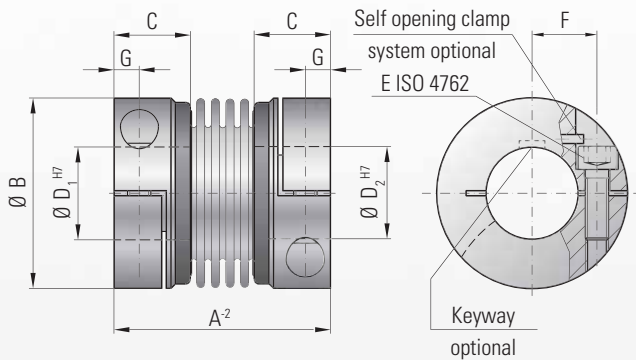




# MODEL BKL

BACKLASH-FREE, TORSIONALLY STIFF METAL BELLOWS COUPLINGS

with clamping hub



### Ordering example

BKL / 80 / 26 / 22 / XX

Model  
Series/Nm  
Ø D1 H7  
Ø D2 H7  
non standard

### Properties:

- easy to mount
- low moment of inertia
- economically priced

### Material:

Bellows made of highly flexible high-grade stainless steel. Hub material see table

### Design:

With a single ISO 4762 radial clamping screw per hub.

**Self opening clamp system optional: Loosening the clamping screw applies force to the pin, which will force the clamp into the open position for easy mounting and dismounting.**

### Temperature range:

-30 to +100° C (-22 F to 212 F)

### Speeds:

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

### Backlash:

Absolutely backlash-free due to frictional clamped connection.

### Brief overloads:

Acceptable up to 1.5 times the value specified.

### Service life:

These couplings have an infinite life and are maintenance-free if the technical ratings are not exceeded.

### Tolerance:

On the hub/shaft connection 0.01 to 0.05 mm.

### Non standard:

Custom designs with varied tolerances, keyways, non-standard material, bellows and ATEX designs are available upon request.

| Model BKL  |             | Series               |                      |                      |                      |                      |                      |                      |                      |                      |                      |  |
|--|-------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--|
|  |             | 2                    | 4,5                  | 10                   | 15                   | 30                   | 60                   | 80                   | 150                  | 300                  | 500                  |  |
| Rated torque (Nm)                                | $T_{KN}$    | 2                    | 4.5                  | 10                   | 18                   | 30                   | 60                   | 80                   | 150                  | 300                  | 500                  |  |
| Overall length (mm)                              | A           | 30                   | 40                   | 44                   | 58                   | 68                   | 79                   | 92                   | 92                   | 109                  | 114                  |  |
| Outer diameter (mm)                              | B           | 25                   | 32                   | 40                   | 49                   | 56                   | 66                   | 82                   | 82                   | 110                  | 123                  |  |
| Fit length (mm)                                  | C           | 10.5                 | 13                   | 13                   | 21.5                 | 26                   | 28                   | 32.5                 | 32.5                 | 41                   | 42.5                 |  |
| Inner diameter possible from Ø to Ø H7 (mm)      | $D_{1/2}$   | 4-12.7               | 6-16                 | 6-24                 | 8-28                 | 10-32                | 14-35                | 16-42                | 19-42                | 24-60                | 35-62                |  |
| Fastening screw ISO 4762                         | E           | M3                   | M4                   | M4                   | M5                   | M6                   | M8                   | M10                  | M10                  | M12                  | M16                  |  |
| Tightening torque of the fastening screw (Nm)    |             | 2.3                  | 4                    | 4.5                  | 8                    | 15                   | 40                   | 70                   | 85                   | 120                  | 200                  |  |
| Distance between centers (mm)                    | F           | 8                    | 11                   | 14                   | 17                   | 20                   | 23                   | 27                   | 27                   | 39                   | 41                   |  |
| Distance (mm)                                    | G           | 4                    | 5                    | 5                    | 6.5                  | 7.5                  | 9.5                  | 11                   | 11                   | 13                   | 17                   |  |
| Moment of inertia ( $10^{-3}$ kgm <sup>2</sup> ) | $J_{total}$ | 0.002                | 0.007                | 0.016                | 0.065                | 0.12                 | 0.3                  | 0.75                 | 1.8   0.8            | 7.5   3.1            | 11.7   4.9           |  |
| Hub material                                     |             | AL<br>optional steel | AL<br>optional steel | AL<br>optional steel | AL<br>optional steel | AL<br>optional steel | AL<br>optional steel | AL<br>optional steel | steel<br>optional AL | steel<br>optional AL | steel<br>optional AL |  |
| Approx. weight (kg)                              |             | 0.02                 | 0.05                 | 0.06                 | 0.16                 | 0.25                 | 0.4                  | 0.7                  | 1.7   0.75           | 3.8   1.6            | 4.9   2.1            |  |
| Torsional stiffness ( $10^3$ Nm/rad)             | $C_T$       | 1.5                  | 7                    | 9                    | 23                   | 31                   | 72                   | 80                   | 141                  | 157                  | 290                  |  |
| axial  ± (mm)                                    | Max. values | 0.5                  | 1                    | 1                    | 1                    | 1                    | 1.5                  | 2                    | 2                    | 2                    | 2.5                  |  |
| lateral  ± (mm)                                  |             | 0.2                  | 0.2                  | 0.2                  | 0.2                  | 0.2                  | 0.2                  | 0.2                  | 0.2                  | 0.2                  | 0.2                  |  |
| angular  ± (degree)                              |             | 1                    | 1                    | 1                    | 1                    | 1                    | 1                    | 1                    | 1                    | 1                    | 1                    |  |
| axial spring stiffness (N/mm)                    | $C_a$       | 8                    | 35                   | 30                   | 30                   | 50                   | 67                   | 44                   | 77                   | 112                  | 72                   |  |
| lateral spring stiffness (N/mm)                  | $C_r$       | 50                   | 350                  | 320                  | 315                  | 366                  | 679                  | 590                  | 960                  | 2940                 | 1450                 |  |

(1Nm  $\hat{=}$  8.85 in lbs)