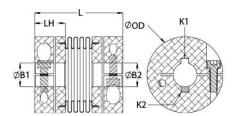




MBCK57-25-15-A

Ruland MBCK57-25-15-A, 25mm x 15mm Bellows Coupling, Aluminum, Clamp Style With Keyway, 57.2mm OD, 82.2mm Length





Description

Ruland MBCK57-25-15-A is a clamp bellows coupling with 25 mm x 15 mm bores, 57.2 mm OD, 82.2mm length and 8 mm x 5 mm keyways. It is zero-backlash and has a balanced design for reduced vibration at high speeds. MBCK57-25-15-A is comprised of two anodized aluminum hubs and a stainless steel bellows. The bellows are able to flex while remaining rigid under torsional loads allowing for all types of misalignment to be accommodated. This bellows coupling is lightweight and has low inertia making it suitable for applications with speeds up to 10,000 RPM. Hardware is metric and tests beyond DIN 912 12.9 standards for maximum torque capabilities. Ruland MBCK57-25-15-A has four convolutions allowing for high torsional rigidity and making it an excellent fit for precise positioning stepper servo applications as well as encoders. It is machined from solid bar stock that is sourced exclusively from North American mills and RoHS3 and REACH compliant. MBCK57-25-15-A is carefully manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

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Bore (B1) 25 mm Small Bore (B2) 15 mm Keyway (K1) 8 mm Keyway (K2) 5 mm B1 Max Shaft Penetration 38.0 mm B2 Max Shaft Penetration 38.0 mm Outer Diameter (OD) 57.2 mm Bore Tolerance +0.03 mm / -0.00 m Length (L) 82.2 mm Length Tolerance +/- 0.76 mm Hub Width (LH) 26.7 mm Recommended Shaft Tolerance +0.000 mm / -0.013 Forged Clamp Screw M6 Screw Material Alloy Steel Hex Wrench Size 5.0 mm Screw Finish Black Oxide Seating Torque 16 Nm Number of Screws 2 ea Dynamic Torque Reversing 15.00 Nm Angular Misalignment 2.0° Dynamic Torque Reversing 30.00 Nm Parallel Misalignment 0.30 mm Static Torque 60.00 Nm Axial Motion 0.75 mm Torsional Stiffness 135 Nm/Deg Moment of Inertia 1.686 x 10 ⁻⁴ kg-m² Maximum Speed 10,000 RPM Full Bearing Support Required? Yes Torque Wrench Twi.BT-4C-3/8-140<								
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Note 4 Torque ratings for the couplings are based on the physical limitations/failure point of the metal bellow normal/typical conditions the hubs are capable of holding up to the rated torque of the metal bellows cases, especially when the smallest standard bores are used or where shafts are undersized, slippa shaft is possible below the rated torque of the metal bellows. Keyways are available to provide additional to the standard bores are used or where shafts are undersized, slippa shaft is possible below the rated torque of the metal bellows.								

torque capacity in the shaft/hub connection when required. Please consult technical support for more

Installation Instructions

- 1. Align the bores of the MBCK57-25-15-A bellows coupling on the shafts that are to be joined and determine if the misalignment parameters are within the limits of the coupling. (*Angular Misialignment:* 2.0 °, *Parallel Misalignment.* 0.30 mm, *Axial Motion:* 0.75 mm)
- 2. Fully tighten the M6 screw on the first hub to the recommended seating torque of 16 Nm using a 5.0 mm hex torque wrench.
- 3. Before tightening the screw on the second hub, rotate the coupling by hand to allow it to reach its free length.
- Tighten the screw on the second hub to the recommended seating torque. Make sure the coupling remains axially relaxed and the misalignment angle remains centered along the length of the coupling.
- 5. The shafts may extend into the relieved portion of the bore as long as it does not exceed the shaft penetration length of 38 mm.