

BK5

Blind mate with clamping hub

15 – 1,500 Nm

Features

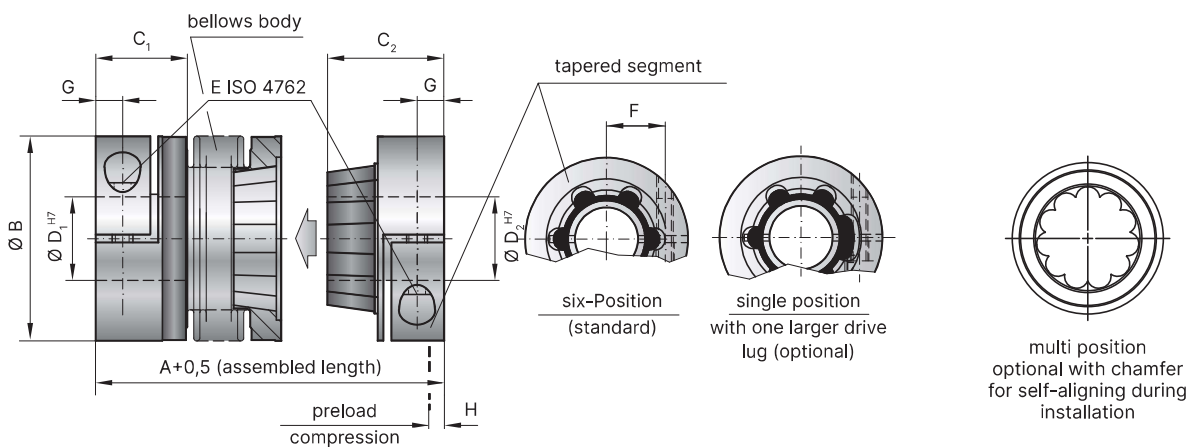
- Easy installation and removal due to blind mate
- Electrically and thermally isolating
- Absolutely backlash free assembly

Material

- **Bellows:** high grade stainless steel
- **Hubs:** Up through size 80 Aluminum, size 150 and up steel
- **Tapered male segment:** High strength plastic

Design

Two clamping hubs, one of which has a tapered male projection for blind mate connection. Brief overloads of up to 1.5x the rated torque are acceptable.



Model BK5

Size		15	30	60	80	150	300	500	800	1,500
Rated torque (Nm)	T_{KN}	15	30	60	80	150	300	500	800	1,500
Overall length (inserted) (mm)	$A^{+0,5}$	60 67	71 79	85 95	94 106	95 107	114 128	136 149	150 176	
Outside diameter (mm)	B	49	55	66	81	81	110	124	133	157
Fit length (mm)	C_1	22	27	31	36	36	43	51	45	55
Fit length (mm)	C_2	28	33	39	43	43	52	61	74	94
Inside diameter possible from $\varnothing$ to $\varnothing H7$ (mm)	D_1	8-28	10-30	12-35	14-42	14-42	24-60	35-60	40-75	50-80
Inside diameter possible from $\varnothing$ to $\varnothing H7$ (mm)	D_2	8-22	10-25	12-32	14-38	14-38	24-58	35-60	40-62	50-75
Fastening screw ISO 4762		M5	M6	M8	M10	M10	M12	M16	2 x M16**	2 x M20**
Tightening torque of the fastening screw (Nm)	E	8	15	40	50	70	130	200	250	470
Distance between centerlines (mm)	F	17	19	23	27	27	39	41	2 x 48**	2 x 55**
Distance (mm)	G	6.5	7.5	9.5	11	11	13	16.5	18	22.5
Preload compression (mm)		0.2 - 1.0	0.5 - 1.0	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	0.5 - 1.5	1.0 - 2.0	1.0 - 2.5	0.5 - 1.5
Axial recovery force at maximum pretensioning (N)	H	20 12	50 30	70 45	48 32	82 52	157 106	140 96	200	650
Moment of inertia (10^{-3} kgm^2)	J_{ges}	0.07 0.08	0.14 0.15	0.23 0.26	0.65 0.67	2.2 2.4	7.4 7.9	13.7 14.4	21.5	51.4
Approximate weight (kg)		0.1 0.1	0.3 0.3	0.4 0.4	0.9 0.9	1.8 1.8	4 4	6.5 6.7	9	15.3
Torsional stiffness (10^3 Nm/rad)	C_T	10 8	20 14	38 28	65 43	88 55	225 175	255 245	400	650
Axial* $\pm$ (mm)		0.5 1	0.5 1	0.5 1	1 2	1 2	1.5 2	2.5 3.5	3	2
Lateral $\pm$ (mm)	Max. values	0.15 0.2	0.2 0.25	0.2 0.25	0.2 0.25	0.2 0.25	0.25 0.3	0.3 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 1.5	1.5	1.5
Lateral spring stiffness (N/mm)	C_r	475 137	900 270	1,200 420	920 290	1,550 435	3,750 1,050	2,500 840	2,000	3,600

*in addition to maximum allowable pretension **180° opposed in each clamping hub.