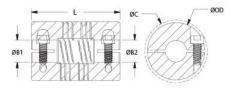




## FCR12-5/16"-6MM-A

Ruland FCR12-5/16"-6MM-A, 5/16" x 6mm Six Beam Coupling, Aluminum, Clamp Style, 0.750" (19.1mm) OD, 1.250" (31.8mm) Length





## Description

Ruland FCR12-5/16"-6MM-A is a clamp style six beam coupling with 0.3125" x 6mm bores, 0.750" (19.1mm) OD, and 1.250" (31.8mm) 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. FCR12-5/16"-6MM-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. FCR12-5/16"-6MM-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. FCR12-5/16"-6MM-A is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

## **Product Specifications**

0.3125 in	Small Bore (B2)	6 mm
0.607 in (15.4 mm)	B2 Max Shaft Penetration	0.607 in (15.4 mm)
0.750 in (19.1 mm)	Bore Tolerance	+0.001 in / -0.000 in (+0.025 mm / -0.000 mm)
1.250 in (31.8 mm)	Clearance Diameter (C) MAX	0.879 in (22.33 mm)
+0.0000 / -0.0005 " (+0.000 / -0.013 mm)	Cap Screw	M3
Alloy Steel with Nypatch®	Hex Wrench Size	2.5 mm
Black Oxide	Seating Torque	2.1 Nm
2 ea	Dynamic Torque Reversing	5 lb-in (0.57 Nm)
3°	Dynamic Torque Non-Reversing	10 lb-in (1.13 Nm)
0.008 in (0.20 mm)	Static Torque	20 lb-in (2.26 Nm)
0.005 in (0.13 mm)	Torsional Stiffness	0.229 Deg/lb-in (2.03 Deg/Nm)
0.0036 lb-in <sup>2</sup> , 1.037 x10 <sup>-6</sup> kg-m <sup>2</sup>	Maximum Speed	6,000 RPM
Yes	Nypatch® Anti-Vibration Hardware?	Yes
Yes	Balanced Design	Yes
<u>TW:BT-1R-1/4-18.3</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)	0.041900
634529191927	Tariff Code	8483.60.8000
31163003		
Torque ratings are at maximum misalignment.		
Performance ratings are for guidanc	e only. The user must determine su	itability for a particular application.
	0.607 in (15.4 mm) 0.750 in (19.1 mm) 1.250 in (31.8 mm) +0.0000 / -0.0005 " (+0.000 / -0.013 mm) Alloy Steel with Nypatch® Black Oxide 2 ea 3° 0.008 in (0.20 mm) 0.005 in (0.13 mm) 0.005 in (0.13 mm) 0.0036 lb-in <sup>2</sup> , 1.037 x10 <sup>-6</sup> kg-m <sup>2</sup> Yes Yes Yes Yes TW:BT-1R-1/4-18.3 7075-T651 Extruded and Drawn Aluminum Bar Bright, No Plating USA 634529191927 31163003 Torque ratings are at maximum mis Performance ratings are for guidance Torque ratings for the couplings are	0.607 in (15.4 mm)B2 Max Shaft Penetration0.750 in (19.1 mm)Bore Tolerance1.250 in (31.8 mm)Clearance Diameter (C) MAX+0.0000 / -0.0005 " (+0.000 / -0.013 Cap Screw mm)Hex Wrench SizeAlloy Steel with Nypatch®Hex Wrench SizeBlack OxideSeating Torque2 eaDynamic Torque Reversing3°Dynamic Torque Non-Reversing0.008 in (0.20 mm)Static Torque0.005 in (0.13 mm)Torsional Stiffness0.0036 lb-in², 1.037 x10 <sup>-6</sup> kg-m²Maximum SpeedYesBalanced DesignTW:BT-1R-1/4-18.3Recommended Hex Key7075-T651 Extruded and Drawn Aluminum BarManufacturerUSAWeight (lbs)634529191927Tariff Code31163003Static Cole

	technical support for more assistance.	
Prop 65	<b>WARNING</b> 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> .	
Installation Instructions		
	<ol> <li>Align the bores of the FCR12-5/16"-6MM-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> 0.008 in (0.20 mm), <i>Axial Motion:</i> 0.005 in (0.13 mm))</li> <li>Fully tighten the M3 screw on one hub to the recommended seating torque of 2.1 Nm using a 2.5 mm hex torque wrench.</li> <li>Before tightening the screws on the second hub, rotate the coupling by hand to allow it to reach its free length.</li> <li>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.</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 0.607 in (15.4 mm).</li> </ol>	