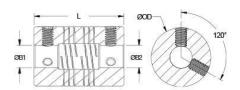




## FSR16-5/16"-6MM-A

Ruland FSR16-5/16"-6MM-A, 5/16" x 6mm Six Beam Coupling, Aluminum, Set Screw Style, 1.000" (25.4mm) OD, 1.500" (38.1mm) Length





## **Description**

Ruland FSR16-5/16"-6MM-A is a set screw style six beam coupling with 0.3125" x 6mm 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. FSR16-5/16"-6MM-A is zero-backlash and has a balanced design for reduced vibration at high speeds of up to 6,000 RPM. All hardware is metric and tests beyond DIN 912 12.9 standards for maximum torque capabilities. FSR16-5/16"-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 Reach compliant. FSR16-5/16"-6MM-A is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

D			
Produ	ict Sp	ecitic	ations

B1 Max Shaft Penetration 0.7	720 in (18.3 mm) 000 in (25.4 mm)	Small Bore (B2) B2 Max Shaft Penetration Bore Tolerance	6 mm 0.720 in (18.3 mm) +0.001 in / -0.000 in (+0.025 mm /	
	000 in (25.4 mm)			
Outer Diameter (OD) 1.0	,	Bore Tolerance	±0.001 in /=0.000 in /±0.025 mm /	
	500 in (29.1 mm)		TU.UU 1 111 / TU.UUU 111 (TU.U23 111111 /	
	500 in (20.1 mm)		-0.000 mm)	
Length (L) 1.5	300 111 (30.1 111111)	Recommended Shaft Tolerance	+0.0000 / -0.0005 " (+0.000 / -0.013	
			mm)	
Forged Set Screw M5	5	Screw Material	Alloy Steel	
Hex Wrench Size 2.5	5 mm	Screw Finish	Black Oxide	
Seating Torque 4 N	Nm	Number of Screws	4 ea	
Dynamic Torque Reversing 8.2	25 lb-in (0.93 Nm)	Angular Misalignment	3°	
<b>Dynamic Torque Non-Reversing</b> 16.	6.5 lb-in (1.86 Nm)	Parallel Misalignment	0.015 in (0.38 mm)	
Static Torque 33	3 lb-in (3.73 Nm)	Axial Motion	0.010 in (0.25 mm)	
Torsional Stiffness 0.0	093 Deg/lb-in (0.82 Deg/Nm)	Moment of Inertia	0.0139 lb-in <sup>2</sup> , 4.120 x10 <sup>-6</sup> kg-m <sup>2</sup>	
Maximum Speed 6,0	000 RPM	Full Bearing Support Required?	Yes	
Zero-Backlash? Ye	es	Torque Wrench	TW:BT-1R-1/4-35.0	
Recommended Hex Key Me	etric Hex Keys	Material Specification	7075-T651 Extruded and Drawn	
			Aluminum Bar	
Temperature -40	0°F to 225°F (-40°C to 107°C)	Finish Specification	Bright, No Plating	
<b>Manufacturer</b> Ru	uland Manufacturing	Country of Origin	USA	
Weight (lbs) 0.0	092300	UPC	634529194003	
Tariff Code 848	183.60.8000	UNSPC	31163003	
Note 1 To	Torque ratings are at maximum misalignment.			
Note 2 Pe	Performance ratings are for guidance only. The user must determine suitability for a particular application.			
Note 3 To	Torque ratings for the couplings are based on the physical limitations/failure point of the machined beams.			
Un	Under normal/typical conditions the hubs are capable of holding up to the rated torque of the machined			
bea	beams. In some cases, especially when the smallest standard bores are used or where shafts are			
und	undersized, slippage on the shaft is possible below the rated torque of the machined beams. Keyways are			
ava	available to provide additional torque capacity in the shaft/hub connection when required. Please consult			
	technical support for more assistance.			
	▲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			

## Installation Instructions

www.P65Warnings.ca.gov.

- 1. Align the bores of the FSR16-5/16"-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. (*Angular Misialignment*: 3°, *Parallel Misalignment*: 0.015 in (0.38 mm), *Axial Motion*: 0.010 in (0.25 mm))
- 2. Fully tighten the M5 screws on one hub to the recommended seating torque of 4 Nm using a 2.5 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.
- 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 (18.3 mm).