MDCS57-32-30-A

Ruland MDCS57-32-30-A, 32mm x 30mm Single Disc Coupling, Aluminum, Clamp Style, 57.2mm OD, 58.8mm Length

Description

Ruland MDCS57-32-30-A is a clamp single disc coupling with 32mm x 30mm bores, 57.2mm OD, and 58.8mm length. 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. MDCS57-32-30-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 MDCS57-32-30-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. MDCS57-32-30-A is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

| | · ··· ·· |
|---------|----------------|
| Product | Specifications |

| 32 mm | Small Bore (B2) | 30 mm |
|--|---|--|
| 26.7 mm | B2 Max Shaft Penetration | 26.7 mm |
| 57.2 mm | Bore Tolerance | +0.03 mm / -0.00 mm |
| 58.8 mm | Hub Width (LH) | 26.7 mm |
| +0.000 mm / -0.013 mm | Forged Clamp Screw | M6 |
| Alloy Steel | Hex Wrench Size | 5.0 mm |
| Black Oxide | Seating Torque | 16 Nm |
| 2 ea | Dynamic Torque Reversing | 12.73 Nm |
| 1.0° | Dynamic Torque Non-Reversing | 25.45 Nm |
| 0.00 mm | Static Torque | 50.9 Nm |
| 0.38 mm | Torsional Stiffness | 113.0 Nm/Deg |
| 1.406 x 10 ⁻⁴ kg-m ² | Maximum Speed | 10,000 RPM |
| Yes | Zero-Backlash? | Yes |
| Yes | Torque Wrench | TW:BT-4C-3/8-140 |
| Metric Hex Keys | Material Specification | Hubs: 2024-T351 Aluminum Bar, Disc Springs: Type 302 Stainless Steel |
| -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 |
| Ruland Manufacturing | Country of Origin | USA |
| 0.596300 | UPC | 634529208984 |
| 8483.60.8000 | UNSPC | 31163008 |
| Stainless steel hubs are available upon request. | | |
| Torque ratings are at maximum misalignment. | | |
| Performance ratings are for guidance only. The user must determine suitability for a particular application. | | |
| normal/typical conditions the hubs cases, especially when the smalles | are capable of holding up to the rated at standard bores are used or where s | torque of the disc springs. In some |
| | 26.7 mm 57.2 mm 58.8 mm +0.000 mm / -0.013 mm Alloy Steel Black Oxide 2 ea 1.0° 0.00 mm 0.38 mm 1.406 x 10 ⁻⁴ kg-m ² Yes Yes Metric Hex Keys -40°F to 200°F (-40°C to 93°C) Ruland Manufacturing 0.596300 8483.60.8000 Stainless steel hubs are available of Torque ratings are at maximum mi Performance ratings are for guidant Torque ratings for the couplings are normal/typical conditions the hubs cases, especially when the smalles | 26.7 mm B2 Max Shaft Penetration 57.2 mm Bore Tolerance 58.8 mm Hub Width (LH) +0.000 mm / -0.013 mm Forged Clamp Screw Alloy Steel Hex Wrench Size Black Oxide Seating Torque 2 ea Dynamic Torque Reversing 1.0° Dynamic Torque Non-Reversing 0.00 mm Static Torque 0.38 mm Torsional Stiffness 1.406 x 10 ⁻⁴ kg-m ² Maximum Speed Yes Zero-Backlash? Yes Torque Wrench Metric Hex Keys Material Specification -40°F to 200°F (-40°C to 93°C) Finish Specification Ruland Manufacturing Country of Origin 0.596300 UPC 8483.60.8000 UNSPC Stainless steel hubs are available upon request. Torque ratings are at maximum misalignment. Performance ratings are for guidance only. The user must determine su Torque ratings for the couplings are based on the physical limitations/fa normal/typical conditions the hubs are capable of holding up to the rated cases, especially when the smallest standard bores are used or where standard bores are used or |

Ruland Manufacturing Co., Inc.

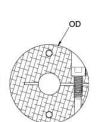
1





ØB2





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 MDCS57-32-30-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.
- 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 26.7 mm.