

ES and EC Series - Single Beam Style Coupling

The Beam flexible coupling is formed from one piece of aluminum rod. A spiral slot is cut through the length of the aluminum tube forming a "spring" center section referred to as a helical coil or beam. The flexure allowed by the beam portion of the coupling is capable of accommodating angular, parallel and axial misalignment while continuing to convey power between the attached shafts. This results in a single piece, true flexible coupling.

The Miniature Beam coupling is designed for very light power transmission applications where accurate positioning of shafts is an essential requirement. It also has a very high tolerance to heat, chemicals, and corrosion that would be harmful to conventional elastomeric flexible couplings. The Miniature Beam coupling design is very well suited for small shaft applications and the inherent requirements of start/stop/reverse applications where zero backlash and extreme positioning accuracy are important. This coupling operates either clockwise or counter clockwise without sacrificing windup or torque capabilities.

Features

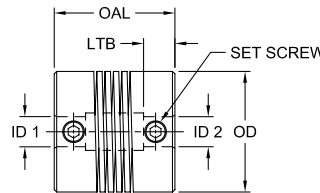
- All-metal coupling
- Easy to install – one piece
- High angular misalignment capability to 5°
- Anodized aluminum finish
- Zero backlash design



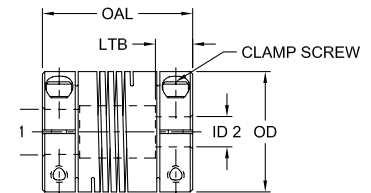
Set Screw Type (ES)



Clamping Type (EC)



Set Screw Type (ES)



Clamping Type (EC)

MC

ES and EC Series Performance Data

Size	Torque Nominal in-lbs*	Torsional Stiffness in-lb/rad*	Max RPM	Weight*		Moment of Inertia* lb-in ²	Misalignment		
				oz	g		Angular	Parallel in	Axial in
ES 050	1.8	42.8	10,000	0.1	3.6	2.73	5°	0.005	± 0.010
EC 050	1.8	42.8	10,000	0.2	5.8	4.10	5°	0.005	± 0.010
ES 075	5.0	119.4	10,000	0.4	12.0	20.16	5°	0.005	± 0.010
EC 075	5.0	119.4	10,000	0.5	15.0	24.95	5°	0.005	± 0.010
ES 100	11.0	286.5	10,000	1.1	30.0	86.80	5°	0.005	± 0.010
EC 100	11.0	286.5	10,000	1.3	38.0	111.74	5°	0.005	± 0.010
ES 112	17.0	409.3	10,000	1.4	39.0	148.99	5°	0.005	± 0.010
EC 112	17.0	409.3	10,000	1.9	54.0	207.08	5°	0.005	± 0.010

Notes: ■ * indicates: Nominal torque, torsional stiffness, weight and moment of inertia are based on minimum bore size.
■ Specify Bore sizes ID1 and ID2 when ordering.

ES and EC Series Dimensional Data

Size	OAL		LTB		ID1 - ID2				OD		Set Screw or Clamp Screw Size	
	in	mm	in	mm	Min Bore		Max Bore		in	mm	in	mm
					in	mm	in	mm				
ES050	0.512	13	0.118	3	0.118	3	0.188	4	0.512	13	4-40	M2.5
EC050	0.748	19	0.197	5	0.118	3	0.188	4	0.512	13	1-72	M1.6
ES075	0.748	19	0.197	5	0.157	4	0.236	6	0.748	19	8-32	M4
EC075	0.906	23	0.236	6	0.157	4	0.236	6	0.748	19	4-40	M2.5
ES100	0.984	25	0.276	7	0.236	6	0.394	10	0.984	25	10-24	M5
EC100	1.260	32	0.315	8	0.236	6	0.394	10	0.984	25	6-32	M3
ES112	1.102	28	0.276	7	0.315	8	0.472	12	1.102	28	1/4-20	M6
EC112	1.496	38	0.433	11	0.315	8	0.472	12	1.102	28	6-32	M3