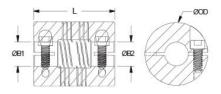




## PCMR29-12-10-SS

Ruland PCMR29-12-10-SS, 12mm x 10mm Four Beam Coupling, Stainless Steel, Clamp Style, 28.6mm OD, 38.1mm Length





## Description

Ruland PCMR29-12-10-SS is a clamp style four beam coupling with 12mm x 10mm bores, 28.6mm OD, and 38.1mm 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. PCMR29-12-10-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. PCMR29-12-10-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. PCMR29-12-10-SS is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

## **Product Specifications**

12 mm	Small Bore (B2)	10 mm
17.6 mm	B2 Max Shaft Penetration	17.6 mm
28.6 mm	Bore Tolerance	+0.025 mm / -0.000 mm
38.1 mm	Recommended Shaft Tolerance	+0.000 mm / -0.013 mm
M4	Screw Material	Alloy Steel
3.0 mm	Screw Finish	Black Oxide
4.6 Nm	Number of Screws	2 ea
1.30 Nm	Angular Misalignment	3°
2.60 Nm	Parallel Misalignment	0.38 mm
5.20 Nm	Axial Motion	0.25 mm
0.98 Deg/Nm	Moment of Inertia	17.643 x10 <sup>-6</sup> kg-m <sup>2</sup>
6,000 RPM	Full Bearing Support Required?	Yes
Yes	Balanced Design	Yes
<u>TW:BT-1R-1/4-41.0</u>	Recommended Hex Key	Metric Hex Keys
Type 303 Austenitic, Non-Magnetic Bar	Temperature	-40°F to 350°F (-40°C to 176°C)
Bright, No Plating	Manufacturer	Ruland Manufacturing
USA	Weight (Ibs)	0.287000
634529049143	Tariff Code	8483.60.8000
31163003		
Torque ratings are at maximum misalignment.		
Performance ratings are for guidance only. The user must determine suitability for a particular application.		
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	
<b>WARNING</b> This product can experimental known to the State of California to ca		lene Thiourea and Nickel (metallic),
	38.1 mm M4 3.0 mm 4.6 Nm 1.30 Nm 2.60 Nm 5.20 Nm 0.98 Deg/Nm 6,000 RPM Yes TW:BT-1R-1/4-41.0 Type 303 Austenitic, Non-Magnetic Bar Bright, No Plating USA 634529049143 31163003 Torque ratings are at maximum miss Performance ratings are for guidance Torque ratings for the couplings are Under normal/typical conditions the beams. In some cases, especially w undersized, slippage on the shaft is technical support for more assistance	38.1 mmRecommended Shaft ToleranceM4Screw Material3.0 mmScrew Finish4.6 NmNumber of Screws1.30 NmAngular Misalignment2.60 NmParallel Misalignment5.20 NmAxial Motion0.98 Deg/NmMoment of Inertia6,000 RPMFull Bearing Support Required?YesBalanced DesignTW:BT-1R-1/4-41.0Recommended Hex KeyType 303 Austenitic, Non-MagneticTemperatureBarSight, No PlatingBright, No PlatingManufacturerUSAWeight (Ibs)634529049143Tariff Code31163003Torque ratings are at maximum misalignment.Performance ratings are for guidance only. The user must determine su Torque ratings for the couplings are based on the physical limitations/fa Under normal/typical conditions the hubs are capable of holding up to the su State of the couplings are based on the physical limitations/fa Under normal/typical conditions the hubs are capable of holding up to the su State of the couplings are based on the physical limitations/fa Under normal/typical conditions the hubs are capable of holding up to the su State of the couplings are based on the physical limitations/fa Under normal/typical conditions the hubs are capable of holding up to the sum of the

determine if the misalignment parameters are within the limits of the coupling. (Angular

Ruland Manufacturing Co., Inc. 6 Hayes Memorial Drive • Marlborough, MA 01752 • Main 508-485-1000 • Email sales@ruland.com • www.ruland.com Misialignment: 3°, Parallel Misalignment: 0.38 mm, Axial Motion: 0.25 mm)

- 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 17.6 mm.