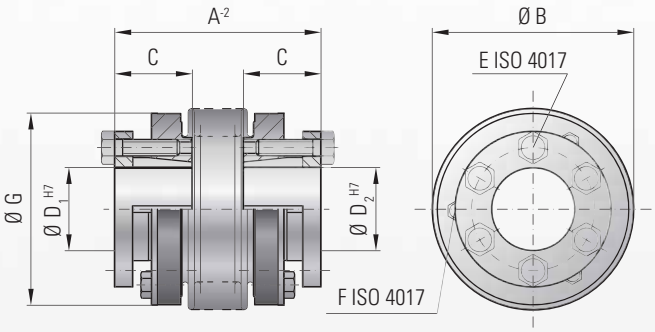
optional stainless steel

MODEL **BK3**

BACKLASH-FREE, TORSIONALLY STIFF METAL BELLOWS COUPLINGS

with tapered conical sleeves



Properties:
- high clamping forces
- high degree of operating dependability
- new draw off device suited for space restricted installations

Material: Bellows made of highly flexible high-grade stainless steel, the hub material is steel.

Design: With tapered conical sleeves and strong, captive ISO 4017 draw-off screws.

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

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

Service life: These couplings are maintenance-free if the technical ratings are not exceeded.

Backlash: Absolutely backlash-free due to frictional clamp connection.

Brief overloads: Acceptable up to 1.5 times the value specified.

Tolerance: On the hub/shaft connection 0.01 to 0.05 mm

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

Ordering example

BK3 / 60 / 76 / 20 / 22 / XX

- Model
- Series / Nm
- Overall length
- Ø D1 H7
- Ø D2 H7
- Non standard e.g. stainless steel

Model BK 3			Series																							
			15		30		60		150		200		300		500		800	1500	4000	6000	10000					
Rated torque	(Nm)	T_{KN}	15		30		60		150		200		300		500		800	1500	4000	6000	10000					
Overall length	(mm)	A^{-2}	48	55	57	65	66	76	75	87	78	90	89	103	97	110	114	141	195	210	217					
Outer diameter of bellows	(mm)	B	49		55		66		81		90		110		124		133	157	200	253	303					
Fit length	(mm)	C	19		22		27		32		32		41		41		50	61	80	85	92					
Inner diameter from Ø to Ø H7	(mm)	D_1/D_2	10-22		12-23		12-29		15-38		15-44		24-56		24-60		30-60	35-70	50-100	60-140	70-180					
Fastening screws ISO 4017		E	6x M4		6x M5		6x M5		6x M6		6x M6		6x M8		6x M8		6x M10	6x M12	6x M16	6x M16	8x M16					
Tightening torque of the fastening screws	(Nm)		4		6		8		12		14		18		25		40	70	120	150	160					
Draw-off screw 3x ISO 4017		F	3x M4		3x M4		3x M5		3x M5		3x M6		3x M6		3x M6		3x M8	6xM8	6xM10	6xM10	8xM10					
Outer diameter of hub	(mm)	G	49		55		66		81		90		110		122		116	135	180	246	295					
Moment of inertia	(10^{-3} kgm²)	J_{total}	0.07	0.08	0.15	0.16	0.39	0.41	1.2	1.6	1.7	2.5	5.1	5.9	9.1	9.9	13.2	34.9	85.5	254	629					
Approx. weight	(kg)		0.25		0.4		0.7		1.2		1.8		3		4.2		5.6	8.2	23	32.6	45.5					
Torsional stiffness	(10^3 Nm/rad)	C_T	20	15	39	28	76	55	175	110	191	140	450	350	510	500	780	1304	3400	5700	10950					
axial	± (mm)	Max. values	1	2	1	2	1.5	2	2	3	2	3	2.5	3.5	2.5	3.5	3.5	3.5	3.5	3	3					
lateral	± (mm)		0.15	0.2	0.2	0.25	0.2	0.25	0.2	0.25	0.25	0.3	0.25	0.3	0.3	0.35	0.35	0.35	0.4	0.4	0.4					
angular	± (degree)		1	1.5	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	1.5					
axial spring stiffness	(N/mm)	C_a	25	15	50	30	72	48	82	52	90	60	105	71	70	48	100	320	565	1030	985					
lateral spring stiffness	(N/mm)	C_r	475	137	900	270	1200	420	1500	435	2040	610	3750	1050	2500	840	2000	3600	6070	19200	21800					

(1Nm ≙ 8.85 in lbs)