

**MINI** **TECNO**  
**small** but strong

**CL**

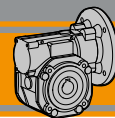
Motoriduttori a vite senza fine  
Wormgearmotors



**MINI** **TECNO** brand of  
**TRANSTECNO**<sup>®</sup>



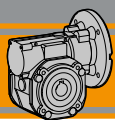




| <b>Indice</b>            | <b>Index</b>                 | Pag.<br>Page |
|--------------------------|------------------------------|--------------|
| Caratteristiche tecniche | <i>Technical features</i>    | <b>II2</b>   |
| Designazione             | <i>Classification</i>        | <b>II2</b>   |
| Sensi di rotazione       | <i>Direction of rotation</i> | <b>II3</b>   |
| Simbologia               | <i>Symbols</i>               | <b>II3</b>   |
| Lubrificazione           | <i>Lubrication</i>           | <b>II3</b>   |
| Carichi radiali          | <i>Radial loads</i>          | <b>II4</b>   |
| Dati di dentatura        | <i>Toothing data</i>         | <b>II4</b>   |
| Rendimento               | <i>Efficiency</i>            | <b>II4</b>   |
| Dati tecnici             | <i>Technical data</i>        | <b>II5</b>   |
| Motori applicabili       | <i>IEC Motor adapters</i>    | <b>II5</b>   |
| Dimensioni               | <i>Dimensions</i>            | <b>II6</b>   |
| Accessori                | <i>Accessories</i>           | <b>II12</b>  |
| Opzioni                  | <i>Options</i>               | <b>II12</b>  |

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# CL

## Motoriduttori a vite senza fine Wormgearmotors



### Caratteristiche tecniche

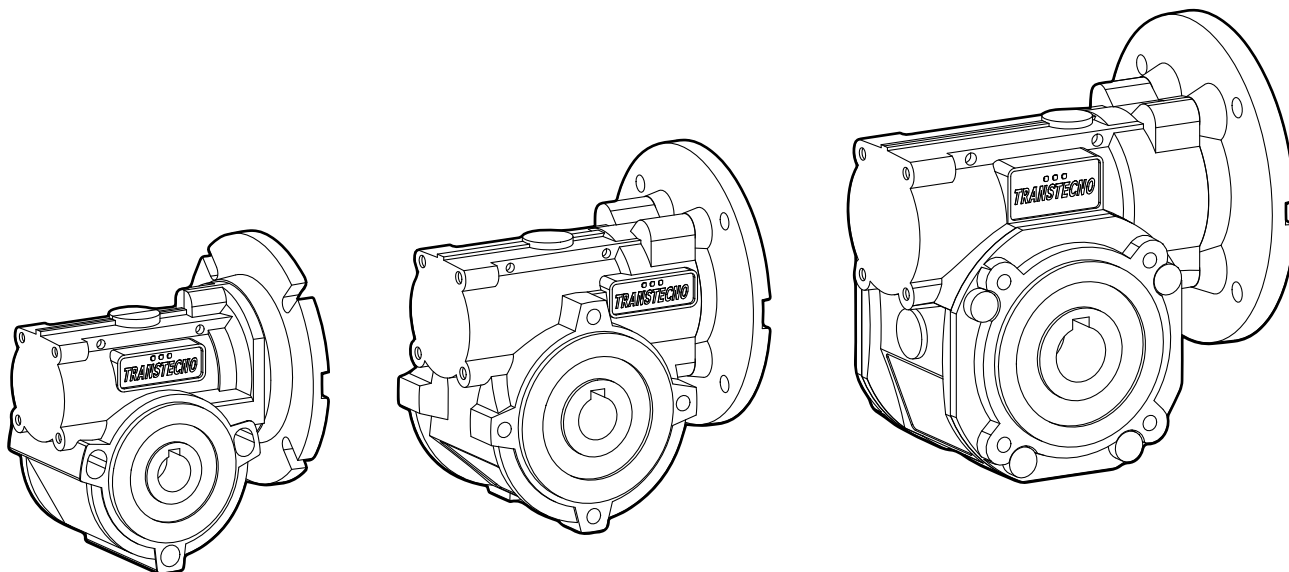
### Technical features

L'elevata modularità contraddistingue i motoriduttori a vite senza fine della serie CL: i diversi kit entrata ed uscita li rendono estremamente versatili.

The high degree of modularity is a design feature of CL wormgearmotors range thanks to a wide selection of input and output kits. Main features of CL range are:

Le caratteristiche principali della serie CL sono:

- Carcassa in alluminio
- Lubrificazione permanente con olio sintetico
- Die-cast aluminium housing
- Permanent synthetic oil long life lubrication



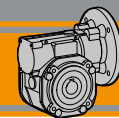
### Designazione

### Classification

## RIDUTTORI A VITE SENZA FINE / WORMGEARBOXES

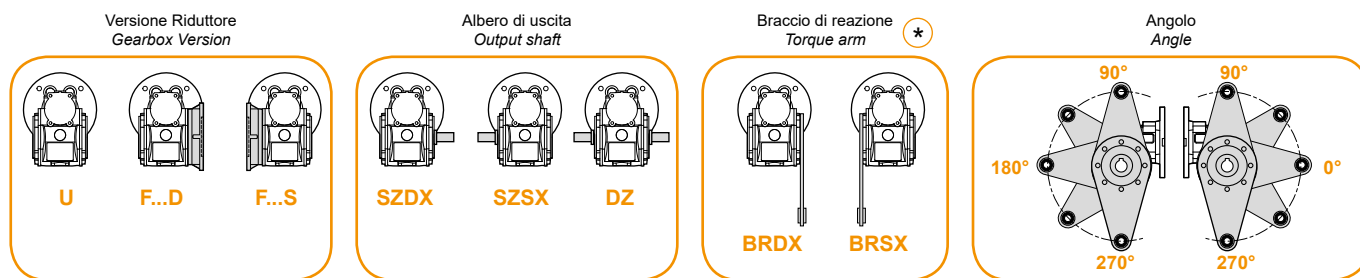
RIDUTTORE / GEARBOX

| CL              | 030  | U                                     | 10                           | 63                              | B14                          | SZDX                                    | BRSX                              | 90  | VS                 |
|-----------------|--|---------------------------------------|------------------------------|---------------------------------|------------------------------|---|-----------------------------------|---|--------------------|
| Tipo<br>Type    | Grandezza<br>Size  | Versione riduttore<br>Gearbox Version | Rapporto<br>Ratio            | IEC<br>                         | Forma costruttiva<br>Version | Albero di uscita<br>Output shaft        | Braccio di reazione<br>Torque arm | Angolo<br>Angle                                       | Opzioni<br>Options |
| <b>CL</b><br>   | <b>026</b><br><b>026 (D11)</b><br><b>026 (D14)</b><br><b>030</b><br><b>040</b> | <b>U</b><br><b>F...</b>               | Vedere tabella<br>See tables | <b>56..</b><br>—<br><b>71..</b> | <b>B5</b><br><b>B14</b>      | <b>SZDX</b><br><b>SZSX</b><br><b>DZ</b> | <b>BRDX</b><br><b>BRSX</b><br>    | <b>0°</b><br><b>90°</b><br><b>180°</b><br><b>270°</b> | <b>VS</b>          |
| <b>CLIS</b><br> |  |                                       |                              |                                 |                              |   |                                   |   |                    |



## Designazione

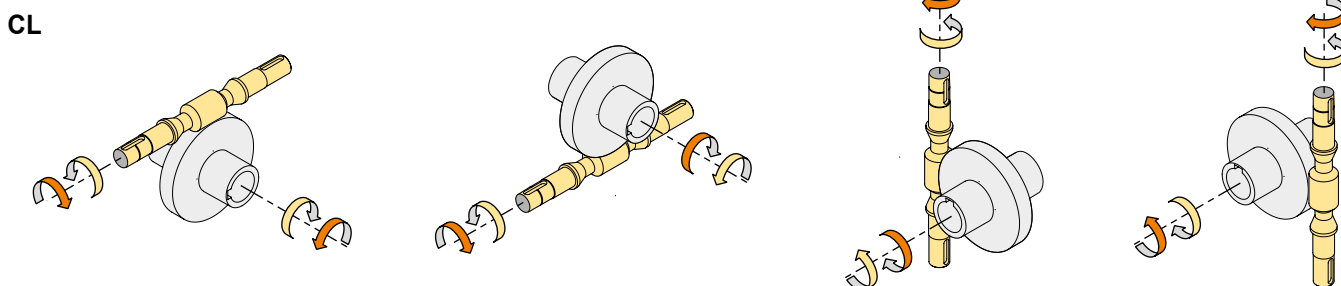
## Classification



\* NOTA: il braccio di reazione viene fornito smontato.  
NOTE: the torque arm will be supplied not assembled.

## Sensi di rotazione

## Direction of rotation



## Simbologia

## Symbols

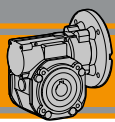
|                            |  |           |   |
|----------------------------|--|-----------|---|
| $n_1$ [min <sup>-1</sup> ] | Velocità in ingresso / Input speed   | sf        | Fattore di servizio / Service factor                                |
| $n_2$ [min <sup>-1</sup> ] | Velocità in uscita / Output speed  | Rd %      | Rendimento dinamico / Dynamic efficiency                            |
| i                          | Rapporto di riduzione / Ratio  | Rs %      | Rendimento statico / Static efficiency                              |
| $P_1$ [kW]                 | Potenza in entrata / Nominal input power   | $R_2$ [N] | Carico radiale ammissibile in uscita / Permitted output radial load |
| $M_2$ [Nm]                 | Coppia in uscita in funzione di $P_1$ / Output torque referred to $P_1$                        | $A_2$ [N] | Carico assiale ammissibile in uscita / Permitted output axial load  |
| $P_{n1}$ [kW]              | Potenza nominale in entrata / Nominal input power  | Z         | Numero di principi della vite / Worm starts                         |
| $M_{n2}$ [Nm]              | Coppia nominale in uscita in funzione di $P_{n1}$ / Nominal output torque referred to $P_{n1}$ | $\beta$   | Angolo d'elica / Helix angle  |

## Lubrificazione

## Lubrication

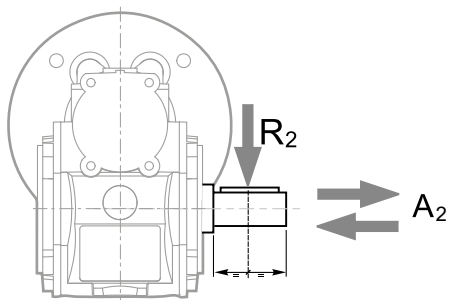
Tutti i motoriduttori sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use the gearmotors in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.



Carichi radiali

Radial loads

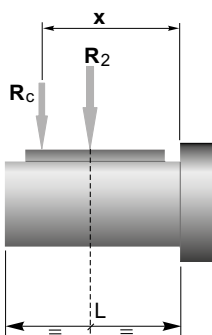


$$A_2 = R_2 \times 0.2$$

| n <sub>2</sub><br>[min <sup>-1</sup> ] | R <sub>2</sub> [N] |       |       |
|--|--------------------|-------|-------|
|  | CL026              | CL030 | CL040 |
| 187                                    | 400                | 674   | 1264  |
| 140                                    | 490                | 743   | 1392  |
| 93                                     | 580                | 851   | 1596  |
| 70                                     | 610                | 936   | 1754  |
| 56                                     | 610                | 1008  | 1890  |
| 47                                     | 610                | 1069  | 2004  |
| 35                                     | 610                | 1179  | 2210  |
| 28                                     | 610                | 1270  | 2381  |
| 23                                     | 610                | 1356  | 2542  |
| 18                                     | 610                | 1471  | 2759  |
| 14                                     | 610                | 1600  | 3000  |

Quando il carico radiale risultante non è applicato sulla mezzeria dell'albero occorre calcolare quello effettivo con la seguente formula:

When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:



$$R_c = \frac{R_2 \cdot a}{(b+x)} \leq R_{2MAX}$$

$$R \leq R_c$$

a, b = valori riportati nella tabella  
a, b = values given in the table

|                   | CL  |      |      |
|-------------------|-----|------|------|
|                   | 026 | 030  | 040  |
| a                 | 56  | 65   | 84   |
| b                 | 43  | 50   | 64   |
| R <sub>2MAX</sub> | 610 | 1600 | 3000 |

Dati di dentatura

Toothing data

|       | Dati della coppia vite-corona<br>Worm wheel data | Rapporto / Ratio |         |         |         |         |        |        |        |        |        |        |        |
|-------|--|------------------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|
|       |  | 5                | 7.5     | 10      | 15      | 20      | 25     | 30     | 40     | 50     | 60     | 80     | 100    |
| CL026 | Z  | 6                | 4       | 3       | 2       | 2       |        | 1      | 1      | 1      | 1      |        |        |
|       | β  | 34° 35'          | 24° 41' | 19° 1'  | 12° 57' | 10° 30' |        | 6° 33' | 5° 17' | 4° 26' | 3° 49' |        |        |
| CL030 | Z  | 6                | 4       | 3       | 2       | 2       | 2      | 1      | 1      | 1      | 1      | 1      | 1      |
|       | β  | 27° 4'           | 24° 28' | 18° 50' | 12° 49' | 10° 23' | 8° 43' | 6° 29' | 5° 14' | 4° 23' | 3° 46' | 2° 57' | 2° 25' |
| CL040 | Z  | 6                | 4       | 3       | 2       | 2       | 2      | 1      | 1      | 1      | 1      | 1      | 1      |
|       | β  | 34° 19'          | 24° 28' | 18° 50' | 12° 49' | 10° 23' | 8° 43' | 6° 29' | 5° 14' | 4° 23' | 3° 46' | 2° 57' | 2° 25' |

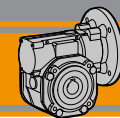
Rendimento

Efficiency

|       | n <sub>1</sub><br>[min <sup>-1</sup> ] | Rendimento<br>Efficiency | Rapporto / Ratio |     |    |    |    |    |    |    |    |    |    |     |
|-------|--|--------------------------|------------------|-----|----|----|----|----|----|----|----|----|----|-----|
|       |  |                          | 5                | 7.5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 80 | 100 |
| CL026 | 2800                                   | Rd                       | 89               | 87  | 85 | 83 | 80 |    | 73 | 68 | 64 | 60 |    |     |
|       | 1400                                   |                          | 87               | 84  | 83 | 78 | 74 |    | 66 | 61 | 57 | 53 |    |     |
|       | 900                                    |                          | 84               | 83  | 80 | 75 | 71 |    | 61 | 57 | 52 | 48 |    |     |
| CL030 | 2800                                   | Rs                       | 72               | 71  | 68 | 61 | 56 | 46 | 41 | 36 | 34 |    |    |     |
|       | 1400                                   |                          | 89               | 88  | 86 | 84 | 81 | 78 | 74 | 70 | 65 | 62 | 57 | 52  |
|       | 900                                    |                          | 86               | 85  | 84 | 79 | 75 | 72 | 67 | 62 | 58 | 55 | 48 | 43  |
| CL040 | 2800                                   | Rd                       | 84               | 83  | 81 | 75 | 71 | 68 | 62 | 58 | 53 | 49 | 43 | 39  |
|       | 1400                                   |                          | 72               | 67  | 63 | 55 | 50 | 43 | 39 | 35 | 31 | 27 | 23 | 21  |
|       | 900                                    |                          | 90               | 89  | 87 | 84 | 83 | 80 | 77 | 73 | 69 | 66 | 60 | 56  |
| CL040 | 2800                                   | Rs                       | 88               | 86  | 84 | 81 | 78 | 74 | 70 | 65 | 60 | 58 | 52 | 46  |
|       | 1400                                   |                          | 86               | 84  | 82 | 77 | 74 | 70 | 66 | 60 | 57 | 53 | 46 | 41  |
|       | 900                                    |                          | 74               | 71  | 67 | 60 | 55 | 51 | 45 | 40 | 36 | 32 | 28 | 24  |




Rendimento teorico del riduttore dopo il rodaggio  
Theoretical efficiency of the gearbox after the first running period




### Dati tecnici

$n_1$  1400 min<sup>-1</sup>

### Technical data

|  | $n_2$<br>[min <sup>-1</sup> ] | $Mn_2$<br>[Nm] | $Pn_1$<br>[kW] | $i$ |
|---|-------------------------------|----------------|----------------|-----|
| <b>CLIS026</b>  |                               |                |                |     |
|   | 280                           | 13             | 0.44           | 5   |
|   | 187                           | 14             | 0.33           | 7,5 |
|   | 140                           | 14             | 0.25           | 10  |
|   | 93                            | 14             | 0.18           | 15  |
|   | 70                            | 14             | 0.14           | 20  |
|   | 47                            | 15             | 0.11           | 30  |
|   | 35                            | 14             | 0.08           | 40  |
|   | 28                            | 13             | 0.07           | 50  |
|   | 23                            | 12             | 0.06           | 60  |

| <b>CLIS030</b> |     |    |      |     |
|----------------|-----|----|------|-----|
|                | 280 | 18 | 0.61 | 5   |
|                | 187 | 20 | 0.46 | 7.5 |
|                | 140 | 21 | 0.37 | 10  |
|                | 93  | 21 | 0.26 | 15  |
|                | 70  | 19 | 0.19 | 20  |
|                | 56  | 20 | 0.16 | 25  |
|                | 47  | 22 | 0.16 | 30  |
|                | 35  | 20 | 0.12 | 40  |
|                | 28  | 19 | 0.10 | 50  |
|                | 23  | 17 | 0.08 | 60  |
|                | 18  | 15 | 0.06 | 80  |
|                | 14  | 14 | 0.05 | 100 |

|  | $n_2$<br>[min <sup>-1</sup> ] | $Mn_2$<br>[Nm] | $Pn_1$<br>[kW] | $i$ |
|---|-------------------------------|----------------|----------------|-----|
| <b>CLIS040</b>  |                               |                |                |     |
|   | 280                           | 41             | 1.37           | 5   |
|   | 187                           | 44             | 1.00           | 7.5 |
|   | 140                           | 45             | 0.79           | 10  |
|   | 93                            | 45             | 0.54           | 15  |
|   | 70                            | 40             | 0.38           | 20  |
|   | 56                            | 38             | 0.30           | 25  |
|   | 47                            | 48             | 0.34           | 30  |
|   | 35                            | 42             | 0.24           | 40  |
|   | 28                            | 39             | 0.19           | 50  |
|   | 23                            | 36             | 0.15           | 60  |
|   | 18                            | 33             | 0.12           | 80  |
|   | 14                            | 31             | 0.10           | 100 |

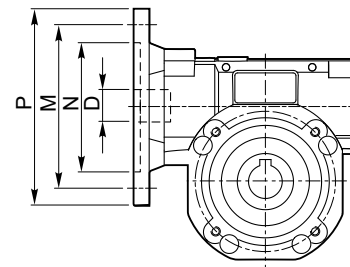
Nota:  
 $Pn_1$  è la potenza meccanica.  
 La potenza applicabile è ridotta del fattore termico.  
 Per maggiori dettagli consultare il nostro Servizio Tecnico.

Note:  
 $Pn_1$  is an input mechanical power which must be reduced by the heating factor in order to get the relevant one. For more details please contact our Technical Service.

### Motori applicabili

### IEC Motor adapters

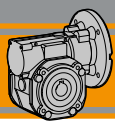
|              | IEC   | N   | M   | P   | D  | i  |     |    |    |    |    |    |    |    |    |    |     |  |
|--------------|-------|-----|-----|-----|----|----|-----|----|----|----|----|----|----|----|----|----|-----|--|
|              |       |     |     |     |    | 5  | 7.5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 80 | 100 |  |
| <b>CL026</b> | 56B14 | 50  | 65  | 80  | 9  |    |     |    |    |    |    |    |    |    |    |    |     |  |
|              |       |     |     |     |    |    |     |    |    |    |    |    |    |    |    |    |     |  |
| <b>CL030</b> | 63B5  | 95  | 115 | 140 | 11 |    |     |    |    |    |    |    |    |    |    |    |     |  |
|              | 63B14 | 60  | 75  | 90  |    |    |     |    |    |    |    |    |    |    |    |    |     |  |
|              | 56B5  | 80  | 100 | 120 | 9  |    |     |    |    |    |    |    |    |    |    |    |     |  |
|              | 56B14 | 50  | 65  | 80  |    |    |     |    |    |    |    |    |    |    |    |    |     |  |
| <b>CL040</b> | 71B5  | 110 | 130 | 160 | 14 |    |     |    |    |    |    |    |    |    |    |    |     |  |
|              | 71B14 | 70  | 85  | 105 |    |    |     |    |    |    |    |    |    |    |    |    |     |  |
|              | 63B5  | 95  | 115 | 140 | 11 | B  | B   | B  | B  | B  | B  | B  | B  |    |    |    |     |  |
|              | 63B14 | 60  | 75  | 90  |    |    |     |    |    |    |    |    |    |    |    |    |     |  |
|              | 56B5  | 80  | 100 | 120 | 9  | BS | BS  | BS | BS | BS | BS | BS | BS | B  | B  | B  | B   |  |
|              | 56B14 | 50  | 65  | 80  |    |    |     |    |    |    |    |    |    |    |    |    |     |  |



N.B.  
 Le aree evidenziate in grigio indicano l'applicabilità della corrispondente grandezza motore.  
 N.B. Grey areas indicate motor inputs available on each size of unit.

**B/BS = Boccola di riduzione in acciaio**  
**B/BS = Metal shaft sleeve**

Nota: flange Nema disponibili a richiesta  
 Note: Nema flange available on demand



**CL**

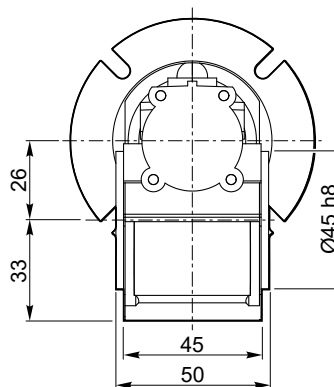
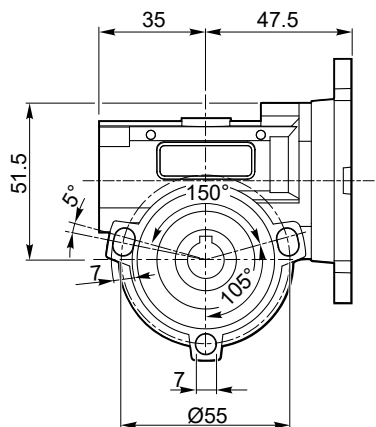
Motoriduttori a vite senza fine  
Wormgearmotors

**MINI**  
TECNO

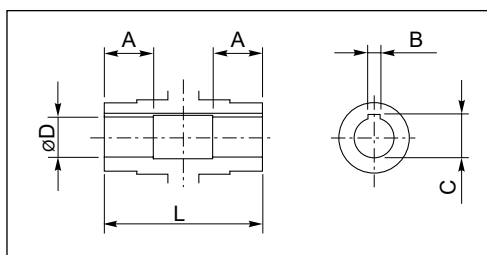
Dimensioni

Dimensions

**CL 026 U**



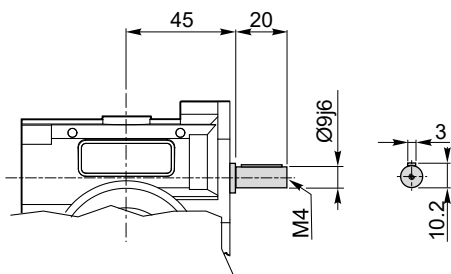
**Kg**  
0.7



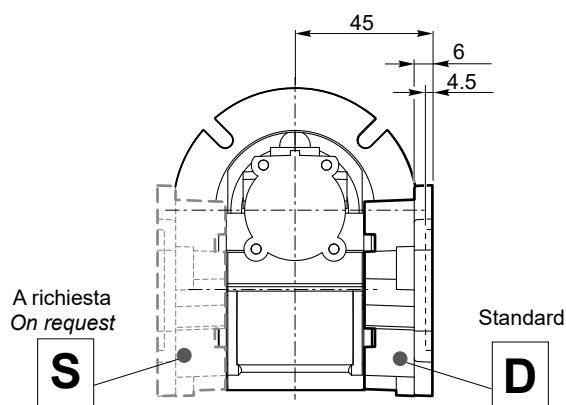
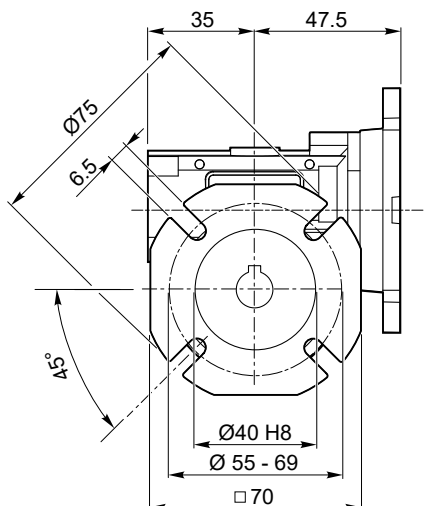
Albero lento cavo / Hollow output shaft

| Grandezza<br>Size | Ø D<br>H8 | L  | A  | B | C    |
|-------------------|-----------|----|----|---|------|
| CL 026 (D14)      | 14        | 50 | 15 | 5 | 16.2 |
| CL 026            | 12        | 50 | 15 | 4 | 13.8 |
| CL 026 (D11)      | 11        | 50 | 15 | 4 | 12.8 |

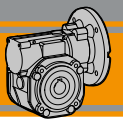
**CLIS 026 ..**



**CL 026 F**



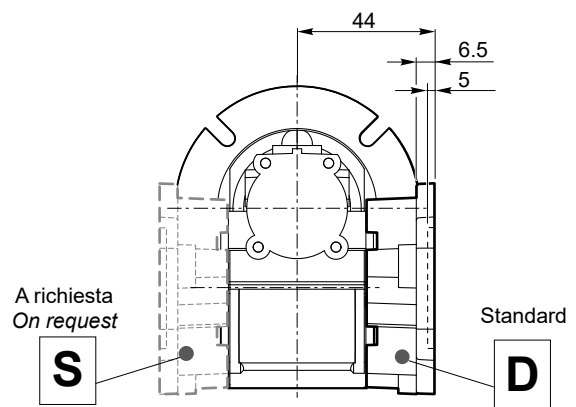
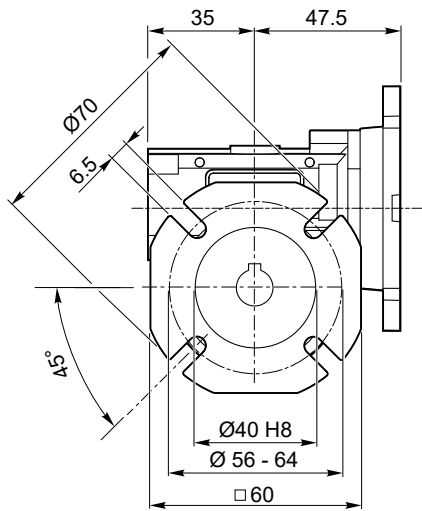




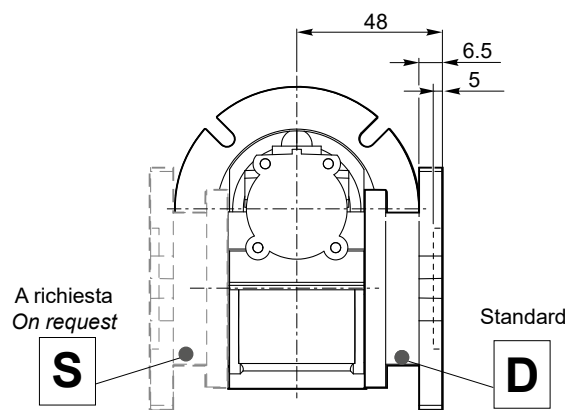
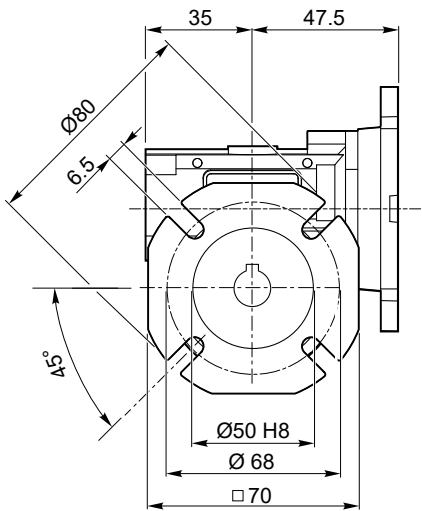
**Dimensioni**

**Dimensions**

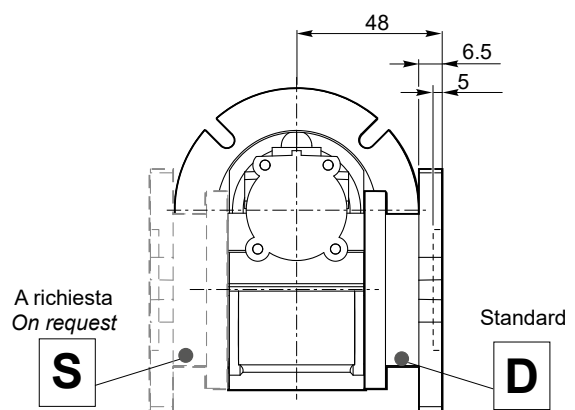
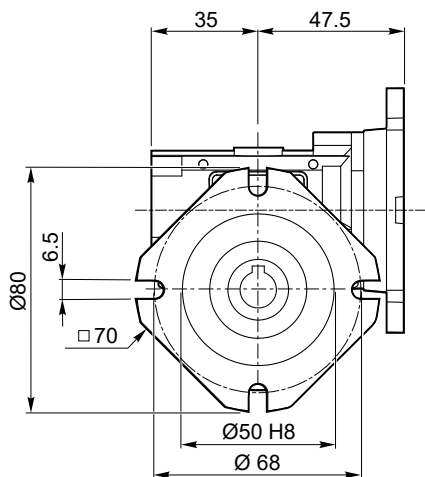
**CL 026 F28**

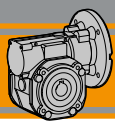


**CL 026 F30**



**CL 026 F30C**

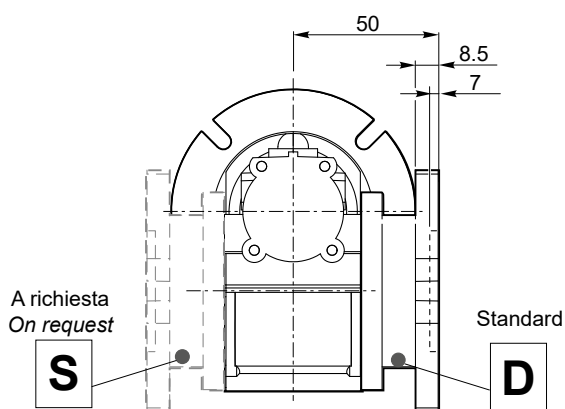
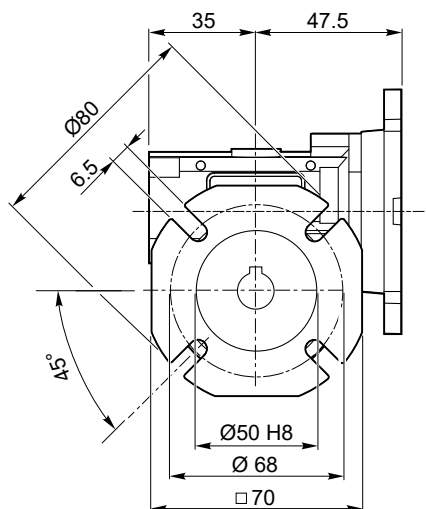




Dimensioni

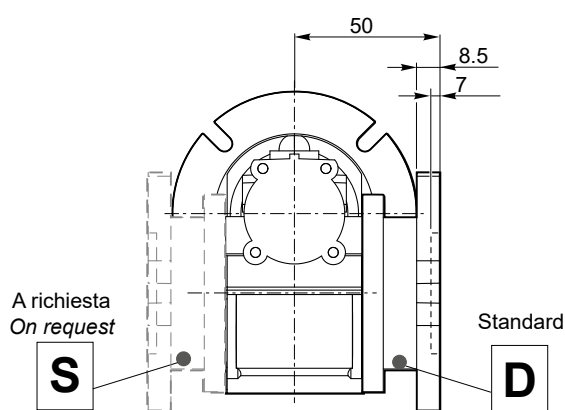
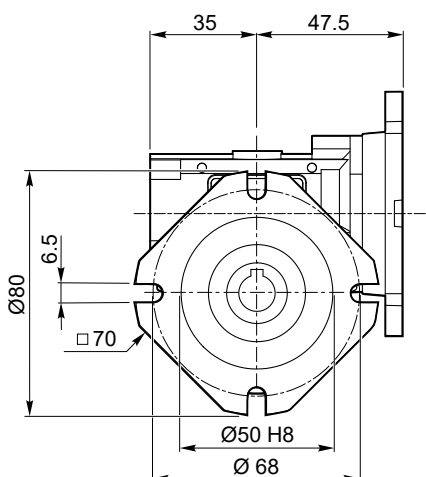
Dimensions

CL 026 F30S



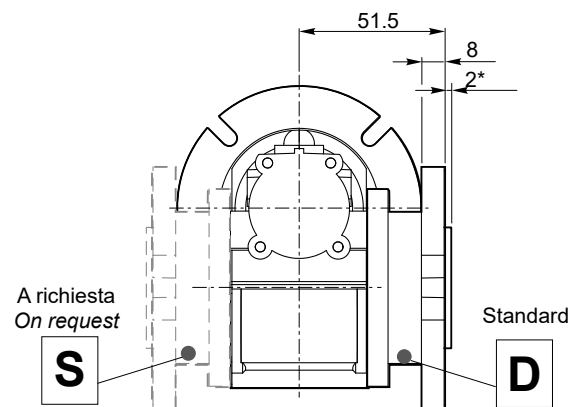
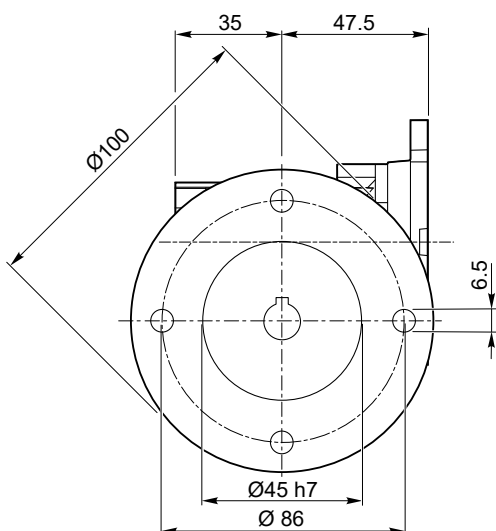
Nota: Esecuzione con flangia uscita F30 e spessore 2mm  
Note: Made with flange F30 and spacer with 2mm thickness

CL 026 F30SC

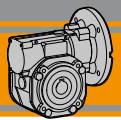


Nota: Esecuzione con flangia uscita F30C e spessore 2mm  
Note: MAde with flange F30C and spacer with 2mm thickness

CL 026 F100



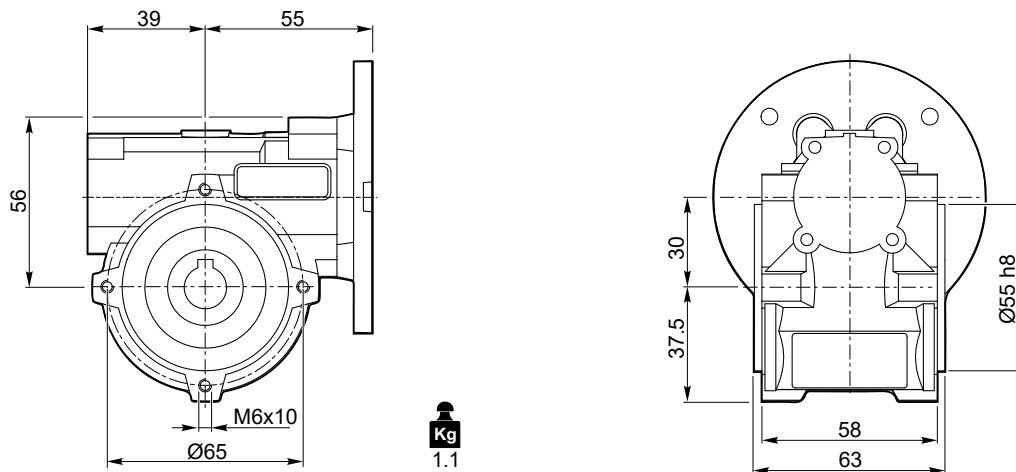
(\*): Centraggio maschio  
(\*): Male centering diameter



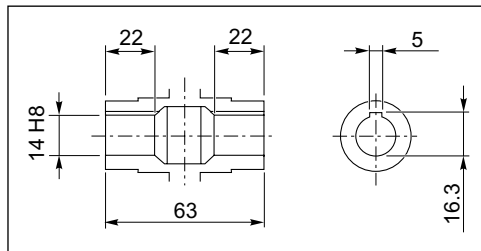
**Dimensioni**

**Dimensions**

**CL 030 U**

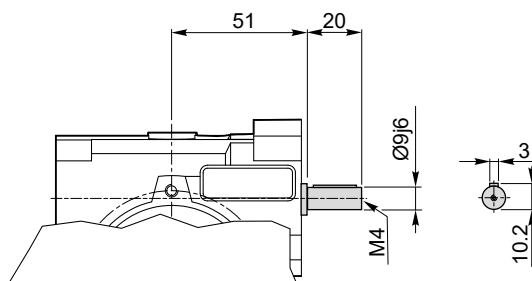


**Kg**  
1.1

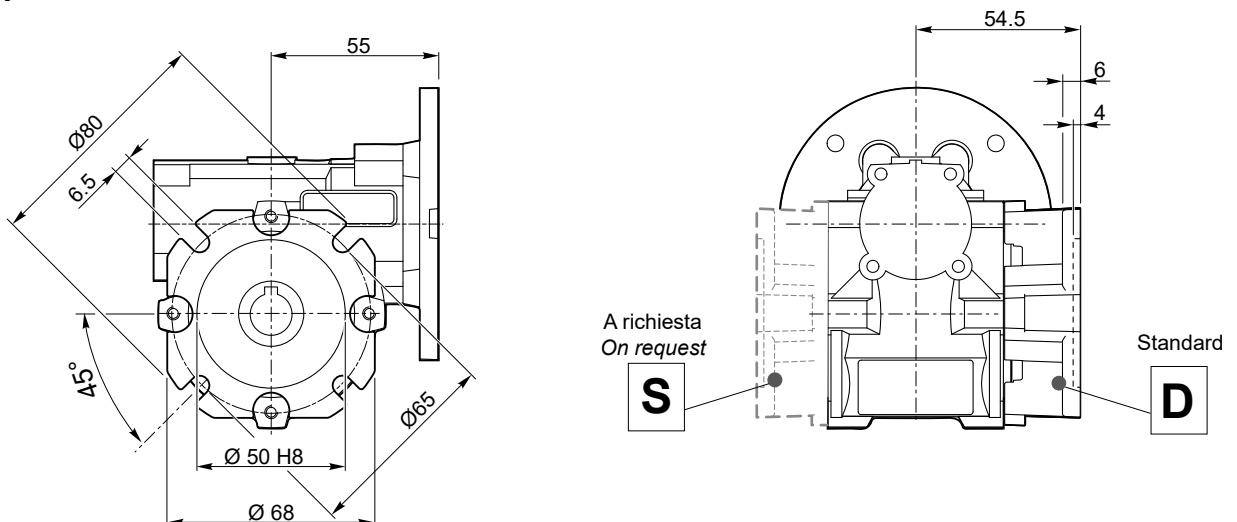


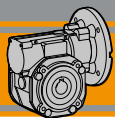
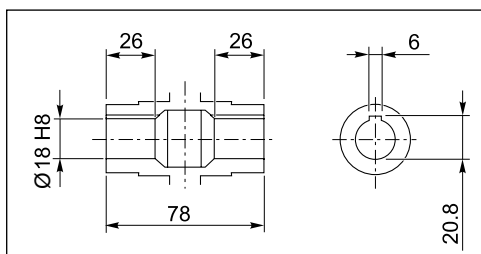
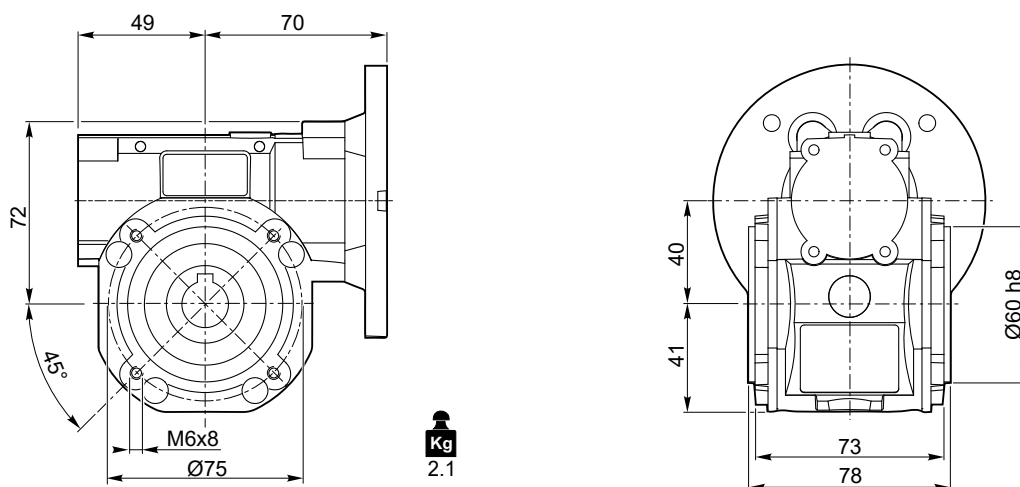
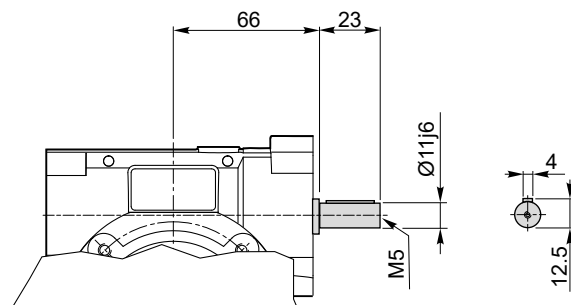
Albero lento cavo / Hollow output shaft

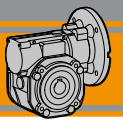
**CLIS 030 ..**



**CL 030 F**



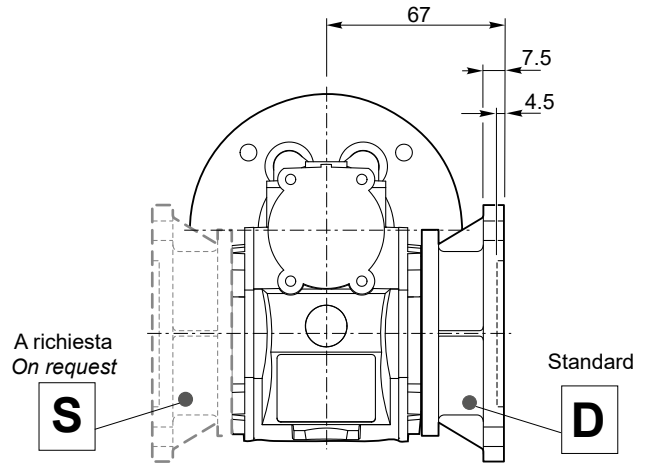
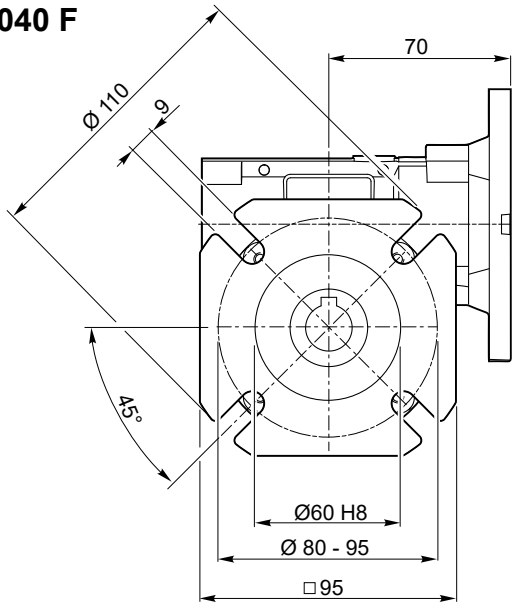
**CL****Motoriduttori a vite senza fine**  
**Wormgearmotors****MINI**  
**TECNO****Dimensioni****Dimensions****CL 040 U***Albero lento cavo / Hollow output shaft***CLIS 040 ..**



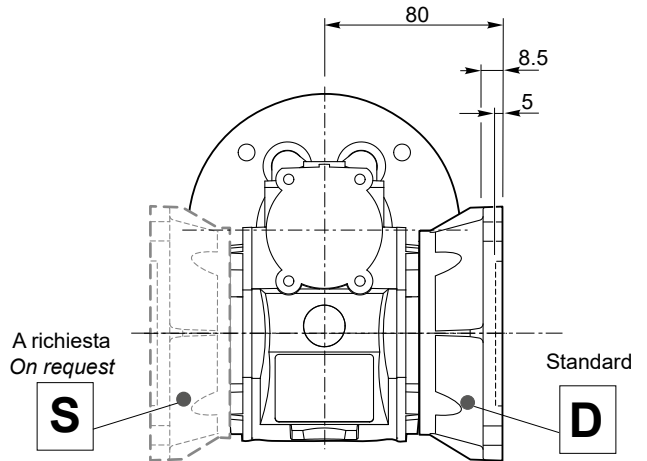
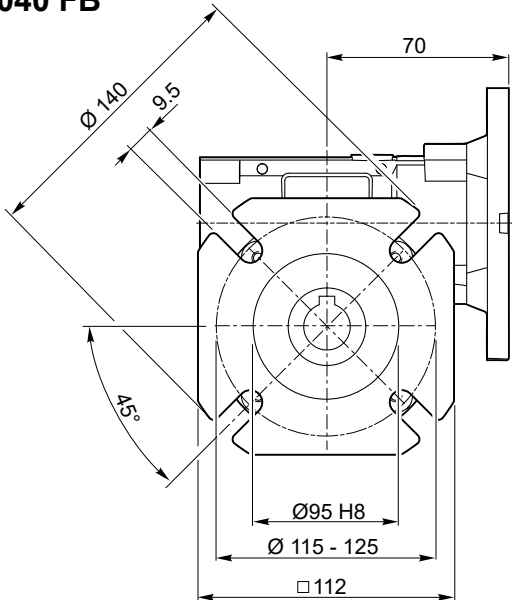
**Dimensioni**

**Dimensions**

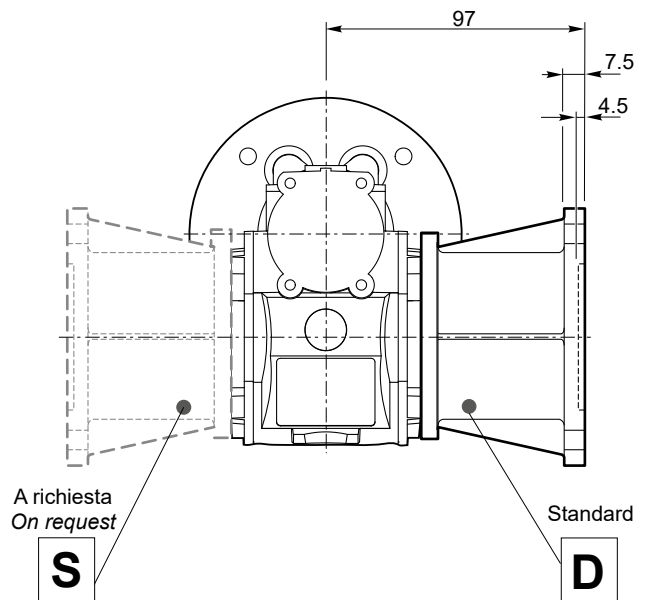
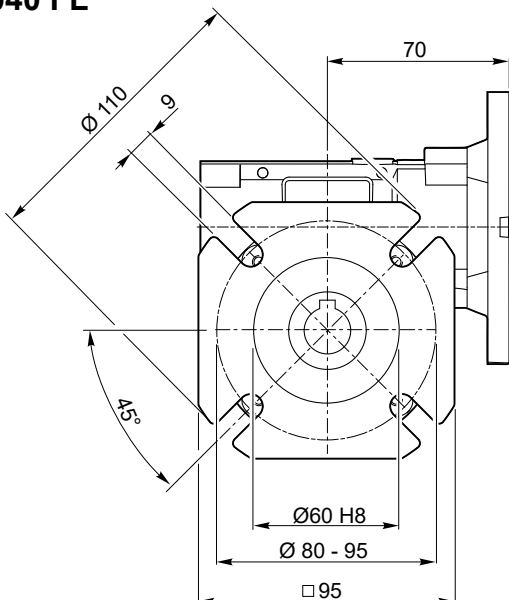
**CL 040 F**

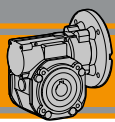


**CL 040 FB**



**CL 040 FL**





CL

Motoriduttori a vite senza fine  
Wormgearmotors

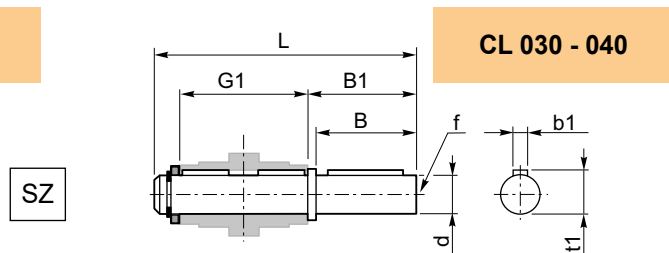
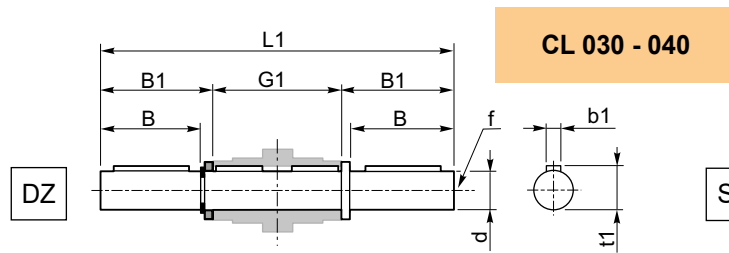


Accessori

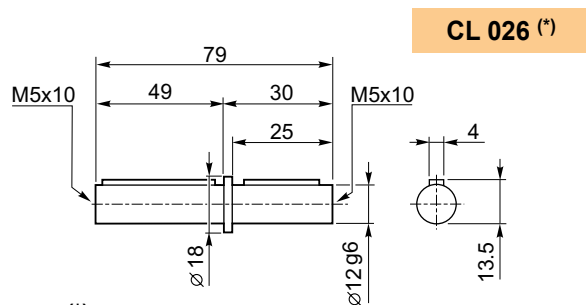
Accessories

Albero lento semplice e doppio

Single and double output shaft



| CL  | d <sub>h7</sub> | B  | B1   | G1 | L   | L1  | f  | b1 | t1   |
|-----|-----------------|----|------|----|-----|-----|----|----|------|
| 030 | 14              | 30 | 32.5 | 63 | 102 | 128 | M6 | 5  | 16   |
| 040 | 18              | 40 | 43   | 78 | 128 | 164 | M6 | 6  | 20.5 |

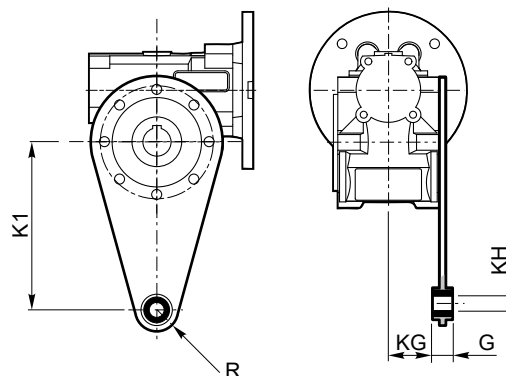


(\*)  
Nota: disponibile solo per cavo uscita Ø12  
Note: available for output hollow shaft Ø12 only

Braccio di reazione

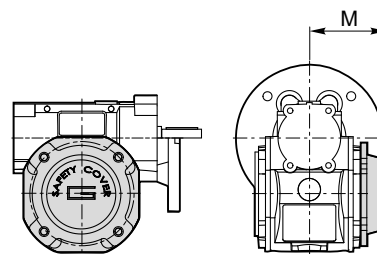
Torque arm

| CL  | K1  | G  | KG | KH | R  |
|-----|-----|----|----|----|----|
| 030 | 85  | 14 | 23 | 8  | 15 |
| 040 | 100 | 14 | 31 | 10 | 18 |



SC - Safety Cover

| CL  | M    |
|-----|------|
| 030 | 47   |
| 040 | 54.5 |

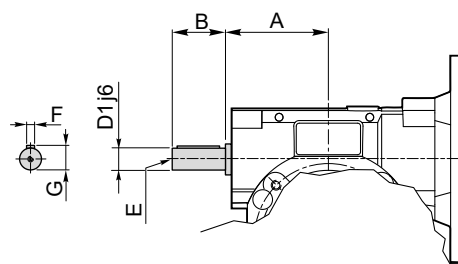


Opzioni

Options

VS - Vite sporgente / Extended input shaft

| CL  | A  | B  | D <sub>1j6</sub> | E  | F | G    |
|-----|----|----|------------------|----|---|------|
| 030 | 45 | 20 | 9                | M4 | 3 | 10.2 |
| 040 | 53 | 23 | 11               | M5 | 4 | 12.5 |



Costruito su richiesta  
Built on request

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