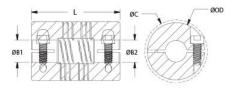




FCR16-12MM-1/4"-A

Ruland FCR16-12MM-1/4"-A, 12mm x 1/4" Six Beam Coupling, Aluminum, Clamp Style, 1.000" (25.4mm) OD, 1.500" (38.1mm) Length





Description

Ruland FCR16-12MM-1/4"-A is a clamp style six beam coupling with 12mm x 0.2500" bores, 1.000" (25.4mm) OD, and 1.500" (38.1mm) 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. FCR16-12MM-1/4"-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. FCR16-12MM-1/4"-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. FCR16-12MM-1/4"-A is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product Specifications

12 mm	Small Bore (B2)	0.2500 in
0.720 in (18.3 mm)	B2 Max Shaft Penetration	0.720 in (18.3 mm)
1.000 in (25.4 mm)	Bore Tolerance	+0.001 in / -0.000 in (+0.025 mm / -0.000 mm)
1.500 in (38.1 mm)	Clearance Diameter (C) MAX	1.117 in (28.37 mm)
+0.0000 / -0.0005 " (+0.000 / -0.013 mm)	Cap Screw	M4
Alloy Steel with Nypatch®	Hex Wrench Size	3.0 mm
Black Oxide	Seating Torque	4.6 Nm
2 ea	Dynamic Torque Reversing	6.2 lb-in (0.71 Nm)
3°	Dynamic Torque Non-Reversing	12.5 lb-in (1.40 Nm)
0.015 in (0.38 mm)	Static Torque	25.0 lb-in (2.82 Nm)
0.010 in (0.25 mm)	Torsional Stiffness	0.177 Deg/lb-in (1.57 Deg/Nm)
0.0139 lb-in ² , 4.120 x10 ⁻⁶ kg-m ²	Maximum Speed	6,000 RPM
Yes	Nypatch® Anti-Vibration Hardware?	Yes
Yes	Balanced Design	Yes
<u>TW:BT-1R-1/4-41.0</u>	Recommended Hex Key	Metric Hex Keys
7075-T651 Extruded and Drawn Aluminum Bar	Temperature	-40°F to 225°F (-40°C to 107°C)
Bright, No Plating	Manufacturer	Ruland Manufacturing
USA	Weight (Ibs)	0.086800
634529192085	Tariff Code	8483.60.8000
31163003		
Torque ratings are at maximum misa	alignment.	
Performance ratings are for guidance	e only. The user must determine su	itability for a particular application.
		lure point of the machined beams.
	0.720 in (18.3 mm) 1.000 in (25.4 mm) 1.500 in (38.1 mm) +0.0000 / -0.0005 " (+0.000 / -0.013 mm) Alloy Steel with Nypatch® Black Oxide 2 ea 3° 0.015 in (0.38 mm) 0.010 in (0.25 mm) 0.0139 lb-in ² , 4.120 x10 ⁻⁶ kg-m ² Yes Yes Yes TW:BT-1R-1/4-41.0 7075-T651 Extruded and Drawn Aluminum Bar Bright, No Plating USA 634529192085 31163003 Torque ratings are at maximum mis	0.720 in (18.3 mm)B2 Max Shaft Penetration1.000 in (25.4 mm)Bore Tolerance1.500 in (38.1 mm)Clearance Diameter (C) MAX+0.0000 / -0.0005 " (+0.000 / -0.013 Cap Screw mm)Alloy Steel with Nypatch®Alloy Steel with Nypatch®Hex Wrench SizeBlack OxideSeating Torque2 eaDynamic Torque Reversing3°Dynamic Torque Non-Reversing0.015 in (0.38 mm)Static Torque0.010 in (0.25 mm)Torsional Stiffness0.0139 lb-in², 4.120 x10-6 kg-m²Maximum SpeedYesBalanced DesignTW:BT-1R-1/4-41.0Recommended Hex Key7075-T651 Extruded and Drawn Aluminum BarManufacturerUSAWeight (lbs)634529192085Tariff Code31163003Torque ratings are at maximum mis-lignment.

	technical support for more assistance.	
Prop 65	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.	
Installation Instructions		
	 Align the bores of the FCR16-12MM-1/4"-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. (<i>Angular Misialignment:</i> 3°, <i>Parallel Misalignment:</i> 0.015 in (0.38 mm), <i>Axial Motion:</i> 0.010 in (0.25 mm)) Fully tighten the M4 screw on one hub to the recommended seating torque of 4.6 Nm using a 3.0 mm hex torque wrench. Before tightening the screws on the second hub, rotate the coupling by hand to allow it to reach its free length. 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. The shafts may extend into the relieved portion of the bore as long as it does not exceed the shaft penetration length of 0.720 in (18.3 mm). 	