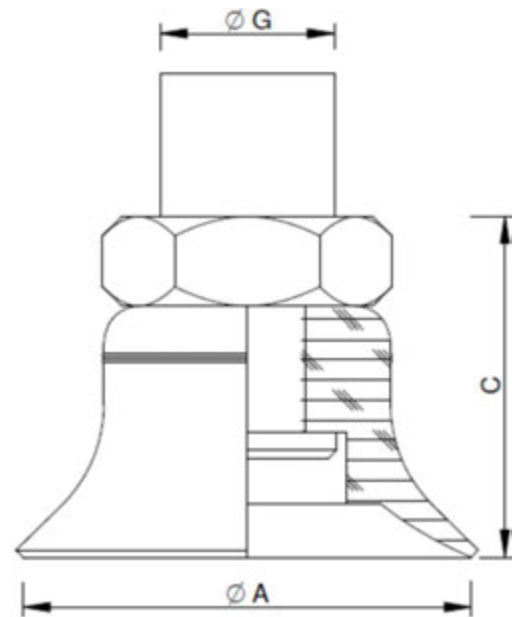
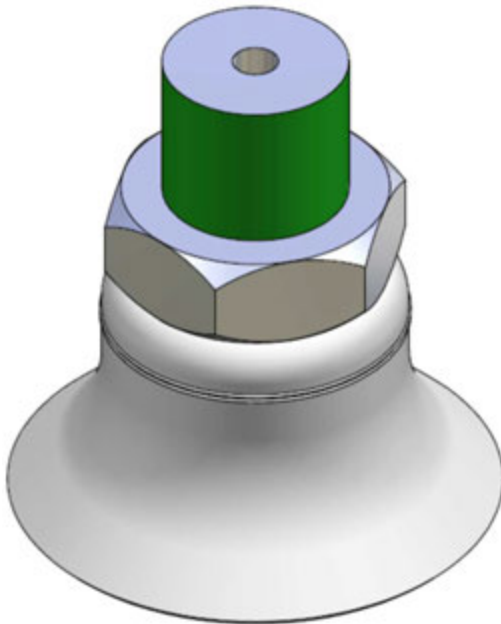
La serie di ventose con un soffiETTO, grazie al loro profilo, garantiscono un'elevata precisione di presa e permettono di aumentare la cadenza operativa. Queste ventose sono indicate per oggetti con superfici piane.

## CA.08.28

## SILICONE

. Vacuum Cup with 1 bellow (complete)

. Ventosa con 1 soffietto (Completa)



| Article no.   | VACUUM CUP   | NIPPLE       | A   | C    | G     | Weight |
|---------------|--------------|--------------|-----|------|-------|--------|
| KIT.08.28.D05 | CA.08.28.001 | CA.08.09.014 | Ø5  | 9.5  | M5    | 6 g    |
| KIT.08.28.D06 | CA.08.28.002 |              | Ø6  | 9.5  |       |        |
| KIT.08.28.D08 | CA.08.28.003 |              | Ø8  | 12   |       |        |
| KIT.08.28.D10 | CA.08.28.004 |              | Ø10 | 12.5 |       |        |
| KIT.08.28.D15 | CA.08.28.005 | CA.08.09.015 | Ø15 | 13.3 | G 1/8 | 7 g    |
| KIT.08.28.D20 | CA.08.28.006 | CA.08.09.016 | Ø20 | 15   |       |        |
| KIT.08.28.D25 | CA.08.28.007 | CA.08.09.017 | Ø25 | 19   |       |        |
| KIT.08.28.D30 | CA.08.28.008 |              | Ø30 | 17   |       | 8 g    |
| KIT.08.28.D35 | CA.08.28.009 |              | Ø35 | 19   |       | 10 g   |
| KIT.08.28.D40 | CA.08.28.010 |              | Ø40 | 19   |       | 12 g   |
| KIT.08.28.D50 | CA.08.28.011 | CA.08.09.018 | Ø50 | 20   | G 1/4 | 20 g   |
| KIT.08.28.D60 | CA.08.28.012 | CA.08.09.019 | Ø60 | 23   |       | 24 g   |
| KIT.08.28.D80 | CA.08.28.013 |              | Ø80 | 25   |       | 43 g   |

## CA.08.30

## SILICONE

. Vacuum Cup with 2 bellows only

. Ventosa con 2 soffietti

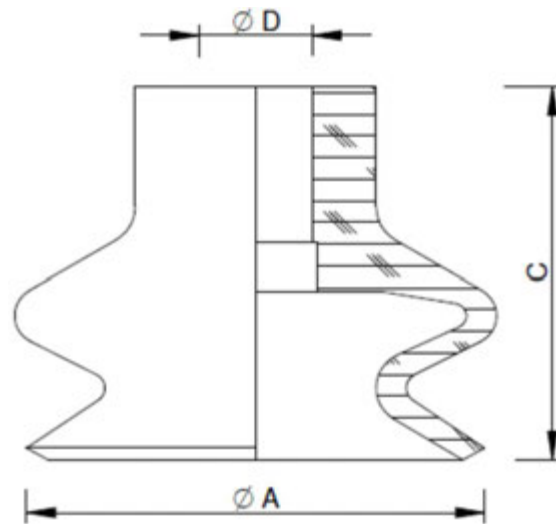
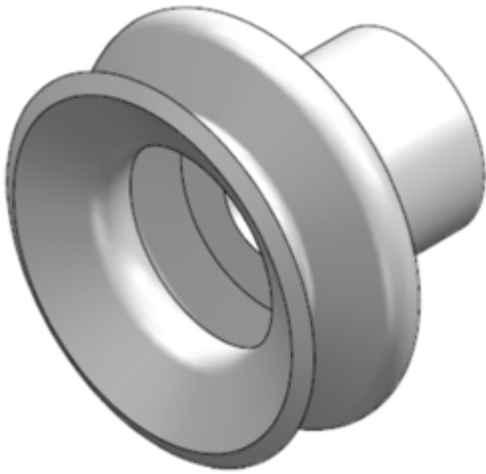


Table / Tabella

F = Holding force  
Forza di tenuta

| Article no.  | A   | C  | D    | F(N) | Weight |
|--------------|-----|----|------|------|--------|
| CA.08.30.012 | Ø6  | 9  | Ø3.7 | 1.5  | 1 g    |
| CA.08.30.001 | Ø10 | 16 | Ø4.5 | 1.2  |        |
| CA.08.30.002 | Ø12 |    |      | 2.3  |        |
| CA.08.30.003 | Ø16 | 19 |      | 4.7  |        |
| CA.08.30.004 | Ø18 | 15 |      | 5.3  | 3 g    |
| CA.08.30.005 | Ø23 | 23 |      | Ø8   | 13.6   |
| CA.08.30.006 | Ø30 | 27 | 23   |      | 11 g   |
| CA.08.30.007 | Ø38 | 28 | 51   |      | 19 g   |
| CA.08.30.008 | Ø50 | 34 | 85   |      | 24 g   |
| CA.08.30.009 | Ø60 |    | 137  |      | 56 g   |
| CA.08.30.010 | Ø74 | 47 | Ø12  |      |        |

Remarks / Osservazioni:

Temperature resistance / Temperatura di resistenza  
Short-term in °C (< 30 sec.)*Nel breve periodo in °C (< 30 sec.)***-50° to +220°**

Longer-term in °C

*Nel lungo periodo in °C***-30° to +180°**

Leaving few marks ⓘ

*Rimanenza di segno*

Absence of PWIS (paint-wetting impairment substances) ⓘ

*Assenza di sostanze che danneggiano la vernice*

The suction cups with 2 bellows combine the advantages of flat suction cups (precision and positioning) with the freedom of bellows (angle and flexibility). They provide flexibility, precision and low internal volume suitable for high-speed applications.

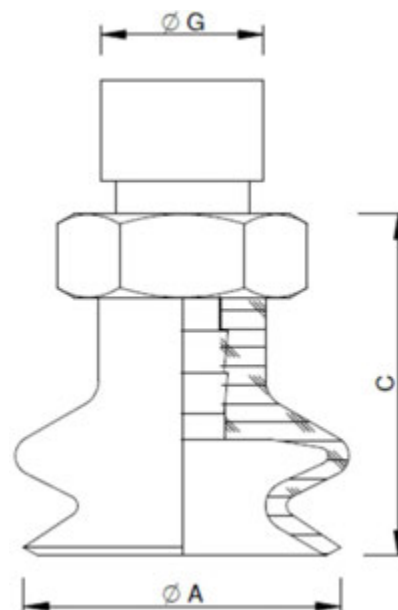
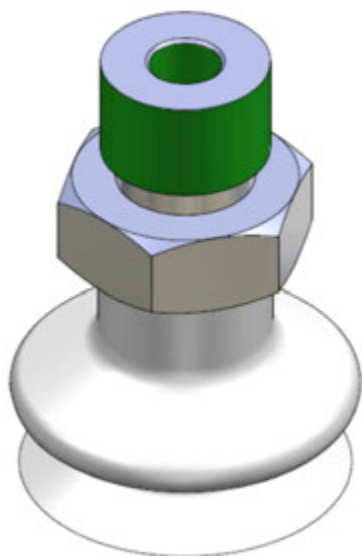
*Le ventose con 2 soffietti combinano i vantaggi delle ventose piane con un movimento verticale più elevato, una maggiore elasticità e precisione. Permettono la presa di oggetti leggermente concavi e convessi.*

## CA.08.30

## SILICONE

. Vacuum Cup with 2 bellows (complete)

. Ventosa con 2 soffiotti (completa)



| Article no.                          | VACUUM CUP   | NIPPLE                       | A   | C            | G              | Weight       |
|--------------------------------------|--------------|------------------------------|-----|--------------|----------------|--------------|
| KIT.08.30.D06.14                     | CA.08.30.012 | CA.08.09.014                 | Ø6  | 14           | M5             | 2 g          |
| KIT.08.30.D11.4<br>KIT.08.30.D11.9   | CA.08.30.001 | CA.08.09.004<br>CA.08.09.009 | Ø11 | 20.5<br>21   | M5<br>G 1/8    | 2 g<br>4 g   |
| KIT.08.30.D14.4<br>KIT.08.30.D14.9   | CA.08.30.002 | CA.08.09.004<br>CA.08.09.009 | Ø14 | 20.5<br>21   | M5<br>G 1/8    | 2 g<br>4 g   |
| KIT.08.30.D16.4<br>KIT.08.30.D16.9   | CA.08.30.003 | CA.08.09.004<br>CA.08.09.009 | Ø16 | 23.5<br>24   | M5<br>G 1/8    | 4 g<br>6 g   |
| KIT.08.30.D20.4<br>KIT.08.30.D20.9   | CA.08.30.004 | CA.08.09.004<br>CA.08.09.009 | Ø20 | 20.5<br>21   | M5<br>G 1/8    | 5 g<br>7 g   |
| KIT.08.30.D25.4<br>KIT.08.30.D25.9   | CA.08.30.005 | CA.08.09.004<br>CA.08.09.009 | Ø25 | 27.5<br>28   | M5<br>G 1/8    | 6 g<br>8 g   |
| KIT.08.30.D33.11<br>KIT.08.30.D33.21 | CA.08.30.006 | CA.08.09.011<br>CA.08.09.021 | Ø33 | 33.5<br>31.5 | G 1/8<br>G 1/4 | 11 g<br>15 g |
| KIT.08.30.D43.11<br>KIT.08.30.D43.21 | CA.08.30.007 | CA.08.09.011<br>CA.08.09.021 | Ø43 | 34<br>32     | G 1/8<br>G 1/4 | 16 g<br>20 g |
| KIT.08.30.D53.11<br>KIT.08.30.D53.21 | CA.08.30.008 | CA.08.09.011<br>CA.08.09.021 | Ø53 | 40.5<br>38   | G 1/8<br>G 1/4 | 22 g<br>26 g |
| KIT.08.30.D63.11<br>KIT.08.30.D63.21 | CA.08.30.009 | CA.08.09.011<br>CA.08.09.021 | Ø63 | 40.5<br>38   | G 1/8<br>G 1/4 | 27 g<br>31 g |
| KIT.08.30.D78.24                     | CA.08.30.010 | CA.08.09.024                 | Ø78 | 52.8         | G 1/4          | 47 g         |

## CA.08.33

. Vacuum Cup with 3 bellows only

## SILICONE

. Ventosa con 3 soffietti

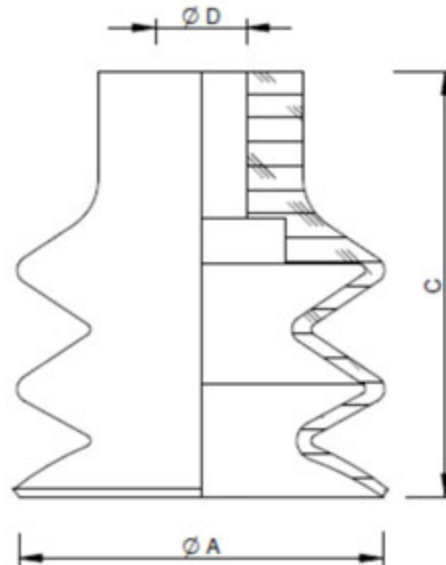


Table / Tabella

F = Holding force  
Forza di tenuta

| Article no.  | A   | C  | D    | F(N) | Weight |
|--------------|-----|----|------|------|--------|
| CA.08.33.D5  | Ø5  | 14 | Ø3.5 | 0.15 | 1 g    |
| CA.08.33.D7  | Ø7  |    |      | 0.1  |        |
| CA.08.33.D9  | Ø9  | 15 | Ø4   | 0.68 | 2 g    |
| CA.08.33.D12 | Ø12 | 21 |      | 0.9  | 3 g    |
| CA.08.33.D14 | Ø14 | 23 |      | 1.2  | 4 g    |
| CA.08.33.D20 | Ø20 | 22 |      | 3.8  | 6 g    |
| CA.08.33.D25 | Ø25 | 34 |      | 4.5  | 7 g    |
| CA.08.33.D32 | Ø32 | 37 | Ø8   | 12.0 | 8 g    |
| CA.08.33.D42 | Ø42 | 46 |      | 13.6 | 10 g   |
| CA.08.33.D52 | Ø52 | 49 |      | 27   | 20 g   |
| CA.08.33.D60 | Ø60 | 55 |      | 32   | 60 g   |

Remarks / Osservazioni:

Temperature resistance / Temperatura di resistenza  
Short-term in °C (< 30 sec.)  
Nel breve periodo in °C (< 30 sec.)

**-50° to +220°**

Longer-term in °C

Nel lungo periodo in °C

**-30° to +180°**

Leaving few marks ☹

Rimanenza di segno

Absence of PWIS (paint-wetting impairment substances) ☹

Assenza di sostanze che danneggiano la vernice

The suction cups with 3 bellows are recommended for gripping products on different planes (large deflection) - thus replacing spring systems - and for gripping spherical or cylindrical objects at an angle (ball-joint effect).

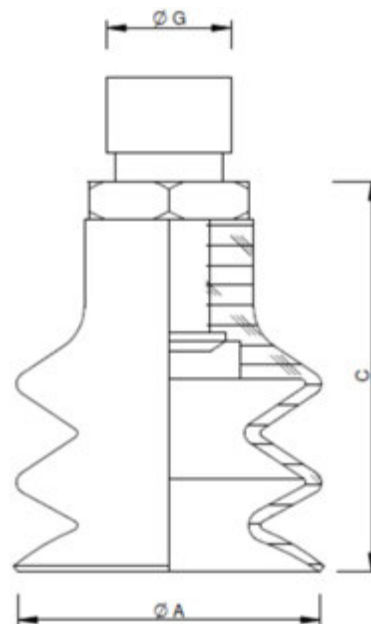
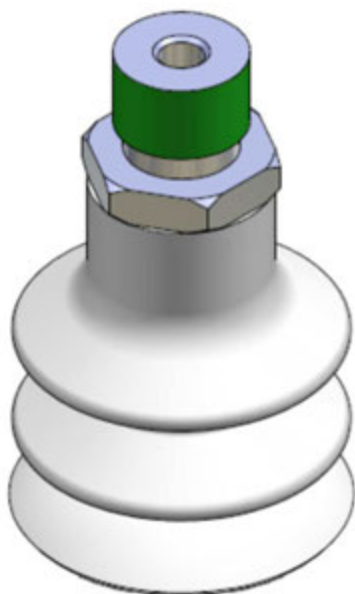
Le ventose con 3 soffietti sono indicate per la presa di prodotti con differenze di altezza (grazie al grande movimento verticale), evitando l'utilizzo di compensatori di livello, nonché per la presa di oggetti sferici o con superfici a forte curvatura.

## CA.08.33

## SILICONE

. Vacuum Cup with 3 bellows (complete)

. Ventosa con 3 soffietti (completa)



| Article no.                          | VACUUM CUP   | NIPPLE                       | A   | C          | G            | Weight       |
|--------------------------------------|--------------|------------------------------|-----|------------|--------------|--------------|
| KIT.08.33.D5.25                      | CA.08.33.D5  | CA.08.09.025                 | Ø5  | 8.5        | M5           | 2 g          |
| KIT.08.33.D7.26                      | CA.08.33.D7  | CA.08.09.026                 | Ø7  | 9          |              |              |
| KIT.08.33.D9.26                      | CA.08.33.D9  | CA.08.09.026                 | Ø9  | 20         |              | 3 g          |
| KIT.08.33.D12.4<br>KIT.08.33.D12.9   | CA.08.33.D12 | CA.08.09.004<br>CA.08.09.009 | Ø12 | 25.5<br>26 | M5<br>G 1/8  | 4 g<br>6 g   |
| KIT.08.33.D14.4<br>KIT.08.33.D14.9   | CA.08.33.D14 | CA.08.09.004<br>CA.08.09.009 | Ø14 | 27.5<br>28 | M5<br>G 1/8  | 5 g<br>7 g   |
| KIT.08.33.D20.4<br>KIT.08.33.D20.9   | CA.08.33.D20 | CA.08.09.004<br>CA.08.09.009 | Ø20 | 26.5<br>27 | M5<br>G 1/8  | 10 g<br>12 g |
| KIT.08.33.D25.4<br>KIT.08.33.D25.9   | CA.08.33.D25 | CA.08.09.004<br>CA.08.09.009 | Ø25 | 38.5<br>39 | M5<br>G 1/8  | 11 g<br>13 g |
| KIT.08.33.D32.11<br>KIT.08.33.D32.21 | CA.08.33.D32 | CA.08.09.011<br>CA.08.09.021 | Ø32 | 43.3<br>41 | G1/8<br>G1/4 | 12 g<br>16 g |
| KIT.08.33.D42.11<br>KIT.08.33.D42.21 | CA.08.33.D42 | CA.08.09.011<br>CA.08.09.021 | Ø42 | 52.3<br>50 | G1/8<br>G1/4 | 14 g<br>18 g |
| KIT.08.33.D52.11<br>KIT.08.33.D52.21 | CA.08.33.D52 | CA.08.09.011<br>CA.08.09.021 | Ø52 | 55.3<br>53 | G1/8<br>G1/4 | 24 g<br>28 g |
| KIT.08.33.D60.21                     | CA.08.33.D60 | CA.08.09.021                 | Ø60 | 59         | G 1/4        | 68 g         |

## CA.08.01

## SILICONE

. Vacuum Cup with 2 bellows only

. Ventosa con 2 soffietti

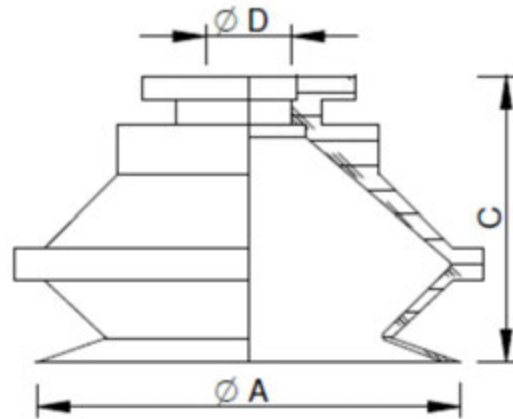


Table / Tabella

F = Holding force  
Forza di tenuta

| Article no   | A   | C    | D     | F(N) | Weight |
|--------------|-----|------|-------|------|--------|
| CA.08.01.001 | Ø11 | 16   | Ø4    | 4.6  | 1 g    |
| CA.08.01.002 | Ø16 | 19   |       | 7.5  | 2 g    |
| CA.08.01.003 | Ø20 | 19.5 | Ø4.8  | 14.7 | 3 g    |
| CA.08.01.004 | Ø33 | 27   | Ø6    | 25.5 | 6 g    |
| CA.08.01.005 | Ø42 | 28   | Ø8    | 48.1 | 7 g    |
| CA.08.01.006 | Ø52 | 35   | Ø10.5 | 83.3 | 15 g   |

Remarks / Osservazioni:

Temperature resistance / Temperatura di resistenza  
Short-term in °C (< 30 sec.)

Nel breve periodo in °C (< 30 sec.)

**-50° to +220°**

Longer-term in °C

Nel lungo periodo in °C

**-30° to +180°**

Leaving few marks ☉

Rimanenza di segno

Absence of PWIS (paint-wetting impairment substances) ☉

Assenza di sostanze che danneggiano la vernice

The suction cups with 2 bellows combine the advantages of flat suction cups (precision and positioning) with the freedom of bellows (angle and flexibility). They provide flexibility, precision and low internal volume suitable for high-speed applications.

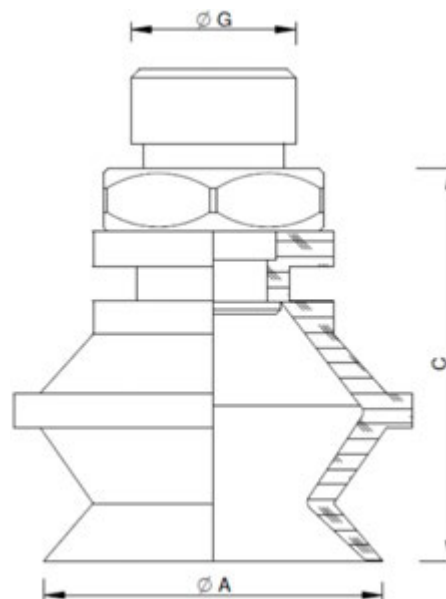
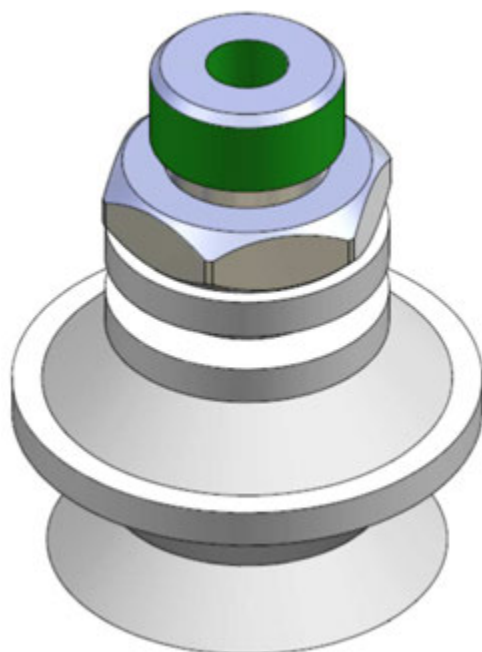
Le ventose con 2 soffietti combinano i vantaggi delle ventose piane con un movimento verticale più elevato, una maggiore elasticità e precisione. Permettono la presa di oggetti leggermente concavi e convessi.

## CA.08.01

## SILICONE

. Vacuum Cup with 2 bellows (complete)

. Ventosa con 2 soffietti (completa)



| Article no.                        | VACUUM CUP   | NIPPLE                       | A   | C          | G           | Weight     |
|------------------------------------|--------------|------------------------------|-----|------------|-------------|------------|
| KIT.08.01.D11.4<br>KIT.08.01.D11.9 | CA.08.01.001 | CA.08.09.004<br>CA.08.09.009 | Ø11 | 20.5<br>21 | M5<br>G 1/8 | 2 g<br>4 g |
| KIT.08.01.D16.4<br>KIT.08.01.D16.9 | CA.08.01.002 | CA.08.09.004<br>CA.08.09.009 | Ø16 | 23.5<br>24 | M5<br>G 1/8 | 3 g<br>4 g |
| KIT.08.01.D20.1                    | CA.08.01.003 | CA.08.09.001.AL              | Ø20 | 23         | G 1/8       | 5.5 g      |
| KIT.08.01.D30.2                    | CA.08.01.004 | CA.08.09.002.AL              | Ø33 | 32         |             | 18 g       |
| KIT.08.01.D40.2                    | CA.08.01.005 |                              | Ø42 | 33         |             | 19 g       |
| KIT.08.01.D50.3                    | CA.08.01.006 | CA.08.09.003                 | Ø52 | 39         | G 1/4       | 18 g       |

## CA.08.03

## SILICONE

. Vacuum Cup with 1 bellow only

. Ventosa con 1 soffietto

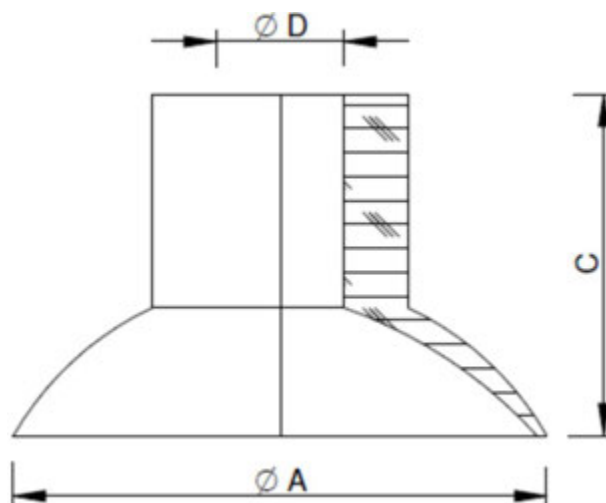


Table / Tabella

F = Holding force  
Forza di tenuta

| Article no.   | A   | C  | D    | F(N) | Weight |
|---------------|-----|----|------|------|--------|
| CA.08.03.001  | Ø6  | 8  | Ø1.5 | 0.7  | 1 g    |
| C A.08.03.002 | Ø8  |    | Ø3   | 1.0  |        |
| CA.08.03.003  | Ø10 | 11 | Ø4   | 1.7  |        |
| CA.08.03.004  | Ø12 |    |      | 2.4  |        |
| CA.08.03.005  | Ø15 | 12 |      | 3.9  | 2 g    |
| CA.08.03.006  | Ø20 | 13 |      | 7.25 |        |
| CA.08.03.007  | Ø25 | 16 | Ø6   | 12.2 | 3 g    |
| CA.08.03.008  | Ø30 |    |      | 16.7 |        |
| CA.08.03.009  | Ø35 | 17 | Ø10  | 23.0 |        |
| CA.08.03.010  | Ø45 | 20 |      | 39.0 |        |
| CA.08.03.011  | Ø60 | 22 |      |      | 67.1   |

## Remarks / Osservazioni:

Temperature resistance / Temperatura di resistenza  
Short-term in °C (< 30 sec.)

Nel breve periodo in °C (&lt; 30 sec.)

**-50° to +220°**

Longer-term in °C

Nel lungo periodo in °C

**-30° to +180°**

Leaving few marks ⓘ

Rimanenza di segno

Absence of PWIS (paint-wetting impairment substances) ⓘ

Assenza di sostanze che danneggiano la vernice

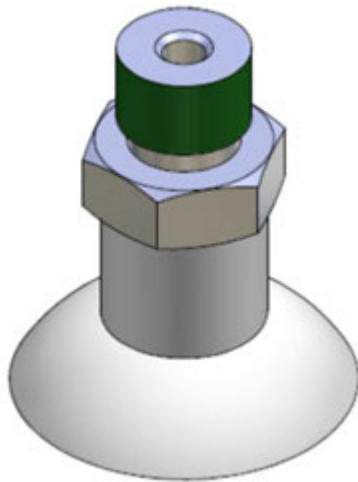
The suction cups with 1 bellow provide accuracy in load gripping and speed up throughput rates. These suction cups are used for flat surfaces only.

La serie di ventose con un soffietto, grazie al loro profilo, garantiscono un'elevata precisione di presa e permettono di aumentare la cadenza operativa. Queste ventose sono indicate per oggetti con superfici piane.

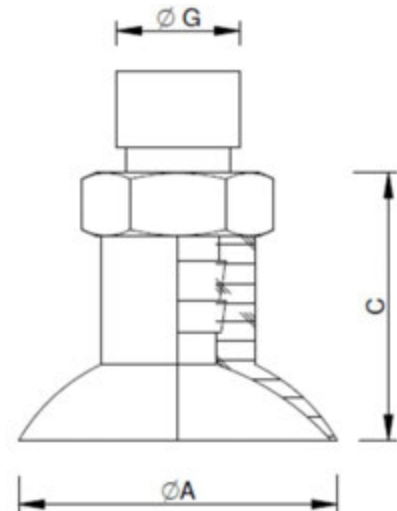
## CA.08.03

## SILICONE

. Vacuum Cup with 1 bellow (complete)



. Ventosa con 1 soffietto (completa)



| Article no                         | VACUUM CUP   | NIPPLE                       | A   | C          | G           | Weight     |
|------------------------------------|--------------|------------------------------|-----|------------|-------------|------------|
| KIT.08.03.D06.5                    | CA.08.03.001 | CA.08.09.005                 | Ø6  | 11.5       | M5<br>G 1/8 | 3 g        |
| KIT.08.03.D08.6                    | CA.08.03.002 | CA.08.09.006                 | Ø8  | 10         |             |            |
| KIT.08.03.D10.4<br>KIT.08.03.D10.9 | CA.08.03.003 | CA.08.09.004<br>CA.08.09.009 | Ø10 | 14.5<br>15 |             |            |
| KIT.08.03.D12.4<br>KIT.08.03.D12.9 | CA.08.03.004 | CA.08.09.004<br>CA.08.09.009 | Ø12 | 15.5<br>16 |             |            |
| KIT.08.03.D15.4<br>KIT.08.03.D15.9 | CA.08.03.005 | CA.08.09.004<br>CA.08.09.009 | Ø15 | 16.5<br>17 |             |            |
| KIT.08.03.D20.4<br>KIT.08.03.D20.9 | CA.08.03.006 | CA.08.09.004<br>CA.08.09.009 | Ø20 | 17.5<br>18 | M5<br>G 1/8 | 2 g<br>4 g |
| KIT.08.03.D25.10                   | CA.08.03.007 | CA.08.09.010                 | Ø25 | 21         | G 1/8       | 6 g        |
| KIT.08.03.D30.10                   | CA.08.03.008 |                              | Ø30 | 21         |             | 7 g        |
| KIT.08.03.D35.11                   | CA.08.03.009 | A.08.09.011                  | Ø35 | 23         |             | 7 g        |
| KIT.08.03.D45.11                   | CA.08.03.010 |                              | Ø45 | 26         |             | 9 g        |
| KIT.08.03.D60.11                   | CA.08.03.011 |                              | Ø60 | 28         |             | 12 g       |

## CA.08.36

. Vacuum Cup with 3 bellows only

## POLYURETHANE

. Ventosa con 3 soffietti

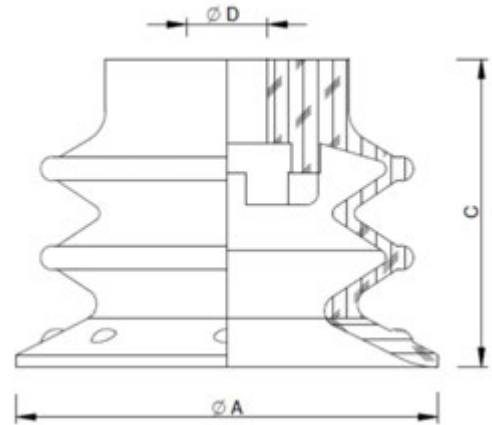
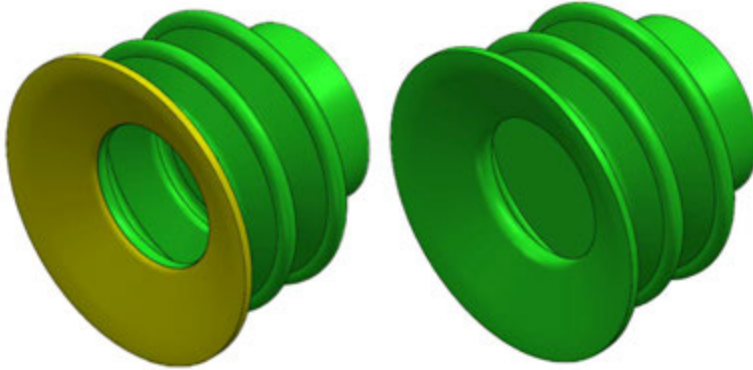


Table / Tabella

F = Holding force  
Forza di tenuta

Remarks / Osservazioni:

Temperature resistance / Temperatura di resistenza  
**+10° to +50°**

Leaving few marks / Rimanenza di segno ☺

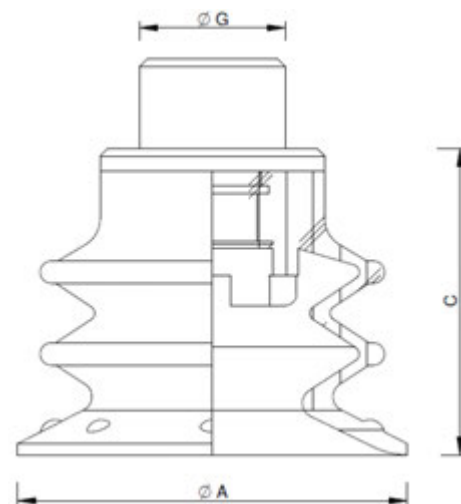
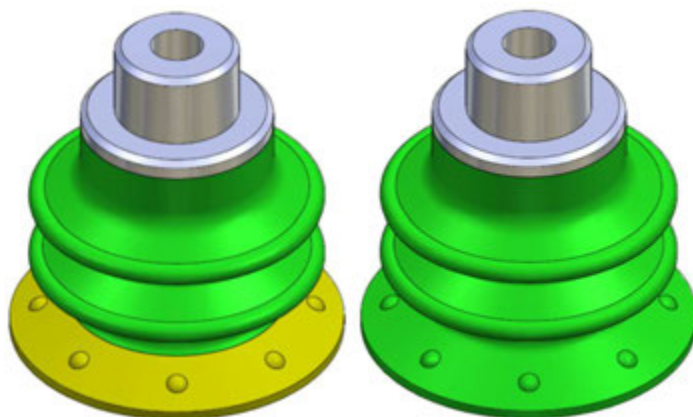
| Article no.     | Sh    | A   | C    | D    | Cod. PIAB | F(N) | Weight |
|-----------------|-------|-----|------|------|-----------|------|--------|
| CA.08.36.D10    | 30/60 | Ø10 | 16.5 | Ø3.8 | 0118329   | 3.7  | 1 g    |
| CA.08.36.D10.60 | 60    |     |      |      | 0122966   |      |        |
| CA.08.36.D15    | 30/60 | Ø15 | 18.5 |      | 0118505   | 4.5  |        |
| CA.08.36.D15.60 | 60    |     |      |      | 0124237   | 6    |        |
| CA.08.36.D20    | 30/60 | Ø21 | 16.2 | Ø5   | 0118507   |      | 9.5    |
| CA.08.36.D20.60 | 60    |     |      |      | 0124249   |      |        |
| CA.08.36.D25    | 30/60 | Ø26 | 19   |      | 0109006   | 18   |        |
| CA.08.36.D25.60 | 60    |     |      |      | 0108240   |      |        |
| CA.08.36.D35    | 30/60 | Ø37 | 26.8 | Ø6.5 | 0106292   | 28   | 8 g    |
| CA.08.36.D35.60 | 60    |     |      |      | 0107477   | 30   |        |
| CA.08.36.D52    | 30/60 | Ø53 | 39   | Ø12  | 0104529   | 75   | 24 g   |
| CA.08.36.D52.60 | 60    |     |      |      | 0107381   | 80   |        |
| CA.08.36.D75    | 30/60 | Ø77 | 51.7 | /    | 0107145   | 141  | 71 g   |
| CA.08.36.D75.60 | 60    |     |      | /    | 0107150   | 166  |        |

## CA.08.36

## POLYURETHANE

. Vacuum Cup with 3 bellows (complete)

. Ventosa con 3 soffietti (completa)



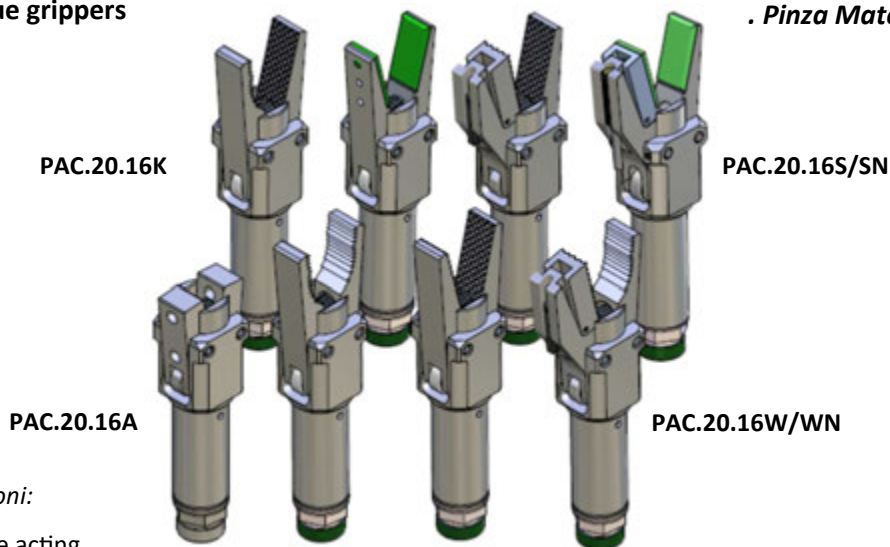
| Article no.                        | VACUUM CUP      | NIPPLE                                             | A  | C    | G                  | Cod. PIAB          | Weight       |         |
|------------------------------------|-----------------|----------------------------------------------------|----|------|--------------------|--------------------|--------------|---------|
| KIT.08.36.D10                      | CA.08.36.D10    | CA.08.09.030<br>3107030                            | 11 | 21   | M5 M               | 0122869            | 2 g          |         |
| KIT.08.36.D10.60                   | CA.08.36.D10.60 | CA.08.09.030<br>3107030                            |    |      |                    | 0122967            |              |         |
| KIT.08.36.D15                      | CA.08.36.D15    | CA.08.09.030<br>3107030                            | 16 | 23   |                    | 0124344            | 3 g          |         |
| KIT.08.36.D15.60                   | CA.08.36.D15.60 | CA.08.09.030<br>3107030                            |    |      |                    | 0124345            |              |         |
| KIT.08.36.D20                      | CA.08.36.D20    | CA.08.09.031<br>0101152                            | 21 | 20.2 | G 1/8 M - M5 F     | 0125105            |              |         |
| KIT.08.36.D20.60                   | CA.08.36.D20.60 | CA.08.09.031<br>0101152                            |    |      |                    | 0125110            |              |         |
| KIT.08.36.D25                      | CA.08.36.D25    | CA.08.09.032<br>3250004                            | 26 | 25   |                    | 0109402            | 5 g          |         |
| KIT.08.36.D25.60                   | CA.08.36.D25.60 | CA.08.09.032<br>3250004                            |    |      |                    | 0109398            | 65 g         |         |
| KIT.08.36.D35.1<br>KIT.08.36.D35.2 | CA.08.36.D35    | CA.08.09.033<br>0200714<br>CA.08.09.034<br>3250091 | 37 | 32.8 | G 1/8 M<br>G 1/4 M | 9912151<br>0114449 | 10 g<br>13 g |         |
| KIT.08.36.D35.60                   | CA.08.36.D35.60 | CA.08.09.034<br>3250091                            |    |      |                    |                    |              | 9912152 |
| KIT.08.36.D52                      | CA.08.36.D52    | CA.08.09.035<br>3250092                            | 53 | 45   | G 1/4 M            | 0106045            | 35 g         |         |
| KIT.08.36.D52.60                   | CA.08.36.D52.60 | CA.08.09.035<br>3250092                            |    |      |                    | 0107385            |              |         |
| KIT.08.36.D75                      | CA.08.36.D75    | CA.08.09.036<br>0201077                            | 77 | 60.4 |                    |                    | 0201073      | 90 g    |
| KIT.08.36.D75.60                   | CA.08.36.D75.60 | CA.08.09.036<br>0201077                            |    |      |                    |                    | 0101074      |         |

## CA.09 PAC

. Selfcentering sprue grippers

PAC.20.16P/PN PAC.20.16SP/SPN

. Pinza Materozza Autocentrante



Remarks / Osservazioni:

Work principle: single acting  
Azionamento a semplice effetto con  
apertura a molla

Extension thread for Extension Tube VLR  
Filo prolunga per prolunga VLR

Working pressure: 6 bar clean and dry air  
Pressione lavorante: 6 bar aria pulita e asciutta

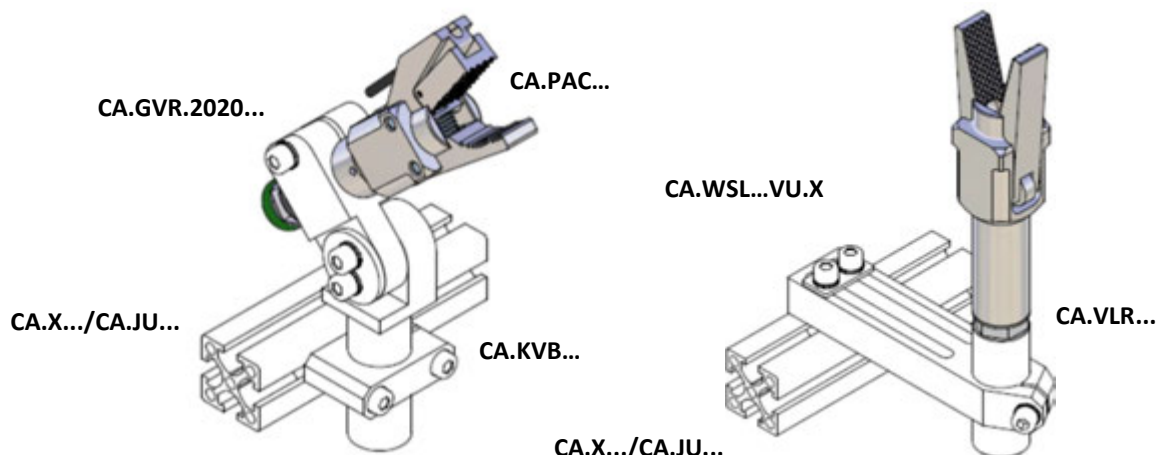
Jaws in zinc-plated Steel  
Chele in acciaio zincato

| Article no.    | Sensor  | Weight |
|----------------|---------|--------|
| CA.PAC20.169   |         | 153 g  |
| CA.PAC20.16A   |         | 95 g   |
| CA.PAC20.16E   |         | 104 g  |
| CA.PAC20.16K   |         | 135 g  |
| CA.PAC20.16P   |         | 102 g  |
| CA.PAC20.16R   |         | 165 g  |
| CA.PAC20.16S   | KT58PM8 | 157 g  |
| CA.PAC20.16S9  |         | 187 g  |
| CA.PAC20.16SN  | KT58NM8 | 192 g  |
| CA.PAC20.16S9N |         | 187 g  |
| CA.PAC20.16SP  | KT58PM8 | 111 g  |
| CA.PAC20.16SPN | KT58NM8 |        |
| CA.PAC20.16W   | KT58PM8 | 162 g  |
| CA.PAC20.16WN  | KT58NM8 | 126 g  |

| Stroke<br>Corsa                                             | 2 x 15°             |
|-------------------------------------------------------------|---------------------|
| Closing force (at 6 bar)<br>Forza di chiusura (a 6 bar)     | 65 N                |
| Maximum working frequency<br>Frequenza massima lavorante    | 2 Hz                |
| Cycle air consumption<br>Consumo del ciclo ad aria          | 3.6 cm <sup>3</sup> |
| Closing time without load<br>Tempo di chiusura senza carico | 0.01 s              |

Application examples / Esempi applicativi

CA.PAC...

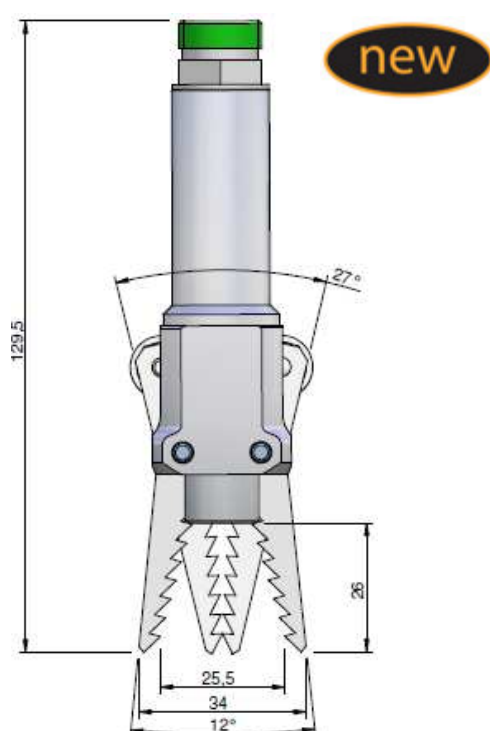


## CA.09 PAC

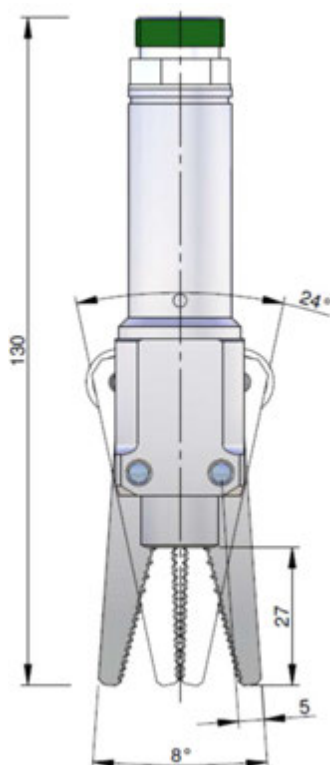
. Dimensions

. Dimensioni

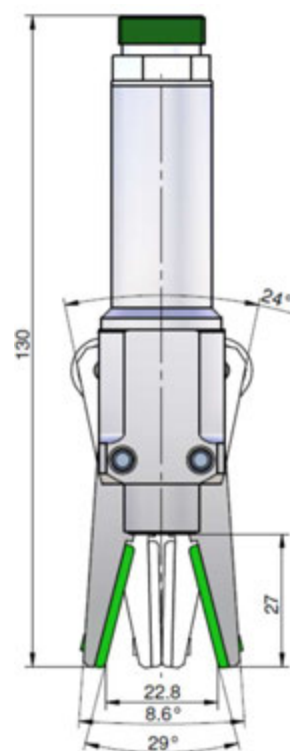
CA.PAC20.169



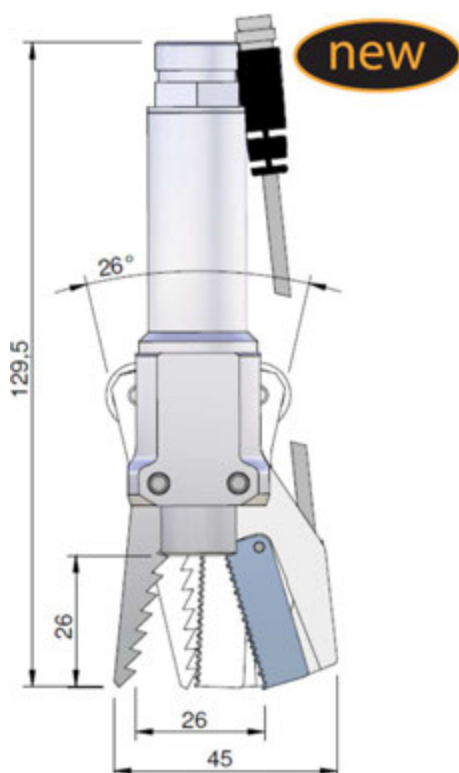
CA.PAC20.16R



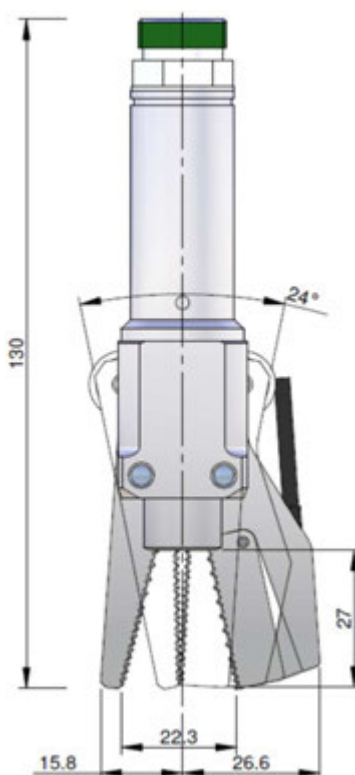
CA.PAC20.16P



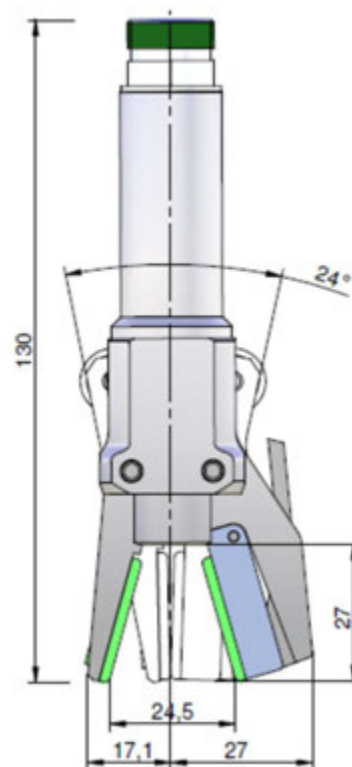
CA.PAC20.16S9/S9N



CA.PAC20.16S/SN



CA.PAC20.16SP/SPN

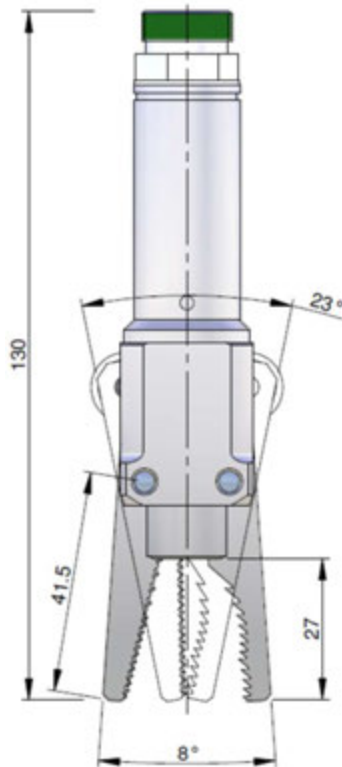


## CA.09 PAC

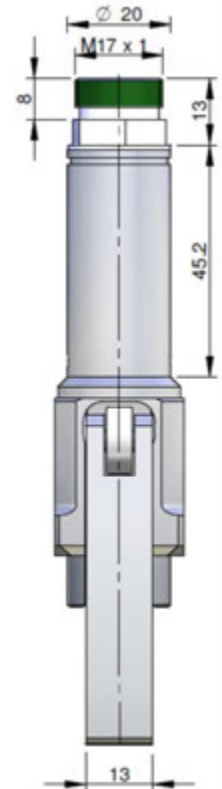
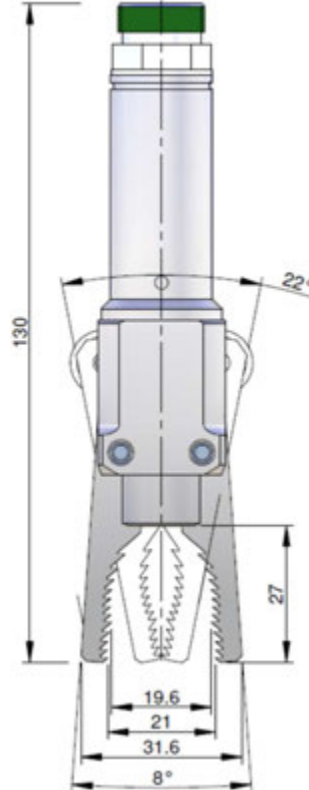
. Dimensions

. Dimensioni

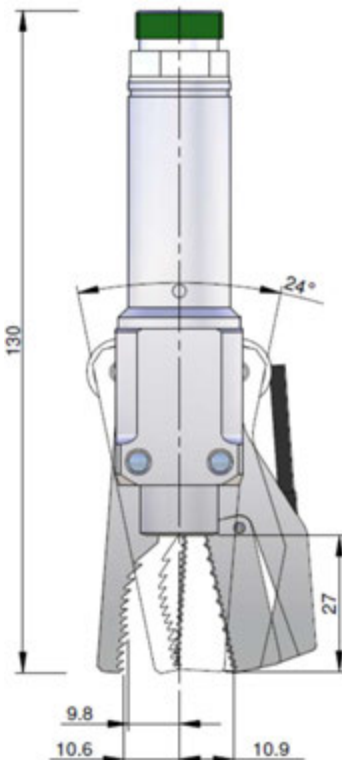
**CA.PAC20.16K**



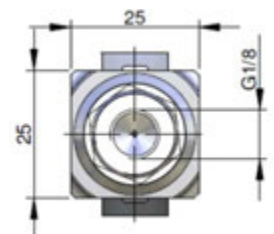
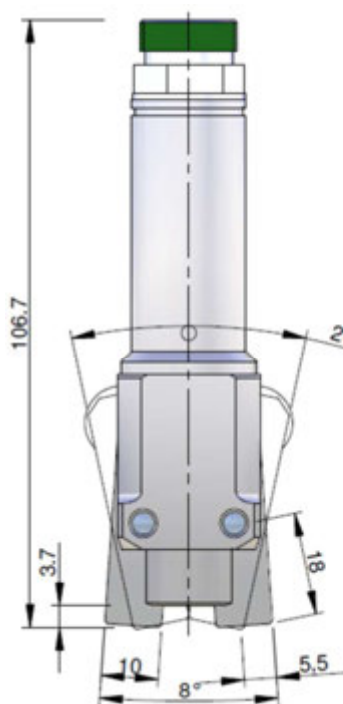
**CA.PAC20.16E**



**CA.PAC20.16W/WN**

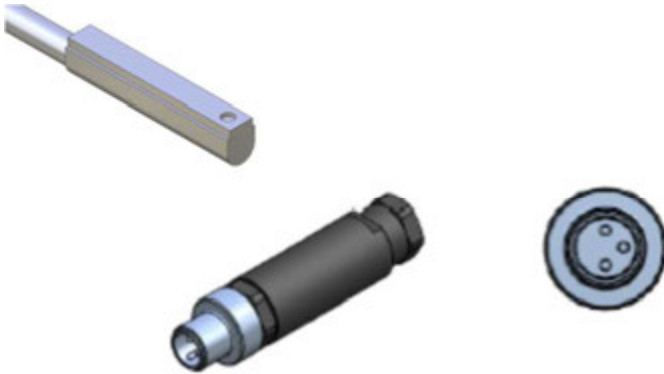


**CA.PAC20.16A**

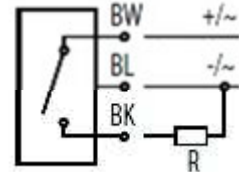
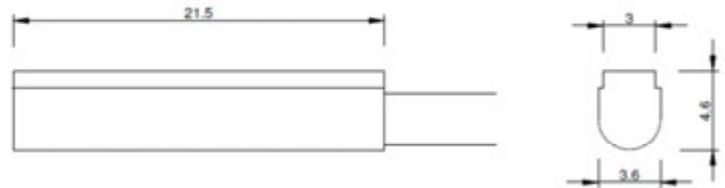


## CA.09 PAC

### . Sensor

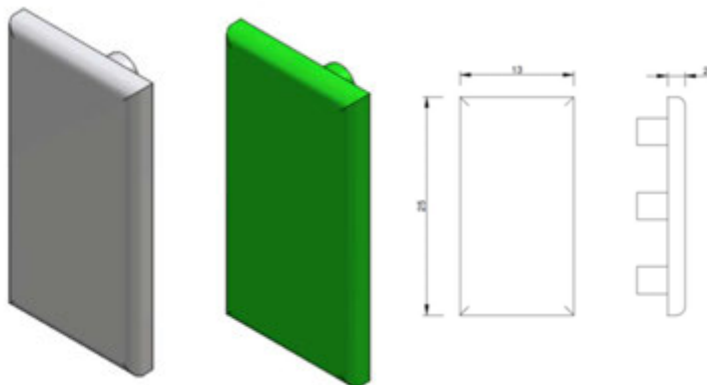


| Article no.    | Sensor                                                 | Weight |
|----------------|--------------------------------------------------------|--------|
| <b>KT58PM8</b> | 3 wires REED PNP<br>normally Open<br>M8 plug connector | 4 g    |
| <b>KT58NM8</b> | 3 wires REED NPN<br>normally Open<br>M8 plug connector |        |



| Power supply              | 3÷30 Vac/dc |
|---------------------------|-------------|
| Switching current         | 0.2 A       |
| Power rating (ohmic load) | 6 W         |
| Standard cable lenght     | 0.3 m       |

### . Insert



| Article no.            |       | Colour | Weight |
|------------------------|-------|--------|--------|
| <b>PAC.20.16P.03</b>   | TPU   | Grey   | 4 g    |
| <b>PAC.20.16P.03.V</b> | VITON | Green  |        |

### . Gommino per Pinza

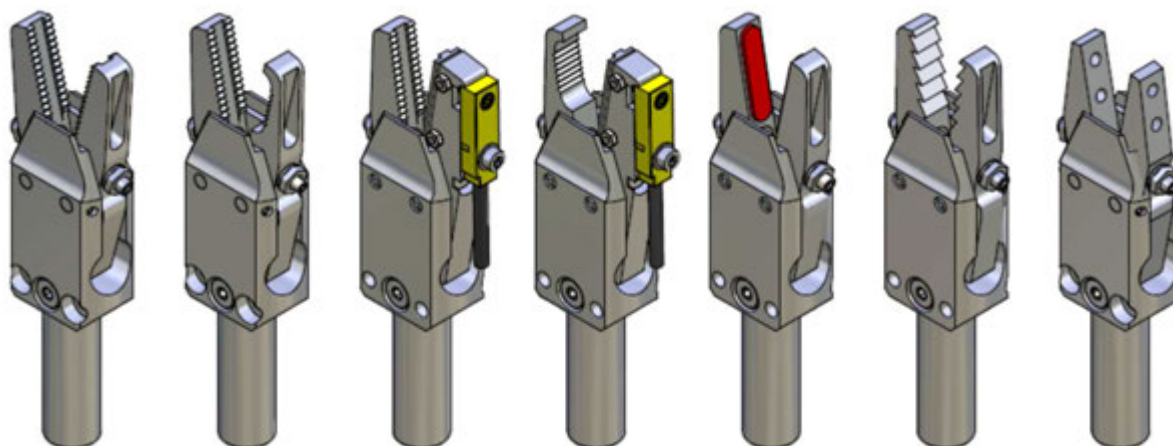
|                                                                                        | TPU   | VITON |
|----------------------------------------------------------------------------------------|-------|-------|
| UV ageing, weather -resistance<br><i>UV resistenza all'usura nel tempo</i>             | ☺     | ☺     |
| Low temperature limit<br><i>Limite di bassa temperatura</i>                            | -40°C | -10°C |
| High temperature limit (continuous)<br><i>Limite di alta temperatura (continua)</i>    | 80°C  | 180°C |
| High temperature limit (< 30 sec.)<br><i>Limite di alta temperatura (&lt; 30 sec.)</i> | 120°C | 210°C |
| Leaving few marks<br><i>Rimanezza di segni</i>                                         | ☺     | ☺     |

## CA.09 GTS

. Sprue grippers

# 14

. Pinza Materozza



Remarks / Osservazioni:

Active principle: single active  
Azionamento a semplice effetto con apertura a molla

Working pressure: 6 bar clean and dry air  
Pressione lavorante: 6 bar aria pulita e asciutta

Jaws in zinc-plated Steel  
Chele in acciaio zincato

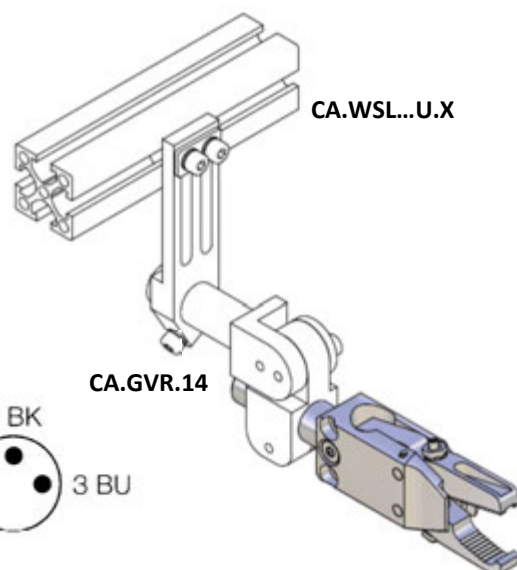
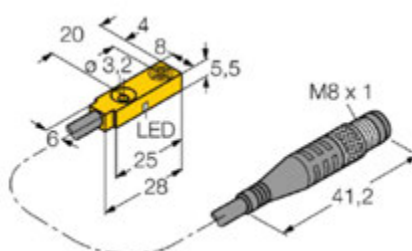
| Article no.      | Sensor        | Closing force (at 6 bar) | Weight |
|------------------|---------------|--------------------------|--------|
| CA.GTS.1003.1212 |               | 45 N                     | 115 g  |
| CA.GTS.1003.1214 |               |                          | 110 g  |
| CA.GTS.1003.1717 |               |                          | 115 g  |
| CA.GTS.1003.1919 |               |                          | 112 g  |
| CA.GTS.1003.2929 |               |                          | 110 g  |
| CA.GTS.1003.1215 | GRZ.20.SC.PNP |                          | 120 g  |
| CA.GTS.1003.125N | GRZ.20.SC.NPN |                          | 116 g  |
| CA.GTS.1003.1415 | GRZ.20.SC.PNP |                          | 96 g   |
| CA.GTS.1003.145N | GRZ.20.SC.NPN |                          |        |
| CA.GTS.1003.1915 | GRZ.20.SC.PNP |                          |        |
| CA.GTS.1003.195N | GRZ.20.SC.NPN |                          |        |

| Article no. | Weight |
|-------------|--------|
| GTS.03.G18  | 52 g   |
| GTS.04.G18  | 95 g   |



Application example / Esempio applicativo

Sensor



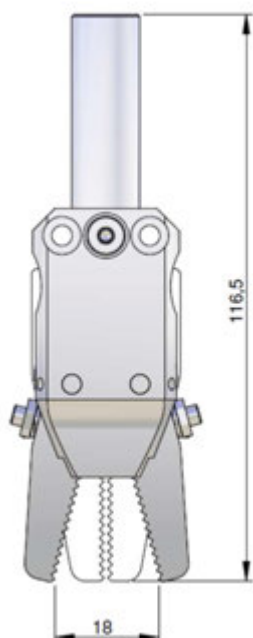
## CA.09 GTS

. Dimensions

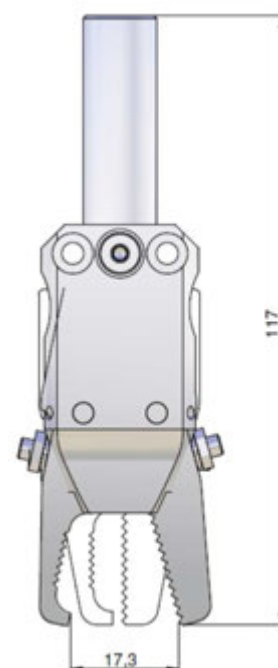
# 14

. Dimensioni

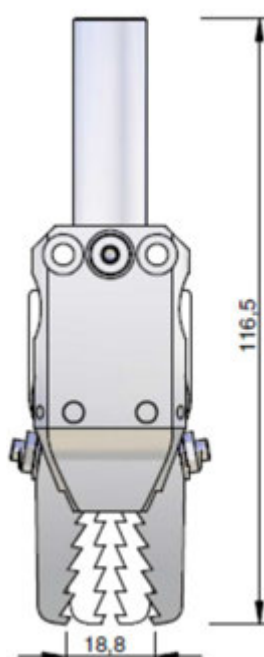
CA.GTS.1003.1212



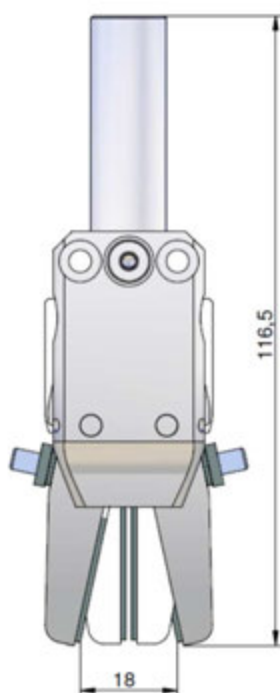
CA.GTS.1003.1214



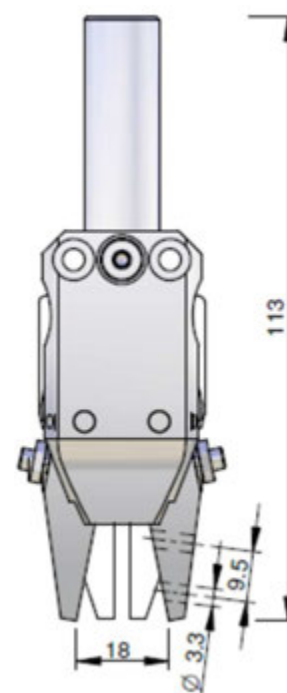
CA.GTS.1003.1919



CA.GTS.1003.1717



CA.GTS.1003.2929



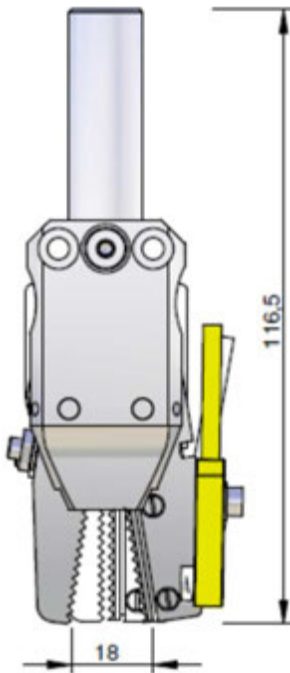
## CA.09 GTS

. Dimensions

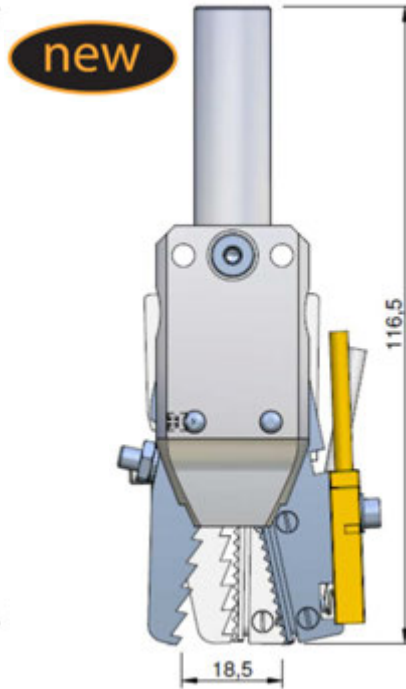
# 14

. Dimensioni

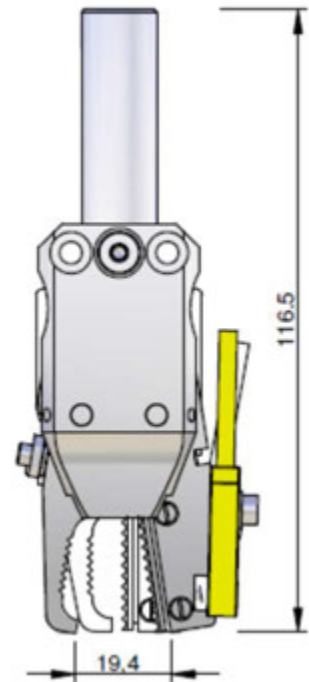
CA.GTS.1003.1215/125N



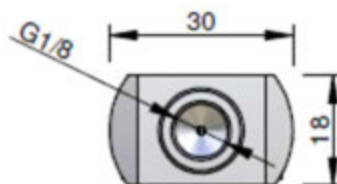
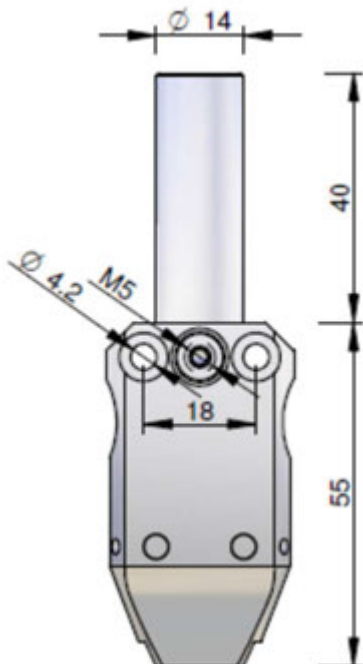
CA.GTS.1003.1915/195N



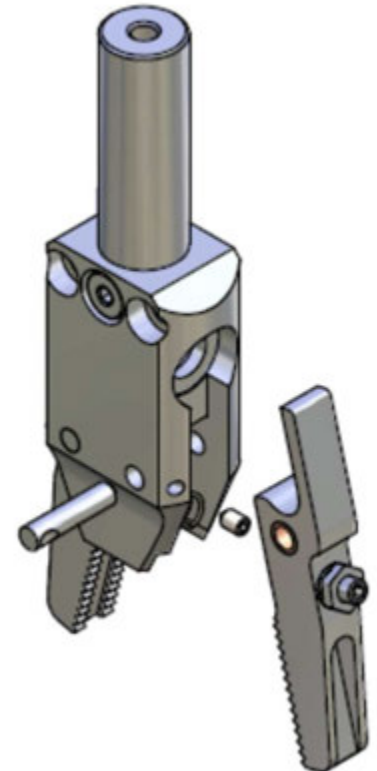
CA.GTS.1003.1415/145N



GTS.03.G18



Application example / Esempio applicativo



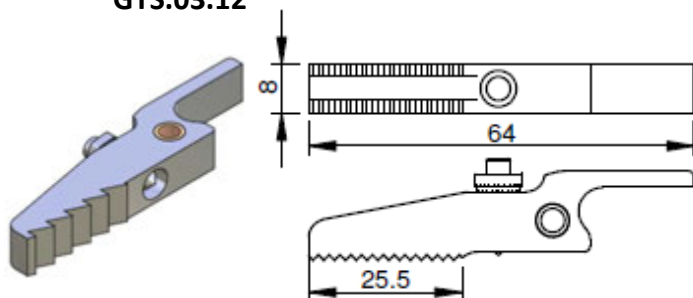
## CA.09 GTS

. Jaws for Gripper GTS

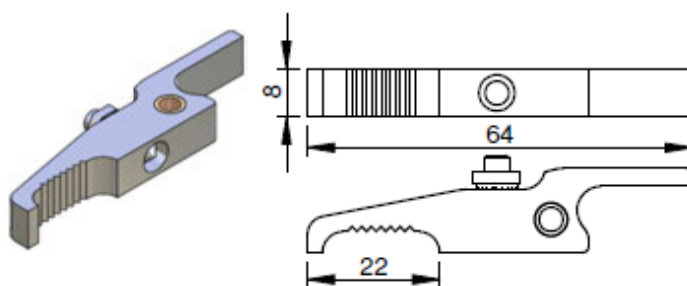
# 14

. Dito per pinze GTS

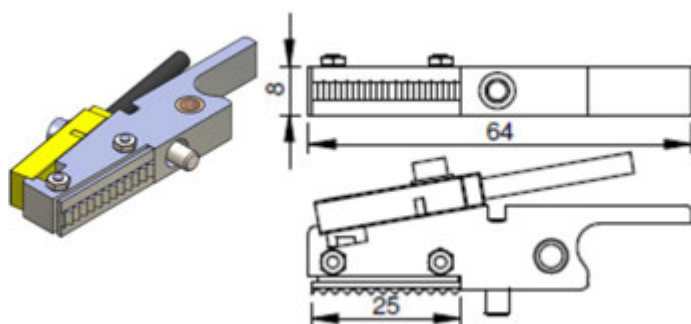
**GTS.03.12**



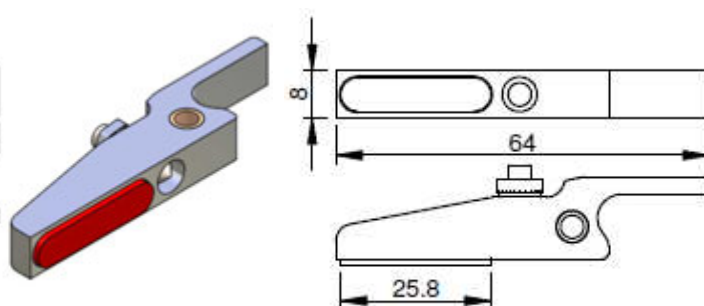
**GTS.03.14**



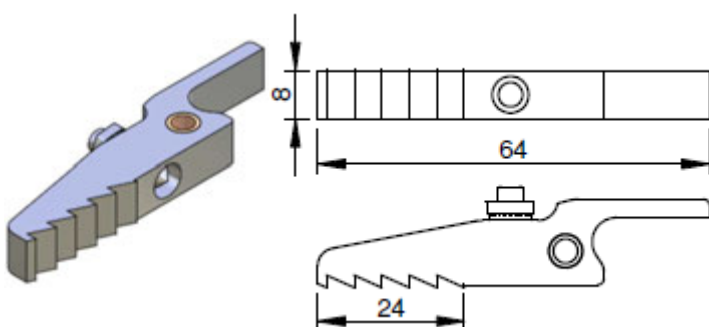
**GTS.03.15/15.N**



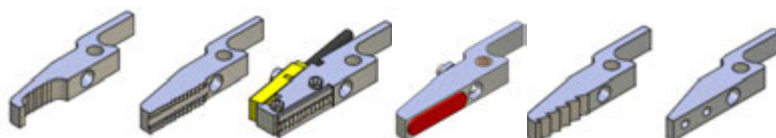
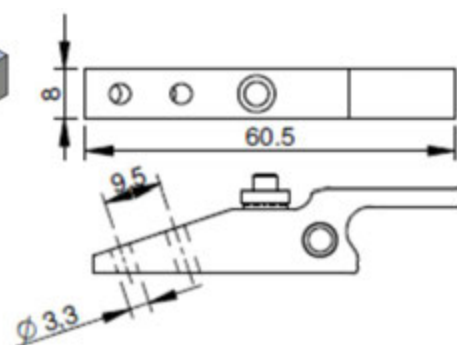
**GTS.03.17**



**GTS.03.19**



**GTS.03.29**



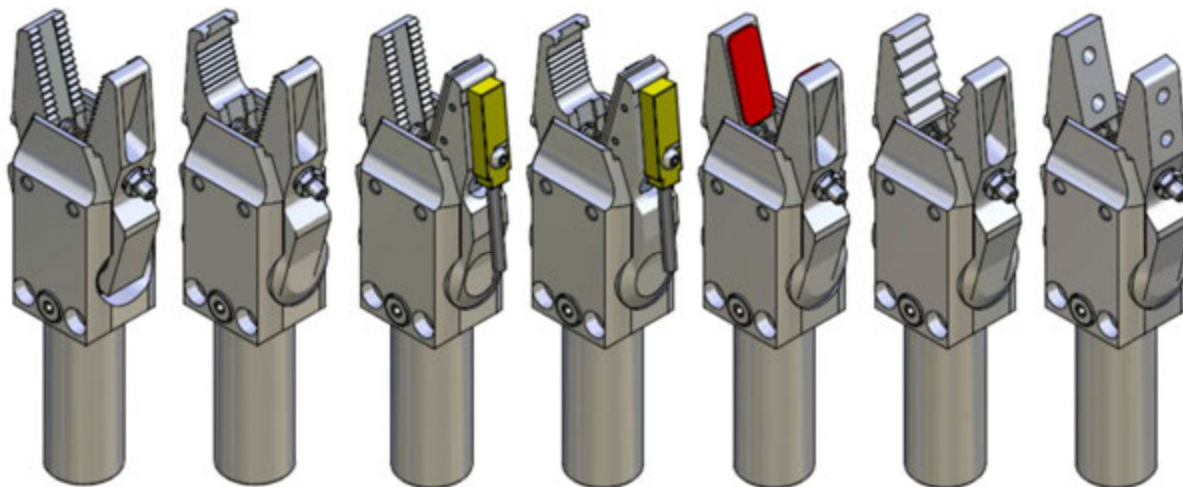
| Article no. | Weight |
|-------------|--------|
| GTS.03.12   | 27 g   |
| GTS.03.14   | 22 g   |
| GTS.03.15   | 35 g   |
| GTS.03.15.N |        |
| GTS.03.17   | 27 g   |
| GTS.03.19   | 26 g   |
| GTS.03.29   | 25 g   |

## CA.09 GTS

. Sprue grippers

# 20

. Pinza Materozza



Working pressure: 6 bar clean and dry air  
Pressione lavorante: 6 bar aria pulita e asciutta

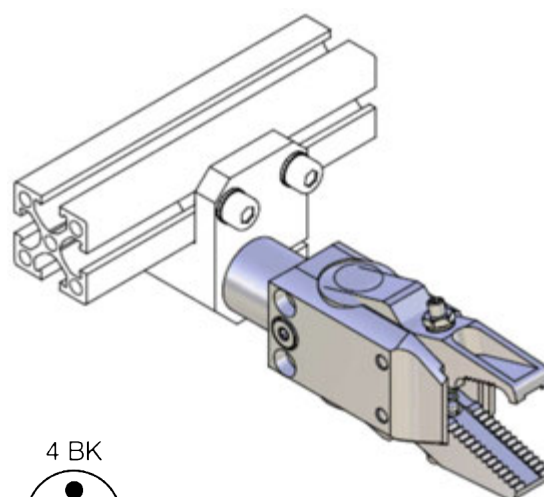
Jaws in zinc-plated Steel  
Chele in acciaio zincato

Remarks / Osservazioni:

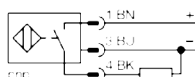
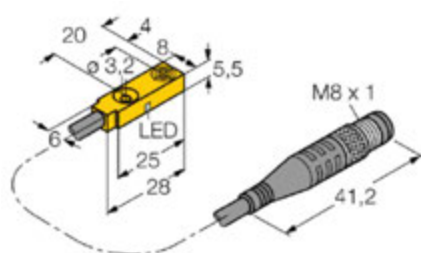
Work principle: single acting  
Azionamento a semplice effetto con apertura a molla

| Article no.       | Sensor        | Closing force (at 6 bar) | Weight |
|-------------------|---------------|--------------------------|--------|
| CA.GTS.1004.1212  |               | 90 N                     | 151 g  |
| CA.GTS.1004.1214  |               |                          | 144 g  |
| CA.GTS.1004.1717  |               |                          | 151 g  |
| CA.GTS.1004.1919  |               |                          | 146 g  |
| CA.GTS.1004.2929  |               |                          | 144 g  |
| CA.GTS.1004.1215  | GRZ.20.SC.PNP |                          | 160 g  |
| CA.GTS.1004.125.N | GRZ.20.SC.NPN |                          | 120 g  |
| CA.GTS.1004.1415  | GRZ.20.SC.PNP |                          |        |
| CA.GTS.1004.145.N | GRZ.20.SC.NPN |                          |        |

Application example / Esempio applicativo



Sensor



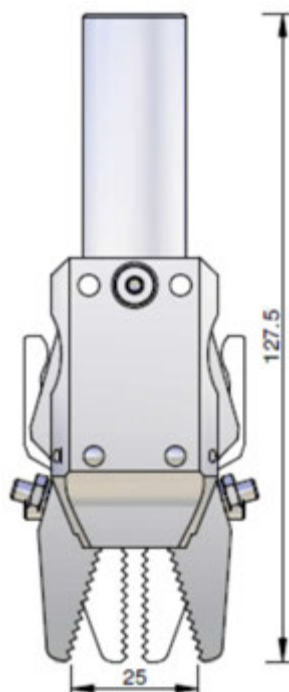
## CA.09 GTS

. Dimensions

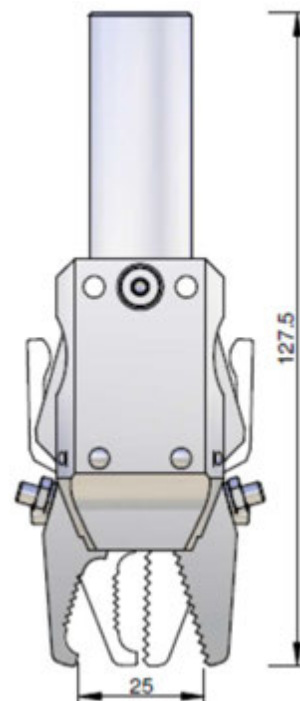
# 20

. Dimensioni

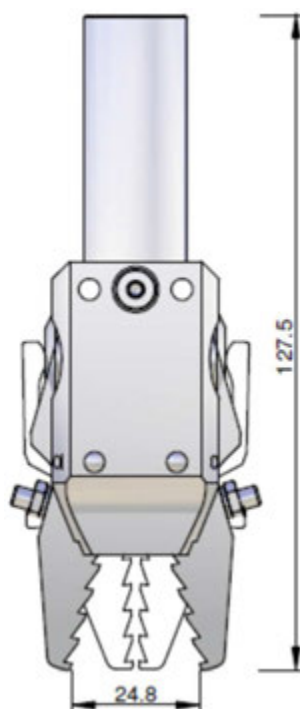
CA.GTS.1004.1212



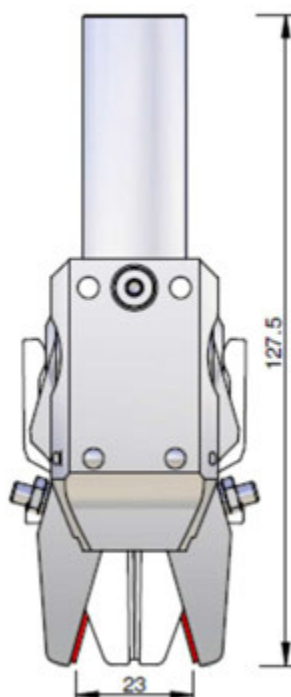
CA.GTS.1004.1214



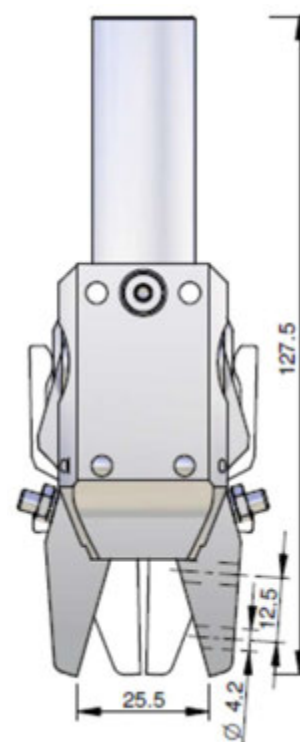
CA.GTS.1004.1919



CA.GTS.1004.1717



CA.GTS.1004.2929



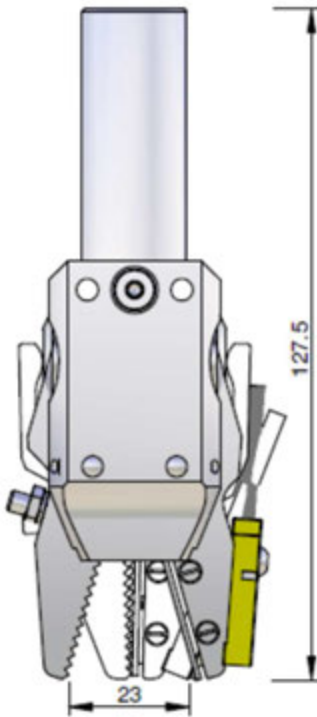
## CA.09 GTS

. Dimensions

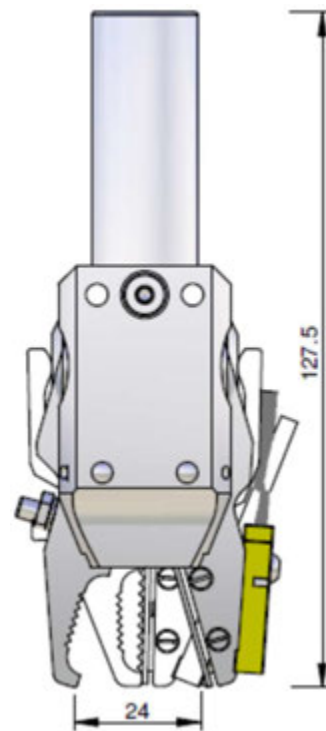
# 20

. Dimensioni

CA.GTS.1004.1215/125N

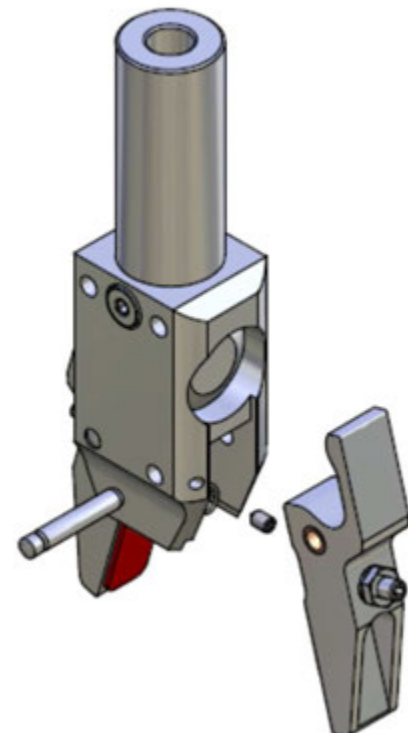
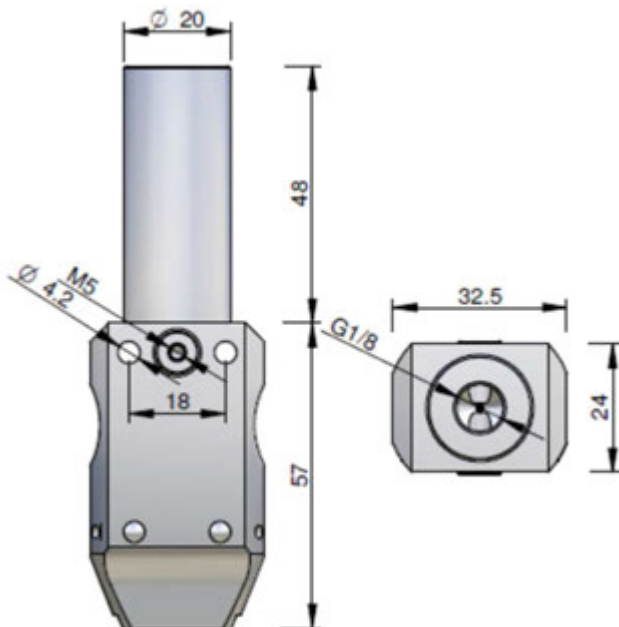


CA.GTS.1004.1415/145N



Application example / Esempio applicativo

GTS.04.G18



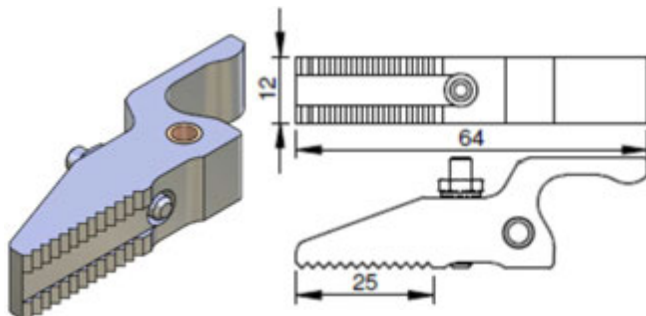
## CA.09 GTS

. Jaws for Gripper GTS

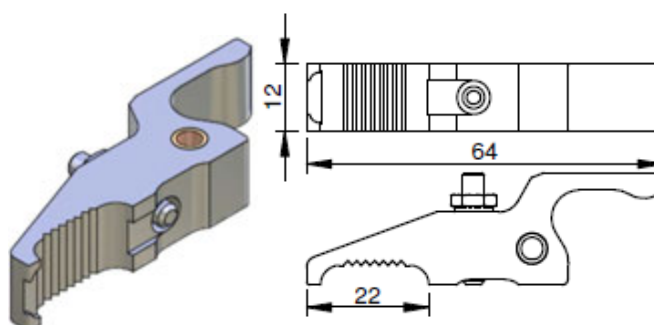
# 20

. Dito per pinze GTS

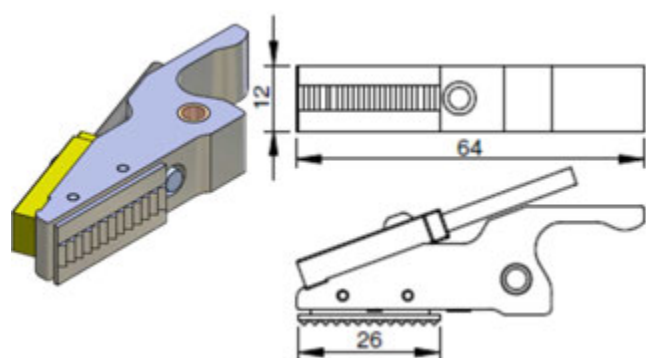
GTS.04.12



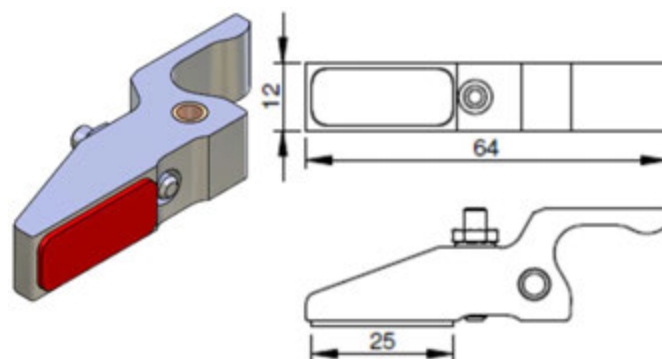
GTS.04.14



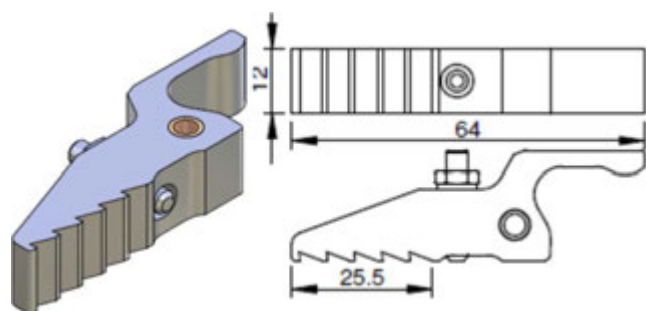
GTS.04.15/15.N



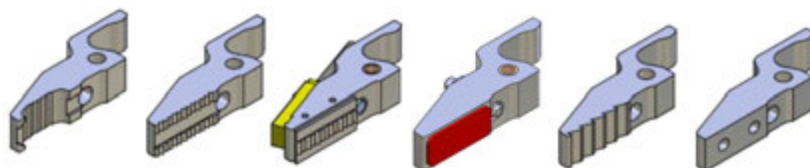
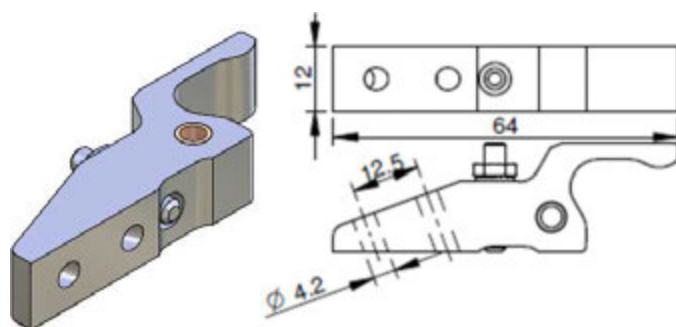
GTS.04.17



GTS.04.19



GTS.04.29

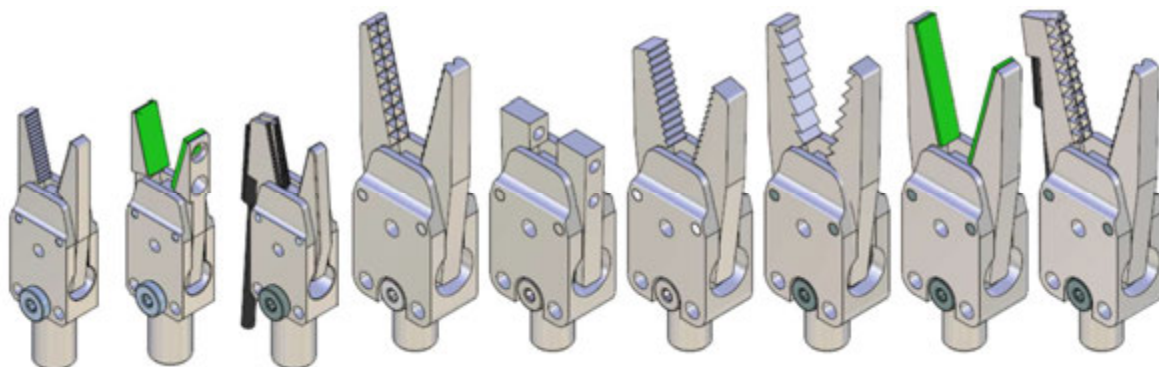


| Article no. | Weight |
|-------------|--------|
| GTS.04.12   | 31 g   |
| GTS.04.14   | 26 g   |
| GTS.04.15   | 39 g   |
| GTS.04.15.N |        |
| GTS.04.17   | 31 g   |
| GTS.04.19   | 30 g   |
| GTS.04.29   | 29 g   |

## CA.09 GZA.10

. Sprue grippers

. Pinza Materozza



Remarks :  
 Work principle: single acting  
 2 different fastening possibilities:  
 Clamp- Ø 10 mm on shaft  
 Through-Thread in the gripper body  
 Working pressure: 6 bar clean and dry air

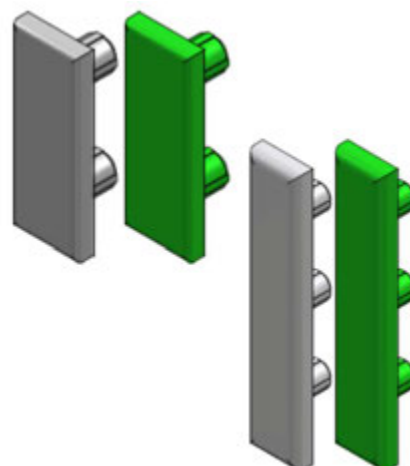
Osservazioni :  
 Azionamento a semplice effetto con apertura a molla  
 2 differenti possibilità di fissaggio :  
 Morsetto - Ø 10 mm sull'asta  
 Attraverso il filetto nel corpo della pinza  
 Pressione lavorante: 6 bar aria pulita e asciutta

| Article no.      | Sensor          | Closing force (at 6 bar) | Weight |
|------------------|-----------------|--------------------------|--------|
| CA.GZA.10.08     |                 | 19 N                     | 16 g   |
| CA.GZA.10.08.18  |                 |                          |        |
| CA.GZA.10.08.19  |                 |                          |        |
| CA.GZA.10.08.G   |                 |                          |        |
| CA.GZA.10.08.LL  |                 |                          |        |
| CA.GZA.10.12     |                 |                          | 36 g   |
| CA.GZA.10.12.14  |                 |                          | 34 g   |
| CA.GZA.10.12.18  |                 |                          | 50 g   |
| CA.GZA.10.12.19  |                 |                          | 37 g   |
| CA.GZA.10.12.AH  |                 |                          |        |
| CA.GZA.10.12.AHV |                 |                          |        |
| CA.GZA.10.12.C   |                 |                          | 40 g   |
| CA.GZA.10.12.G   |                 |                          | 34 g   |
| CA.GZA.10.12.L   |                 |                          | 36 g   |
| CA.GZA.10.12.LL  |                 | 30 N                     | 34 g   |
| CA.GZA.10.12.M   |                 |                          | 35 g   |
| CA.GZA.10.12.M50 |                 |                          | 43 g   |
| CA.GZA.10.12.MC  |                 |                          | 44 g   |
| CA.GZA.10.12.MS  | MMD.IL5AP3AVF80 |                          |        |
| CA.GZA.10.12.MSN | MMD.IL5AN3AVF80 |                          | 50 g   |
| CA.GZA.10.12.S   | MMD.IL5AP3AVF80 |                          |        |
| CA.GZA.10.12.SN  | MMD.IL5AN3AVF80 |                          |        |
| CA.GZA.10.12.S4  | MMD.IL5AP3AVF80 |                          | 59 g   |
| CA.GZA.10.12.S4N | MMD.IL5AN3AVF80 |                          | 65 g   |
| CA.GZA.10.12.S9  | MMD.IL5AP3AVF80 |                          |        |
| CA.GZA.10.12.S9N | MMD.IL5AN3AVF80 |                          | 62 g   |
| CA.GZA.10.12.SG  | MMD.IL5AP3AVF80 |                          |        |
| CA.GZA.10.12.SGN | MMD.IL5AN3AVF80 |                          |        |

Material:  
 Jaws in hardcoated Aluminium  
 Body in anodized Aluminium

Materiale :  
 Chele in alluminio rivestito  
 Corpo in alluminio anodizzato

| Article no.   |       | Colour |
|---------------|-------|--------|
| GZA.10.08.6   | TPU   | Grey   |
| GZA.10.08.6.V | VITON | Green  |
| GZA.10.12.6   | TPU   | Grey   |
| GZA.10.12.6.V | VITON | Green  |

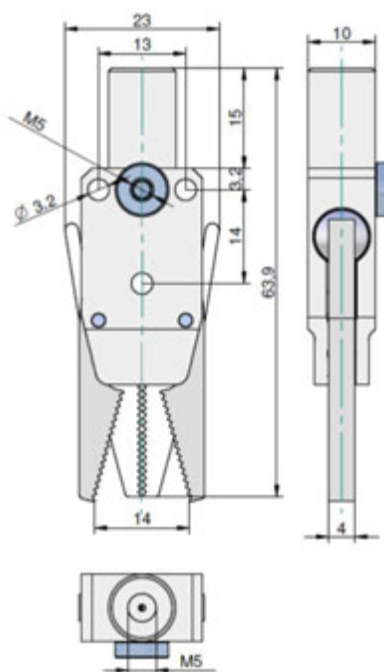


## CA.09 GZA.10

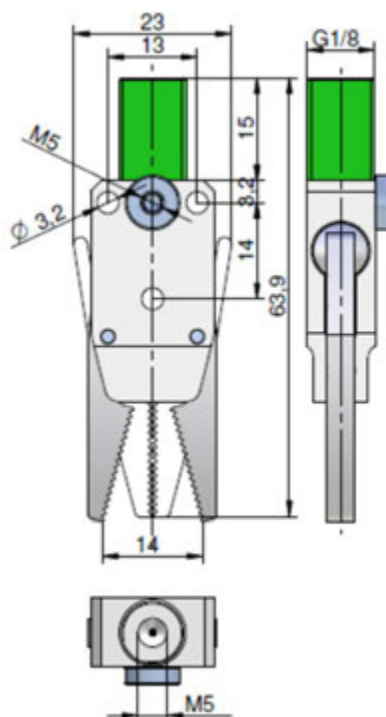
. Dimensions

. Dimensioni

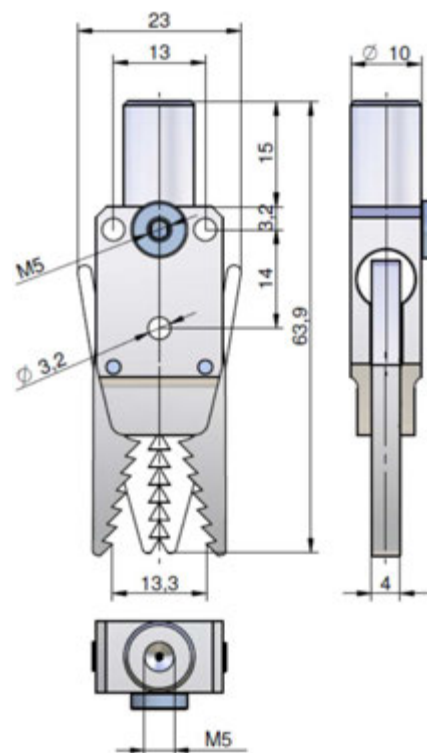
CA.GZA.10.08



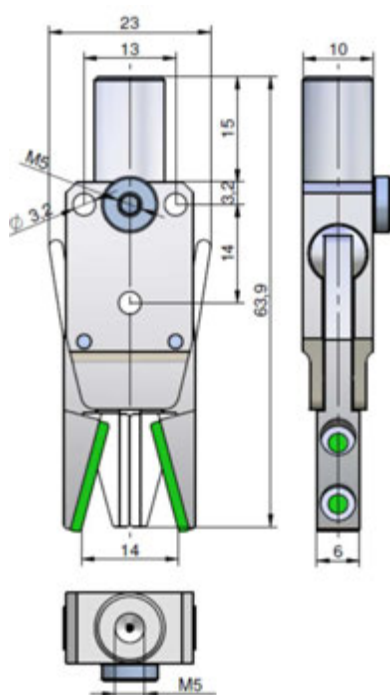
CA.GZA.10.08.18



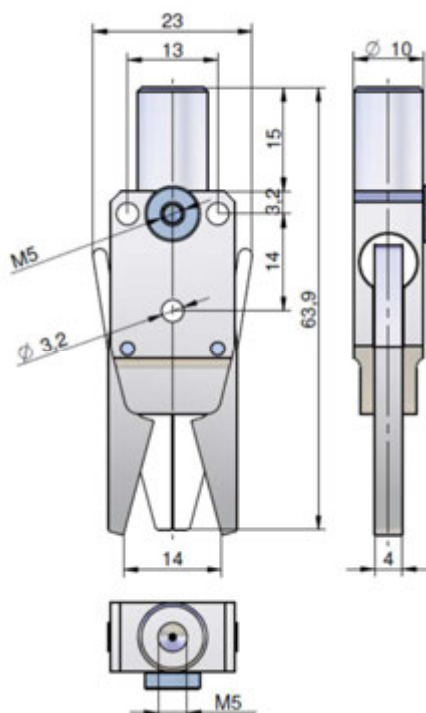
CA.GZA.10.08.19



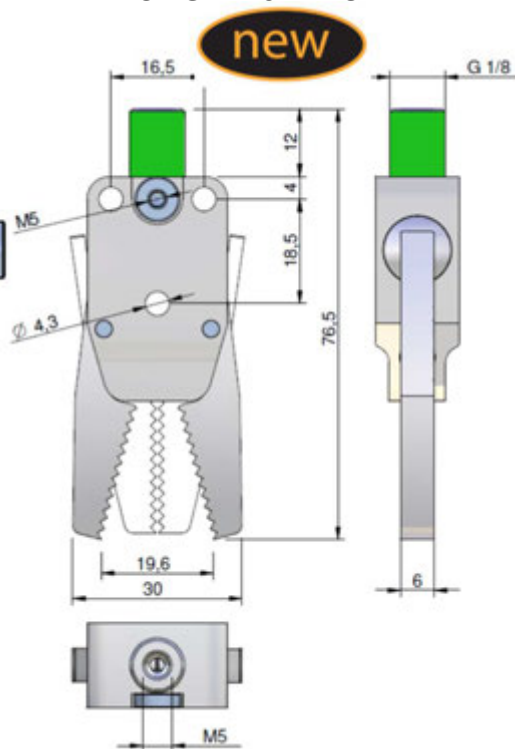
CA.GZA.10.08.G



CA.GZA.10.08.LL



CA.GZA.10.12.18

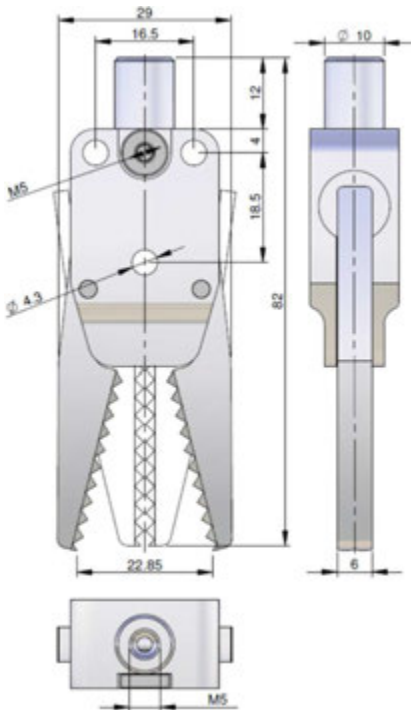


## CA.09 GZA.10

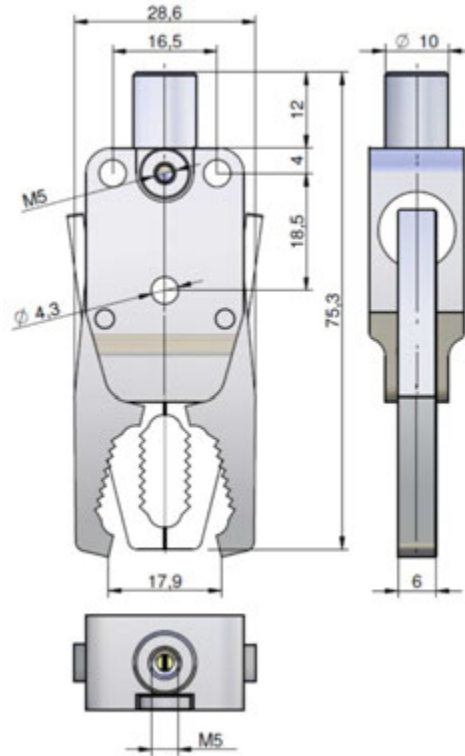
. Dimensions

. Dimensioni

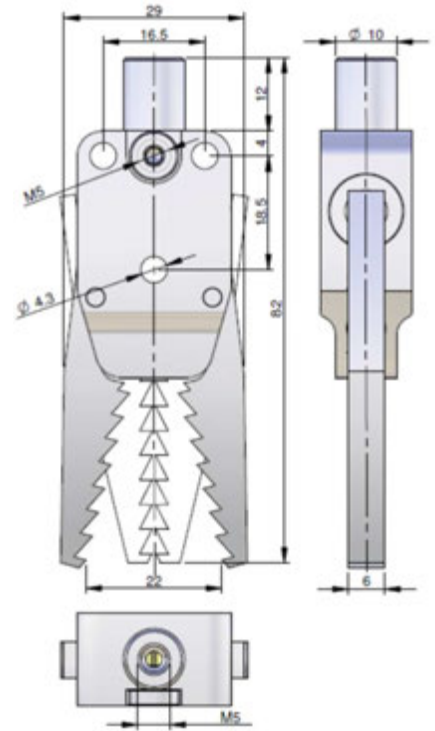
**CA.GZA.10.12**



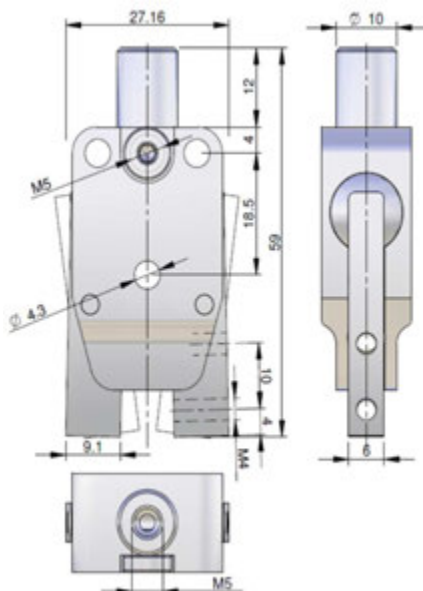
**CA.GZA.10.12.14**



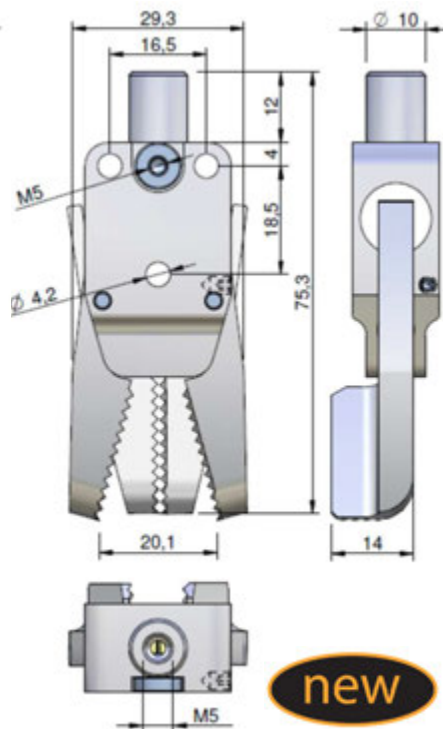
**CA.GZA.10.12.19**



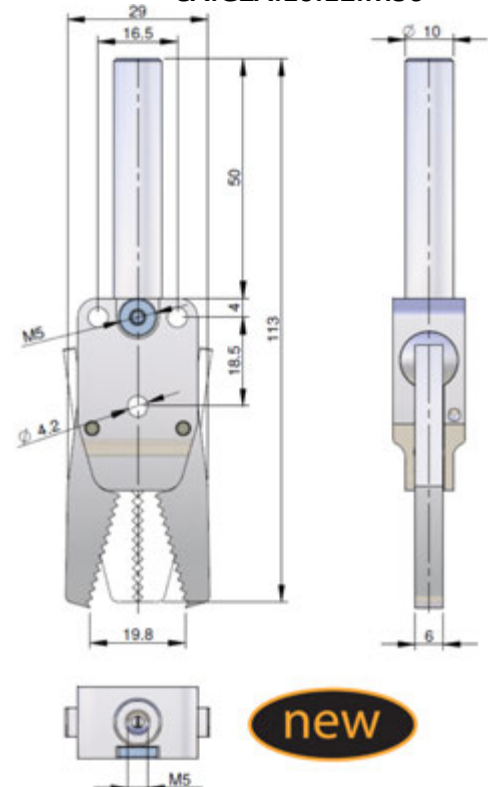
**CA.GZA.10.12.C**



**CA.GZA.10.12.AH**



**CA.GZA.10.12.M50**



**new**

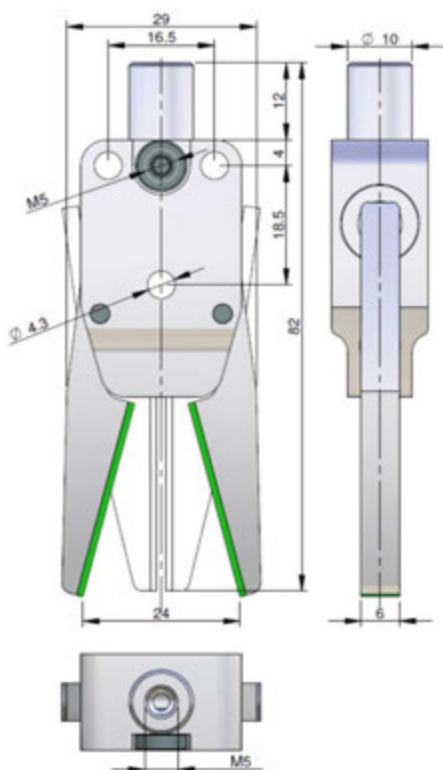
**new**

## CA.09 GZA.10

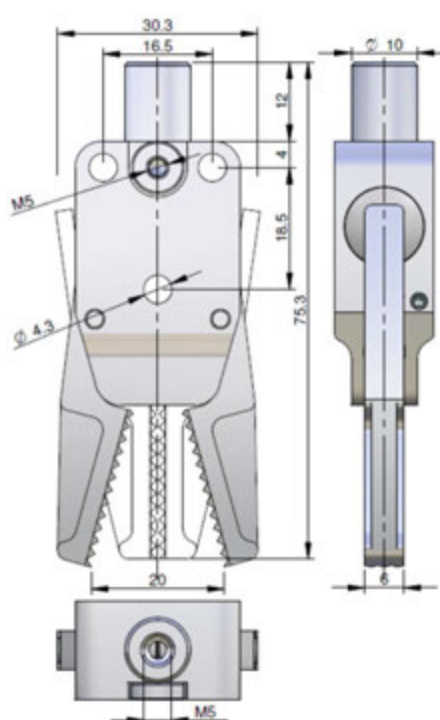
### . Dimensions

### . Dimensioni

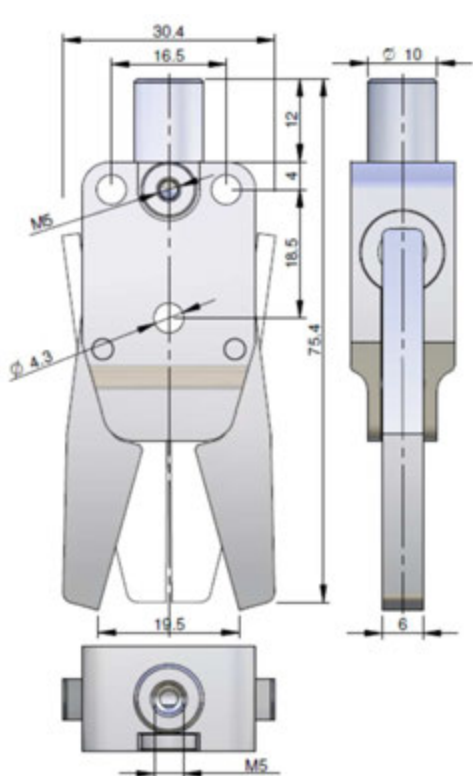
CA.GZA.10.12.G



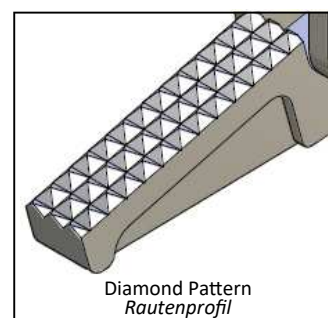
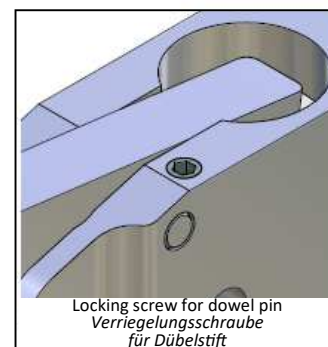
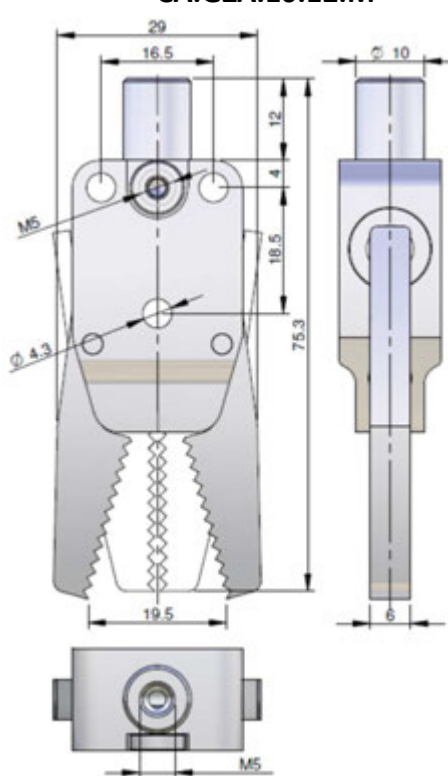
CA.GZA.10.12.L



CA.GZA.10.12.LL



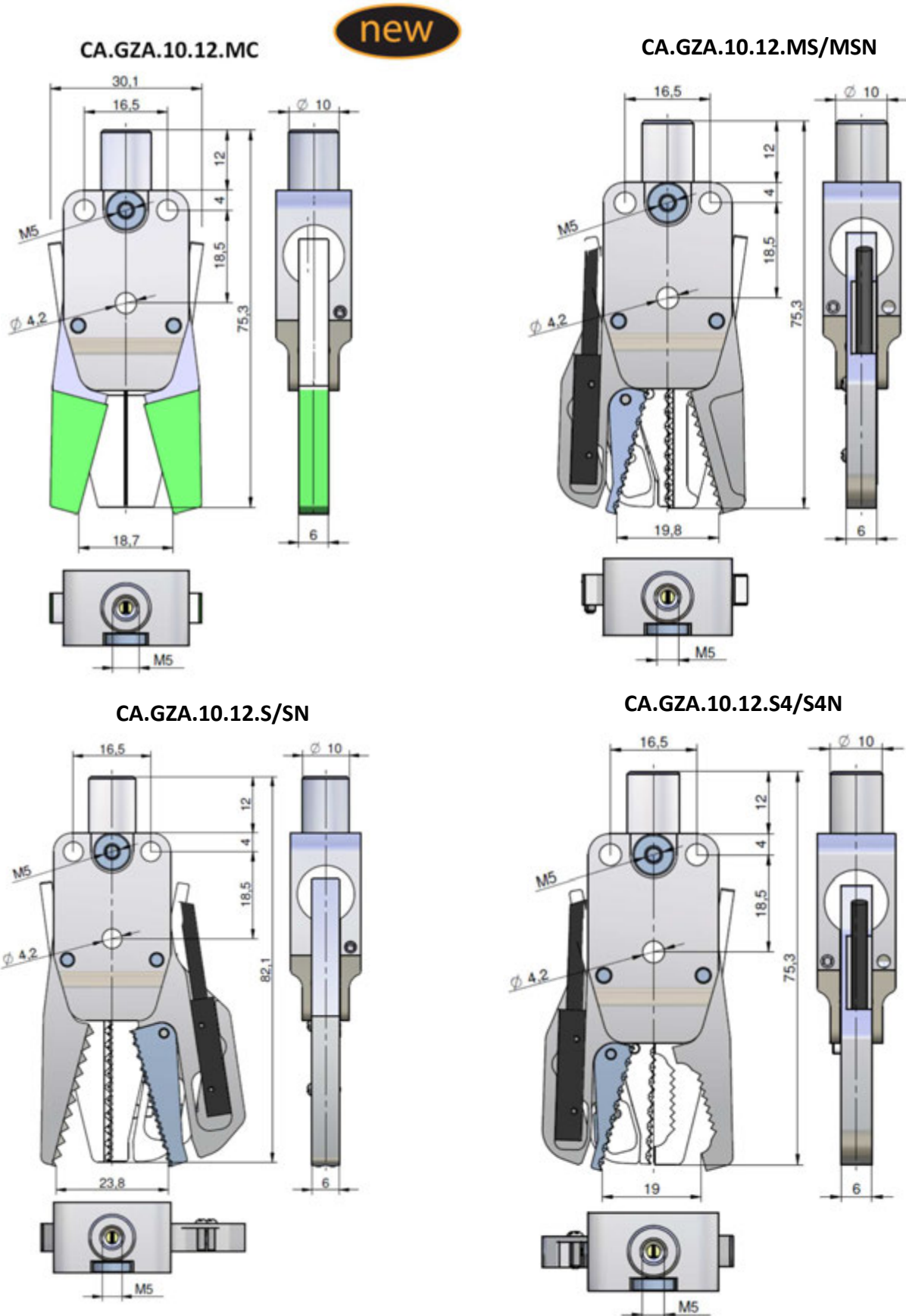
CA.GZA.10.12.M



## CA.09 GZA.10

. Dimensions

. Dimensioni



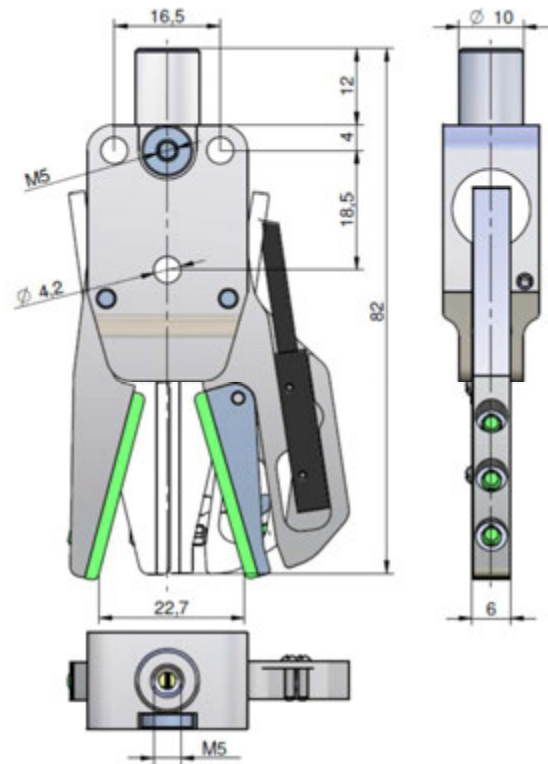
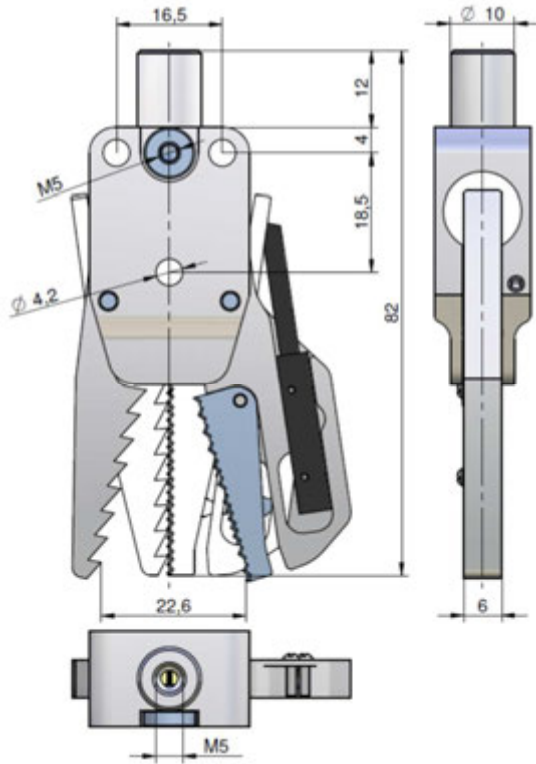
## CA.09 GZA.10

. Dimensions

. Dimensioni

CA.GZA.10.12.S9/S9N

CA.GZA.10.12.SG/SGN



## GRZ.10.08

Remarks / Osservazioni:

Work principle: single acting

Azionamento a semplice effetto con apertura a molla

2 different fastening possibilities / 2 differenti possibilità di fissaggio :

Clamp- Ø 10 mm on shaft / Morsetto - Ø 10 mm sull'asta

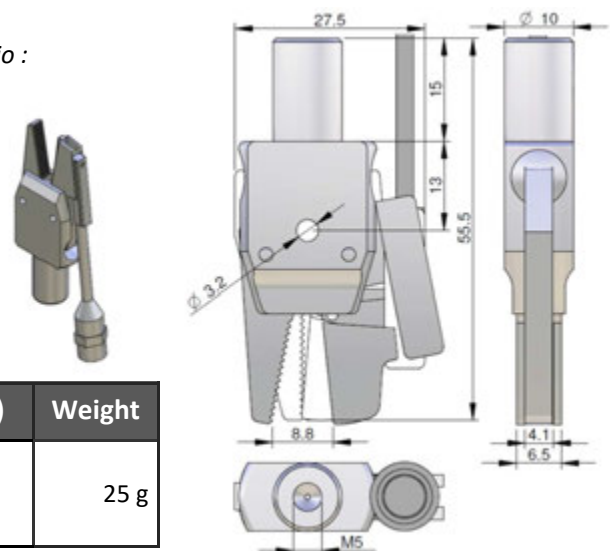
Through-Thread in the gripper body

Attraverso il filetto nel corpo della pinza

Working pressure: 6 bar clean and dry air

Pressione lavorante: 6 bar aria pulita e asciutta

CA.GRZ.10.08.S/SN

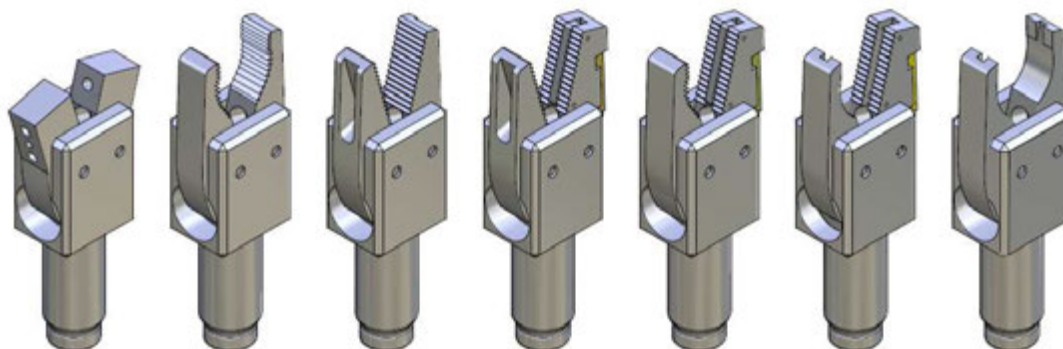


| Article no.      | Sensor   | Closing force (at 6 bar) | Weight |
|------------------|----------|--------------------------|--------|
| CA.GRZ.10.08.S   | KT58PM8  | 19 N                     | 25 g   |
| CA.GRZ.10.08.S2F | KT58REQD |                          |        |
| CA.GRZ.10.08.SN  | KT58NM8  |                          |        |

## CA.09 GRZ.20

. Sprue gripper

. Pinza Materozza



Remarks / Osservazioni :

Work principle: single acting  
Azionamento a semplice effetto con apertura a molla

Working pressure: 6 bar clean and dry air  
Pressione lavorante: 6 bar aria pulita e asciutta

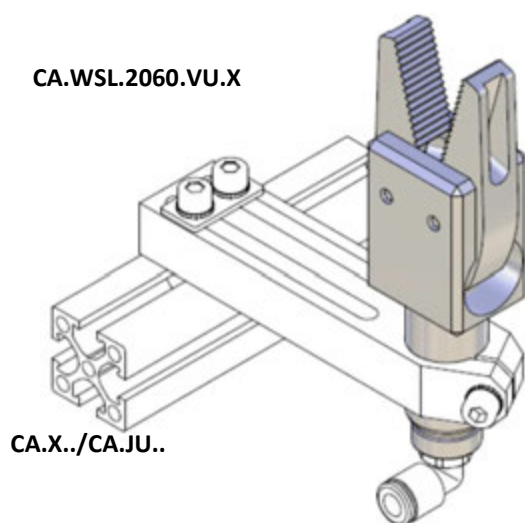
Material / Materiale:

Jaws in hardcoated Aluminium  
Chele in alluminio rivestito

Body made of anodized Aluminium  
Corpo in alluminio anodizzato

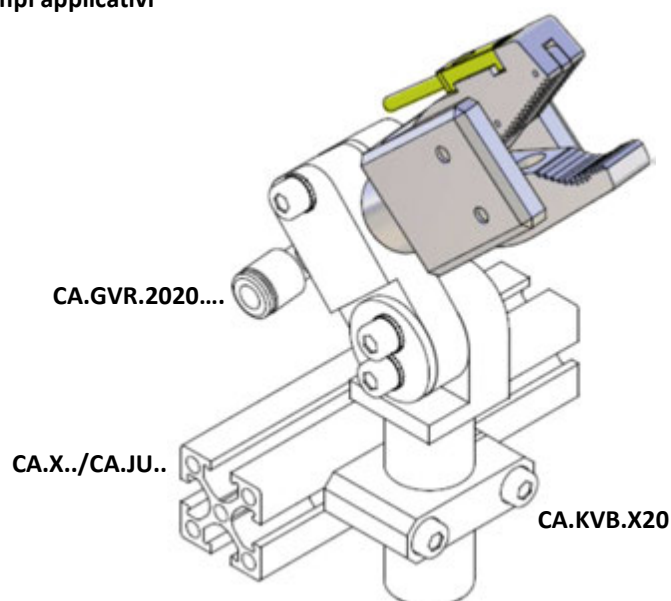
| Article no.   | Sensor        | Closing force (at 6 bar) | Weight |
|---------------|---------------|--------------------------|--------|
| CA.GRZ.20.A   |               | 90 N                     | 114 g  |
| CA.GRZ.20.E   |               |                          | 85 g   |
| CA.GRZ.20.LL  |               |                          | 85 g   |
| CA.GRZ.20.R   |               |                          | 121 g  |
| CA.GRZ.20.S   | GRZ.20.SC.PNP |                          | 127 g  |
| CA.GRZ.20.SN  | GRZ.20.SC.NPN |                          | 107 g  |
| CA.GRZ.20.W   | GRZ.20.SC.PNP |                          | 110 g  |
| CA.GRZ.20.WN  | GRZ.20.SC.NPN |                          | 114 g  |
| CA.GRZ.20.WL  | GRZ.20.SC.PNP |                          | 110 g  |
| CA.GRZ.20.WLN | GRZ.20.SC.NPN |                          | 110 g  |

### Application examples / Esempi applicativi



CA.WSL.2060.VU.X

CA.X../CA.JU..



CA.GVR.2020...

CA.X../CA.JU..

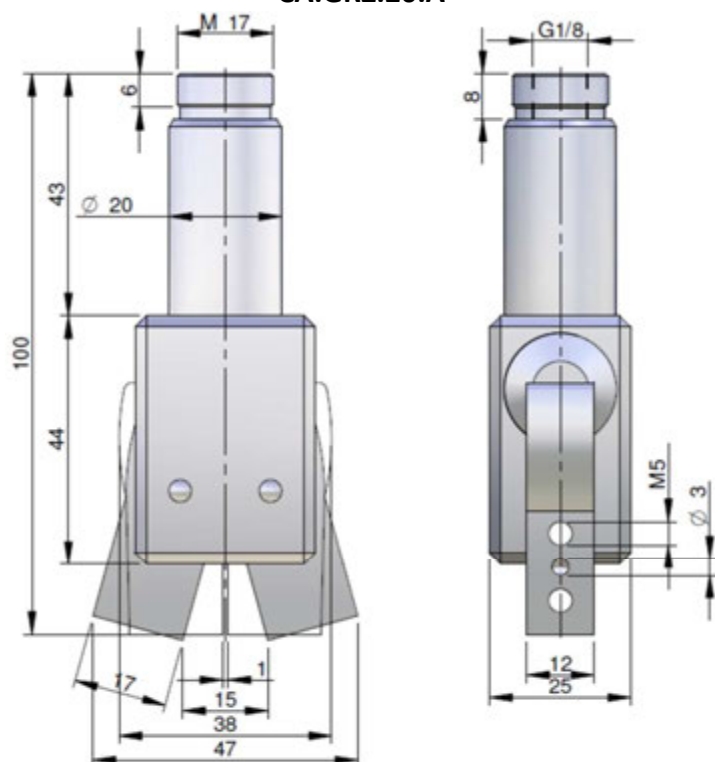
CA.KVB.X20

## CA.09 GRZ.20

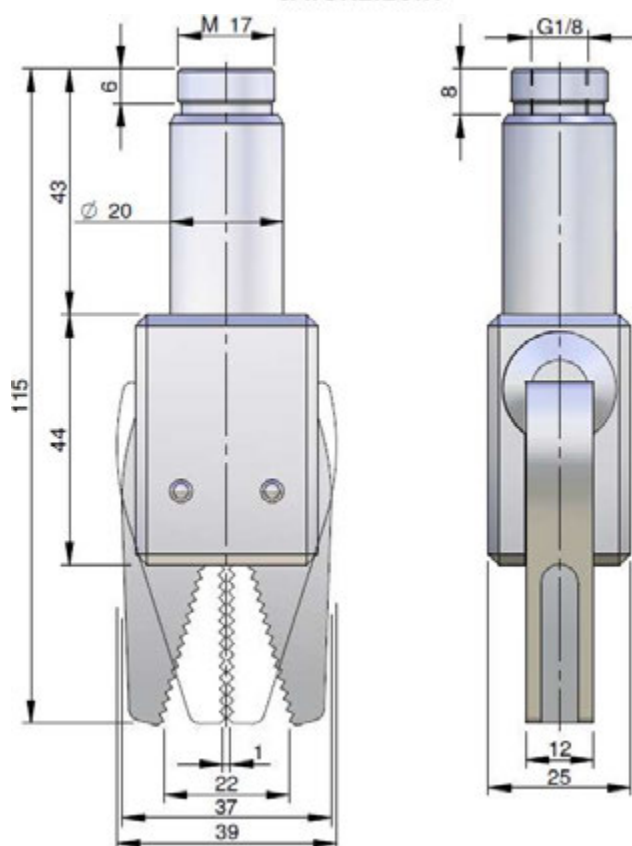
. Dimensions

. Dimensioni

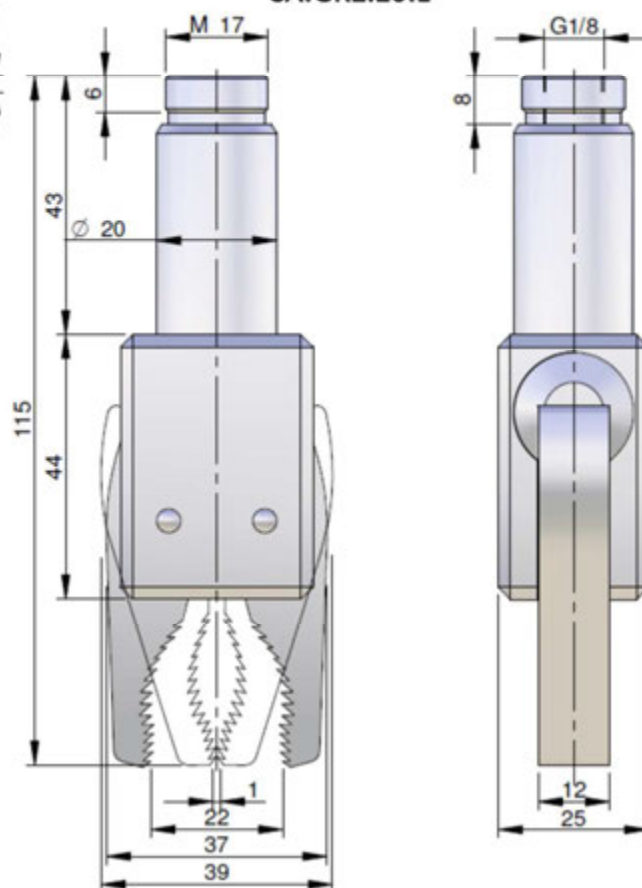
**CA.GRZ.20.A**



**CA.GRZ.20.R**



**CA.GRZ.20.E**

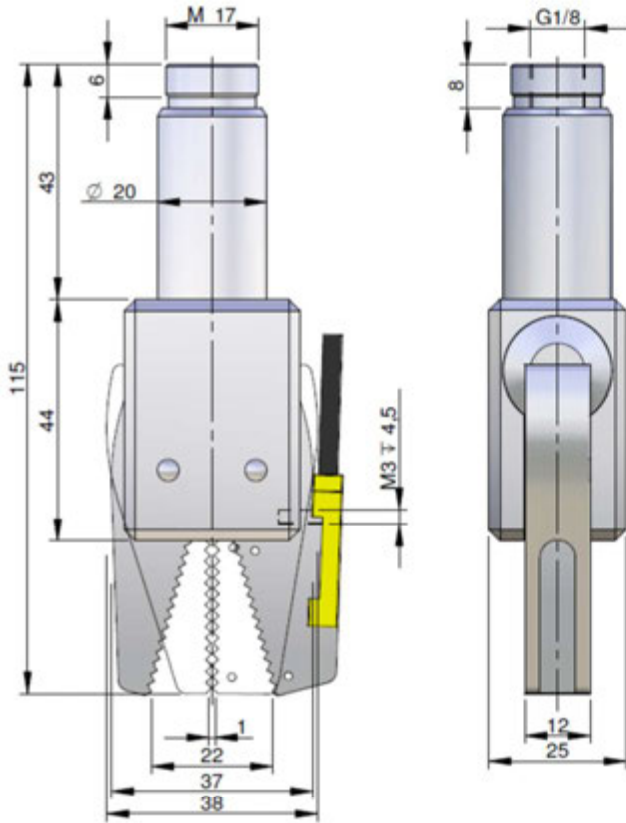


## CA.09 GRZ.20

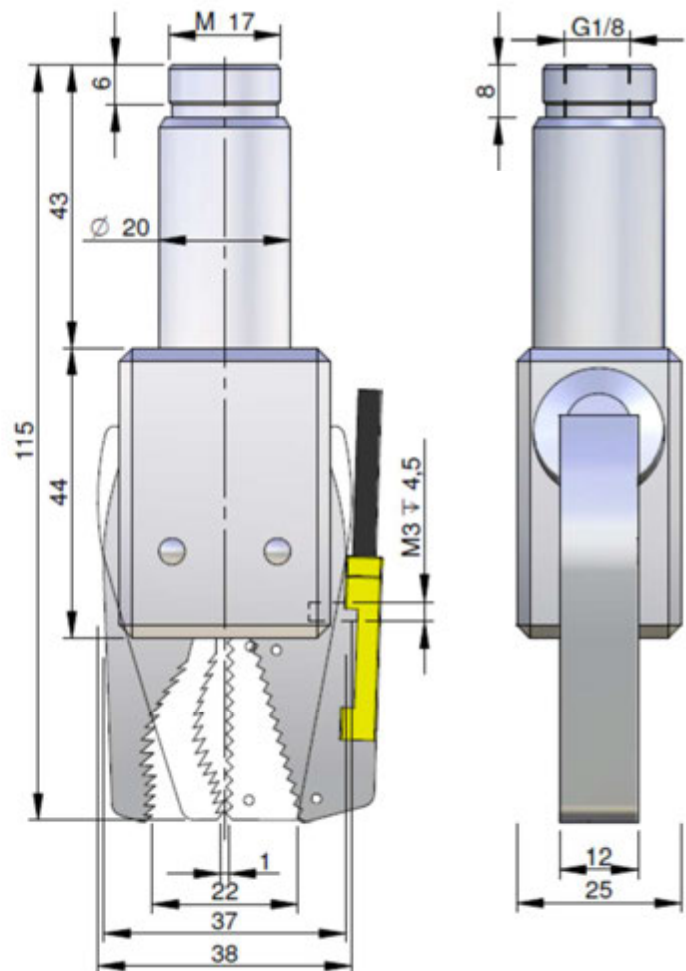
. Dimensions

. Dimensioni

**CA.GRZ.20.S/SN**



**CA.GRZ.20.W/WN**

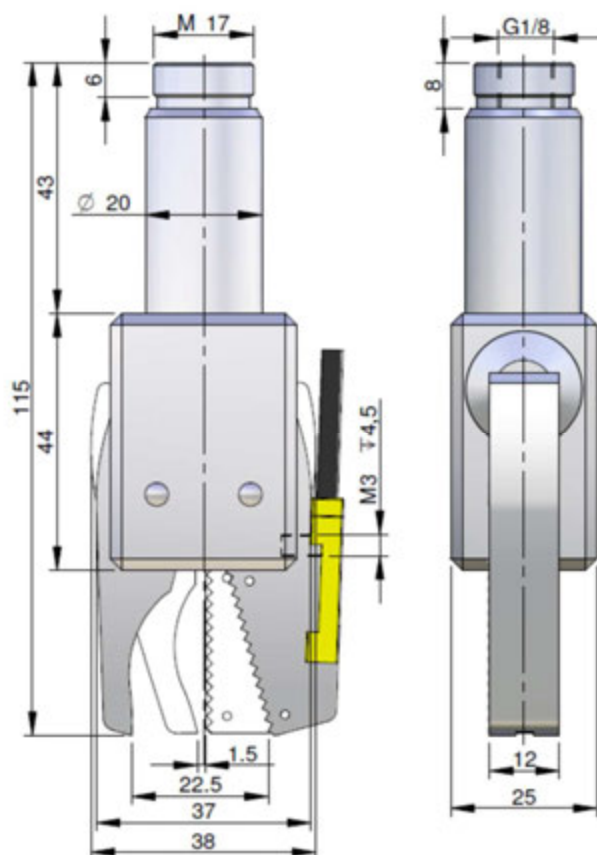


## CA.09 GRZ.20

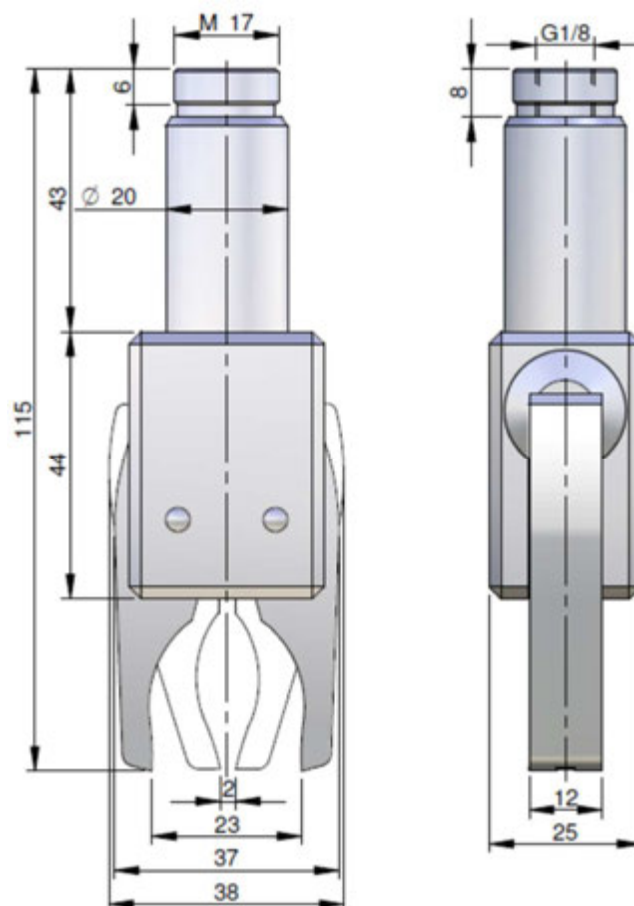
### . Dimensions

### . Dimensioni

**CA.GRZ.20.WL/WLN**



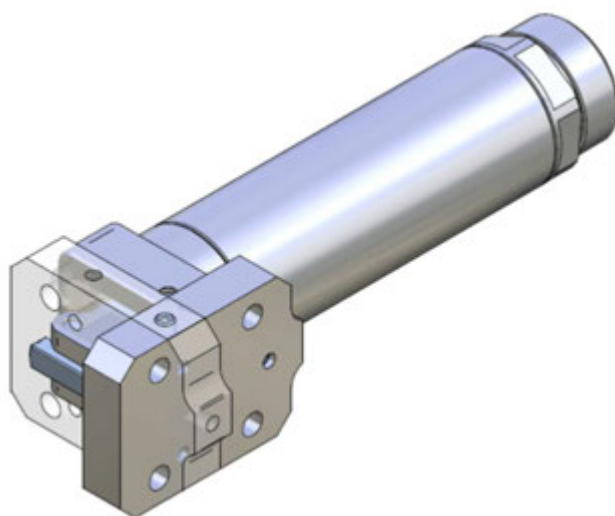
**CA.GRZ.20.LL**



## CA.09 RBL 90°

. Pneumatic tilt

. Ribaltatore pneumatico



**new**

### Remarks / Osservazioni:

Work principle: single acting  
*Azionamento a semplice effetto con apertura a molla*

Extension thread for Extension Tube VLR  
*Filo prolunga per prolunga VLR*

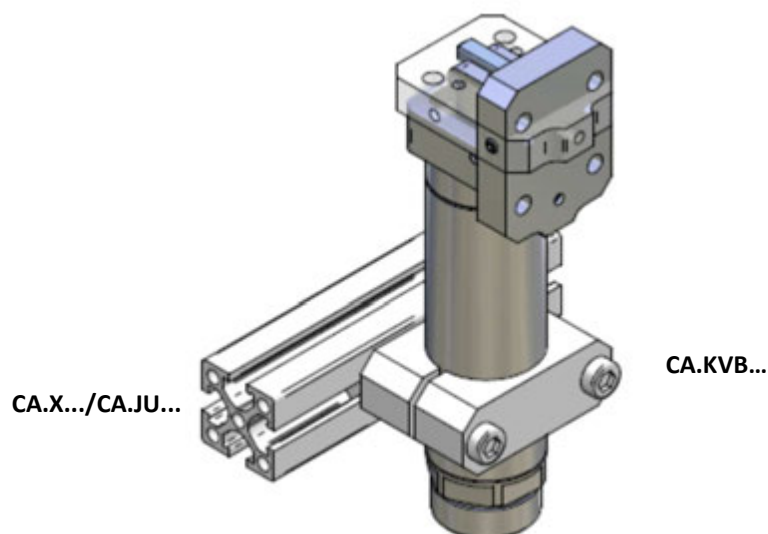
Working pressure: 6 bar clean and dry air  
*Pressione lavorante: 6 bar aria pulita e asciutta*

Material / Materiale: Aluminium / Alluminio

Surface: Silver anodized  
*Superficie: Argento anodizzato*

| Article no. | Stroke | External Diameter | Grip force (at 6 bar) | Cycle air consumption | Weight |
|-------------|--------|-------------------|-----------------------|-----------------------|--------|
| CA.RBL.30   | 90°    | Ø 30 mm           | 300 N                 | 12.90 cm <sup>3</sup> | 270 g  |

### Application example / Esempio applicativo

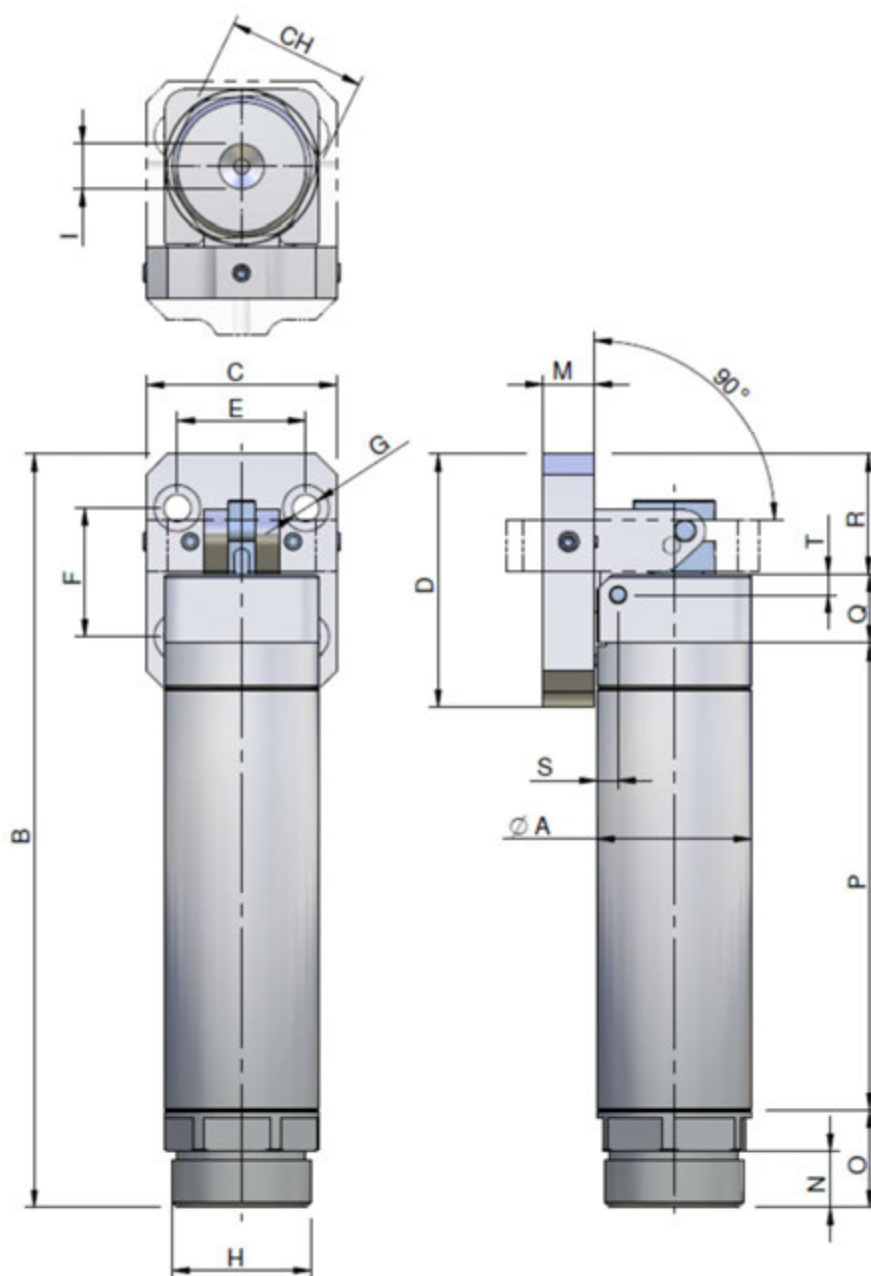


## CA.09 RBL 90°

. Dimensions

. Dimensioni

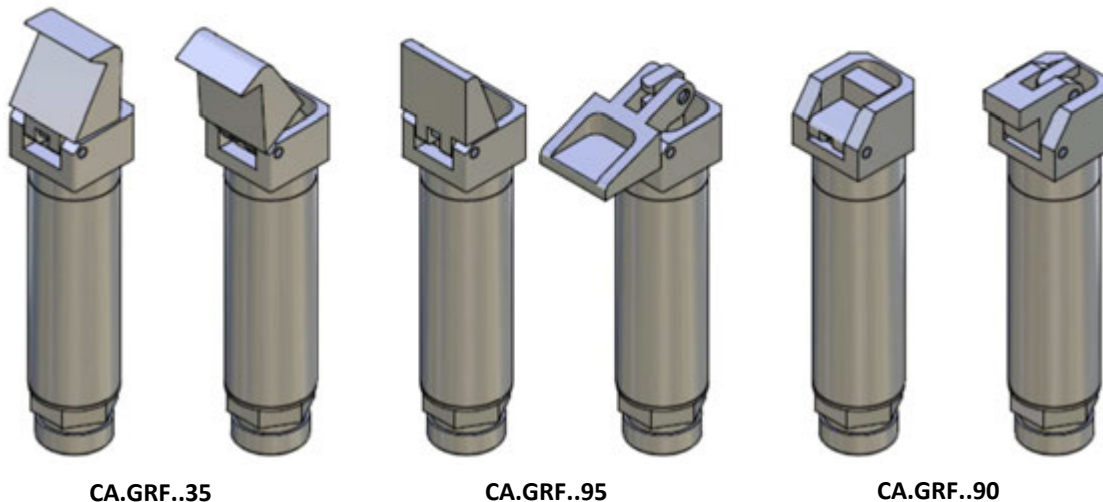
| Article no. | A    | B     | C  | D  | E  | F  | G   | H     | I   | M  | N  | O  | P    | Q    | R    | S   | T | CH |
|-------------|------|-------|----|----|----|----|-----|-------|-----|----|----|----|------|------|------|-----|---|----|
| CA.RBL.30   | Ø 30 | 146.5 | 37 | 49 | 25 | 25 | 5.3 | M27x1 | 1/8 | 10 | 11 | 19 | 90.8 | 13.3 | 23.4 | 4.1 | 4 | 27 |



## CA.09 GRF

. Gripper finger

. Dito di Presa



Remarks / Osservazioni:

Work principle: single acting  
Azionamento a semplice effetto con apertura a molla

Extension thread for Extension Tube VLR  
Filo prolunga per prolunga VLR

Working pressure: 6 bar clean and dry air  
Pressione lavorante: 6 bar aria pulita e asciutta

Material / Materiale: Aluminium / Alluminio

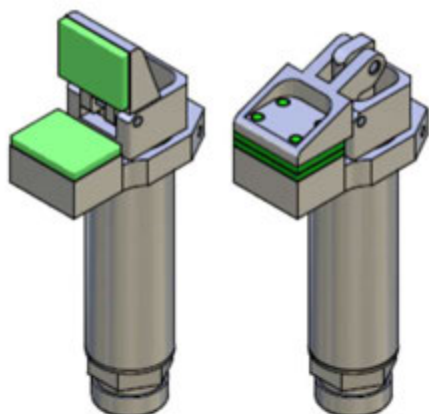
Surface: Silver anodized  
Superficie: Argento anodizzato

| Article no.    | Stroke | External Diameter | Grip force (at 6 bar) | Cycle air consumption | Weight |
|----------------|--------|-------------------|-----------------------|-----------------------|--------|
| CA.GRF.1435    | 35°    | Ø 14              | 26 N                  | 0.40 cm <sup>3</sup>  | 25 g   |
| CA.GRF.2035    |        | Ø 20              | 100 N                 | 1.24 cm <sup>3</sup>  | 65 g   |
| CA.GRF.3035    |        | Ø 30              | 430 N                 | 4.56 cm <sup>3</sup>  | 206 g  |
| CA.GRF.1490    | 90°    | Ø 14              | 19 N                  | 1.00 cm <sup>3</sup>  | 25 g   |
| CA.GRF.2090    |        | Ø 20              | 70 N                  | 3.52 cm <sup>3</sup>  | 65 g   |
| CA.GRF.3090    |        | Ø 30              | 300 N                 | 12.90 cm <sup>3</sup> | 185 g  |
| CA.GRF.1495    | 95°    | Ø 14              | 19 N                  | 1.00 cm <sup>3</sup>  | 25 g   |
| CA.GRF.2095    |        | Ø 20              | 70 N                  | 3.52 cm <sup>3</sup>  | 60 g   |
| CA.GRF.3095    |        | Ø 30              | 300 N                 | 12.90 cm <sup>3</sup> | 193 g  |
| CA.GRF.1495.G  |        | Ø 14              | 19 N                  | 1.00 cm <sup>3</sup>  | 28 g   |
| CA.GRF.2095.G  |        | Ø 20              | 70 N                  | 3.52 cm <sup>3</sup>  | 75 g   |
| CA.GRF.3095.G  |        | Ø 30              | 300 N                 | 12.90 cm <sup>3</sup> | 235 g  |
| CA.GRF.1495.GW |        | Ø 14              | 19 N                  | 1.00 cm <sup>3</sup>  | 25 g   |
| CA.GRF.2095.GW |        | Ø 20              | 70 N                  | 3.52 cm <sup>3</sup>  | 60 g   |
| CA.GRF.3095.GW |        | Ø 30              | 300 N                 | 12.90 cm <sup>3</sup> | 193 g  |
| CA.GRF.2035.WE | 35°    | Ø 20              | 100 N                 | 1.24 cm <sup>3</sup>  | 76 g   |
| CA.GRF.3035.WE |        | Ø 30              | 430 N                 | 12.90 cm <sup>3</sup> | 259 g  |

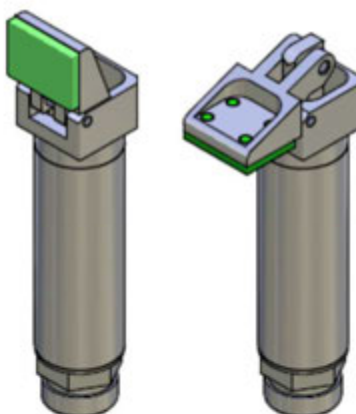
## CA.09 GRF

. Gripper finger

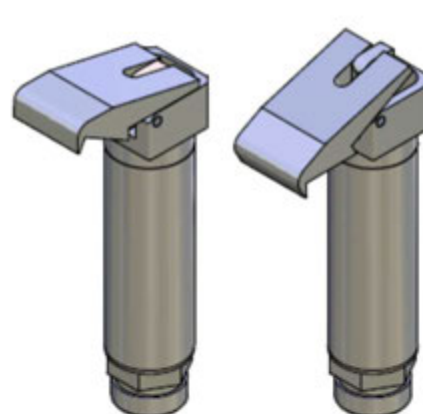
. Dito di Presa



CA.GRF..95.G

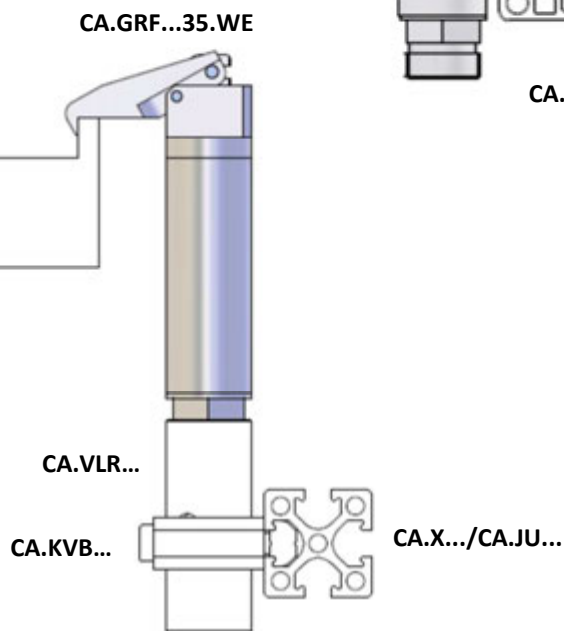
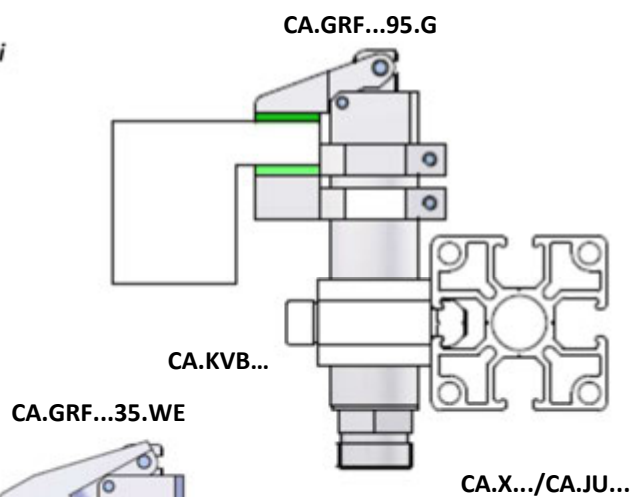
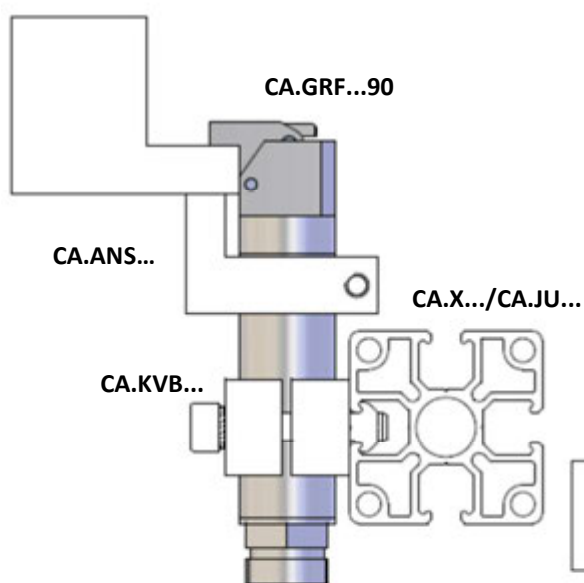


CA.GRF..95.GW



CA.GRF..35.WE

### Application examples / Esempi applicativi

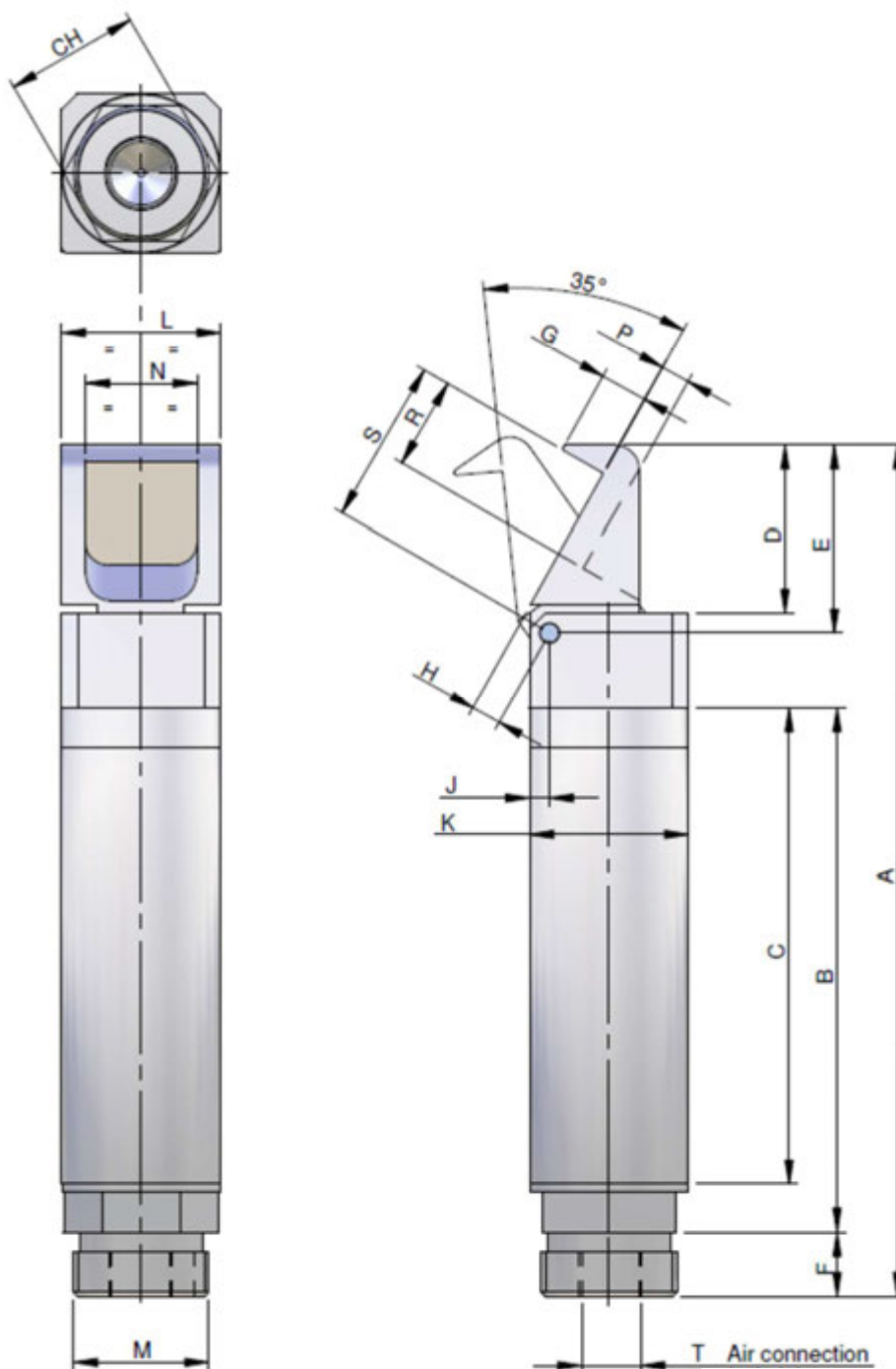


## CA.09 GRF 35°

. Dimensions

. Dimensioni

| Article no. | A   | B    | C    | D  | E    | F   | G   | H   | J   | K    | L  | M     | N  | P | R    | S    | T     | CH |
|-------------|-----|------|------|----|------|-----|-----|-----|-----|------|----|-------|----|---|------|------|-------|----|
| CA.GRF.1435 | 77  | 47.5 | 43.5 | 14 | 16   | 5.5 | 4.5 | 3.4 | 2   | Ø 14 | 14 | M12X1 | 10 | 2 | 6    | 13.5 | M5    | 12 |
| CA.GRF.2035 | 107 | 66   | 60   | 21 | 23.5 | 8   | 6   | 3.8 | 2.5 | Ø 20 | 20 | M17X1 | 14 | 3 | 11.5 | 20.7 | G 1/8 | 17 |
| CA.GRF.3035 | 156 | 100  | 92   | 30 | 34   | 11  | 8   | 6   | 4   | Ø 30 | 30 | M27X1 | 22 | 5 | 17   | 30.8 |       | 27 |

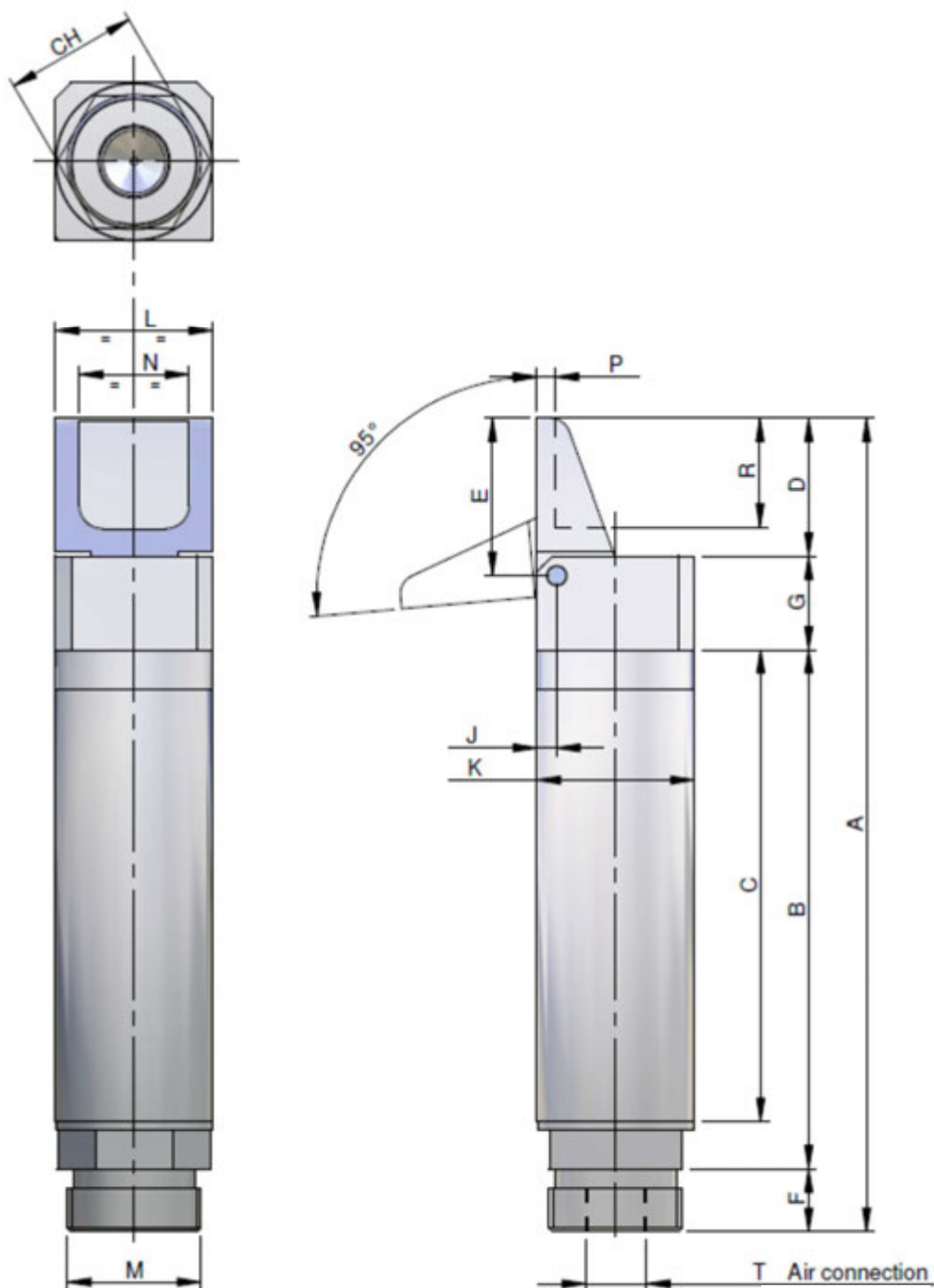


## CA.09 GRF 95°

### . Dimensions

### . Dimensioni

| Article no. | A     | B    | C    | D    | E  | F   | G    | J   | K    | L  | M     | N  | P | R  | T     | CH |
|-------------|-------|------|------|------|----|-----|------|-----|------|----|-------|----|---|----|-------|----|
| CA.GRF.1495 | 75.5  | 47.5 | 43.5 | 12   | 14 | 5.5 | 10.5 | 2   | Ø 14 | 14 | M12X1 | 10 | 2 | 9  | M5    | 12 |
| CA.GRF.2095 | 103.5 | 66   | 60   | 17.5 | 20 | 8   | 12   | 2.5 | Ø 20 | 20 | M17X1 | 14 | 3 | 14 | G 1/8 | 17 |
| CA.GRF.3095 | 148   | 100  | 90   | 25   | 29 | 11  | 12   | 4   | Ø 30 | 30 | M27X1 | 22 | 5 | 21 |       | 27 |

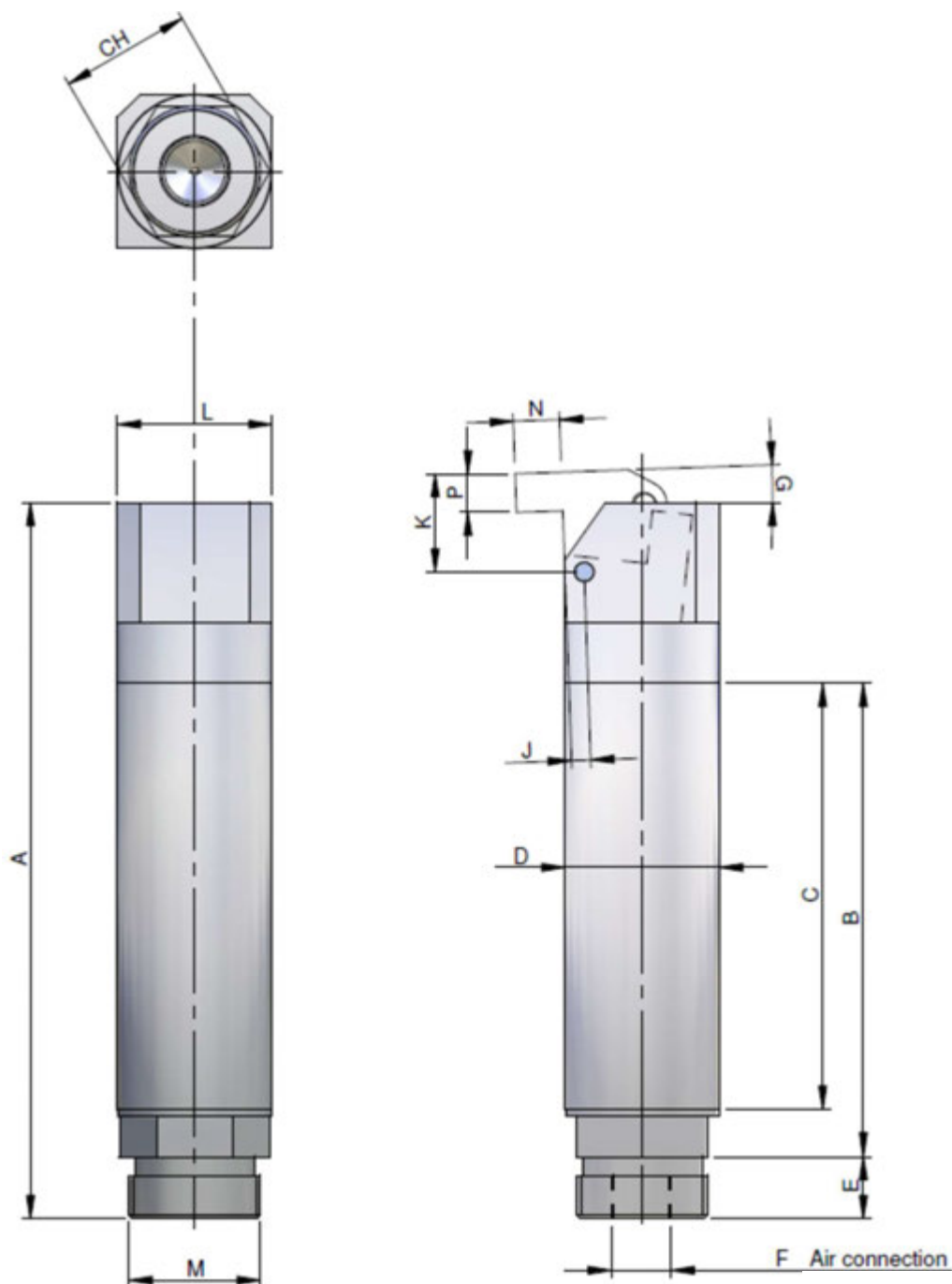


## CA.09 GRF 90°

. Dimensions

. Dimensioni

| Article no. | A    | B    | C    | D    | E   | F     | G  | J   | K  | L  | M     | N   | P | CH |
|-------------|------|------|------|------|-----|-------|----|-----|----|----|-------|-----|---|----|
| CA.GRF.1490 | 69   | 45.5 | 41.5 | Ø 14 | 5.5 | M5    | 2° | 3   | 8  | 14 | M12X1 | 4.8 | 4 | 12 |
| CA.GRF.2090 | 92.5 | 61   | 55   | Ø 20 | 8   | G 1/8 |    | 2.5 | 13 | 20 | M17X1 | 6   | 5 | 17 |
| CA.GRF.3090 | 135  | 91   | 83   | Ø 30 | 11  |       |    | 4   | 20 | 30 | M27X1 | 11  | 6 | 27 |

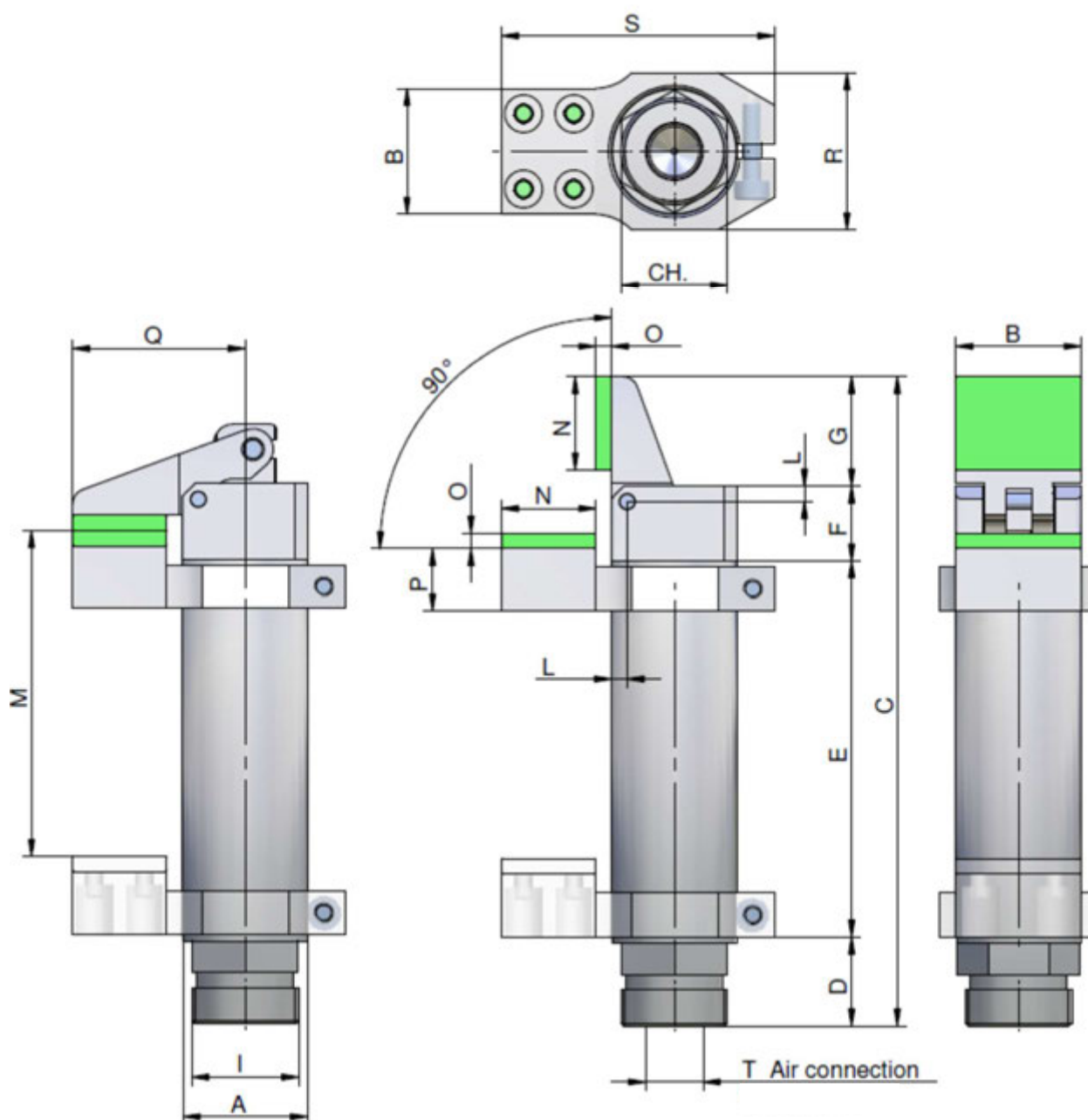


## CA.09 GRF 95° G / GTPE

. Dimensions

. Dimensioni

| Article no.   | A    | B  | C     | D   | E    | F    | G    | H   | I     | L   | M    | N  | O   | P   | Q    | R    | S    | T     | CH |
|---------------|------|----|-------|-----|------|------|------|-----|-------|-----|------|----|-----|-----|------|------|------|-------|----|
| CA.GRF.1495.G | Ø 14 | 14 | 75.5  | 9.5 | 43.5 | 10.5 | 12   | 5.5 | M12X1 | 2   | 38.5 | 10 | 2.5 | 6.5 | 19   | 17.5 | 30   | M5    | 12 |
| CA.GRF.2095.G | Ø 20 | 20 | 103.5 | 14  | 60   | 12   | 17.5 | 8   | M17X1 | 2.5 | 52.5 | 15 |     | 10  | 27.5 | 25   | 43.5 | G 1/8 | 17 |
| CA.GRF.3095.G | Ø 30 | 30 | 148   | 20  | 90   | 15   | 25   | 11  | M27X1 | 4   | 81   | 20 |     | 9   | 40   | 37   | 60   |       | 27 |

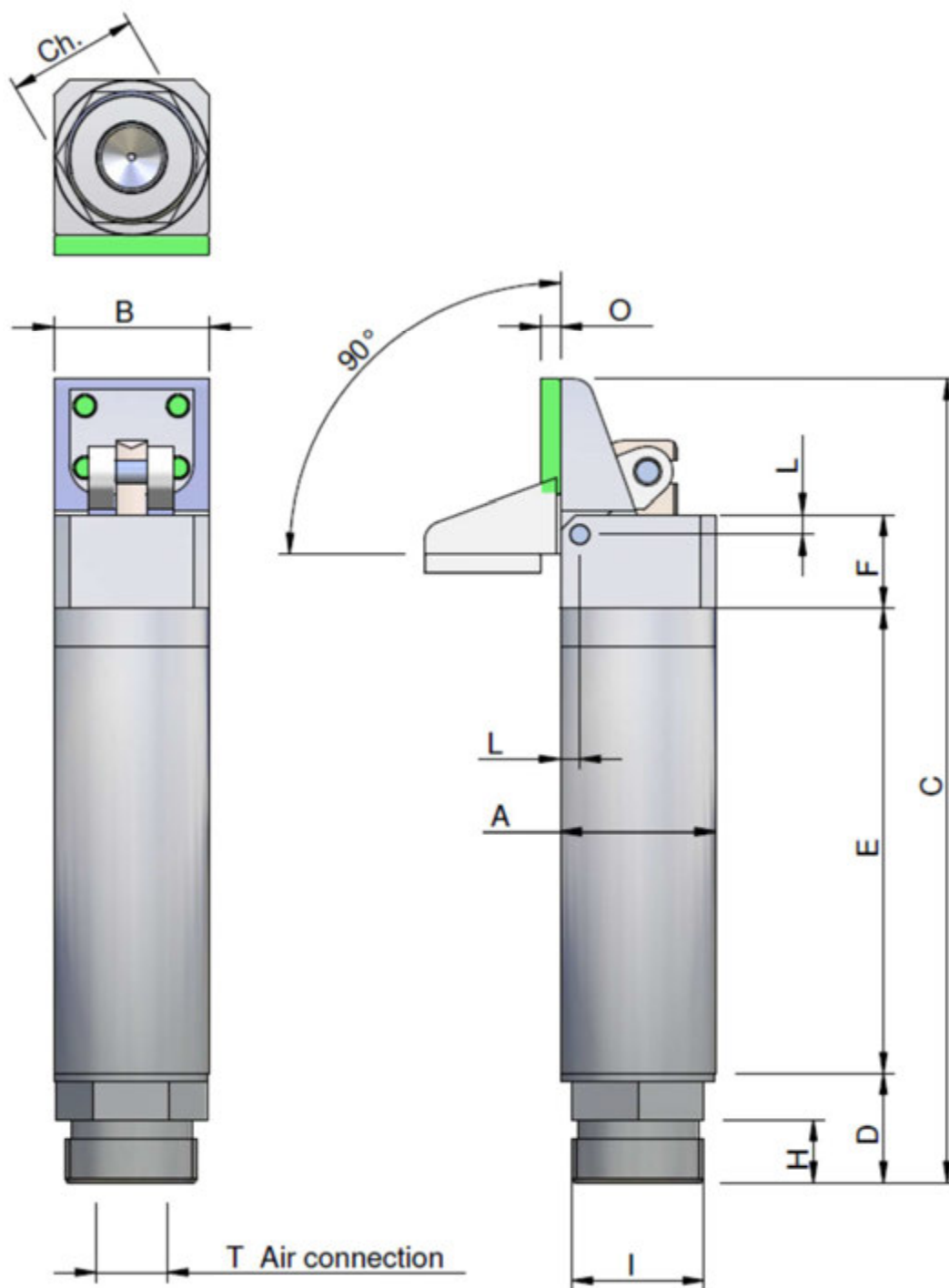


## CA.09 GRF 95° GW

. Dimensions

. Dimensioni

| Article no.    | A    | B  | C    | D   | E    | F    | H   | I     | L   | O   | T     | CH |
|----------------|------|----|------|-----|------|------|-----|-------|-----|-----|-------|----|
| CA.GRF.1495.GW | Ø 14 | 14 | 75.5 | 9.5 | 43.5 | 10.5 | 5.5 | M12X1 | 2   | 2.5 | M5    | 12 |
| CA.GRF.2095.GW | Ø 20 | 20 | 103  | 14  | 60   | 12   | 8   | M17X1 | 2.5 |     | G 1/8 | 17 |
| CA.GRF.3095.GW | Ø 30 | 30 | 148  | 20  | 90   | 15   | 11  | M27X1 | 4   | 3   |       | 27 |

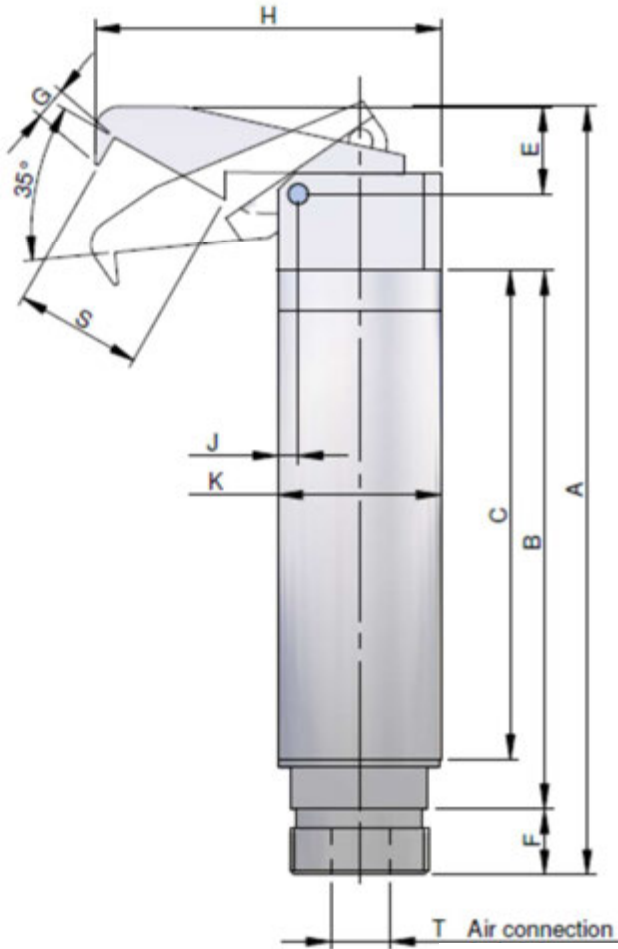
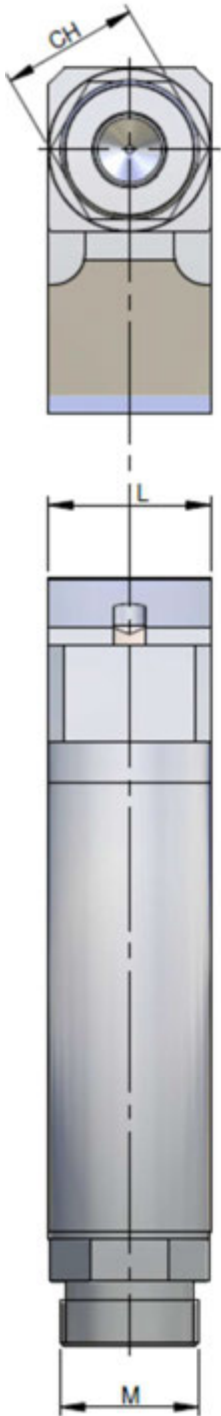


CA.09 GRF 35° WE

. Dimensions

. Dimensioni

| Article no.    | A   | B  | C  | E  | F  | G | H    | J   | K    | L  | M     | S    | T     | CH |
|----------------|-----|----|----|----|----|---|------|-----|------|----|-------|------|-------|----|
| CA.GRF.2035.WE | 94  | 66 | 60 | 11 | 8  | 4 | 42.5 | 2.5 | Ø 20 | 20 | M17X1 | 15,5 | G 1/8 | 17 |
| CA.GRF.3035.WE | 133 | 98 | 90 | 14 | 11 |   | 60.9 | 4.1 | Ø 30 | 30 | M27X1 | 26   |       | 27 |

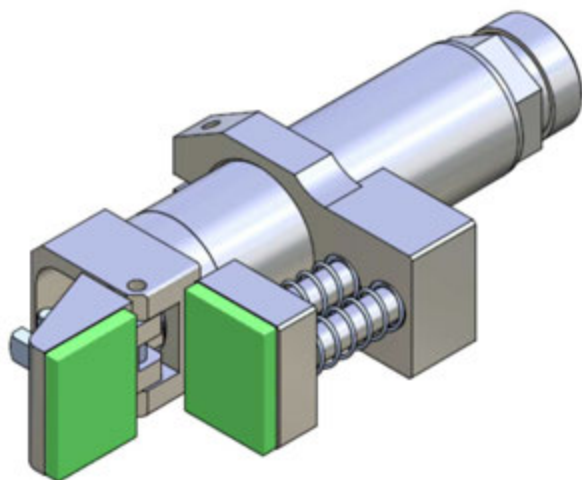


## CA.09 GRF.VSX

. Gripper finger

Magnetic

. Dito di Presa



Working pressure: 6 bar clean and dry air  
Pressione lavorante: 6 bar aria pulita e asciutta

Material / Materiale: Aluminium / Alluminio

Surface: silver anodized  
Superficie: argento anodizzato

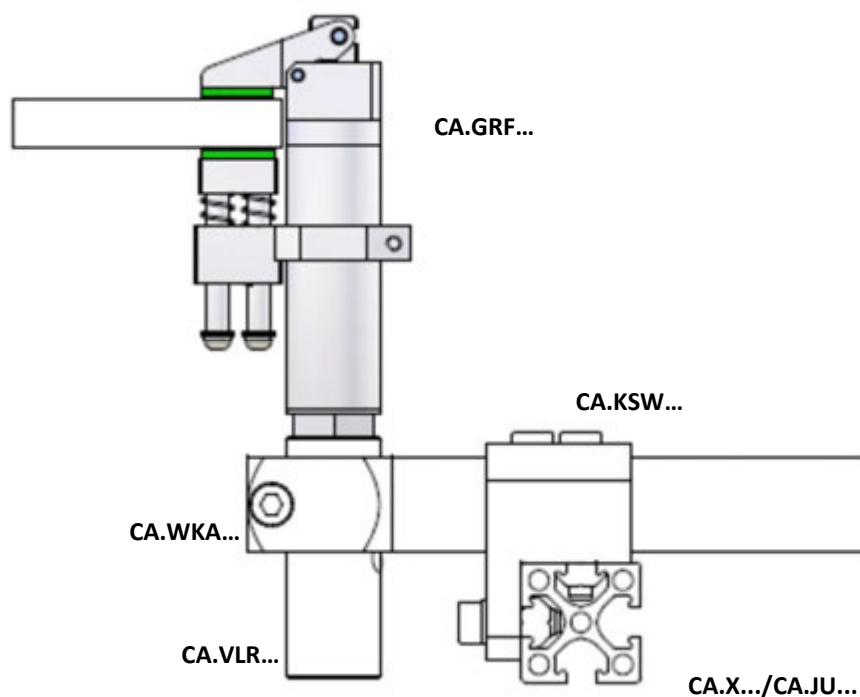
Remarks / Osservazioni:

Work principle: single acting  
Azionamento a semplice effetto con apertura a molla

Extension thread for Extension Tube VLR  
Filetto per prolunga VLR

| Article no.     | Stroke | Piston bore | Grip force (at 6 bar) | Cycle air consumption | Weight |
|-----------------|--------|-------------|-----------------------|-----------------------|--------|
| CA.GRF.1495.VSX | 95°    | Ø 10 mm     | 19 N                  | 1.00 cm <sup>3</sup>  | 45 g   |
| CA.GRF.2095.VSX |        | Ø 16 mm     | 70 N                  | 3.52 cm <sup>3</sup>  | 100 g  |
| CA.GRF.3095.VSX |        | Ø 25 mm     | 300 N                 | 12.90 cm <sup>3</sup> | 360 g  |

## Application example / Esempio applicativo

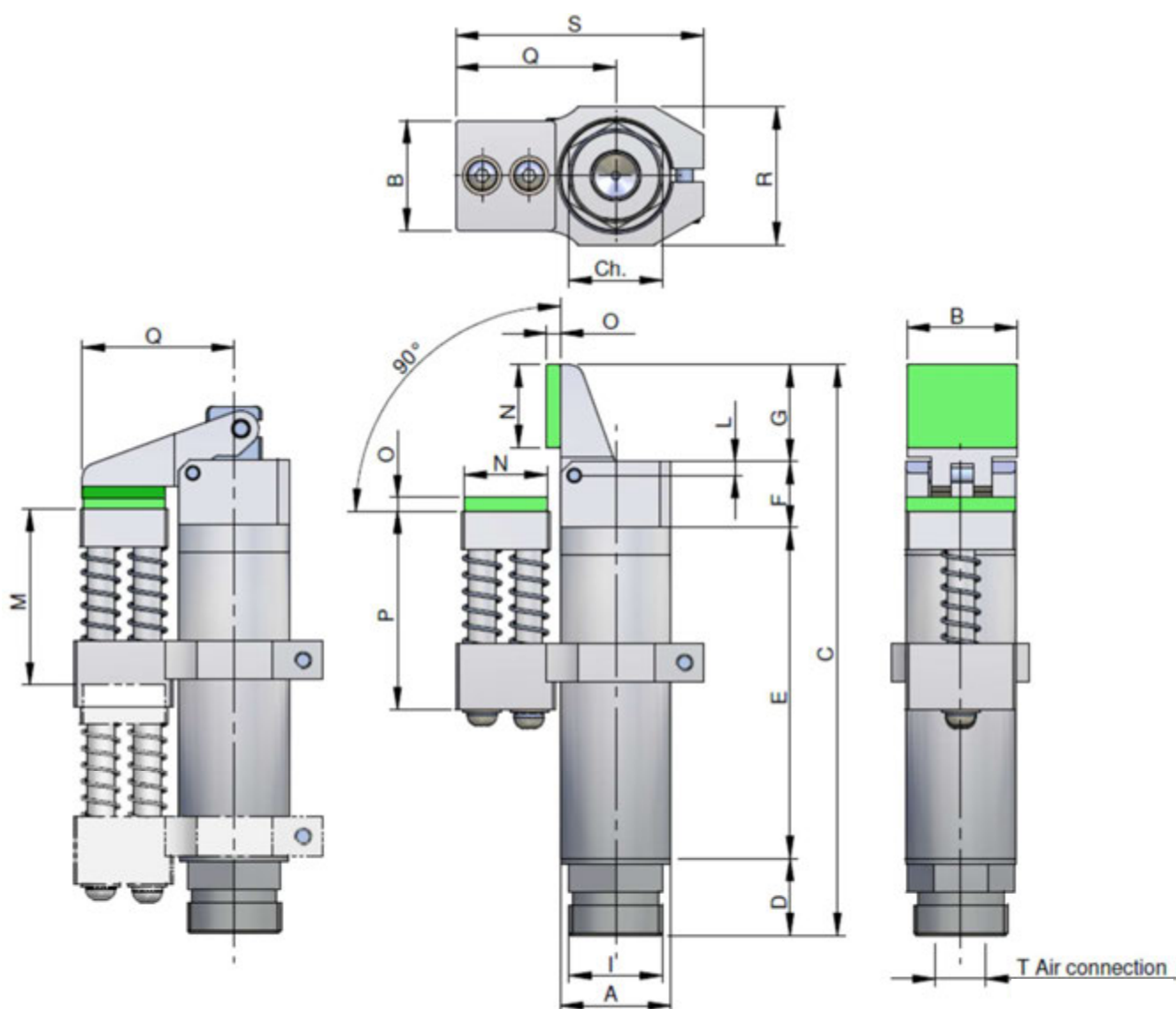


## CA.09 GRF 95° VSX

### . Dimensions

### . Dimensioni

| Article no.     | A    | B  | C     | D   | E    | F    | G    | H   | I     | L   | M    | N  | O   | P   | Q    | R    | S    | T     | CH |
|-----------------|------|----|-------|-----|------|------|------|-----|-------|-----|------|----|-----|-----|------|------|------|-------|----|
| CA.GRF.1495.VSX | ∅ 14 | 14 | 75.5  | 9.5 | 43.5 | 10.5 | 12   | 5.5 | M12X1 | 2   | 16.5 | 10 | 2.5 | 6.5 | 19   | 17.5 | 30   | M5    | 12 |
| CA.GRF.2095.VSX | ∅ 20 | 20 | 103.5 | 14  | 60   | 12   | 17.5 | 8   | M17X1 | 2.5 | 41.5 | 15 | 2.5 | 10  | 27.5 | 25   | 43.5 | G 1/8 | 17 |
| CA.GRF.3095.VSX | ∅ 30 | 30 | 148   | 20  | 90   | 15   | 25   | 11  | M27X1 | 4   | 53   | 20 | 3   | 9   | 40   | 37   | 60   |       | 27 |



## CA.09 ANS / ZTS

## GRF

. Stopper for grippers

. Riscontro Pinza

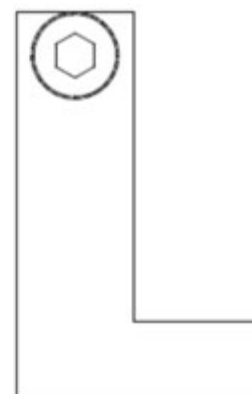
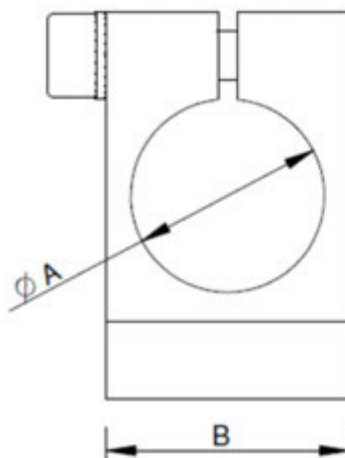
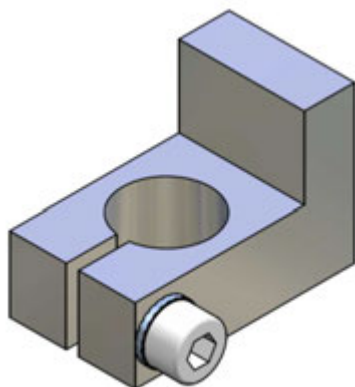


Table / Tabella

**M** = Suitable for Gripper finger GRF...  
Applicabile a dito di presa GRF...

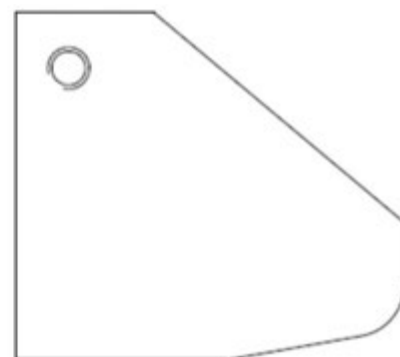
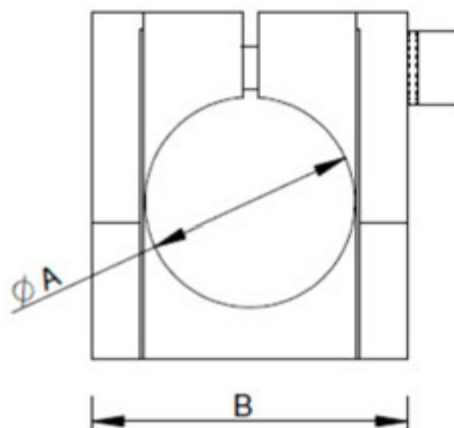
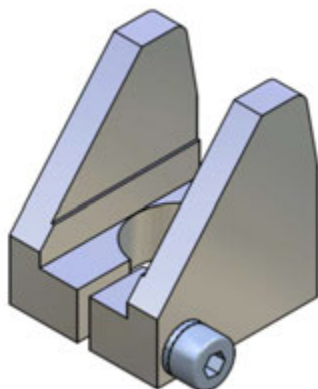
| Article no. | A    | B  | M            | Weight |
|-------------|------|----|--------------|--------|
| CA.ANS.14   | Ø 14 | 20 | CA.GRF.14... | 17 g   |
| CA.ANS.20   | Ø 20 | 25 | CA.GRF.20... | 21 g   |
| CA.ANS.30   | Ø 30 | 35 | CA.GRF.30... | 30 g   |

Remarks / Osservazioni:

Material / Materiale: POM- Machined / Fresato

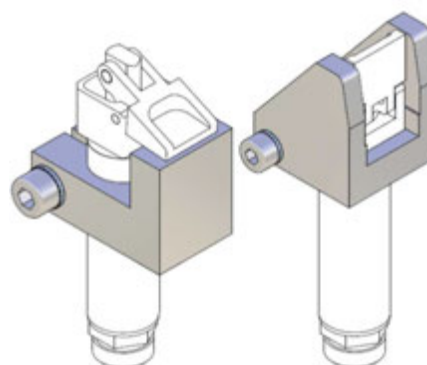
. Gripper guide

. Guida Pinza



Application example / Esempio applicativo

| Article no. | A    | B  | M            | Weight |
|-------------|------|----|--------------|--------|
| CA.ZTS.14   | Ø 14 | 24 | CA.GRF.14... | 15 g   |
| CA.ZTS.20   | Ø 20 | 30 | CA.GRF.20... | 20 g   |
| CA.ZTS.30   | Ø 30 | 45 | CA.GRF.30... | 60 g   |

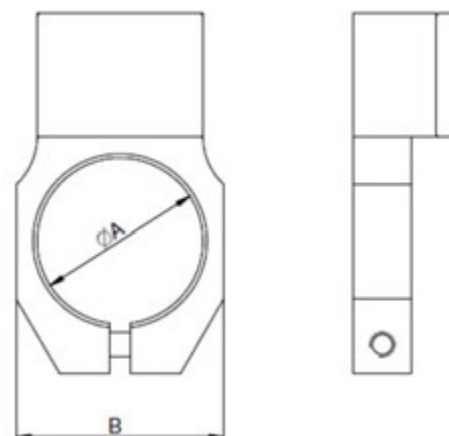
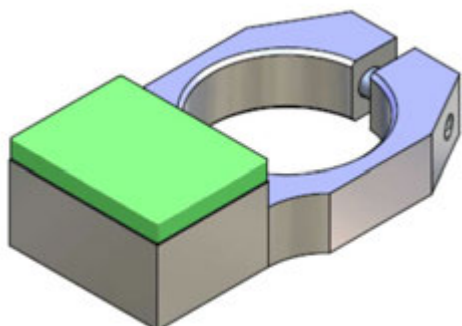


## CA.09 GRF 0708

## GRF

. Stopper for grippers

. Gommino collare per pinza



| Article no.   | A    | B  | M            | Insert        | Weight |
|---------------|------|----|--------------|---------------|--------|
| GRF14.95.0708 | Ø 14 | 20 | CA.GRF.14... | GRF14.95.08.V | 5 g    |
| GRF20.95.0708 | Ø 20 | 25 | CA.GRF.20... | GRF20.95.08.V | 14 g   |
| GRF30.95.0708 | Ø 30 | 37 | CA.GRF.30... | GRF30.95.08.V | 33 g   |

Table / Tabella

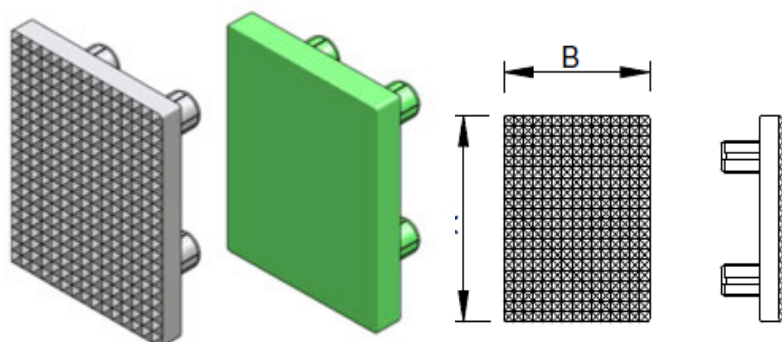
**M** = Suitable for Gripper finger GRF...  
Applicabile a dito di presa GRF...

Remarks / Osservazioni:

Material / Materiale: Aluminium / Alluminio

. Insert TPU / VITON

. Gommino per Pinza TPU / VITON



| Article no.   |       | Colour | A  | B  | M            | Weight |
|---------------|-------|--------|----|----|--------------|--------|
| GRF14.95.08   | TPU   | Grey   | 14 | 10 | CA.GRF.14... | 1 g    |
| GRF20.95.08   |       |        | 20 | 15 | CA.GRF.20... | 2 g    |
| GRF30.95.08   |       |        | 30 | 20 | CA.GRF.30... | 3 g    |
| GRF14.95.08.V | VITON | Green  | 14 | 10 | CA.GRF.14... | 1 g    |
| GRF20.95.08.V |       |        | 20 | 15 | CA.GRF.20... | 2 g    |
| GRF30.95.08.V |       |        | 30 | 20 | CA.GRF.30... | 3 g    |

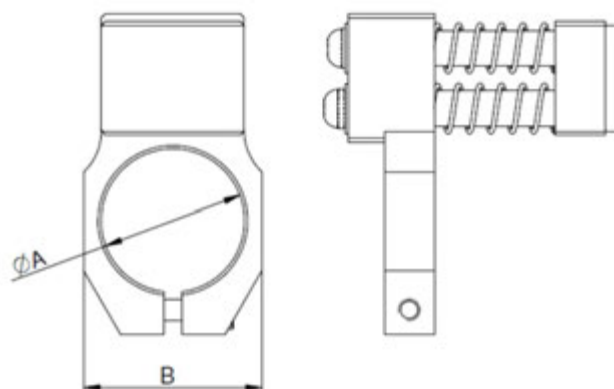
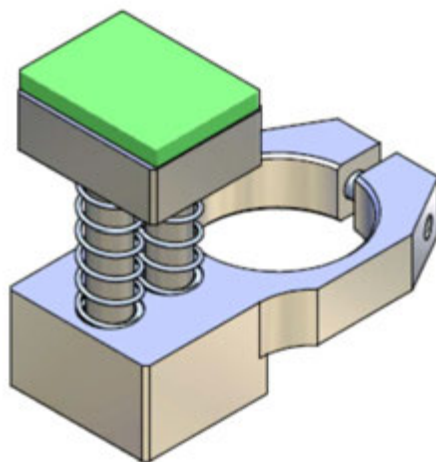
|                                                                                        | TPU   | VITON |
|----------------------------------------------------------------------------------------|-------|-------|
| UV ageing, weather -resistance<br><i>Resistenza all'usura UV e del tempo</i>           | ☺     | ☺     |
| Low temperature limit<br><i>Limite basso di temperature</i>                            | -40°C | -10°C |
| High temperature limit (continuous)<br><i>Limite alto di temperature (continuo)</i>    | 80°C  | 180°C |
| High temperature limit (< 30 sec.)<br><i>Limite alto di temperature (&lt; 30 sec.)</i> | 120°C | 210°C |
| Leaving few marks<br><i>Rimanenza di segni</i>                                         | ☺     | ☺     |

## CA.09 GRF VSX

## GRF

. Stopper for grippers

. *Riscontro Pinza*



| Article no. | A              | B  | M           | Insert        | Weight |
|-------------|----------------|----|-------------|---------------|--------|
| GRF14.VSX   | $\emptyset 14$ | 20 | CA.GRF.14.. | GRF14.95.08.V | 15 g   |
| GRF20.VSX   | $\emptyset 20$ | 25 | CA.GRF.20.. | GRF20.95.08.V | 20 g   |
| GRF30.VSX   | $\emptyset 30$ | 37 | CA.GRF.30.. | GRF30.95.08.V | 50 g   |

Remarks / Osservazioni:

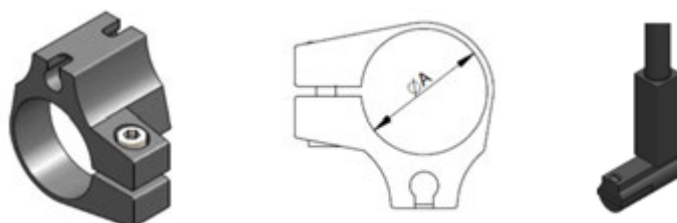
Material / Materiale: Aluminium / Alluminio

Table / Tabella

**M** = Suitable for Gripper finger GRF...  
Applicabile a dito di presa GRF...

. Holder for Cylinder sensor

. *Supporto per sensore cilindrico*



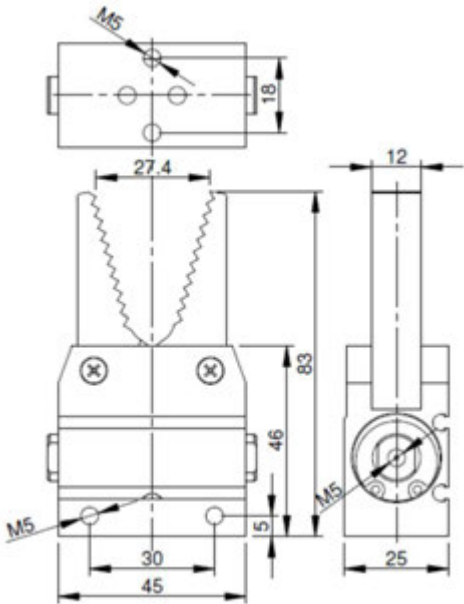
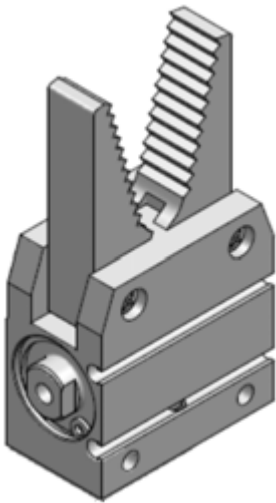
| Article no.  | A              | M           | Sensor  |
|--------------|----------------|-------------|---------|
| CA.TIK.14007 | $\emptyset 14$ | CA.GRF.14.. | KT38... |
| CA.TIK.20007 | $\emptyset 20$ | CA.GRF.20.. |         |
| CA.TIK.30007 | $\emptyset 30$ | CA.GRF.30.. |         |

GZA.AA24 S2

. Selfcentering sprue gripper

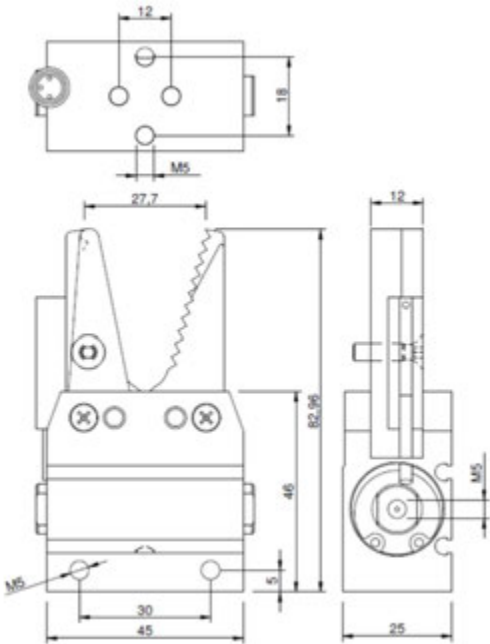
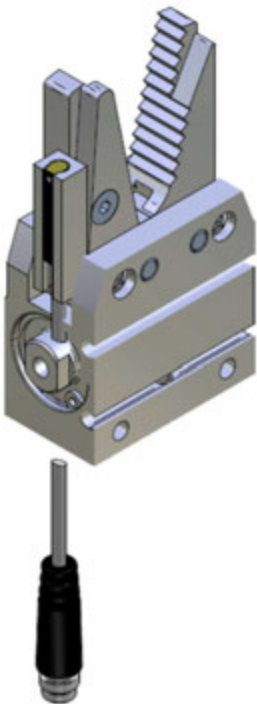
GZA

. Pinza Materozza



| Article no.                                                                                          | Work principle | Sensor   | Weight |
|------------------------------------------------------------------------------------------------------|----------------|----------|--------|
| CA.GZA.AA24                                                                                          | Double effect  |          | 115 g  |
| CA.GZA.AA24.NO                                                                                       | Normally Open  |          | 151 g  |
|  CA.GZA.AA24.NOS2 |                | KT58REQD |        |
|  CA.GZA.AA24.NOSN |                | KT58NM8  |        |
|  CA.GZA.AA24.NOSP |                | KT58PM8  |        |

NOS2 / NOSN / NOSP

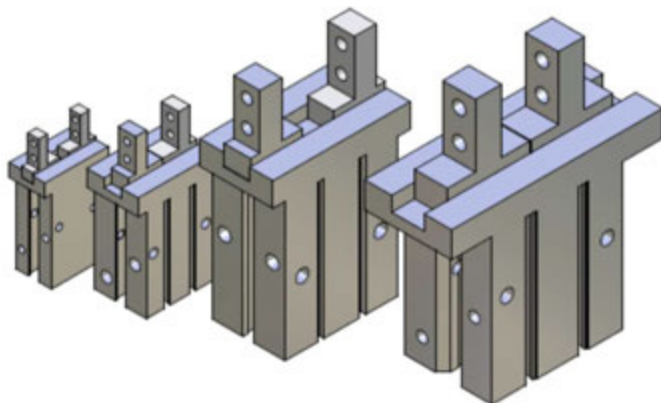


## CA.09.05 GS

**GS**

. Parallel gripper Easy GS

. Pinza parallela due griffe autocentranti Easy GS



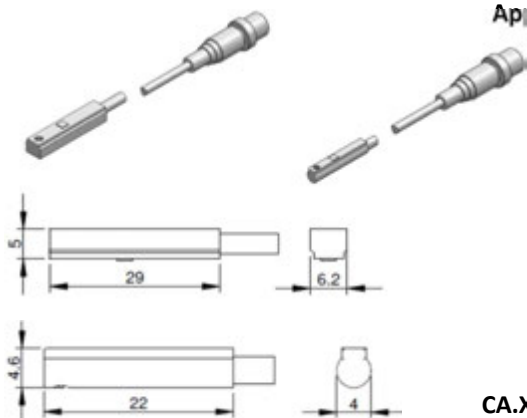
Remarks / Osservazioni:

Available also with closing spring (.NC) or with opening spring (.NO)

Disponibile anche con molla in chiusura (.NC) o con molla in apertura (.NO)

| Article no.                                        | Bore size | Stroke | Opening total gripping force | Closing total gripping force | Sensor (Optional)                        |                                          | Weight |
|----------------------------------------------------|-----------|--------|------------------------------|------------------------------|------------------------------------------|------------------------------------------|--------|
|                                                    |           |        |                              |                              | PNP                                      | NPN                                      |        |
| CA.09.05.009<br>CA.09.05.009.NC<br>CA.09.05.009.NO | 10        | 4      | 22 N                         | 34 N                         | DS1HPC08                                 | DS1HNC08                                 | 55 g   |
| CA.09.05.009.L                                     |           | 8      |                              |                              | SMC.D.Y7PSAPC                            | SMC.D-Y59ASAPC                           | 60 g   |
| CA.09.05.010<br>CA.09.05.010.NC<br>CA.09.05.010.NO | 16        | 6      | 68 N                         | 90 N                         | KT38PM8<br>KT38P3M<br>KT58PM8<br>KT58P3M | KT38NM8<br>KT38N3M<br>KT58NM8<br>KT58N3M | 135 g  |
| CA.09.05.010.L                                     |           | 12     |                              |                              |                                          |                                          |        |
| CA.09.05.011<br>CA.09.05.011.NC<br>CA.09.05.011.NO | 20        | 10     | 84 N                         | 132 N                        |                                          |                                          | 235 g  |
| CA.09.05.011.L                                     |           | 18     |                              |                              |                                          |                                          | 270 g  |
| CA.09.05.012<br>CA.09.05.012.NC<br>CA.09.05.012.NO | 25        | 14     | 130 N                        | 208 N                        |                                          |                                          | 430 g  |
| CA.09.05.012.L                                     |           | 22     |                              |                              |                                          |                                          | 470 g  |
| CA.09.05.013                                       | 32        | 22     | 316 N                        | 386 N                        |                                          |                                          | 715 g  |
| CA.09.05.014                                       | 40        | 30     | 508 N                        | 636 N                        |                                          |                                          | 1275 g |

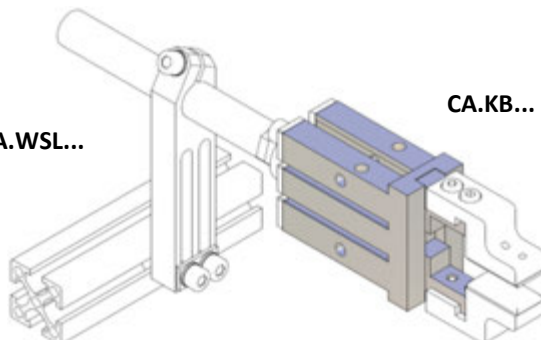
### Application example / Esempio applicativo



CA.WSL...

CA.KB...

CA.X.../CA.JU...

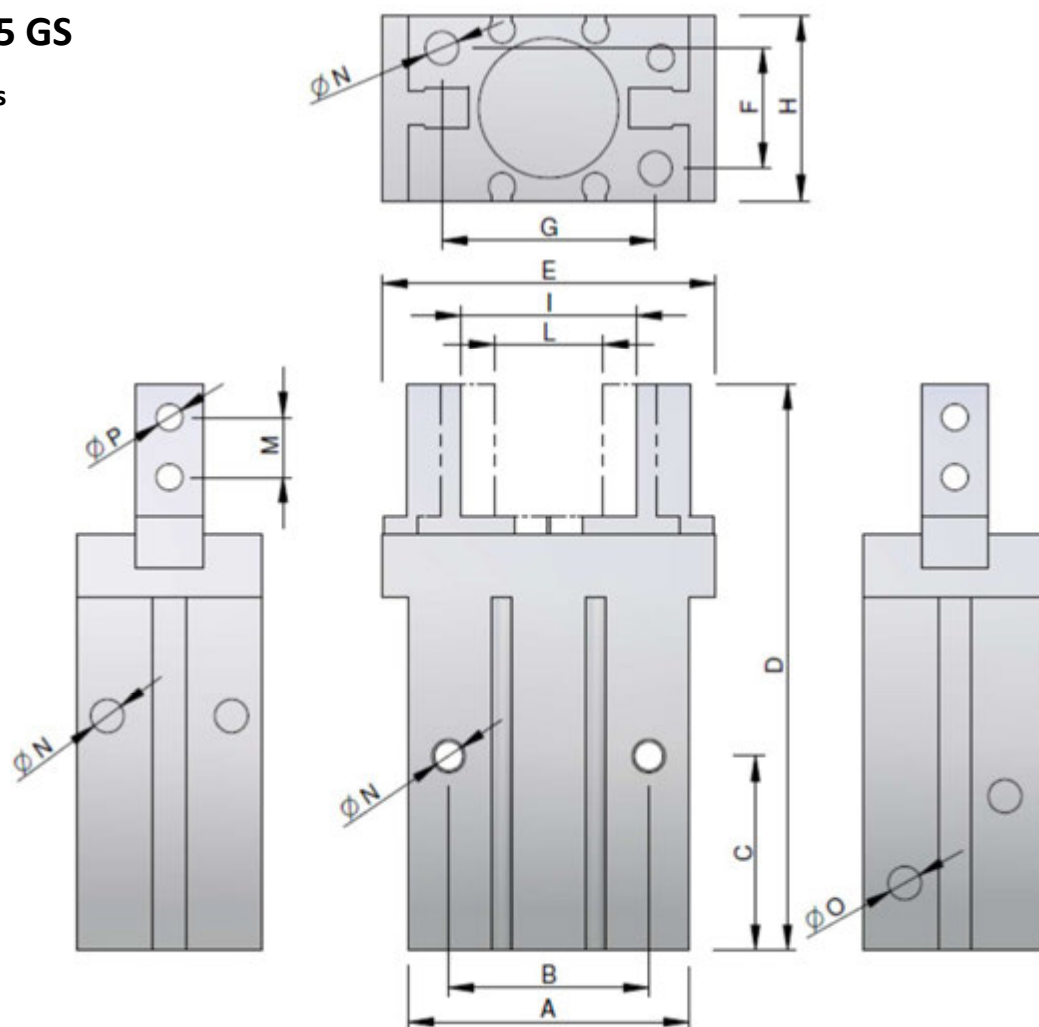


## CA.09.05 GS

. Dimensions

**GS**

. Dimensioni



| Article no.     | Bore size | A    | B  | C    | D     | E   | F  | G  | H    | I open | L closed | Stroke | M   | N  | O  | P    |
|-----------------|-----------|------|----|------|-------|-----|----|----|------|--------|----------|--------|-----|----|----|------|
| CA.09.05.009    | 10        | 23   | 16 | 23   | 57    | 29  | 12 | 18 | 16.4 | 16.5   | 11       | 4      | 5.7 | M3 | M3 | M2.5 |
| CA.09.05.009.NC |           |      |    | 25   | 57    | 35  |    |    |      | 20.3   |          | 8      |     |    |    |      |
| CA.09.05.009.NO |           |      |    | 25   | 57    | 35  |    |    |      | 20.3   |          | 8      |     |    |    |      |
| CA.09.05.010    | 16        | 30.6 | 24 | 24.5 | 67.3  | 38  | 15 | 22 | 23.6 | 22     | 14.5     | 6      | 7   | M4 | M5 | M3   |
| CA.09.05.010.NC |           |      |    | 31   | 70    | 47  |    |    |      | 28     |          | 12     |     |    |    |      |
| CA.09.05.010.NO |           |      |    | 31   | 70    | 47  |    |    |      | 28     |          | 12     |     |    |    |      |
| CA.09.05.011    | 20        | 42   | 30 | 29   | 84.8  | 50  | 18 | 32 | 27.6 | 27.5   | 16       | 10     | 9   | M5 | M5 | M4   |
| CA.09.05.011.NC |           |      |    | 36   | 90    | 62  |    |    |      | 35.5   |          | 18     |     |    |    |      |
| CA.09.05.011.NO |           |      |    | 36   | 90    | 62  |    |    |      | 35.5   |          | 18     |     |    |    |      |
| CA.09.05.012    | 25        | 52   | 36 | 30   | 102.7 | 63  | 22 | 40 | 33.6 | 34.5   | 19       | 14     | 12  | M6 | M5 | M5   |
| CA.09.05.012.NC |           |      |    | 40   | 106   | 75  |    |    |      | 42.6   |          | 22     |     |    |    |      |
| CA.09.05.012.NO |           |      |    | 40   | 106   | 75  |    |    |      | 42.6   |          | 22     |     |    |    |      |
| CA.09.05.012.L  |           |      |    | 40   | 106   | 75  |    |    |      | 42.6   |          | 22     |     |    |    |      |
| CA.09.05.013    | 32        | 60   | 46 | 40   | 113   | 97  | 26 | 46 | 40   | 47     | 26       | 22     | 14  | M6 |    | M6   |
| CA.09.05.014    | 40        | 72   | 56 | 49   | 139   | 119 | 32 | 56 | 48   | 61     | 30       | 30     | 17  | M8 |    | M8   |

## CA.09 APGE

**GS**

. Adapter for parallel gripper GS

. Staffa per pinze parallele GS

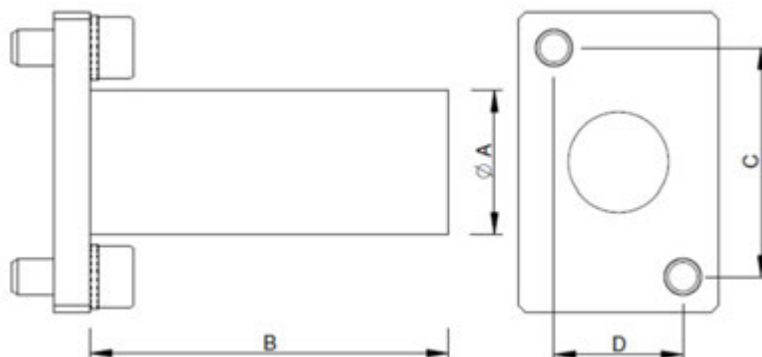
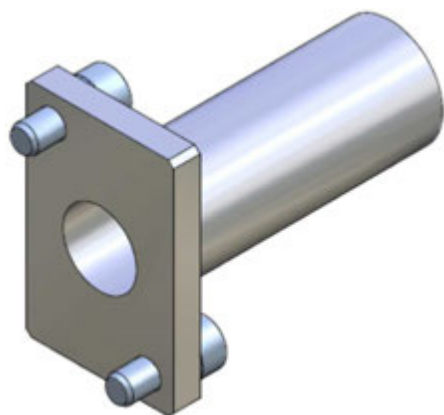


Table / Tabella

**M** = Suitable for GS...  
Applicabile a GS...

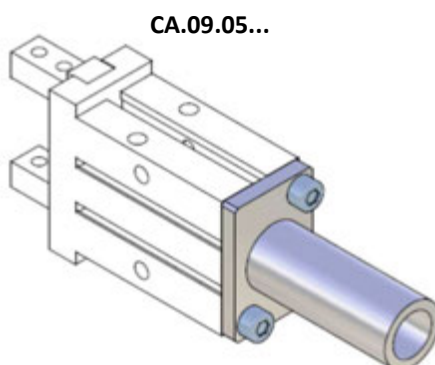
| Article no.      | A  | B  | C  | D  | M                | Weight |
|------------------|----|----|----|----|------------------|--------|
| CA.APGE.10.10.30 | 10 | 30 | 18 | 12 | CA.09.05.009 / L | 11 g   |
| CA.APGE.16.14.40 | 14 | 40 | 22 | 15 | CA.09.05.010 / L | 21 g   |
| CA.APGE.20.20.50 | 20 | 50 | 32 | 18 | CA.09.05.011 / L | 38 g   |
| CA.APGE.25.20.50 |    |    | 40 | 22 | CA.09.05.012 / L | 55 g   |
| CA.APGE.32.20.50 |    |    | 46 | 26 | CA.09.05.013     | 102 g  |
| CA.APGE.40.20.50 |    |    | 56 | 32 | CA.09.05.014     | 140 g  |

Remarks / Osservazioni:

Material / Materiale:  
Aluminium / Alluminio

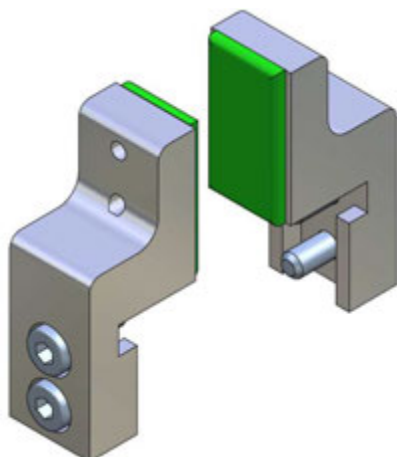
Surface: Silver anodized  
Superficie: Argento anodizzato

Application example / Esempio applicativo

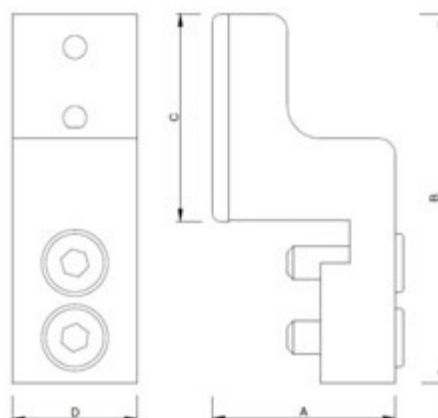


## CA.09 KB

. Jaws for Parallel Gripper GS (complete)



. Dita per pinza parallela GS (complete)



| Article no.                                                                                  | Insert        | A    | B    | C    | D  | M                | Weight |
|----------------------------------------------------------------------------------------------|---------------|------|------|------|----|------------------|--------|
| CA.KB.10                                                                                     | GRF14.95.08   | 15.5 | 27   | 14   | 10 | CA.09.05.009 / L | 14 g   |
| CA.KB.16                                                                                     | GRF20.95.08   | 18.5 | 35   | 20   | 15 | CA.09.05.010 / L | 28 g   |
| CA.KB.20                                                                                     | PAC.20.16P.03 | 22   | 44.5 | 25   | 20 | CA.09.05.011 / L | 41 g   |
| CA.KB.25                                                                                     | PAC.20.16P.03 | 29   | 55   | 25   | 20 | CA.09.05.012 / L | 73 g   |
|  CA.KB.32 | ...           | 36   | 65.5 | 16.5 | 25 | CA.09.05.013     | 166 g  |

Table / Tabella

M = Suitable for CA.09.05...  
Applicabile a CA.09.05...

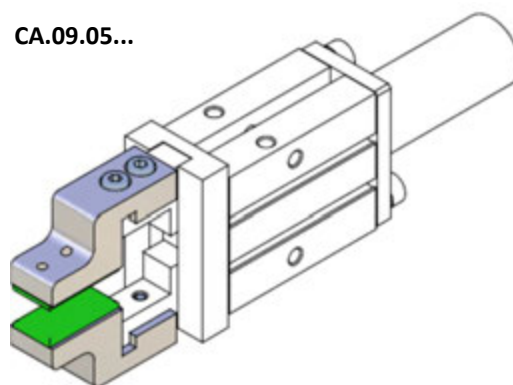
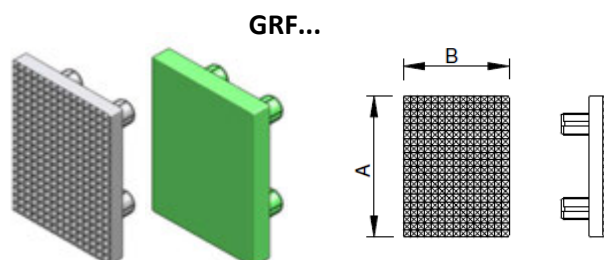
Remarks / Osservazioni:

Material / Materiale:  
Aluminium / Alluminio

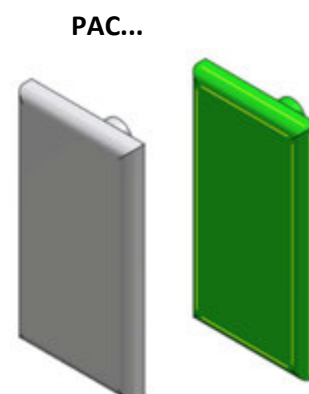
Surface: Silver anodized  
Superficie: Argento anodizzato

. Insert

Application example / Esempi applicativo



| Article no.     |       | Colour | A  | B  | M                    | Weight |
|-----------------|-------|--------|----|----|----------------------|--------|
| GRF14.95.08     | TPU   | Grey   | 14 | 10 | CA.KB.10             | 1 g    |
| GRF20.95.08     |       |        | 20 | 15 | CA.KB.16             | 2 g    |
| PAC.20.16P.03   |       |        | 25 | 13 | CA.KB.20<br>CA.KB.25 | 3 g    |
| GRF14.95.08.V   | VITON | Green  | 14 | 10 | CA.KB.10             | 1 g    |
| GRF20.95.08.V   |       |        | 20 | 15 | CA.KB.16             | 2 g    |
| PAC.20.16P.03.V |       |        | 25 | 13 | CA.KB.20<br>CA.KB.25 | 3 g    |

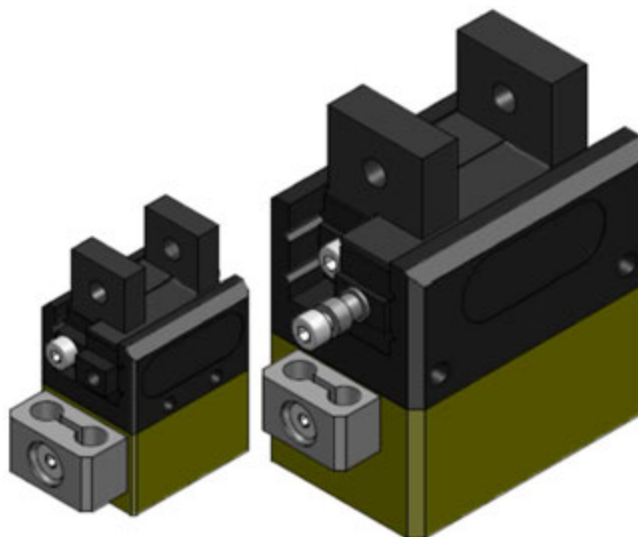


## CA.09 MPG

. Parallel gripper

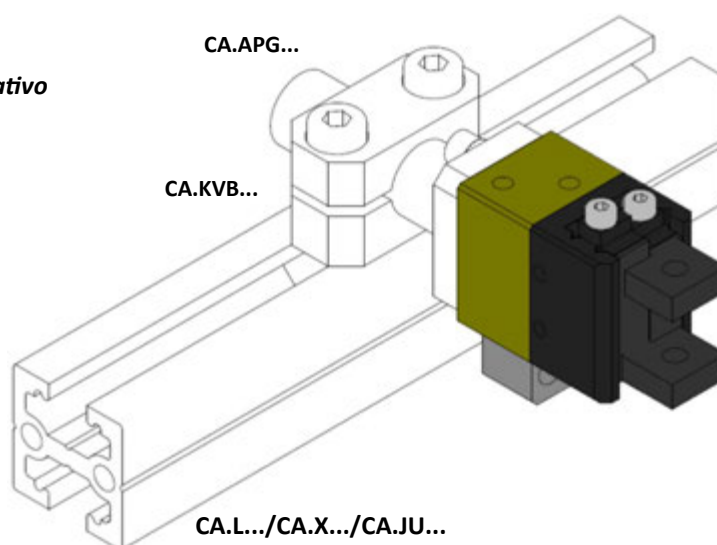
## MPG

. *Pinza parallela*



| Article no. | Stroke | Opening total gripping force | Closing total gripping force | Weight |
|-------------|--------|------------------------------|------------------------------|--------|
| CA.MPG.20   | 4      | 24 N                         | 28 N                         | 40 g   |
| CA.MPG.25   | 6      | 28 N                         | 31 N                         | 60 g   |
| CA.MPG.32   | 8      | 55 N                         | 65 N                         | 120 g  |
| CA.MPG.40   | 12     | 90 N                         | 110 N                        | 200 g  |
| CA.MPG.50   | 16     | 155 N                        | 175 N                        | 350 g  |
| CA.MPG.64   | 20     | 190 N                        | 200 N                        | 600 g  |

Application example / *Esempio applicativo*

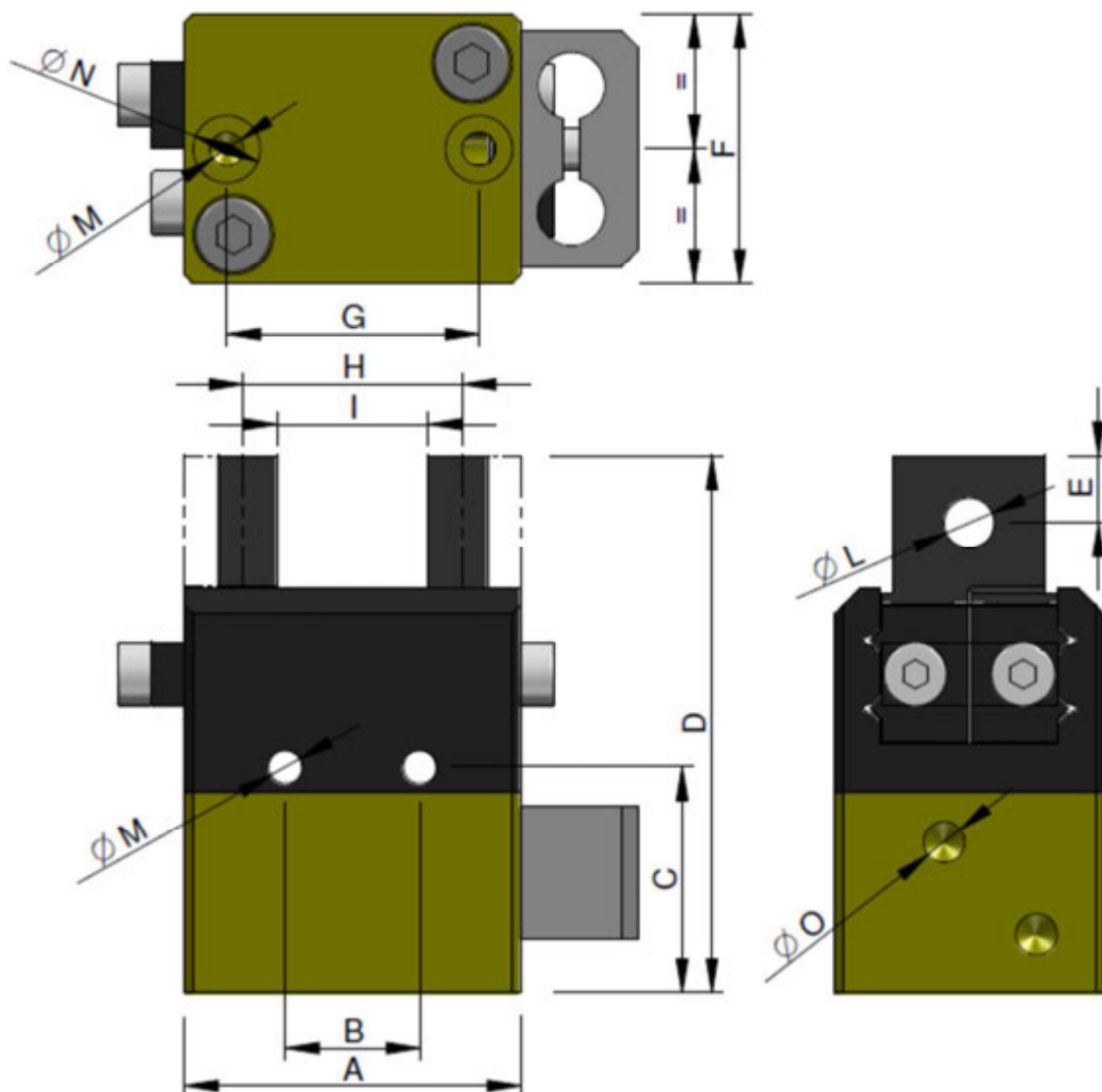


## CA.09 MPG

## MPG

### . Dimensions

### . Dimensioni



| Article no. | Bore size | A  | B  | C    | D  | E | F  | G  | H  | I  | L | M    | N | O  |
|-------------|-----------|----|----|------|----|---|----|----|----|----|---|------|---|----|
| CA.MPG.20   | 20        | 20 | 8  | 13.5 | 32 | 4 | 16 | 15 | 13 | 9  | 3 | M2.5 | 4 | M3 |
| CA.MPG.25   | 25        | 26 | 10 | 15   | 34 |   | 18 | 20 | 17 | 11 |   | M3   | 5 |    |
| CA.MPG.32   | 32        | 32 |    | 19   | 43 | 5 | 22 | 25 | 22 | 14 | 4 | M4   | 6 | M5 |
| CA.MPG.40   | 40        | 40 |    | 23.5 | 51 | 6 | 26 | 32 | 28 | 16 |   | M5   | 8 |    |
| CA.MPG.50   | 50        | 50 | 40 | 26.5 | 60 | 7 | 30 | 40 | 35 | 18 | 5 |      |   |    |
| CA.MPG.64   | 64        | 64 | 52 | 29   | 70 | 8 | 35 | 52 | 44 | 24 | 6 |      |   |    |

## CA.09 APG

## MPG

. Adapter for parallel gripper MPG

. Staffa per pinza parallela MPG

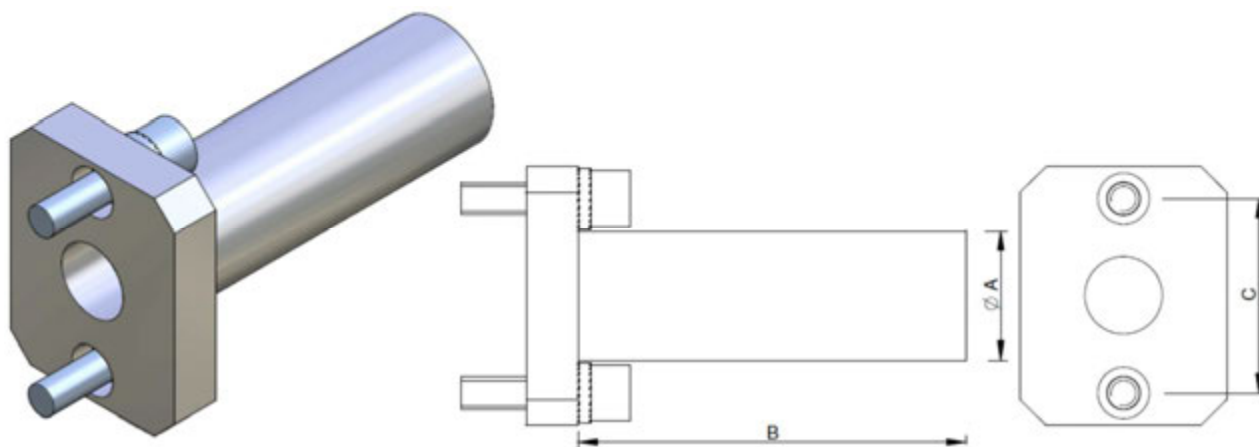


Table / Tabella

M = Suitable for MPG...  
Applicabile ai MPG...

| Article no.     | A  | B  | C  | M         | Weight |
|-----------------|----|----|----|-----------|--------|
| CA.APG.20.10.30 | 10 | 30 | 15 | CA.MPG.20 | 8 g    |
| CA.APG.25.14.40 | 14 | 40 | 20 | CA.MPG.25 | 16 g   |
| CA.APG.32.14.40 |    |    | 25 | CA.MPG.32 | 23 g   |
| CA.APG.40.14.50 |    | 30 | 32 | CA.MPG.40 | 22 g   |
| CA.APG.40.20.50 | 20 | 50 | 32 | CA.MPG.40 | 30 g   |
| CA.APG.50.20.50 |    |    | 40 | CA.MPG.50 | 48 g   |
| CA.APG.65.20.50 |    |    | 52 | CA.MPG.64 | 63 g   |

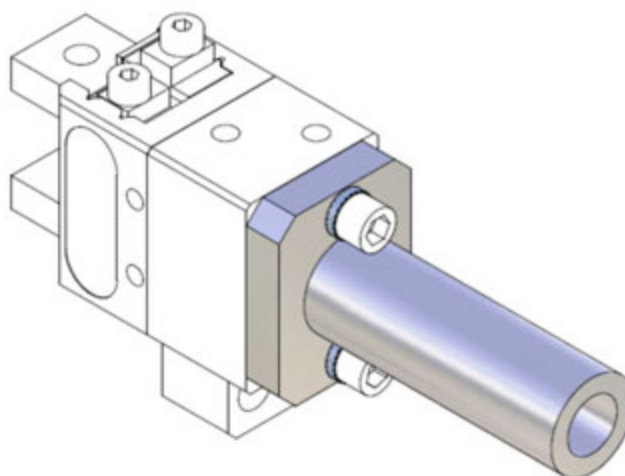
Remarks / Osservazioni:

Material / Materiale: Aluminium / Alluminio

Surface: Silver anodized  
Superficie: Argento anodizzato

Application example / Esempio applicativo

CA.MPG...

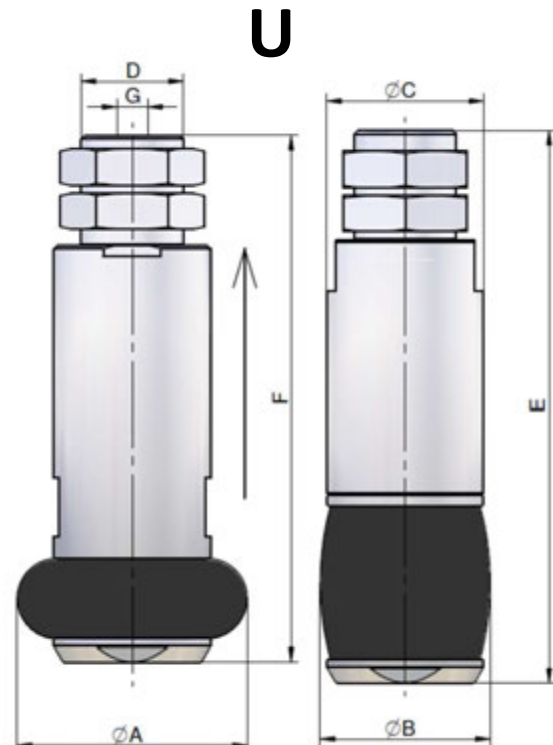
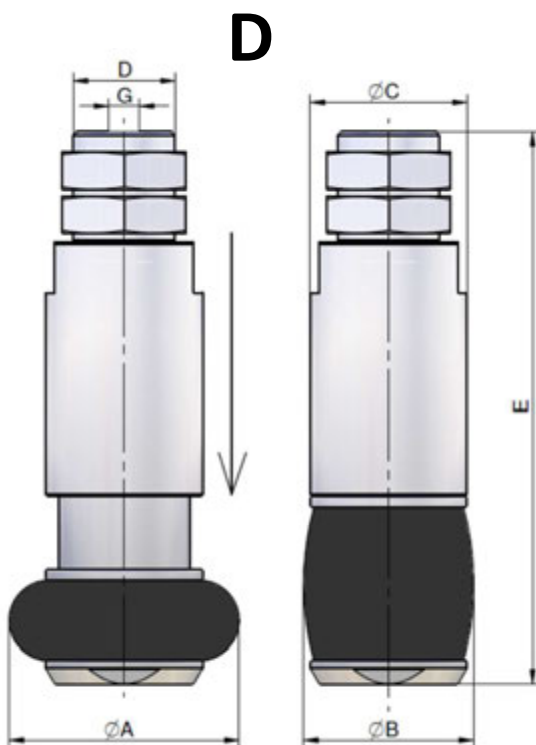
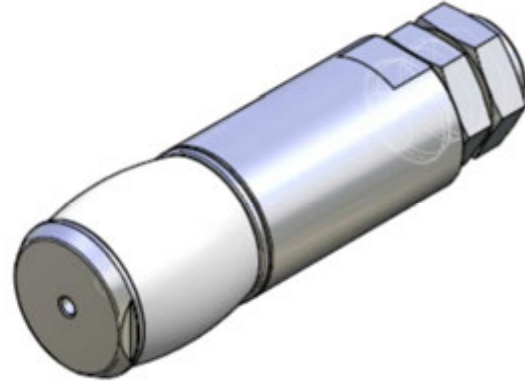
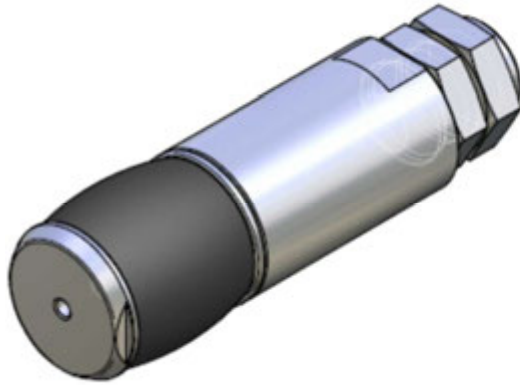




## CA.09 FS.DHEB

. Expansion Gripper

. Pinze ad Espansione



Remarks / Osservazioni:

Temperature resistance / Temperatura di resistenza

Neoprene (N)

**-18° to 52° C**

Silicone (S)

**-40° to 150° C**

Max. operating pressure/ Max. Pressione lavoro

**8 bar**

## CA.09 FS.DHEB

. Expansion Gripper

. Pinze ad Espansione

| Article no.        | Material          | Working range | A    | B    | C    | D       | E     | F     | G     | Weight |
|--------------------|-------------------|---------------|------|------|------|---------|-------|-------|-------|--------|
| FS.DHEB8EDEL/DSL   | EPDM/<br>SILICONE | 8-11 mm       | 11   | 8    | 14   | M10X1   | 52.7  | /     | M5    | 15 g   |
| FS.DHEB8EUDEL/USL  |                   |               |      |      |      |         | 57.5  | 53.5  |       | 16 g   |
| FS.DHEB10EDEL/DSL  |                   | 10.5-14 mm    | 14   | 10.5 |      |         | 54    | /     |       |        |
| FS.DHEB10EUDEL/USL |                   |               |      |      |      |         | 59    | 54    |       |        |
| FS.DHEB12EDEL/DSL  |                   | 13-17 mm      | 17   | 13   |      | M12X1   | 55.5  | /     |       | 18 g   |
| FS.DHEB12EUDEL/USL |                   |               |      |      |      | M10X1   | 60.5  | 55    |       |        |
| FS.DHEB14EDEL/DSL  |                   | 15-19.5 mm    | 19.5 | 15   |      | M12X1   | 56    | /     |       | 17 g   |
| FS.DHEB14EUDEL/USL |                   |               |      |      |      | M10X1   | 64    | 57    |       | 20 g   |
| FS.DHEB18EDEL/USL  |                   | 19,5-25 mm    | 25   | 19.5 | 18   | M12X1   | 65    | /     |       | 28 g   |
| FS.DHEB18EUDEL/USL |                   |               |      |      |      |         | 72.5  | 65    |       | 35 g   |
| FS.DHEB22EDEL/DSL  |                   | 24-31.5 mm    | 31.5 | 24   | 21.5 | M14X1   | 75.5  | /     | 43 g  |        |
| FS.DHEB22EUDEL/USL |                   |               |      |      |      |         | 82    | 72    | 50 g  |        |
| FS.DHEB27EDEL/DSL  |                   | 28-37 mm      | 37   | 28   | 25   | M16X1   | 88    | /     | 79 g  |        |
| FS.DHEB27EUDEL/USL |                   |               |      |      |      |         | 98    | 86    | 100 g |        |
| FS.DHEB33EDEL/DSL  |                   | 34-45 mm      | 45   | 34   | 30   | M22X1.5 | 109   | /     | G1/8  | 118 g  |
| FS.DHEB33EUDEL/USL |                   |               |      |      |      |         | 116   | 101,5 |       | 130 g  |
| FS.DHEB41EDEL/DSL  |                   | 42-54 mm      | 54   | 42   | 40   |         | 126.5 | /     |       | 280 g  |
| FS.DHEB41EUDEL/USL |                   |               |      |      |      |         | 131   | 115.5 |       | 300 g  |
| FS.DHEB51EDEL/DSL  |                   | 54-68 mm      | 68   | 54   | 50   | M26X1.5 | 159   | /     |       | 490 g  |
| FS.DHEB51EUDEL/DSL |                   |               |      |      |      |         | 160   | 142   |       | 500 g  |
| FS.DHEB63EDEL/DSL  | 66-85 mm          | 85            | 66   | 60   | 189  |         | /     | 800 g |       |        |
| FS.DHEB63EUDEL/USL |                   |               |      |      | 185  |         | 160   | 785 g |       |        |

## CA.09.13

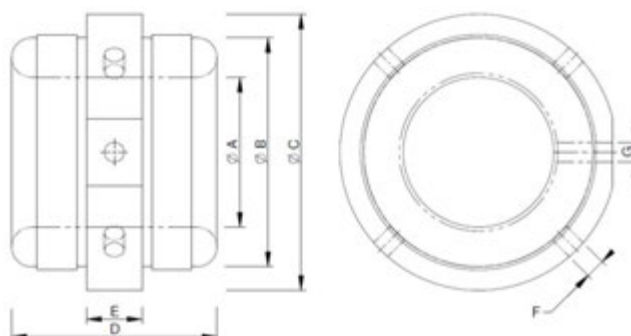
. Airgripper

## FIRESTONE

. Pinza ad espansione per esterni

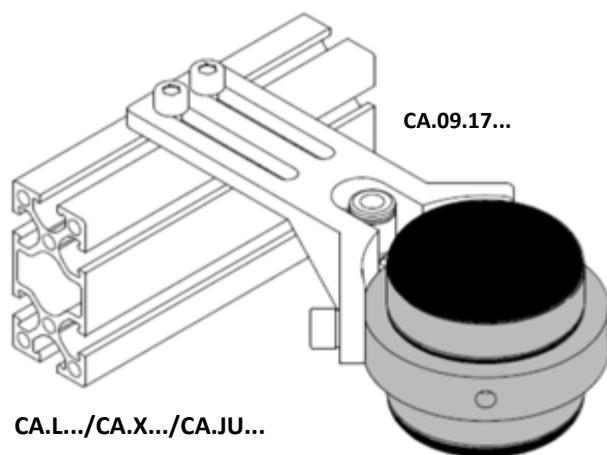


Firestone



| Article no.                        | FIRESTONE Code               | Material                     | Working range | Maximum restricted pressure allowed | A  | B  | C  | D  | E  | F  | G        | Weight |
|------------------------------------|------------------------------|------------------------------|---------------|-------------------------------------|----|----|----|----|----|----|----------|--------|
| CA.09.13.05.15<br>CA.09.13.05.15.S | WP1-M58-5001<br>WP1-M58-5005 | Neoprene (N)<br>Silicone (S) | 5-15 mm       | 1.5 bar<br>1.0 bar                  | 19 | 33 | 40 | 36 | 10 | M5 | M5       | 60 g   |
| CA.09.13.10.25<br>CA.09.13.10.25.S | WP1-M58-5002<br>WP1-M58-5006 | Neoprene (N)<br>Silicone (S) | 10-25 mm      | 1.5 bar<br>1.0 bar                  | 27 | 48 | 60 | 48 | 13 | M6 | M6       | 145 g  |
| CA.09.13.15.35<br>CA.09.13.15.35.S | WP1-M58-5003<br>WP1-M58-5007 | Neoprene (N)<br>Silicone (S) | 15-35 mm      | 1.5 bar<br>1.0 bar                  | 37 | 58 | 70 | 52 | 14 | M5 | M6       | 210 g  |
| CA.09.13.20.45<br>CA.09.13.20.45.S | WP1-M58-5004<br>WP1-M58-5008 | Neoprene (N)<br>Silicone (S) | 20-45 mm      | 1.5 bar<br>1.0 bar                  | 48 | 69 | 80 | 56 | 15 | M8 | G<br>1/8 | 285 g  |

## Application example / Esempio applicativo



## Remarks / Osservazioni:

Temperature resistance / Temperatura di Resistenza

Neoprene (N)

-18° to 52° C

Silicone (S)

-30° to 160° C

Leaving few marks / Rimanenza di segni

(N) ☺

(S) ☹

## CA.09.13

### . Airgripper

Air Pressure 0 MPa

Air Pressure 0.05 MPa

Air Pressure 0.1 MPa

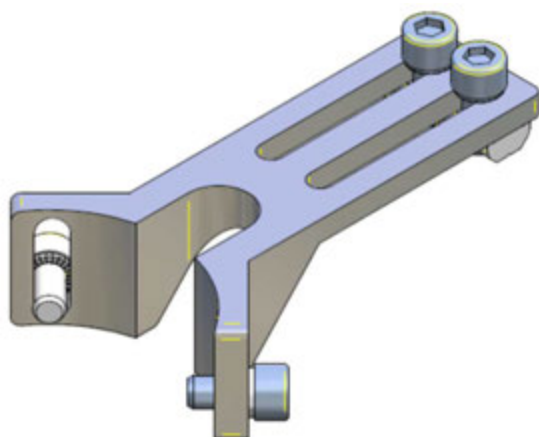


## FIRESTONE

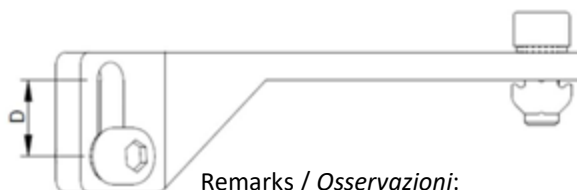
### . Pinza ad espansione per esterni

## CA.09.17

### . Mounting Brackets



### . Staffa per pinza



Remarks / Osservazioni:

Material / Materiali: Aluminium / Alluminio

Surface: Silver anodized  
Superficie: Argento anodizzato

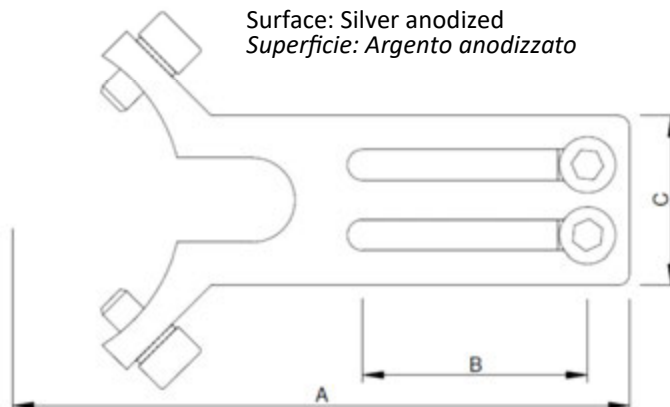


Table / Tabella

**M** = Suitable for CA.09.13...  
Applicabile ai CA.09.13...

**M1** = Suitable for PROFILE..  
Applicabile a PROFILO..

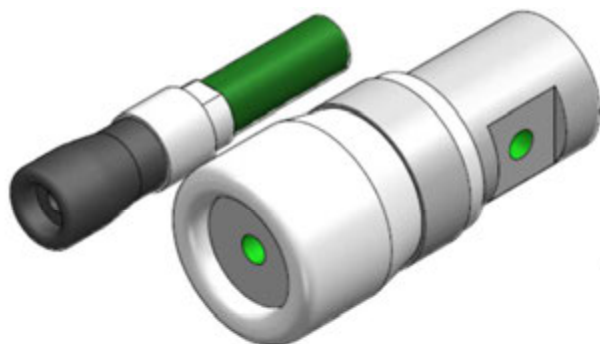
| Article no.     | M              | M1               | A   | B  | C  | D  | Weight |
|-----------------|----------------|------------------|-----|----|----|----|--------|
| CA.09.17.0515.X | CA.09.13.05.15 | CA.X.../CA.JU... | 100 | 40 | 25 | 15 | 31 g   |
| CA.09.17.1025.X | CA.09.13.10.25 |                  | 110 |    | 30 |    | 46 g   |
| CA.09.17.1535.X | CA.09.13.15.35 |                  | 115 |    | 40 |    | 57 g   |
| CA.09.17.2045.X | CA.09.13.20.45 |                  | 120 |    |    |    |        |

## CA.09.14

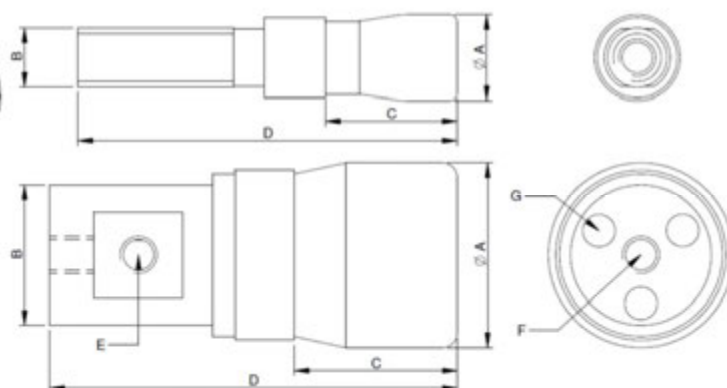
. Airpicker

## FIRESTONE

. Pinza ad espansione per interni



Firestone



| Article no.                  | FIRESTONE Code               | Material                     | Working range | Maximum restricted pressure allowe | A   | B   | C    | D   | E       | F    | G     | Weight |       |
|------------------------------|------------------------------|------------------------------|---------------|------------------------------------|-----|-----|------|-----|---------|------|-------|--------|-------|
| CA.09.14.06                  | WP1-M58-0001                 | Neoprene (N)                 | 8.5-10 mm     | 4 bar                              | 8   | M6  | 17.5 | 51  | /       | M3   | /     | 8 g    |       |
| CA.09.14.07                  | WP1-M58-0002                 |                              | 10-12 mm      |                                    | 9.5 |     |      |     | /       |      | /     | 12 g   |       |
| CA.09.14.09                  | WP1-M58-0003                 |                              | 12-17 mm      |                                    | 11  |     |      |     | M8X1.25 |      | /     | /      | 17 g  |
| CA.09.14.10                  | WP1-M58-0004                 |                              | 16-21 mm      |                                    | 14  | Ø10 | 21   | 52  | /       |      | 28 g  |        |       |
| CA.09.14.14<br>CA.09.14.14.S | WP1-M58-0005<br>WP1-M58-0024 | Neoprene (N)<br>Silicone (S) | 21-27 mm      | 5 bar<br>1.8 bar                   | 19  | Ø14 | 22   | 56  | M5      | M5   | /     | 60 g   |       |
| CA.09.14.17<br>CA.09.14.17.S | WP1-M58-0006<br>WP1-M58-0025 | Neoprene (N)<br>Silicone (S) | 24-32 mm      | 5 bar<br>1.8 bar                   | 22  | Ø17 |      |     |         |      | /     | 85 g   |       |
| CA.09.14.19<br>CA.09.14.19.S | WP1-M58-0007<br>WP1-M58-0018 | Neoprene (N)<br>Silicone (S) | 28-36 mm      | 5 bar<br>1.8 bar                   | 25  | Ø19 |      |     |         |      | 55    | /      | 105 g |
| CA.09.14.22<br>CA.09.14.22.S | WP1-M58-0008<br>WP1-M58-0026 | Neoprene (N)<br>Silicone (S) | 30-44 mm      | 5 bar<br>1.8 bar                   | 27  | Ø22 |      |     |         |      | 28    | 64     | /     |
| CA.09.14.25<br>CA.09.14.25.S | WP1-M58-0009<br>WP1-M58-0019 | Neoprene (N)<br>Silicone (S) | 32-52 mm      | 5 bar<br>1.8 bar                   | 29  | Ø25 | 34   | 76  |         |      | /     | 245 g  |       |
| CA.09.14.35<br>CA.09.14.35.S | WP1-M58-0011<br>WP1-M58-0028 | Neoprene (N)<br>Silicone (S) | 45-65 mm      | 5 bar<br>1.8 bar                   | 41  | Ø34 | 42   | 71  |         |      | G1/8  | M6     | /     |
| CA.09.14.45                  | WP1-M58-0012                 | Neoprene (N)                 | 58-85 mm      | 5 bar                              | 51  | Ø44 | 52   | 90  | M6      | 3-M6 | 370 g |        |       |
| CA.09.14.55                  | WP1-M58-0013                 |                              | 70-105 mm     |                                    | 63  | Ø54 | 53   | 101 |         |      | 610 g |        |       |

Remarks / Osservazioni:

Temperature resistance / Temperatura di resistenza

Neoprene (N)

-18° to 52° C

Silicone (S)

-30° to 160° C

Leaving few marks / Rimanenza di segni

(N) ☺

(S) ☹

## CA.09.14

## FIRESTONE

. Airpicker

. Pinza ad espansione per interni

Air Pressure 0 MPa



Air Pressure 0.15 MPa



Air Pressure 0.30 MPa



## CA.09.18

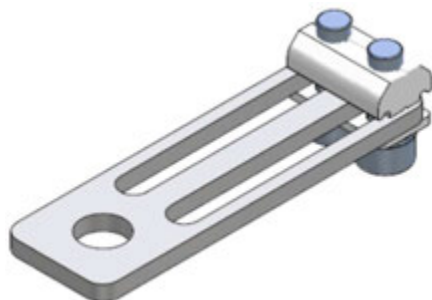
. Mounting Brackets

Remarks / Osservazioni:

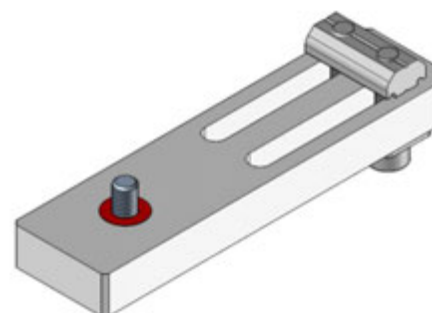
Material / Materiale: Aluminium / Alluminio

Surface: Silver anodized

Superficie: Argento anodizzato



. Staffa per pinza



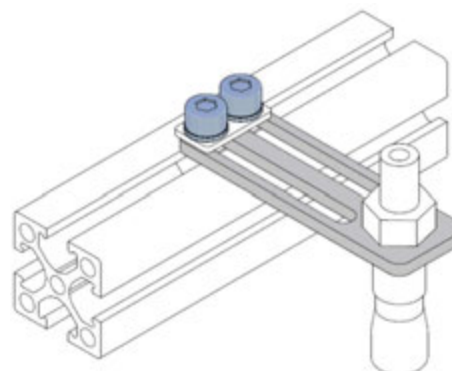
| Article no.      | M                                         | M1              | Weight |
|------------------|-------------------------------------------|-----------------|--------|
| CA.04.20.06.X    | CA.09.14.06<br>CA.09.14.07                | CA.L../ CA.X..  | 32 g   |
| CA.04.20.08.X    | CA.09.14.09                               |                 | 36 g   |
| CA.09.18.1014.X  | CA.09.14.10                               |                 | 48 g   |
| CA.09.18.1719.X  | CA.09.14.14<br>CA.09.14.17<br>CA.09.14.19 | CA.X../ CA.JU.. | 50 g   |
| CA.09.18.2225.X  | CA.09.14.22<br>CA.09.14.25                |                 | 77 g   |
| CA.09.18.35.JU   | CA.09.14.35                               |                 | 99 g   |
| CA.09.18.4555.JU | CA.09.14.45<br>CA09.14.55                 |                 | 227 g  |

Table / Tabella

**M** = Suitable for CA.09.14...  
Applicabile a CA.09.14...

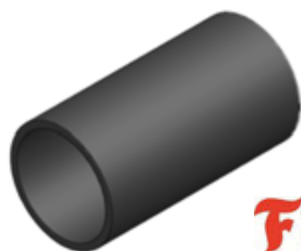
**M1** = Suitable for PROFILE...  
Applicabile a PROFILO...

Application example / Esempio applicativo

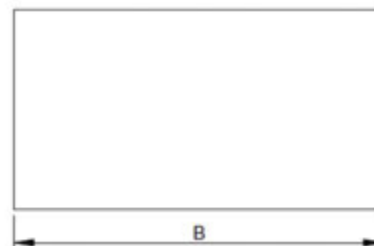
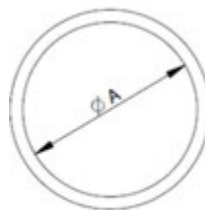


## CA.09.15

. Protective Sleeve



**Firestone**



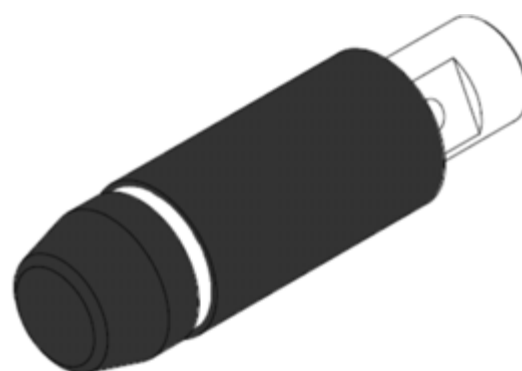
## FIRESTONE

. Guaina protettiva per pinza

Table / Tabella

M = Suitable for CA.09.14...  
Applicabile a CA.09.14...

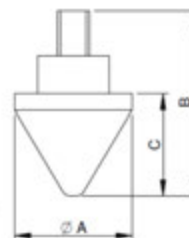
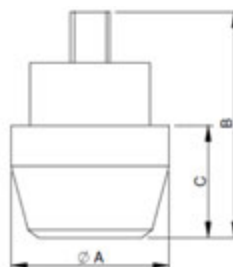
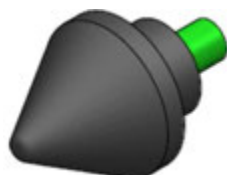
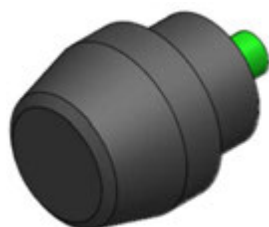
| Article no.  | FIRESTONE Code | A  | B  | M           | Weight |
|--------------|----------------|----|----|-------------|--------|
| CA.09.15.001 | WP1-358-1500   | 18 | 38 | CA.09.14.14 | 1 g    |
| CA.09.15.002 | WP1-358-1501   | 20 |    | CA.09.14.17 |        |
| CA.09.15.003 | WP1-358-1502   | 23 |    | CA.09.14.19 |        |
| CA.09.15.004 | WP1-358-1503   | 25 | 44 | CA.09.14.22 |        |
| CA.09.15.005 | WP1-358-1504   | 27 | 54 | CA.09.14.25 | 2 g    |
| CA.09.15.006 | WP1-358-1505   |    | 64 | CA.09.14.35 |        |
| CA.09.15.007 | WP1-358-1506   | 37 | 73 | CA.09.14.45 |        |
| CA.09.15.008 | WP1-358-1507   | 47 | 79 | CA.09.14.55 |        |



## CA.09.16

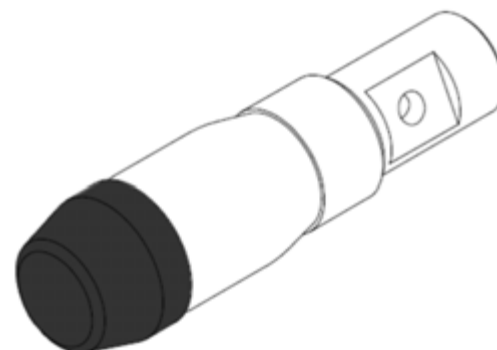
. Nose Cones

**Firestone**



. Punta conica per pinza

| Article no.  | FIRESTONE Code | A    | B    | C    | M           | Weight |
|--------------|----------------|------|------|------|-------------|--------|
| CA.09.16.001 | WP1-358-1006   | 14.7 | 23.1 | 12.7 | CA.09.14.10 | 3 g    |
| CA.09.16.002 | WP1-358-1016   | 19.8 | 28.3 | 14   | CA.09.14.14 | 5 g    |
| CA.09.16.003 | WP1-358-1017   | 22.9 |      |      | CA.09.14.17 | 6 g    |
| CA.09.16.004 | WP1-358-1018   | 27.9 |      |      | CA.09.14.19 |        |
| CA.09.16.005 | WP1-358-1019   | 28.7 | 29.3 |      | CA.09.14.22 | 7 g    |
| CA.09.16.006 | WP1-358-1020   | 29.7 |      |      | CA.09.14.25 | 8 g    |
| CA.09.16.007 | WP1-358-1021   | 42.7 | 32.6 | 17.3 | CA.09.14.35 | 10 g   |
| CA.09.16.008 | WP1-358-1022   | 51.6 |      |      | CA.09.14.45 | 12 g   |
| CA.09.16.009 | WP1-358-1023   | 63.8 |      |      | CA.09.14.55 | 14 g   |



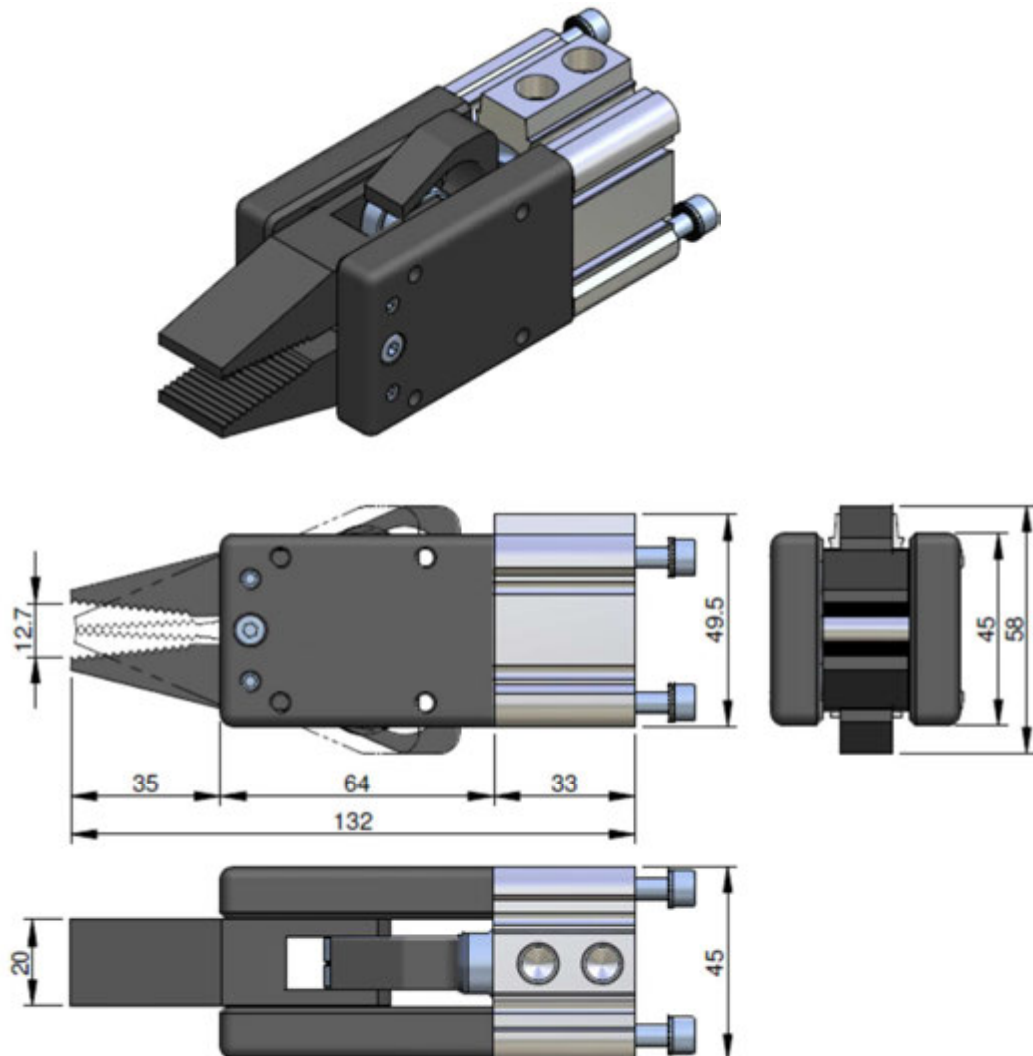


## CA.09 GZ

. Gripper high grip force

**GZ**

. Pinza ad alta forza di presa



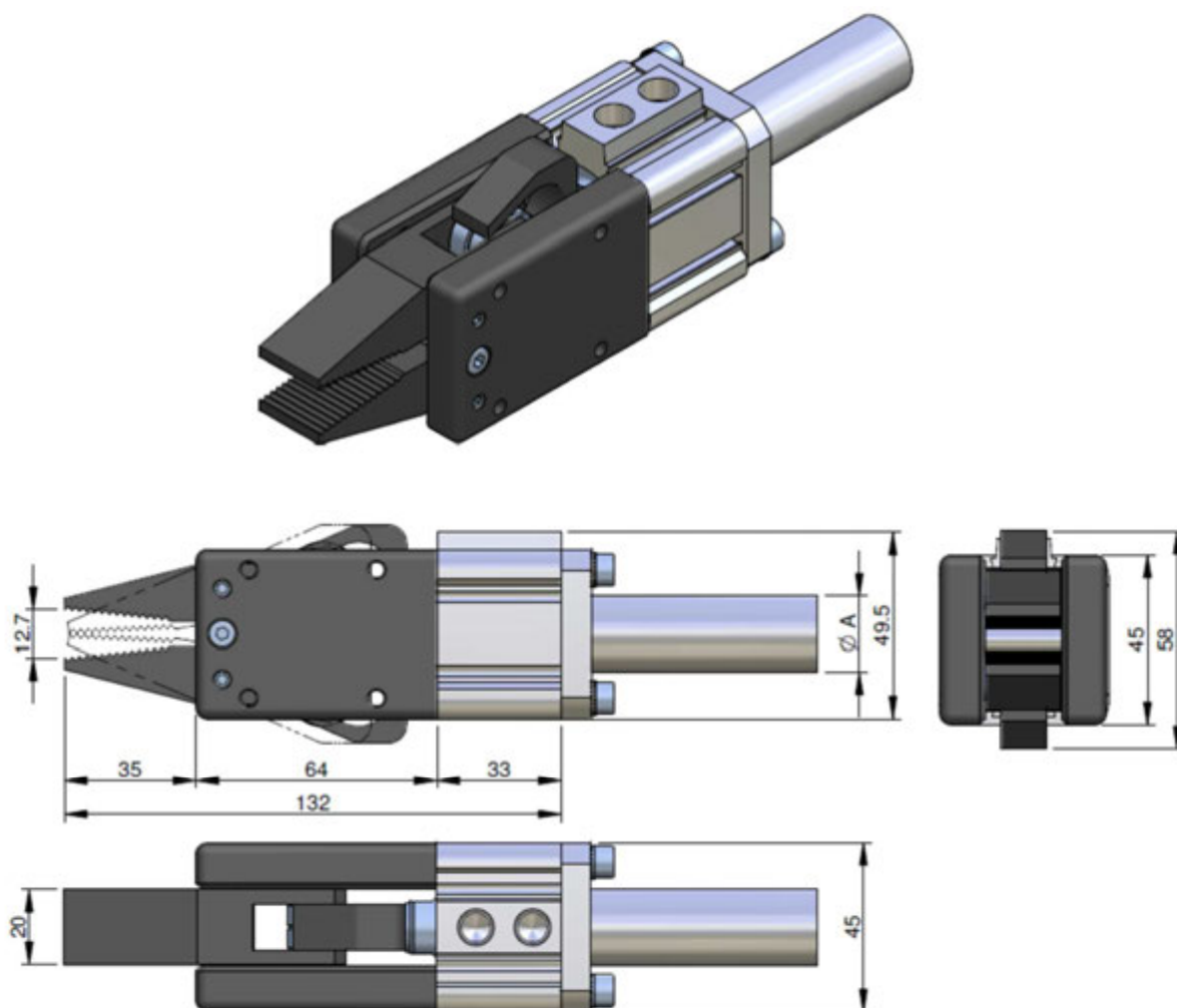
| Article no. | Closing force (at 6 bar) | Weight |
|-------------|--------------------------|--------|
| CA.GZ.32    | 350 N                    | 509 g  |

## CA.09 GZ

**GZ**

. Gripper high grip force

. Pinza ad alta forza di presa



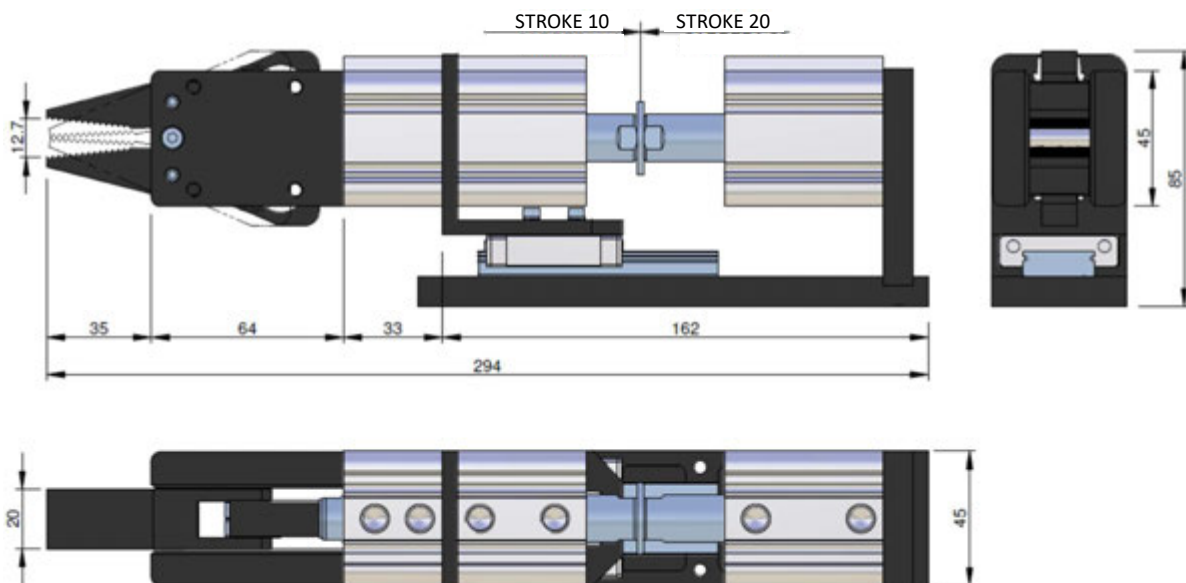
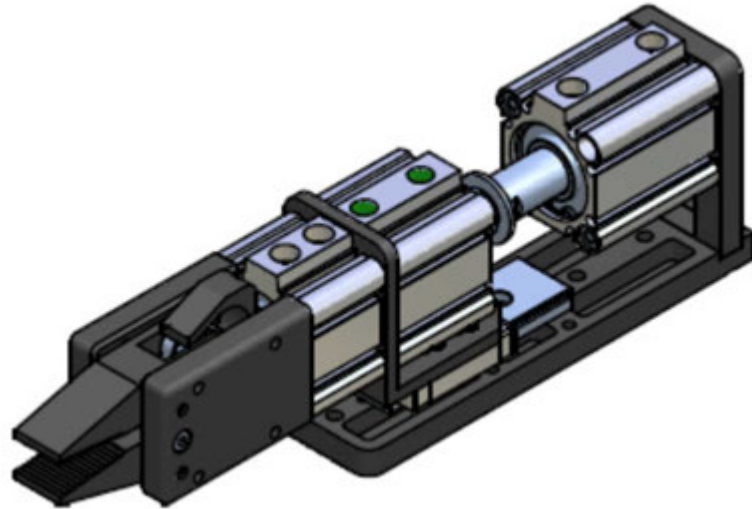
| Article no. | Closing force (at 6 bar) | A  | Weight |
|-------------|--------------------------|----|--------|
| CA.GZ.3220  | 350 N                    | 20 | 563 g  |
| CA.GZ.3225  |                          | 25 | 591 g  |

## CA.09 GZ

## GZ

. Gripper high grip force with double stroke

. Slitta doppia corsa con pinza



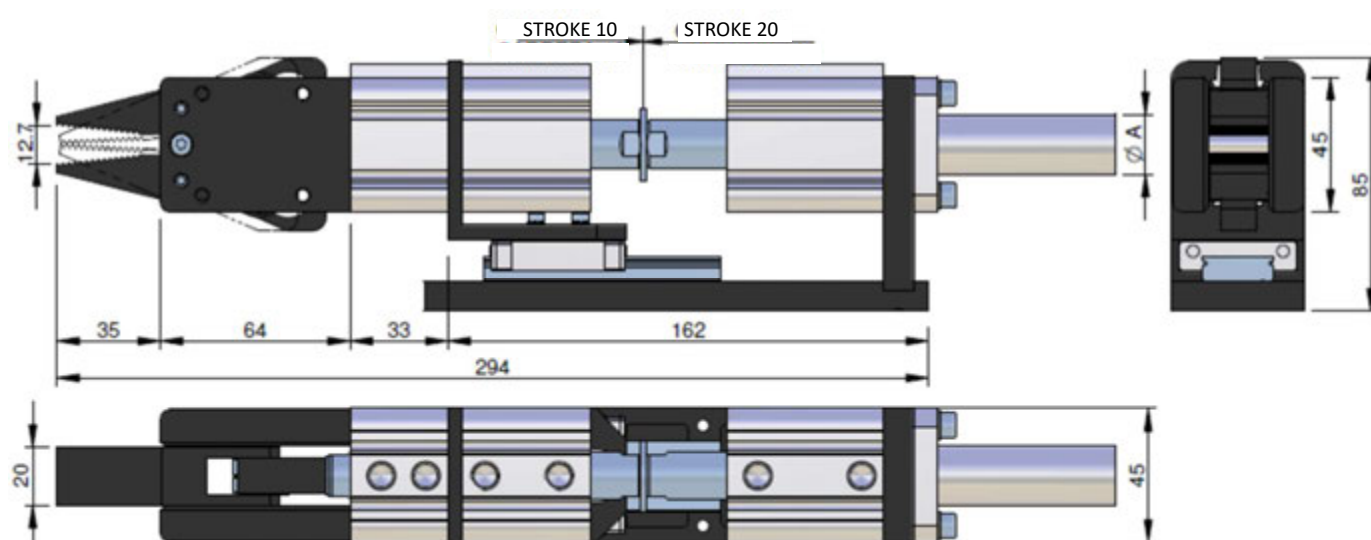
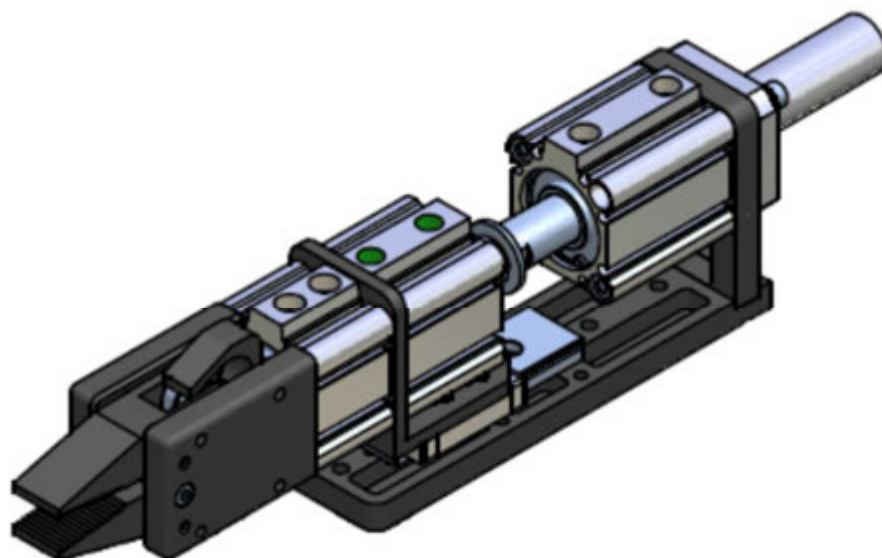
| Article no.  | Closing force (at 6 bar) | Weight |
|--------------|--------------------------|--------|
| CA.GZ.322010 | 350 N                    | 1400 g |

## CA.09 GZ

**GZ**

. Gripper high grip force with double stroke

. Slitta doppia corsa con pinza



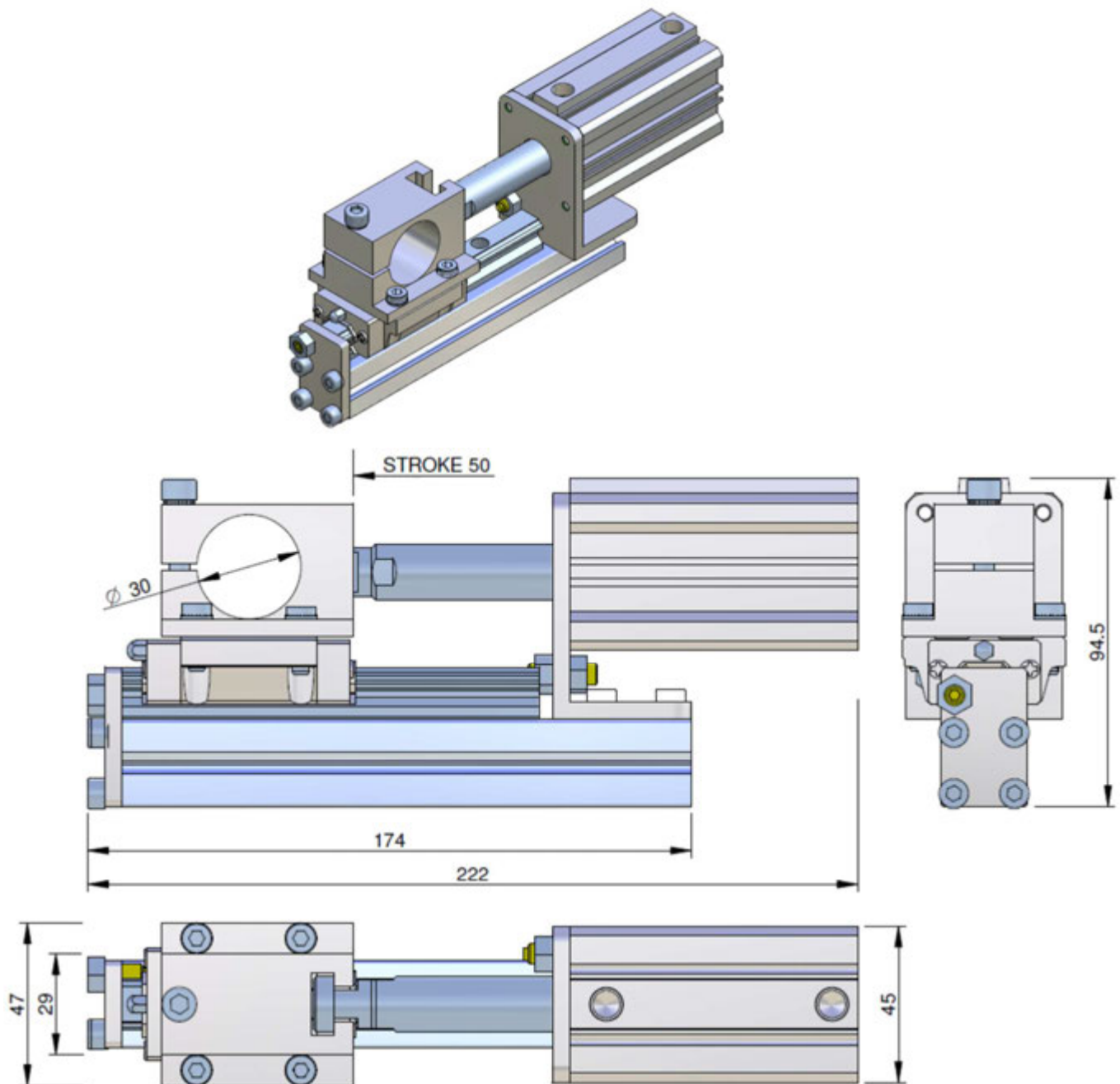
| Article no.    | Closing force (at 6 bar) | A  | Weight |
|----------------|--------------------------|----|--------|
| CA.GZ.32201020 | 350 N                    | 20 | 1455 g |
| CA.GZ.32201025 |                          | 25 | 1485 g |

## CA.09 HEH

. Linear Stroke Unit

## HEH

. Slitta per pinza



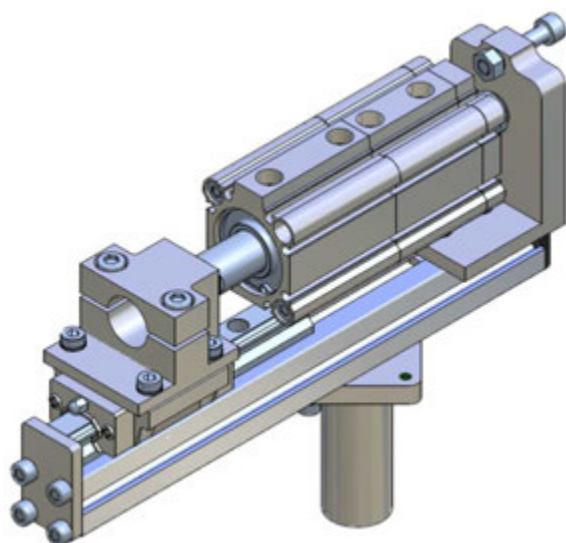
| Article no.  | Weight |
|--------------|--------|
| CA.HEH.30.50 | 1052 g |

## CA.09 UDHE

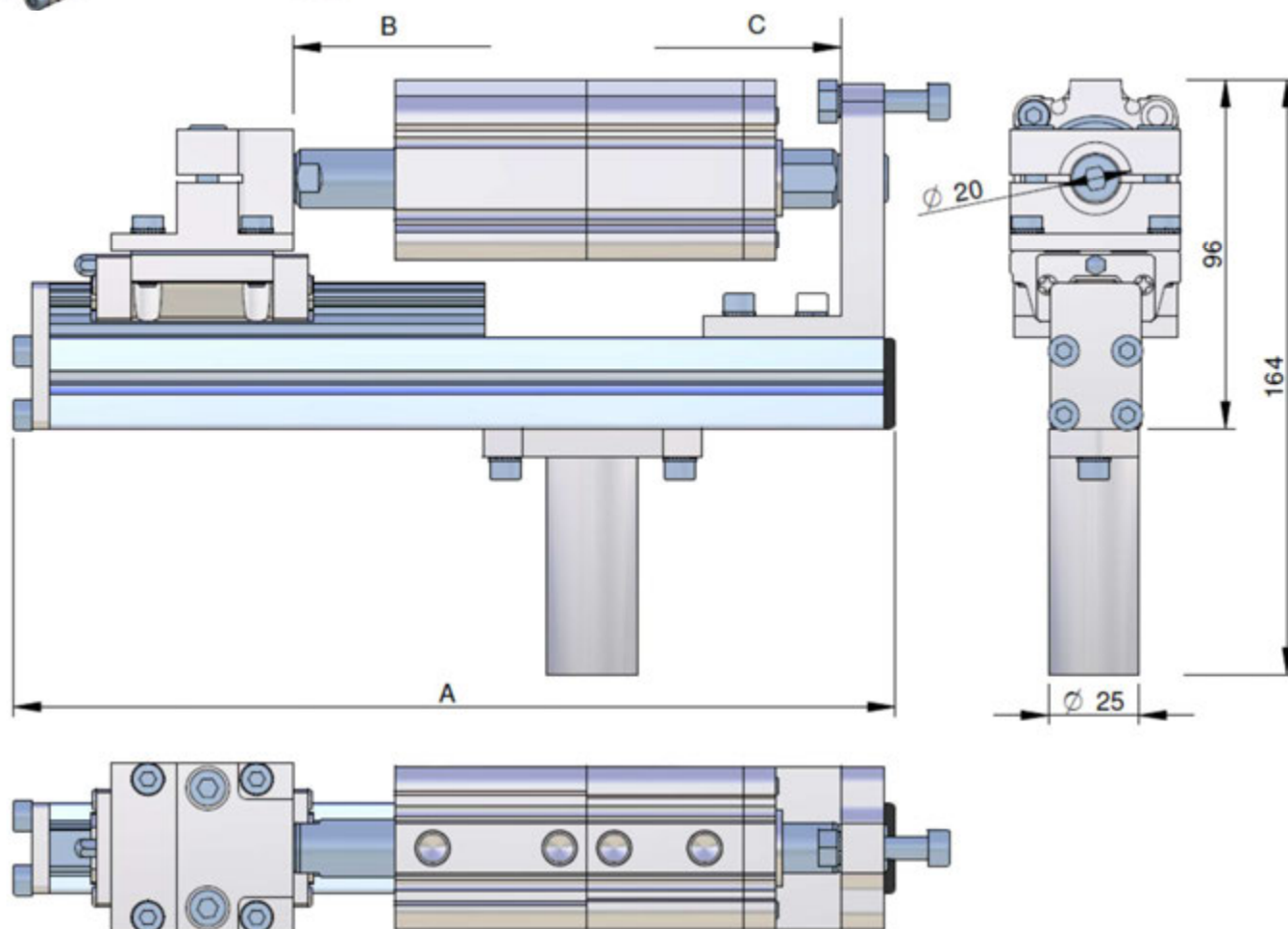
## UDHE

. Double Stroke Unit

. Slitta universale con doppia corsa



| Article no.      | A   | B  | C  |
|------------------|-----|----|----|
| CA.UDHE.32102020 | 243 | 20 | 10 |
| CA.UDHE.32203020 | 283 | 30 | 20 |



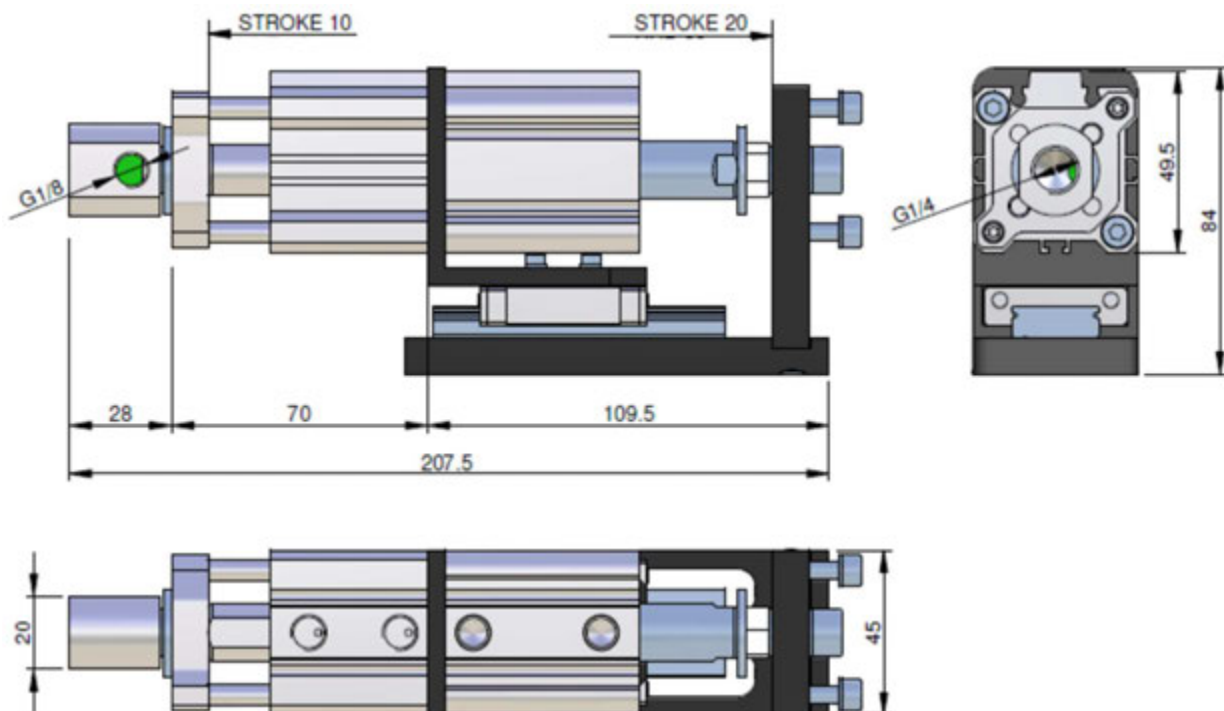
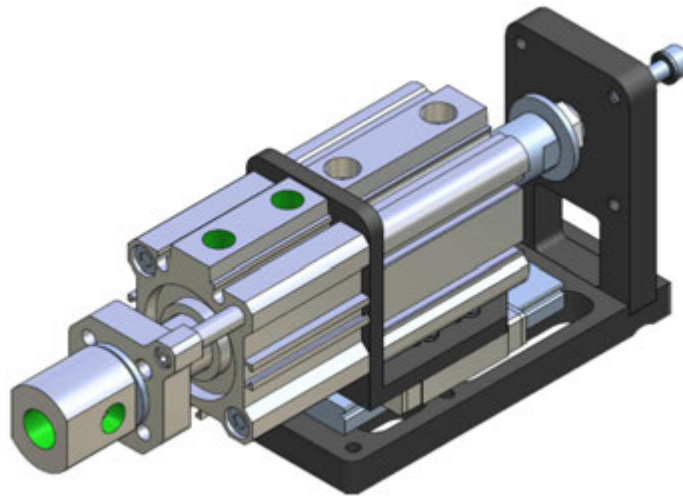
| Article no.      | Weight |
|------------------|--------|
| CA.UDHE.32102020 | 1375 g |
| CA.UDHE.32203020 | 1455 g |

## CA.09 BVAE

. Movable vacuum unit BVAE32  
with guided double stroke

## BVAE

. Slitta doppia corsa per ventosa



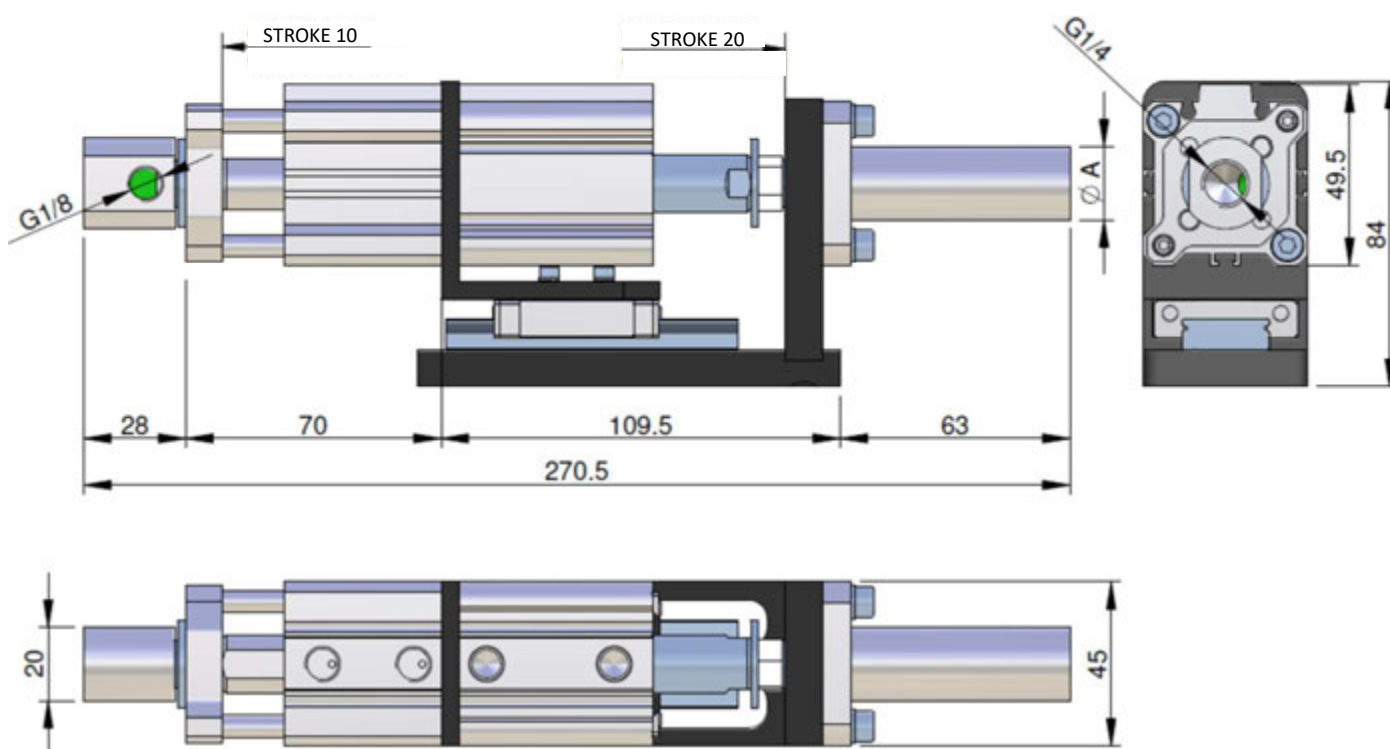
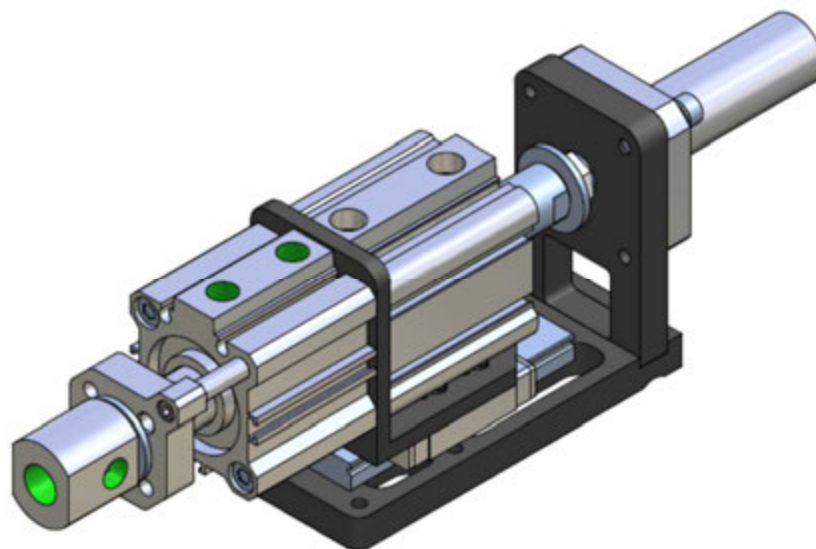
| Article no.    | Weight |
|----------------|--------|
| CA.BVAE.322010 | 988 g  |

## CA.09 BVAE

## BVAE

. Movable vacuum unit BVAE32  
with guided double stroke

. Slitta doppia corsa per ventosa



| Article no.      | A  | Weight |
|------------------|----|--------|
| CA.BVAE.32201020 | 20 | 1043 g |
| CA.BVAE.32201025 | 25 | 1073 g |

## CA.09 DB

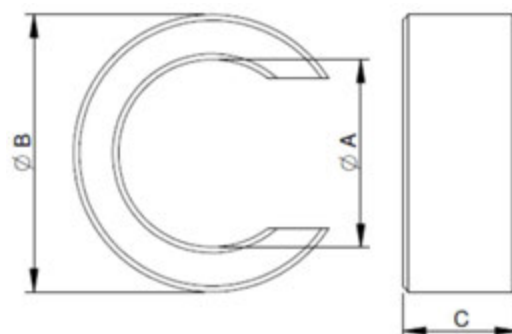
. Stroke Reducer

**GZ**

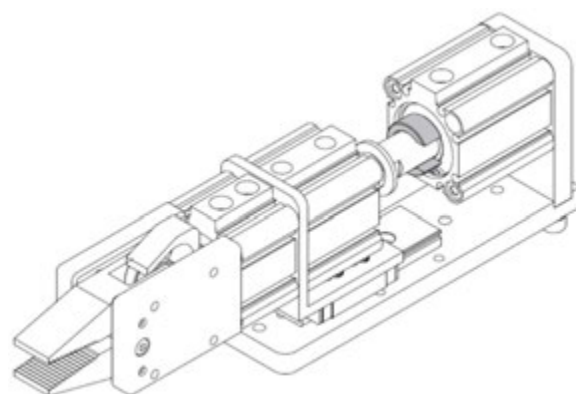
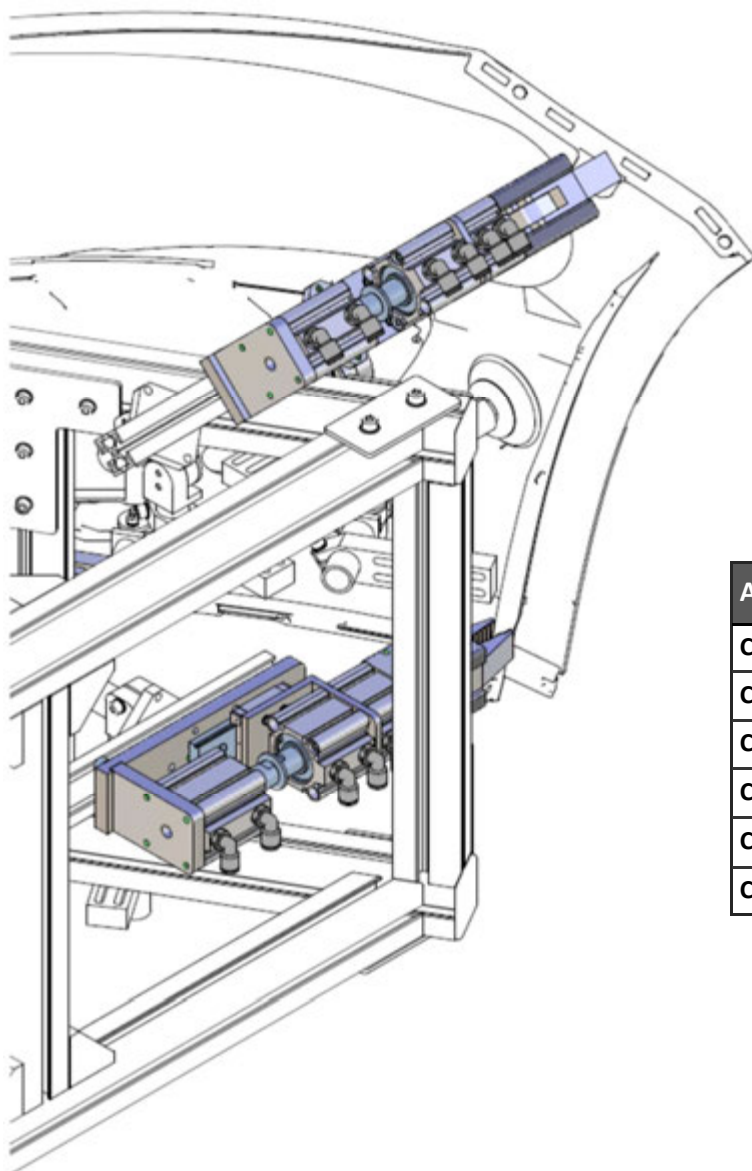
. Anello di riduzione corsa



Table / Tabella  
M = Suitable for GZ-11.17...  
Applicabile a GZ-11.17...



### Application example / Esempio applicativo



| Article no. | A  | B  | C  | M   | Weight |
|-------------|----|----|----|-----|--------|
| CA.DB.05.25 | 12 | 20 | 5  | Ø25 | 1 g    |
| CA.DB.10.25 |    |    | 10 |     | 2 g    |
| CA.DB.15.25 |    |    | 15 |     | 4 g    |
| CA.DB.05.32 | 16 | 24 | 5  | Ø32 | 1 g    |
| CA.DB.10.32 |    |    | 10 |     | 2 g    |
| CA.DB.15.32 |    |    | 15 |     | 3 g    |

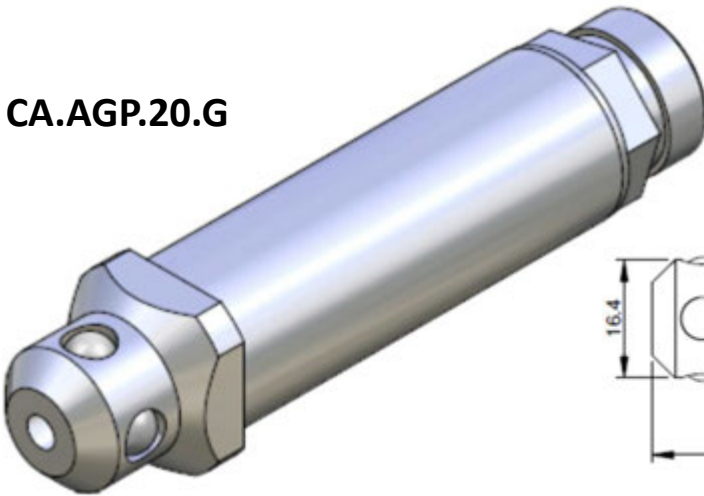


## CA.09 AGP

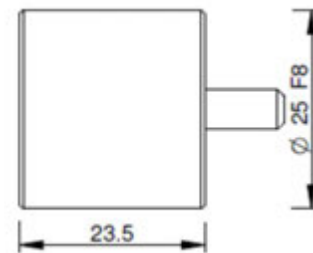
. Centering locking unit

. Pinza per aggancio e centraggio

### CA.AGP.20.G



### CA.AGP.20.M



#### Remarks / Osservazioni:

Single acting / *Effetto pneumatico semplice*  
The central blocking unit has an exact repeatability  
*L'unità centrale di bloccaggio fornisce l'esatta ripetibilità.*

High gripping force / *Alta forza di presa*

Compact unit / *Taglia compatta*

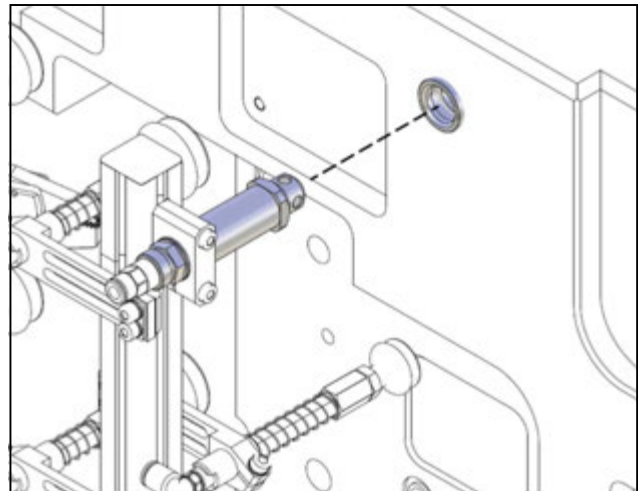
ISO H7 tolerance is used for positioning  
*Uso tolleranza H7 per l'inserimento nel pezzo.*

With a teachable sensor, the locked and unlocked state is sensed  
*Con un sensore regolabile, gli stati chiuso e aperto sono controllati.*

CLOSING FORCE AT 6 BAR 750 N

*FORZA DI CHIUSURA A 6 BAR 750 N*

#### Application example / Esempio applicativo



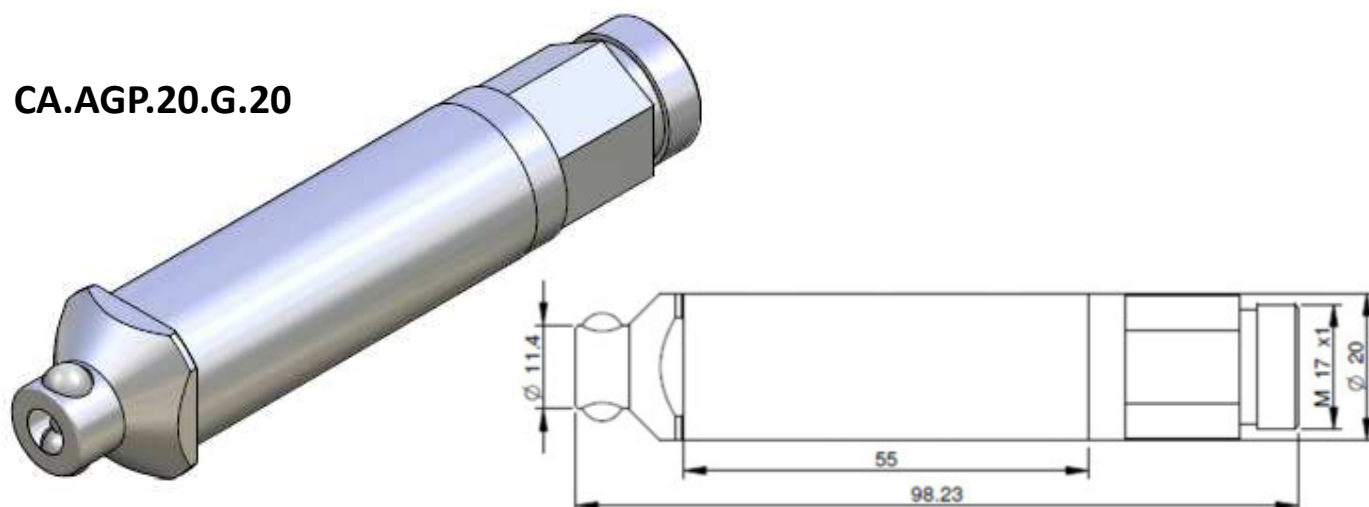
| Article no. |              | Weight |
|-------------|--------------|--------|
| CA.AGP.20.G | Gripper side | 93 g   |
| CA.AGP.20.M | Mould side   | 60 g   |

## CA.09 AGP

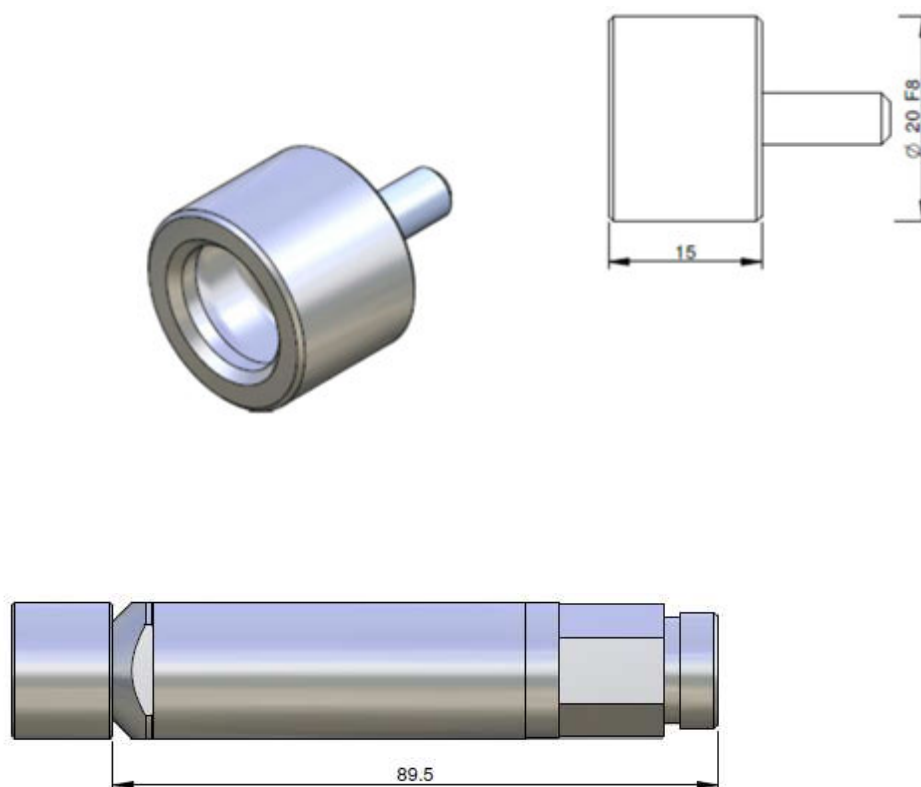
. Centering locking unit

. Pinza per aggancio e centraggio

### CA.AGP.20.G.20



### CA.AGP.20.M.20

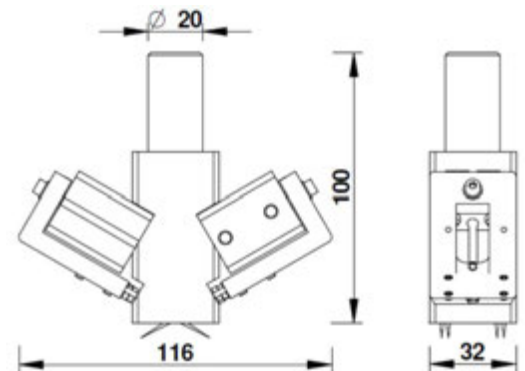
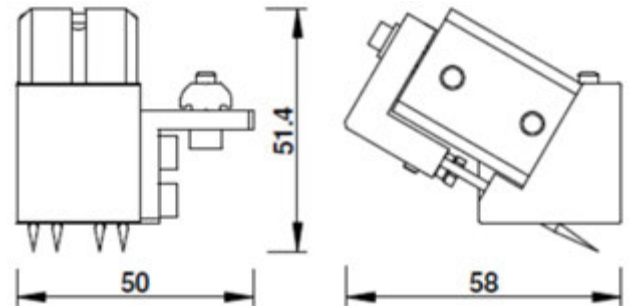
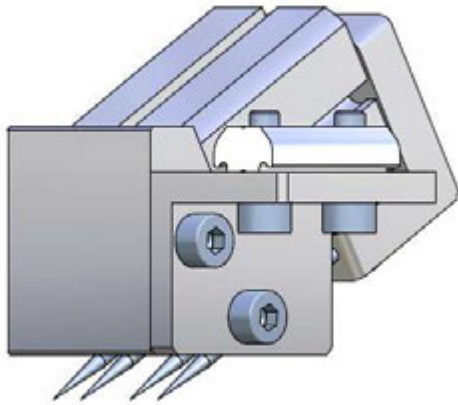


| Article no.    |              | Weight |
|----------------|--------------|--------|
| CA.AGP.20.G.20 | Gripper side | 66 g   |
| CA.AGP.20.M.20 | Mould side   | 30 g   |

## CA.09 PAA

. Needle gripper

. Pinza ad aghi



| Article no. | Weight |
|-------------|--------|
| CA.PAA.AP   | 135 g  |
| CA.PAA.AP.D |        |

new

Remarks / Osservazioni:

Needle grippers are designed for picking up textile, cloth, carpet, or any other material that can be penetrated

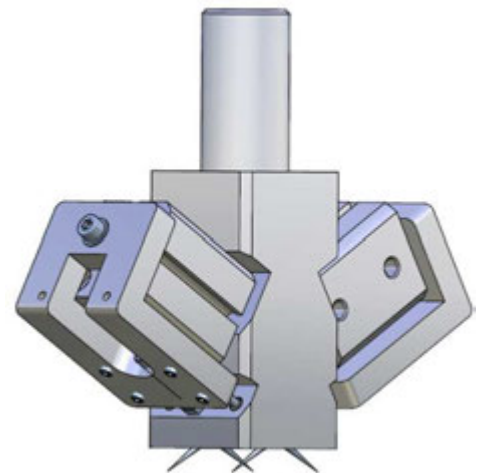
Designed for installation on our X Profile

Maximum air pressure is 6 bar

*Le pinze ad aghi sono progettate per raccogliere tessuti, stoffa, moquette, o qualsiasi altro materiale che può essere penetrato*

*Disegnate per essere installate sui nostri profili X*

*Massima pressione 6 bar*



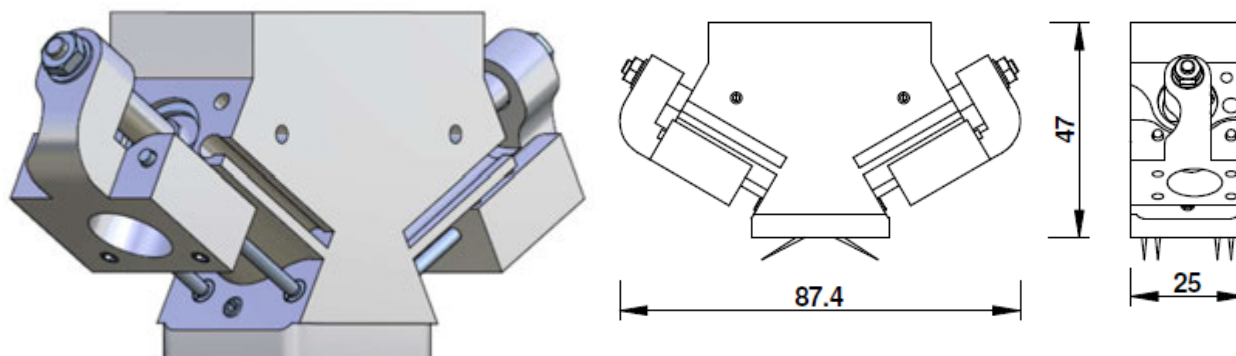
| Article no. | Weight |
|-------------|--------|
| CA.PAA.CF   | 320 g  |
| CA.PAA.CF.D |        |

new

## CA.09 PAA

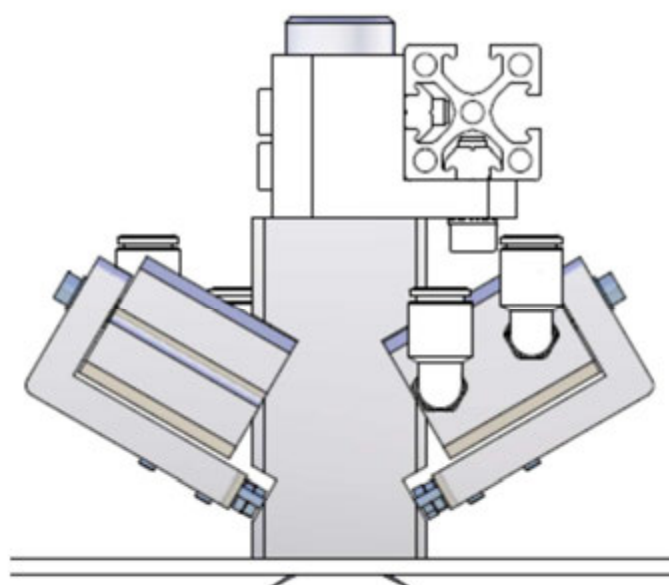
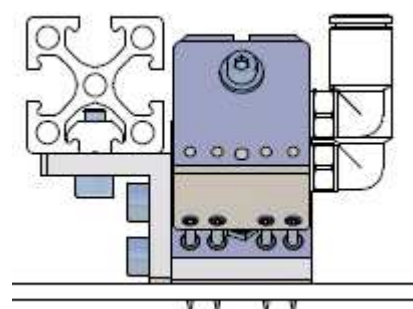
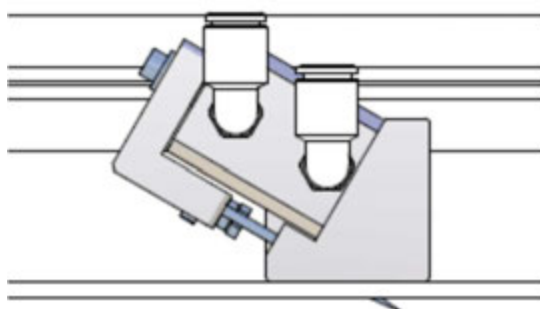
. Needle gripper

. Pinza ad aghi



| Article no. | Weight |
|-------------|--------|
| CA.PAA.SP   | 132 g  |

Application examples / Esempi applicativi

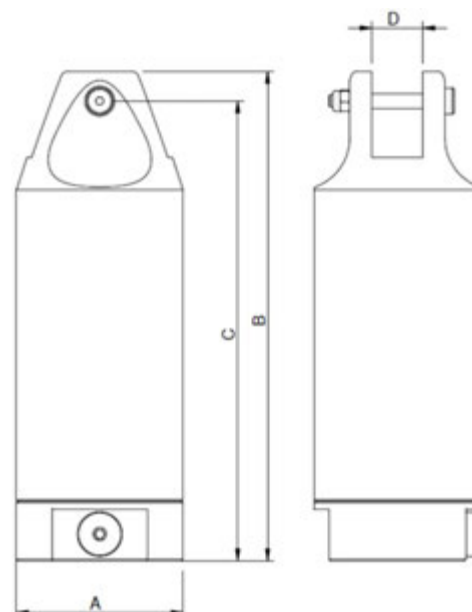


## CA.10.FP

. Air nipper actuators

. ATE

. Attuatore pneumatico

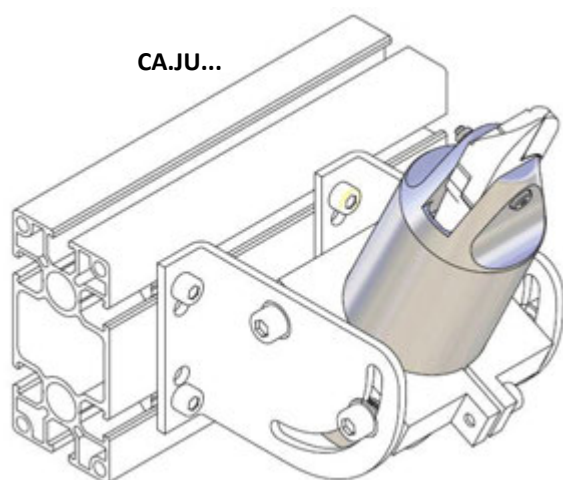


| Article no. | Closing force each blade | Cycle air consumption | Weight |
|-------------|--------------------------|-----------------------|--------|
| CA.ATE.05M  | 11 Nm                    | 64 cm <sup>3</sup>    | 97 g   |
| CA.ATE.10M  | 38 Nm                    | 116 cm <sup>3</sup>   | 147 g  |
| CA.ATE.20M  | 67 Nm                    | 230 cm <sup>3</sup>   | 255 g  |
| CA.ATE.30AM | 150 Nm                   | 584 cm <sup>3</sup>   | 452 g  |
| CA.ATE.50AM | 116 Nm                   | 1170 cm <sup>3</sup>  | 911 g  |

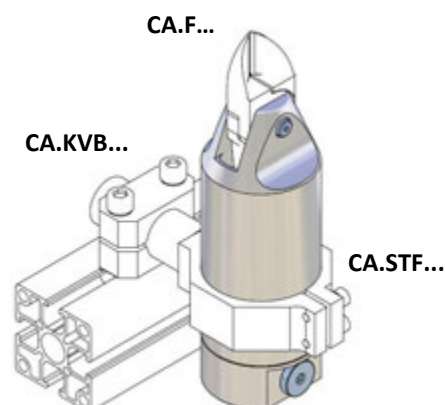


### Application examples / Esempi applicativi

| Article no. | A  | B     | C     | D   |
|-------------|----|-------|-------|-----|
| CA.ATE.05M  | 30 | 94.3  | 87    | 7.1 |
| CA.ATE.10M  | 36 | 114.5 | 107.8 | 12  |
| CA.ATE.20M  | 45 | 129   | 119.8 |     |
| CA.ATE.30AM | 56 | 165   | 155   | 17  |
| CA.ATE.50AM | 75 | 181   | 172   |     |



CA.04.10...



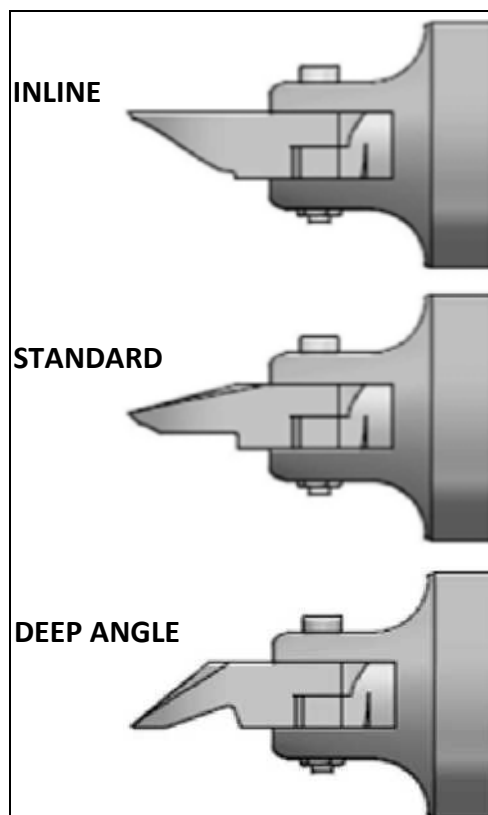
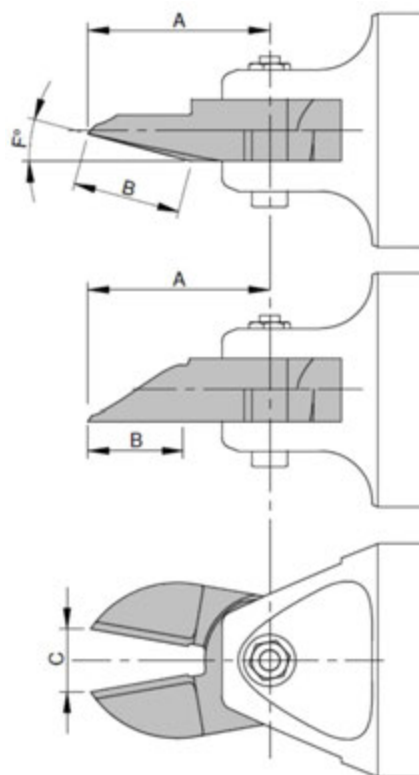
CA.X.../CA.JU...

## CA.10.VES

. VES

. Blades

. Lama



| Article no. | Nipper                 | Style      | A          | B    | C    | F* |       |
|-------------|------------------------|------------|------------|------|------|----|-------|
| VES.N5AP    | CA.ATE.05              | Standard   | 24         | 11.5 | 4    | 15 | 40 g  |
| VES.N10LAP  | CA.ATE.10              |            |            |      | 27   | 5  | 30    |
| VES.N10LPF  |                        | Deep angle |            | 13.5 | 40   |    |       |
| VES.N20AP   | CA.ATE.20              | Standard   |            | 35   | 16   | 11 | 15    |
| VES.N20AJ   |                        | Inline     | 18         |      | /    |    |       |
| VES.N20AJL  |                        |            |            | 65   | 20   | 16 | /     |
| VES.N20PF   |                        |            | Deep angle | 35   | 13.5 | 11 | 40    |
| VES.N30AP   | CA.ATE.30<br>CA.ATE.50 | Standard   | 66         | 38   | 16   | 15 | 380 g |
| VES.N30AJ   |                        | Inline     | 52         | 28   | 11   | /  | 370 g |
| VES.N30AJL  |                        |            | 75         | 25   | 19   | /  | 470 g |
| VES.N30PF   |                        | Deep angle | 58         |      |      | 15 | 30    |

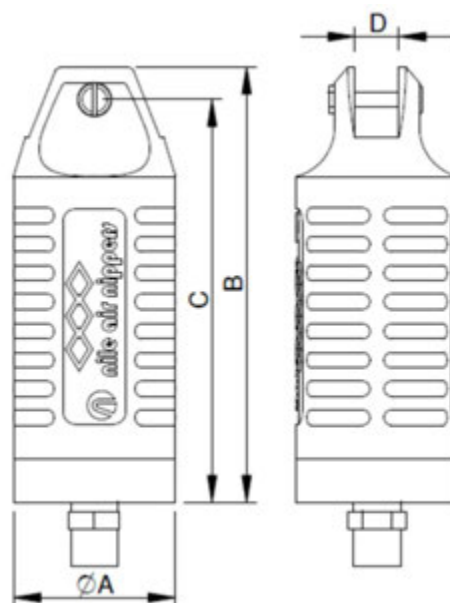
Complete line of Vessel's blade is online in [www.fps-automation.com](http://www.fps-automation.com)

## CA.10.MR

. MR

. Air nipper actuators

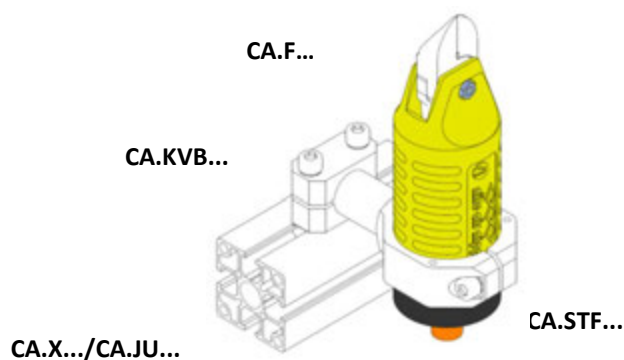
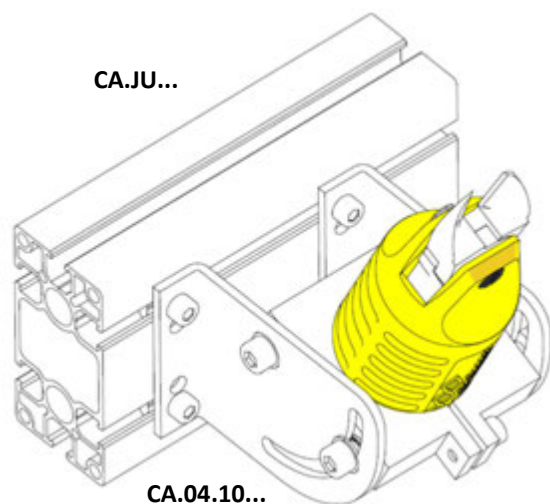
. Attuatore pneumatico



| Article no. | Closing force each blade | Cycle air consumption | Weight |
|-------------|--------------------------|-----------------------|--------|
| CA.MR.05M   | 11 Nm                    | 41 cm <sup>3</sup>    | 100 g  |
| CA.MR.10M   | 38 Nm                    | 105 cm <sup>3</sup>   | 160 g  |
| CA.MR.20M   | 67 Nm                    | 268 cm <sup>3</sup>   | 270 g  |
| CA.MR.30AM  | 150 Nm                   | 631 cm <sup>3</sup>   | 470 g  |
| CA.MR.50AM  | 116 Nm                   | 1285 cm <sup>3</sup>  | 1040 g |

Application examples / Esempio applicativi

| Article no. | A  | B   | C      | D     |
|-------------|----|-----|--------|-------|
| CA.MR.05M   | 30 | 84  | 75     | 9.25  |
| CA.MR.10M   | 36 | 105 | 96     |       |
| CA.MR.20M   | 45 | 121 | 112    | 12.15 |
| CA.MR.30AM  | 56 | 157 | 147.75 | 17.10 |
| CA.MR.50AM  | 75 | 173 | 164.25 | 25.10 |

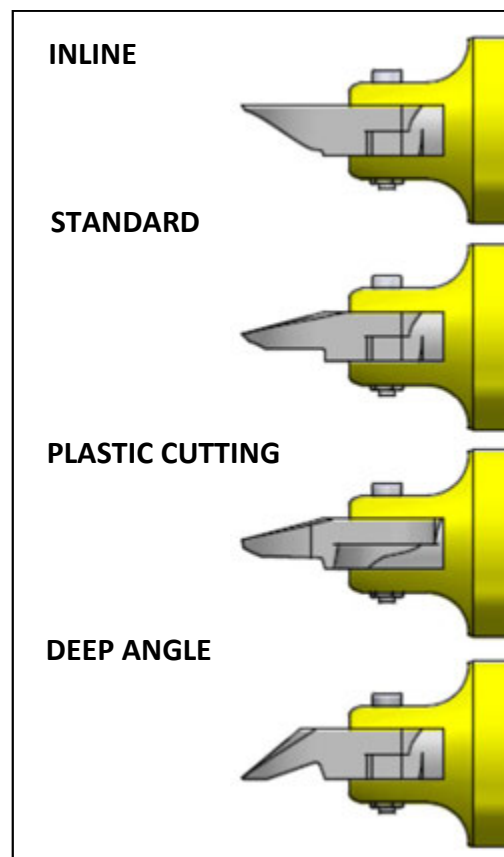
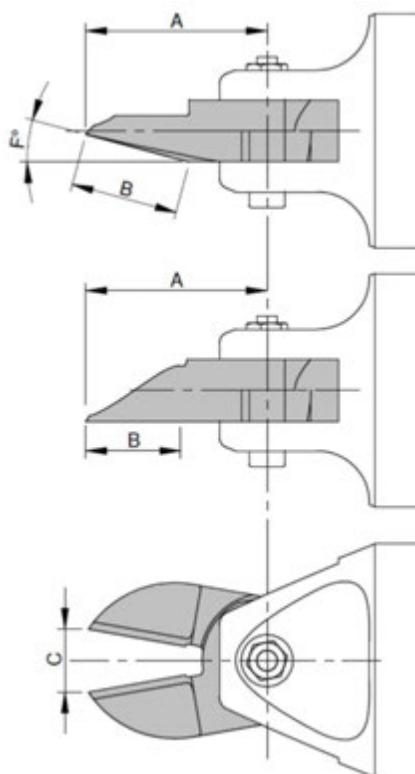


## CA.10.F

. F

. Blades

. Lama



| Article no. |      | Nipper     | Blade style    | A  | B  | C  | F° | Weight |
|-------------|------|------------|----------------|----|----|----|----|--------|
| CA.F1S      | F..S | CA.MR.05M  | Inline         | 24 | 12 | 3  | /  | 33 g   |
| CA.S2       | S..  |            | Standard       |    |    |    | 25 | 34 g   |
| CA.F1       | F..  |            | Platic cutting |    |    |    | 15 |        |
| CA.FD1      | F..D |            | Deep angle     |    |    |    | 40 | 35 g   |
| CA.F3LS     | F..S | CA.MR.10M  | Long Inline    | 50 | 30 | 8  | /  | 117 g  |
| CA.S4       | S..  |            | Standard       | 27 | 14 | 5  | 25 | 115 g  |
| CA.F3       | F..  |            | Platic cutting |    | 12 |    | 40 | 112 g  |
| CA.FD3      | F..D |            | Deep angle     |    | 10 |    | 40 | 112 g  |
| CA.F5S      | F..S | CA.MR.20M  | Inline         | 35 | 16 | 10 | /  | 121 g  |
| CA.S5       | S..  |            | Standard       |    | 17 | 8  | 30 | 120 g  |
| CA.F5       | F..  |            | Platic cutting |    | 15 | 10 | 15 |        |
| CA.FD5      | F..D |            | Deep angle     |    | 14 |    | 40 | 124 g  |
| CA.F5LS     | F..S | CA.MR.30AM | Long inline    | 65 | 37 | 15 | /  | 220 g  |
| CA.F9PS     | F..S |            | Inline         | 66 |    | 16 | /  | 365 g  |
| CA.S7P      | S..  |            | Standard       | 43 |    | 8  | 30 | 380 g  |
| CA.F9P      | F..  |            | Platic cutting | 66 |    | 16 | 16 |        |
| CA.FD9P     | F..D | CA.MR.50AM | Deep angle     | 59 | 27 | 15 | 30 | 388 g  |
| CA.S120     | S..  |            | Standard       | 45 | 22 | 10 |    | 380 g  |

## CA.STF

. MR

. Mounting Brackets MR

. Staffa per attuatore MR

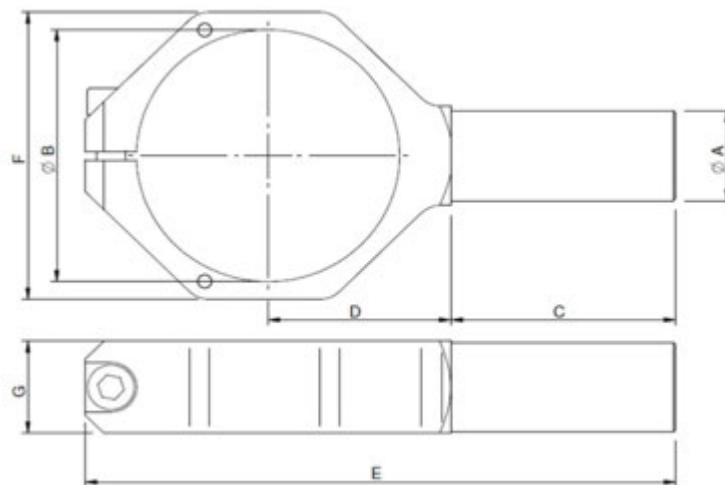
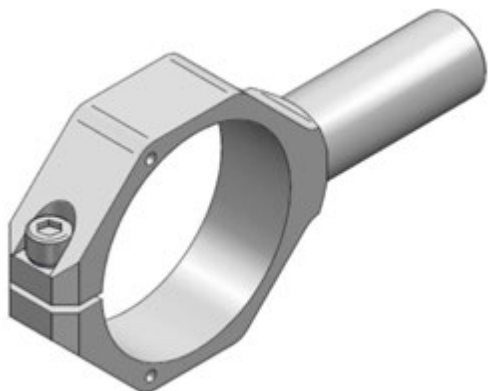


Table / Tabella

**M** = Suitable for CA.MR.../CA.ATE...  
Adatto per CA.MR.../CA.ATE...

Remarks/ Osservazioni:

Material / Materiale: Aluminium / Alluminio

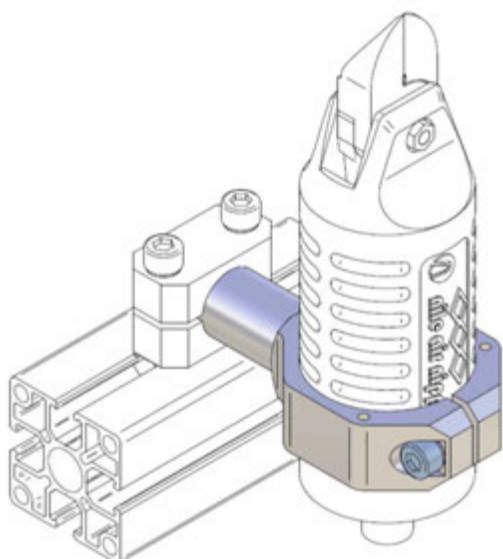
Surface: Silver anodized

Superficie: Argento anodizzato



| Article no. | Old code    | A  | B  | C  | D  | E     | F  | G  | M                  | Weight |
|-------------|-------------|----|----|----|----|-------|----|----|--------------------|--------|
| CA.STF.30   | CA.04.10.30 | 20 | 30 | 48 | 25 | 101.5 | 38 | 20 | MR.05M / ATE.05M   | 91 g   |
| CA.STF.36   | CA.04.10.36 |    | 36 |    | 28 | 107.5 | 43 |    | MR.10M / ATE.10M   | 95 g   |
| CA.STF.45   | CA.04.10.45 |    | 45 |    | 33 | 116   | 52 |    | MR.20M / ATE.20M   | 102 g  |
| CA.STF.56   | CA.04.10.56 |    | 56 |    | 38 | 127.5 | 54 |    | MR.30AM / ATE.30AM | 117 g  |
| CA.STF.75   | CA.04.10.75 | 30 | 75 | 50 | 47 | 146   | 83 | 30 | MR.50AM / ATE.50AM | 275 g  |

Application example / Esempio applicativo



CA.MR.../ CA.ATE...

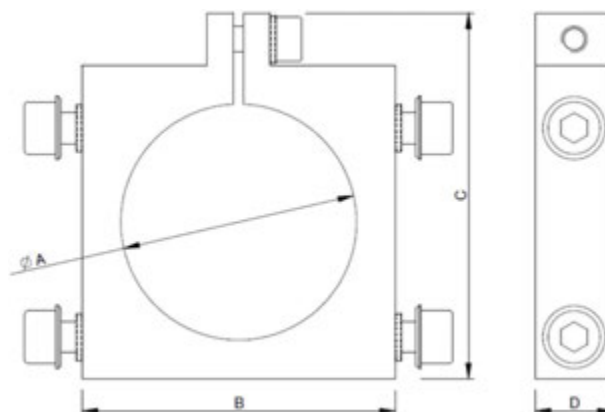
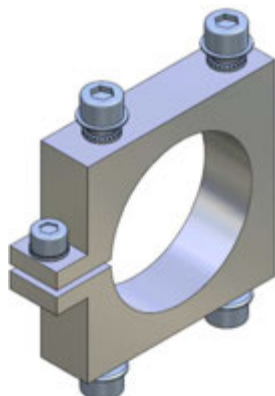
CA.X.../CA.JU...

## CA.04.10

. MR

. Swivel Bracket MR

. Morsetto per attuatore MR



| Article no.   | A  | B  | C   | D  | M                  | Weight |
|---------------|----|----|-----|----|--------------------|--------|
| CA.04.10.30.1 | 30 | 45 | 55  | 15 | MR.05M / ATE.05M   | 87 g   |
| CA.04.10.36.1 | 36 | 50 | 62  |    | MR.10M / ATE.10M   | 97 g   |
| CA.04.10.45.1 | 45 | 60 | 70  |    | MR.20M / ATE.20M   | 115 g  |
| CA.04.10.56.1 | 56 | 70 | 85  |    | MR.30AM / ATE.30AM | 136 g  |
| CA.04.10.75.1 | 75 | 90 | 105 |    | MR.50AM / ATE.50AM | 188 g  |

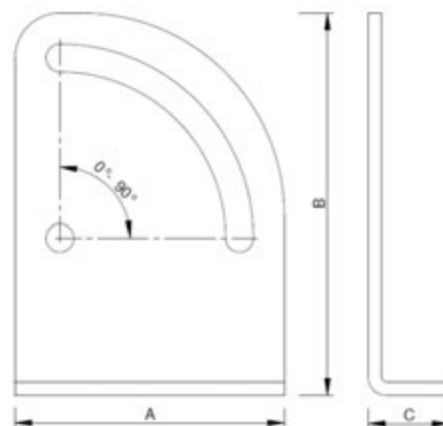
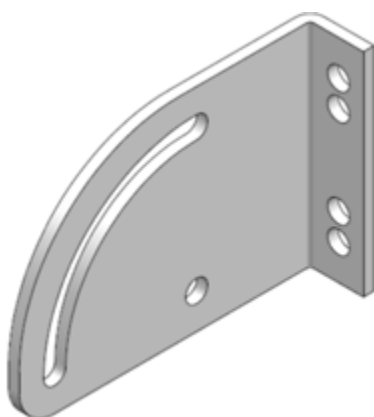
Table / Tabella

**M** = Suitable for CA.MR.../ CA.ATE...  
Adatto per CA.MR.../CA.ATE...

Remarks / Osservazioni:

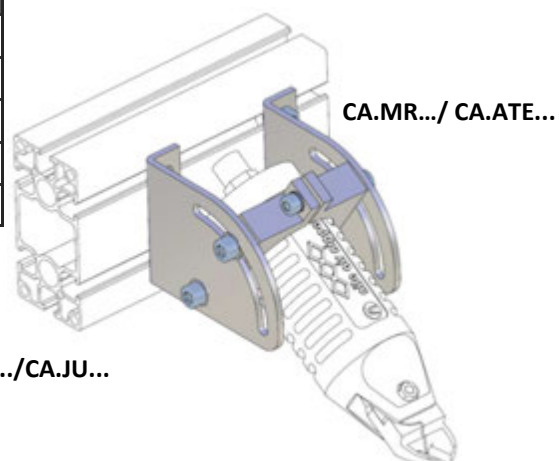
Material / Materiale: Aluminium / Alluminio

Surface silver anodized  
Superficie: Argento anodizzato



| Article no.   | A  | B   | C  | M                  | Weight |
|---------------|----|-----|----|--------------------|--------|
| CA.04.10.30.2 | 50 | 75  | 18 | MR.05M / ATE.05M   | 84 g   |
| CA.04.10.36.2 | 55 | 80  |    | MR.10M / ATE.10M   | 100 g  |
| CA.04.10.45.2 | 60 | 85  |    | MR.20M / ATE.20M   | 116 g  |
| CA.04.10.56.2 | 65 | 90  |    | MR.30AM / ATE.30AM | 134 g  |
| CA.04.10.75.2 | 85 | 122 |    | MR.50AM / ATE.50AM | 246 g  |

Application example / Esempio applicativo



Remarks / Osservazioni:

Material : Zinc plated steel  
Materiale: acciaio zincato

CA.X.../CA.JU...

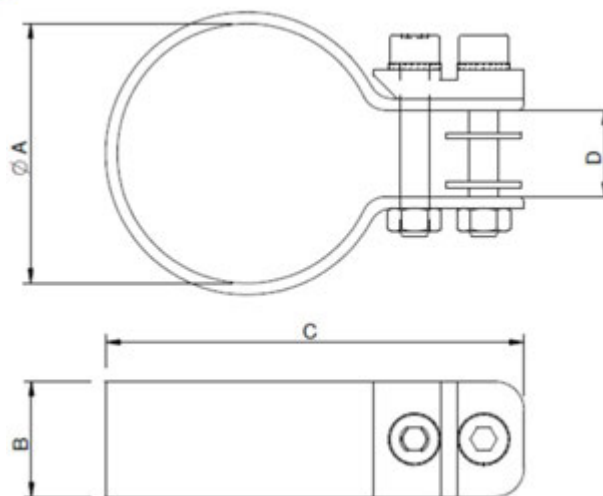
## CA.04.10

## MR

. Mounting Brackets MR



. Staffa per attuatore MR

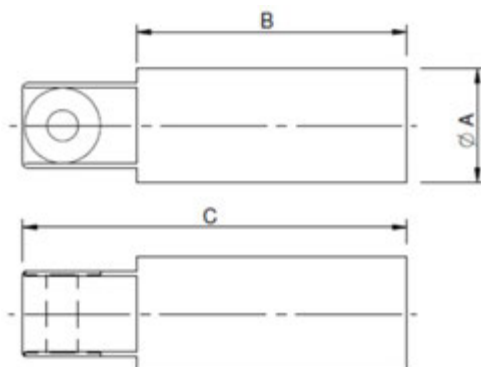
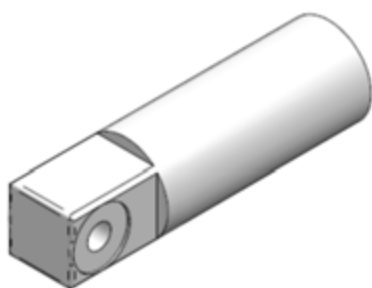


| Article no.  | A  | B  | C    | D  | M                  | Weight |
|--------------|----|----|------|----|--------------------|--------|
| CA.04.10.004 | 56 | 20 | 83.5 | 15 | MR.30AM / ATE.30AM | 98 g   |
| CA.04.10.005 | 45 |    | 72.5 |    | MR.20M / ATE.20M   | 87 g   |
| CA.04.10.006 | 36 |    | 62   |    | MR.10M / ATE.10M   | 78 g   |
| CA.04.10.007 | 30 |    | 55.5 |    | MR.05M / ATE.05M   | 72 g   |

Table / Tabella

M = Suitable for CA.MR.../ CA.ATE...  
Adatto per CA.MR.../CA.ATE...

Osservazioni / Osservazioni:

Material / Materiali :  
Steel galvanized / Acciaio zincato

CA.MR.../ CA.ATE...

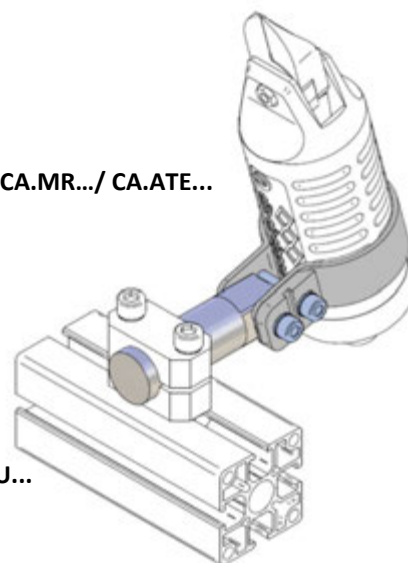
| Article no.  | A  | B    | C    | Weight |
|--------------|----|------|------|--------|
| CA.04.12.001 | 20 | 47.5 | 67.5 | 56 g   |
| CA.04.12.002 | 30 |      |      | 82 g   |

Remarks / Osservazioni:

Material / Materiale: Aluminium / Alluminio

Surface silver anodized  
Superficie: Argento anodizzato

CA.X.../CA.JU...



Application example / Esempio applicativo

## CA.SAT

. Swivel Bracket MR



**MR**

. Morsetto per attuatore MR

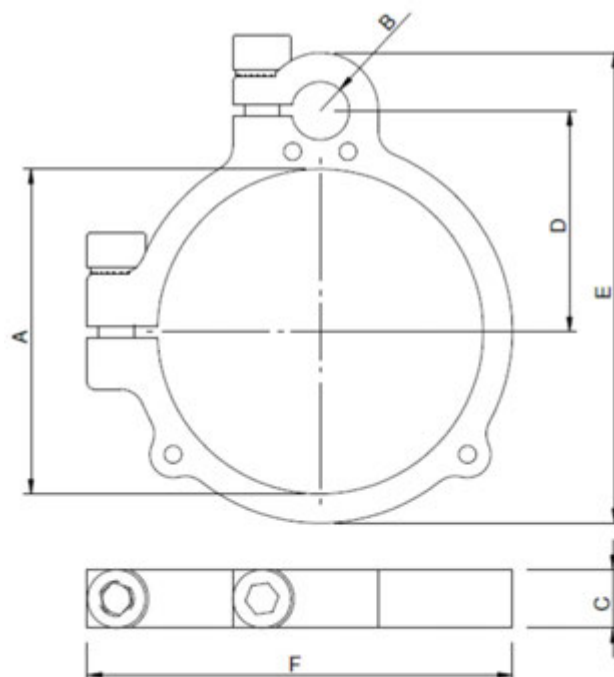
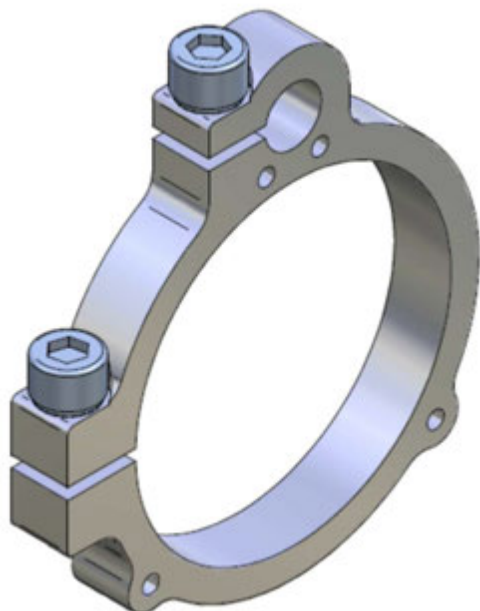


Table / Tabella

**M** = Suitable for CA.MR.../CA.ATE...  
Adatto per CA.MR.../CA.ATE...

| Article no. | A  | B  | C  | D    | E    | F    | M                  | Weight |
|-------------|----|----|----|------|------|------|--------------------|--------|
| CA.SAT.3610 | 36 | 10 | 10 | 28   | 62.8 | 53   | MR.10M / ATE.10M   | 27 g   |
| CA.SAT.4510 | 45 |    |    | 32.5 | 70   | 62   | MR.20M / ATE.20M   | 30 g   |
| CA.SAT.5610 | 56 |    |    | 38   | 81   | 73   | MR.30AM / ATE.30AM | 43 g   |
| CA.SAT.5614 |    | 14 |    | 40   | 85   |      |                    | 37 g   |
| CA.SAT.5620 |    | 20 |    | 43   | 91   |      |                    | 57 g   |
| CA.SAT.7510 | 75 | 10 |    | 47.5 | 100  | 92.5 | MR.50AM / ATE.50AM | 43 g   |
| CA.SAT.7514 |    | 14 |    | 49.5 | 104  |      |                    | 45 g   |
| CA.SAT.7520 |    | 20 |    | 52.5 | 110  |      |                    | 49 g   |

Remarks / Osservazioni:

Material / Materiali: Aluminium / Alluminio

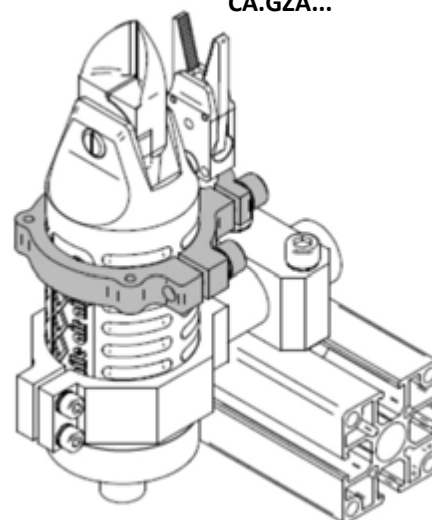
Surface: Silver anodized  
Superficie: Argento anodizzato

Application example / Esempio applicativo

CA.04.10...

CA.MR.../ CA.ATE...

CA.GZA...



CA.X.../CA.JU...

# CA.STA

# MR

. Spring loaded clamp

. Staffa ammortizzata

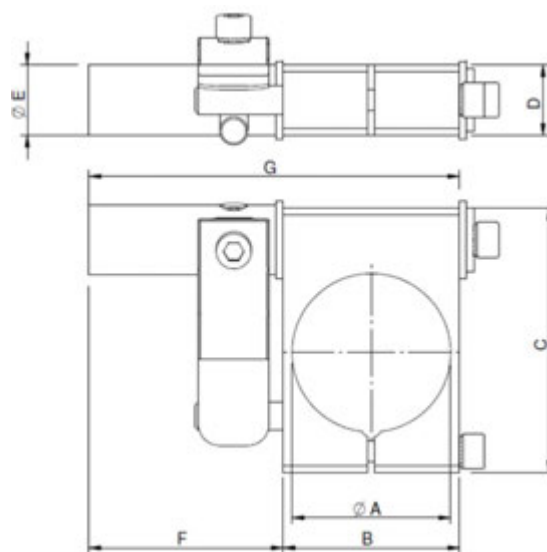
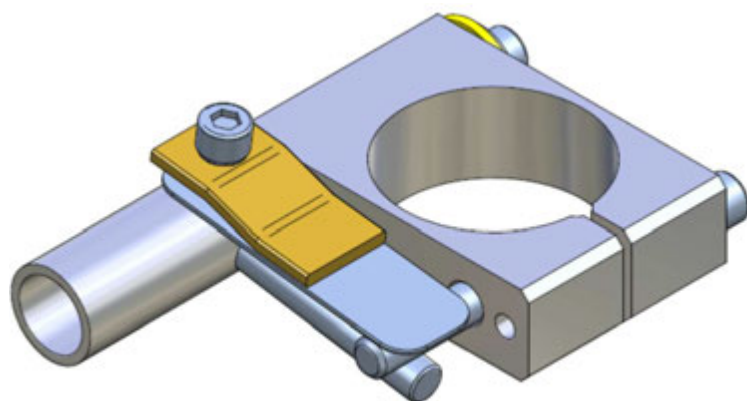


Table / Tabella

**M** = Suitable for CA.MR.../CA.ATE...  
Adatto per CA.MR.../CA.ATE...

Remarks / Osservazioni:

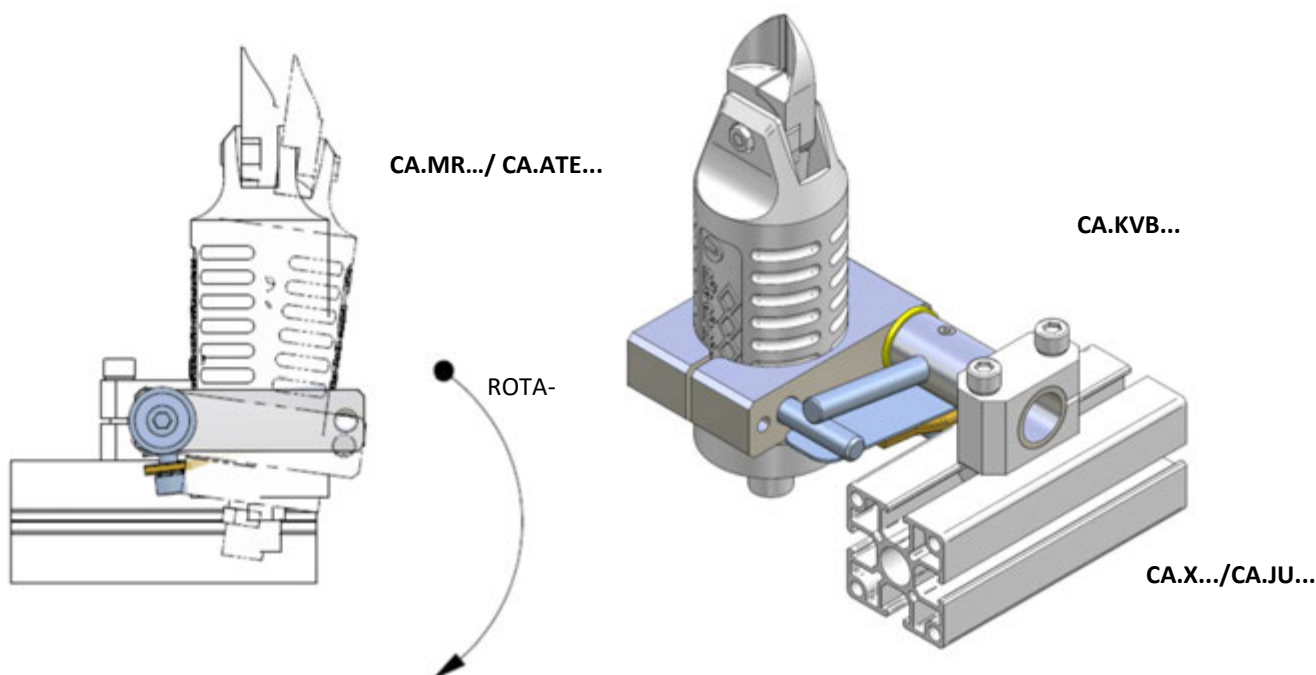
Material / Materiale: Aluminium / Alluminio

Surface: Silver anodized

Superficie: Argento anodizzato

| Article no | A  | B  | C   | D  | E  | F  | G   | M                  | Weight |
|------------|----|----|-----|----|----|----|-----|--------------------|--------|
| CA.STA.45  | 45 | 50 | 75  | 20 | 20 | 53 | 105 | MR.20M / ATE.20M   | 275 g  |
| CA.STA.56  | 56 | 60 | 86  |    |    | 63 | 125 | MR.30AM / ATE.30AM | 322 g  |
| CA.STA.75  | 75 | 85 | 106 |    |    | 59 | 146 | MR.50AM / ATE.50AM | 443 g  |

Application examples / Esempi applicativi



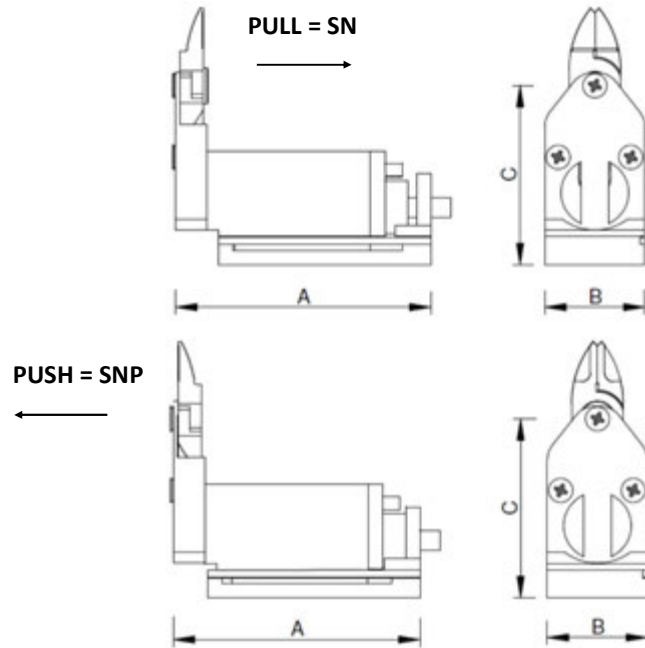
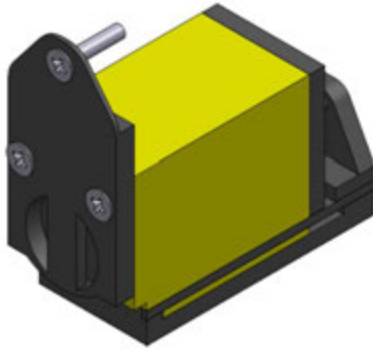


## CA.SN

## SN

. Slided Air Nippers Horizontal - Type SN

. Base mobile orizzontale scorrimento arretrato



### Remarks:

Two available models:  
Push = SNP  
Pull = SN

Units are not prearranged for using reversible blades.

On this kind of unit it's possible to adjust the blades

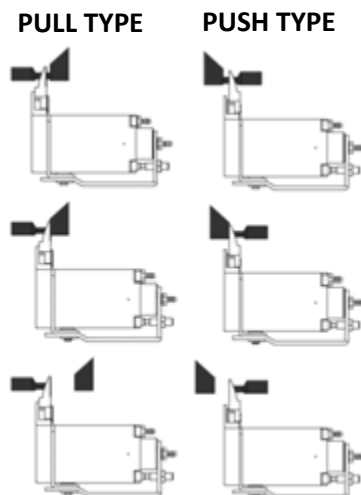
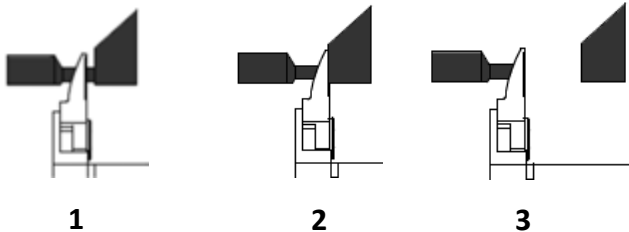
### Osservazioni:

Due modelli disponibili:  
Spinta = SNP  
Tiro = SN

Le unità non sono pre-arrangiate per usare lame reversibili.

Su questo tipo di unità è possibile cambiare l'apertura delle lame

### Application examples / Esempio applicativi

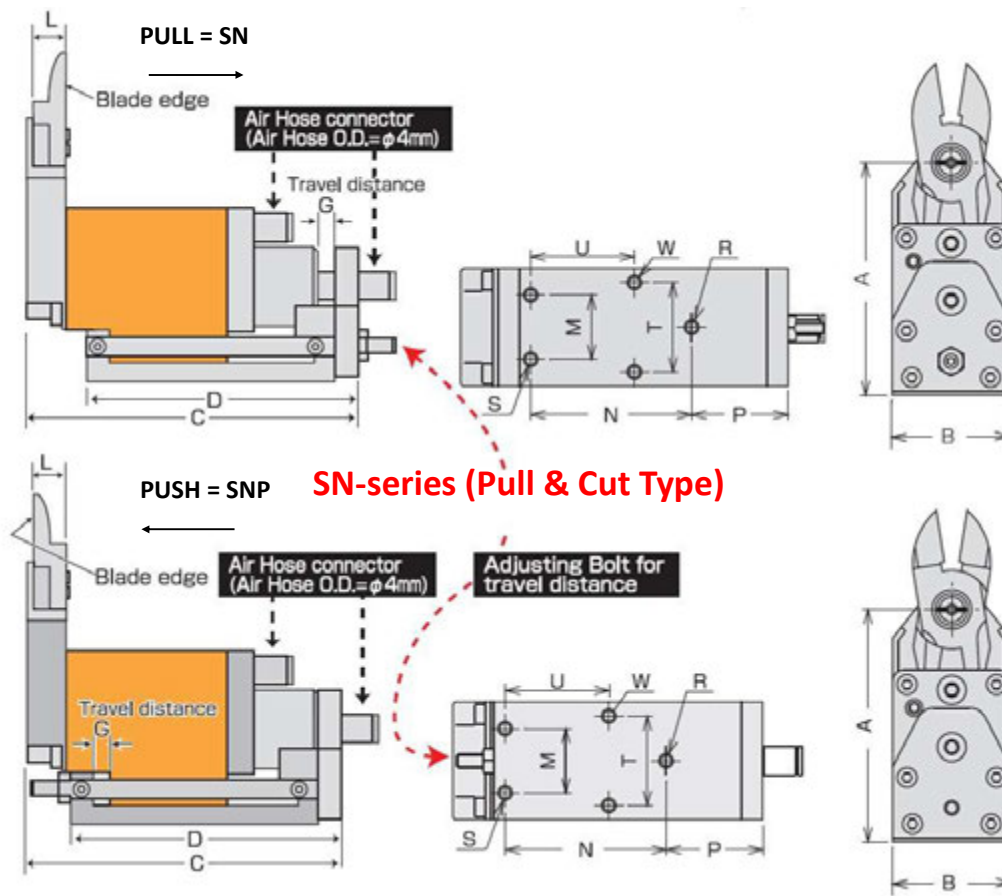


## CA.SN

## SN

. Slided Air Nippers Horizontal - Type SN

. Base mobile orizzontale scorrimento arretrato



| Article no. |      | Cutting Capacity | A  | B  | C    | D  | G | L  | M  | N  | P  | R  | S    | T  | U  | W  | Weight |
|-------------|------|------------------|----|----|------|----|---|----|----|----|----|----|------|----|----|----|--------|
| CA.SN3      | PULL | 2 ø mm           | 59 | 23 | 79.6 | 65 | 5 | 7  | 12 | 37 | 25 | M4 | M4D5 | 15 | 23 |    | 170 g  |
| CA.SNP3     | PUSH |                  |    |    | 74.6 |    |   |    |    |    |    |    |      |    |    |    |        |
| CA.SN5      | PULL | 3 ø mm           | 63 | 28 | 83.6 | 69 | 5 | 7  | 14 | 40 | 26 |    | M4D6 | 20 | 24 | M4 | 220 g  |
| CA.SNP5     | PUSH |                  |    |    | 78.6 |    |   |    |    |    |    |    |      |    |    |    |        |
| CA.SN10     | PULL | 4 ø mm           | 70 | 33 | 91.6 | 75 | 5 | 9  | 18 | 45 | 27 |    | M4D6 | 25 | 29 |    | 300 g  |
| CA.SNP10    | PUSH |                  |    |    | 86.6 |    |   |    |    |    |    |    |      |    |    |    |        |
| CA.SN20     | PULL | 5 ø mm           | 82 | 42 | 110  | 90 | 5 | 12 | 22 | 58 | 28 |    | M4S7 | 30 | 32 | M5 | 595 g  |
| CA.SNP20    | PUSH |                  |    |    | 105  |    |   |    |    |    |    |    |      |    |    |    |        |

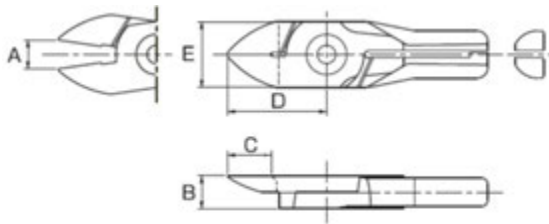
## CA.FN

. Blades FN

## FN

. Lame FN

## FN



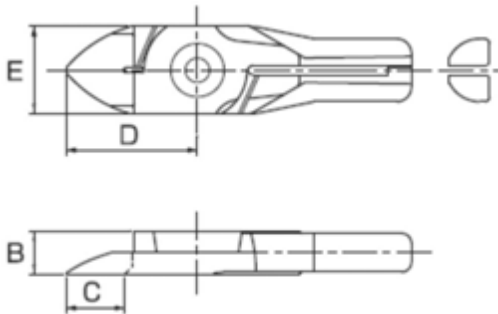
| Article no. | M       | A   | B  | C  | D  | E  | Cutting capacity | Weight |
|-------------|---------|-----|----|----|----|----|------------------|--------|
| CA.FN10     | CA.SN3  | 3.5 | 7  | 11 | 24 | 14 | Ø 2              | 25 g   |
| CA.FN1      | CA.SN5  | 5.5 |    |    |    | 16 | Ø 3              | 30 g   |
| CA.FN3      | CA.SN10 | 7   | 9  |    | 27 | 19 | Ø 4              | 60 g   |
| CA.FN5      | CA.SN20 | 8.5 | 12 | 16 | 35 | 22 | Ø 5              | 100 g  |

Table / Tabella

M = Suitable for CA.SN...

Adatto per CA.SN...

## FNP



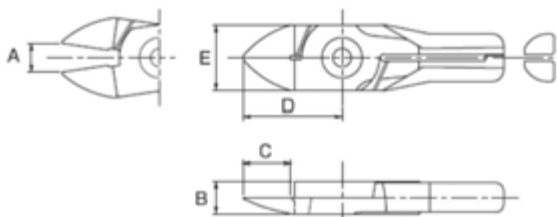
| Article no. | M        | A   | B  | C  | D  | E  | Cutting capacity | Weight |
|-------------|----------|-----|----|----|----|----|------------------|--------|
| CA.FNP10    | CA.SNP3  | 3.5 | 7  | 11 | 24 | 14 | Ø 2              | 30 g   |
| CA.FNP1     | CA.SNP5  | 5.5 |    |    |    | 16 | Ø 3              | 35 g   |
| CA.FNP3     | CA.SNP10 | 7   | 9  |    | 27 | 19 | Ø 4              | 60 g   |
| CA.FNP5     | CA.SNP20 | 8.5 | 12 | 16 | 35 | 22 | Ø 5              | 110 g  |

Table / Tabella

M = Suitable for CA.SN...

Adatto per CA.SN...

## FN - K



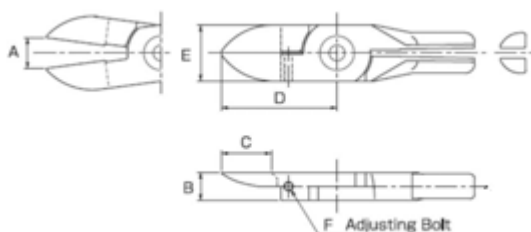
| Article no. | M       | A   | B  | C  | D  | E  | Cutting capacity | Weight |
|-------------|---------|-----|----|----|----|----|------------------|--------|
| CA.FN10K    | CA.SN3  | 3.5 | 7  | 11 | 24 | 14 | Ø 2              | 30 g   |
| CA.FN1K     | CA.SN5  | 5.5 |    |    |    | 16 | Ø 3              |        |
| CA.FN3K     | CA.SN10 | 7.5 | 9  |    | 27 | 19 | Ø 4              | 60 g   |
| CA.FN5K     | CA.SN20 | 8.5 | 12 | 16 | 35 | 22 | Ø 5              | 110 g  |

Table / Tabella

M = Suitable for CA.SN...

Adatto per CA.SN...

## FN - L



| Article no. | M       | A   | B  | C  | D  | E  | F  | Cutting capacity | Weight |
|-------------|---------|-----|----|----|----|----|----|------------------|--------|
| CA.FN10L    | CA.SN3  | 5.5 | 7  | 16 | 33 | 14 | M3 | Ø 2              | 35 g   |
| CA.FN1L     | CA.SN5  | 8   |    |    |    | 16 |    | Ø 3              | 40 g   |
| CA.FN3L     | CA.SN10 | 9.5 | 9  |    | 37 | 18 |    | Ø 3.5            | 65 g   |
| CA.FN5L     | CA.SN20 | 10  | 12 | 21 | 45 | 22 |    | Ø 4.5            | 115 g  |

Table / Tabella

M = Suitable for CA.SN...

Adatto per CA.SN...

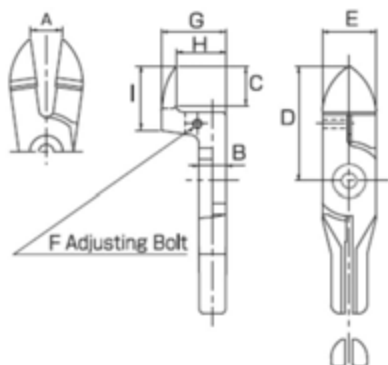
## CA.FN

. Blades FN

**FN**

. *Lame FN*

FN - C



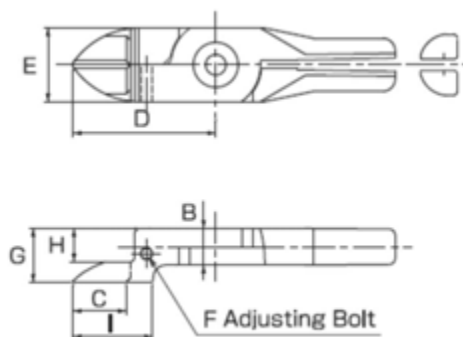
| Article no. | M       | A   | B  | C  | D  | E  | F  | G    | H    | I  | Cutting capacity | Weight |
|-------------|---------|-----|----|----|----|----|----|------|------|----|------------------|--------|
| CA.FN10C    | CA.SN3  | 5.2 | 7  | 11 | 35 | 14 | M3 | 18   | 14   | 19 | Ø 1.5            | 50 g   |
| CA.FN1C     | CA.SN5  | 9   | 7  | 13 | 38 | 16 | M3 | 20   | 15   | 21 | Ø 2.5            | 60 g   |
| CA.FN3C     | CA.SN10 | 10  | 9  | 13 | 38 | 18 | M3 | 21.5 | 16.5 | 21 | Ø 3              | 70 g   |
| CA.FN5C     | CA.SN20 | 10  | 12 | 19 | 46 | 22 | M3 | 24   | 19   | 30 | Ø 4              | 155 g  |

Table / Tabella

**M** = Suitable for CA.SN...

*Adatto per CA.SN...*

FNP - C



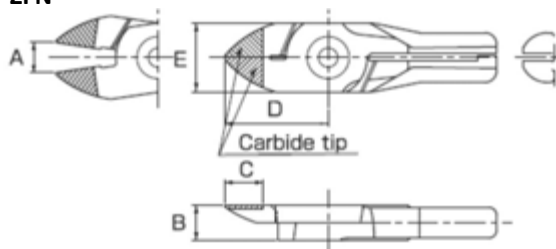
| Article no. | M        | A   | B  | C  | D  | E  | F  | G    | H   | I  | Cutting capacity | Weight |
|-------------|----------|-----|----|----|----|----|----|------|-----|----|------------------|--------|
| CA.FNP10C   | CA.SNP3  | 5.2 | 7  | 11 | 35 | 14 | M3 | 12   | 8   | 20 | Ø 1.5            | 50 g   |
| CA.FNP1C    | CA.SNP5  | 8.6 |    | 14 | 37 | 16 |    | 12.2 | 7.2 | 22 | Ø 2.5            | 60 g   |
| CA.FNP3C    | CA.SNP10 | 9.8 | 9  | 13 | 35 | 18 |    | 13.2 | 8.2 | 20 | Ø 3              | 70 g   |
| CA.FNP5C    | CA.SNP20 | 10  | 12 | 18 | 42 | 22 |    | 16   | 11  | 27 | Ø 4              | 155 g  |

Table / Tabella

**M** = Suitable for CA.SN...

*Adatto per CA.SN...*

ZFN



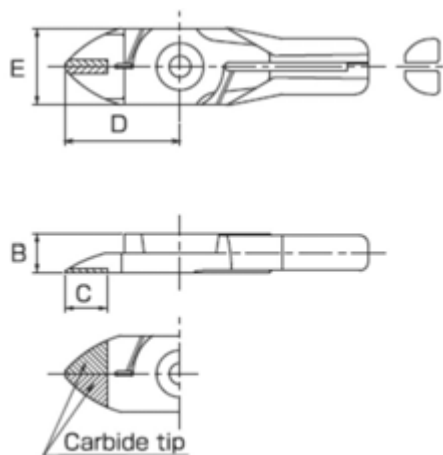
| Article no. | M       | A   | B  | C  | D  | E  | Cutting capacity | Weight |
|-------------|---------|-----|----|----|----|----|------------------|--------|
| CA.ZFN10    | CA.SN3  | 3.5 | 7  | 11 | 24 | 14 | Ø 2              | 30 g   |
| CA.ZFN1     | CA.SN5  | 5.5 |    |    |    | 16 | Ø 3              | 35 g   |
| CA.ZFN3     | CA.SN10 | 7   | 9  | 10 | 27 | 19 | Ø 4              | 60 g   |
| CA.ZFN5     | CA.SN20 | 8.5 | 12 | 16 | 35 | 22 | Ø 5              | 110 g  |

Table / Tabella

**M** = Suitable for CA.SN...

*Adatto per CA.SN...*

ZFNP



| Article no. | M        | A   | B  | C  | D  | E  | Cutting capacity | Weight |
|-------------|----------|-----|----|----|----|----|------------------|--------|
| CA.ZFNP10   | CA.SNP3  | 3.5 | 7  | 11 | 24 | 14 | Ø 2              | 30 g   |
| CA.ZFNP1    | CA.SNP5  | 5.5 |    |    |    | 16 | Ø 3              | 35 g   |
| CA.ZFNP3    | CA.SNP10 | 7   | 9  | 10 | 27 | 19 | Ø 4              | 60 g   |
| CA.ZFNP5    | CA.SNP20 | 8.5 | 12 | 16 | 35 | 22 | Ø 5              | 110 g  |

Table / Tabella

**M** = Suitable for CA.SN...

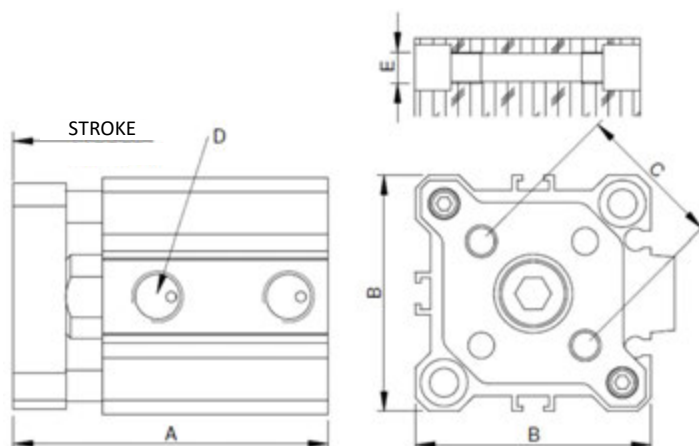
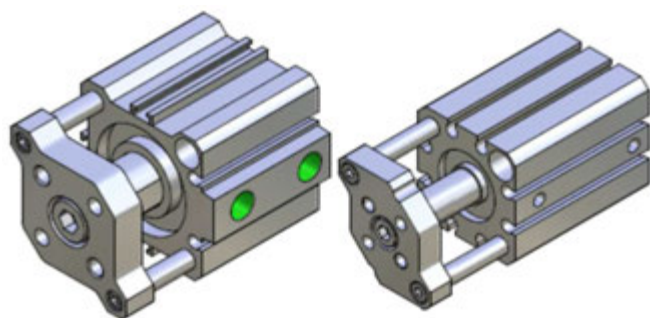
*Adatto per CA.SN...*

## CA.11.17

. Compact Cylinder, Guide Rod Type

## CYLINDERS

. Cilindro Anti-Rotazionale

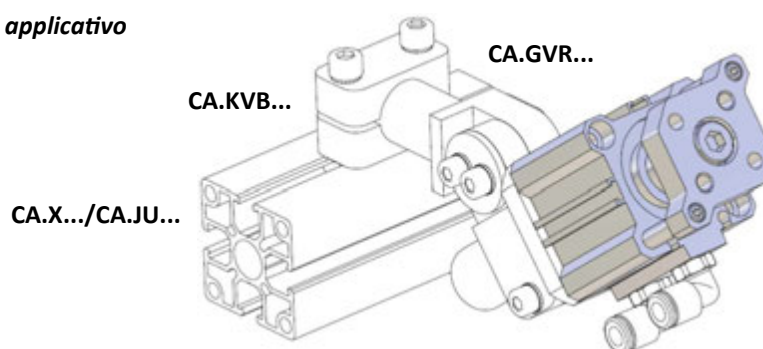


Remarks / Osservazioni:

Available with strokes:  
Disponibili con corse:  
10 - 20

| Article no.  | Piston bore | Stroke | Sensor (optional)                                  | A    | B  | C  | D     | E  | Weight |
|--------------|-------------|--------|----------------------------------------------------|------|----|----|-------|----|--------|
| CA.11.17.001 | 12          | 10     | PNP = KT58P3M - KT58PM8<br>NPN = KT58N3M - KT58NM8 | 41.5 | 25 | 10 | M5    | M4 | 59 g   |
| CA.11.17.002 |             | 20     |                                                    | 51.5 |    |    |       |    | 77 g   |
| CA.11.17.003 | 16          | 10     |                                                    | 41.5 | 29 | 14 |       |    | 97 g   |
| CA.11.17.004 |             | 20     |                                                    | 51.5 |    |    |       |    | 138 g  |
| CA.11.17.005 | 20          | 10     |                                                    | 50   | 36 | 17 |       | M6 | 168 g  |
| CA.11.17.006 |             | 20     |                                                    | 60   |    |    |       |    | 186 g  |
| CA.11.17.007 | 25          | 10     |                                                    | 53.5 | 40 | 22 |       |    | 223 g  |
| CA.11.17.008 |             | 20     |                                                    | 63.5 |    |    |       |    | 264 g  |
| CA.11.17.009 | 32          | 10     |                                                    | 60   | 45 | 28 | G 1/8 |    | 309 g  |
| CA.11.17.010 |             | 20     |                                                    | 70   |    |    |       |    |        |

Application example / Esempio applicativo

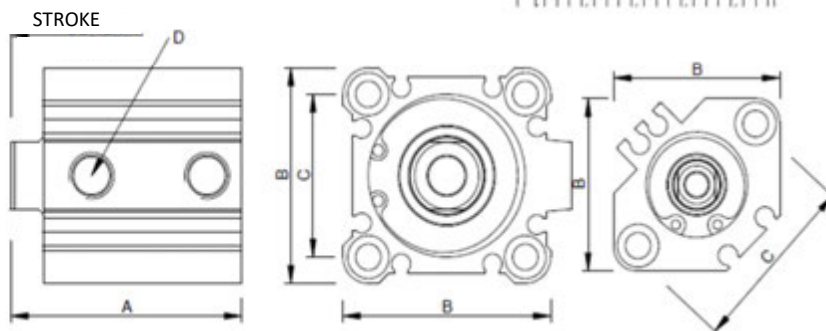
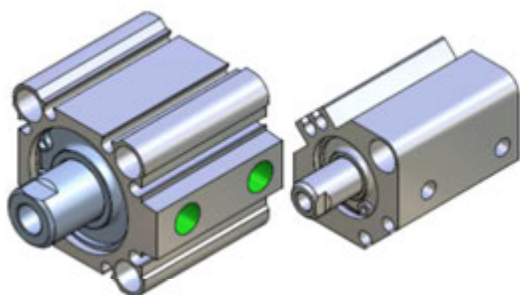


## CA.11.18

. Compact Cylinder

## CYLINDERS

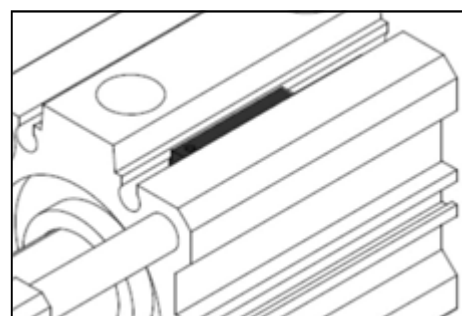
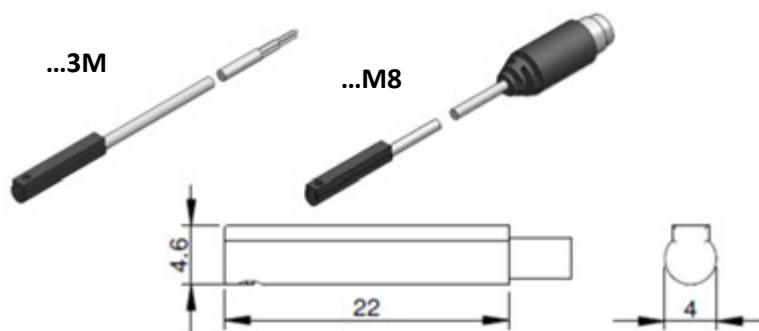
. Cilindro compatto



Remarks / Osservazioni:

Available with strokes:  
Disponibili con corse:  
10 - 20

| Article no.  | Piston bore | Stroke | Sensor<br>(optional)                               | A    | B  | C    | D     | E  | Weight |
|--------------|-------------|--------|----------------------------------------------------|------|----|------|-------|----|--------|
| CA.11.18.001 | 12          | 10     | PNP = KT58P3M - KT58PM8<br>NPN = KT58N3M - KT58NM8 | 42   | 25 | 15.5 | M5    | M4 | 44 g   |
| CA.11.18.002 |             | 20     |                                                    | 51.5 |    |      |       |    | 69 g   |
| CA.11.18.003 | 16          | 10     |                                                    | 44   | 29 | 20   |       |    | 68 g   |
| CA.11.18.004 |             | 20     |                                                    | 54   |    |      |       |    | 89 g   |
| CA.11.18.005 | 20          | 10     |                                                    | 46   | 36 | 25.5 |       | M6 | 106 g  |
| CA.11.18.006 |             | 20     |                                                    | 56   |    |      |       |    | 138 g  |
| CA.11.18.007 | 25          | 10     |                                                    | 47.5 | 40 | 28   |       |    | 148 g  |
| CA.11.18.008 |             | 20     |                                                    | 57.5 |    |      |       |    | 186 g  |
| CA.11.18.009 | 32          | 10     |                                                    | 50   | 45 | 34   | G 1/8 |    | 231 g  |
| CA.11.18.010 |             | 20     |                                                    | 60   |    |      |       |    | 285 g  |

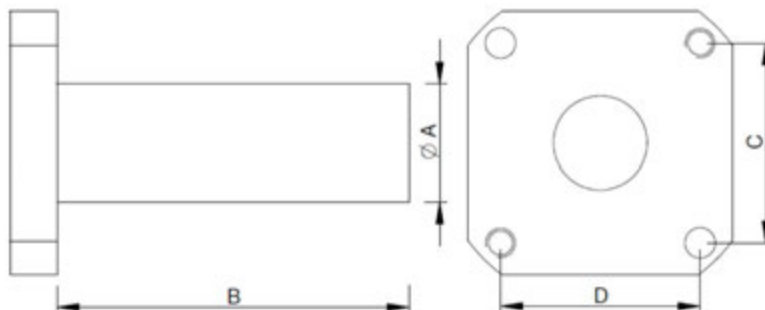
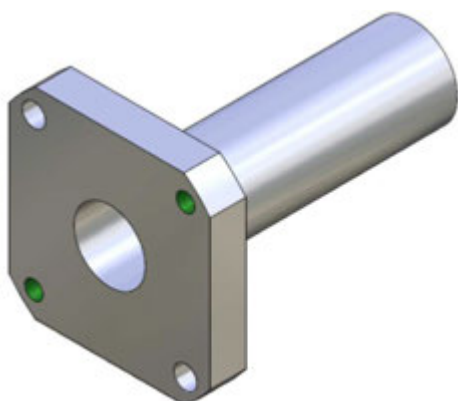


## CA.11 ADZ

. Adapter for Cylinder

## CYLINDERS

. Staffa parallela per cilindro



| Article no.     | A  | B  | C    | D    | M   | Weight |
|-----------------|----|----|------|------|-----|--------|
| CA.ADZ.12.14    | 14 | 30 | 15.5 | 15.5 | Ø12 | 19 g   |
| CA.ADZ.16.14    |    |    | 19.9 | 19.9 | Ø16 | 25 g   |
| CA.ADZ.20.14    |    | 40 | 25.5 | 25.5 | Ø20 | 32 g   |
| CA.ADZ.25.20    | 20 | 60 | 28   | 28   | Ø25 | 55 g   |
| CA.ADZ.32.20    |    |    | 34   | 34   | Ø32 |        |
| CA.ADZ.32.20.90 |    | 90 |      |      |     | 74 g   |
| CA.ADZ.32.25    | 25 | 60 |      |      |     | 85 g   |

Table / Tabella

**M** = Suitable for Cylinder CA.11.17 / 11.18...

Adatto per Cilindri CA.11.17 / 11.18...

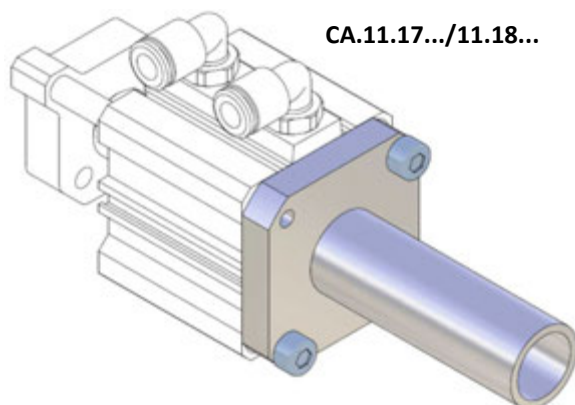
Remarks / Osservazioni:

Material / Materiale: Aluminium / Alluminio

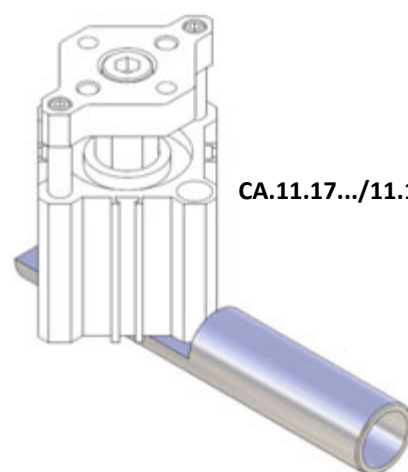
Surface: Silver anodized

Superficie: Argento anodizzato

### Application examples / Esempi applicativi



CA.11.17.../11.18...



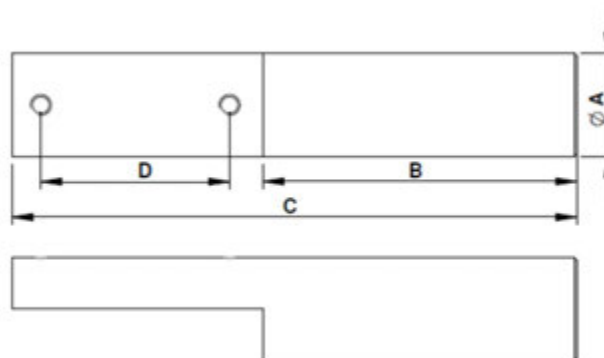
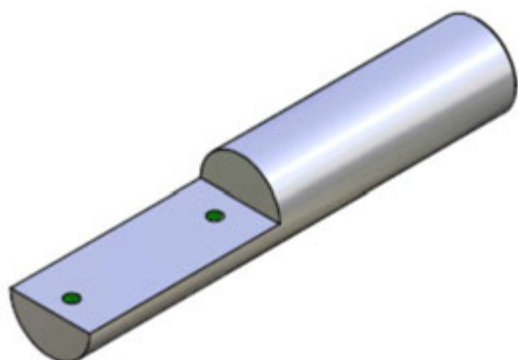
CA.11.17.../11.18...

## CA.11 GAZ

. Adapter for Cylinder

## CYLINDERS

. Staffa posteriore a L per cilindro



| Article no.     | A  | B  | C   | D    | M    | Weight |
|-----------------|----|----|-----|------|------|--------|
| CA.GAZ.12.10.60 | 10 | 60 | 98  | 21.9 | Ø 12 | 17 g   |
| CA.GAZ.16.14.60 | 14 |    | 104 | 28.3 | Ø 16 | 27 g   |
| CA.GAZ.20.20.60 | 20 |    | 108 | 36.1 | Ø 20 | 56 g   |
| CA.GAZ.25.20.60 |    |    | 130 | 39.6 | Ø 25 | 59 g   |
| CA.GAZ.32.20.60 |    |    | 140 | 48.1 | Ø 32 | 62 g   |

Table / Tabella

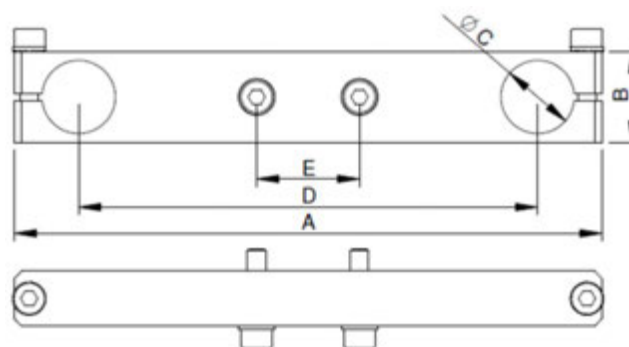
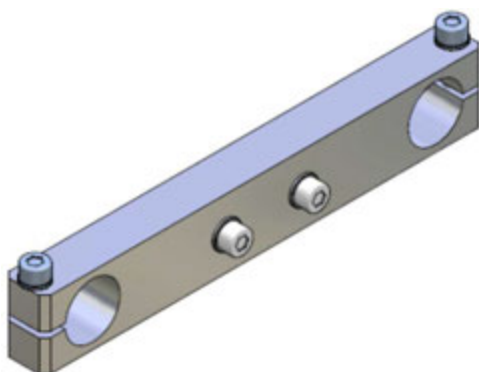
**M** = Suitable for Cylinder CA.11.17/11.18...  
Adatto per cilindri CA.11.17/11.18...

Remarks/ Osservazioni:

Material / Materiale: Aluminium / Alluminio

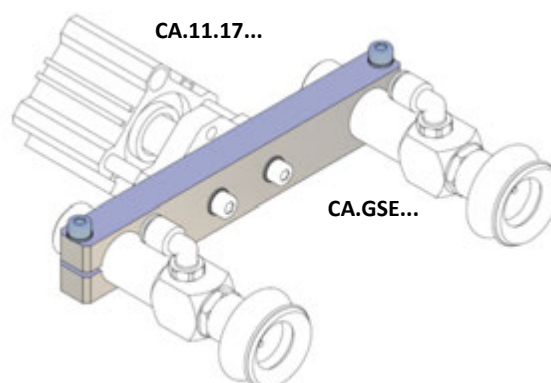
Surface: Silver anodized  
Superficie: Argento anodizzato

## CA.11 KBH



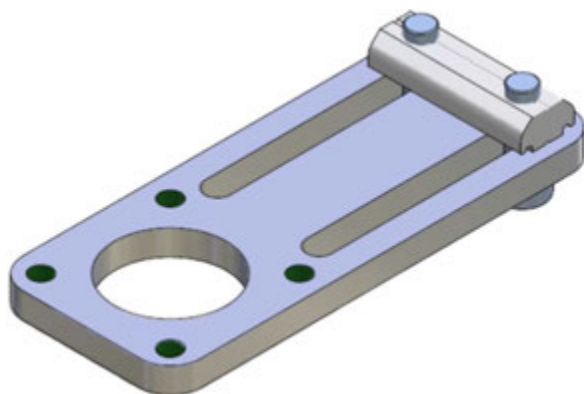
| Article no.      | A   | B  | C  | D   | E  | M    | Weight |
|------------------|-----|----|----|-----|----|------|--------|
| CA.KBH.12.10.60  | 85  | 15 | 10 | 60  | 10 | Ø 12 | 33 g   |
| CA.KBH.16.14.90  | 121 | 20 | 14 | 90  | 14 | Ø 16 | 56 g   |
| CA.KBH.16.16.125 | 156 | 25 | 16 | 125 |    |      | 88 g   |
| CA.KBH.20.14.90  | 121 | 20 | 14 | 90  | 17 | Ø 20 | 58 g   |
| CA.KBH.20.16.125 | 156 | 25 | 16 | 125 |    |      | 90 g   |
| CA.KBH.25.16.125 |     |    |    |     | 22 | Ø 25 | 94 g   |
| CA.KBH.32.20.125 | 160 |    | 20 |     | 28 | Ø 32 | 156 g  |

Application example / Esempio applicativo



## CA.11.08

. Bracket for Cylinder



| Article no.    | A  | B  | C    | D  | E    | M   | Weight |
|----------------|----|----|------|----|------|-----|--------|
| CA.11.08.001.X | 14 | 30 | 19.5 | 25 | 15,5 | Ø12 | 35 g   |
| CA.11.08.002.X | 18 |    |      |    | 20   | Ø16 | 35 g   |
| CA.11.08.003.X | 22 | 40 | 19.3 | 35 | 25.5 | Ø20 | 49 g   |
| CA.11.08.004.X | 28 | 35 | 24   | 40 | 28   | Ø25 | 52 g   |
| CA.11.08.005.X | 32 |    | 27,5 | 45 | 34   | Ø32 | 60 g   |

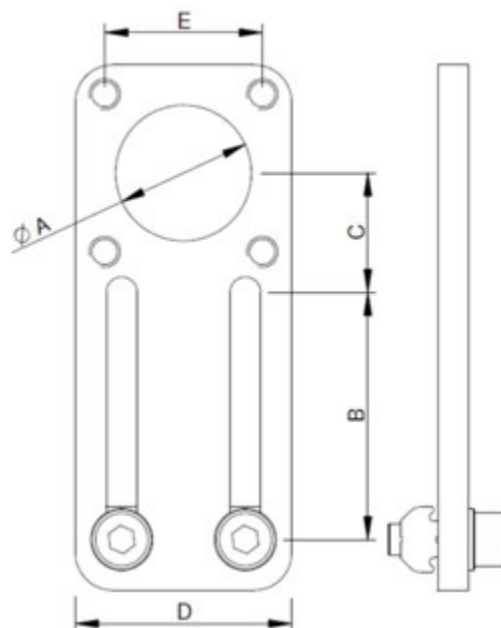


Table / Tabella

M = Suitable for Cylinder CA.11.17/11.18...

Adatto per cilindri CA.11.17/11.18...

Remarks / Osservazioni:

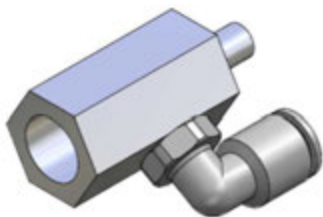
Material / Materiale: Aluminium / Alluminio

Surface: Silver anodized

Superficie: Argento anodizzato

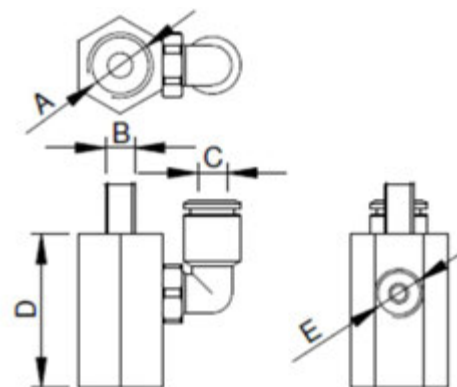
## CA.11.15

. Adapters for vacuum cups



| Article no.  | A     | B  | C | D    | E     | M   | Weight |
|--------------|-------|----|---|------|-------|-----|--------|
| CA.11.15.001 | G 1/8 | M4 | 4 | 24.5 | M5    | Ø16 | 13 g   |
| CA.11.15.002 |       | M6 |   |      |       | Ø25 | 15 g   |
| CA.11.15.004 |       | M5 |   | 34.5 |       | Ø20 | 21 g   |
| CA.11.15.003 | G 1/4 | M6 | 6 | 31   | G 1/8 | Ø25 | 24 g   |
| CA.11.15.005 |       | M8 |   | 31   |       | Ø32 | 22 g   |

. Collegamento cilindro per ventosa

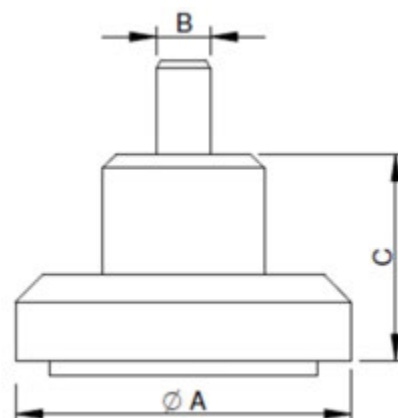


## CA.11.04

. Cylinder Buffer

## CYLINDERS

. Tampone per cilindro



| Article no.  | A  | B     | C  | M       | Weight |
|--------------|----|-------|----|---------|--------|
| CA.11.04.001 | 20 | M3    | 14 | Ø12     | 5 g    |
| CA.11.04.002 | 25 | M4    | 15 | Ø16     | 10 g   |
| CA.11.04.003 | 30 | M5    | 18 | Ø20     | 17 g   |
| CA.11.04.004 | 35 | M6    | 19 | Ø25     | 28 g   |
| CA.11.04.005 | 40 | M8    | 20 | Ø32     | 46 g   |
| CA.11.04.006 | 20 | M5    |    | KHZ/JDR | 7 g    |
| CA.11.04.007 | 40 | G 1/8 |    |         | 40 g   |

Table / Tabella

**M** = Suitable for Cylinder CA.11.17/11.18...

*Adatto per cilindri CA.11.17/11.18...*

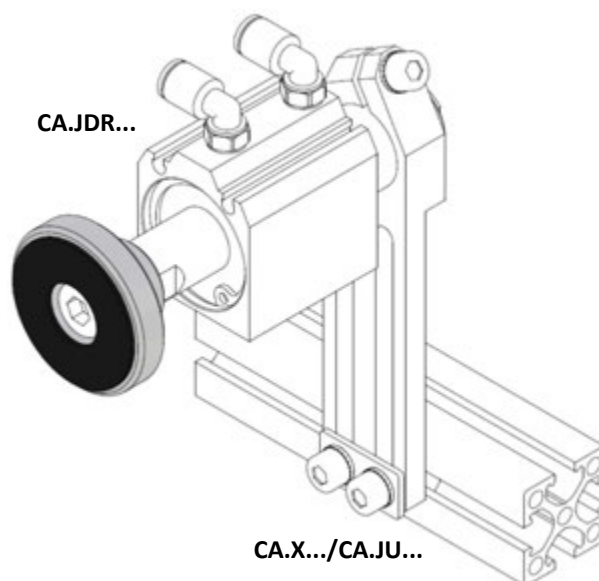
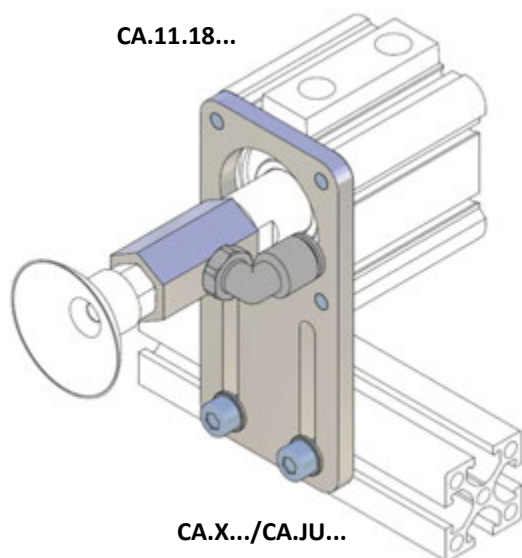
Remarks / Osservazioni:

Material / Materiale: Aluminium / Alluminio

Surface: Silver anodized

Superficie: Argento anodizzato

### Application examples / Esempi applicativi

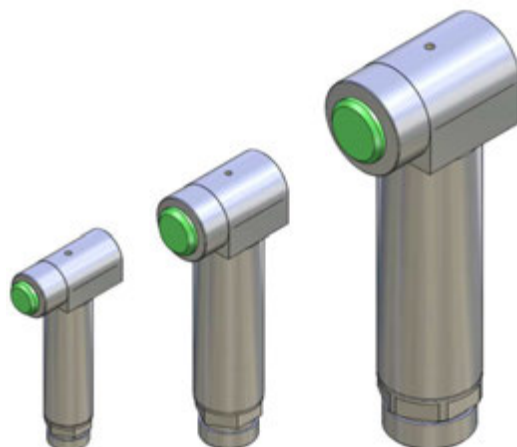


## CA.11 PMA

. One finger pneumatic grippers perpendicular acting

## PMA

. Pinza perpendicolare per staffaggio



| Article no. | Stroke | Piston bore | Gripping force<br>(at 6 bar) | Cycle air consumption | Weight |
|-------------|--------|-------------|------------------------------|-----------------------|--------|
| CA.PMA.1406 | 6 mm   | Ø 10 mm     | 63 N                         | 0.5 cm <sup>3</sup>   | 47 g   |
| CA.PMA.2010 | 10 mm  | Ø 16 mm     | 115 N                        | 3.5 cm <sup>3</sup>   | 115 g  |
| CA.PMA.3015 | 15 mm  | Ø 25 mm     | 230 N                        | 15 cm <sup>3</sup>    | 380 g  |

Remark / Osservazioni :

Working pressure: 6 bar clean and dry air

Pressione lavorante: 6 bar con aria secca e pulita

Single-acting pneumatic piston drive

Guida per pistone pneumatico ad azione singola

Finger linear motion, perpendicular to the piston

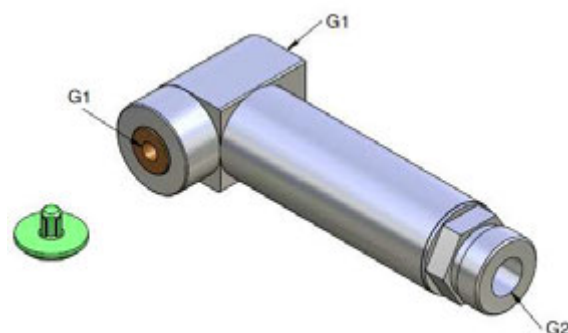
Movimento lineare del dito, perpendicolare al pistone

Finger with through hole, to provide vacuum to a cup

Dito passante per il foro, per fornire vuoto alla ventosa

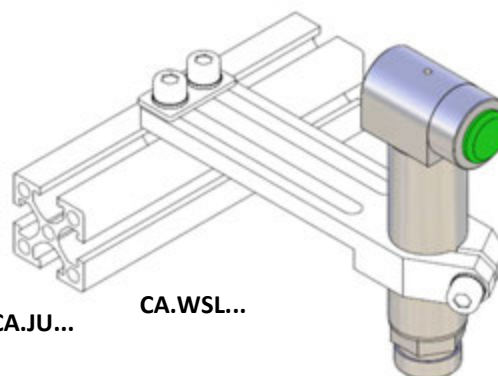
Removable VITON rubber pad on the finger, for a soft touch

Gommino rimovibile in VITON dal dito, per un tocco soffice



## Application example / Esempio applicativo

| Article no. | G1    | G2    |
|-------------|-------|-------|
| CA.PMA.1406 | M5    | M5    |
| CA.PMA.2010 |       | G 1/8 |
| CA.PMA.3015 | G 1/8 | G 1/8 |

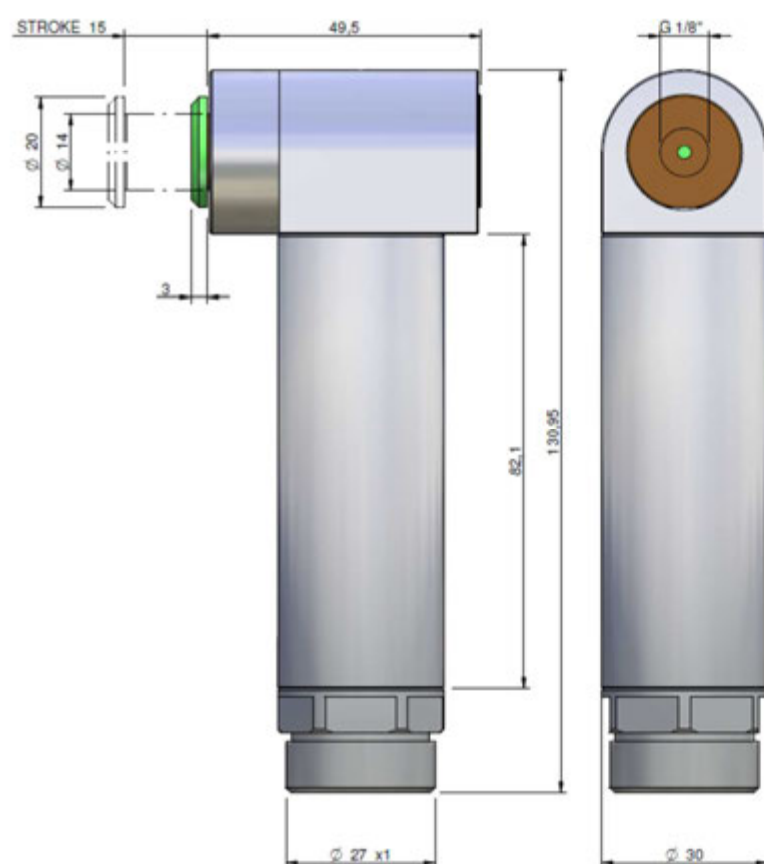
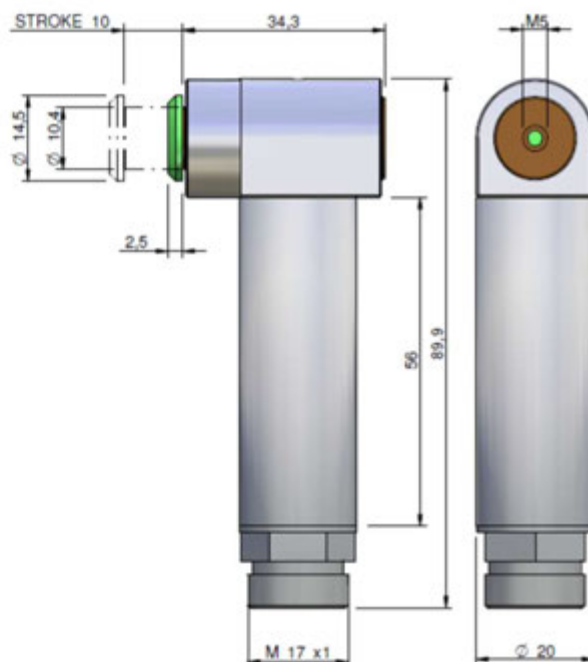
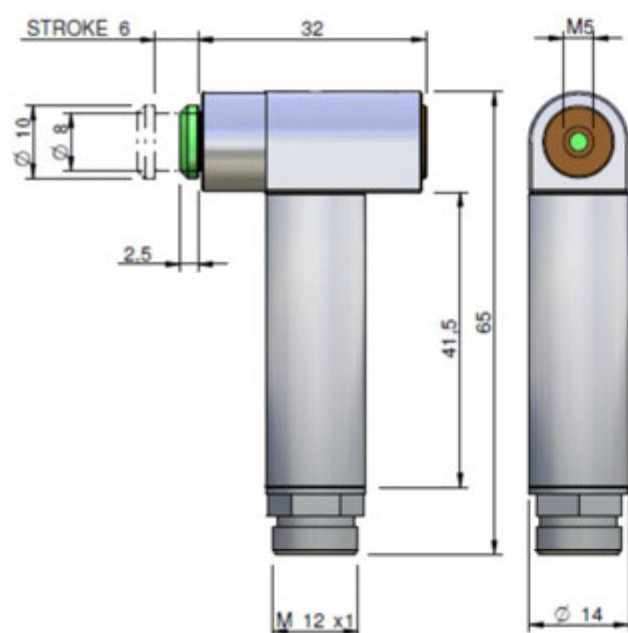


CA.L.../CA.X.../CA.JU...

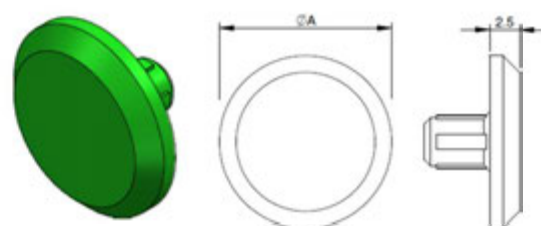
CA.WSL...

## CA.11 PMA

### . Dimensions



| Article no.   | A    | Weight |
|---------------|------|--------|
| PPS.1406.07.V | 10.5 | 3 g    |
| PPS.2010.07.V | 14.5 | 1 g    |
| PPS.3015.07.V | 20.5 | 4 g    |

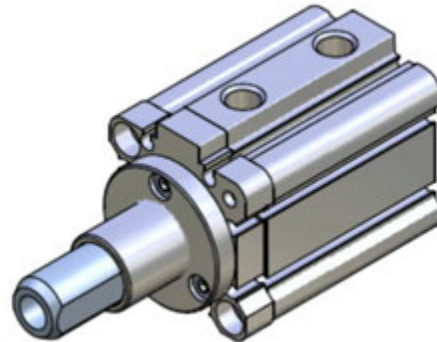
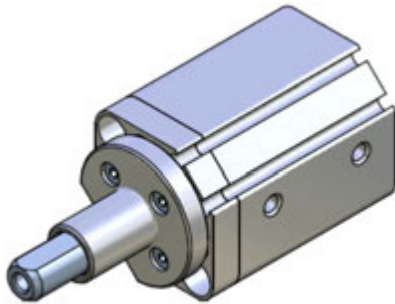


## CA.11 KHZ

. Compact Cylinder for vacuum cup

## KHZ

. Cilindro per ventosa



| Article no.     | Piston bore | Stroke | Sensor (optional)                                    | Weight |
|-----------------|-------------|--------|------------------------------------------------------|--------|
| CA.KHZ.20141005 | Ø 20        | 10     | PNP = KT58P3M<br>KT58PM8<br>NPN = KT58N3M<br>KT58NM8 | 135 g  |
| CA.KHZ.20143005 |             | 30     |                                                      | 250 g  |
| CA.KHZ.32201518 | Ø 32        | 15     |                                                      | 399 g  |
| CA.KHZ.32203018 |             | 30     |                                                      | 483 g  |
| CA.KHZ.32205018 |             | 50     |                                                      | 602 g  |

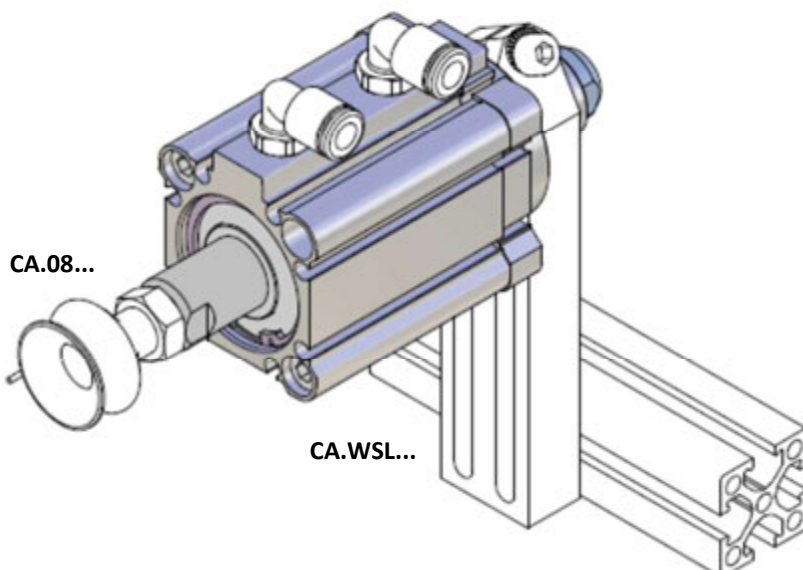
Remarks / Osservazioni:

Cylinder with through rod, non rotational  
*Cilindro con stelo passante anti Rotazionale*

Suitable for applications with suction cups  
*Adatto per applicazione di ventose*

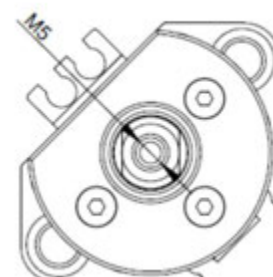
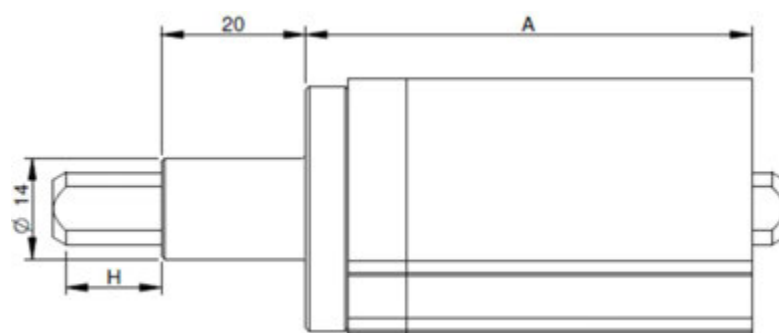
Available in 5 sizes and 5 different strokes  
*Disponibile in 5 taglie e 5 diverse corse*

Application example / Esempio applicativo

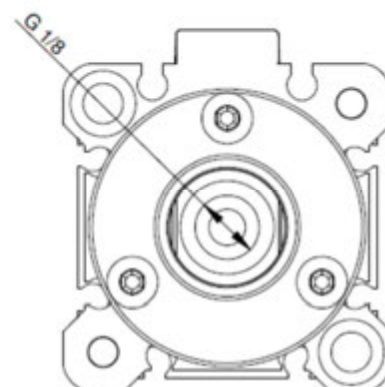
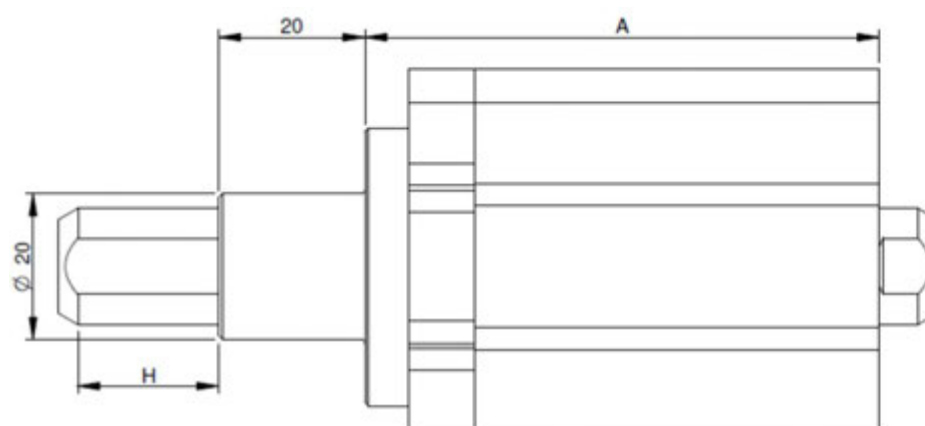


## CA.11 KHZ

. Dimensions



| Article no.     | A   | H  |
|-----------------|-----|----|
| CA.KHZ.20141005 | 62  | 10 |
| CA.KHZ.20143005 | 102 | 30 |



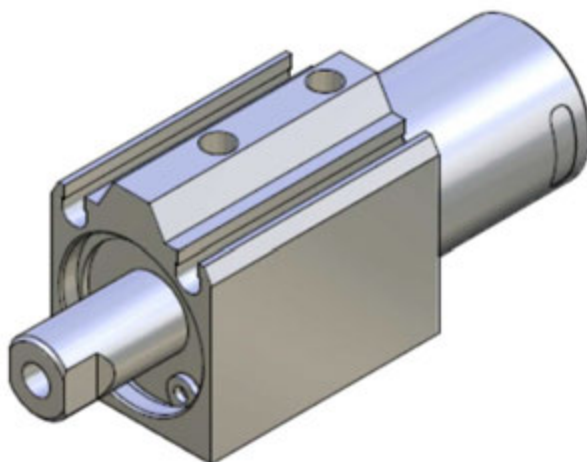
| Article no.     | A     | H  |
|-----------------|-------|----|
| CA.KHZ.32201518 | 70.5  | 15 |
| CA.KHZ.32203018 | 100.5 | 30 |
| CA.KHZ.32205018 | 140.5 | 50 |

## CA.11 JDR

. Compact cylinder for vacuum cup, non rotational

## JDR

. Cilindro per Ventosa



| Article no.   | Piston bore | Stroke | Sensor(optional) | Weight |
|---------------|-------------|--------|------------------|--------|
| CA.JDR.141005 | Ø 14        | 10     | PNP =KT58P3M     | 54 g   |
| CA.JDR.142505 |             | 25     |                  | 76 g   |
| CA.JDR.201005 | Ø 20        | 10     | KT58PM8          | 63 g   |
| CA.JDR.301518 |             | 15     | NPN = KT58N3M    | 112 g  |
| CA.JDR.303018 |             | 30     |                  | 150 g  |
| CA.JDR.305018 |             | 50     |                  | 200 g  |

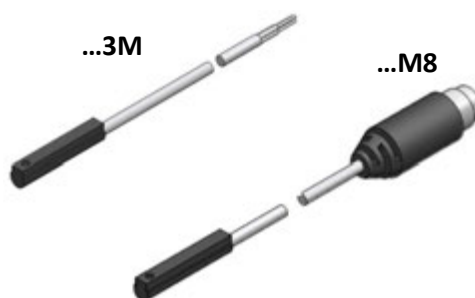
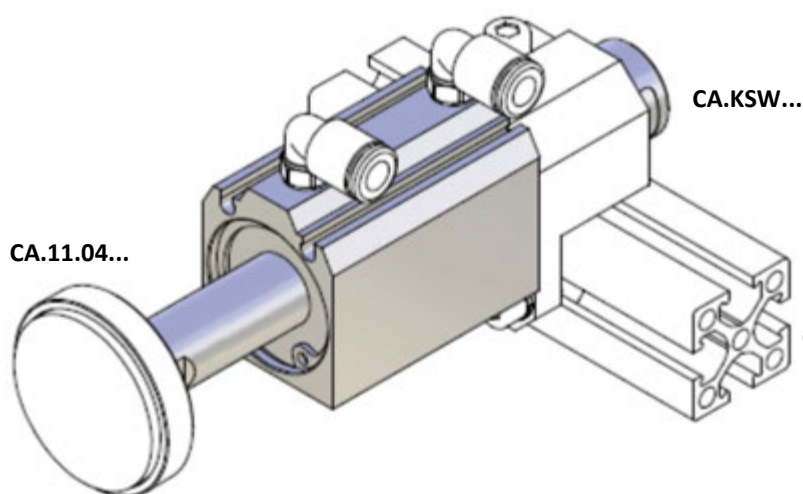
### Remarks / Osservazioni:

Cylinder with through rod, non rotational  
Cilindro con stelo passante Anti-Rotazionale

Suitable for applications with suction cups  
Adatto per applicazione di ventose

Available in 6 sizes and 6 different strokes  
Disponibile in 6 taglie e 6 diverse corse

### Application example / Esempio applicativo

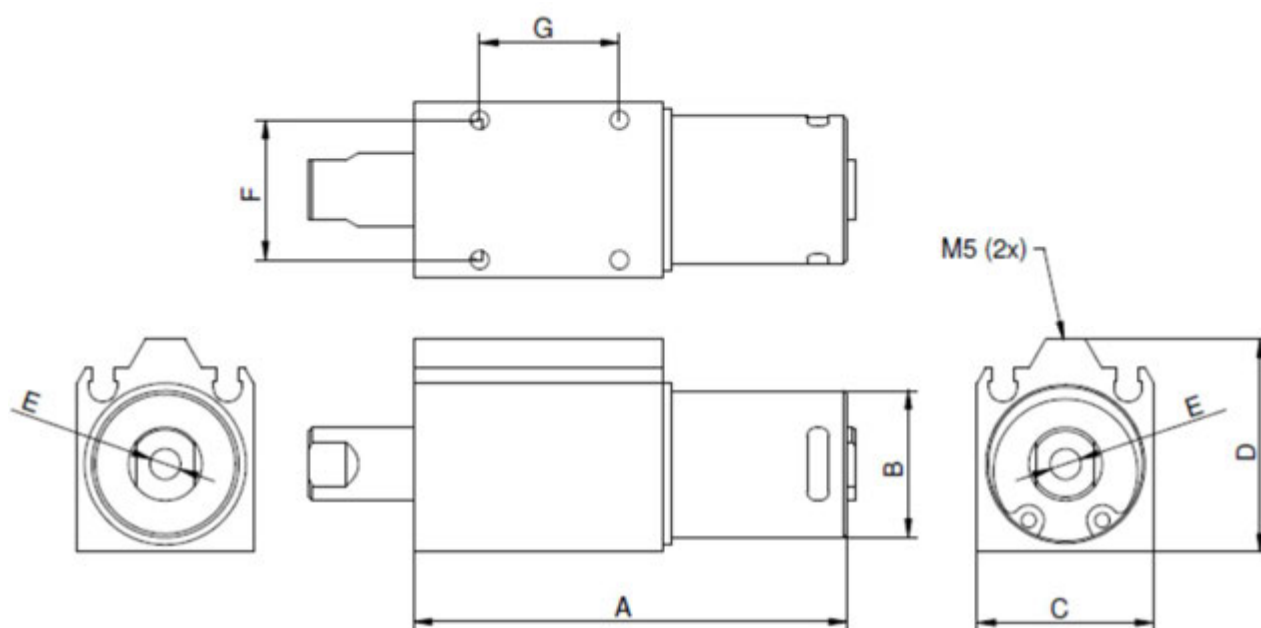


## CA.11 JDR

### . Dimensions

## JDR

### . Dimensioni

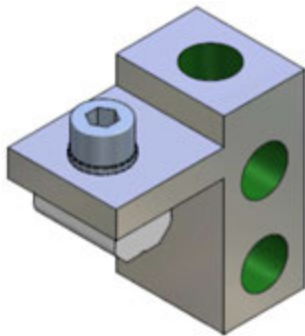


| Article no.   | A   | B    | C  | D  | E     | F  | G  | H  |
|---------------|-----|------|----|----|-------|----|----|----|
| CA.JDR.141005 | 64  | Ø 14 | 24 | 29 | M5    | 19 | 19 | 10 |
| CA.JDR.142505 | 94  |      |    |    |       |    |    | 25 |
| CA.JDR.201005 | 64  | Ø 20 | 34 | 39 | G 1/8 | 28 | 28 | 10 |
| CA.JDR.301518 | 72  |      |    |    |       |    |    | 15 |
| CA.JDR.303018 | 100 |      |    |    |       |    |    | 30 |
| CA.JDR.305018 | 140 |      |    |    |       |    |    | 50 |

## CA.12 VTB

## PNEUMATIC

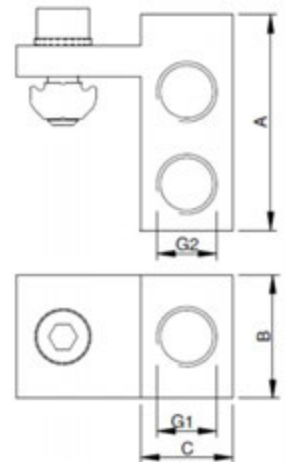
## . Air vacuum manifold 1 - 4



1 Main connection - 4 output terminal / 1 connessione principale - 4 uscite

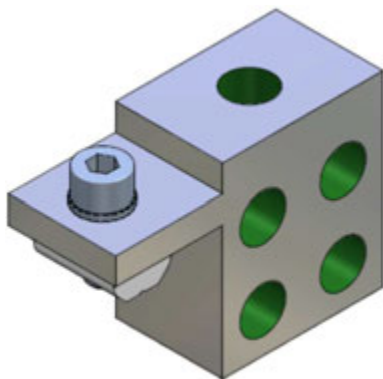
| Article no.      | A  | B  | C  | G1    | G2    | M  | Weight |
|------------------|----|----|----|-------|-------|----|--------|
| CA.VTB.X.141818  | 35 | 20 | 15 | G 1/8 | G 1/8 | X  | 35 g   |
| CA.VTB.JU.141818 |    |    |    |       |       | JU | 37 g   |

Table / Tabella

M = Suitable for PROFILE...  
Adatto per PROFILI....Remarks / Osservazioni:  
Material / Materiale:  
Aluminium / AlluminioSurface: Silver anodized  
Superficie: Argento anodizzato

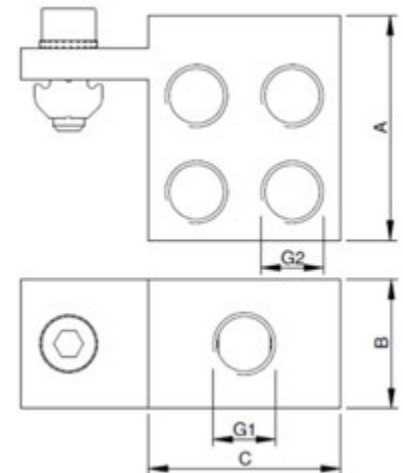
## . Distributore aria 1 - 4

## . Air vacuum manifold 1 - 8

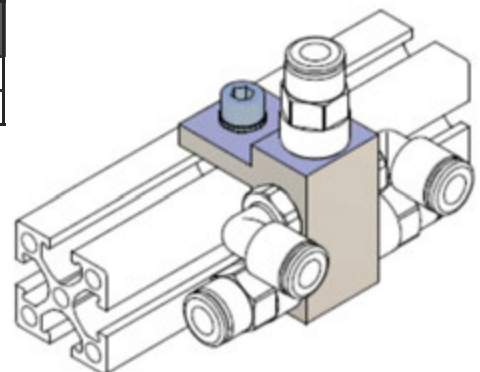


1 Main connection - 8 output terminal / 1 connessione principale - 8 uscite

| Article no.      | A  | B  | C  | G1    | G2    | M  | Weight |
|------------------|----|----|----|-------|-------|----|--------|
| CA.VTB.X.181818  | 35 | 20 | 30 | G 1/8 | G 1/8 | X  | 55 g   |
| CA.VTB.JU.181818 |    |    |    |       |       | JU | 58 g   |



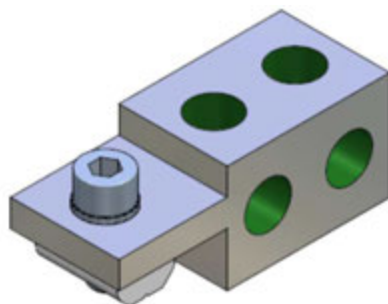
Application example / Esempio applicativo



## CA.12 VTB

## PNEUMATIC

### . Air vacuum manifold 2 - 4



2 Main connection - 4 output terminal / 2 connessioni principali - 4 uscite

| Article no.      | A  | B  | C  | G1    | G2    | M  | Weight |
|------------------|----|----|----|-------|-------|----|--------|
| CA.VTB.X.241818  | 20 | 20 | 30 | G 1/8 | G 1/8 | X  | 39 g   |
| CA.VTB.JU.241818 | 40 |    |    |       |       | JU | 41 g   |

### . Distributore aria 2 - 4

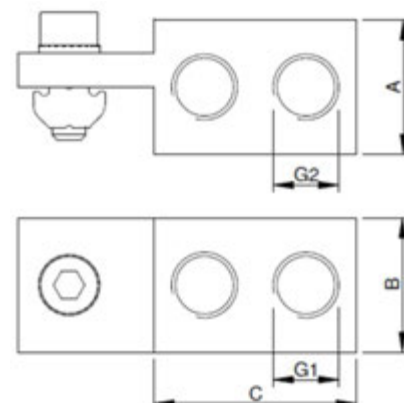
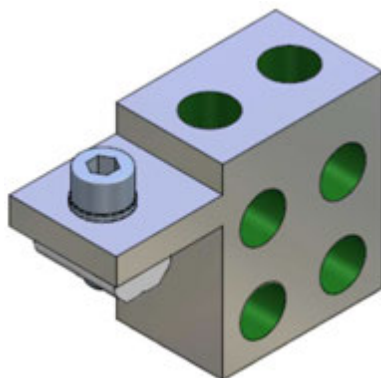


Table / Tabella  
M = Suitable for PROFILE...  
Adatto per PROFILI...

Remarks / Osservazioni:  
Material / Materiale:  
Aluminium / Alluminio

Surface: Silver anodized  
Superficie: Argento anodizzato

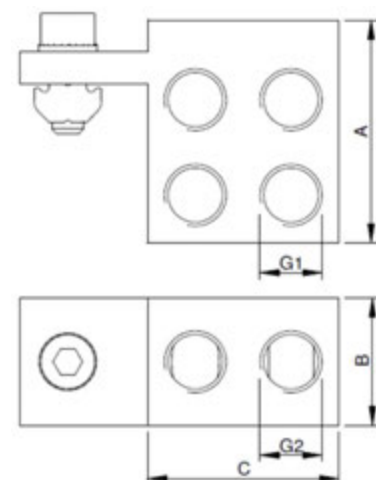
### . Air vacuum manifold 2 - 8



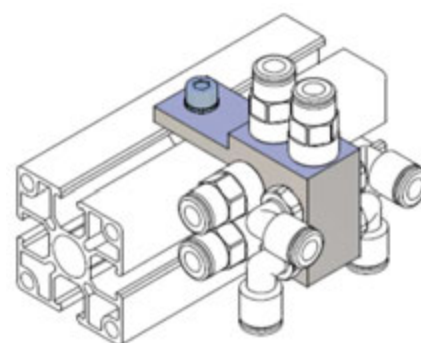
2 Main connection - 4 output terminal / 2 connessioni principali - 8 uscite

| Article no.      | A  | B  | C  | G1    | G2    | M  | Weight |
|------------------|----|----|----|-------|-------|----|--------|
| CA.VTB.X.281818  | 35 | 20 | 30 | G 1/8 | G 1/8 | X  | 54 g   |
| CA.VTB.JU.281818 |    |    |    |       |       | JU | 57 g   |

### . Distributore aria 2 - 8



### Application example / Esempio applicativo



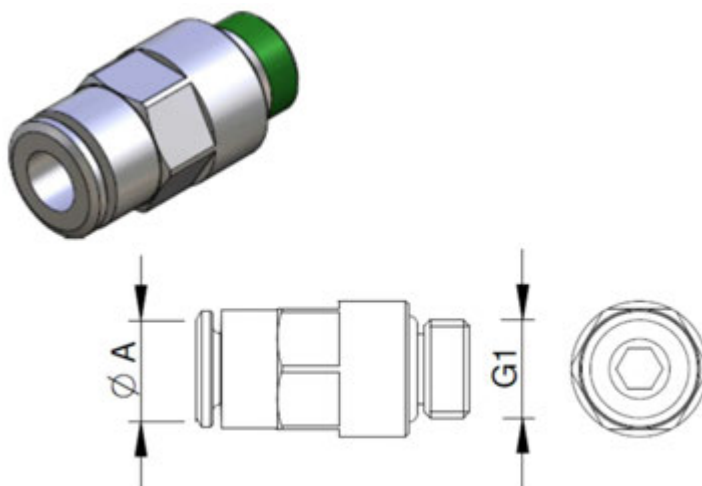
## CA.12.05

## PNEUMATIC

### . Straight male adapter (parallel)

### . Raccordo diritto

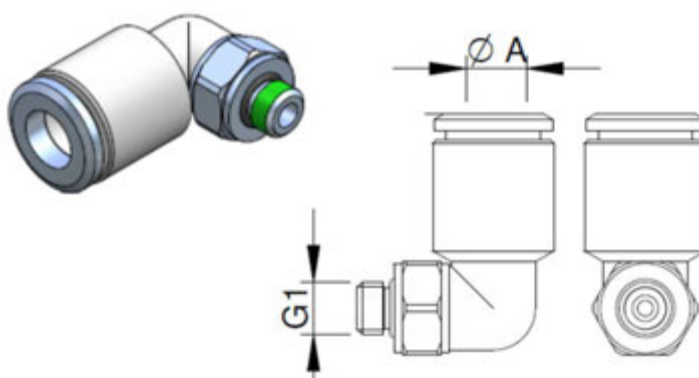
| Article no.  | A   | G1    | Weight |
|--------------|-----|-------|--------|
| CA.12.05.015 | Ø 4 | M5    | 4 g    |
| CA.12.05.016 | Ø 6 |       | 8 g    |
| CA.12.05.017 |     | G 1/8 | 10 g   |
| CA.12.05.023 | Ø 3 | M3    | 1 g    |
| CA.12.05.024 |     | M5    |        |
| CA.12.05.044 | Ø 4 | G 1/8 | 10 g   |
| CA.12.05.047 | Ø 6 | G 1/4 | 13 g   |
| CA.12.05.048 | Ø 8 |       | 17 g   |
| CA.12.05.049 |     | G 3/8 | 27g    |



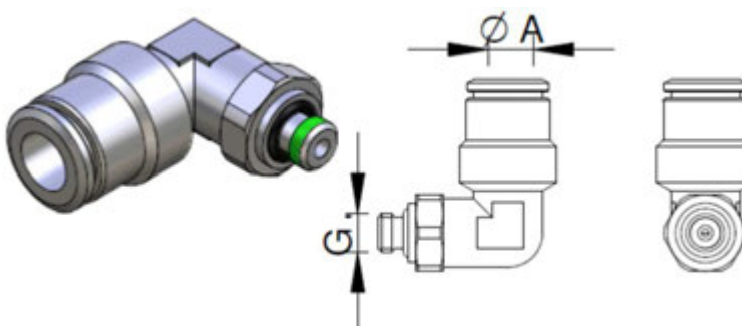
### . Orienting elbow male adapter (parallel)

### . Raccordo gomito

| Article no.  | A   | G1    | Weight |
|--------------|-----|-------|--------|
| CA.12.05.001 | Ø 4 | M5    | 4 g    |
| CA.12.05.002 | Ø 6 |       | 5 g    |
| CA.12.05.003 |     | G 1/8 | 8 g    |
| CA.12.05.038 |     | G 1/4 | 11 g   |
| CA.12.05.039 | Ø 8 |       | 13 g   |
| CA.12.05.040 | Ø 4 | G 1/8 | 7 g    |



| Article no.  | A   | G1    | Weight |
|--------------|-----|-------|--------|
| CA.12.05.018 | Ø 4 | M5    | 12 g   |
| CA.12.05.019 | Ø 6 | G 1/8 | 19 g   |
| CA.12.05.020 |     | M5    | 14 g   |
| CA.12.05.021 | Ø 3 | M3    | 5 g    |
| CA.12.05.022 |     | M5    | 6 g    |



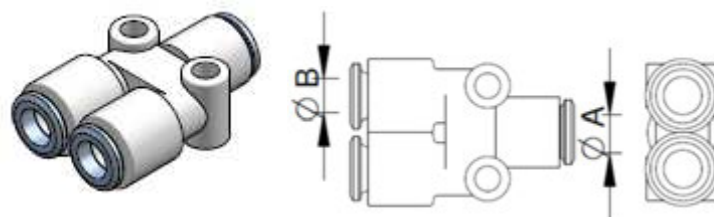
## CA.12.05

## PNEUMATIC

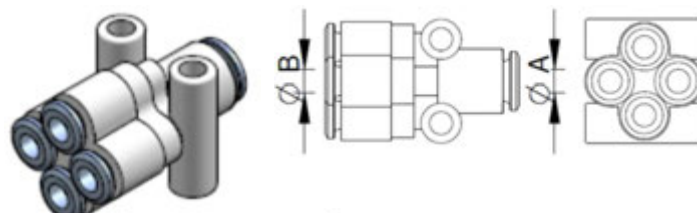
### . Y connector

### . Raccordo Y

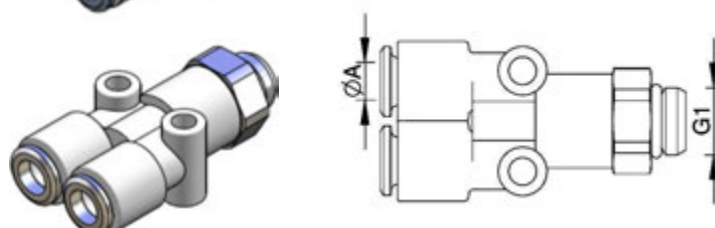
| Article no.  | A   | B       | Weight |
|--------------|-----|---------|--------|
| CA.12.05.004 | Ø 4 | 2 x Ø 4 | 6 g    |
| CA.12.05.005 | Ø 6 | 2 x Ø 6 | 9 g    |
| CA.12.05.006 |     | 2 x Ø 4 | 7 g    |
| CA.12.05.007 | Ø 8 | 2 x Ø 6 | 11 g   |
| CA.12.05.034 | Ø 3 | 2 x Ø 3 | 5 g    |



| Article no.  | A   | B       | Weight |
|--------------|-----|---------|--------|
| CA.12.05.008 | Ø 6 | 4 x Ø 4 | 12 g   |
| CA.12.05.009 | Ø 8 | 4 x Ø 6 | 17 g   |



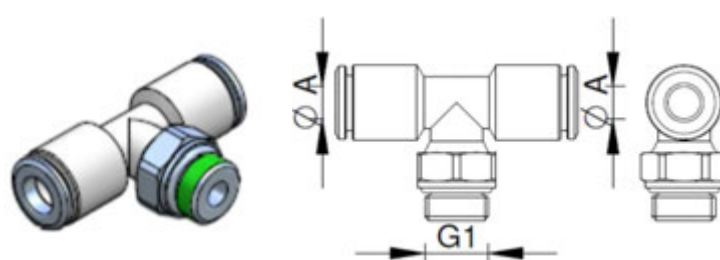
| Article no.  | A   | G1    | Weight |
|--------------|-----|-------|--------|
| CA.12.05.050 | Ø 4 | G 1/8 | 13 g   |
| CA.12.05.051 | Ø 6 |       | 15 g   |



### . Orienting Tee male adapter (parallel) – centre leg

### . Raccordo T centrale girevole

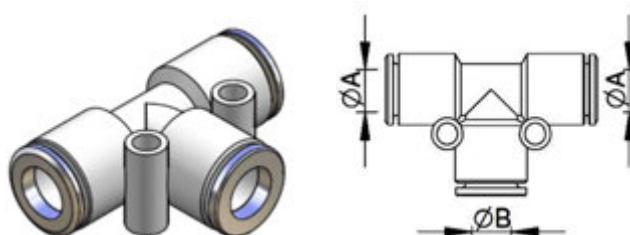
| Article no.  | A   | G1    | Weight |
|--------------|-----|-------|--------|
| CA.12.05.028 | Ø 4 | M5    | 7 g    |
| CA.12.05.029 |     | G 1/8 | 9 g    |
| CA.12.05.030 | Ø 6 | M5    | 11 g   |
| CA.12.05.031 | Ø 6 |       | 9 g    |



### . Tee Connector

### . Raccordo a T intermedio

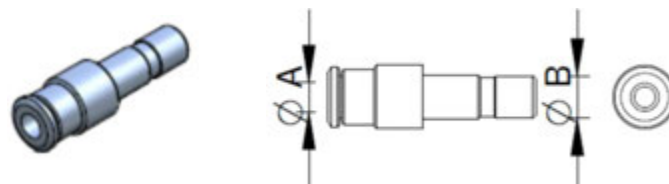
| Article no.  | A   | B   | Weight |
|--------------|-----|-----|--------|
| CA.12.05.012 | Ø 4 | Ø 4 | 6 g    |
| CA.12.05.013 | Ø 6 | Ø 6 | 9 g    |
| CA.12.05.014 | Ø 8 | Ø 8 | 14 g   |



### . Reducer Junction

### . Riduzione

| Article no.  | A   | B   | Weight |
|--------------|-----|-----|--------|
| CA.12.05.035 | Ø 3 | Ø 4 | 2 g    |
| CA.12.05.042 | Ø 4 | Ø 6 | 9 g    |



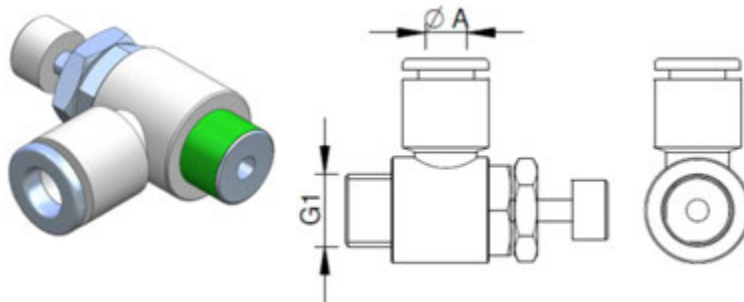
## CA.12.05

## PNEUMATIC

### . Speed Controller

### . Regolatore flusso

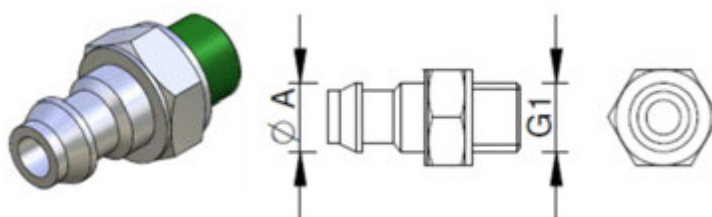
| Article no.     | A   | G1    | Weight |
|-----------------|-----|-------|--------|
| CA.12.05.RF1806 | Ø 6 | G 1/8 | 17 g   |
| CA.12.05.RF1804 | Ø 4 |       |        |
| CA.12.05.RFM504 | Ø 4 | M5    | 7 g    |
| CA.12.05.RFM506 | Ø 6 |       |        |



### . Straight fitting

### . Raccordo a resca dritto metallico

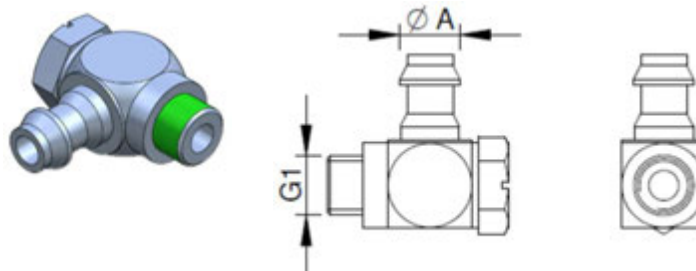
| Article no.    | A   | G1 | Weight |
|----------------|-----|----|--------|
| CA.12.05.M5AU3 | Ø 3 | M5 | 1 g    |
| CA.12.05.M5AU4 | Ø 4 |    |        |
| CA.12.05.M5AU6 | Ø 6 |    | 2 g    |



### . Adjustable-position elbow fitting

### . Raccordo a resca metallico

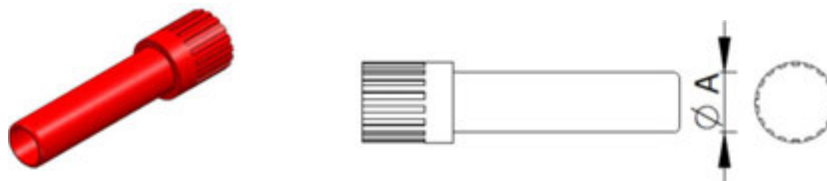
| Article no.      | A   | G1 | Weight |
|------------------|-----|----|--------|
| CA.12.05.M5ALHU3 | Ø 3 | M5 | 3 g    |
| CA.12.05.M5ALHU4 | Ø 4 |    |        |
| CA.12.05.M5ALHU6 | Ø 6 |    | 4 g    |



### . Plug polyamede

### . Tappo Maschio

| Article no.  | A   | Weight |
|--------------|-----|--------|
| CA.12.05.036 | Ø 4 | 1 g    |
| CA.12.05.037 | Ø 6 |        |



| Article no. | M     |
|-------------|-------|
| CA.08.09.05 | M5    |
| CA.08.09.18 | G 1/8 |
| CA.08.09.14 | G 1/4 |



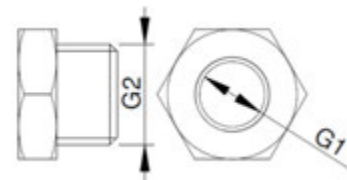
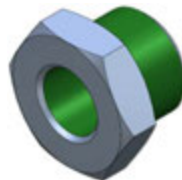
## CA.08.14

## PNEUMATIC

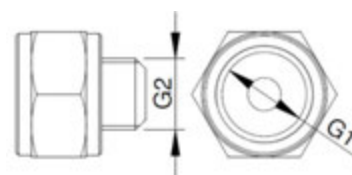
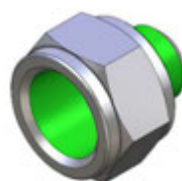
### . Reducer (parallel)

### . Riduzione cilindrica

| Article no.  | G1    | G2    | Weight |
|--------------|-------|-------|--------|
| CA.08.14.001 | M5    | G 1/8 | 8 g    |
| CA.08.14.002 | M6    |       |        |
| CA.08.14.003 | G 1/8 | G 1/4 | 11 g   |
| CA.08.14.004 | M6    |       | 13 g   |
| CA.08.14.022 | G 1/4 | G 3/8 | 12 g   |



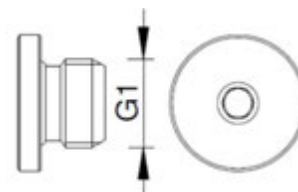
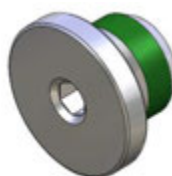
| Article no.  | G1    | G2    | Weight |
|--------------|-------|-------|--------|
| CA.08.14.018 | G 1/8 | M5    | 7 g    |
| CA.08.14.019 | G 1/4 | G 1/8 | 14 g   |



### . Male plug (parallel)

### . Tappo testa cilindrica

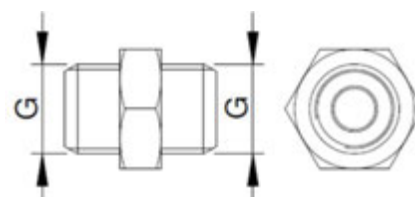
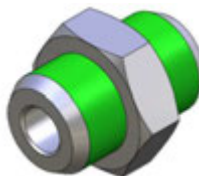
| Article no.  | G1    | Weight |
|--------------|-------|--------|
| CA.08.14.013 | M5    | 3 g    |
| CA.08.14.014 | G 1/8 | 4 g    |
| CA.08.14.015 | G 1/4 | 7 g    |



### . Nipple (parallel)

### . Nipplo cilindrico

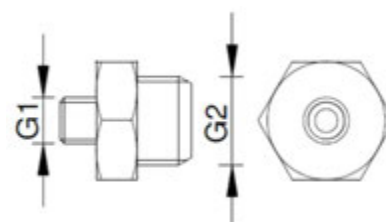
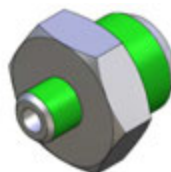
| Article no.  | G     | Weight |
|--------------|-------|--------|
| CA.08.14.021 | M5    | 2 g    |
| CA.08.14.005 | G 1/8 | 9 g    |
| CA.08.14.006 | G 1/4 | 15 g   |



### . Nipple (parallel)

### . Nipplo di riduzione cilindrica

| Article no.  | G1    | G2    | Weight |
|--------------|-------|-------|--------|
| CA.08.14.011 | M5    | G 1/8 | 8 g    |
| CA.08.14.012 | G 1/8 | G 1/4 | 15 g   |



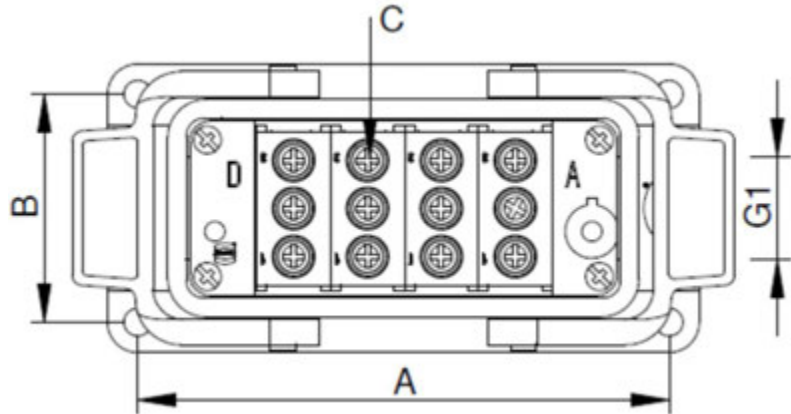
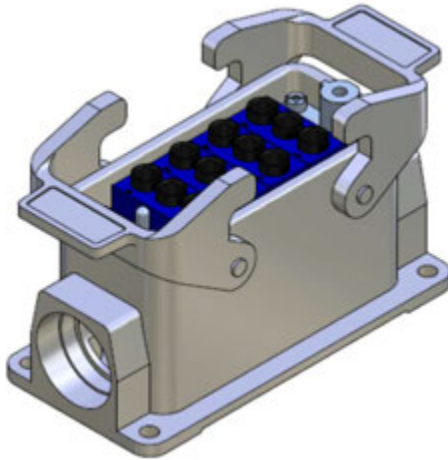
## CA.12 SCAR - SCAG

. Mounting case

## PNEUMATIC

. Connessione pneumatica Harting

Robot side RS Lato Robot

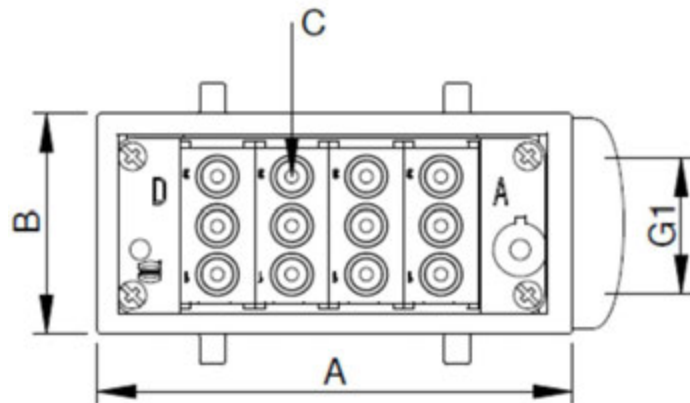
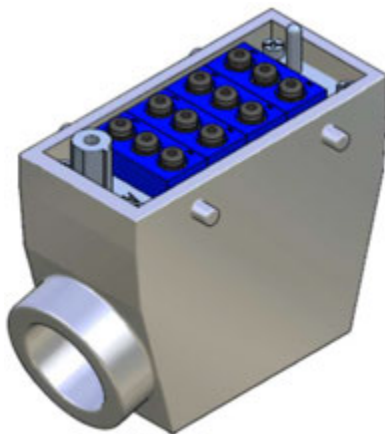


| Article no.    | A   | B  | G1   | C       | Weight |
|----------------|-----|----|------|---------|--------|
| CA.SCAR.12P00E | 105 | 45 | PG21 | 12x Ø 6 | 405 g  |

. Grommet case

. Connessione pneumatica Harting

Gripper side GS Lato Mano



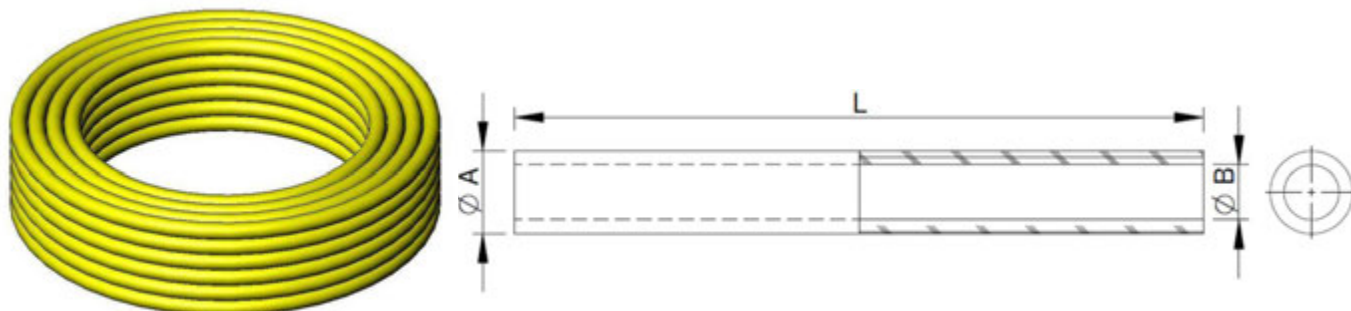
| Article no.    | A  | B  | G1   | C       | Weight |
|----------------|----|----|------|---------|--------|
| CA.SCAG.12P00E | 93 | 43 | PG21 | 12x Ø 6 | 361 g  |

## CA.15.01

## PNEUMATIC

. Hoses

. Tubo Poliuretano



| Article no.  | Colour  | A | B   | L [mt] |
|--------------|---------|---|-----|--------|
| CA.15.01.011 | Neutral | 3 | 1.5 | 25 mt  |
| CA.15.01.010 |         | 4 | 2.5 |        |
| CA.15.01.001 | Blue    |   |     |        |
| CA.15.01.004 | Yellow  |   |     |        |
| CA.15.01.007 | Red     |   |     |        |
| CA.15.01.019 | Black   |   |     |        |
| CA.15.01.020 | Green   |   |     |        |
| CA.15.01.009 | Neutral | 6 | 4   |        |
| CA.15.01.002 | Blue    |   |     |        |
| CA.15.01.003 | Yellow  |   |     |        |
| CA.15.01.006 | Red     |   |     |        |
| CA.15.01.015 | Black   |   |     |        |
| CA.15.01.014 | Green   |   |     |        |
| CA.15.01.016 | Gray    |   |     |        |
| CA.15.01.012 | Neutral | 8 | 5.5 |        |
| CA.15.01.005 | Yellow  |   |     |        |
| CA.15.01.008 | Red     |   |     |        |

Table / Tabella

A = Outer diameter  
Diametro esterno

B = Inner diameter  
Diametro interno

L = Length  
Lunghezza

### Remarks / Osservazioni :

Polyurethane hose for compressed air suitable for use with push-in fittings.

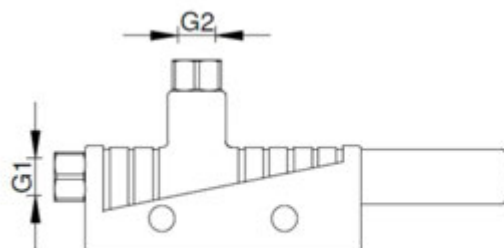
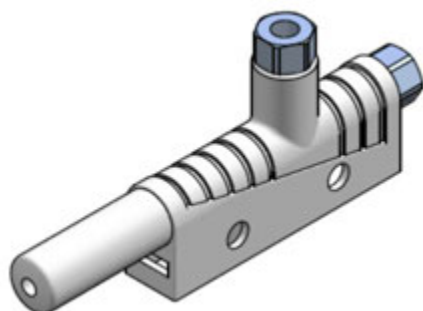
*Tubo in poliuretano per aria compressa adatto per l'uso con raccordi ad innesto rapido*

## CA.12 SBP

. Basic Ejector

## PNEUMATIC

. *Eiettore base*



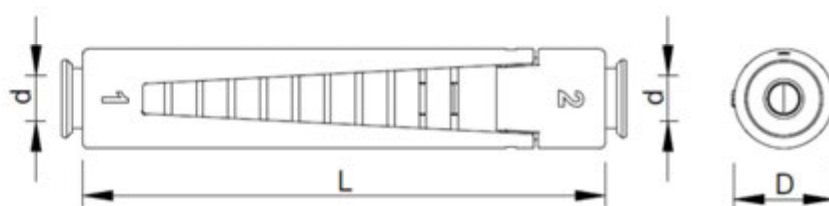
| Article no.   | G1    | G2    | B  | Ø   | Weight |
|---------------|-------|-------|----|-----|--------|
| CA.SBP.10.G02 | G 1/8 | G 1/8 | 10 | 1   | 22 g   |
| CA.SBP.15.G02 |       |       | 15 | 1.5 |        |
| CA.SBP.20.G03 | G 1/4 | G 3/8 | 20 | 2.0 | 50 g   |

## CA.12 SLP

. Inline Ejector

## PNEUMATIC

. *Eiettore inline*



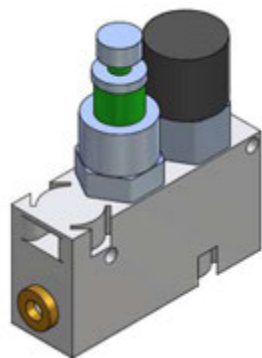
| Article no.  | d | D  | L  | Ø   | Weight |
|--------------|---|----|----|-----|--------|
| CA.SLP.05.SI | 4 | 10 | 57 | 0.5 | 5 g    |
| CA.SLP.07.SI |   |    |    | 0.7 |        |

## CA.11

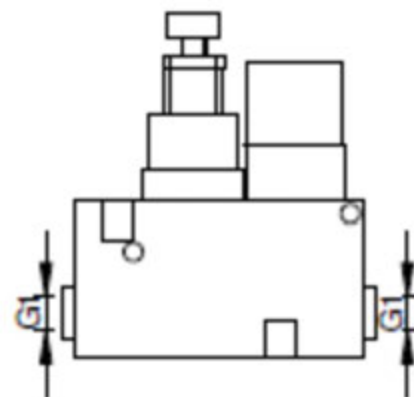
## PNEUMATIC

. Pressure Regulator

. Micro regolatore di pressione



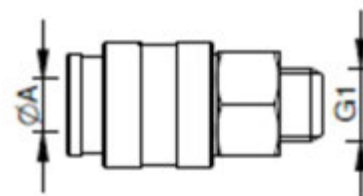
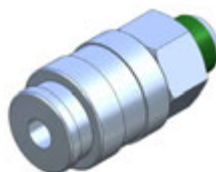
| Article no.  | G1 | Weight |
|--------------|----|--------|
| CA.11.06.001 | 4  | 30 g   |



## CA.12

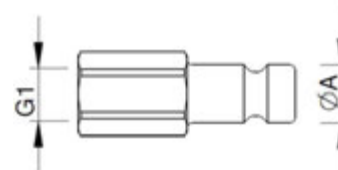
## . Quick coupling socket

| Article no.  | A   | G1    | Weight |
|--------------|-----|-------|--------|
| CA.12.06.003 | 2.5 | M5    | 8 g    |
| CA.12.06.001 | 5.0 | G 1/8 | 27 g   |
| CA.12.06.007 | 7   | G 1/4 | 70 g   |

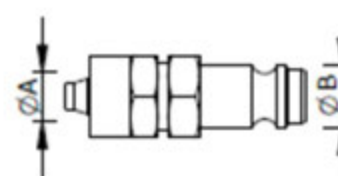


## . Plug-In Nipple

| Article no.  | A   | G1    | Weight |
|--------------|-----|-------|--------|
| CA.12.06.008 | 2.5 | M5    | 3 g    |
| CA.12.06.005 | 5.0 | G 1/8 | 14 g   |
| CA.12.06.006 | 7   | G 1/4 | 23 g   |

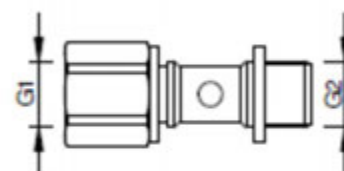


| Article no.  | A | B   | Weight |
|--------------|---|-----|--------|
| CA.12.06.004 | 4 | 2.5 | 5 g    |
| CA.12.06.002 | 6 | 5.0 | 18 g   |



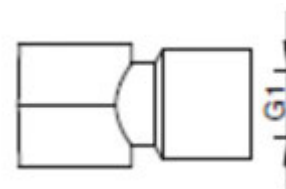
## . Pneumatic Hollow bolt

| Article no.  | G1    | G2    | Weight |
|--------------|-------|-------|--------|
| CA.01.08.005 | M5    | M5    | 3 g    |
| CA.01.08.003 | G 1/8 | G 1/8 | 17 g   |
| CA.01.08.006 | G 1/4 | G 1/4 | 28 g   |



## . Pneumatic ring connection

| Article no.  | G1    | M            | Weight |
|--------------|-------|--------------|--------|
| CA.01.08.008 | M5    | CA.01.08.005 | 6 g    |
| CA.01.08.004 | G 1/8 | CA.01.08.003 | 15 g   |
| CA.01.08.007 | G 1/4 | CA.01.08.006 | 20 g   |



## PNEUMATIC

## . Innesto rapido mini femmina

## . Innesto rapido mini maschio

## . Asta per anello pneumatico

## . Anello pneumatico

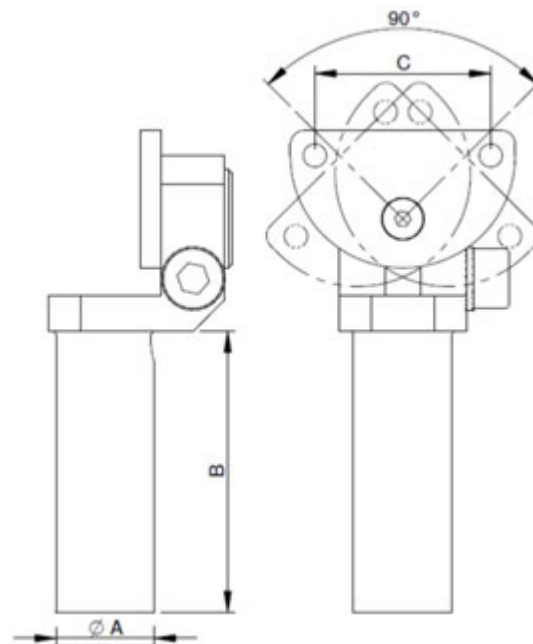
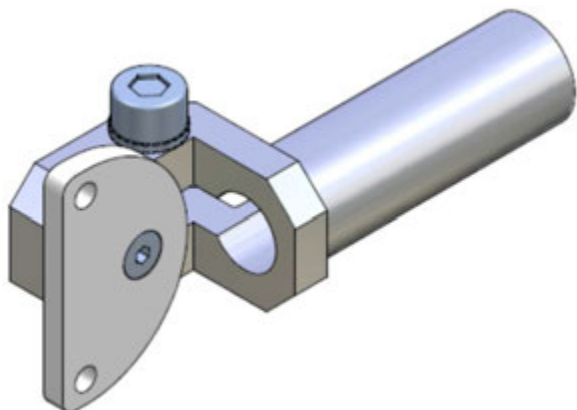


## CA.14 ATK

## SENSORS

. Adapter for Part Control

. Staffa snodata per sensore



Remarks / Osservazioni:

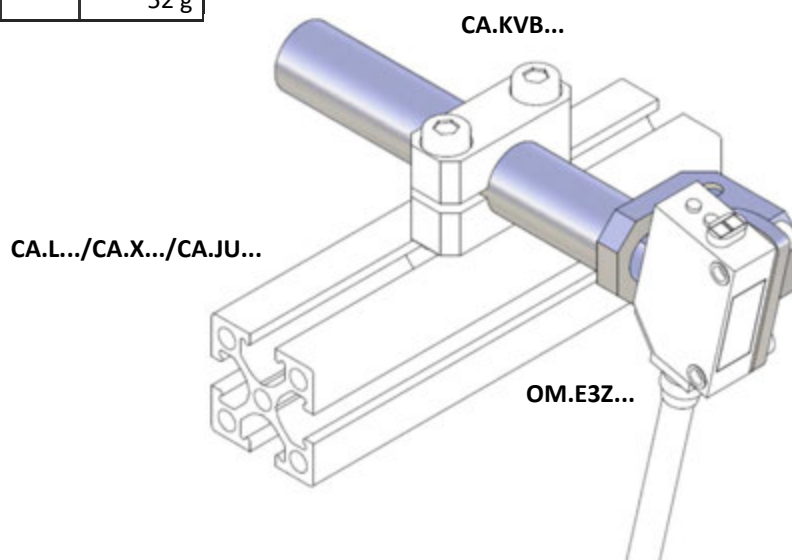
For Part Control OM.E3Z...  
Per sensore OM.E3Z...

Material / Materiale: Aluminium / Alluminio

Surface / Superficie: Silver anodized / Argento anodizzato

| Article no.      | A  | B   | C  | Weight |
|------------------|----|-----|----|--------|
| CA.ATK.10.10.30  | 10 | 30  | 25 | 23 g   |
| CA.ATK.10.10.60  |    | 60  |    | 26 g   |
| CA.ATK.10.10.90  |    | 90  |    | 29 g   |
| CA.ATK.10.14.40  | 14 | 40  | 25 | 36 g   |
| CA.ATK.10.14.80  |    | 80  |    | 44 g   |
| CA.ATK.10.14.120 |    | 120 |    | 52 g   |

Application example / Esempio applicativo

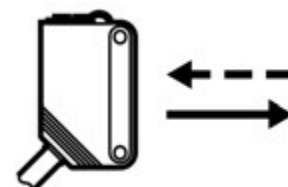
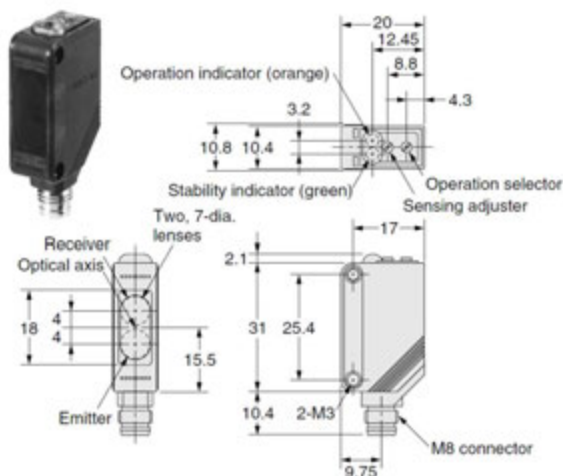


## CA.14 OM.E3Z

## SENSORS

. Diffuse reflective

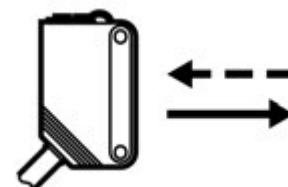
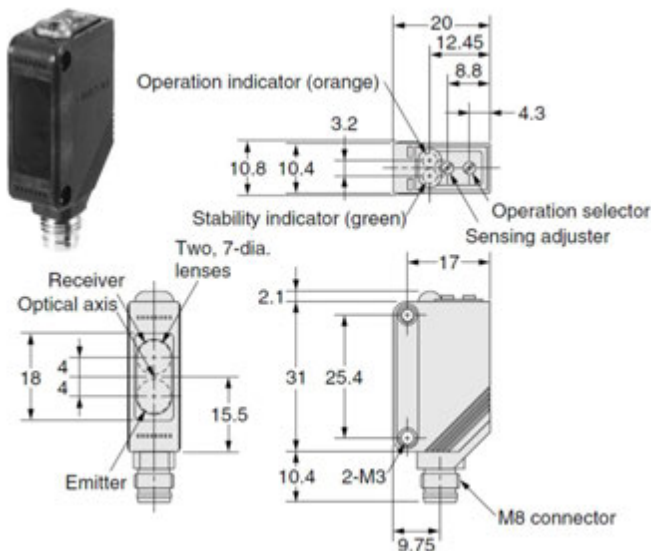
. Fotosens tast. diretto fascio largo



| Article no.    | Output | Power supply voltage    | Sensor type          | Sensing distance        | Connector method       |
|----------------|--------|-------------------------|----------------------|-------------------------|------------------------|
| OM.E3Z-D86.OMS | PNP    | 12 to 24 VDC $\pm 10\%$ | Diffuse - reflective | 5 to 100 mm (wide view) | Connector type M8 4pin |
| OM.E3Z-D66.OMS | NPN    |                         |                      |                         |                        |

. Laser Thin beam type (1 mm) reflective model

. Fotosens. tast. diretto fascio 1 mm



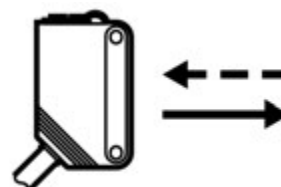
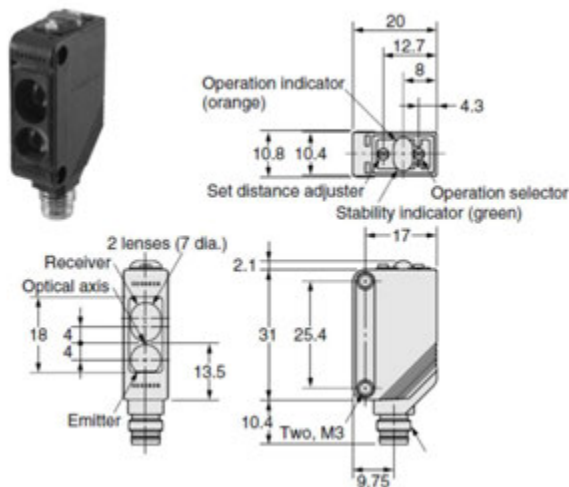
| Article no.     | Output | Power supply voltage    | Sensor type                           | Sensing distance | Connector method       |
|-----------------|--------|-------------------------|---------------------------------------|------------------|------------------------|
| OM.E3Z-LL86.OMS | PNP    | 12 to 24 VDC $\pm 10\%$ | Laser Thin beam type reflective model | 90 $\pm 30$ mm   | Connector type M8 4pin |
| OM.E3Z-LL66.OMS | NPN    |                         |                                       |                  |                        |

## CA.14 OM.E3Z

## SENSORS

. Distance-settable (Laser)

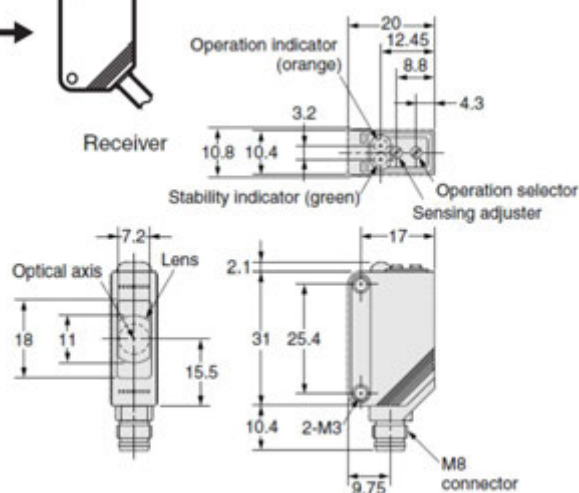
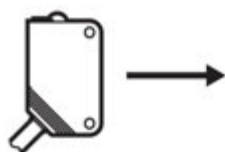
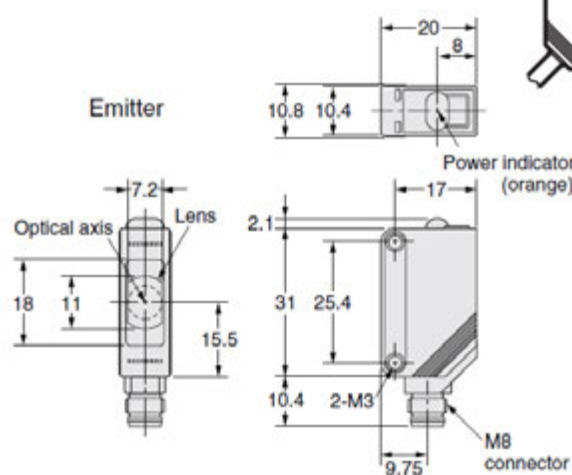
. Fotosen sopp. di sfondo regolabile



| Article no.     | Output | Power supply voltage    | Sensor type       | Sensing distance | Connector method         |
|-----------------|--------|-------------------------|-------------------|------------------|--------------------------|
| OM.E3Z-LS86.OMS | PNP    | 12 to 24 VDC $\pm 10\%$ | Distance-settable | 30 to 200 mm     | Connector type M8 7 4pin |
| OM.E3Z-LS66.OMS | NPN    |                         |                   |                  |                          |

. Through-beam laser 1 mm

. Fotosens. spot 1 mm emett/ricev



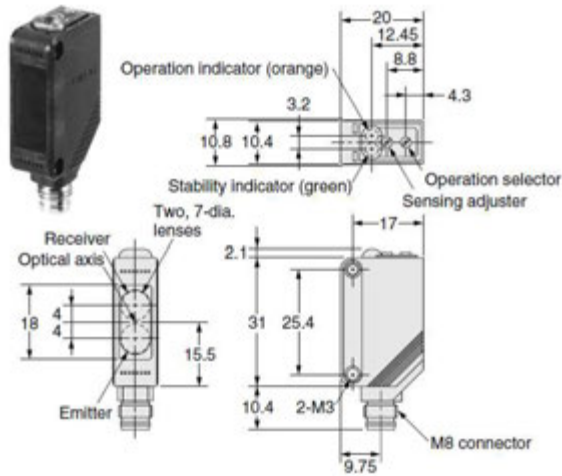
| Article no.     | Output | Power supply voltage    | Sensor type  | Sensing distance | Connector method       |
|-----------------|--------|-------------------------|--------------|------------------|------------------------|
| OM.E3Z-LT86.OMS | PNP    | 12 to 24 VDC $\pm 10\%$ | Through-beam | 15 m             | Connector type M8 4pin |
| OM.E3Z-LT66.OMS | NPN    |                         |              |                  |                        |

CA.14 OM.E3Z

SENSORS

. Retroreflective model

. Fotosens. per catarifrangente regol. fascio largo



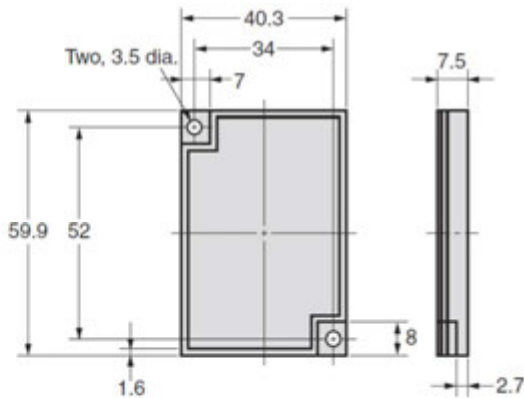
| Article no.    | Output | Power supply voltage    | Sensor type           | Sensing distance | Connector method          |
|----------------|--------|-------------------------|-----------------------|------------------|---------------------------|
| OM.E3Z-R86.OMS | PNP    | 12 to 24 VDC $\pm 10\%$ | Retroreflective model | 4 m              | Connector type M8<br>4pin |
| OM.E3Z-R66.OMS | NPN    |                         |                       |                  |                           |

. Reflector (order separately)

. Catarifrangente per sensori



Material:  
Reflective surface: acrylic  
Rear surface: ABS



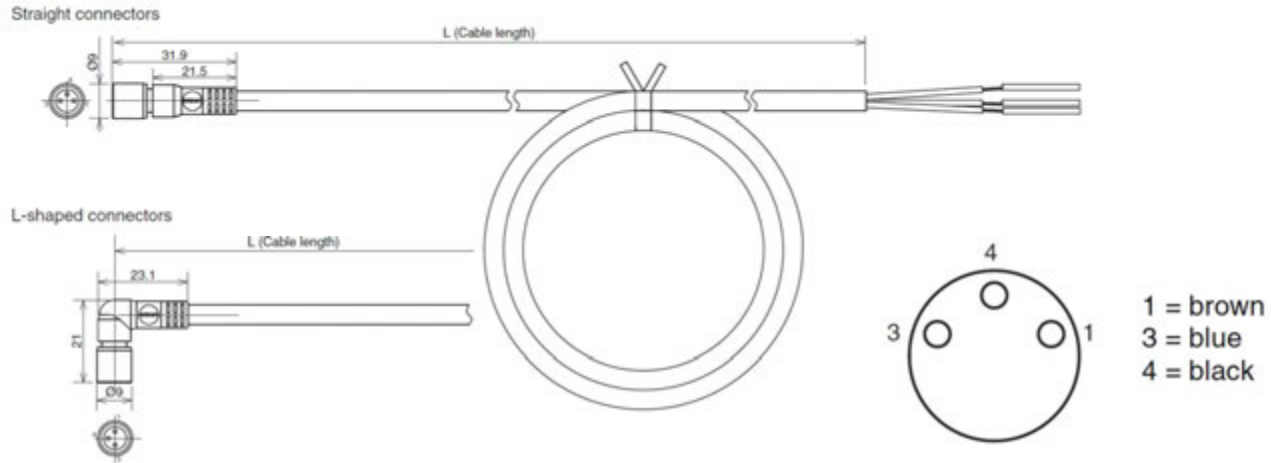
| Article no. |
|-------------|
| OM.E39-R1S  |

## CA.14 OM.XS3F

## SENSORS

. M8 Screw-on cable connectors 3 - wires

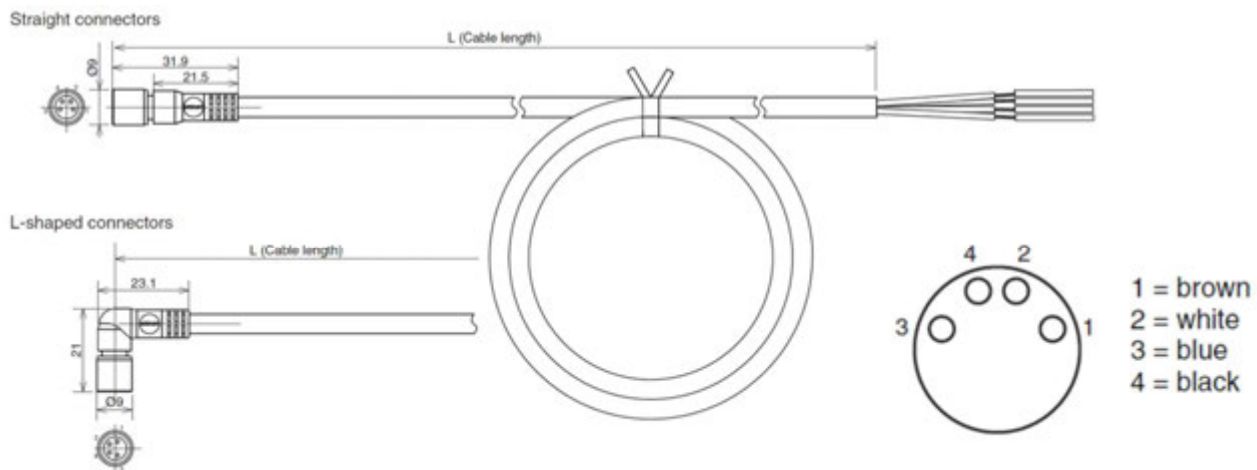
. Connettori femmina M8 precablati 3 fili



| Article no.    | Type                  | Size | Features  | Cable length |
|----------------|-----------------------|------|-----------|--------------|
| OM.XS3F.M83S5M | Straight connector    | M8   | 3 - wires | 5 m          |
| OM.XS3F.M83A5M | L - shaped connectors |      |           |              |

. M8 Screw-on cable connectors 4 - wires

. Connettori femmina M8 precablati 4 fili



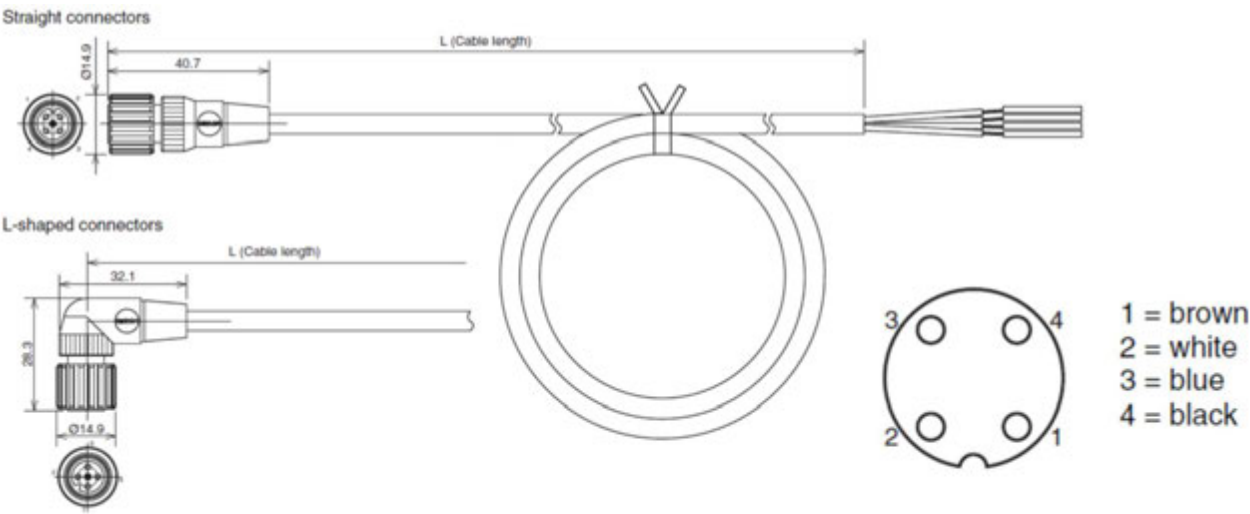
| Article no.    | Type                  | Size | Features  | Cable length |
|----------------|-----------------------|------|-----------|--------------|
| OM.XS3F.M84S5M | Straight connector    | M8   | 4 - wires | 5 m          |
| OM.XS3F.M84A5M | L - shaped connectors |      |           |              |

CA.14 OM.XS2F

SENSORS

. M12 Screw-on cable connectors 4 - wires

. Connettori femmina M12 precablati 4 fili



| Article no.     | Type                  | Size | Features  | Cable length |
|-----------------|-----------------------|------|-----------|--------------|
| OM.XS2F.M124S5M | Straight connector    | M12  | 4 - wires | 5 m          |
| OM.XS2F.M124A5M | L - shaped connectors |      |           |              |

## CA.14 KT

. Sensor

## SENSORS

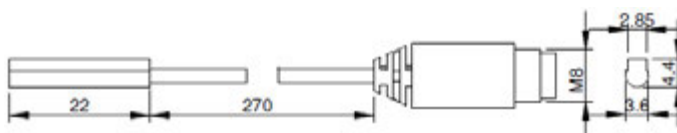
. Sensore



**KT58P3M/KT58N3M**



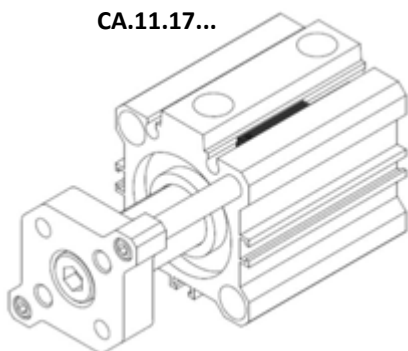
**KT58PM8/KT58NM8**



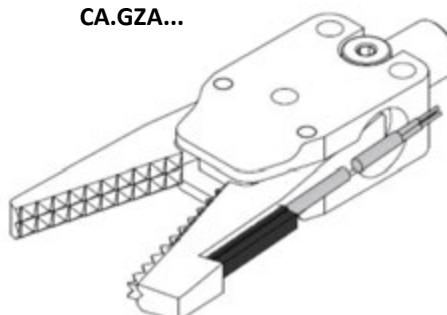
| Article no.     | Sensor with cable                                            | Weight |
|-----------------|--------------------------------------------------------------|--------|
| <b>KT58PM8</b>  | 3 wires electronic PNP<br>normally Open<br>M8 plug connector | 4 g    |
| <b>KT58P3M</b>  | 3 wires electronic PNP<br>normally Open<br>mt 3 cable        |        |
| <b>KT58NM8</b>  | 3 wires electroic NPN<br>normally Open<br>M8 plug connector  |        |
| <b>KT58N3M</b>  | 3 wires electronic NPN<br>normally Open<br>mt 3 cable        |        |
| <b>KT58REQD</b> | 2 wires Reed Switch<br>Normally Open<br>M8 plug connector    |        |

### Application examples / Esempi applicativi

**CA.11.17...**



**CA.GZA...**



## CA.14 KT

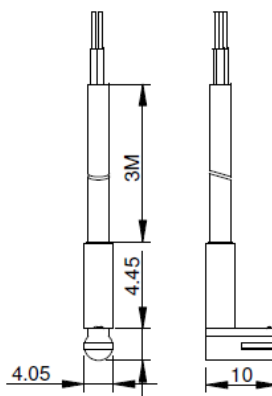
## SENSORS

. Sensor

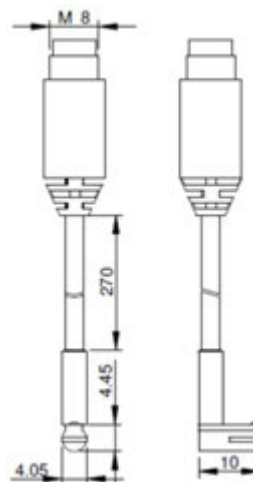
. Sensore



**KT38P3M/KT38N3M**



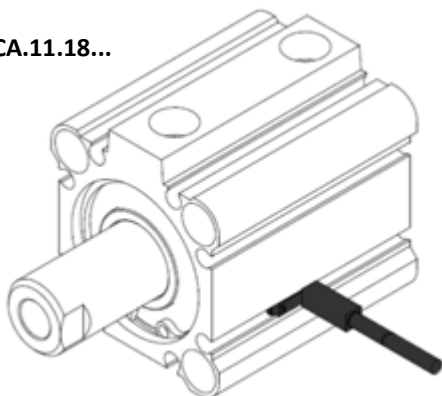
**KT38PM8/KT38NM8**



| Article no.    | Sensor with cable                                            | Weight |
|----------------|--------------------------------------------------------------|--------|
| <b>KT38PM8</b> | 3 wires electronic PNP<br>normally Open<br>M8 plug connector | 4 g    |
| <b>KT38P3M</b> | 3 wires electronic PNP<br>normally Open<br>mt 3 cable        |        |
| <b>KT38NM8</b> | 3 wires electroic NPN<br>normally Open<br>M8 plug connector  |        |
| <b>KT38N3M</b> | 3 wires electronic NPN<br>normally Open<br>mt 3 cable        |        |

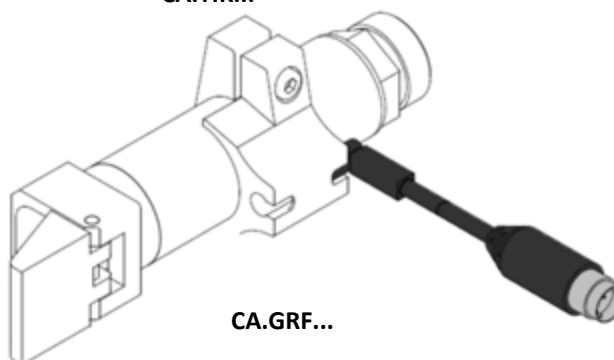
### Application examples / Esempi applicativi

CA.11.18...



CA.TIK...

CA.GRF...

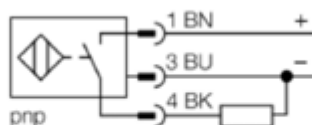
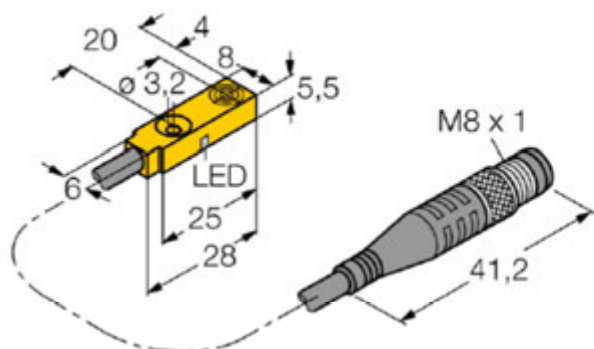


## CA.14 GRZ

## SENSORS

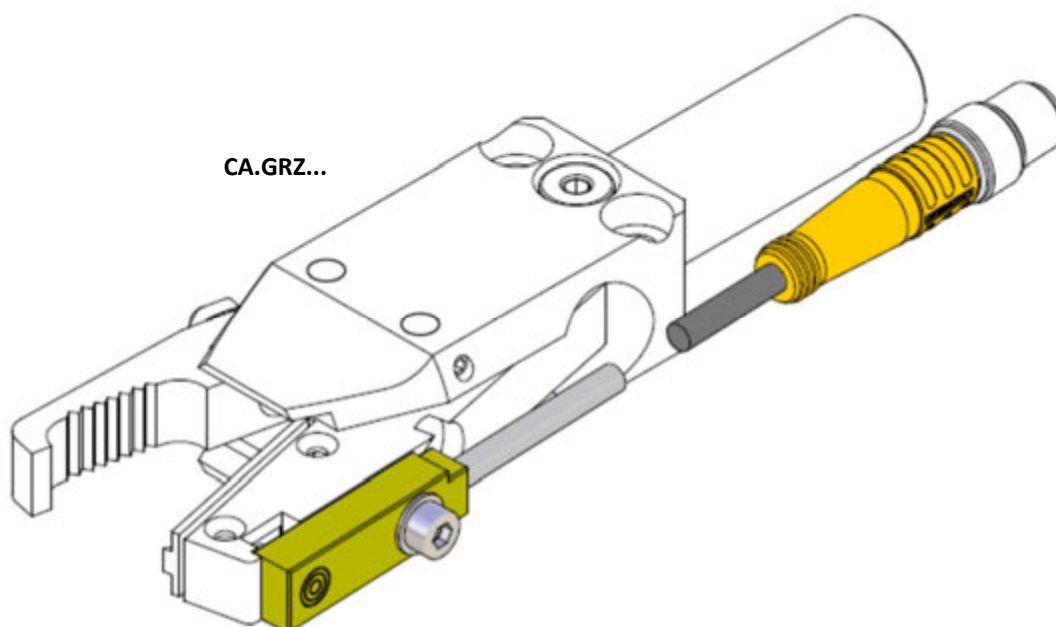
. Sensor

. Sensore



| Article no.   | Sensor with cable                                           | Weight |
|---------------|-------------------------------------------------------------|--------|
| GRZ.20.SC.PNP | INDUCTIVE SENSOR PNP<br>normally Open M8<br>plug connector  | 4 g    |
| GRZ.20.SC.NPN | INDUCTIVE SENSOR NPN<br>normally Close M8<br>plug connector |        |

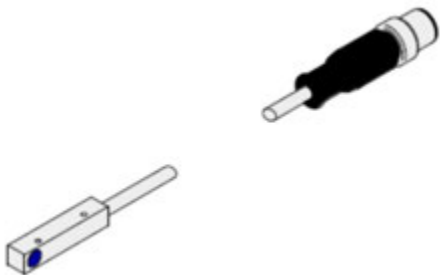
### Application example / Esempio applicativo



CA.14 MMD

. Sensor

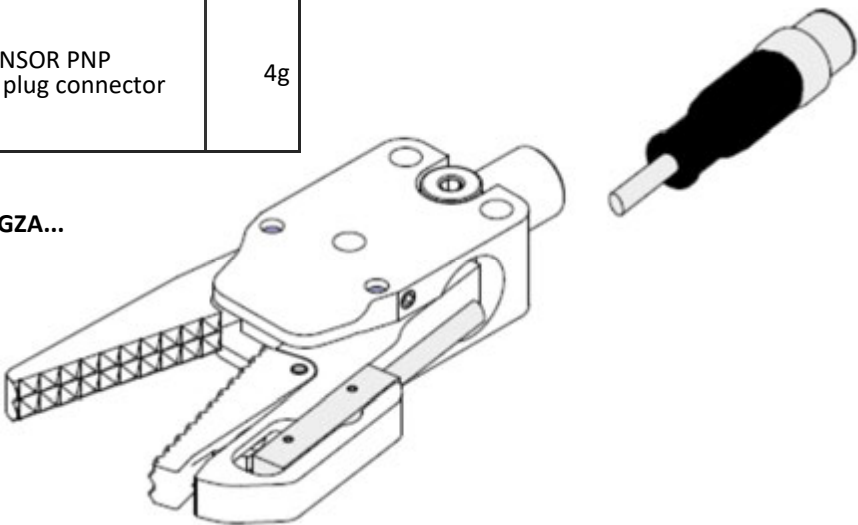
. Sensore



| Article no.     | Sensor with cable                                       | Weight |
|-----------------|---------------------------------------------------------|--------|
| MMD.IL5AP3AVF80 | INDUCTIVE SENSOR PNP<br>normally Open M8 plug connector | 4g     |
| MMD.IL5AN3AVF80 |                                                         |        |

Application example / Esempio applicativo

CA.GZA...

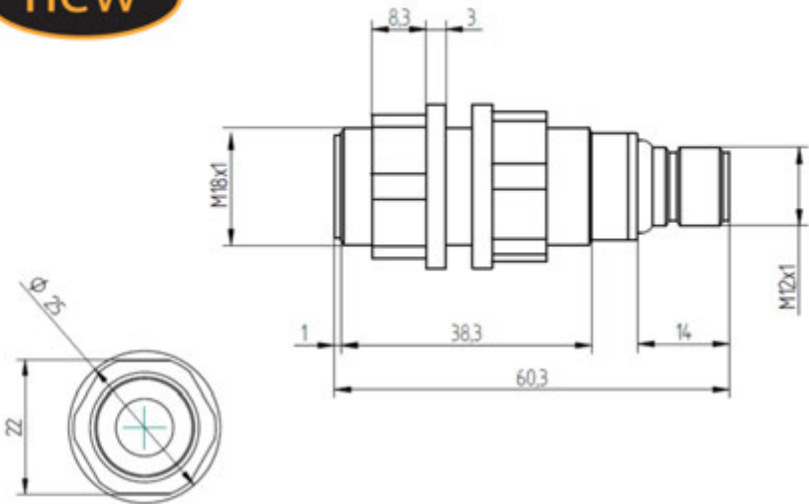


. Ultrasonic sensor

. Sensori ultrasonici



new



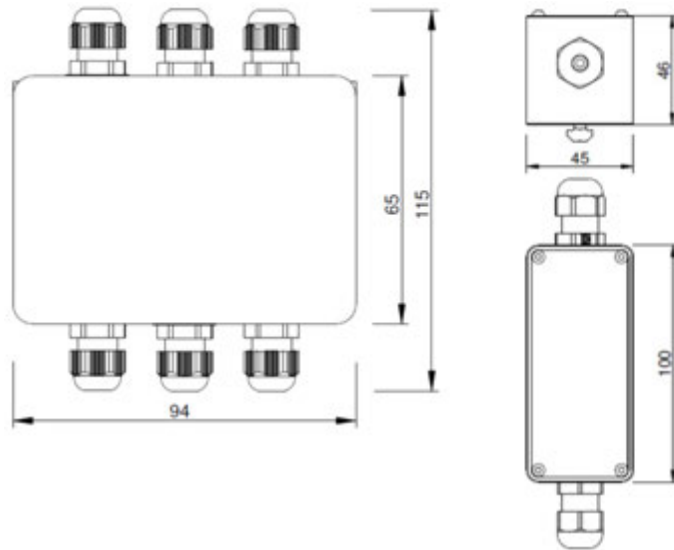
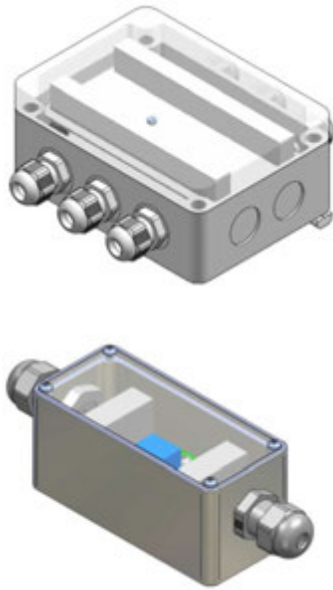
| Article no.    | Output | Sensor Type       | Sensing distance | Connector method           |      |
|----------------|--------|-------------------|------------------|----------------------------|------|
| MMD.UK6AHN0EUL | NPN    | Ultrasonic sensor | 40 mm            | Connector type<br>M12 4pin | 65 g |
| MMD.UK6AHP0EUL | PNP    |                   |                  |                            |      |

## CA.SDS

## SENSORS

## . Sensor box

## . Scatola derivazione sensori



## Remarks / Osservazioni:

Used for sensor wiring on the EOAT.  
*Usata per il cablaggio dei sensori degli EOAT..*

PNP and NPN signals can be converted.  
*I segnali PNP e NPN possono essere convertiti.*

I/O can be current sourcing (PNP), sinking (NPN) or dry contact.  
*Ingressi e uscite possono essere di tipo source (PNP), sink (NPN) o contatto pulito.*

Several boxes can be connected in a series to manage more sensors.  
*Più scatole possono essere connesse in serie per ampliare il numero di sensori gestibili.*

Input LED indications for easy trouble-shooting.  
*LED a ripetizione del segnale in ingresso per semplificare la ricerca dei guasti*

Supried with Cable Glands  
*Fornita con serracavi*

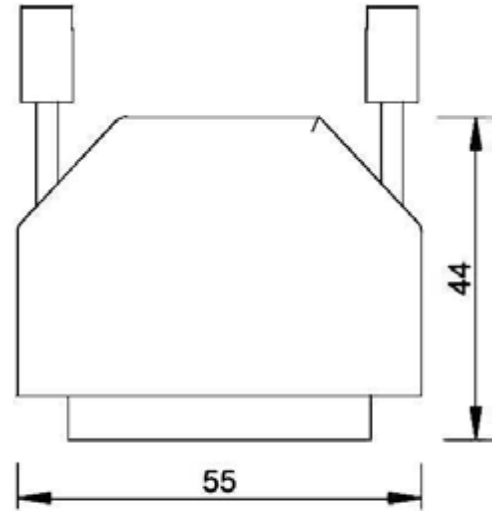
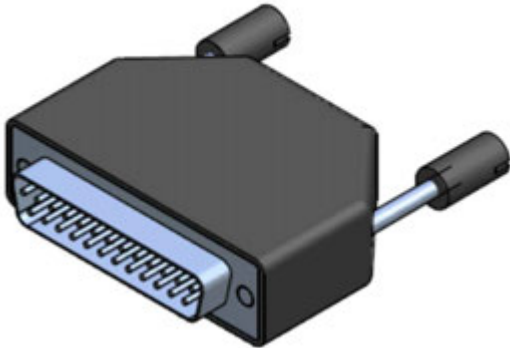
CA.SDS.02

| Article no.      | Power supply      | INputs                                                                                                                                                            | OUTputs                                                                                                                                                                 |
|------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CA.SDS.02</b> | 24 V dc (+/- 10%) | Maximum 2 PNP, NPN or dry contact (NO or NC) sensor switched by jumper<br><i>Massimo 2 PNP, NPN o contatto asciutto (NO o NC) sensore cambiato dal ponticello</i> | 1up to 2PNP, NPN or dry contact (NO or NC) outputs switched by jumpers<br><i>Da 1 fino a 2 PNP, NPN o contatto asciutto (NO or NC) sensore cambiato dal ponticello</i>  |
| <b>CA.SDS.04</b> |                   | Maximum 4 PNP, NPN or dry contact (NO or NC) sensor switched by jumper<br><i>Massimo 4 PNP, NPN o contatto asciutto (NO o NC) sensore cambiato dal ponticello</i> | 1up to 4 PNP, NPN or dry contact (NO or NC) outputs switched by jumpers<br><i>Da 1 fino a 4 PNP, NPN o contatto asciutto (NO or NC) sensore cambiato dal ponticello</i> |
| <b>CA.SDS.06</b> |                   | Maximum 6 PNP, NPN or dry contact (NO or NC) sensor switched by jumper<br><i>Massimo 6 PNP, NPN o contatto asciutto (NO o NC) sensore cambiato dal ponticello</i> | 1up to 6 PNP, NPN or dry contact (NO or NC) outputs switched by jumpers<br><i>Da 1 fino a 6 PNP, NPN o contatto asciutto (NO or NC) sensore cambiato dal ponticello</i> |
| <b>CA.SDS.08</b> |                   | Maximum 8 PNP, NPN or dry contact (NO or NC) sensor switched by jumper<br><i>Massimo 8 PNP, NPN o contatto asciutto (NO o NC) sensore cambiato dal ponticello</i> | 1up to 8 PNP, NPN or dry contact (NO or NC) outputs switched by jumpers<br><i>Da 1 fino a 8 PNP, NPN o contatto asciutto (NO or NC) sensore cambiato dal ponticello</i> |

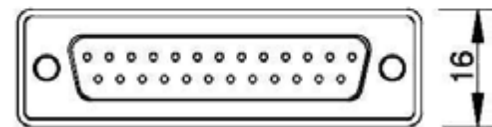
## CA.19.03

. Connector 25 pin

. Presa 25 pin



| Article no.  |          | Weight |
|--------------|----------|--------|
| CA.19.03.001 | 25 pin M | 10 g   |



## PAX



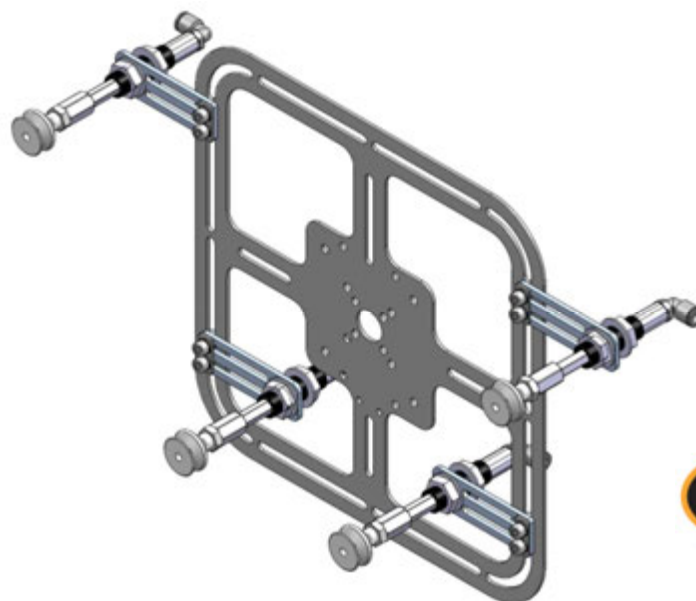
| Article no. |         | Weight |
|-------------|---------|--------|
| PAX.1501252 | M8 3P M | 15 g   |



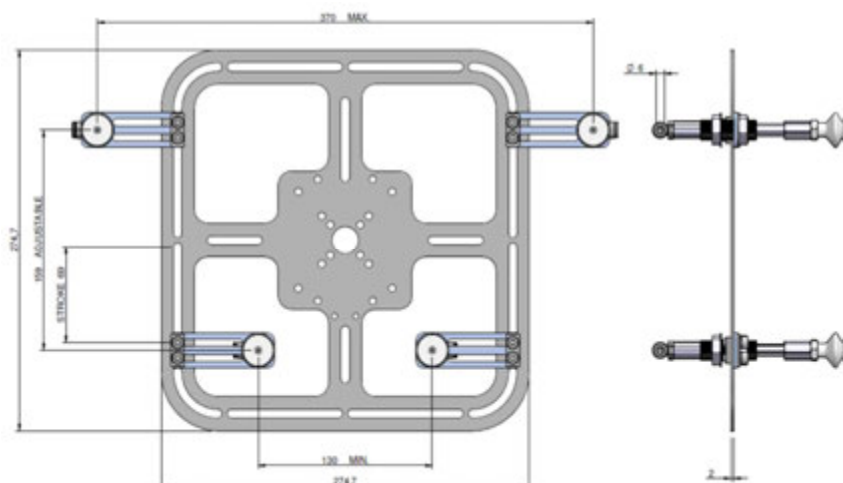
## KIT.MA01

. Kit End of Arm Tooling

. Kit mano di presa



new



| COMPONENTS    | DESCRIPTION                                  | QUANTITY |
|---------------|----------------------------------------------|----------|
| CA.04.20.14.X | Mounting Bracket 14x                         | 4        |
| CA.08.09.009  | Adapters for vacuum cups 18 6                |          |
| CA.08.30.005  | Vacuum Cup with 2 bellows only (silicone) 25 |          |
| CA.12.05.003  | Orienting elbow male adapter (parallel) 6 18 |          |
| CA.SDNG.1420  | Threaded-body non-rotative suspension1420    |          |
| PIA.275X275X2 | Basic EOAT Plate 275x275x2 inox              | 1        |

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| CA.01.01.002    | 17  | CA.04.20.12.X   | 60  | CA.08.09.025    | 103 | CA.08.29.004    | 104 | CA.08.36.D35     | 124 |
| CA.01.01.003    | 17  | CA.04.20.14.X   | 60  | CA.08.09.026    | 103 | CA.08.29.005    | 104 | CA.08.36.D35.60  | 124 |
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| CA.01.01.011    | 23  | CA.05.01.005    | 79  | CA.08.09.035    | 103 | CA.08.29.011    | 104 | CA.09.05.009     | 164 |
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| CA.GLA.1010.30   | 65  | CA.GSE.1018M530   | 92  | CA.GWP.4.16      | 35  | CA.GZA.10.12.L   | 138 | CA.KKS.20.14    | 50  |
| CA.GLA.1010.60   | 65  | CA.GSE.1018M560   | 92  | CA.GWP.4.17      | 35  | CA.GZA.10.12.LL  | 138 | CA.KKS.20.20    | 50  |
| CA.GLA.1010.90   | 65  | CA.GSE.1018M590   | 92  | CA.GWP.4.25      | 35  | CA.GZA.10.12.M   | 138 | CA.KPLJU.4025   | 40  |
| CA.GLA.1414.120  | 65  | CA.GSE.10M5M530   | 92  | CA.GWP.4.8       | 35  | CA.GZA.10.12.M50 | 138 | CA.KPLJU.4040   | 40  |
| CA.GLA.1414.40   | 65  | CA.GSE.10M5M560   | 92  | CA.GWP.4.9       | 35  | CA.GZA.10.12.MC  | 138 | CA.KPLJU.8040   | 40  |
| CA.GLA.1414.80   | 65  | CA.GSE.10M5M590   | 92  | CA.GWP.4000      | 35  | CA.GZA.10.12.MS  | 138 | CA.KPLJU.8080   | 40  |
| CA.GLA.2020.100  | 65  | CA.GSE.141818120  | 92  | CA.GWP.4U        | 35  | CA.GZA.10.12.MSN | 138 | CA.KPLL.1818    | 40  |
| CA.GLA.2020.150  | 65  | CA.GSE.14181840   | 92  | CA.GWP.5.10      | 35  | CA.GZA.10.12.S   | 138 | CA.KPLX.2518    | 40  |
| CA.GLA.2020.50   | 65  | CA.GSE.14181880   | 92  | CA.GWP.5.11      | 35  | CA.GZA.10.12.S4  | 138 | CA.KPLX.2525    | 40  |
| CA.GLA.2030      | 65  | CA.GSE.201418100  | 92  | CA.GWP.5.12      | 35  | CA.GZA.10.12.S4N | 138 | CA.KPLX.5025    | 40  |
| CA.GLA.3030      | 65  | CA.GSE.201418150  | 92  | CA.GWP.5.15      | 35  | CA.GZA.10.12.S9  | 138 | CA.KPLX.5050    | 40  |
| CA.GPG.1         | 13  | CA.GSE.20141850   | 92  | CA.GWP.5.17      | 35  | CA.GZA.10.12.S9N | 138 | CA.KSW.10.L     | 63  |
| CA.GPG.2         | 13  | CA.GSE.301414140  | 92  | CA.GWP.5.20      | 35  | CA.GZA.10.12.SG  | 138 | CA.KSW.10.X     | 63  |
| CA.GPG.3         | 13  | CA.GSE.301414200  | 92  | CA.GWP.5.22      | 35  | CA.GZA.10.12.SGN | 138 | CA.KSW.14.X     | 63  |
| CA.GPM0          | 12  | CA.GSE.30141480   | 92  | CA.GWP.5.25      | 35  | CA.GZA.10.12.SN  | 138 | CA.KSW.20.JU    | 63  |
| CA.GPM0.X        | 12  | CA.GSEG.100515    | 93  | CA.GWP.5.25.3    | 35  | CA.GZA.AA24      | 163 | CA.KSW.20.X     | 63  |
| CA.GPM1          | 12  | CA.GSEG.100530    | 93  | CA.GWP.5.28      | 35  | CA.GZA.AA24.NO   | 163 | CA.KSW.30.JU    | 63  |
| CA.GPM1.X        | 12  | CA.GSEG.100545    | 93  | CA.GWP.5.30      | 35  | CA.GZA.AA24.NOS2 | 163 | CA.KVB.JU20     | 48  |
| CA.GPM15*        | 12  | CA.GSEG.100590    | 93  | CA.GWP.5.35      | 35  | CA.GZA.AA24.NOSN | 163 | CA.KVB.JU30     | 48  |
| CA.GPM2          | 12  | CA.GSEG.120545    | 93  | CA.GWP.5.38      | 35  | CA.GZA.AA24.NOSP | 163 | CA.KVB.KG.JU20  | 49  |
| CA.GPM2.X        | 12  | CA.GSEG.120590    | 93  | CA.GWP.5.40      | 35  | CA.HEH.30.50     | 184 | CA.KVB.KG.X10   | 49  |
| CA.GPM25*        | 12  | CA.GSEG.141815    | 93  | CA.GWP.5.40.3    | 35  | CA.JDR.141005    | 218 | CA.KVB.KG.X14   | 49  |
| CA.GPM3          | 12  | CA.GSEG.141830    | 93  | CA.GWP.5.50      | 35  | CA.JDR.142505    | 218 | CA.KVB.L10      | 48  |
| CA.GPM3.X        | 12  | CA.GSEG.141845    | 93  | CA.GWP.5.52      | 35  | CA.JDR.201005    | 218 | CA.KVB.X14      | 48  |
| CA.GPM35*        | 12  | CA.GSEG.141890    | 93  | CA.GWP.5.60      | 35  | CA.JDR.301518    | 218 | CA.KVB.X20      | 48  |
| CA.GPR1.0        | 14  | CA.GSEG.201445    | 93  | CA.GWP.5.75      | 35  | CA.JDR.303018    | 218 | CA.L.1810.1000  | 30  |
| CA.GPR2.1        | 14  | CA.GSEG.201490    | 93  | CA.GWP.5.9       | 35  | CA.JDR.305018    | 218 | CA.L.1810.2000  | 30  |
| CA.GPR3.2        | 14  | CA.GTS.1003.1212  | 130 | CA.GWP.500       | 35  | CA.JU.4040.1000  | 33  | CA.L.1818.1000  | 30  |
| CA.GRF.1435      | 148 | CA.GTS.1003.1214  | 130 | CA.GWP.5U        | 35  | CA.JU.4040.2000  | 33  | CA.L.1818.2000  | 30  |
| CA.GRF.1490      | 148 | CA.GTS.1003.1215  | 130 | CA.GWP.6.12      | 35  | CA.JU.8040.1000  | 33  | CA.LAL.1.5      | 11  |
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| CA.GRF.2095      | 150 | CA.GTS.1003.2929  | 130 | CA.GWP.6.40      | 35  | CA.KBH.16.14.90  | 211 | CA.MPG.32       | 168 |
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| GRF30.VSX        | 162 | KIT.08.28.D05    | 115 | KIT.08.31.D43.11 | 107 | KT58P3M          | 238 |
| GRZ.20.SC.NPN    | 240 | KIT.08.28.D06    | 115 | KIT.08.31.D43.21 | 107 | KT58PM8          | 129 |
| GRZ.20.SC.PNP    | 240 | KIT.08.28.D08    | 115 | KIT.08.31.D53.11 | 107 | KT58PM8          | 238 |
| GTS.03.12        | 133 | KIT.08.28.D10    | 115 | KIT.08.31.D53.21 | 107 | M.28X58.24N      | 13  |
| GTS.03.14        | 133 | KIT.08.28.D15    | 115 | KIT.08.31.D63.21 | 107 | M.33X120.35N     | 13  |
| GTS.03.15        | 133 | KIT.08.28.D20    | 115 | KIT.08.31.D78.24 | 107 | MMD.ILSAN3AVF80  | 241 |
| GTS.03.15.N      | 133 | KIT.08.28.D25    | 115 | KIT.08.32.D09.26 | 109 | MMD.ILSAP3AVF80  | 241 |
| GTS.03.17        | 133 | KIT.08.28.D30    | 115 | KIT.08.32.D12.4  | 109 | MMD.UK6AHN0EUL   | 241 |
| GTS.03.19        | 133 | KIT.08.28.D35    | 115 | KIT.08.32.D12.9  | 109 | MMD.UK6AHP0EUL   | 241 |
| GTS.03.29        | 133 | KIT.08.28.D40    | 115 | KIT.08.32.D14.4  | 109 | OM.E39-R1S       | 235 |
| GTS.04.12        | 137 | KIT.08.28.D50    | 115 | KIT.08.32.D14.9  | 109 | OM.E3Z-D66.OMS   | 233 |
| GTS.04.14        | 137 | KIT.08.28.D60    | 115 | KIT.08.32.D20.4  | 109 | OM.E3Z-D86.OMS   | 233 |
| GTS.04.15        | 137 | KIT.08.28.D80    | 115 | KIT.08.32.D20.9  | 109 | OM.E3Z-LL66.OMS  | 233 |
| GTS.04.15.N      | 137 | KIT.08.29.D05    | 105 | KIT.08.32.D25.4  | 109 | OM.E3Z-LL86.OMS  | 233 |
| GTS.04.17        | 137 | KIT.08.29.D06    | 105 | KIT.08.32.D25.9  | 109 | OM.E3Z-LS66.OMS  | 234 |
| GTS.04.19        | 137 | KIT.08.29.D08    | 105 | KIT.08.32.D32.11 | 109 | OM.E3Z-LS86.OMS  | 234 |
| GTS.04.29        | 137 | KIT.08.29.D10    | 105 | KIT.08.32.D32.21 | 109 | OM.E3Z-LT66.OMS  | 234 |
| KIT.08.01.D11.4  | 121 | KIT.08.29.D15    | 105 | KIT.08.32.D42.11 | 109 | OM.E3Z-LT86.OMS  | 234 |
| KIT.08.01.D11.9  | 121 | KIT.08.29.D20    | 105 | KIT.08.32.D42.21 | 109 | OM.E3Z-R66.OMS   | 235 |
| KIT.08.01.D16.4  | 121 | KIT.08.29.D25    | 105 | KIT.08.32.D52.21 | 109 | OM.E3Z-R86.OMS   | 235 |
| KIT.08.01.D16.9  | 121 | KIT.08.29.D30    | 105 | KIT.08.32.D62.21 | 109 | OM.XS2F.M124A5M  | 237 |
| KIT.08.01.D20.1  | 121 | KIT.08.29.D35    | 105 | KIT.08.33.D12.4  | 119 | OM.XS2F.M124S5M  | 237 |
| KIT.08.01.D30.2  | 121 | KIT.08.29.D40    | 105 | KIT.08.33.D12.9  | 119 | OM.XS3F.M83A5M   | 236 |
| KIT.08.01.D40.2  | 121 | KIT.08.29.D50    | 105 | KIT.08.33.D14.4  | 119 | OM.XS3F.M83S5M   | 236 |
| KIT.08.01.D50.3  | 121 | KIT.08.29.D60    | 105 | KIT.08.33.D14.9  | 119 | OM.XS3F.M84A5M   | 236 |
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| KIT.08.26.D20.9  | 111 | KIT.08.30.D63.11 | 117 | KIT.08.36.D20    | 125 | VES.N30AJP       | 195 |
| KIT.08.26.D25.4  | 111 | KIT.08.30.D63.21 | 117 | KIT.08.36.D20.60 | 125 | VES.N30PF        | 195 |
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