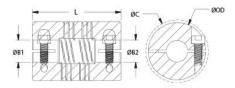




FCMR16-5-5-A

Ruland FCMR16-5-5-A, 5mm x 5mm Six Beam Coupling, Aluminum, Clamp Style, 15.9mm OD, 25.4mm Length





Description

Ruland FCMR16-5-5-A is a clamp style six beam coupling with 5mm x 5mm bores, 15.9mm OD, and 25.4mm length. It is machined from a single piece of material and features two sets of three spiral cuts. This gives it higher torque capacity, lower windup, and larger body sizes than single or four beam couplings and allows for use in light duty power transmission applications such as coupling a servo motor to a lead screw. FCMR16-5-5-A is zero-backlash and has a balanced design for reduced vibration at high speeds of up to 6,000 RPM. Ruland supplies this spiral coupling with Nypatch® anti-vibration hardware that allows for even seating of the screw, repeated screw installations, prevents galling, and maintains high holding power. All hardware is metric and tests beyond DIN 912 12.9 standards for maximum torque capabilities. FCMR16-5-5-A is made from 7075 aluminum for lightweight and low inertia. It is machined from bar stock that is sourced exclusively from North American mills and RoHS3 and REACH compliant. FCMR16-5-5-A is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product Specifications

5 mm 12.3 mm 15.9 mm	Small Bore (B2) B2 Max Shaft Penetration	5 mm 12.3 mm
	B2 Max Shaft Penetration	12.3 mm
15.9 mm		12.3 11111
	Bore Tolerance	+0.025 mm / -0.000 mm
25.4 mm	Clearance Diameter (C) MAX	20.22 mm
+0.000 mm / -0.013 mm	Cap Screw	M2.5
Alloy Steel	Hex Wrench Size	2.0 mm
Black Oxide	Seating Torque	1.21 Nm
2 ea	Dynamic Torque Reversing	0.37 Nm
3°	Dynamic Torque Non-Reversing	0.74 Nm
0.20 mm	Static Torque	1.47 Nm
0.13 mm	Torsional Stiffness	3.21 Deg/Nm
0.380 x10 ⁻⁶ kg-m²	Maximum Speed	6,000 RPM
Yes	Zero-Backlash?	Yes
Yes	Torque Wrench	<u>TW:BT-1R-1/4-10.7</u>
Metric Hex Keys	Material Specification	7075-T651 Extruded and Drawn Aluminum Bar
-40°F to 225°F (-40°C to 107°C)	Finish Specification	Bright, No Plating
Ruland Manufacturing	Country of Origin	USA
0.023700	UPC	634529007358
8483.60.8000	UNSPC	31163003
Torque ratings are at maximum misalignment.		
Performance ratings are for guidance only. The user must determine suitability for a particular application.		
Under normal/typical conditions the beams. In some cases, especially v undersized, slippage on the shaft is	hubs are capable of holding up to the when the smallest standard bores are possible below the rated torque of the	e rated torque of the machined used or where shafts are
WARNING This product can expose you to the chemical Ethylene Thiourea, known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov .		
	Alloy Steel Black Oxide 2 ea 3° 0.20 mm 0.13 mm 0.380 x10 ⁻⁶ kg-m ² Yes Yes Yes Metric Hex Keys -40°F to 225°F (-40°C to 107°C) Ruland Manufacturing 0.023700 8483.60.8000 Torque ratings are at maximum mis Performance ratings are for guidan Torque ratings for the couplings are Under normal/typical conditions the beams. In some cases, especially v undersized, slippage on the shaft is technical support for more assistan ▲WARNING This product can exp California to cause cancer and birth	+0.000 mm / -0.013 mmCap ScrewAlloy SteelHex Wrench SizeBlack OxideSeating Torque2 eaDynamic Torque Reversing3°Dynamic Torque Non-Reversing0.20 mmStatic Torque0.13 mmTorsional Stiffness0.380 x10°6 kg-m²Maximum SpeedYesZero-Backlash?YesTorque WrenchMetric Hex KeysMaterial Specification-40°F to 225°F (-40°C to 107°C)Finish SpecificationRuland ManufacturingCountry of Origin0.023700UPC8483.60.8000UNSPCTorque 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/fai Under normal/typical conditions the hubs are capable of holding up to th beams. In some cases, especially when the smallest standard bores are undersized, slippage on the shaft is possible below the rated torque of th technical support for more assistance. MARNING This product can expose you to the chemical Ethylene Th California to cause cancer and birth defects or other reproductive harm.

Ruland Manufacturing Co., Inc.

- Align the bores of the FCMR16-5-5-A six beam coupling on the shafts that are to be joined and determine if the misalignment parameters are within the limits of the coupling. (*Angular Misialignment:* 3°, *Parallel Misalignment:* 0.20 mm, *Axial Motion:* 0.13 mm)
- Fully tighten the M2.5 screw on one hub to the recommended seating torque of 1.21 Nm using a 2.0 mm hex torque wrench.
- 3. Before tightening the screws on the second hub, rotate the coupling by hand to allow it to reach its free length.
- 4. Tighten the screws 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 12.3 mm.