

microcilindri ISO 6432

minicylinders ISO 6432



- Conformi alla norma ISO 6432
Compliant to norm ISO 6432
- Grande affidabilità e lunga durata
High reliability and long life time
- Versione a doppio effetto, magnetica o non magnetica
Magnetic or non-magnetic double acting version
- Versione a semplice effetto non magnetica
Non-magnetic single acting version
- Esecuzioni speciali a richiesta
Special versions on request



Forze di ritorno della molla per cilindri a semplice effetto

Return spring forces for single acting cylinders

| alesaggio <i>bore</i> | forza di ritorno della molla <i>return spring force</i> | | | stato della molla <i>spring status</i> |
|--------------------------|--|-------------------|-------------------|---|
| | corsa 10 [stroke] | corsa 25 [stroke] | corsa 50 [stroke] | |
| 10 | 4.1 N | 3.5 N | 2.6 N | a riposo [at rest] |
| | 4.5 N | 4.5 N | 4.5 N | compressa [compressed] |
| 12 | 5.5 N | 4.8 N | 3.5 N | a riposo [at rest] |
| | 6 N | 6 N | 6 N | compressa [compressed] |
| 16 | 16.5 N | 13.7 N | 9 N | a riposo [at rest] |
| | 18.3 N | 18.3 N | 18.3 N | compressa [compressed] |
| 20 | 19 N | 15.5 N | 9.5 N | a riposo [at rest] |
| | 21.5 N | 21.5 N | 21.5 N | compressa [compressed] |
| 25 | 27 N | 24 N | 13.5 N | a riposo [at rest] |
| | 29 N | 29 N | 29 N | compressa [compressed] |

Materiali

Camicia: INOX

Stelo: INOX

Testate: alluminio anodizzato

Guarnizioni: NBR o VITON

Magnete: plastroferrite (non adatto per temperature oltre +60°C)

Materials

Barrel: stainless steel

Piston-rod: stainless steel

End-cups: aluminium (anodize treatment)

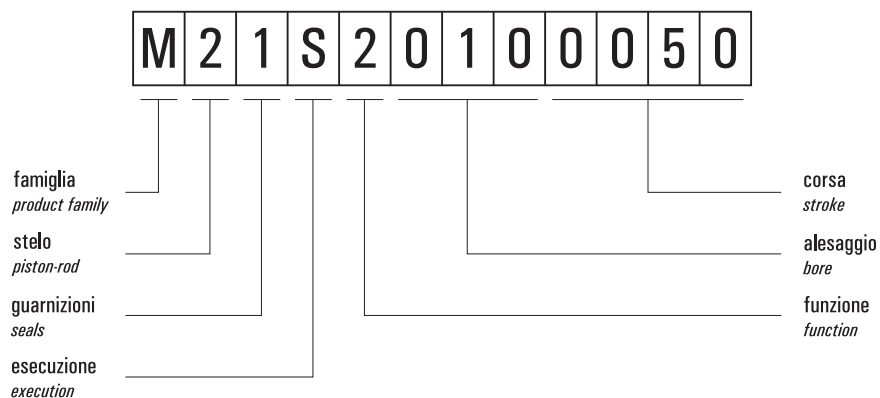
Sealings: NBR or VITON

Magnet: magnetic iron compound (not suitable for temperatures over +60°C)

| | |
|--|---|
| Pressione di esercizio <i>Working pressure</i> | max 10 bar max 1 MPa |
| Temperatura di esercizio <i>Temperature range</i> | max +60°C |
| Alesaggi <i>Bores</i> | 10; 12; 16; 20; 25 mm |
| Corse <i>Strokes</i> | 10 ... 320 mm |
| Paracolpi meccanici <i>Mechanical cushioning</i> | Standard su tutta la gamma <i>Standard on the whole range</i> |
| Ammortizzo pneumatico <i>Pneumatic cushioning</i> | Disponibile per alesaggio 20 e 25 <i>Available for bore 20 and 25</i> |
| Fluido <i>Fluid</i> | Aria filtrata 50µ con o senza lubrificazione <i>50µ filtered, lubricated or non lubricated air</i> |

chiave di codifica

key to codes



Famiglia *[product family]*

M microcilindri ISO 6432 *[minicylinders ISO 6432]*

Stelo *[piston-rod]*

2 INOX *[stainless steel]*

Guarnizioni *[seals]*

1 NBR

2 VITON

Esecuzione *[execution]*

S non magnetico *[non-magnetic]*

M magnetico *[magnetic]*

A non magnetico predisposto per bloccastelo *[non-magnetic with rod lock adaptor]*

B magnetico predisposto per bloccastelo *[magnetic with rod lock adaptor]*

Funzione *[function]*

1 semplice effetto non ammortizzato molla anteriore
[single acting front spring without pneumatic cushioning]

2 doppio effetto non ammortizzato
[double acting without pneumatic cushioning]

3 doppio effetto ammortizzato
[double acting with pneumatic cushioning]

4 doppio effetto non ammortizzato stelo passante
[double acting without pneumatic cushioning, with passing-through rod]

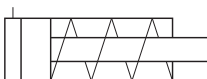
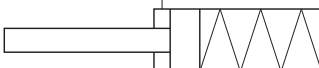
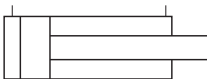
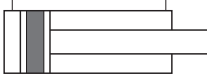
5 doppio effetto ammortizzato stelo passante
[double acting with pneumatic cushioning and passing-through rod]

6 semplice effetto non ammortizzato molla posteriore
[single acting back spring without pneumatic cushioning]



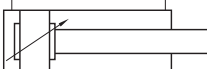
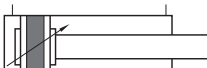
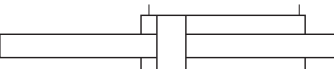
versioni disponibili

available versions

| | alesaggio | | 10 | 12 | 16 | 20 | 25 | | |
|---|-----------|---|----|----|----|----|---|---|--|
| | corsa | bore | | | | | | | |
| | | stroke | | | | | | | |
| semplice effetto molla anteriore <i>single acting front spring</i> non magnetico <i>non-magnetic</i> non ammortizzato <i>without pneumatic cushioning</i> | | | X | X | X | X | X | OPZIONI <i>options</i> Lo standard è evidenziato in grigio <i>The standard is marked with grey background</i> | |
| | 10 | X | X | X | X | X | X | | |
| | 25 | X | X | X | X | X | X | | |
| | 50 | X | X | X | X | X | X | | |
| | |  | | | | | materiale stelo [piston-rod material] INOX <i>stainless steel</i> | | |
| | | | | | | | materiale guarnizioni [seals material] NBR VITON | | |
| | | | | | | | predisposizione per bloccastelo <i>rod lock adaptor</i> non disponibile per l'alesaggio 10 <i>not available for bore 10</i> | | |
| semplice eff. molla posteriore <i>single acting back spring</i> non magnetico <i>non-magnetic</i> non ammortizzato <i>without pneumatic cushioning</i> | | | | X | X | X | | OPZIONI <i>options</i> Lo standard è evidenziato in grigio <i>The standard is marked with grey background</i> | |
| | 10 | | | X | X | X | | | |
| | 25 | | | X | X | X | | | |
| | 50 | | | X | X | X | | | |
| | |  | | | | | materiale stelo [piston-rod material] INOX <i>stainless steel</i> | | |
| | | | | | | | materiale guarnizioni [seals material] NBR VITON | | |
| | | | | | | | predisposizione per bloccastelo <i>rod lock adaptor</i> non disponibile per l'alesaggio 10 <i>not available for bore 10</i> | | |
| doppio effetto <i>double acting</i> non magnetico <i>non-magnetic</i> non ammortizzato <i>without pneumatic cushioning</i> | | | X | X | X | X | X | OPZIONI <i>options</i> Lo standard è evidenziato in grigio <i>The standard is marked with grey background</i> | |
| | 10 | X | X | X | X | X | X | | |
| | 25 | X | X | X | X | X | X | | |
| | 50 | X | X | X | X | X | X | | |
| | 80 | X | X | X | X | X | X | | |
| | 100 | X | X | X | X | X | X | | |
| | 125 | X | X | X | X | X | X | | |
| | 160 | X | X | X | X | X | X | | |
| | 200 | X | X | X | X | X | X | | |
| | 250 | | | X | X | X | | | |
| 320 | | | X | X | X | | | | |
| | |  | | | | | materiale stelo [piston-rod material] INOX <i>stainless steel</i> | | |
| | | | | | | | materiale guarnizioni [seals material] NBR VITON | | |
| | | | | | | | predisposizione per bloccastelo <i>rod lock adaptor</i> non disponibile per l'alesaggio 10 <i>not available for bore 10</i> | | |
| doppio effetto <i>double acting</i> magnetico <i>magnetic</i> non ammortizzato <i>without pneumatic cushioning</i> | | | X | X | X | X | X | OPZIONI <i>options</i> Lo standard è evidenziato in grigio <i>The standard is marked with grey background</i> | |
| | 10 | X | X | X | X | X | X | | |
| | 25 | X | X | X | X | X | X | | |
| | 50 | X | X | X | X | X | X | | |
| | 80 | X | X | X | X | X | X | | |
| | 100 | X | X | X | X | X | X | | |
| | 125 | X | X | X | X | X | X | | |
| | 160 | X | X | X | X | X | X | | |
| | 200 | X | X | X | X | X | X | | |
| | 250 | | | X | X | X | | | |
| 320 | | | X | X | X | | | | |
| | |  | | | | | materiale stelo [piston-rod material] INOX <i>stainless steel</i> | | |
| | | | | | | | materiale guarnizioni [seals material] NBR VITON | | |
| | | | | | | | predisposizione per bloccastelo <i>rod lock adaptor</i> non disponibile per l'alesaggio 10 <i>not available for bore 10</i> | | |

versioni disponibili

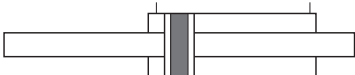
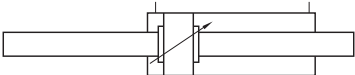
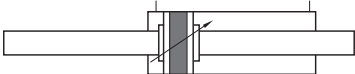
available versions

| | alesaggio | | 10 | 12 | 16 | 20 | 25 | | |
|---|-----------|------|----|----|----|----|----|---|--|
| | corsa | bore | | | | | | | |
| | stroke | | | | | | | | |
| <p>doppio effetto <i>double acting</i></p> <p>non magnetico <i>non-magnetic</i></p> <p>ammortizzato <i>with pneumatic cushioning</i></p>  | | | | | | | | <p>OPZIONI <i>options</i></p> <p>Lo standard è evidenziato in grigio <i>The standard is marked with grey background</i></p> <p>materiale stelo <i>[piston-rod material]</i></p> <p>INOX <i>stainless steel</i></p> <p>materiale guarnizioni <i>[seals material]</i></p> <p>NBR VITON</p> <p>predisposizione per bloccastelo <i>rod lock adaptor</i></p> | |
| | 10 | | | | | | | | |
| | 25 | | | | | X | X | | |
| | 50 | | | | | X | X | | |
| | 80 | | | | | X | X | | |
| | 100 | | | | | X | X | | |
| | 125 | | | | | X | X | | |
| | 160 | | | | | X | X | | |
| | 200 | | | | | X | X | | |
| | 250 | | | | | X | X | | |
| 320 | | | | | X | X | | | |
| <p>doppio effetto <i>double acting</i></p> <p>magnetico <i>magnetic</i></p> <p>ammortizzato <i>with pneumatic cushioning</i></p>  | | | | | | | | <p>OPZIONI <i>options</i></p> <p>Lo standard è evidenziato in grigio <i>The standard is marked with grey background</i></p> <p>materiale stelo <i>[piston-rod material]</i></p> <p>INOX <i>stainless steel</i></p> <p>materiale guarnizioni <i>[seals material]</i></p> <p>NBR VITON</p> <p>predisposizione per bloccastelo <i>rod lock adaptor</i></p> | |
| | 10 | | | | | | | | |
| | 25 | | | | X | X | X | | |
| | 50 | | | | X | X | X | | |
| | 80 | | | | X | X | X | | |
| | 100 | | | | X | X | X | | |
| | 125 | | | | X | X | X | | |
| | 160 | | | | X | X | X | | |
| | 200 | | | | X | X | X | | |
| | 250 | | | | X | X | X | | |
| 320 | | | | X | X | X | | | |
| <p>doppio effetto <i>double acting</i></p> <p>non magnetico <i>non-magnetic</i></p> <p>non ammortizzato <i>without pneumatic cushioning</i></p> <p>stelo passante <i>passing-through rod</i></p>  | | | | | | | | <p>OPZIONI <i>options</i></p> <p>Lo standard è evidenziato in grigio <i>The standard is marked with grey background</i></p> <p>materiale stelo <i>[piston-rod material]</i></p> <p>INOX <i>stainless steel</i></p> <p>materiale guarnizioni <i>[seals material]</i></p> <p>NBR VITON</p> <p>predisposizione per bloccastelo <i>rod lock adaptor</i></p> | |
| | 10 | | | X | X | X | | | |
| | 25 | | | X | X | X | | | |
| | 50 | | | X | X | X | | | |
| | 80 | | | X | X | X | | | |
| | 100 | | | X | X | X | | | |
| | 125 | | | X | X | X | | | |
| | 160 | | | X | X | X | | | |
| | 200 | | | X | X | X | | | |
| | 250 | | | X | X | X | | | |
| 320 | | | X | X | X | | | | |



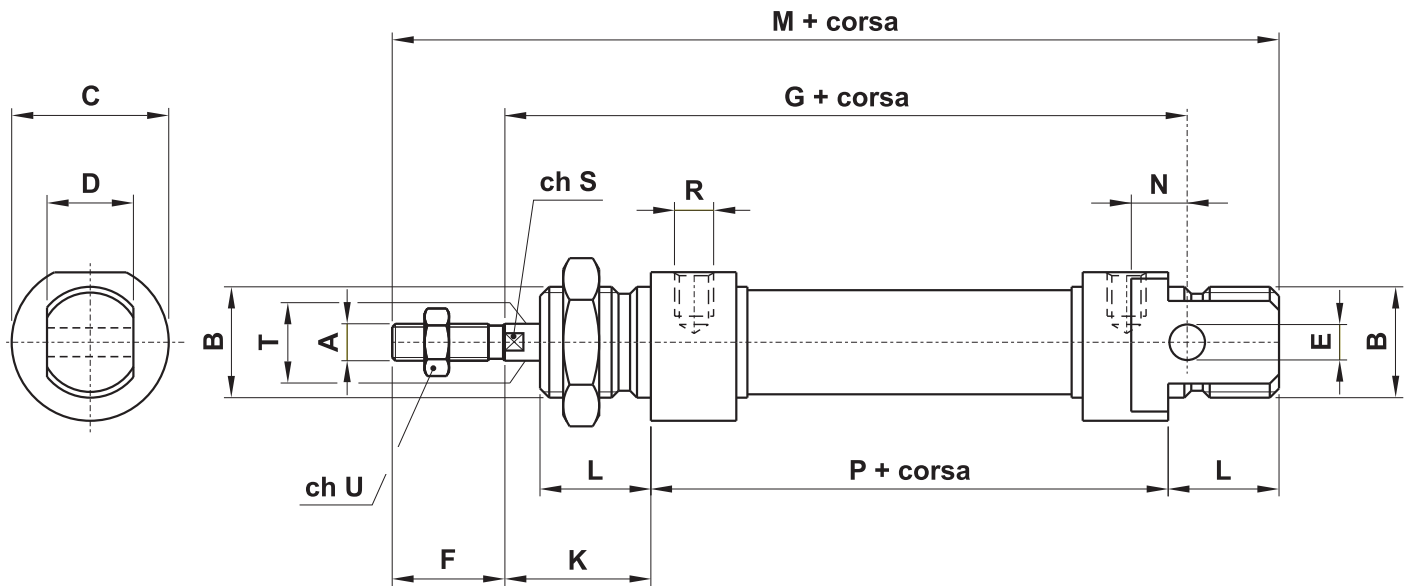
versioni disponibili

available versions

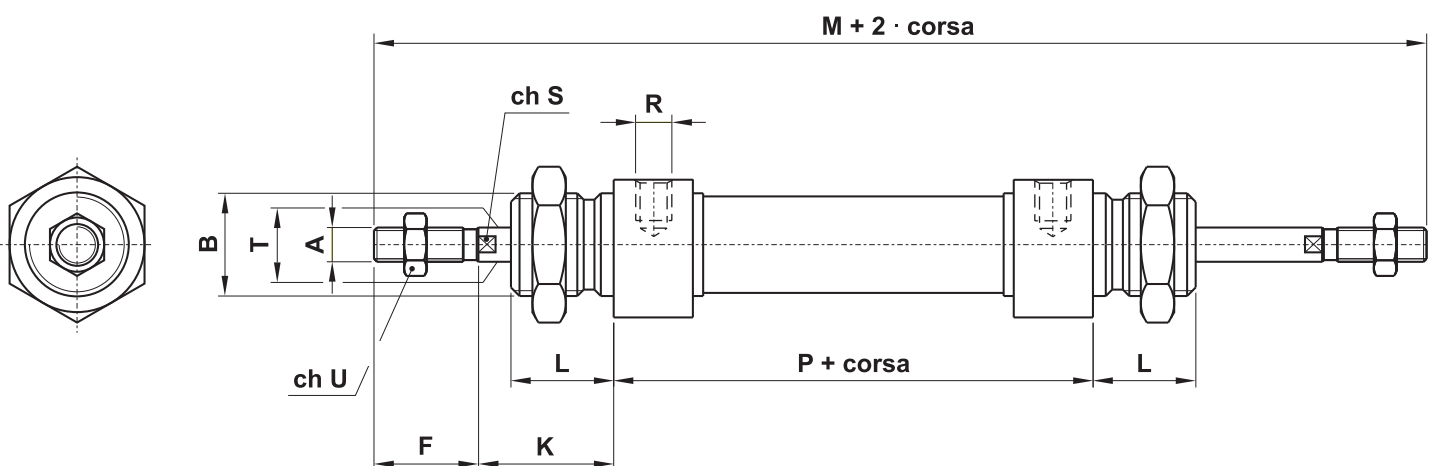
| doppio effetto <i>double acting</i> magnetico <i>magnetic</i> non ammortizzato <i>without pneumatic cushioning</i> stelo passante <i>passing-through rod</i> | alesaggio | | 10 | 12 | 16 | 20 | 25 | OPZIONI <i>options</i> Lo standard è evidenziato in grigio <i>The standard is marked with grey background</i> | |
|--|-----------|------|----|----|----|----|----|---|--|
| | corsa | bore | | | | | | | |
|  | 10 | | | | X | X | X | | materiale stelo [piston-rod material] INOX <i>stainless steel</i> materiale guarnizioni [seals material] NBR VITON predisposizione per bloccastelo <i>rod lock adaptor</i> |
| | 25 | | | | X | X | X | | |
| | 50 | | | | X | X | X | | |
| | 80 | | | | X | X | X | | |
| | 100 | | | | X | X | X | | |
| | 125 | | | | X | X | X | | |
| | 160 | | | | X | X | X | | |
| | 200 | | | | X | X | X | | |
| | 250 | | | | X | X | X | | |
| | 320 | | | | X | X | X | | |
| doppio effetto <i>double acting</i> non magnetico <i>non-magnetic</i> ammortizzato <i>with pneumatic cushioning</i> stelo passante <i>passing-through rod</i> | alesaggio | | 10 | 12 | 16 | 20 | 25 | OPZIONI <i>options</i> Lo standard è evidenziato in grigio <i>The standard is marked with grey background</i> | |
| | corsa | bore | | | | | | | |
|  | 10 | | | | | | | | materiale stelo [piston-rod material] INOX <i>stainless steel</i> materiale guarnizioni [seals material] NBR VITON predisposizione per bloccastelo <i>rod lock adaptor</i> |
| | 25 | | | | | X | X | | |
| | 50 | | | | | X | X | | |
| | 80 | | | | | X | X | | |
| | 100 | | | | | X | X | | |
| | 125 | | | | | X | X | | |
| | 160 | | | | | X | X | | |
| | 200 | | | | | X | X | | |
| | 250 | | | | | X | X | | |
| | 320 | | | | | X | X | | |
| doppio effetto <i>double acting</i> magnetico <i>magnetic</i> ammortizzato <i>with pneumatic cushioning</i> stelo passante <i>passing-through rod</i> | alesaggio | | 10 | 12 | 16 | 20 | 25 | OPZIONI <i>options</i> Lo standard è evidenziato in grigio <i>The standard is marked with grey background</i> | |
| | corsa | bore | | | | | | | |
|  | 10 | | | | | | | | materiale stelo [piston-rod material] INOX <i>stainless steel</i> materiale guarnizioni [seals material] NBR VITON predisposizione per bloccastelo <i>rod lock adaptor</i> |
| | 25 | | | | | X | X | | |
| | 50 | | | | | X | X | | |
| | 80 | | | | | X | X | | |
| | 100 | | | | | X | X | | |
| | 125 | | | | | X | X | | |
| | 160 | | | | | X | X | | |
| | 200 | | | | | X | X | | |
| | 250 | | | | | X | X | | |
| | 320 | | | | | X | X | | |

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| ∅ | A | B | C | D | E | F | G | K | L | M | N | P | R | S | T | U |
|----|----------|----------|-----|----|----|----|-----|----|----|-----|----|----|-------|---|-----|----|
| 10 | M4 | M12x1.25 | ∅16 | 8 | ∅4 | 12 | 64 | 16 | 12 | 86 | 6 | 46 | M5 | - | ∅4 | 7 |
| 12 | M6 | M16x1.5 | ∅19 | 12 | ∅6 | 16 | 75 | 22 | 18 | 104 | 9 | 48 | M5 | 5 | ∅6 | 10 |
| 16 | M6 | M16x1.5 | ∅19 | 12 | ∅6 | 16 | 82 | 22 | 18 | 109 | 9 | 53 | M5 | 5 | ∅6 | 10 |
| 20 | M8 | M22x1.5 | ∅27 | 16 | ∅8 | 20 | 95 | 24 | 20 | 131 | 12 | 67 | G1/8" | 7 | ∅8 | 13 |
| 25 | M10x1.25 | M22x1.5 | ∅30 | 16 | ∅8 | 22 | 104 | 28 | 22 | 140 | 12 | 68 | G1/8" | 9 | ∅10 | 17 |



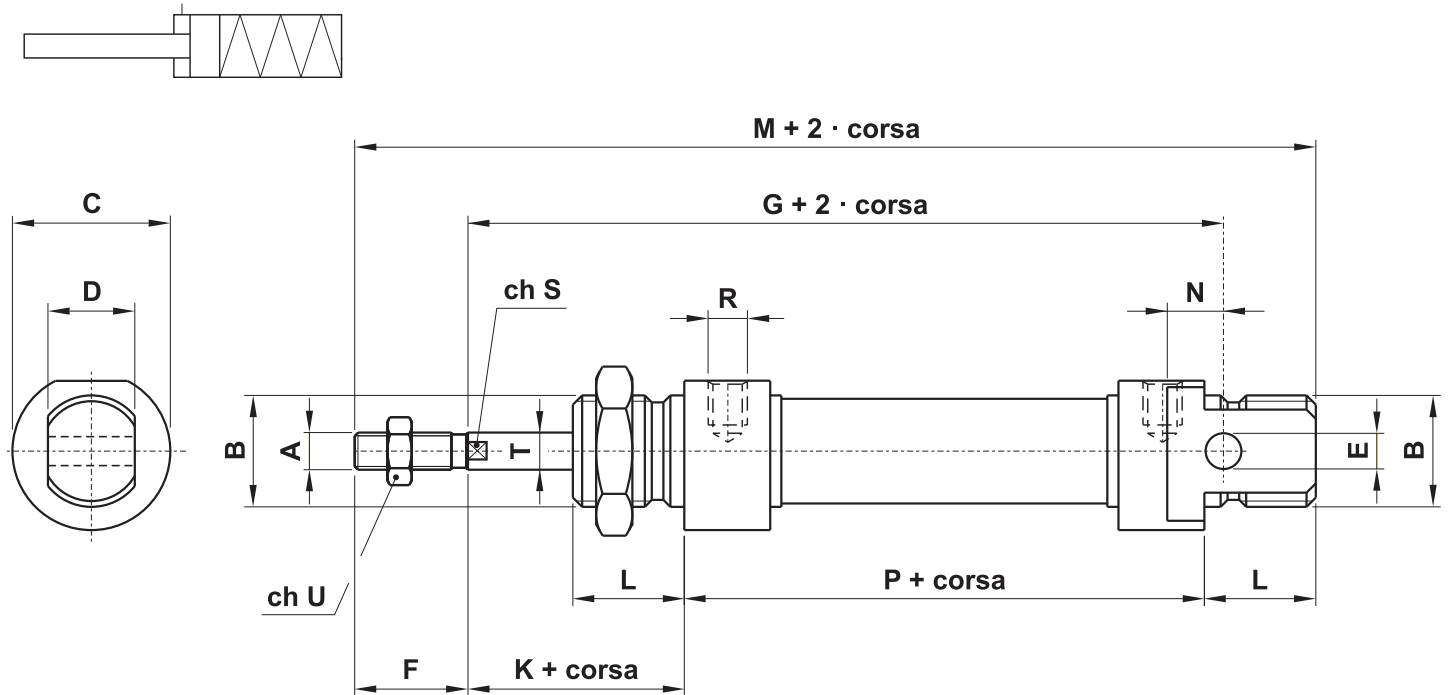
| ∅ | A | B | F | K | L | M | P | R | S | T | U |
|----|----------|---------|----|----|----|-----|----|-------|---|-----|----|
| 16 | M6 | M16x1.5 | 16 | 22 | 18 | 129 | 53 | M5 | 5 | ∅6 | 10 |
| 20 | M8 | M22x1.5 | 20 | 24 | 20 | 155 | 67 | G1/8" | 7 | ∅8 | 13 |
| 25 | M10x1.25 | M22x1.5 | 22 | 28 | 22 | 168 | 68 | G1/8" | 9 | ∅10 | 17 |

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SEMPLICE EFFETTO MOLLA POSTERIORE



| ∅ | A | B | C | D | E | F | G | K | L | M | N | P | R | S | T | U |
|----|----------|---------|-----|----|----|----|-------|----|----|-------|----|------|-------|---|-----|----|
| 16 | M6 | M16x1.5 | ∅19 | 12 | ∅6 | 16 | 107.5 | 22 | 18 | 134.5 | 9 | 78.5 | M5 | 5 | ∅6 | 10 |
| 20 | M8 | M22x1.5 | ∅27 | 16 | ∅8 | 20 | 118 | 24 | 20 | 154 | 12 | 90 | G1/8" | 7 | ∅8 | 13 |
| 25 | M10x1.25 | M22x1.5 | ∅30 | 16 | ∅8 | 22 | 130 | 28 | 22 | 166 | 12 | 94 | G1/8" | 9 | ∅10 | 17 |

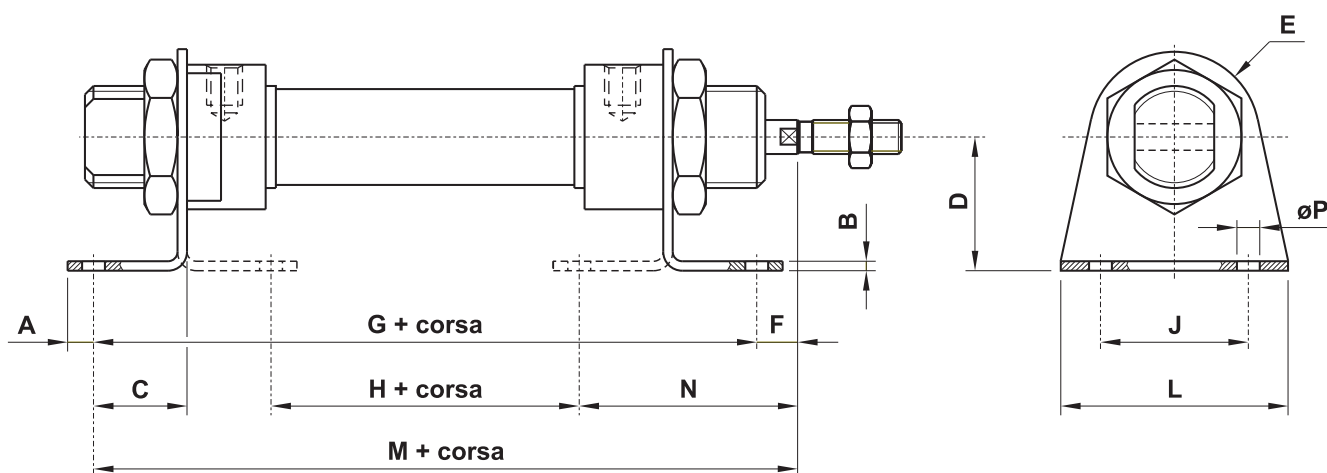
6

fissaggi per microcilindri ISO 6432

fixing elements for minicylinders ISO 6432

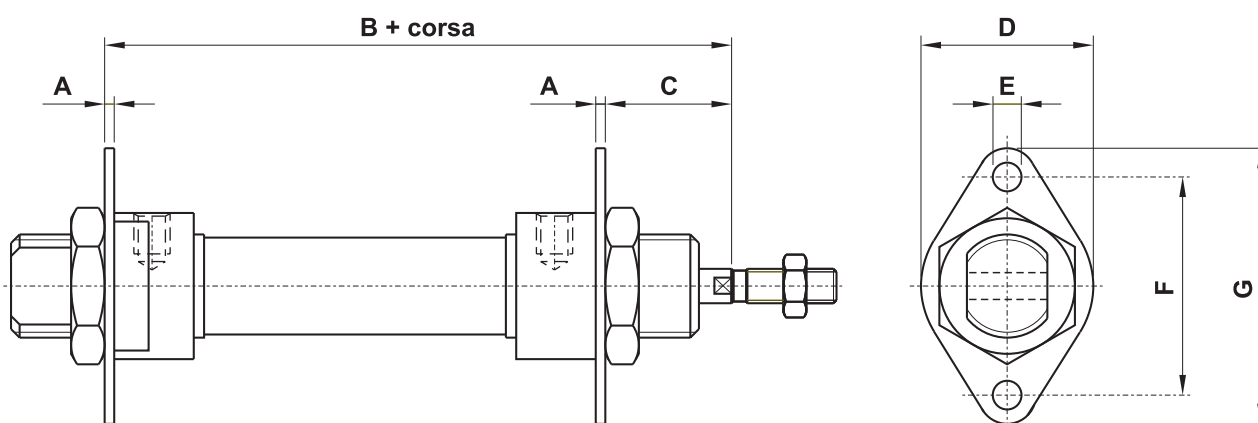


PIEDINO



| ∅ | A | B | C | D | E | F | G | H | J | L | M | N | P |
|----|---|---|----|----|------|----|-----|----|----|----|-----|----|-----|
| 10 | 5 | 3 | 11 | 16 | 10 | 5 | 68 | 30 | 25 | 32 | 73 | 24 | 4.5 |
| 12 | 6 | 4 | 14 | 20 | 12.5 | 8 | 76 | 28 | 32 | 42 | 84 | 32 | 5.5 |
| 16 | 6 | 4 | 14 | 20 | 12.5 | 8 | 81 | 33 | 32 | 42 | 89 | 32 | 5.5 |
| 20 | 8 | 5 | 17 | 25 | 20 | 7 | 101 | 43 | 40 | 54 | 108 | 36 | 6.6 |
| 25 | 8 | 5 | 17 | 25 | 20 | 11 | 102 | 44 | 40 | 54 | 113 | 40 | 6.6 |

FLANGIA



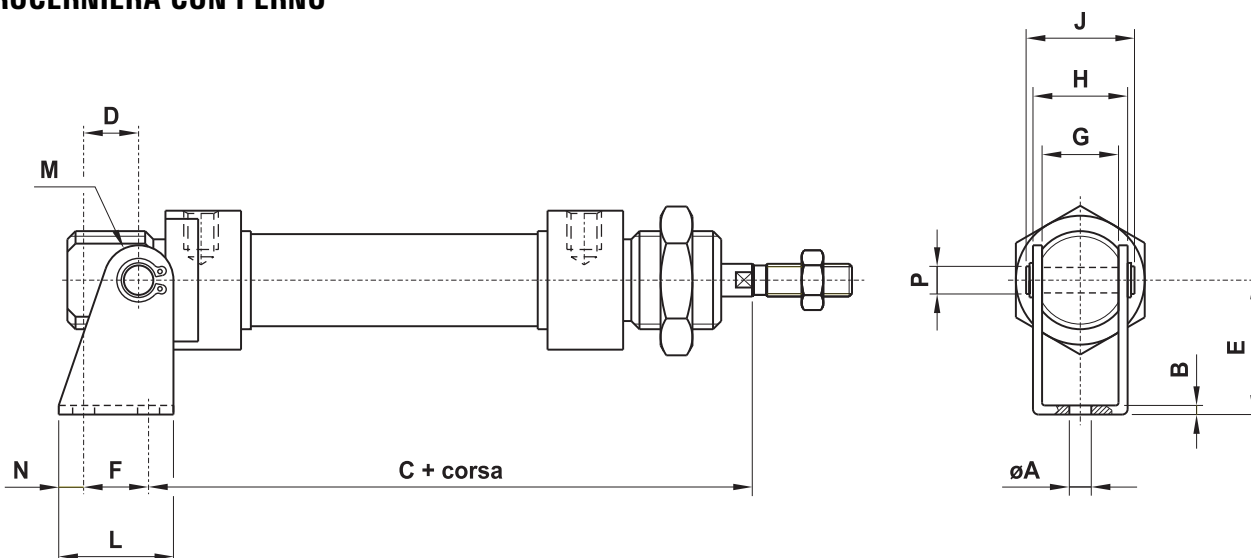
| ∅ | A | B | C | D | E | F | G |
|----|---|-----|----|----|------|----|----|
| 10 | 3 | 65 | 13 | 22 | ∅4.5 | 30 | 40 |
| 12 | 4 | 74 | 18 | 30 | ∅5.5 | 40 | 52 |
| 16 | 4 | 79 | 18 | 30 | ∅5.5 | 40 | 52 |
| 20 | 5 | 96 | 19 | 40 | ∅6.6 | 50 | 66 |
| 25 | 5 | 101 | 23 | 40 | ∅6.6 | 50 | 66 |

fissaggi per microcilindri ISO 6432

fixing elements for minicylinders ISO 6432

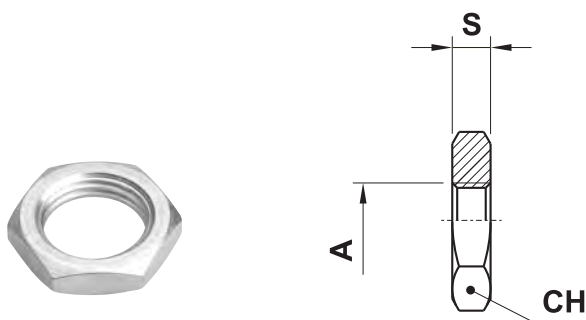


CONTROCERNIERA CON PERNO



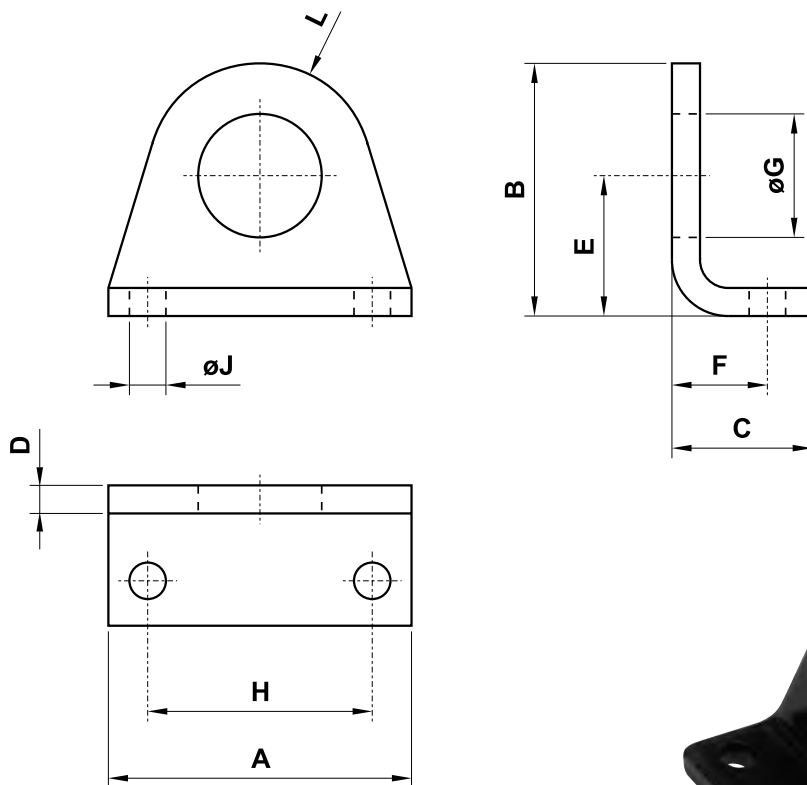
| ø | A | B | C | D | E | F | G | H | J | L | M | N | P |
|----|-----|-----|------|-------|----|------|------|----|------|----|----|------|----|
| 10 | 4.5 | 2.5 | 62.5 | 12.25 | 24 | 12.5 | 8.1 | 13 | 17 | 20 | 5 | 4.75 | ø4 |
| 12 | 5.5 | 3 | 73 | 13 | 27 | 15 | 12.1 | 18 | 23 | 25 | 7 | 5 | ø6 |
| 16 | 5.5 | 3 | 80 | 13 | 27 | 15 | 12.1 | 18 | 23 | 25 | 7 | 5 | ø6 |
| 20 | 6.6 | 4 | 91 | 16 | 30 | 20 | 16.1 | 24 | 29.5 | 32 | 10 | 6 | ø8 |
| 25 | 6.6 | 4 | 100 | 16 | 30 | 20 | 16.1 | 24 | 29.5 | 32 | 10 | 6 | ø8 |

DADO PER TESTATA



| sigla part number | per alesaggio for bore | A | CH | S |
|----------------------|---------------------------|----------|----|---|
| GPM010 | 10 | M12x1.25 | 19 | 7 |
| GPM12-16 | 12-16 | M16x1.5 | 22 | 6 |
| GPM20-25 | 20-25 | M22x1.5 | 27 | 8 |

PIEDINO

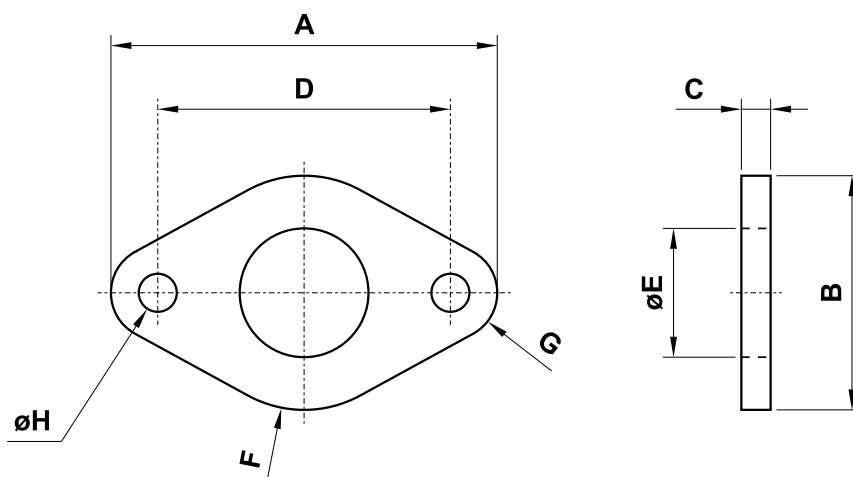


| sigla* part number* | per alesaggio for bore | A | B | C | D | E | F | G | H | J | L |
|------------------------|---------------------------|----|------|----|---|----|----|----|----|-----|------|
| PDMC08-10 | 8-10 | 35 | 26 | 16 | 3 | 16 | 11 | 12 | 25 | 4.5 | 10 |
| PDMC12-16 | 12-16 | 42 | 32.5 | 20 | 4 | 20 | 14 | 16 | 32 | 5.5 | 12.5 |
| PDMC20-25 | 20-25 | 54 | 45 | 25 | 5 | 25 | 17 | 22 | 40 | 6.6 | 20 |

* La sigla si riferisce a un solo piedino e non alla coppia

* The part number is referred to only one element and not to the couple

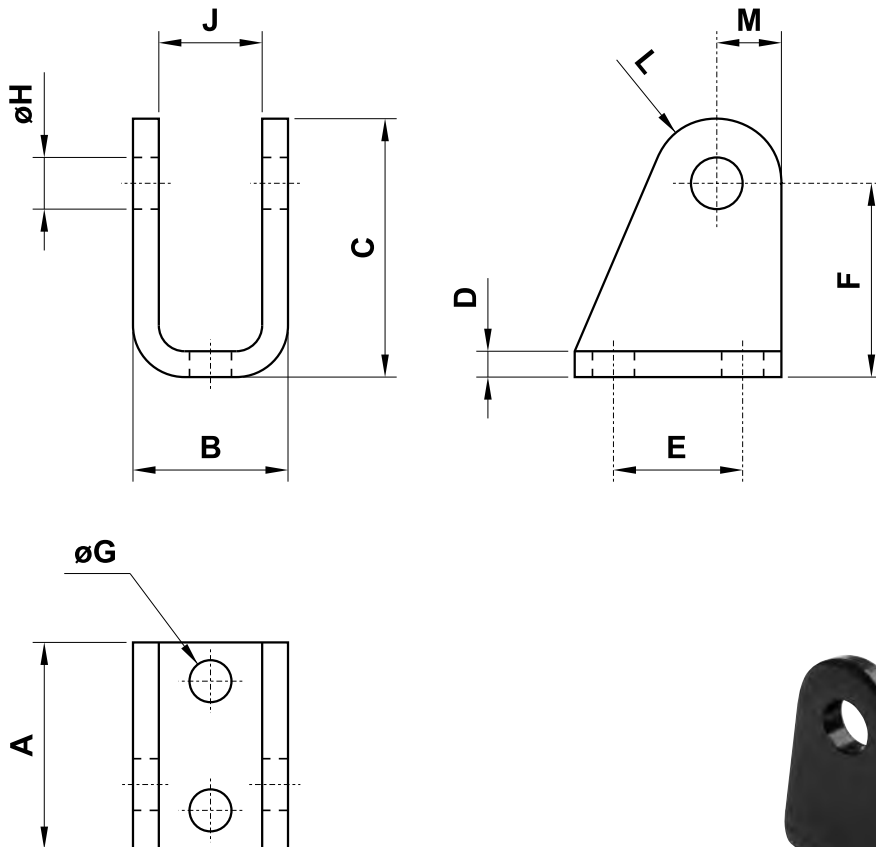
FLANGIA



6

| sigla part number | per alesaggio for bore | A | B | C | D | E | F | G | H |
|----------------------|---------------------------|----|----|---|----|----|----|---|-----|
| FLMC08-10 | 8-10 | 40 | 22 | 3 | 30 | 12 | 11 | 5 | 4.5 |
| FLMC12-16 | 12-16 | 52 | 30 | 4 | 40 | 16 | 15 | 6 | 5.5 |
| FLMC20-25 | 20-25 | 66 | 40 | 5 | 50 | 22 | 20 | 8 | 6.6 |

CONTROCERNIERA CON PERNO



6

| sigla part number | per alesaggio for bore | A | B | C | D | E | F | G | H | J | L | M |
|----------------------|---------------------------|----|----|----|-----|------|----|-----|---|------|----|----|
| CCMC08-10 | 8-10 | 20 | 13 | 29 | 2.5 | 12.5 | 24 | 4.5 | 4 | 8.1 | 5 | 5 |
| CCMC12-16 | 12-16 | 25 | 18 | 34 | 3 | 15 | 27 | 5.5 | 6 | 12.1 | 7 | 7 |
| CCMC20-25 | 20-25 | 32 | 24 | 40 | 4 | 20 | 30 | 6.6 | 8 | 16.1 | 10 | 10 |