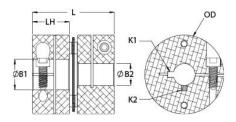




MDCSK57-28-20-A

Ruland MDCSK57-28-20-A, 28mm x 20mm Single Disc Coupling, Aluminum, Clamp Style With Keyway, 57.2mm OD, 58.8mm Length





Description

Ruland MDCSK57-28-20-A is a clamp single disc coupling with 28mm x 20mm bores, 57.2mm OD, 58.8mm length, and 8mm x 6mm 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. MDCSK57-28-20-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 MDCSK57-28-20-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. MDCSK57-28-20-A is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product Specifications

| Temperature -40°F to 200°F (-40°C to 93°C) Finish Specification Sulfuric Anodizing Manufacturer Ruland Manufacturing Country of Origin USA Weight (Ibs) 0.679800 UPC 634529206386 Tariff Code 8483.60.8000 UNSPC 31163008 Note 1 Stainless steel hubs are available upon request. Stainless steel hubs are available upon request. | | |
|--|---|--|
| B1 Max Shaft Penetration27.6 mmB2 Max Shaft Penetration27.6 mmOuter Diameter (OD)57.2 mmBore Tolerance+0.03 mm / -0.Length (L)58.8 mmHub Width (LH)26.67 mmRecommended Shaft Tolerance+0.000 mm / -0.013 mmForged Clamp ScrewM6Screw MaterialAlloy SteelHex Wrench Size5.0 mmScrew FinishBlack OxideSeating Torque16 NmNumber of Screws2 eaDynamic Torque Reversing12.73 NmAngular Misalignment1.0°Dynamic Torque Non-Reversing25.45 NmParallel Misalignment0.00 mmStatic Torque50.9 NmAxial Motion0.38 mmTorsional Stiffness113.0 Nm/DegMoment of Inertia1.478 x 10 ⁻⁴ kg-m²Maximum Speed10,000 RPMZero-Backlash?YesBalanced DesignYesTorque WrenchTW:BT-4C-3/8-140Recommended Hex KeyMetric Hex KeFull Bearing Support Required?YesMaterial SpecificationBisc Springs: SteelTemperature-40°F to 200°F (-40°C to 93°C)Finish SpecificationSulfuric Anodia Black AnodizeManufacturerRuland ManufacturingCountry of OriginUSAWeight (Ibs)0.679800UPC634529206384Tariff Code8483.60.8000UNSPC31163008Note 1Stainless steel hubs are available upon request.Stainless steel hubs are available upon request. | | |
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| Note 2 Torque ratings are at maximum misalignment. | Stainless steel hubs are available upon request. | |
| | Torque ratings are at maximum misalignment. | |
| Note 3 Performance ratings are for guidance only. The user must determine suitability for a part | 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 d cases, especially when the smallest standard bores are used or where shafts are under | 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. |
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| 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 MDCSK57-28-20-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. |