

**Attuatori lineari di precisione ad aste gemellate.**  
**Tipo B con bronzine, tipo M con manicotti a ricircolo di sfere.**  
**Ø6, 10, 16, 20, 25, 32mm.**

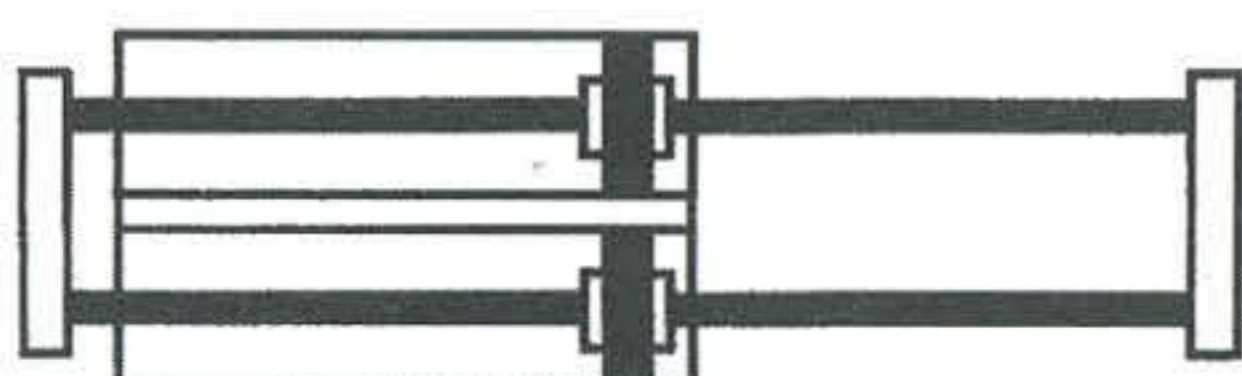


## 1. Descrizione generale e vantaggi applicativi

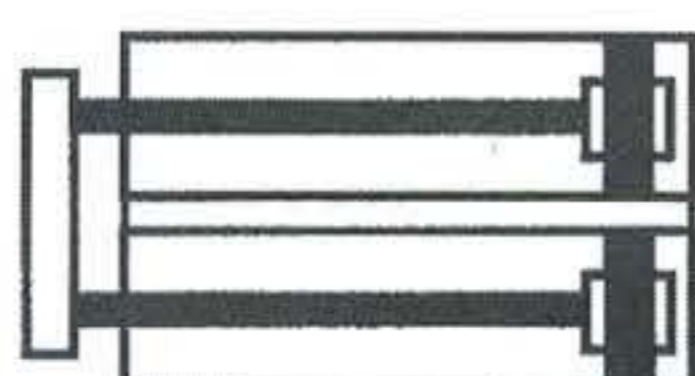
Gli attuatori STR2 offrono superiori caratteristiche di rigidità, ingombri e pesi contenuti, le aste gemellate offrono inoltre una ottima funzione di antirotazione.

- Modelli con bronzina, per sollecitazioni elevate, modelli con manicotti a ricircolo di sfere per elevate precisioni.
- Versioni semislitta e slitta con aste passanti.
- Versioni "end-lock" anteriore o posteriore.
- Versioni per basse velocità
- Potenza doppia rispetto ai cilindri guidati convenzionali.
- Regolazione della corsa di serie.
- Guide porta sensori ricavate nel corpo.
- Connessioni pneumatiche sui due lati.
- Ideali per manipolatori e pick and place.
- Versioni speciali su richiesta :  
Per camera bianca.  
Esenti da rame e PTFE.
- Le versioni B con manicotti a ricircolo di sfere rispettano già di serie le specifiche inerenti i componenti esenti da rame e PTFE necessari, per esempio, in impianti per la produzione di tubi TV.

## 2. Simboli pneumatici



Slitte



Semislitte

## 3. Codice

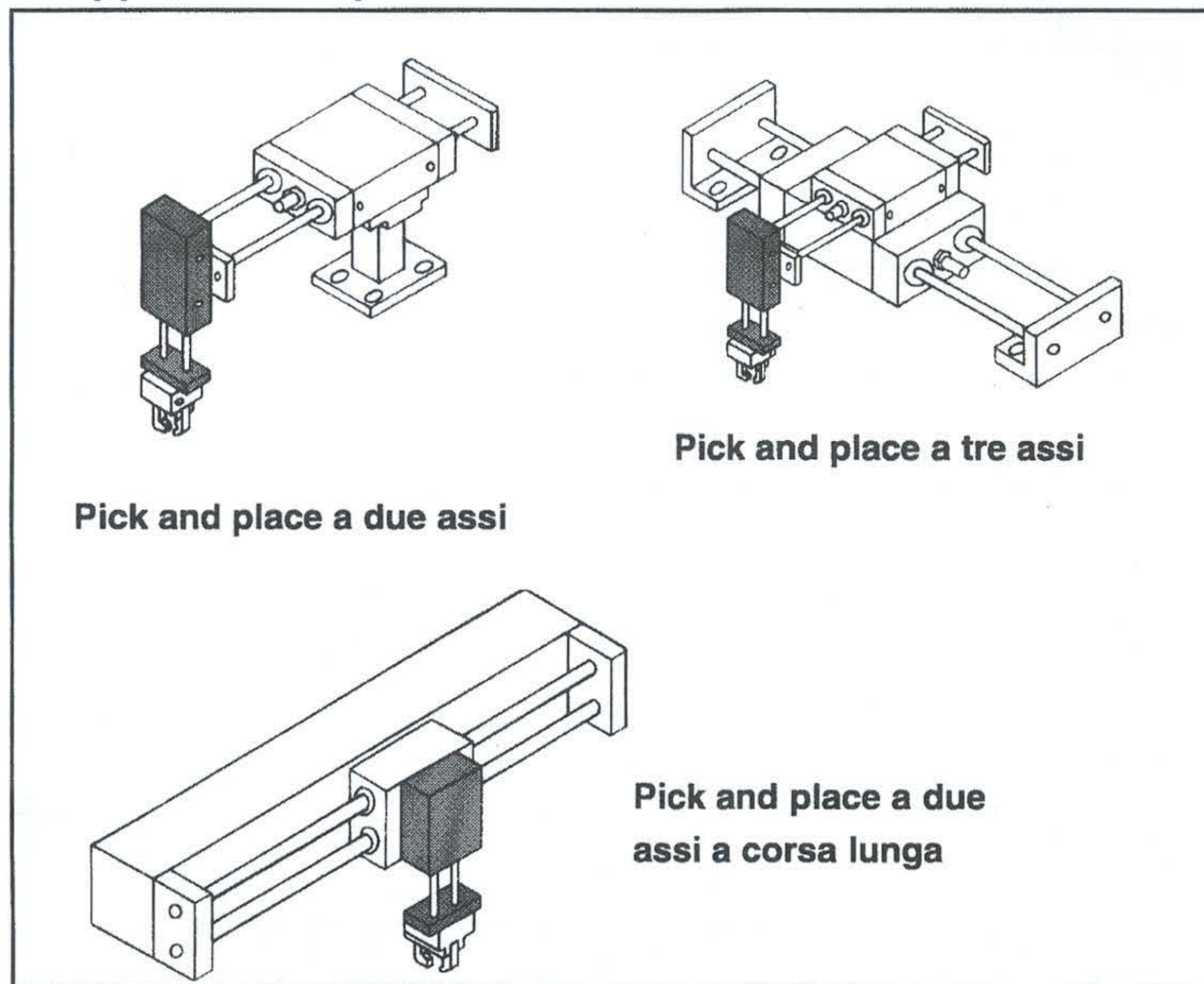
STR2 - \* \* - \* \* - \* \* \* \*

1 2 3 4 5

| 1 | Tipo  | 2 | Opzioni  | 3  | Alesaggi (mm) |
|---|---|---|--|----|---------------|
|   | M = Con bronzine  |   | - = Standard (semislitta)                              | 6  | = ø6          |
|   | B = Con manicotti a ricircolo di sfere                            |   | O = Bassa velocità                                     | 10 | = ø10         |
|   |   |   | D = Con aste passanti (slitta)                         | 16 | = ø16         |
|   |   |   | Q = End-lock (disponibili negli alesaggi da ø16 a ø32) | 20 | = ø20         |
|   |   |   |  | 25 | = ø25         |
|   |   |   |  | 32 | = ø32         |
| 4 | Corse (mm)  |   |  |    |               |
|   | 10,20,30,40,50  |   | per alesaggi ø6mm e ø10mm                              |    |               |
|   | 10,20,30,40,50,60,70,80,90,100                                    |   | per alesaggi ø16mm, ø20mm, ø25mm, ø32mm                |    |               |
| 5 | Funzionamento richiesto al dispositivo End-lock, quando previsto. |   |  |    |               |
|   | H = blocco in posizione retratta                                  |   |  |    |               |
|   | R = blocco in posizione estesa                                    |   |  |    |               |

**Esempio - Semislitta standard con bronzine, alesaggio 16mm corsa 70mm, codice d'ordinazione: STR2-M-16-70**

## 4. Applicazioni tipiche



Pick and place a due assi

Pick and place a tre assi

Pick and place a due assi a corsa lunga

## Dati tecnici comuni

|  |  |  |
|--|--|--|
| Campo delle pressioni di lavoro                                  | $\varnothing 6\text{mm}$<br>$\varnothing 10\text{mm}$<br>$\varnothing 16, \varnothing 20, \varnothing 25, \varnothing 32\text{mm}$ | 0.2 ~ 0.7 Mpa ( 2~7 bar )<br>0.15~0.7 Mpa ( 1.5~7 bar )<br>0.1 ~ 0.7 Mpa ( 1~7bar )  |
| Campo delle temperature di esercizio                             | -10°C ~ + 60°C   |  |
| Velocita'  | 50 ~ 500 mm/sec  |  |
| Alesaggi   | 6mm, 10mm, 16mm, 20mm, 25mm, 32mm  |  |
| Conessioni   | $\varnothing 6\text{--}\varnothing 25\text{mm}$<br>$\varnothing 32\text{mm}$   | M5<br>1/8"   |
| Ammortizzi   | Paracolpi elastici anteriori e posteriori  |  |
| Campo di regolazione della corsa                                 | 0---5mm  |  |
| Lubrificazione   | Non necessaria, nel caso serva lubrificare altri componenti connessi alla stessa alimentazione impiegare olio ISO VG32             |  |
| Precisione antirotazione<br>( a corsa 0mm in assenza di carico ) | Modelli M con bronzine<br><br>Modelli B con manicotti a ricircolo di sfere   | $\varnothing 6\text{mm}$ $\pm 0.4^{\circ}$<br>$\varnothing 10, \varnothing 16, \varnothing 20\text{mm}$ $\pm 0.3^{\circ}$<br>$\varnothing 25, \varnothing 32\text{mm}$ $\pm 0.2^{\circ}$<br>$\varnothing 6\text{mm}$ $\pm 0.2^{\circ}$<br>$\varnothing 10, \varnothing 16, \varnothing 20\text{mm}$ $\pm 0.1^{\circ}$<br>$\varnothing 25, \varnothing 32\text{mm}$ $\pm 0.3^{\circ}$ |

## Dati tecnici specifici versioni con aste passanti STR2 <sup>M</sup><sub>B</sub> D

|                                 |  |  |
|---------------------------------|--|--|
| Campo delle pressioni di lavoro | $\varnothing 6\text{mm}$<br>$\varnothing 10\text{mm}$<br>$\varnothing 16, \varnothing 20, \varnothing 25, \varnothing 32\text{mm}$ | 0.25 ~ 0.7Mpa (2.5~7bar)<br>0.2 ~ 0.7 Mpa ( 2~7bar )<br>0.15 ~ 0.7Mpa (1.5~7bar) |
|---------------------------------|--|--|

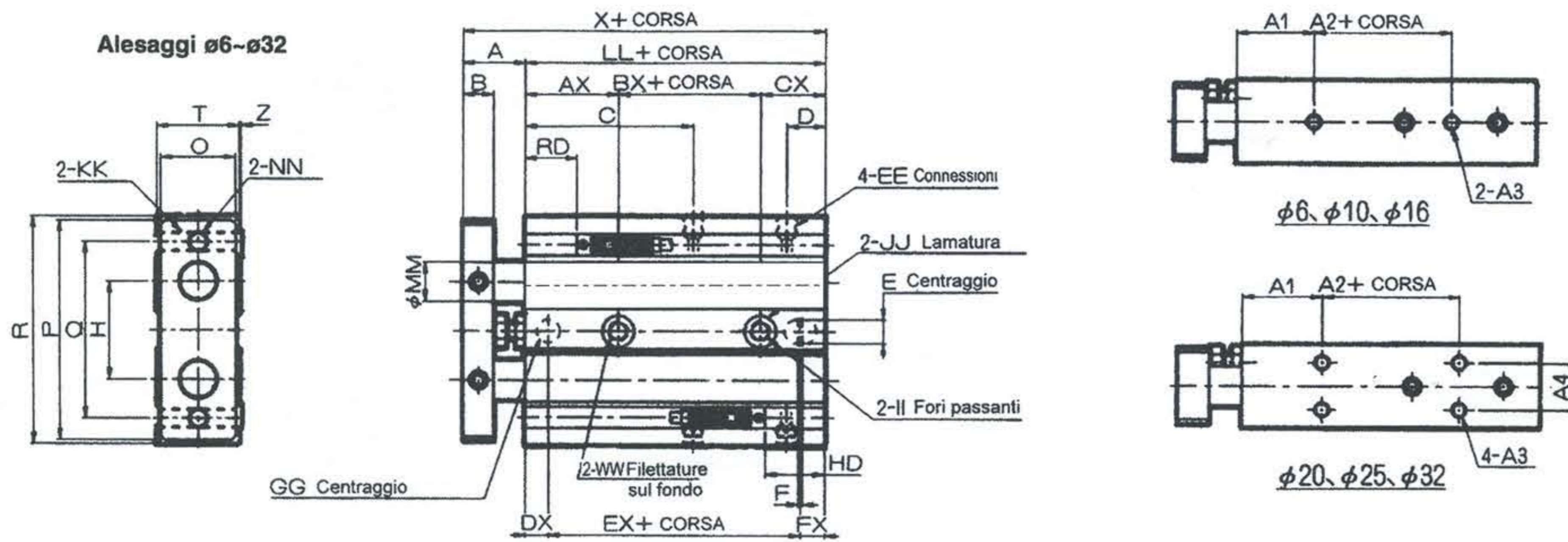
## Dati tecnici specifici versioni con end-lock STR2 <sup>M</sup><sub>B</sub> Q

|                                 |  |                          |
|---------------------------------|--|--------------------------|
| Campo delle pressioni di lavoro | $\varnothing 16, \varnothing 20, \varnothing 25, \varnothing 32\text{mm}$                  | 0.15 ~ 0.7Mpa (1.5~7bar) |
| Alesaggi disponibili            | 16mm, 20mm, 25mm, 32mm   |                          |
| Carico sostenibile              | 70% della forza espressa a 0.7Mpa (7bar)   |                          |
| Funzioni di bloccaggio          | bloccaggio in posizione estesa, versioni R<br>bloccaggio in posizione retratta, versioni H |                          |

## Dati tecnici specifici versioni per bassa velocità STR2 <sup>M</sup><sub>B</sub> O

|          |                  |  |
|----------|------------------|--|
| Velocità | 10 ~ 200 mm/sec. |  |
|----------|------------------|--|

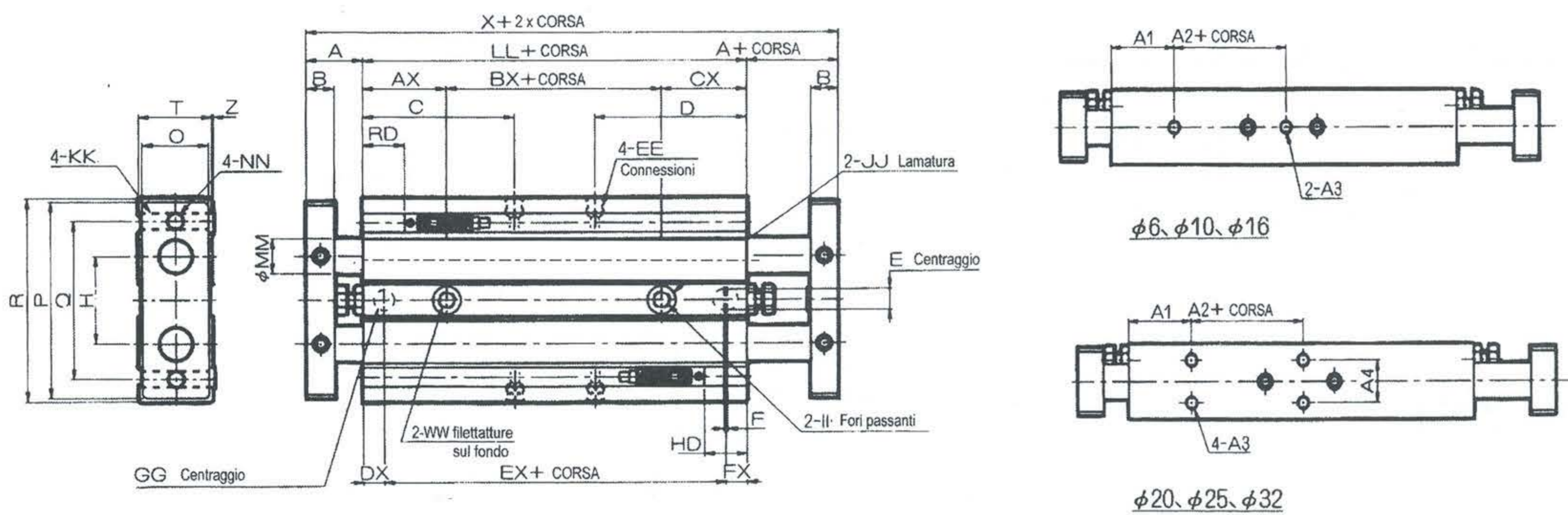
## Dimensioni modelli standard STR2<sub>B</sub> e versioni per bassa velocità STR2<sub>B</sub>O



| Alesaggi (mm) | Quote |    |      |      |               |      |   |                |    |      |                     |    |    |    |    |    |    |
|---------------|-------|----|------|------|---------------|------|---|----------------|----|------|---------------------|----|----|----|----|----|----|
|               | A     | B  | C    | D    | E             | EE   | F | GG             | H  | II   | JJ                  | KK | LL | MM | NN | O  | P  |
| φ 6           | 12    | 6  | 24.5 | 7.5  | 4±0.02 prof.3 | M5   | 1 | φ4±0.02 prof.3 | 14 | φ3.4 | φ6.5 H testa max. 3 | M3 | 44 | 4  | M3 | 11 | 34 |
| φ 10          | 14    | 6  | 35   | 7    | 4±0.02 prof.4 | M5   | 1 | φ4±0.02 prof.4 | 20 | φ4.3 | φ8 H testa max. 4.4 | M4 | 55 | 6  | M4 | 13 | 42 |
| φ 16          | 16    | 8  | 43   | 9.5  | 6±0.02 prof.6 | M5   | 1 | φ6±0.02 prof.6 | 25 | φ4.3 | φ8 H testa max. 4.4 | M5 | 66 | 10 | M5 | 19 | 56 |
| φ 20          | 20    | 10 | 46   | 9.5  | 6±0.02 prof.6 | M5   | 1 | φ6±0.02 prof.6 | 28 | φ5.2 | φ9.5 H testa max. 5 | M5 | 75 | 12 | M5 | 25 | 60 |
| φ 25          | 22    | 12 | 44   | 10.5 | 6±0.02 prof.6 | M5   | 1 | φ6±0.02 prof.6 | 34 | φ6.3 | φ11 H testa max. 6  | M6 | 75 | 14 | M6 | 31 | 70 |
| φ 32          | 22    | 12 | 56   | 11   | 6±0.02 prof.6 | 1/8" | 1 | φ6±0.02 prof.6 | 44 | φ6.3 | φ11 H testa max. 6  | M6 | 91 | 16 | M6 | 36 | 94 |

| Alesaggi (mm) | Quote |    |    |            |    |    |    |    |    |    |    |     |    |    |              |    |      |      |
|---------------|-------|----|----|------------|----|----|----|----|----|----|----|-----|----|----|--------------|----|------|------|
|               | Q     | R  | T  | WW         | X  | AX | BX | CX | DX | EX | FX | Z   | A1 | A2 | A3           | A4 | HD   | RD   |
| φ 6           | 29    | 36 | 13 | M4 prof. 5 | 56 | 20 | 10 | 14 | 7  | 30 | 7  | 0.5 | 15 | 10 | M3 prof. 4   | —  | 3.5  | 21   |
| φ 10          | 36    | 44 | 15 | M5 prof. 6 | 69 | 24 | 14 | 17 | 8  | 38 | 9  | 0.5 | 15 | 20 | M3 prof. 3.5 | —  | 2.5  | 33   |
| φ 16          | 45    | 58 | 21 | M5 prof. 6 | 82 | 24 | 26 | 16 | 8  | 50 | 8  | 0   | 20 | 25 | M4 prof. 4   | —  | 7    | 39.5 |
| φ 20          | 50    | 62 | 27 | M6 prof. 8 | 95 | 24 | 33 | 18 | 9  | 57 | 9  | 0   | 20 | 30 | M4 prof. 4   | 13 | 10.5 | 45   |
| φ 25          | 60    | 72 | 33 | M8 prof. 8 | 97 | 24 | 33 | 18 | 9  | 57 | 9  | 0   | 20 | 30 | M5 prof. 6   | 18 | 11.5 | 43.5 |



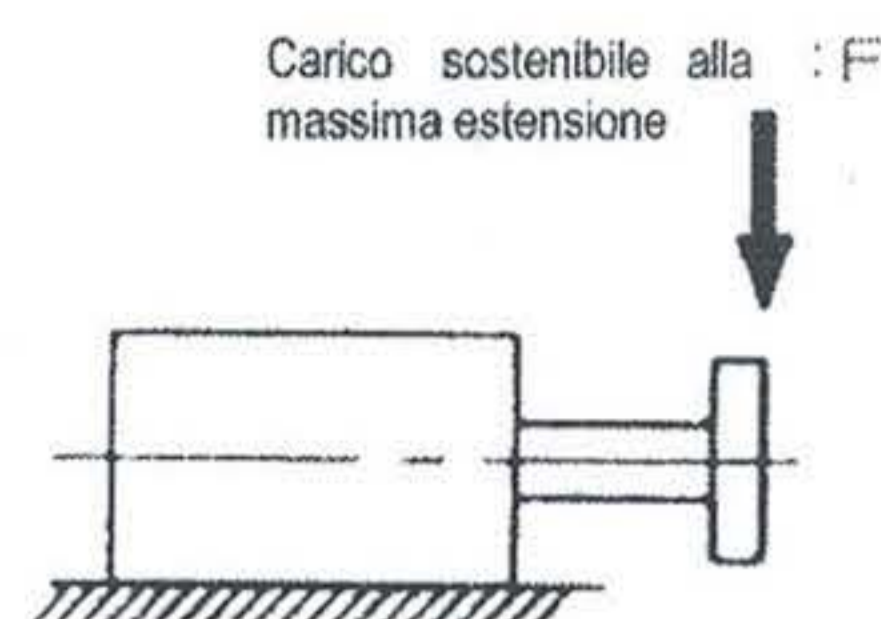
| Alesaggi | Quote |    |      |      |               |      |   |                |    |      |                     |    |      |    |    |    |    |
|----------|-------|----|------|------|---------------|------|---|----------------|----|------|---------------------|----|------|----|----|----|----|
|          | A     | B  | C    | D    | E             | EE   | F | GG             | H  | II   | JJ                  | KK | LL   | MM | NN | O  | P  |
| φ 6      | 12    | 6  | 24.5 | 24.5 | 4±0.02 prof.3 | M5   | 1 | φ4±0.02 prof.3 | 14 | φ3.4 | φ6.5 H testa max. 3 | M3 | 61   | 4  | M3 | 11 | 34 |
| φ 10     | 14    | 6  | 35   | 35   | 4±0.02 prof.4 | M5   | 1 | φ4±0.02 prof.4 | 20 | φ4.3 | φ8 H testa max. 4.4 | M4 | 82.5 | 6  | M4 | 13 | 42 |
| φ 16     | 16    | 8  | 43   | 43   | 6±0.02 prof.6 | M5   | 1 | φ6±0.02 prof.6 | 25 | φ4.3 | φ8 H testa max. 4.4 | M5 | 99   | 10 | M5 | 19 | 56 |
| φ 20     | 20    | 10 | 46   | 46   | 6±0.02 prof.6 | M5   | 1 | φ6±0.02 prof.6 | 28 | φ5.2 | φ9.5 H testa max. 5 | M5 | 108  | 12 | M5 | 25 | 60 |
| φ 25     | 22    | 12 | 44   | 44   | 6±0.02 prof.6 | M5   | 1 | φ6±0.02 prof.6 | 34 | φ6.3 | φ11 H testa max. 6  | M6 | 108  | 14 | M6 | 31 | 70 |
| φ 32     | 22    | 12 | 56   | 56   | 6±0.02 prof.6 | 1/8" | 1 | φ6±0.02 prof.6 | 44 | φ6.3 | φ11 H testa max. 6  | M6 | 133  | 16 | M6 | 36 | 94 |

| Alesaggi | Quote |    |    |            |     |    |      |    |    |      |    |     |    |    |              |    |      |      |
|----------|-------|----|----|------------|-----|----|------|----|----|------|----|-----|----|----|--------------|----|------|------|
|          | Q     | R  | T  | WW         | X   | AX | BX   | CX | DX | EX   | FX | Z   | A1 | A2 | A3           | A4 | HD   | RD   |
| φ 6      | 29    | 36 | 13 | M4 prof. 5 | 85  | 20 | 21   | 20 | 7  | 47   | 7  | 0.5 | 15 | 10 | M3 prof. 4   | —  | 20.5 | 21   |
| φ 10     | 36    | 44 | 15 | M5 prof. 6 | 111 | 24 | 34.5 | 24 | 8  | 65.5 | 9  | 0.5 | 15 | 20 | M3 prof. 3.5 | —  | 30.5 | 32.5 |
| φ 16     | 45    | 58 | 21 | M5 prof. 6 | 131 | 24 | 51   | 24 | 8  | 83   | 8  | 0   | 20 | 25 | M4 prof. 4   | —  | 39   | 40.5 |
| φ 20     | 50    | 62 | 27 | M6 prof. 8 | 148 | 24 | 60   | 24 | 9  | 90   | 9  | 0   | 20 | 30 | M4 prof. 4   | 13 | 43   | 45   |
| φ 25     | 60    | 72 | 33 | M8 prof. 8 | 152 | 24 | 60   | 24 | 9  | 90   | 9  | 0   | 20 | 30 | M5 prof. 6   | 18 | 43.5 | 44.5 |
| φ 32     | 75    | 96 | 38 | M8 prof. 8 | 177 | 24 | 85   | 24 | 9  | 115  | 9  | 0   | 20 | 40 | M5 prof. 8   | 24 | 55.5 | 57.5 |

## CARICHI VERTICALI AMMESSI

### STR2 STANDARD



● Versioni con bronzine

| Alesaggi  | Corse (mm) |      |      |      |      |      |      |      |      |      |
|-----------|------------|------|------|------|------|------|------|------|------|------|
|           | 10         | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   | 100  |
| STR2-M-6  | 2.4        | 1.9  | 1.5  | 1.3  | 1.1  | —    | —    | —    | —    | —    |
| STR2-M-10 | 5.8        | 4.8  | 4.1  | 3.5  | 3.1  | —    | —    | —    | —    | —    |
| STR2-M-16 | 15.9       | 13.3 | 11.5 | 10.1 | 8.9  | 8.1  | 7.3  | 6.7  | 6.2  | 5.8  |
| STR2-M-20 | 20.3       | 17.3 | 15.1 | 13.4 | 12.1 | 10.9 | 10.0 | 9.2  | 8.5  | 7.9  |
| STR2-M-25 | 22.1       | 18.9 | 16.5 | 14.7 | 13.1 | 11.9 | 10.9 | 10.1 | 9.3  | 8.7  |
| STR2-M-32 | 34.9       | 30.2 | 26.7 | 23.9 | 21.6 | 19.7 | 18.1 | 16.8 | 15.7 | 14.7 |

● Versioni con manicotti a sfere

| Alesaggi  | Corse (mm) |      |      |      |      |      |     |     |     |     |
|-----------|------------|------|------|------|------|------|-----|-----|-----|-----|
|           | 10         | 20   | 30   | 40   | 50   | 60   | 70  | 80  | 90  | 100 |
| STR2-B-6  | 2.6        | 1.9  | 1.5  | 1.2  | 1.0  | —    | —   | —   | —   | —   |
| STR2-B-10 | 6.0        | 4.4  | 3.6  | 3.0  | 2.6  | —    | —   | —   | —   | —   |
| STR2-B-16 | 11.4       | 8.5  | 7.0  | 5.9  | 5.1  | 4.5  | 4.0 | 3.7 | 3.3 | 3.0 |
| STR2-B-20 | 12.7       | 9.6  | 7.9  | 6.8  | 5.9  | 5.3  | 4.7 | 4.3 | 3.9 | 3.6 |
| STR2-B-25 | 14.7       | 11.1 | 9.2  | 7.9  | 6.9  | 6.1  | 5.5 | 5.0 | 4.6 | 4.2 |
| STR2-B-32 | 24.3       | 18.5 | 15.4 | 13.3 | 11.7 | 10.5 | 9.5 | 8.7 | 8.0 | 7.4 |

### STR2-D ASTE PASSANTI



● Versioni con bronzine

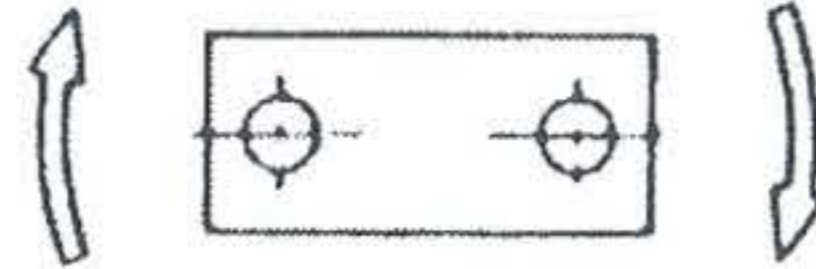
| Alesaggi   | Corse (mm) |      |      |      |      |      |      |      |      |      |
|------------|------------|------|------|------|------|------|------|------|------|------|
|            | 10         | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   | 100  |
| STR2-MD-6  | 3.3        | 3.2  | 3.1  | 3.0  | 2.9  | —    | —    | —    | —    | —    |
| STR2-MD-10 | 8.0        | 7.6  | 7.3  | 7.1  | 7.0  | —    | —    | —    | —    | —    |
| STR2-MD-16 | 21.7       | 20.5 | 19.7 | 19.1 | 18.7 | 18.3 | 18.0 | 17.8 | 17.6 | 17.5 |
| STR2-MD-20 | 26.7       | 25.3 | 24.3 | 23.7 | 23.1 | 22.7 | 22.4 | 22.1 | 21.9 | 21.7 |
| STR2-MD-25 | 29.3       | 27.8 | 26.7 | 26.0 | 25.4 | 24.9 | 24.6 | 24.3 | 24.0 | 23.8 |
| STR2-MD-32 | 45.2       | 42.9 | 41.3 | 40.1 | 39.1 | 38.3 | 37.7 | 37.2 | 36.7 | 36.3 |

● Versioni con manicotti a sfere

| Alesaggi   | Corse (mm) |      |      |      |      |      |      |      |      |      |
|------------|------------|------|------|------|------|------|------|------|------|------|
|            | 10         | 20   | 30   | 40   | 50   | 60   | 70   | 80   | 90   | 100  |
| STR2-BD-6  | 3.7        | 3.0  | 2.7  | 2.5  | 2.3  | —    | —    | —    | —    | —    |
| STR2-BD-10 | 8.6        | 6.9  | 6.2  | 5.7  | 5.3  | —    | —    | —    | —    | —    |
| STR2-BD-16 | 16.6       | 13.3 | 11.7 | 10.7 | 10.0 | 9.4  | 9.0  | 8.6  | 8.3  | 8.0  |
| STR2-BD-20 | 17.8       | 14.3 | 12.6 | 11.5 | 10.8 | 10.2 | 9.8  | 9.3  | 9.0  | 8.7  |
| STR2-BD-25 | 20.8       | 16.7 | 14.7 | 13.5 | 12.6 | 11.9 | 11.4 | 10.9 | 10.5 | 10.2 |
| STR2-BD-32 | 34.5       | 27.6 | 24.2 | 22.1 | 20.6 | 19.5 | 18.5 | 17.8 | 17.1 | 16.6 |

## MOMENTI AMMESSI

### STR2 STANDARD



Momento torcente alla massima estensione : T

● Versioni con bronzine

(N · mm)

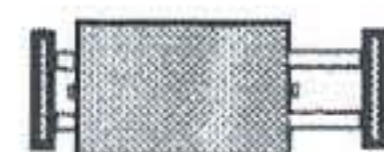
| Alesaggi  | Corse (mm) |       |       |       |       |       |       |       |       |       |
|-----------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|           | 10         | 20    | 30    | 40    | 50    | 60    | 70    | 80    | 90    | 100   |
| STR2-M-6  | 8.4        | 6.7   | 5.3   | 4.6   | 3.9   | —     | —     | —     | —     | —     |
| STR2-M-10 | 29.0       | 24.0  | 20.5  | 17.5  | 15.5  | —     | —     | —     | —     | —     |
| STR2-M-16 | 99.4       | 83.1  | 71.9  | 63.1  | 55.6  | 50.6  | 45.6  | 41.9  | 38.8  | 36.3  |
| STR2-M-20 | 142.1      | 121.1 | 105.7 | 93.8  | 84.7  | 76.3  | 70.0  | 64.4  | 59.5  | 55.3  |
| STR2-M-25 | 187.9      | 160.7 | 140.3 | 125.0 | 111.4 | 101.2 | 92.7  | 85.9  | 79.1  | 74.0  |
| STR2-M-32 | 383.9      | 332.2 | 293.7 | 262.9 | 237.6 | 216.7 | 199.1 | 184.8 | 172.7 | 161.7 |

● Versioni con manicotti a sfere

(N · mm)

| Alesaggi  | Corse (mm) |       |       |       |       |       |       |      |      |      |
|-----------|------------|-------|-------|-------|-------|-------|-------|------|------|------|
|           | 10         | 20    | 30    | 40    | 50    | 60    | 70    | 80   | 90   | 100  |
| STR2-B-6  | 9.1        | 6.7   | 5.3   | 4.2   | 3.5   | —     | —     | —    | —    | —    |
| STR2-B-10 | 30.0       | 22.0  | 18.0  | 15.0  | 13.0  | —     | —     | —    | —    | —    |
| STR2-B-16 | 71.3       | 53.1  | 43.8  | 36.9  | 31.9  | 28.1  | 25.0  | 23.1 | 20.6 | 18.8 |
| STR2-B-20 | 88.9       | 67.2  | 55.3  | 47.6  | 41.3  | 37.1  | 32.9  | 30.1 | 27.3 | 25.2 |
| STR2-B-25 | 125.0      | 94.4  | 78.2  | 67.2  | 58.7  | 51.9  | 46.8  | 42.5 | 39.1 | 35.7 |
| STR2-B-32 | 267.3      | 203.5 | 169.4 | 146.3 | 128.7 | 115.5 | 104.5 | 95.7 | 88.0 | 81.4 |

### STR2-D ASTE PASSANTI



● Versioni con bronzine

(N · mm)

| Alesaggi   | Corse (mm) |       |       |       |       |       |       |       |       |       |
|------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | 10         | 20    | 30    | 40    | 50    | 60    | 70    | 80    | 90    | 100   |
| STR2-MD-6  | 11.6       | 11.2  | 10.9  | 10.5  | 10.2  | —     | —     | —     | —     | —     |
| STR2-MD-10 | 40.0       | 38.0  | 36.5  | 35.5  | 35.0  | —     | —     | —     | —     | —     |
| STR2-MD-16 | 135.6      | 128.1 | 123.1 | 119.4 | 116.9 | 114.4 | 112.5 | 111.3 | 110.0 | 109.4 |
| STR2-MD-20 | 186.9      | 177.1 | 170.1 | 165.9 | 161.7 | 158.9 | 156.8 | 154.7 | 153.3 | 151.9 |
| STR2-MD-25 | 249.1      | 236.3 | 227.0 | 221.0 | 215.9 | 211.7 | 209.1 | 206.6 | 204.0 | 202.3 |
| STR2-MD-32 | 497.2      | 471.9 | 454.3 | 441.1 | 430.1 | 421.3 | 414.7 | 409.2 | 403.7 | 399.3 |

● Versioni con manicotti a sfere

(N · mm)

| Alesaggi   | Corse (mm) |       |       |       |       |       |       |       |       |       |
|------------|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | 10         | 20    | 30    | 40    | 50    | 60    | 70    | 80    | 90    | 100   |
| STR2-BD-6  | 13.0       | 10.5  | 9.5   | 8.8   | 8.1   | —     | —     | —     | —     | —     |
| STR2-BD-10 | 43.0       | 34.5  | 31.0  | 28.5  | 26.5  | —     | —     | —     | —     | —     |
| STR2-BD-16 | 103.8      | 83.1  | 73.1  | 66.9  | 62.5  | 58.8  | 56.3  | 53.8  | 51.9  | 50.0  |
| STR2-BD-20 | 124.6      | 100.1 | 88.2  | 80.5  | 75.6  | 71.4  | 68.6  | 65.1  | 63.0  | 60.9  |
| STR2-BD-25 | 176.8      | 142.0 | 125.0 | 114.8 | 107.1 | 101.2 | 96.9  | 92.7  | 89.3  | 86.7  |
| STR2-BD-32 | 379.5      | 303.6 | 266.2 | 243.1 | 226.6 | 214.5 | 203.5 | 195.8 | 188.1 | 182.6 |

## Sensori magnetici impiegabili

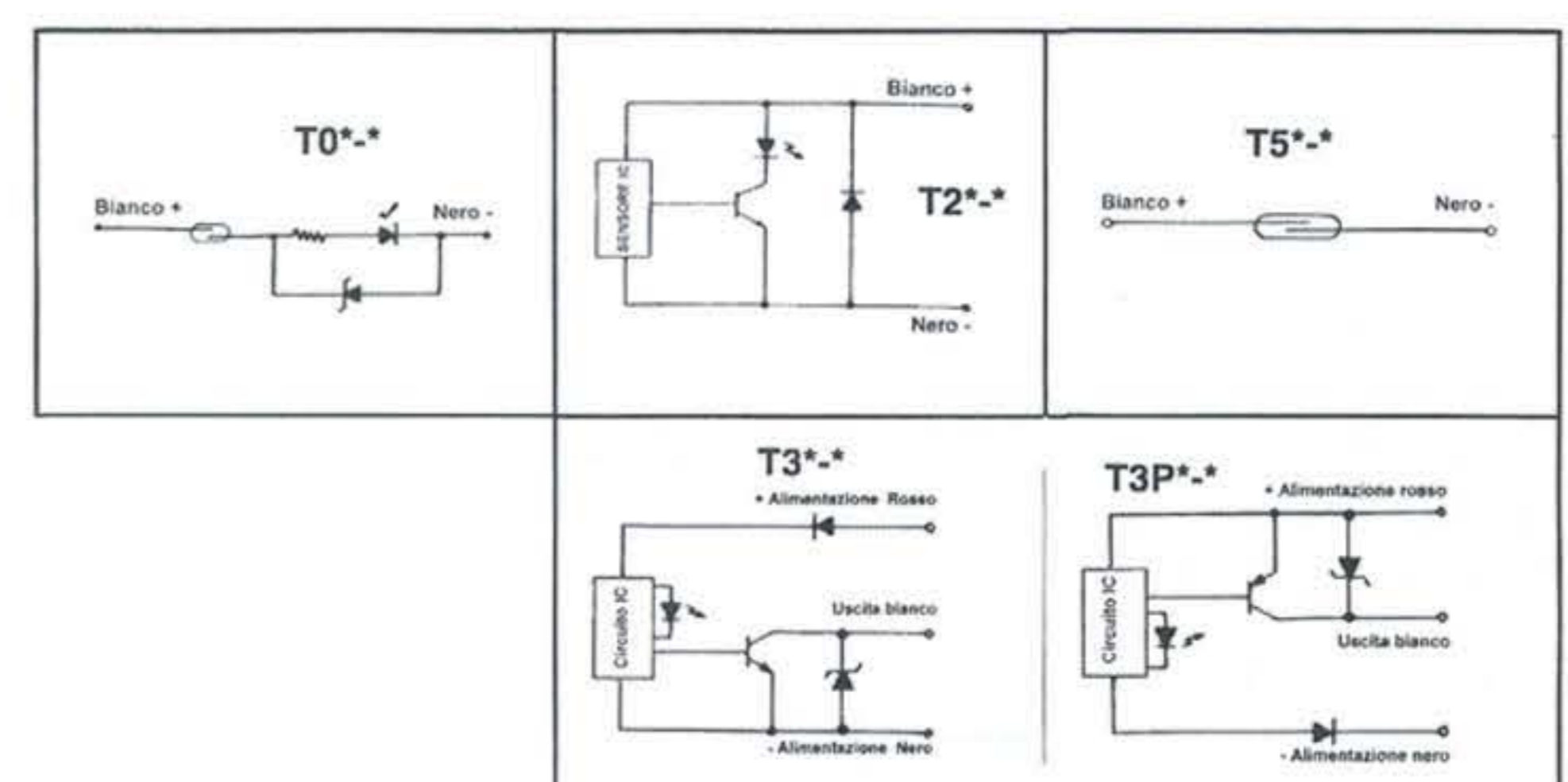
### 2. Codice

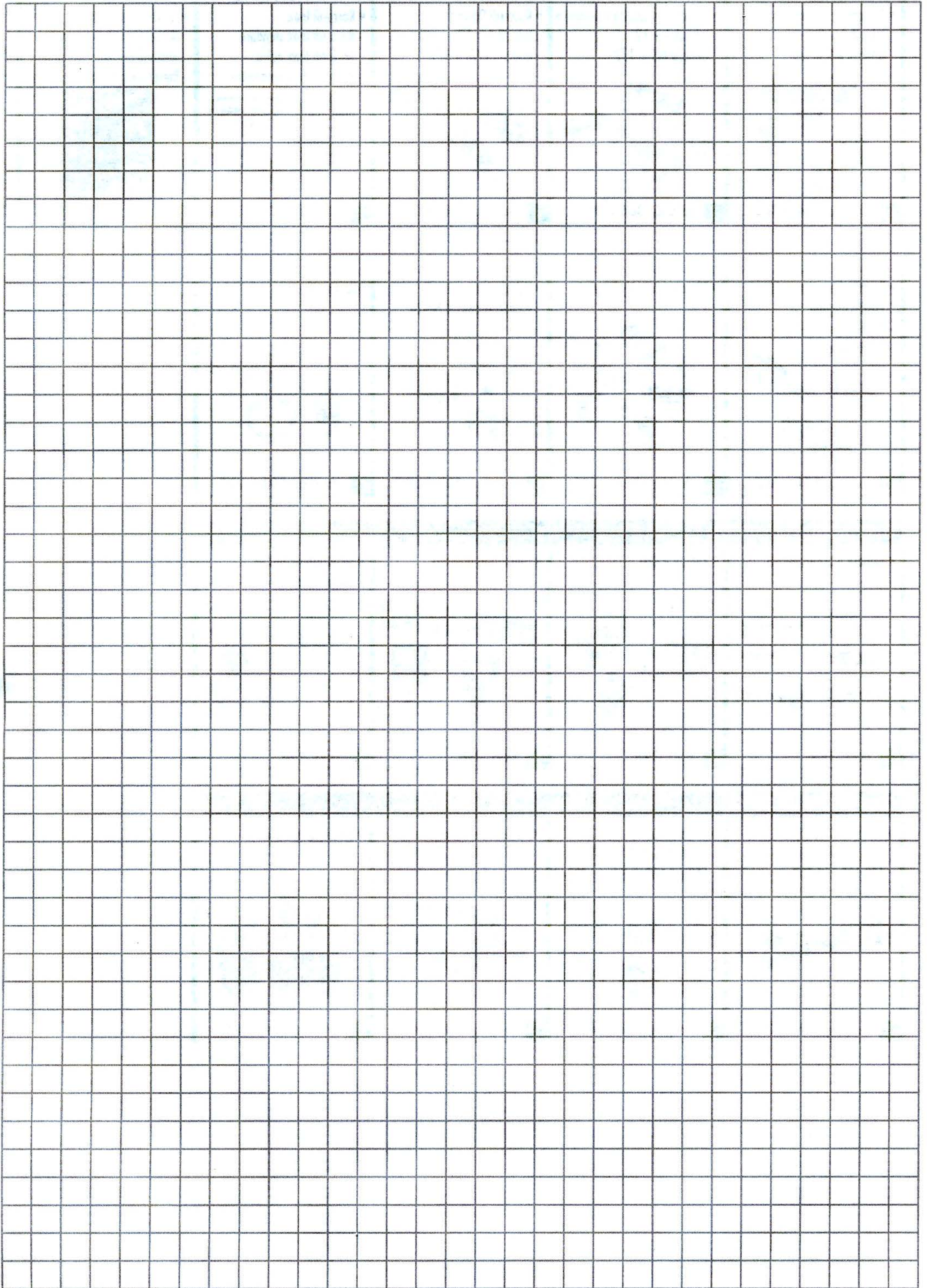
T \* \* - \*

1 2 3

- Tipo**
  - 0= Reed con led, (10~30Vdc, 5~20mA)
  - 2 = Stato solido, (12~24Vdc, 5~50mA) - (110Vac, 7~20mA)
  - 3P= Stato solido a 3 fili PNP (10~28Vdc, 100mA)
  - 3= Stato solido a 3 fili NPN (10~28Vdc, 100mA)
  - 5= Reed, (5/24Vdc, 50mA) - (110Vac, 20mA)
- Direzione del cavo di alimentazione**
  - V = assiale
  - H = radiale
- Lunghezza del cavo di alimentazione**
  - = 1m. standard
  - 3 = 3m. opzionale
  - 5 = 5m. opzionale

### Circuiti elettrici interni





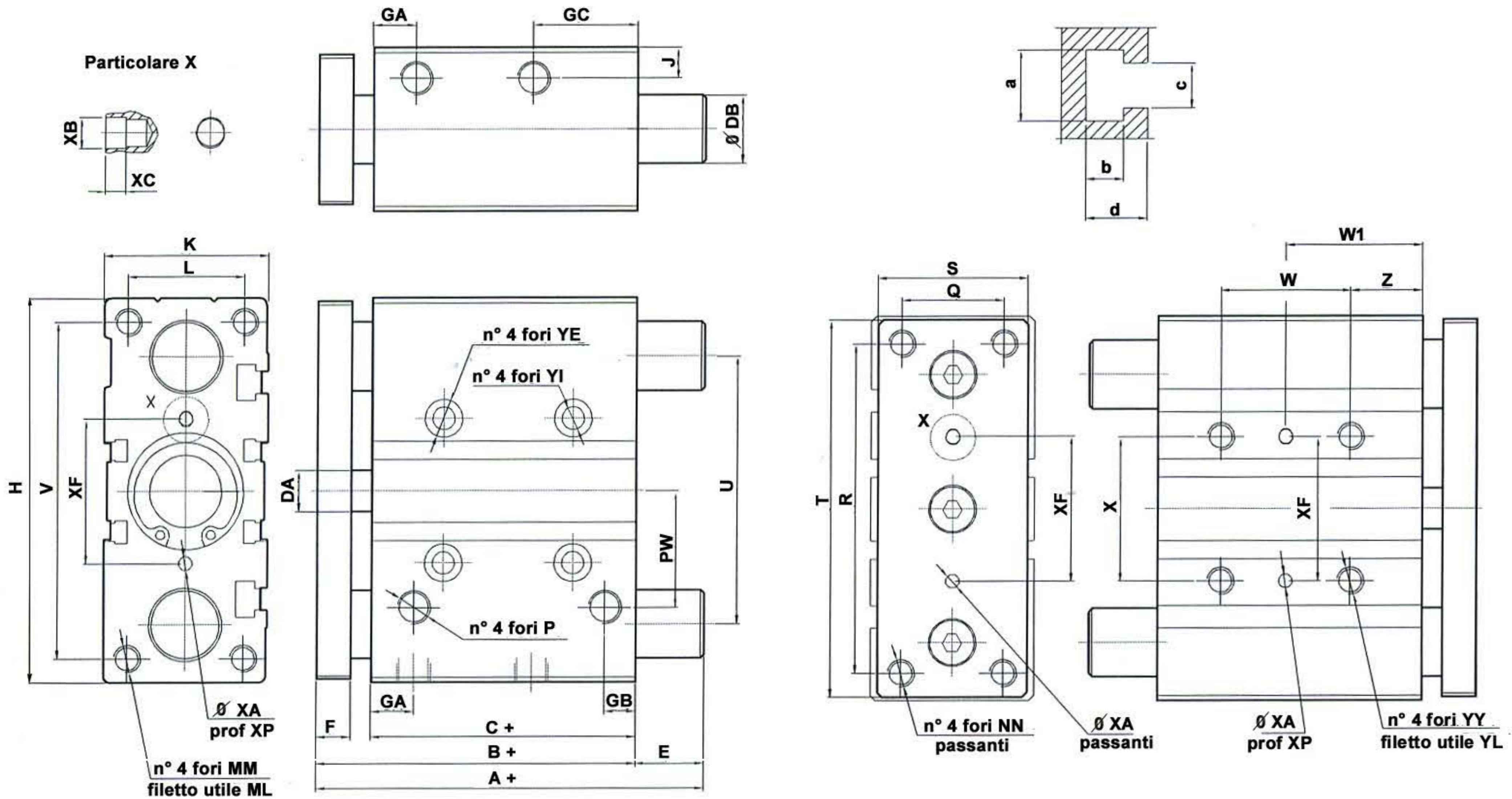
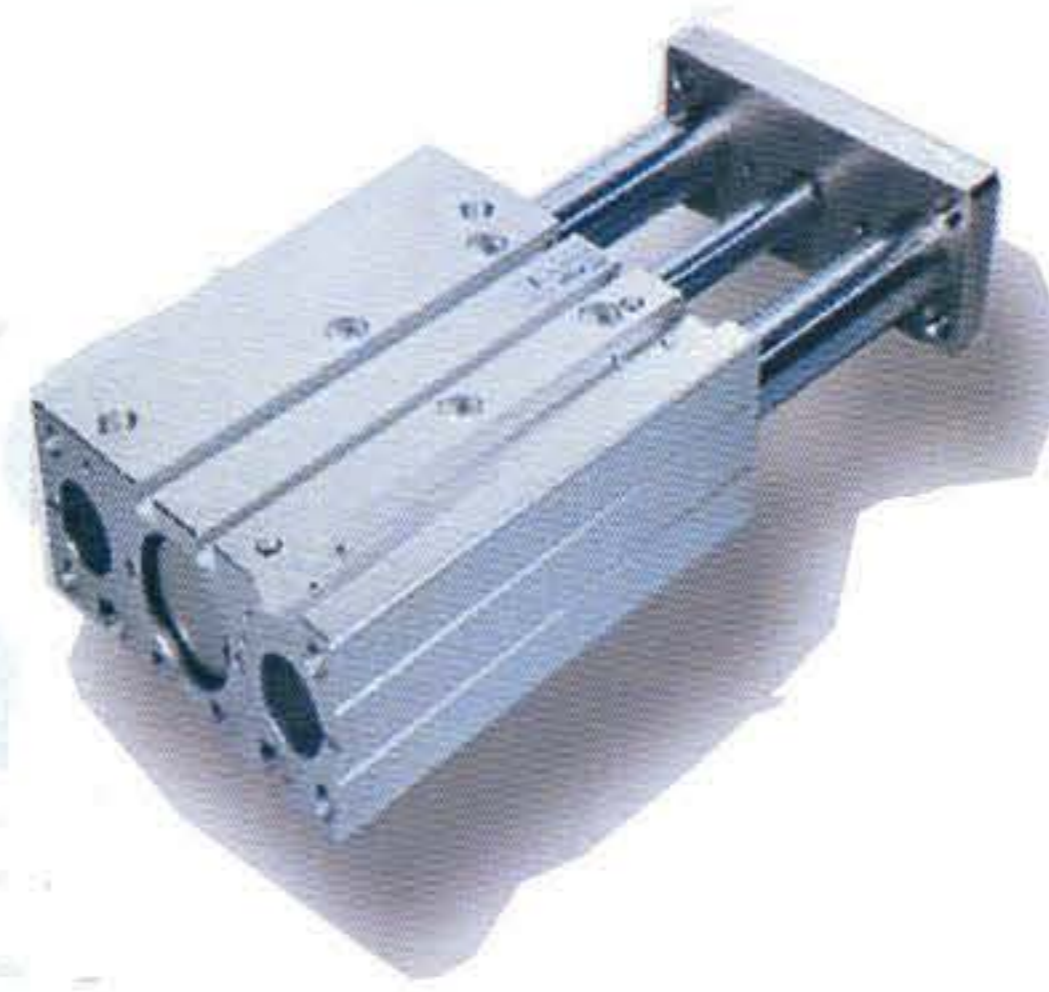
| Tipo CCTS | *** | *** | ** |
|-----------|-----|-----|----|
|           | 1   | 2   | 3  |

1 Alesaggi Ø16 - 20 - 25 - 32 - 40 - 50 - 63

2 Corse

3 Modello BA: Bronzina

BB: Manicotti a ricircolo di sfere



+ = aggiungere la corsa  
 ++ = aggiungere la corsa x 2

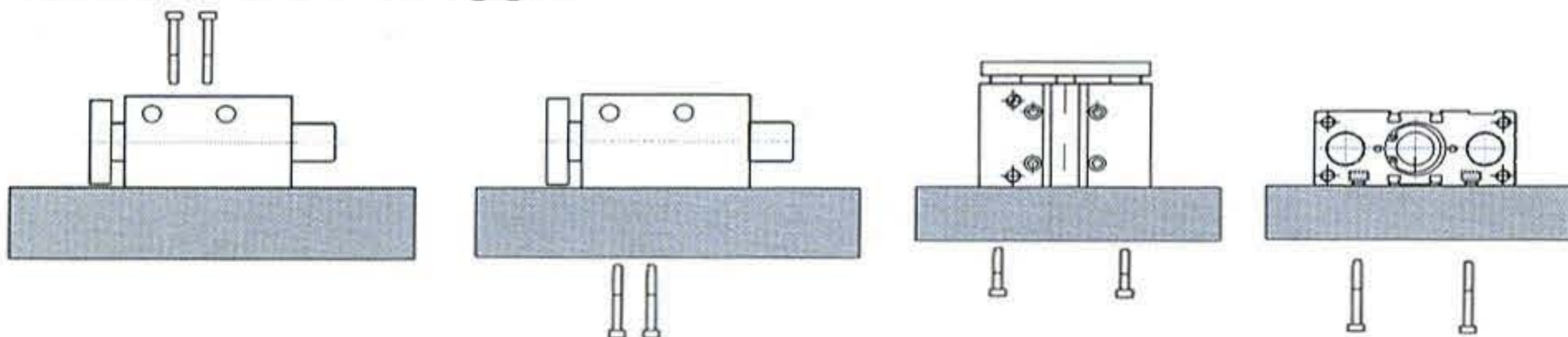
| Ø  | B    | C    | DA | F  | GA   | GB   | GC   | H   | J   | K  | L  | MM  | ML | NN  | P    | PW   | Q  | R   | S  | T   | U   | V   | X  | YY  | YL | YE  | YH  | YI  | Z  | XF | XA | XP | XB  | XC | a    | b   | c   | d    |
|----|------|------|----|----|------|------|------|-----|-----|----|----|-----|----|-----|------|------|----|-----|----|-----|-----|-----|----|-----|----|-----|-----|-----|----|----|----|----|-----|----|------|-----|-----|------|
| 16 | 46   | 33   | 8  | 8  | 11   | 8    | 18   | 64  | 5   | 30 | 22 | M5  | 12 | M5  | M5   | 19   | 16 | 54  | 25 | 62  | 46  | 56  | 24 | M5  | 10 | 8   | 4.5 | 4.3 | 5  | 24 | 3  | 6  | 3.5 | 3  | 7.4  | 3.7 | 4.4 | 6.2  |
| 20 | 53   | 37   | 10 | 10 | 10.5 | 8.5  | 24.5 | 83  | 6.5 | 36 | 24 | M5  | 13 | M5  | G1/8 | 25   | 18 | 70  | 30 | 81  | 54  | 72  | 28 | M6  | 12 | 9.5 | 5.5 | 5.6 | 17 | 28 | 3  | 6  | 3.5 | 3  | 8.4  | 4.5 | 5.5 | 7.3  |
| 25 | 53.5 | 37.5 | 10 | 10 | 11.5 | 9    | 25   | 93  | 7.5 | 42 | 30 | M6  | 15 | M6  | G1/8 | 28.5 | 26 | 78  | 38 | 91  | 64  | 82  | 34 | M6  | 12 | 9.5 | 5.5 | 5.6 | 17 | 34 | 4  | 6  | 4.5 | 3  | 8.4  | 4.5 | 5.5 | 7.5  |
| 32 | 59.5 | 37.5 | 12 | 12 | 12.5 | 9    | 30.5 | 112 | 9   | 48 | 34 | M8  | 20 | M8  | G1/8 | 34   | 30 | 96  | 44 | 110 | 78  | 98  | 42 | M8  | 16 | 11  | 7.5 | 6.6 | 21 | 42 | 4  | 6  | 4.5 | 3  | 10.5 | 5.5 | 6.5 | 9    |
| 40 | 66   | 44   | 12 | 12 | 14   | 10   | 31   | 120 | 9   | 54 | 40 | M8  | 20 | M8  | G1/8 | 38   | 30 | 104 | 44 | 118 | 86  | 106 | 50 | M8  | 16 | 11  | 7.5 | 6.6 | 22 | 50 | 4  | 6  | 4.5 | 3  | 10.5 | 5.5 | 6.5 | 9    |
| 50 | 72   | 44   | 16 | 16 | 14   | 11   | 35   | 148 | 9.5 | 64 | 46 | M10 | 22 | M10 | G1/4 | 47   | 40 | 130 | 60 | 146 | 110 | 130 | 66 | M10 | 20 | 14  | 9   | 8.6 | 24 | 66 | 5  | 8  | 6   | 4  | 13.5 | 7.5 | 8.5 | 12   |
| 63 | 77   | 49   | 16 | 16 | 16.5 | 13.5 | 35   | 162 | 11  | 78 | 58 | M10 | 22 | M10 | G1/4 | 55   | 50 | 130 | 70 | 158 | 124 | 142 | 80 | M10 | 20 | 14  | 9   | 8.6 | 24 | 80 | 5  | 8  | 6   | 4  | 17.8 | 10  | 11  | 16.5 |

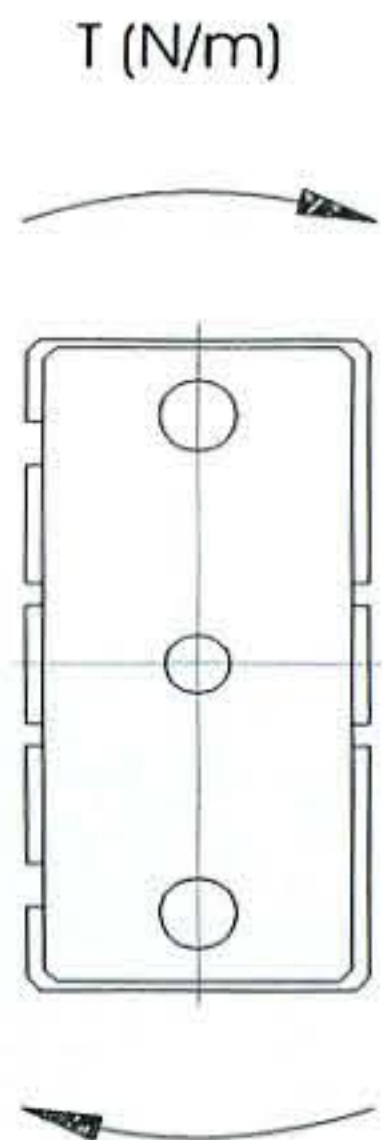
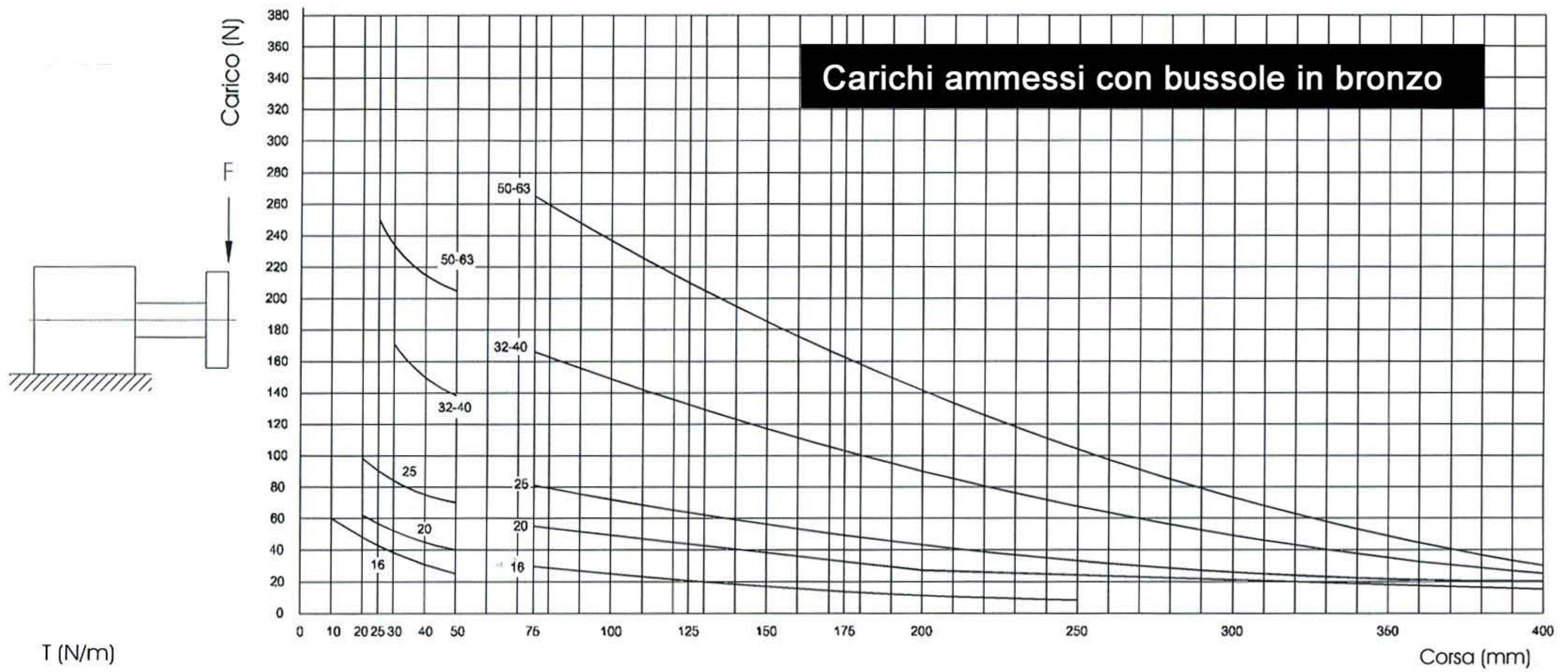
| Con bussole autolubrificanti |               |          |           |               |          |           |    |
|------------------------------|---------------|----------|-----------|---------------|----------|-----------|----|
| Ø                            | quota A corse |          |           | quota E corse |          |           | DB |
|                              | 10 ÷ 50       | 75 ÷ 100 | 125 ÷ 250 | 10 ÷ 50       | 75 ÷ 100 | 125 ÷ 250 |    |
| 16                           | 46            | 64,5     | 95        | 0             | 18,5     | 49        | 10 |
| Ø                            | quota A corse |          |           | quota E corse |          |           | DB |
|                              | 20 ÷ 50       | 75 ÷ 200 | 250 ÷ 400 | 20 ÷ 50       | 75 ÷ 200 | 250 ÷ 400 |    |
| 20                           | 53            | 84,5     | 122       | 0             | 31,5     | 69        | 12 |
| 25                           | 53,5          | 85       | 122       | 0             | 31,5     | 68,5      | 16 |
| Ø                            | quota A corse |          |           | quota E corse |          |           | DB |
|                              | 20 ÷ 50       | 75 ÷ 200 | 250 ÷ 400 | 20 ÷ 50       | 75 ÷ 200 | 250 ÷ 400 |    |
| 32                           | 97            | 107      | 140       | 37,5          | 47,5     | 80,5      | 20 |
| 40                           | 97            | 107      | 140       | 31            | 41       | 79        | 20 |
| 50                           | 106,5         | 118      | 161       | 34,5          | 46       | 89        | 25 |
| 63                           | 106,5         | 118      | 161       | 29,5          | 41       | 84        | 25 |

| Con manicotti a ricircolo di sfere |               |          |           |               |          |           |      |          |           |
|------------------------------------|---------------|----------|-----------|---------------|----------|-----------|------|----------|-----------|
| Ø                                  | quota A corse |          |           | quota E corse |          |           | DB   |          |           |
|                                    | 10 ÷ 30       | 40 ÷ 100 | 125 ÷ 250 | 10 ÷ 30       | 40 ÷ 100 | 125 ÷ 250 |      |          |           |
| 16                                 | 46            | 66       | 95        | 0             | 20       | 49        | 8    |          |           |
| Ø                                  | quota A corse |          |           | quota E corse |          |           | DB   |          |           |
|                                    | 20 ÷ 30       | 40 ÷ 200 | 250 ÷ 400 | 20 ÷ 30       | 40 ÷ 200 | 250 ÷ 400 |      |          |           |
| 20                                 | 53            | 85,5     | 122       | 0             | 32,5     | 69        | 12   |          |           |
| 25                                 | 53,5          | 86       | 122       | 0             | 32,5     | 68,5      | 12   |          |           |
| Ø                                  | quota A corse |          |           | quota E corse |          |           | DB   |          |           |
|                                    | 25            | 50       | 75 ÷ 200  | 250 ÷ 400     | 25       | 50        |      | 75 ÷ 200 | 250 ÷ 400 |
| 32                                 | 97            | 97       | 107       | 140           | 37,5     | 37,5      | 47,5 | 85,5     | 20        |
| 40                                 | 97            | 97       | 107       | 140           | 31       | 31        | 41   | 79       | 20        |
| 50                                 | 106,5         | 114      | 118       | 161           | 34,5     | 42        | 46   | 89       | 25        |
| 63                                 | 106,5         | 114      | 118       | 161           | 29,5     | 37        | 41   | 84       | 25        |

| Quote W e W1 |               |          |           |           |                |          |           |           |           |           |    |     |     |     |     |     |     |
|--------------|---------------|----------|-----------|-----------|----------------|----------|-----------|-----------|-----------|-----------|----|-----|-----|-----|-----|-----|-----|
| Ø            | quota W corse |          |           |           | quota W1 corse |          |           |           |           |           |    |     |     |     |     |     |     |
|              | 10 ÷ 30       | 40 ÷ 100 | 125 ÷ 200 | 250 ÷ 300 | 10 ÷ 30        | 40 ÷ 100 | 125 ÷ 200 | 250 ÷ 300 | 350 ÷ 400 |           |    |     |     |     |     |     |     |
| 16           | 24            | 44       | 110       | 200       |                | 17       | 27        | 60        | 105       |           |    |     |     |     |     |     |     |
| Ø            | quota W corse |          |           |           | quota W1 corse |          |           |           |           |           |    |     |     |     |     |     |     |
|              | 20 ÷ 30       | 40 ÷ 100 | 125 ÷ 200 | 250 ÷ 300 | 350 ÷ 400      | 20 ÷ 30  | 40 ÷ 100  | 125 ÷ 200 | 250 ÷ 300 | 350 ÷ 400 |    |     |     |     |     |     |     |
| 20           | 24            | 44       | 120       | 200       | 300            | 29       | 39        | 77        | 117       | 167       |    |     |     |     |     |     |     |
| 25           | 24            | 44       | 120       | 200       | 300            | 29       | 39        | 77        | 117       | 167       |    |     |     |     |     |     |     |
| Ø            | quota W corse |          |           |           | quota W1 corse |          |           |           |           |           |    |     |     |     |     |     |     |
|              | 25            | 50       | 100       | 125       | 200            | 250      | 300       | 350       | 400       | 25        | 50 | 100 | 125 | 200 | 250 | 300 | 350 |
| 32           | 24            | 48       | 124       | 200       | 300            | 33       | 45        | 83        | 121       | 171       |    |     |     |     |     |     |     |
| 40           | 24            | 48       | 124       | 200       | 300            | 34       | 46        | 84        | 122       | 172       |    |     |     |     |     |     |     |
| 50           | 24            | 48       | 124       | 200       | 300            | 36       | 48        | 86        | 124       | 174       |    |     |     |     |     |     |     |
| 63           | 28            | 52       | 128       | 200       | 300            | 38       | 50        | 88        | 124       | 174       |    |     |     |     |     |     |     |

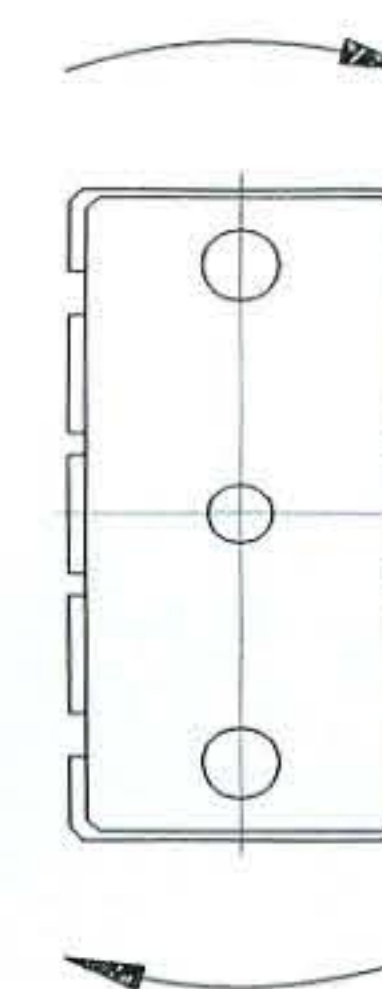
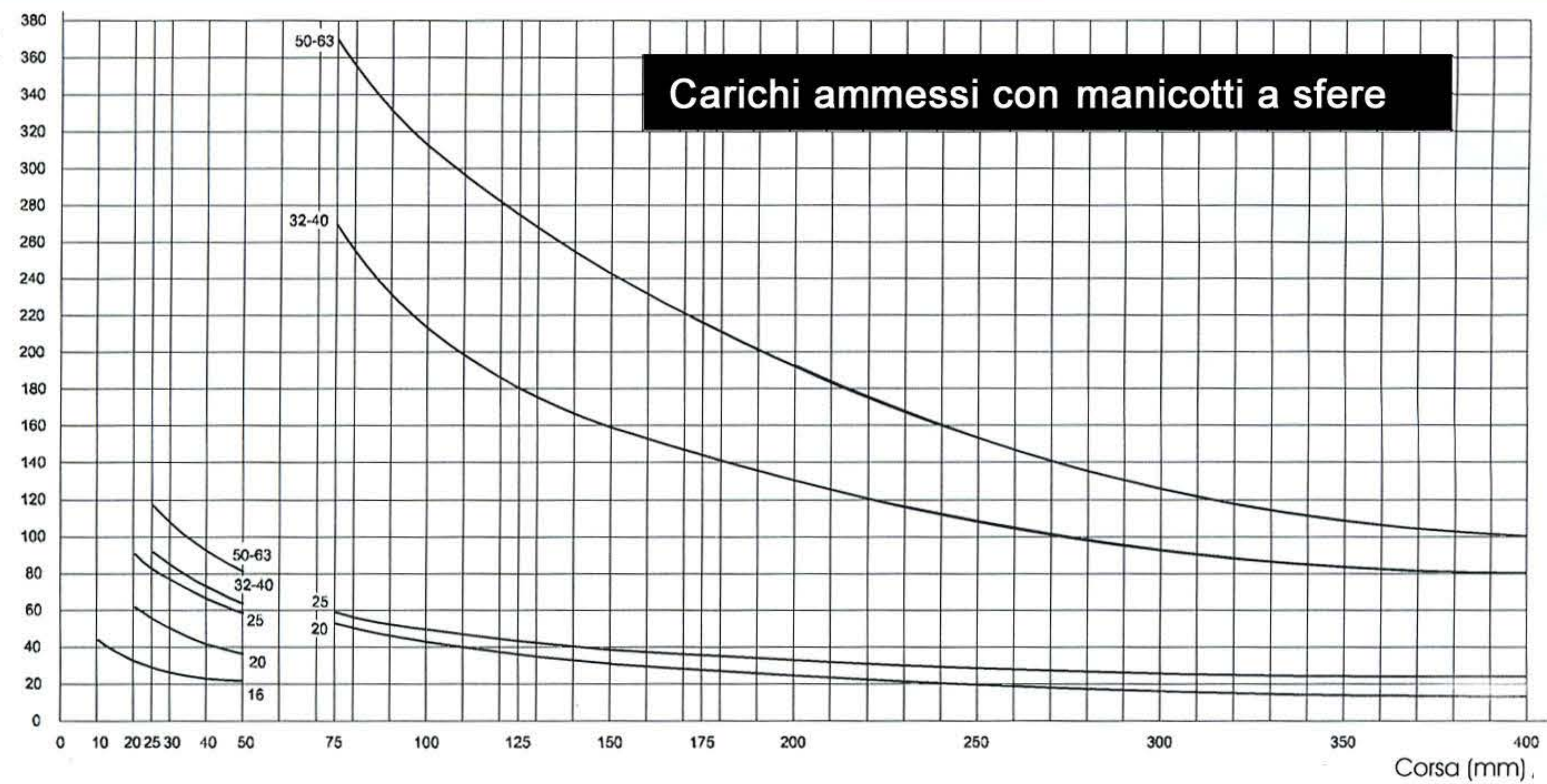
## Schema di Montaggio





CON BUSSOLE AUTOLUBRIFICANTI

| Ø mm | MOMENTO (Nm) |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------|--------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|      | 10           | 20   | 25   | 30   | 40   | 50   | 75   | 100  | 125  | 150  | 175  | 200  | 250  | 300  | 350  | 400  |      |
| 16   | 0.69         | 0.58 |      |      | 0.49 | 0.43 | 0.38 | 0.69 | 0.58 | 0.50 | 0.44 | 0.40 | 0.36 | 0.30 |      |      |      |
| 20   |              | 1.05 |      |      | 0.93 | 0.83 | 0.75 | 1.88 | 1.63 | 1.44 | 1.28 | 1.16 | 1.06 | 0.90 | 0.78 | 0.69 | 0.62 |
| 25   |              |      | 1.98 |      | 1.67 | 1.45 | 1.28 | 2.8  | 2.50 | 2.1  | 1.80 | 1.65 | 1.42 | 1.30 | 1.22 | 1.06 | 0.92 |
| 32   |              |      |      | 5.13 |      |      | 4.19 | 4.97 | 4.36 | 3.46 | 3.2  | 3    | 2.84 | 2.48 | 2.20 | 2    | 1.84 |
| 40   |              |      |      | 5.13 |      |      | 4.19 | 4.97 | 4.36 | 3.46 | 3.2  | 3    | 2.84 | 2.48 | 2.20 | 2    | 1.84 |
| 50   |              |      |      | 8.00 |      |      | 5.80 | 7.00 | 6.72 | 5.68 | 5.25 | 4.88 | 4.5  | 4.2  | 3.89 | 3.5  | 3.18 |
| 63   |              |      |      | 8.00 |      |      | 5.80 | 7.00 | 6.72 | 5.68 | 5.25 | 4.88 | 4.5  | 4.2  | 3.89 | 3.5  | 3.18 |



CON MANICOTTI A RICIRCOLO DI SFERE

| Ø mm | MOMENTO (Nm) |      |      |      |      |      |      |       |      |      |      |      |      |      |      |      |      |
|------|--------------|------|------|------|------|------|------|-------|------|------|------|------|------|------|------|------|------|
|      | 10           | 20   | 25   | 30   | 40   | 50   | 75   | 100   | 125  | 150  | 175  | 200  | 250  | 300  | 350  | 400  |      |
| 16   | 0.83         | 0.65 |      |      | 0.52 | 0.44 | 0.40 | 0.65  | 0.52 | 0.43 | 0.37 | 0.32 | 0.28 | 0.23 |      |      |      |
| 20   |              | 1.20 |      |      | 0.96 | 0.81 | 0.69 | 1.02  | 0.93 | 0.82 | 0.71 | 0.64 | 0.58 | 0.52 | 0.46 | 0.4  | 0.34 |
| 25   |              |      | 2.00 |      | 1.69 | 1.45 | 1.28 | 1.26  | 1.09 | 0.98 | 0.87 | 0.79 | 0.70 | 0.62 | 0.54 | 0.46 | 0.38 |
| 32   |              |      |      | 2.04 |      |      | 1.41 | 6.58  | 5.19 | 4.49 | 3.87 | 3.58 | 3.17 | 2.85 | 2.54 | 2.20 | 1.85 |
| 40   |              |      |      | 2.47 |      |      | 1.72 | 7.25  | 5.72 | 4.49 | 3.87 | 3.58 | 3.17 | 2.85 | 2.54 | 2.20 | 1.85 |
| 50   |              |      |      | 3.22 |      |      | 2.22 | 10.17 | 8.58 | 7.75 | 6.86 | 5.99 | 5.30 | 4.80 | 4.20 | 3.68 | 3    |
| 63   |              |      |      | 3.22 |      |      | 2.22 | 10.17 | 8.58 | 7.75 | 6.86 | 5.99 | 5.30 | 4.80 | 4.20 | 3.68 | 3    |