



# Backlash-free bellow

## Couplings for servo-motors

Torque: **30 to 500Nm**

**GERWAH AK**

- Backlash and maintenance free
- High torsional stiffness
- Low moment of inertia
- Shaft/bore link without backlash
- Recommended assembly tolerances H7/g6
- Working temperature -30°C to +100°C
- Materials:
  - Hub: steel
  - Bellows: stainless steel
- Please specify bore size on order (between min and max  $\varnothing$ )

clamp fixing



### Torque calculation

- Use the formula

$$T_{KN} > K \times T_{AS} \times J_{mach} / (U_{mot} + J_{mach}) \text{ in Nm}$$

With following safety coefficient:

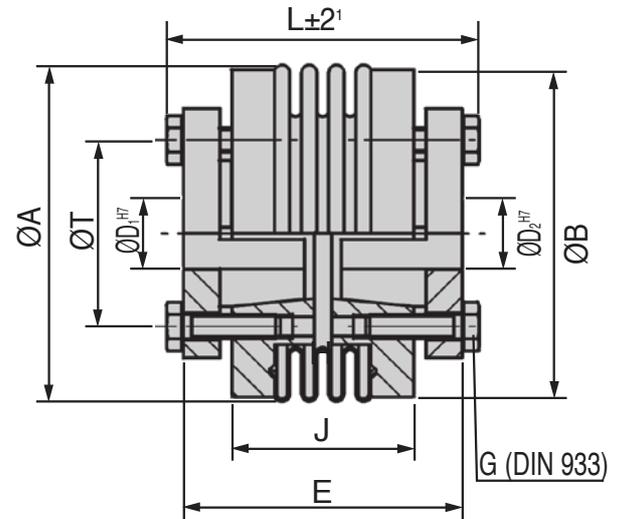
K = 1.5 for regular motion

K = 2 for irregular motion

K = 2.5 - 4 for jerky motion

Jx = moment of inertia (machine + motor)

T<sub>AS</sub> Required torque



**High Precision**

### DISCOUNTS

|            |     |            |    |
|------------|-----|------------|----|
| Qty.       | 1+  | 3+         | 6+ |
| Disc. List | -8% | On request |    |

| Part number | Nominal torque (Nm) | Stiffness                          |               |              | Moment of inertia (10 <sup>-3</sup> kgm <sup>2</sup> ) | Tightening torque (Nm) | Weight (kg) | Misalignment |            |             | Max. speed (t/min) |
|-------------|---------------------|------------------------------------|---------------|--------------|--|------------------------|-------------|--------------|------------|-------------|--------------------|
|             |                     | torsional (10 <sup>3</sup> Nm/Rad) | radial (N/mm) | axial (N/mm) |  |                        |             | radial (mm)  | axial (mm) | angular (°) |                    |
| AK30-60     | 30                  | 25                                 | 220           | 30           | 0,15   | 3,0                    | 0,4         | 0,2          | 0,5        | 1,5         | 11 000             |
| AK60-73     | 60                  | 50                                 | 330           | 55           | 0,24   | 8,5                    | 0,8         | 0,2          | 0,5        | 1,5         | 9 100              |
| AK80-91     | 80                  | 75                                 | 400           | 55           | 0,65   | 10,0                   | 1,3         | 0,2          | 0,5        | 1,5         | 7 000              |
| AK150-92    | 150                 | 100                                | 600           | 85           | 0,65   | 14,0                   | 1,3         | 0,2          | 0,5        | 1,5         | 7 000              |
| AK200-93    | 200                 | 120                                | 450           | 85           | 0,87   | 14,0                   | 1,6         | 0,2          | 0,5        | 1,5         | 6 700              |
| AK300-104   | 300                 | 280                                | 1500          | 150          | 2,33   | 18,0                   | 3,4         | 0,2          | 0,5        | 1,5         | 5 200              |
| AK500-113   | 500                 | 310                                | 1000          | 85           | 3,61   | 26,0                   | 4,7         | 0,2          | 1,0        | 1,5         | 4 600              |

| Part number | ØA (mm) | ØB (mm) | L   | D <sub>1H7</sub> /D <sub>2H7</sub> |      | E   | J  | ØT | G      | Price each 1 to 2 |
|-------------|---------|---------|-----|------------------------------------|------|-----|----|----|--------|-------------------|
|             |         |         |     | min.                               | max. |     |    |    |        |                   |
| AK30-60     | 56      | 55      | 60  | 12                                 | 20   | 53  | 38 | 31 | 6 x M4 | 239,36 €          |
| AK60-73     | 66      | 64      | 73  | 15                                 | 25   | 65  | 46 | 37 | 6 x M6 | 261,10 €          |
| AK80-91     | 82      | 80      | 91  | 20                                 | 35   | 83  | 61 | 51 | 6 x M6 | 286,83 €          |
| AK150-92    | 82      | 80      | 92  | 20                                 | 35   | 84  | 61 | 51 | 6 x M6 | 334,30 €          |
| AK200-93    | 90      | 90      | 93  | 20                                 | 40   | 85  | 63 | 56 | 6 x M6 | 391,53 €          |
| AK300-104   | 110     | 109     | 104 | 25                                 | 50   | 93  | 67 | 75 | 6 x M8 | 453,01 €          |
| AK500-113   | 122     | 120     | 113 | 35                                 | 55   | 105 | 72 | 80 | 6 x M8 | 589,52 €          |

Dimensions in mm

## Altri prodotti...



**VTLM**  
Volantino a 3 lobi,  
Poliammide - Acciaio



**ACAss**  
Albero scanalato Inox  
304, Inox



**SA\_SAKH**  
Supporto per  
manicotto, Chiuso -  
carico leggero



**CHAE3030PA**  
Cerniera ad avvitare  
estetica quadrata,  
Poliammide



**BAG0**  
Anello di bloccaggio,  
Acciaio



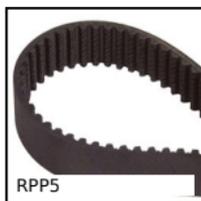
**NTMdl**  
Grano punta in delrin,  
punta in delrin



**PPG**  
Pistoncino a molla,  
Con flangia di  
fissaggio orizzontale



**LVT**  
Mini martinetto  
motorizzato 2A, 2  
ampere



**RPP5**  
Cinghia di  
trasmissione RPP,  
RPP5



**LC**  
Limitatore di coppia  
ad attrito, 30 a 240  
Nm



**RBGpl**  
Ruota girevole a  
doppio bloccaggio,  
Acciaio - gomma  
grigia



**BOX-TOR-ORFS**  
Valigetta di  
guarnizioni toriche in  
nitrile, 7.65 x 1.78mm  
a 37.82 x...

**Prodotti correlati**