



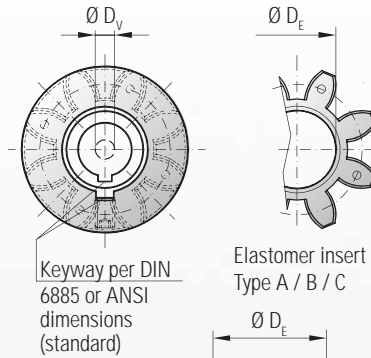
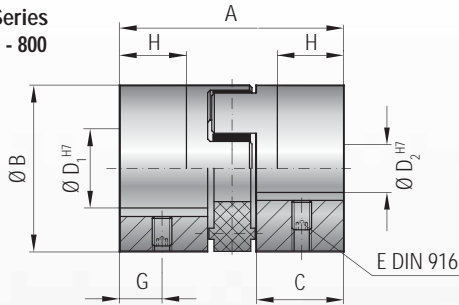
MODEL EK1

BACKLASH FREE ELASTOMER COUPLINGS

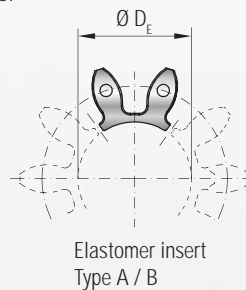
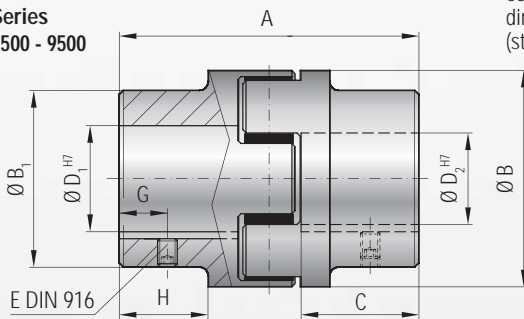


with keyway connection

Series 2 - 800



Series 2500 - 9500



Properties:

- economical design
- concentrically machined
- vibration damping
- electrically isolating
- press fit design
- low backlash, due to keyway connection

Material:

Coupling hub: up to series 450 high strength aluminum, series 800 and up steel
Elastomer insert: precision molded, wear resistant, and thermally stable polymer

Design:

Two coupling hubs are concentrically machined with curved jaws
Bore tolerance H7 + keyway + set screw per DIN 916
Optional pilot bore (D_v)

Speeds:

See table below
*Please contact R+W
ISO 2.5 balance grade available

Tolerance:

Overall clearance between shaft and hub 0.01 to 0.05 mm

Model EK 1	Series																																						
	2			5			10			20			60			150			300			450			800			2500			4500			9500					
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	A	B	C	A	B	C	A	B	C						
Rated torque (Nm)	2 2.4 0.5			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			1950 2450			5000 6200			10000 12500					
Max. torque (Nm)	4 4.8 1			18 24 4			25 32 6			34 42 12			120 150 35			320 400 85			650 810 170			1060 1350 190			1900 2150 400			3900 4900			10000 12400			20000 25000					
Overall length (mm)	A			20 34			35 66			78			90			114			126			162			213			272			341								
Outside diameter (mm)	B/B ₁			15 25			32 42			56			66.5			82			102			136.5			160 / 155			225 / 190			290 / 240								
Mounting length (mm)	C			6.5 12			12 25			30			35			45			50			65			88			113			142								
Inside diameter (pilot bored)	D _v			3 4			6 7			9			14			18			22			29			30			40			50								
Inside diameter range H7	D _{1/2}			3 - 9			6 - 15			6 - 18			8 - 25			12 - 32			19 - 38			20 - 45			28 - 60			32 - 80			30 - 95			40 - 130			50 - 170		
Inside diameter of elastomer	D _e			6.2			10.2			14.2			19.2			26.2			29.2			36.2			46.2			60.5			79			113			145		
Set screws (DIN 916)	E			see table (depending on bore Ø)**																																			
Distance (mm)	G			3 5			6 9			11			12			15			17			30			25			30			40								
Possible shortening length (mm)	H			4 6			6 19			22			26			32			37			43			69			89			110								
Moment of inertia per Hub (10 ⁻³ kgm ²)	J ₁ /J ₂			0.0001 0.001			0.003 0.02			0.06			0.1			0.4			1.1			12			40			147			480								
Approx. weight (kg)				0.008 0.03			0.08 0.15			0.35			0.6			1.1			1.7			11			12.5			25			53								
Speed standard (min ⁻¹)				15,000 15,000			13,000 12,500			11,000			10,000			9,000			8,000			4,000			3,500			3,000			2,000								
*Speed balanced (10 ³ min ⁻¹)				60 67 45			57 65 43			53 63 40			45 60 35			31 31 25			22 26 18			22 26 16			16 17 12			13 13 8			10 10			8 8			6.5 6.5		

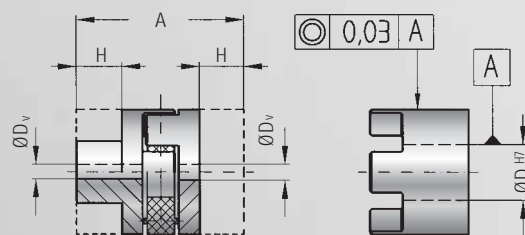
Information about static and dynamic torsional stiffness as well as max. possible misalignment see page 5

1 Nm = 8.85 in lbs

** Set screws	
D ₁ /D ₂	E
- Ø 10	M3
Ø 10.1 - 12	M4
Ø 12.1 - 30	M5
Ø 30.1 - 58	M8
Ø 58.1 - 95	M10
Ø 95.1 - 130	M12
Ø 130.1 - 170	M16

Hubs with bore diameter <6mm delivered without keyway.

■ Details of pilot bored coupling hubs (D_v)



EK1 hubs can be modified to customer specifications.

The coupling hub may be shortened by dimension H.

It's critical that modifications of the hub are machined concentrically and perpendicular to the through bore.

Ordering example

EK1 / 60 / A / 19 / 24 / XX

Model
Series
Type Elastomer insert
Bore Ø D1 H7
Bore Ø D2 H7
Non standard e.g. anodized

All data is subject to change without notice.