

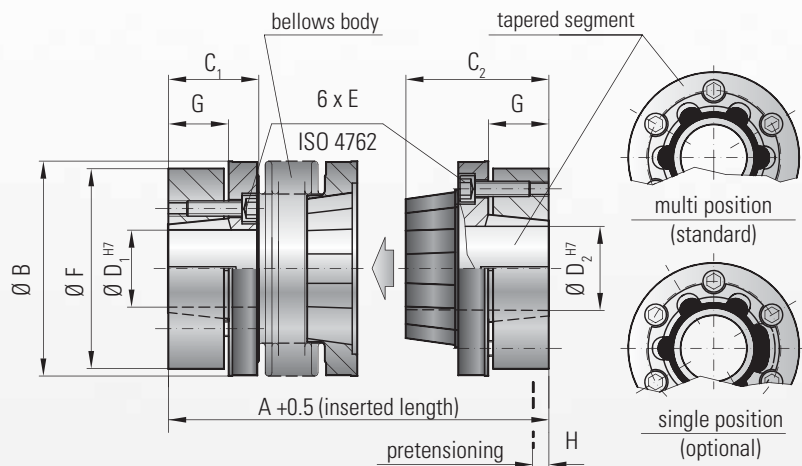


MODEL BK6

BACKLASH-FREE, TORSIONALLY STIFF METAL BELLOWS COUPLINGS



blind mate with clamping ring



axial mounting for space restricted applications

Ordering example

BK6 / 30 / 71 / 18 / 19 / XX

Model
Series / Nm
Overall length mm
Bore Ø D1 H7
Bore Ø D2 H7
Non standard e.g. single position engagement

Features:

- torsionally rigid
- easy mounting and dismounting
- electrically and thermally isolating
- wear and maintenance free
- absolutely backlash free due to frictional clamp connection and axial pretensioning of the tapered press fit segment

Material:

Bellows made from highly flexible, high grade stainless steel; conical clamping hubs made from steel. Bellows side adapter plate made from aluminum; series 800 and up made from steel. Tapered male segment made from glass reinforced plastic molded directly onto the clamping hub.

Design:

Bellows body and male tapered segment with conical clamping ring, 6x ISO 4762 fastening screws and 3x threaded holes for removal.

Temperature range: -30 to +100° C (-22 to +212° F)

Speeds:

Up to 10,000 rpm; in excess of 10,000 rpm with finely balanced version (up to G = 2.5)

Service life:

Maintenance free with infinite life when operated within the technical specifications

Brief overloads:

Acceptable up to 1.5x the rated torque

Fit tolerance:

Overall clearance between hub and shaft 0.01-0.05 mm

Model BK 6		Series															
		15		30		60		150		300		500		800		1500	
Rated torque (Nm)	T_{KN}	15		30		60		150		300		500		800		1500	
Overall length (inserted) (mm)	$A^{+0.5}$	58	65	68	76	79	89	97	109	113	127	132	145	140	158	158	158
Outside diameter (mm)	B	49		55		66		81		110		124		133		157	
Fit length (mm)	C_1	13.5		16.5		18		23.5		27		32		42		53	
Fit length (mm)	C_2	29		34		39		49.5		59		68		74		90.5	
Inside diameter possible from Ø to Ø H7 (mm)	D_1	10-22		12-24		12-32		15-40		24-56		30-60		40-62		50-75	
Inside diameter possible from Ø to Ø H7 (mm)	D_2	10-22		12-24		12-32		15-40		24-56		30-60		40-62		50-75	
Fastening screw ISO 4762	E	M4		M5		M5		M6		M8		M8		M10		M12	
Tightening torque (Nm)		3.5		6.5		8		12		30		32		55		110	
Diameter of clamping ring (mm)	F	46.5		51		60		74		102		114		126		146	
Clamping ring length (mm)	G	9.5		10.5		11.5		17.5		20		23		27		32	
Approximate pretensioning (mm)	H	0.2 up to 1.0		0.5 up to 1.0		0.5 up to 1.5		0.5 up to 1.5		0.5 up to 1.5		1.0 up to 2.0		1.0 up to 2.0		0.5 up to 1.5	
Axial recovery force at maximum pretensioning (N)		20	12	50	30	70	45	82	52	157	106	140	96	400	650	650	650
Moment of inertia (10^{-3} kgm ²)	J_{total}	0.1	0.12	0.2	0.25	0.4	0.45	2.0	2.5	5.4	6.1	8.4	9.1	19.5	44	44	44
Approximate weight (kg)		0.3	0.32	0.5	0.52	0.82	0.84	1.6	1.7	4.1	4.2	6.0	6.3	9.4	16.2	16.2	16.2
Torsional stiffness (10^3 Nm/rad)	C_T	10	8	20	14	38	28	88	55	225	175	255	245	400	660	660	660
Axial* \pm (mm)	Max. values	0.5	1	0.5	1	0.5	1	1	2	1.5	2	2.5	3.5	3	2	2	2
Lateral \pm (mm)		0.15	0.2	0.2	0.25	0.2	0.25	0.2	0.25	0.25	0.3	0.3	0.35	0.35	0.35	0.35	0.35
Angular \pm (degree)		1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1.5	1.5	1.5	1.5
Lateral spring stiffness (N/mm)		C_r	475	137	900	270	1200	420	1550	435	3750	1050	2500	840	2000	3600	3600

* in addition to maximum pretensioning

Higher torques upon request

1 Nm = 8.85 in lbs