

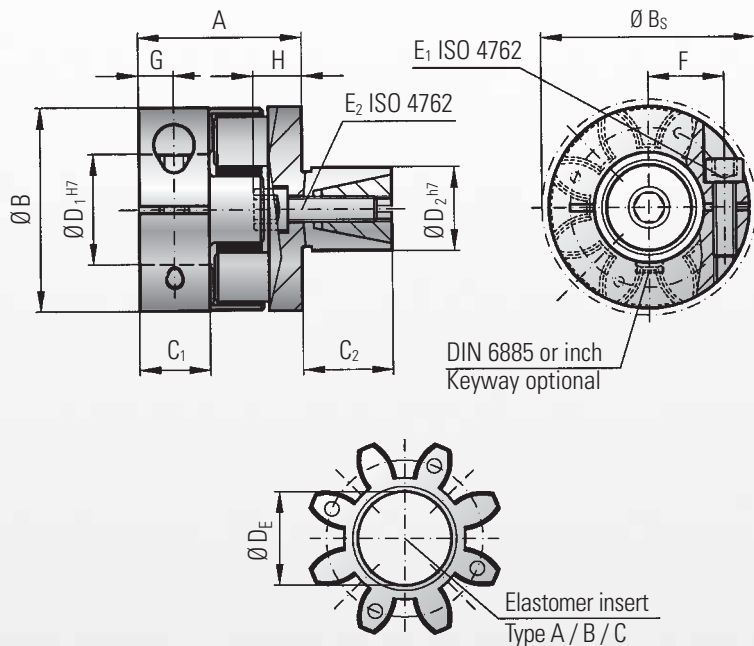


MODEL EK7

BACKLASH FREE ELASTOMER COUPLINGS



with expanding shaft



Properties:

- short compact design
- easy mounting
- high concentricity
- axial mounting of the expanding shaft hub
- backlash-free
- electrical insulating

Material:

Clamping hub: up to series 450 high strength aluminum, from series 800 and up steel
Expanding shaft & cone: steel
Elastomer insert: precision molded, wear resistant, and thermally stable polymer

Design:

Two coupling hubs are concentrically machined with concave driving jaws
One side with clamping hub and a radial screw ISO 4762
One side with an expanding shaft and tapered clamping element

Speed*:

Over 4,000 rpm a finely balanced version is available

Tolerance:

On the hub/shaft connection 0.01 to 0.05 mm
Suggested bore tolerance for the shaft: H7

Model EK7	Series																										
	5			10			20			60			150			300			450			800					
Type (Elastomer insert)	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C			
Rated torque (Nm) T_{KN}	9	12	2	12.5	16	4	17	21	6	60	75	20	160	200	42	325	405	84	530	660	95	950	1100	240			
Max. torque** (Nm) T_{Kmax}	18	24	4	25	32	6	34	42	12	120	150	35	320	400	85	650	810	170	1060	1350	190	1900	2150	400			
Overall length (mm) A	22			28			40			46			51			68			76			94					
Outer diameter (mm) B	25			32			42			56			66.5			82			102			136.5					
Outer diameter with screwhead (mm) B _s	25			32			44.5			57			68			85			105			139					
Mounting length (mm) C ₁	8			10.3			17			20			21			31			34			46					
Mounting length (mm) C ₂	12			20			25			27			32			45			55			60					
Inner diameter range H7 (mm) D ₁	4 - 12.7			5 - 16			8 - 25			12 - 32			19 - 36			20 - 45			28 - 60			35 - 80					
Outer diameter range h7 (mm) D ₂	10 - 16			13 - 25			14 - 30			23 - 38			26 - 42			38 - 60			42 - 70			42 - 80					
Inner diameter max. (elastomer) (mm) D _E	10.2			14.2			19.2			26.2			29.2			36.2			46.2			60.5					
Mounting screw (ISO 4762/12.9)	E ₁			M3			M4			M5			M6			M8			M10			M12			M16		
Tightening torque (Nm)	E ₁			2			4			8			15			35			70			120			290		
Mounting screw (ISO 4762/12.9)	E ₂			M4			M5			M6			M8			M10			M12			M16			M16		
Tightening torque (Nm)	E ₂			4			9			12			32			60			110			240			300		
Distance between centers (mm) F	8			10.5			15.5			21			24			29			38			50.5					
Distance (mm) G	4			5			8.5			10			11			15			17.5			23					
Length (mm) H	7			7			10			11			16			20			27			27					
Moment of inertia D ₁ (10 ⁻³ kgm ²) J ₁	0.002			0.003			0.01			0.04			0.08			0.3			0.66			8					
Moment of inertia D ₂ (10 ⁻³ kgm ²) J ₂	0.002			0.01			0.04			0.1			0.2			1			2.6			9					
Approx. weight (kg)	0.04			0.05			0.12			0.3			0.5			0.9			1.5			7.6					
Speed* (rpm)	22 000			20 000			19 000			14 000			11 500			9 500			8 000			4 000					

Information about static and dynamic torsional stiffness as well as max. possible misalignment see page 5

1 Nm = 8.85 in lbs

** Maximum transferable torque of the clamping hub depends on the bore diameters see page 11

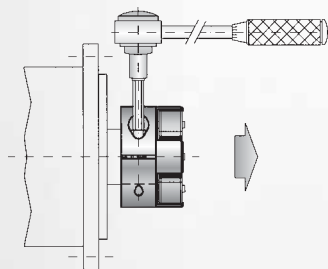
optional
stainless steel

TECHNICAL INFORMATION EK7

Mounting of the clamping hub:

Slide the coupling onto the shaft end, to the correct axial position. Tighten the mounting screw to the specified tightening torque E_1 .

See page 10/column E_1 .



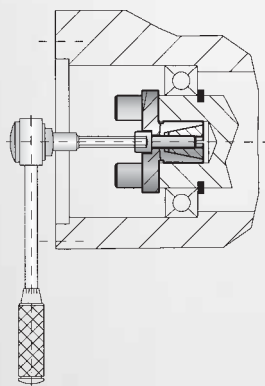
Dismounting of the clamping hub:

For dismounting loosen the mounting screw E_1 .

Mounting of the expanding shaft:

Push the shaft hub into the bore, at the right axial position thighten the mounting screw to the specified tightening torque E_2 .

See page 10/column E_2



Dismounting of the expanding shaft:

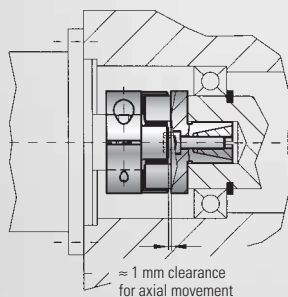
For dismounting loosen the screw E_2 a few turns.

By putting pressure on the screwhead, the inner cone slides out of its sleeve.

The shaft is now loose.

Advantage:

No access holes in the intermediate flange are necessary in order to mount the coupling.



CAUTION:

The elastomer insert has to be able to axially move in order to compensate for axial misalignment.

Series	Ø 3	Ø 4	Ø 5	Ø 8	Ø 16	Ø 19	Ø 25	Ø 30	Ø 32	Ø 35	Ø 45	Ø 50	Ø 55	Ø 60	Ø 65	Ø 70	Ø 75	Ø 80	
5		1,5	2	8															
10			4	12	32														
20				20	35	45	60												
60					50	80	100	110	120										
150						120	160	180	200	220									
300							200	230	300	350	380	420							
450									420	480	510	600	660	750	850				
800										700	750	800	835	865	900	925	950	1000	

Higher torque through additional keyway possible.

Ordering example

EK7 / 20 / A / 24/19.05 /XX

Model

Series

Type Elastomer insert

Bore Ø D1 H7

Shaft Ø D2 h7

Non standard e.g. finely balanced

All data is subject to change without notice.