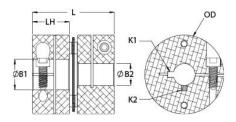




MDCSK57-20-18-A

Ruland MDCSK57-20-18-A, 20mm x 18mm Single Disc Coupling, Aluminum, Clamp Style With Keyway, 57.2mm OD, 58.8mm Length





Description

Ruland MDCSK57-20-18-A is a clamp single disc coupling with 20mm x 18mm bores, 57.2mm OD, 58.8mm length, and 6mm 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. MDCSK57-20-18-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 MDCSK57-20-18-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. MDCSK57-20-18-A is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product Specifications

20 mm	Small Bore (B2)	18 mm
6 mm	Keyway (K2)	6 mm
27.6 mm	B2 Max Shaft Penetration	27.6 mm
57.2 mm	Bore Tolerance	+0.03 mm / -0.00 mm
58.8 mm	Hub Width (LH)	26.67 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
1.517 x 10 ⁻⁴ kg-m ²	Maximum Speed	10,000 RPM
Yes	Balanced Design	Yes
TW:BT-4C-3/8-140	Recommended Hex Key	Metric Hex Keys
Yes	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
0.737700	UPC	634529206027
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.		
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		
	6 mm 27.6 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 1.517 x 10 ⁻⁴ kg-m ² Yes TW:BT-4C-3/8-140 Yes -40°F to 200°F (-40°C to 93°C) Ruland Manufacturing 0.737700 8483.60.8000 Stainless steel hubs are available Torque ratings are at maximum mi Performance ratings are for guidar Torque ratings for the couplings ar	6 mmKeyway (K2)27.6 mmB2 Max Shaft Penetration57.2 mmBore Tolerance58.8 mmHub Width (LH)+0.000 mm / -0.013 mmForged Clamp ScrewAlloy SteelHex Wrench SizeBlack OxideSeating Torque2 eaDynamic Torque Reversing1.0°Dynamic Torque Non-Reversing0.00 mmStatic Torque0.38 mmTorsional Stiffness1.517 x 10 ⁻⁴ kg-m²Maximum SpeedYesBalanced DesignTW:BT-4C-3/8-140Recommended Hex KeyYesMaterial Specification-40°F to 200°F (-40°C to 93°C)Finish SpecificationRuland ManufacturingCountry of Origin0.737700UPC8483.60.8000UNSPCStainless 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

	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 <u>www.P65Warnings.ca.gov</u> .	
Installation Instructions		
	 Align the bores of the MDCSK57-20-18-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. 	