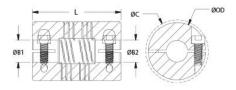




## FCR24-16MM-3/8"-SS

Ruland FCR24-16MM-3/8"-SS, 16mm x 3/8" Six Beam Coupling, Stainless Steel, Clamp Style, 1.500" (38.1mm) OD, 2.250" (57.2mm) Length





## Description

Ruland FCR24-16MM-3/8"-SS is a clamp style six beam coupling with 16mm x 0.3750" bores, 1.500" (38.1mm) OD, and 2.250" (57.2mm) 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. FCR24-16MM-3/8"-SS 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. FCR24-16MM-3/8"-SS is made from 303 stainless steel for increased torque capacity. It is machined from bar stock that is sourced exclusively from North American mills and RoHS3 and REACH compliant. FCR24-16MM-3/8"-SS is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

## **Product Specifications**

16 mm	Small Bore (B2)	0.3750 in
1.075 in (27.3 mm)	B2 Max Shaft Penetration	1.075 in (27.3 mm)
1.500 in (38.1 mm)	Bore Tolerance	+0.001 in / -0.000 in (+0.025 mm /
		-0.000 mm)
2.250 in (57.2 mm)	Clearance Diameter (C) MAX	1.642 in (41.71 mm)
+0.0000 / -0.0005 " (+0.000 / -0.013 mm)	Cap Screw	M6
Alloy Steel with Nypatch®	Hex Wrench Size	5.0 mm
Black Oxide	Seating Torque	16 Nm
2 ea	Dynamic Torque Reversing	43.9 lb-in (4.96 Nm)
3°	Dynamic Torque Non-Reversing	87.7 lb-in (9.91 Nm)
0.030 in (0.76 mm)	Static Torque	175.4 lb-in (19.82 Nm)
0.015 in (0.38 mm)	Torsional Stiffness	0.031 Deg/lb-in (0.27 Deg/Nm)
0.2814 lb-in <sup>2</sup> , 83.407 x10 <sup>-6</sup> kg-m <sup>2</sup>	Maximum Speed	6,000 RPM
Yes	Nypatch® Anti-Vibration Hardware?	Yes
Yes	Balanced Design	Yes
TW:BT-4C-3/8-140	Recommended Hex Key	Metric Hex Keys
Type 303 Austenitic, Non-Magnetic Bar	Temperature	-40°F to 350°F (-40°C to 176°C)
Bright, No Plating	Manufacturer	Ruland Manufacturing
USA	Weight (Ibs)	0.806000
634529193334	Tariff Code	8483.60.8000
31163003		
Torque ratings are at maximum miss	alignment.	
Performance ratings are for guidance	e only. The user must determine su	itability for a particular application.
Torque ratings for the couplings are	based on the physical limitations/fa	ilure point of the machined beams.
	1.075 in (27.3 mm) 1.500 in (38.1 mm) 2.250 in (57.2 mm) +0.0000 / -0.0005 " (+0.000 / -0.013 mm) Alloy Steel with Nypatch® Black Oxide 2 ea 3° 0.030 in (0.76 mm) 0.015 in (0.38 mm) 0.2814 lb-in <sup>2</sup> , 83.407 x10 <sup>-6</sup> kg-m <sup>2</sup> Yes Yes Yes Yes TW:BT-4C-3/8-140 Type 303 Austenitic, Non-Magnetic Bar Bright, No Plating USA 634529193334 31163003 Torque ratings are at maximum mis Performance ratings are for guidance	1.075 in (27.3 mm)B2 Max Shaft Penetration1.500 in (38.1 mm)Bore Tolerance2.250 in (57.2 mm)Clearance Diameter (C) MAX+0.0000 / -0.0005 " (+0.000 / -0.013 Cap Screw mm)Cap ScrewAlloy Steel with Nypatch®Hex Wrench SizeBlack OxideSeating Torque2 eaDynamic Torque Reversing3°Dynamic Torque Non-Reversing0.030 in (0.76 mm)Static Torque0.030 in (0.76 mm)Torsional Stiffness0.2814 lb-in², 83.407 x10 <sup>-6</sup> kg-m²Maximum SpeedYesBalanced DesignTW:BT-4C-3/8-140Recommended Hex KeyType 303 Austenitic, Non-Magnetic BarTemperatureBright, No PlatingManufacturerUSAWeight (lbs)634529193334Tariff Code

	technical support for more assistance.		
Prop 65	<b>WARNING</b> 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			
	<ol> <li>Align the bores of the FCR24-16MM-3/8"-SS 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</i> <i>Misialignment:</i> 3°, <i>Parallel Misalignment:</i> 0.030 in (0.76 mm), <i>Axial Motion:</i> 0.015 in (0.38 mm))</li> <li>Fully tighten the M6 screw on one hub to the recommended seating torque of 16 Nm using a 5.0 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 1.075 in (27.3 mm).</li> </ol>		