

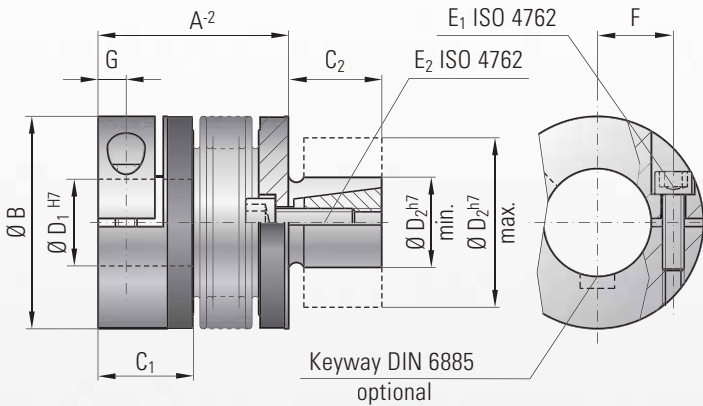


MODEL BK7

TECHNICAL SPECIFICATIONS



with expanding shaft



Ordering example

BK7 / 150 / 71 / 32 / 35 / XX

Model
Series / Nm
Overall length
Ø D1 H7
Ø D2 h7
non standard

Properties:

- compact design, conserves space while saving cost
- easy mounting
- backlash-free and torsionally rigid
- low moment of inertia
- compensation for misalignment

Material:

Bellows made of highly flexible high-grade stainless steel, hub material: see table, Expanding hub and cone (steel).

Design:

On one side with a single radial clamping screw ISO 4762. On one side an expanding shaft with tapered clamping element.

Temperature range:

-30 to +120° C (3.6 F - 270 F)

Speeds:

Up to 10,000 rpm, over 10,000 rpm available with a finely balanced version.

Service life:

These couplings have an infinite life and 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

Custom Designs:

With varied tolerances, keyways, non-standard material, and bellows are available upon request.

Model BK 7	Series										
		15	30	60	150	300					
Rated torque (Nm)	T _{KN}	15	30	60	150	300					
Overall length (inserted)(mm)	A	45	52	53	61	62	72	71	83	84	98
Outer diameter (mm)	B	49	55	66	81	110					
Fit length (mm)	C ₁	22	27	32	36	43					
Inner diameter from Ø to Ø H7 (mm)	D ₁	8-28	10-30	12-37	19-42	30-60					
Fit length (mm)	C ₂	20	25	27	32	45					
Shaft diameter from Ø to Ø h7 (mm)	D ₂	13-25	14-30	23-38	26-42	38-60					
ISO 4762 fastening screw	E _{1/2}	M5	M6	M8	M10	M12					
Tightening torque of the fastening screw (Nm)	E _{1/2}	8	14	38	65	120					
Distance between centers (mm)	F	17	19	23	27	39					
Distance (mm)	G	6.5	7.5	9.5	11	13					
Moment of inertia (10 ⁻³ kgm ²)	J _{total}	0.07	0.08	0.14	0.15	0.23	0.26	2.2	2.4	6.5	8.9
Hub material (standard) (steel on request)		Al	Al	Al	Steel	Steel					
Approx. weight (kg)		0.15	0.3	0.4	1.7	4					
Torsional stiffness (10 ³ Nm/rad)	C _T	20	15	39	28	76	55	175	110	450	350
axial (mm)	Max. values	1	2	1	2	1.5	2	2	3	2.5	3.5
lateral (mm)		0.15	0.2	0.2	0.25	0.2	0.25	0.2	0.25	0.25	0.3
axial spring stiffness (N/mm)	C _a	20	12	50	30	72	48	82	52	105	71
lateral spring stiffness (N/mm)	C _r	315	108	730	230	1200	380	1550	435	3750	1050

(1Nm ≈ 8.85 in lbs)

Max. angular misalignment 1 degree

Installation instructions:

By tightening the screw through the bellow body, the shaft is caused to expand. The coupling is designed for high dynamic hollow shaft connections eg. gear boxes. Recommended bore tolerance: ISO H7

