# BKS

# WELDED WITH CLAMPING HUB
## 15 - 500 Nm



**Optional:**
self-opening clamp system to open the bore during installation and removal by backing out the clamping screw.

## PROPERTIES

### FEATURES
▶ for high temperatures and aggressive media
▶ compact design
▶ welded version

### MATERIAL
▶ **Bellows:** high grade stainless steel
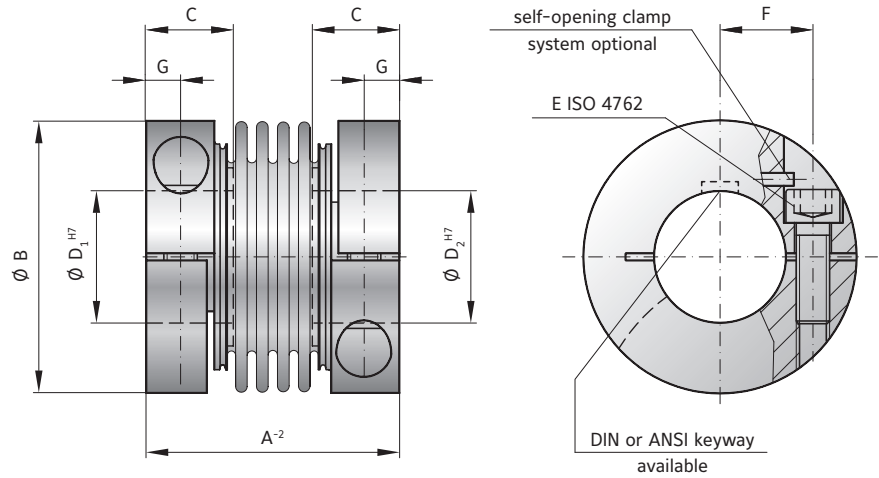▶ **Hubs:** high grade stainless steel

▶ **Screws:** Grade 12.9 Geomet coated (alternate materials on request)

### DESIGN
Two clamping hubs concentrically mounted to flexible bellows.
Brief overloads of up to 1.5x the rated torque are acceptable.
From -40° to +300°C operating temperature.



## MODEL BKS

| SIZE | | | 15 | 30 | 60 | 150 | 300 | 500 |
|---|---|---|---|---|---|---|---|---|
| Rated torque (Nm) | $T_{KN}$ | | 15 | 30 | 60 | 150 | 300 | 500 |
| Overall length (mm) | $A^{-2}$ | | 45 | 52 | 66 | 76 | 89 | 95 |
| Outside diameter (mm) | B | | 49 | 56 | 66 | 82 | 110 | 123 |
| Fit length (mm) | C | | 17 | 20 | 24 | 30 | 34 | 35 |
| Inside diameter* possible from Ø to Ø H7 (mm) | $D_1/D_2$ | | 12-28 | 14-32 | 16-35 | 19-42 | 24-60 | 32-75 |
| Fastening screw ISO 4762 | E | | M5 | M6 | M8 | M10 | M12 | M12 |
| Tightening torque of the fastening screw (Nm) | | | 8 | 15 | 40 | 75 | 120 | 125 |
| Distance between centerlines (mm) | F | | 17.5 | 20 | 23 | 27 | 39 | 45 |
| Distance (mm) | G | | 6 | 7.5 | 9.5 | 11 | 13 | 13 |
| Moment of inertia (10⁻³ kgm²) | $J_{ges.}$ | | 0.1 | 0.2 | 0.53 | 1.5 | 5.5 | 8.1 |
| Approximate weight (kg) | | | 0.27 | 0.42 | 0.78 | 1.5 | 2.9 | 3.5 |
| Torsional stiffness (10³ Nm/rad) | $C_T$ | | 23 | 31 | 72 | 141 | 157 | 290 |
| Axial ± (mm) | | Max. values | 1 | 1 | 1.5 | 2 | 2 | 2.5 |
| Lateral ± (mm) | | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Angular ± (degree) | | | 1 | 1 | 1 | 1 | 1 | 1 |
| Axial spring stiffness (N/mm) | $C_a$ | | 30 | 50 | 67 | 77 | 112 | 72 |
| Lateral spring stiffness (N/mm) | $C_r$ | | 315 | 366 | 679 | 960 | 2940 | 2200 |
| Speed max. with balancing (min⁻¹) | | | 60,000 | 50,500 | 50,000 | 40,500 | 40,000 | 30,000 |

\* Smaller bore diameter available at reduced torque capacity

| ORDERING EXAMPLE | BKS | 15 | 20 | 19.05 | XX |
|---|---|---|---|---|---|
| **Model** | ● | | | | Special designation only (e.g. special bore tolerance). |
| **Size** | | ● | | | |
| **Bore D1 H7** | | | ● | | |
| **Bore D2 H7** | | | | ● | |
| For custom features place an XX at the end of the part number and describe the special requirements (e.g. BKS / 15 / 20 / 19.05 / XX; XX=finely balanced for 25,000 rpm) | | | | | |