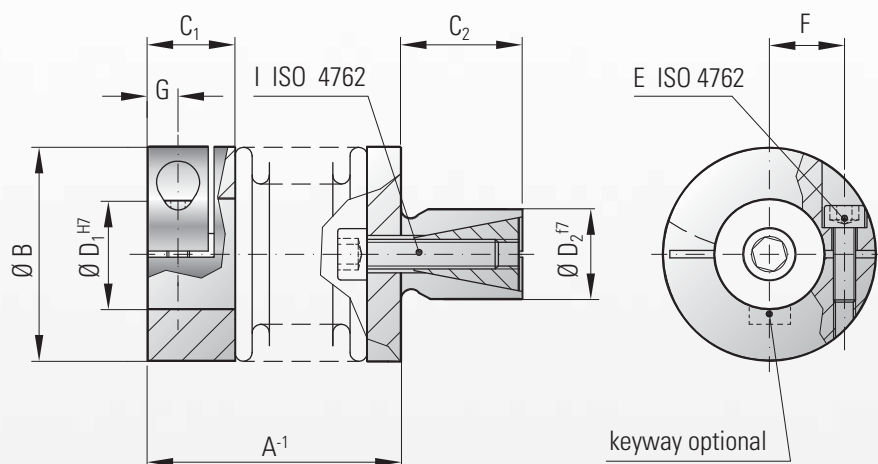


Optional:



# MODEL MK3

## TECHNICAL SPECIFICATIONS



### Ordering example

**MK3/20 / 36 / 6 / 12 / XX**

Model  
Series  
Overall length  
Bore Ø D1 H7  
Shaft Ø D2 f7  
Non standard e.g. stainless steel



with expanding shaft

### Features:

- backlash free and torsionally rigid
- compensates for 3 types of misalignment
- for easy hollow shaft mounting
- adapts mismatched shaft and bore diameters
- low moment of inertia

### Material:

Bellows made from highly flexible, high grade stainless steel; clamping hub made from aluminum; expanding shaft and cone made from steel

### Design:

With a single ISO 4762 radial clamping screw on one hub; shaft with internal cone for expansion

### Temperature range:

-30 to +110° C (-22 to +230° F)

### Speeds:

Up to 10,000 rpm; in excess of 10,000 rpm with finely balanced version

### Service life:

Maintenance free with infinite life when operated within the technical specifications

### Fit tolerance:

Overall clearance between hub and shaft  
0.01-0.05 mm

### Non standard applications:

Custom designs with various tolerances, keyways, materials, dimensions, etc. available upon request

**Recommended bore tolerance for expanding shaft: H7**

| Model MK3                                                                                   |                     | Series             |      |     |      |      |     |      |       |     |        |      |      |       |      |       |      |
|---------------------------------------------------------------------------------------------|---------------------|--------------------|------|-----|------|------|-----|------|-------|-----|--------|------|------|-------|------|-------|------|
|                                                                                             |                     | 5                  |      |     | 10   |      |     | 15   |       | 20  |        |      | 45   |       | 100  |       |      |
| Rated torque                                                                                | (Nm)                | T <sub>KN</sub>    | 0.5  |     |      | 1    |     |      | 1.5   |     | 2      |      |      | 4.5   |      | 10    |      |
| Overall length                                                                              | (mm)                | A <sup>-1</sup>    | 20   | 23  | 26   | 22   | 25  | 28   | 24    | 30  | 27     | 33   | 36   | 36    | 44   | 41    | 51   |
| Outside diameter                                                                            | (mm)                | B                  | 15   |     |      | 15   |     |      | 19    |     | 25     |      |      | 32    |      | 40    |      |
| Fit length                                                                                  | (mm)                | C <sub>1</sub>     | 9    |     |      | 9    |     |      | 11    |     | 13     |      |      | 16    |      | 16    |      |
| Shaft length                                                                                | (mm)                | C <sub>2</sub>     | 10   |     |      | 10   |     |      | 12    |     | 12     |      |      | 15    |      | 20    |      |
| Inside diameter possible from Ø to Ø H7                                                     | (mm)                | D <sub>1</sub>     | 3-7  |     |      | 3-7  |     |      | 4-8   |     | 4-12.7 |      |      | 5-16  |      | 6-24  |      |
| Standard shaft possible from Ø to Ø f7                                                      | (mm)                | D <sub>2</sub>     | 8-10 |     |      | 8-10 |     |      | 10-14 |     | 10-16  |      |      | 14-20 |      | 16-24 |      |
| Fastening screw ISO 4762                                                                    | (Nm)                | E                  | M2   |     |      | M2   |     |      | M2.5  |     | M3     |      |      | M4    |      | M4    |      |
| Tightening torque of the fastening screws                                                   |                     |                    | 0.43 |     |      | 0.43 |     |      | 0.85  |     | 2.3    |      |      | 4     |      | 4.5   |      |
| Distance between centerlines                                                                | (mm)                | F                  | 4.5  |     |      | 4.5  |     |      | 6     |     | 8      |      |      | 10    |      | 15    |      |
| Distance                                                                                    | (mm)                | G                  | 3    |     |      | 3    |     |      | 3.5   |     | 4      |      |      | 5     |      | 5     |      |
| Fastening screw ISO 4762                                                                    | (Nm)                | I                  | M3   |     |      | M3   |     |      | M4    |     | M4     |      |      | M5    |      | M6    |      |
| Tightening torque of the fastening screws                                                   |                     |                    | 1.5  |     |      | 1.5  |     |      | 3     |     | 4      |      |      | 6.5   |      | 11    |      |
| Moment of inertia                                                                           | (gcm <sup>2</sup> ) | J <sub>total</sub> | 2.6  | 2.8 | 3.0  | 3.0  | 3.4 | 3.6  | 8.5   | 9.5 | 25     | 27   | 29   | 100   | 108  | 160   | 205  |
| Torsional stiffness                                                                         | (Nm/rad)            | C <sub>T</sub>     | 280  | 210 | 170  | 510  | 380 | 320  | 750   | 700 | 1200   | 1300 | 1200 | 7000  | 5000 | 9050  | 8800 |
| Axial    | ± (mm)              | max. values        | 0.4  | 0.5 | 0.6  | 0.4  | 0.5 | 0.6  | 0.5   | 0.7 | 0.5    | 0.6  | 0.7  | 0.7   | 1    | 1     | 1.2  |
| Lateral  | ± (mm)              |                    | 0.15 | 0.2 | 0.25 | 0.15 | 0.2 | 0.25 | 0.15  | 0.2 | 0.15   | 0.2  | 0.25 | 0.2   | 0.25 | 0.2   | 0.3  |
| Angular  | ± (degree)          |                    | 1    | 1.5 | 2    | 1    | 1.5 | 2    | 1.5   | 1.5 | 1.5    | 1.5  | 2    | 1.5   | 2    | 1.5   | 2    |