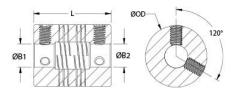




## PSR12-5MM-3/16"-SS

Ruland PSR12-5MM-3/16"-SS, 5mm x 3/16" Four Beam Coupling, Stainless Steel, Set Screw Style, 0.750" (19.1mm) OD, 0.900" (22.9mm) Length





## Description

Ruland PSR12-5MM-3/16"-SS is a set screw style four beam coupling with 5mm x 0.1875" bores, 0.750" (19.1mm) OD, and 0.900" (22.9mm) 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. PSR12-5MM-3/16"-SS 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. PSR12-5MM-3/16"-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. PSR12-5MM-3/16"-SS is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product	Specifi	cations
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Product Specifications			
Bore (B1)	5 mm	Small Bore (B2)	0.1875 in
B1 Max Shaft Penetration	0.422 in (10.7 mm)	B2 Max Shaft Penetration	0.422 in (10.7 mm)
Outer Diameter (OD)	0.750 in (19.1 mm)	Bore Tolerance	+0.001 in / -0.000 in (+0.025 mm /
			-0.000 mm)
Length (L)	0.900 in (22.9 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	2 ea
Dynamic Torque Reversing	5.75 lb-in (0.65 Nm)	Angular Misalignment	3°
Dynamic Torque Non-Reversing	11.5 lb-in (1.30 Nm)	Parallel Misalignment	0.008 in (0.20 mm)
Static Torque	23.0 lb-in (2.60 Nm)	Axial Motion	0.005 in (0.13 mm)
Torsional Stiffness	0.151 Deg/lb-in (1.34 Deg/Nm)	Moment of Inertia	0.0070 lb-in <sup>2</sup> , 2.048 x10 <sup>-6</sup> kg-m <sup>2</sup>
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	Type 303 Austenitic, Non-Magnetic Bar
Temperature	-40°F to 350°F (-40°C to 176°C)	Finish Specification	Bright, No Plating
Manufacturer	Ruland Manufacturing	Country of Origin	USA
Weight (lbs)	0.091100	UPC	634529199336
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	Under normal/typical conditions the beams. In some cases, especially undersized, slippage on the shaft is	e based on the physical limitations/fa hubs are capable of holding up to the when the smallest standard bores are possible below the rated torque of t ue capacity in the shaft/hub connection ce.	ne rated torque of the machined e used or where shafts are he machined beams. Keyways are
Prop 65	AWARNING This product can ex known to the State of California to	pose you to chemicals including Ethy cause cancer, and Ethylene Thiourea uctive harm. For more information go	a known to the State of California to

- 1. Align the bores of the PSR12-5MM-3/16"-SS 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 0.422 in (10.7 mm).