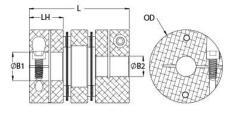




## MDCDE57-25-20-A

Ruland MDCDE57-25-20-A, 25mm x 20mm Double Disc Coupling, Aluminum, Clamp Style, Electrically Isolating, 57.2mm OD, 78.2mm Length





## Description

Ruland MDCDE57-25-20-A is an electrically isolating clamp double disc coupling with 25mm x 20mm bores, 57.2mm OD, and 78.2mm length. It is zero-backlash and has a balanced design for reduced vibration at high speeds. The double disc design is comprised of two anodized aluminum hubs, two sets of thin stainless steel disc springs, and an acetal center spacer allowing each disc to bend individually and accommodate all types of misalignment. The acetal center spacer isolates the two hubs preventing the incidental transfer of current from the motor to the driven component or vice versa. MDCDE57-25-20-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 MDCDE57-25-20-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. MDCDE57-25-20-A is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

## **Product Specifications**

Length (L)78.2 mmHub Width (LH)26.7 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 NAngular Misalignment2.0°Dynamic Torque Non-Reversing25.45 NParallel Misalignment0.30 mmStatic Torque50.9 NmAxial Motion0.76 mmTorsional Stiffness86.9 NmMoment of Inertia1.777 x 10 <sup>-4</sup> kg-m²Maximum Speed10,000Full Bearing Support Required?YesZero-Backlash?YesBalanced DesignYesTorque WrenchTW:BT-Recommended Hex KeyMetric Hex KeysMaterial SpecificationHubs: 2 Type 30 Spacer:Temperature-10°F to 150°F (-23°C to 65°C)Finish SpecificationSulfurio Sulfurio Spacer:ManufacturerRuland ManufacturingCountry of OriginUSAWeight (Ibs)0.821100UPC634529Tariff Code8483.60.8000UNSPC3116300Note 1Stainless steel hubs are available upon request.Stainless		
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Note 2 Torque ratings are at maximum misalignment.	Stainless steel hubs are available upon request.	
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Note 3 Performance ratings are for guidance only. The user must determine suitability for	Performance ratings are for guidance only. The user must determine suitability for a particular application.	
Note 4         Torque ratings for the couplings are based on the physical limitations/failure poin normal/typical conditions the hubs are capable of holding up to the rated torque of cases, especially when the smallest standard bores are used or where shafts are shaft is possible below the rated torque of the disc springs. Keyways are available	f the disc springs. In some undersized, slippage on the	

	torque capacity in the shaft/hub connection when required. Please consult technical support for more assistance.
Prop 65	<b>MARNING</b> 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	
	<ol> <li>Align the bores of the MDCDE57-25-20-A double 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</i> <i>Misialignment:</i> 2.0°, <i>Parallel Misalignment:</i> 0.30 mm, <i>Axial Motion:</i> 0.76 mm)</li> <li>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.</li> <li>Before tightening the screw on the second hub, rotate the coupling by hand to allow it to reach its free length.</li> <li>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.</li> <li>The shafts may extend into the relieved portion of the bore as long as it does not exceed the shaft penetration length of 37.0 mm.</li> </ol>