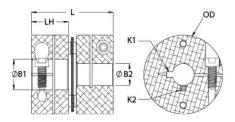




MDCSK41-18-16-A

Ruland MDCSK41-18-16-A, 18mm x 16mm Single Disc Coupling, Aluminum, Clamp Style With Keyway, 41.3mm OD, 39.7mm Length





Description

Ruland MDCSK41-18-16-A is a clamp single disc coupling with 18mm x 16mm bores, 41.3mm OD, 39.7mm length, and 6mm 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. MDCSK41-18-16-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 MDCSK41-18-16-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. MDCSK41-18-16-A is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product Specifications

+0.000 mm / -0.013 mm Alloy Steel Black Oxide 2 ea	Small Bore (B2) Keyway (K2) B2 Max Shaft Penetration Bore Tolerance Hub Width (LH) Forged Clamp Screw Hex Wrench Size Seating Torque	16 mm 5 mm 19.2 mm +0.03 mm / -0.00 mm 18.0 mm M4 3.0 mm 4.6 Nm
19.2 mm 41.3 mm 39.7 mm +0.000 mm / -0.013 mm Alloy Steel Black Oxide 2 ea	B2 Max Shaft Penetration Bore Tolerance Hub Width (LH) Forged Clamp Screw Hex Wrench Size	19.2 mm +0.03 mm / -0.00 mm 18.0 mm M4 3.0 mm
41.3 mm 39.7 mm +0.000 mm / -0.013 mm Alloy Steel Black Oxide 2 ea	Bore Tolerance Hub Width (LH) Forged Clamp Screw Hex Wrench Size	+0.03 mm / -0.00 mm 18.0 mm M4 3.0 mm
39.7 mm +0.000 mm / -0.013 mm Alloy Steel Black Oxide 2 ea	Hub Width (LH) Forged Clamp Screw Hex Wrench Size	18.0 mm M4 3.0 mm
+0.000 mm / -0.013 mm Alloy Steel Black Oxide 2 ea	Forged Clamp Screw Hex Wrench Size	M4 3.0 mm
Alloy Steel Black Oxide 2 ea	Hex Wrench Size	3.0 mm
Black Oxide 2 ea		
2 ea	Seating Torque	4.6 Nm
		T.U INIII
	Dynamic Torque Reversing	5.08 Nm
1.0°	Dynamic Torque Non-Reversing	10.15 Nm
0.00 mm	Static Torque	20.3 Nm
0.25 mm	Torsional Stiffness	70.6 Nm/Deg
2.771 x 10 ⁻⁵ kg-m ²	Maximum Speed	10,000 RPM
Yes	Balanced Design	Yes
<u>TW:BT-1R-1/4-41.0</u>	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
0.243600	UPC	634529202906
3483.60.8000	UNSPC	31163008
Stainless steel hubs are available up	pon request.	
Forque ratings are at maximum misa	alignment.	
Performance ratings are for guidanc	e only. The user must determine sui	tability for a particular application.
normal/typical conditions the hubs a cases, especially when the smallest	re capable of holding up to the rated standard bores are used or where s	I torque of the disc springs. In some shafts are undersized, slippage on th
	.00 mm .25 mm .25 mm .771 x 10 ⁻⁵ kg-m ² Yes W:BT-1R-1/4-41.0 Yes 40°F to 200°F (-40°C to 93°C) Ruland Manufacturing .243600 483.60.8000 Stainless steel hubs are available up forque ratings are at maximum mis Performance ratings are for guidance forque ratings for the couplings are ormal/typical conditions the hubs at ases, especially when the smallest	.00 mm Static Torque .25 mm Torsional Stiffness .771 x 10 ⁻⁵ kg-m ² Maximum Speed res Balanced Design W:BT-1R-1/4-41.0 Recommended Hex Key res Material Specification 40°F to 200°F (-40°C to 93°C) Finish Specification Ruland Manufacturing Country of Origin .243600 UPC

	torque capacity in the shaft/hub connection when required. Please consult technical support for more assistance.	
Prop 65	AWARNING 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 www.P65Warnings.ca.gov .	
Installation Instructions		
	 Align the bores of the MDCSK41-18-16-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. 	