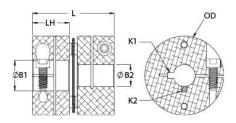




MDCSK41-13-13-A

Ruland MDCSK41-13-13-A, 13mm x 13mm Single Disc Coupling, Aluminum, Clamp Style With Keyway, 41.3mm OD, 39.7mm Length





Description

Ruland MDCSK41-13-13-A is a clamp single disc coupling with 13mm x 13mm bores, 41.3mm OD, 39.7mm length, and 5mm 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. MDCSK41-13-13-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 MDCSK41-13-13-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. MDCSK41-13-13-A is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product Specifications

Bore (B1)13 mmSmall Bore (B2)13 mmKeyway (K1)5 mm5 mm5 mmB1 Max Shaft Penetration19.2 mmB2 Max Shaft Penetration19.2 mmOuter Diameter (OD)41.3 mmBore Tolerance4.0.03 mm / -0.00 mLength (L)39.7 mmHub Width (LH)18.05 mmRecommended Shaft Tolerance+0.000 mm / -0.013 mmForged Clamp ScrewM4Screw MaterialAlloy SteelHex Wrench Size3.0 mmScrew FinishBlack OxideSeating Torque Reversing5.08 NmAngular Misalignment1.0°Dynamic Torque Reversing5.08 NmAngular Misalignment0.00 mmStatic Torque20.3 NmAxial Motion0.25 mmTorsional Stiffness70.6 Nm/DegMoment of Inertia2.833 x10° kg-m²Maximum Speed10.000 RPMZero-Backlash?YesMaterial SpecificationHubs: 2024-T351 / Disc Springs: TypeFull Bearing Support Required?YesMaterial SpecificationHubs: 2024-T351 / Disc Springs: TypeFull Bearing Support Required?YesMaterial SpecificationUSAMaufacturerRuland ManufacturingCountry of OriginUSAWeight (Ibs)0.264200UPC634529203156Tariff Code8433.60.8000UNSPC31163008Note 1Stailess steel hubs are available upon request.Stailess are for guidance only. The user must determine suitability for a particulNote 2Performance ratings are for guidance only. The user must determine suitability for a particul <th></th>	
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Note 2 Deformance ratings are far quidance only. The user must determine quitability for a particul	
Note 5 Performance ratings are for guidance only. The user must determine suitability for a particul	ar application.
Note 4 Torque ratings for the couplings are based on the physical limitations/failure point of the disc 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 shaft is possible below the rated torque of the disc springs. Keyways are available to provide	springs. In some d, slippage on th

torque capacity in the shaft/hub connection when required. Please consult technical support for more assistance.
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 <u>www.P65Warnings.ca.gov</u> .
 Align the bores of the MDCSK41-13-13-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> 0.25 mm) Fully tighten the M4 screw on the first hub to the recommended seating torque of 4.6 Nm using a 3.0 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 19.2 mm.