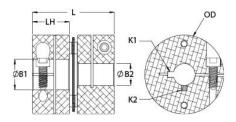




MDCSK57-22-17-A

Ruland MDCSK57-22-17-A, 22mm x 17mm Single Disc Coupling, Aluminum, Clamp Style With Keyway, 57.2mm OD, 58.8mm Length





Description

Ruland MDCSK57-22-17-A is a clamp single disc coupling with 22mm x 17mm bores, 57.2mm OD, 58.8mm length, and 6mm x 5mm keyways. It is zero-backlash and has a balanced design for reduced vibration at high speeds. The single disc design is comprised of two anodized aluminum hubs and two sets of thin stainless steel disc springs which can accommodate angular misalignment and axial motion, however does not allow for any parallel misalignment. MDCSK57-22-17-A is lightweight and has low inertia making it well suited 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 manufactures MDCSK57-22-17-A to be torisionally rigid and an excellent fit for precise positioning stepper servo applications commonly found in semiconductor, solar, printing, machine tool, and test and measurement systems. It is machined from solid bar stock that is sourced exclusively from North American mills and RoHS3 and REACH compliant. MDCSK57-22-17-A is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product Specifications

B1 Max Shaft Penetration 27.6 mm B2 Max Shaft Penetration 27.6 mm Outer Diameter (OD) 57.2 mm Bore Tolerance +0.03 mm / -0.00 m Length (L) 58.8 mm Hub Width (LH) 26.67 mm Recommended Shaft Tolerance +0.000 mm / -0.013 mm Forged Clamp Screw M6 Screw Material Alloy Steel Hex Wrench Size 5.0 mm Screw Finish Black Oxide Seating Torque Reversing 12.73 Nm Angular Misalignment 1.0° Dynamic Torque Reversing 25.45 Nm Parallel Misalignment 0.00 mm Static Torque 50.9 Nm Axial Motion 0.38 mm Torsional Stiffness 113.0 Nm/Deg Moment of Inertia 1.514 x 10 ⁻⁴ kg-m ² Maximum Speed 10,000 RPM Zero-Backlash? Yes Balanced Design Yes Torque Wrench TW:BT-4C-3/8-140 Recommended Hex Key Metric Hex Keys Full Bearing Support Required? Yes Material Specification Hubs: 2024-T351.0 Torque Wrench TW:BT-4C-3/8-140 Recommended Hex Key Metric Hex Keys Full Bearing Support Required? Yes Sulfuric An		
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Note 4 Torque ratings for the couplings are based on the physical limitations/failure point of the disc	Performance ratings are for guidance only. The user must determine suitability for a particular application.	
normal/typical conditions the hubs are capable of holding up to the rated torque of the disc s cases, especially when the smallest standard bores are used or where shafts are undersize	Torque ratings for the couplings are based on the physical limitations/failure point of the disc springs. Under normal/typical conditions the hubs are capable of holding up to the rated torque of the disc springs. In some cases, especially when the smallest standard bores are used or where shafts are undersized, slippage on the shaft is possible below the rated torque of the disc springs. Keyways are available to provide additional	

	torque capacity in the shaft/hub connection when required. Please consult technical support for more assistance.
Prop 65	WARNING This product can expose you to chemicals including Ethylene Thiourea and Nickel (metallic), known to the State of California to cause cancer, and Ethylene Thiourea known to the State of California to cause birth defects or other reproductive harm. For more information go to <u>www.P65Warnings.ca.gov</u> .
Installation Instructions	
	 Align the bores of the MDCSK57-22-17-A single disc coupling on the shafts that are to be joined and determine if the misalignment parameters are within the limits of the coupling. (<i>Angular Misialignment:</i> 1.0°, <i>Parallel Misalignment:</i> 0.00 mm, <i>Axial Motion:</i> 0.38 mm) 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. 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. The shafts may extend into the relieved portion of the bore as long as it does not exceed the shaft penetration length of 27.6 mm.