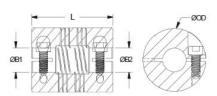




PCR18-8-6-SS

Ruland PCR18-8-6-SS, 1/2" x 3/8" Four Beam Coupling, Stainless Steel, Clamp Style, 1.125" OD, 1.500" Length





Description

Ruland PCR18-8-6-SS is a clamp style four beam coupling with 0.5000" x 0.3750" bores, 1.125" OD, and 1.500" 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. PCR18-8-6-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. PCR18-8-6-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. PCR18-8-6-SS is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

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Bore (B1)	0.5000 in	Small Bore (B2)	0.3750 in		
B1 Max Shaft Penetration	0.695 in	B2 Max Shaft Penetration	0.695 in		
Outer Diameter (OD)	1.125 in	Bore Tolerance	+0.001 in / -0.000 in		
Length (L)	1.500 in	Recommended Shaft Tolerance	+0.0000 in / -0.0005 in		
Cap Screw	M4	Screw Material	Alloy Steel		
Hex Wrench Size	3.0 mm	Screw Finish	Black Oxide		
Seating Torque	4.6 Nm	Number of Screws	2 ea		
Dynamic Torque Reversing	11.5 lb-in	Angular Misalignment	3.0°		
Dynamic Torque Non-Reversing	23 lb-in	Parallel Misalignment	0.015 in		
Static Torque	46 lb-in	Axial Motion	0.010 in		
Torsional Stiffness	0.111 Deg/lb-in	Moment of Inertia	0.0603 lb-in ²		
Maximum Speed	6,000 RPM	Full Bearing Support Required?	Yes		
Zero-Backlash?	Yes	Balanced Design	Yes		
Torque Wrench	TW:BT-1R-1/4-41.0	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)	0.286100		
UPC	634529049921	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. Please consult technical support for more assistance.				
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Installation Instructions

1. Align the bores of the PCR18-8-6-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:* 0.015 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.
- 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 0.695 in.