



BACKLASH FREE SERVOMAX[®] ELASTIC JAW COUPLINGS 1,950 – 25,000 Nm



GENERAL INFORMATION ABOUT R+W ELASTOMER COUPLINGS:



SERVICE LIFE

When properly selected, handled, and installed, these couplings are maintenance free with infinite service life.

ATEX (Optional)

For use in hazardous areas available upon request.

SPECIAL SOLUTIONS





Various materials, tolerances, dimensions and performance ratings available for custom applications on request.

FIT CLEARANCE

Overall shaft / hub clearance of 0.01 - 0.05 mm

EK**EZ**

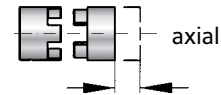
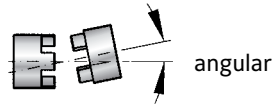
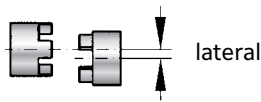
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MODEL		FEATURES	
EK1		with simple keyway mounting from 1,950 - 25,000 Nm <ul style="list-style-type: none">▶ economically priced version▶ modifiable to customer specific dimensions and features	Page 98
EKH		with fully split clamping hubs from 1,950 - 25,000 Nm <ul style="list-style-type: none">▶ easy installation and removal▶ allows for lateral mounting	Page 99
EK6		with conical clamping ring from 1,950 - 25,000 Nm <ul style="list-style-type: none">▶ highly concentric design▶ high clamping pressure on shafts▶ hubs mount axially▶ in case a housing will be used, no access holes are necessary	Page 100
EZ2		with fully split clamping hubs from 1,950 - 25,000 Nm <ul style="list-style-type: none">▶ standard lengths of up to 4 meters▶ no intermediate support bearing necessary▶ lateral installation and removal without disturbing adjacent equipment	Page 101

GENERAL INFORMATION

R+W ELASTIC JAW COUPLINGS

SHAFT MISALIGNMENT



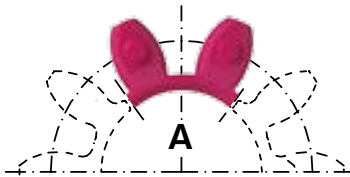
FUNCTION

The equalizing element of the EK coupling is the elastomer insert. It transmits torque without backlash or vibration. The elastomer insert defines the characteristics of the entire drive system.

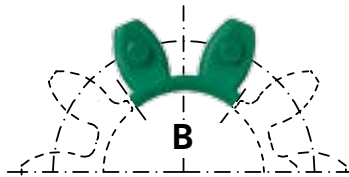
Backlash is eliminated by the press fit of the elastomer into the hubs. Through variation of the Shore hardness of the elastomer insert, the coupling system can be optimized for the ideal torsional characteristics.

SIZE 2500 - 9500

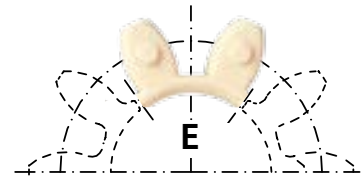
THE COUPLING INCLUDES 5X ELASTOMER SEGMENTS



Shore hardness 98 Sh A



Shore hardness 64 Sh D



Shore hardness 64 Sh D

DESCRIPTION OF THE ELASTOMER TYPES

Type	Shore hardness	Color	Material	Relative damping (μ)	Temperature range	Features
A	98 Sh A	red	TPU	0.4 - 0.5	-30°C to +100°C	high damping
B	64 Sh D	green	TPU	0.3 - 0.45	-30°C to +120°C	high torsional stiffness
E	64 Sh D	beige	Hytrel	0.3 - 0.45	-50°C to +150°C	temperature resistant

The values of relative damping were determined at 10 Hz and +20° C.

SIZES EK

SIZE		2500		4500		9500	
Type (elastomer insert)		A	B	A	B	A	B
Static torsional stiffness (Nm/rad)	C_T	87600	109000	167000	372000	590000	670000
Dynamic torsional stiffness (Nm/rad)	C_{Tdyn}	175000	216000	337000	743000	1180000	1340000
lateral misalignment (mm)	Max. values	0.5	0.3	0.5	0.3	0.6	0.4
angular misalignment (Degree)		1.5	1	1.5	1	1.5	1
axial misalignment (mm)		±3		±4		±5	

Static torsional stiffness at 50% T_{KN}

Dynamic torsional stiffness at T_{KN}