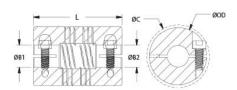




FCR16-4-4-SS

Ruland FCR16-4-4-SS, 1/4" x 1/4" Six Beam Coupling, Stainless Steel, Clamp Style, 1.000" OD, 1.500" Length





Description

Ruland FCR16-4-4-SS is a clamp style six beam coupling with 0.2500" x 0.2500" bores, 1.000" OD, and 1.500" 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. FCR16-4-4-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. FCR16-4-4-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. FCR16-4-4-SS is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product Specifications

•	with Nypatch®	Small Bore (B2) B2 Max Shaft Penetration Bore Tolerance Clearance Diameter (C) MAX Cap Screw	0.2500 in 0.720 in +0.001 in / -0.000 in 1.117 in
Outer Diameter (OD) 1.000 in Length (L) 1.500 in Recommended Shaft Tolerance +0.0000 in / Screw Material Alloy Steel v	with Nypatch®	Bore Tolerance Clearance Diameter (C) MAX Cap Screw	+0.001 in / -0.000 in 1.117 in
Length (L) 1.500 in Recommended Shaft Tolerance +0.0000 in / Screw Material Alloy Steel	with Nypatch®	Clearance Diameter (C) MAX Cap Screw	1.117 in
Recommended Shaft Tolerance +0.0000 in A Screw Material +0.0000 in A	with Nypatch®	Cap Screw	******
Screw Material Alloy Steel	with Nypatch®	•	MA
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Onners Etailele Die de Outste		Hex Wrench Size	3.0 mm
Screw Finish Black Oxide	;	Seating Torque	4.6 Nm
Number of Screws 2 ea		Dynamic Torque Reversing	13.25 lb-in
Angular Misalignment 3°		Dynamic Torque Non-Reversing	26.5 lb-in
Parallel Misalignment 0.015 in		Static Torque	53 lb-in
Axial Motion 0.010 in		Torsional Stiffness	0.034 Deg/lb-in
Moment of Inertia 0.0381 lb-in	2	Maximum Speed	6,000 RPM
Full Bearing Support Required? Yes		Nypatch® Anti-Vibration Hardware?	Yes
Zero-Backlash? Yes		Balanced Design	Yes
Torque Wrench TW:BT-1R-	<u>1/4-41.0</u>	Recommended Hex Key	Metric Hex Keys
Material Specification Type 303 A Bar	ustenitic, Non-Magnetic	Temperature	-40°F to 350°F (-40°C to 176°C)
Finish Specification Bright, No F	Plating	Manufacturer	Ruland Manufacturing
Country of Origin USA		Weight (lbs)	0.261900
UPC 6345290409	904	Tariff Code	8483.60.8000
UNSPC 31163003			
Note 1 Torque ratir	Torque ratings are at maximum misalignment.		
Note 2 Performanc	Performance ratings are for guidance only. The user must determine suitability for a particular application.		
Under norm beams. In s undersized,	Torque ratings for the couplings are based on the physical limitations/failure point of the machined beams. Under normal/typical conditions the hubs are capable of holding up to the rated torque of the machined beams. In some cases, especially when the smallest standard bores are used or where shafts are undersized, slippage on the shaft is possible below the rated torque of the machined beams. Please consult technical support for more assistance.		
Prop 65	▲WARNING 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		

Installation Instructions

- 1. Align the bores of the FCR16-4-4-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. (*Angular Misialignment*: 3°, *Parallel Misalignment*: 0.015 in, *Axial Motion*: 0.010 in)
- 2. 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.
- 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 0.720 in.