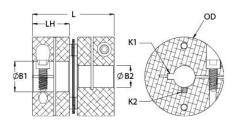




MDCSK57-24-14-A

Ruland MDCSK57-24-14-A, 24mm x 14mm Single Disc Coupling, Aluminum, Clamp Style With Keyway, 57.2mm OD, 58.8mm Length





Description

Ruland MDCSK57-24-14-A is a clamp single disc coupling with 24mm x 14mm bores, 57.2mm OD, 58.8mm length, and 8mm 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. MDCSK57-24-14-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 MDCSK57-24-14-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. MDCSK57-24-14-A is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product Specifications

Bore (B1) 24 mm Small Bore (B2) Keyway (K1) 8 mm Keyway (K2) B1 Max Shaft Penetration 27.6 mm B2 Max Shaft Penetration Outer Diameter (OD) 57.2 mm Bore Tolerance Length (L) 58.8 mm Hub Width (LH) Recommended Shaft Tolerance +0.000 mm / -0.013 mm Forged Clamp Screw Screw Material Alloy Steel Hex Wrench Size Screw Finish Black Oxide Seating Torque Number of Screws 2 ea Dynamic Torque Rever Angular Misalignment 1.0° Dynamic Torque Non-F Parallel Misalignment 0.00 mm Static Torque	+0.03 mm / -0.00 mm 26.67 mm M6 5.0 mm 16 Nm
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Angular Misalignment 1.0° Dynamic Torque Non-F	rsing 12.73 Nm
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Parallel Misalignment 0.00 mm Static Torque	Reversing 25.45 Nm
Taraner Misangiment 0.00 mm Static Forque	50.9 Nm
Axial Motion 0.38 mm Torsional Stiffness	113.0 Nm/Deg
Moment of Inertia 1.508 x 10 ⁻⁴ kg-m ² Maximum Speed	10,000 RPM
Zero-Backlash? Yes Balanced Design	Yes
Torque Wrench <u>TW:BT-4C-3/8-140</u> Recommended Hex Ke	y Metric Hex Keys
Full Bearing Support Required? Yes Material Specification	Hubs: 2024-T351 Aluminum Bar, Disc Springs: Type 302 Stainless Steel
Temperature -40°F to 200°F (-40°C to 93°C) Finish Specification	Sulfuric Anodized MIL-A-8625 Type II, Class 2 and ASTM B580 Type B Black Anodize
Manufacturer Ruland Manufacturing Country of Origin	USA
	USA 634529206133
Weight (lbs) 0.730900 UPC	
Weight (lbs) 0.730900 UPC Tariff Code 8483.60.8000 UNSPC	634529206133
Weight (lbs) 0.730900 UPC Tariff Code 8483.60.8000 UNSPC Note 1 Stainless steel hubs are available upon request.	634529206133
Weight (lbs)0.730900UPCTariff Code8483.60.8000UNSPCNote 1Stainless steel hubs are available upon request.	634529206133 31163008

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

Prop 65

MARNING 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 www.P65Warnings.ca.gov.

Installation Instructions

- Align the bores of the MDCSK57-24-14-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. (*Angular Misialignment*: 1.0°, *Parallel Misalignment*: 0.00 mm, *Axial Motion*: 0.38 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.
- 4. 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 27.6 mm.