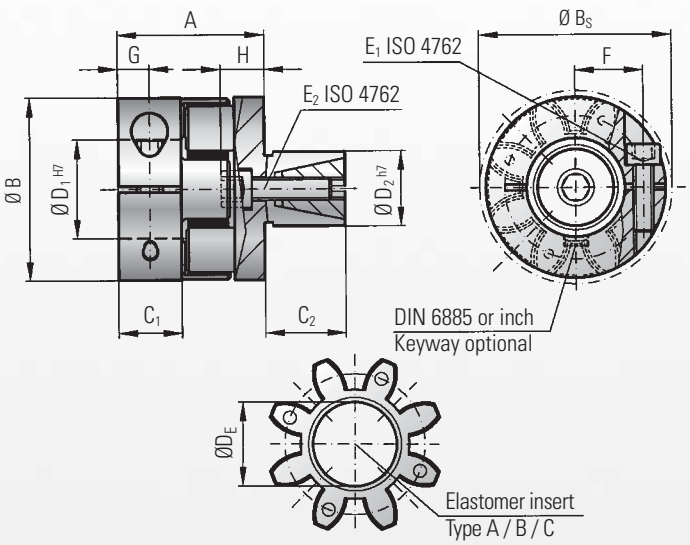
optional stainless steel

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
Suggested bore tolerance for the shaft: H7

Speed:** Over 4,000 rpm a finely balanced version is available

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

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			135		
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)		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)		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	(10^{-3} kgm^2)		0.002			0.01			0.04			0.08			0.15			0.4			1.3			9.5		
Approx. weight	(kg)		0.04			0.05			0.12			0.3			0.5			0.9			1.5			7.6		
Speed**	(rpm)		22000			20000			19000			14000			11500			9500			8000			4000		

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 (bore/shaft clearance 0.01 mm to 0.05 mm shaft oiled)

optional stainless steel

TECHNICAL INFORMATION EK7

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

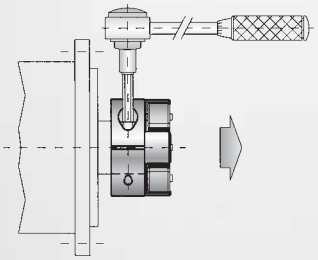
- Model
- Series
- Type Elastomer insert
- Bore Ø D1 H7
- Shaft Ø D2 h7
- Non standard e.g. finely balanced

All data is subject to change without notice.

Mounting instructions

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.

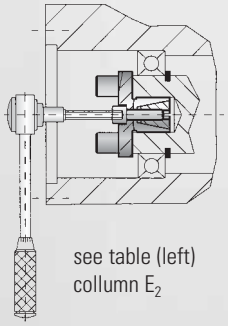
See page 16/collumn E_1.



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 16/collumn E_2



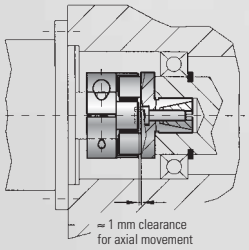
see table (left)
collumn E_2

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 neccessary in order to mount the coupling.



CAUTION:
The elastomer insert has to be able to axially move in order to compensate for axial mis-alignment.