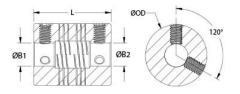




PSR14-7MM-3/16"-A

Ruland PSR14-7MM-3/16"-A, 7mm x 3/16" Four Beam Coupling, Aluminum, Set Screw Style, 0.875" (22.2mm) OD, 1.063" (27.0mm) Length





Description

Ruland PSR14-7MM-3/16"-A is a set screw style four beam coupling with 7mm x 0.1875" bores, 0.875" (22.2mm) OD, and 1.063" (27.0mm) length. It is machined from a single piece of material and feature two sets of two spiral cuts. This gives it higher torque capacity, lower windup, and larger body sizes than single beam couplings. PSR14-7MM-3/16"-A is zero-backlash and has a balanced design for reduced vibration at high speeds of up to 6,000 RPM. This four beam spiral coupling 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. PSR14-7MM-3/16"-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. PSR14-7MM-3/16"-A is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product Specification

Product Specifications				
Bore (B1)	7 mm	Small Bore (B2)	0.1875 in	
B1 Max Shaft Penetration	0.499 in (12.7 mm)	B2 Max Shaft Penetration	0.499 in (12.7 mm)	
Outer Diameter (OD)	0.875 in (22.2 mm)	Bore Tolerance	+0.001 in / -0.000 in (+0.025 mm /	
			-0.000 mm)	
Length (L)	1.063 in (27.0 mm)	Recommended Shaft Tolerance	+0.0000 / -0.0005 " (+0.000 / -0.013	
			mm)	
Forged Set Screw	M4	Screw Material	Alloy Steel	
Hex Wrench Size	2.0 mm	Screw Finish	Black Oxide	
Seating Torque	1.76 Nm	Number of Screws	4 ea	
Dynamic Torque Reversing	4 lb-in (0.45 Nm)	Angular Misalignment	3°	
Dynamic Torque Non-Reversing	8 lb-in (0.90 Nm)	Parallel Misalignment	0.008 in (0.20 mm)	
Static Torque	16.0 lb-in (1.81 Nm)	Axial Motion	0.005 in (0.13 mm)	
Torsional Stiffness	0.275 Deg/lb-in (2.43 Deg/Nm)	Moment of Inertia	0.0056 lb-in ² , 1.639 x10 ⁻⁶ kg-m ²	
Maximum Speed	6,000 RPM	Full Bearing Support Required?	Yes	
Zero-Backlash?	Yes	Torque Wrench	<u>TW:BT-1R-1/4-15.6</u>	
Recommended Hex Key	Metric Hex Keys	Material Specification	7075-T651 Extruded and Drawn	
			Aluminum Bar	
Temperature	-40°F to 225°F (-40°C to 107°C)	Finish Specification	Bright, No Plating	
Manufacturer	Ruland Manufacturing	Country of Origin	USA	
Weight (Ibs)	0.053500	UPC	634529198377	
Tariff Code	8483.60.8000	UNSPC	31163003	
Note 1	Torque ratings are at maximum misalignment.			
Note 2	Performance ratings are for guidance only. The user must determine suitability for a particular application.			
Note 3	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. Keyways are			
	available to provide additional torque capacity in the shaft/hub connection when required. Please consult			
	technical support for more assistance.			
Prop 65	AWARNING 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.			
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Ruland Manufacturing Co., Inc.

- 1. Align the bores of the PSR14-7MM-3/16"-A four 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:* 0.008 in (0.20 mm), *Axial Motion:* 0.005 in (0.13 mm))
- 2. Fully tighten the M4 screws on one hub to the recommended seating torque of 1.76 Nm using a 2.0 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.
- 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 0.499 in (12.7 mm).