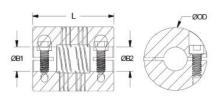




PCMR25-8-8-SS

Ruland PCMR25-8-8-SS, 8mm x 8mm Four Beam Coupling, Stainless Steel, Clamp Style, 25.4mm OD, 31.8mm Length





Description

Ruland PCMR25-8-8-SS is a clamp style four beam coupling with 8mm x 8mm bores, 25.4mm OD, and 31.8mm 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. PCMR25-8-8-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. PCMR25-8-8-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. PCMR25-8-8-SS is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product Specifications

Duter Diameter (OD) 25.4 mm Bore Tolerance +0.025 mm / -0.000 mm Length (L) 31.8 mm Recommended Shaft Tolerance +0.000 mm / -0.013 mm 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 1.24 Nm Angular Misalignment 3.0° Dynamic Torque Non-Reversing 2.49 Nm Parallel Misalignment 0.38 mm Static Torque 4.97 Nm Axial Motion 0.25 mm Torsional Stiffness 0.83 Deg/Nm Moment of Inertia 9.275 x10 ⁻⁶ kg-m² Maximum Speed 6,000 RPM Full Bearing Support Required? Yes Torque Wrench Tw:BT-1R-1/4-41.0 Recommended Hex Key Metric Hex Keys Material Specification Type 303 Austenitic, Non-Magnetic Bar Finish Specification Bright, No Plating Manufacturer Ruland Manufacturing Country of Origin USA Weight (Ibs) 0.208000 UNCP 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 app. Note 3 Torque ratings for the couplings are based on the physical limitations/failure point 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. Plea technical support for more assistance.	adot opcomoditoris			
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Length (L) 31.8 mm Recommended Shaft Tolerance 40.000 mm / -0.013 mm Cap Screw M4 Screw Material Alloy Steel Alloy Steel Alloy Steel Alloy Steel Alloy Steel Black Oxide Seating Torque 4.6 Nm Number of Screws 2 ea Dynamic Torque Reversing 1.24 Nm Angular Misalignment 3.0° Dynamic Torque Non-Reversing 2.49 Nm Parallel Misalignment 0.38 mm Static Torque 4.97 Nm Axial Motion 0.25 mm Torsional Stiffness 0.83 Deg/Nm Moment of Inertia 9.275 x10-6 kg-m² 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 Finish Specification Bright, No Plating Manufacturer Ruland Manufacturing Country of Origin USA Weight (lbs) 0.208000 UPC 634529048986 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 app Note 3 Torque ratings for the couplings are based on the physical limitations/failure point 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. Pleatechnical support for more assistance.	ax Shaft Penetration	14.7 mm	B2 Max Shaft Penetration	14.7 mm
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 1.24 Nm Angular Misalignment 3.0° Dynamic Torque Non-Reversing 2.49 Nm Parallel Misalignment 0.38 mm Static Torque 4.97 Nm Axial Motion 0.25 mm Torsional Stiffness 0.83 Deg/Nm Moment of Inertia 9.275 x10 ⁻⁶ kg-m² 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 Finish Specification Bright, No Plating Manufacturer August 40°F to 350°F (-40°C to Bar Country of Origin USA Weight (Ibs) 0.208000 UPC 634529048986 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 approach 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. Plea technical support for more assistance.	r Diameter (OD)	25.4 mm	Bore Tolerance	+0.025 mm / -0.000 mm
Hex Wrench Size 3.0 mm Screw Finish Black Oxide Seating Torque 4.6 Nm Number of Screws 2 ea Dynamic Torque Reversing 1.24 Nm Angular Misalignment 3.0° Dynamic Torque Non-Reversing 2.49 Nm Parallel Misalignment 0.38 mm Static Torque 4.97 Nm Axial Motion 0.25 mm Torsional Stiffness 0.83 Deg/Nm Moment of Inertia 9.275 x10°6 kg-m² 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 Finish Specification Bright, No Plating Manufacturer Ruland Manufacturing Country of Origin USA Weight (Ibs) 0.208000 UPC 634529048986 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 approach of the machined 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. Plea technical support for more assistance.	th (L)	31.8 mm	Recommended Shaft Tolerance	+0.000 mm / -0.013 mm
Seating Torque 4.6 Nm Number of Screws 2 ea Dynamic Torque Reversing 1.24 Nm Angular Misalignment 3.0° Dynamic Torque Non-Reversing 2.49 Nm Parallel Misalignment 0.38 mm Static Torque 4.97 Nm Axial Motion 0.25 mm Torsional Stiffness 0.83 Deg/Nm Moment of Inertia 9.275 x10 ⁻⁶ kg-m² 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 Finish Specification Bright, No Plating Manufacturer Ruland Manufacturing Country of Origin USA Weight (lbs) 0.208000 UPC 634529048986 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 app. Torque ratings for the couplings are based on the physical limitations/failure point 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. Plea technical support for more assistance.	Screw	M4	Screw Material	Alloy Steel
Dynamic Torque Reversing Dynamic Torque Non-Reversing Dynamic Torque Non-Reversing 2.49 Nm Parallel Misalignment 0.38 mm Static Torque 4.97 Nm Axial Motion 0.25 mm Torsional Stiffness 0.83 Deg/Nm Moment of Inertia 9.275 x10 ⁻⁶ kg-m² 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 Finish Specification Bright, No Plating Manufacturer Country of Origin USA Weight (Ibs) 0.208000 UPC 634529048986 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 app. Note 3 Torque ratings for the couplings are based on the physical limitations/failure point 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. Plea technical support for more assistance.	Wrench Size	3.0 mm	Screw Finish	Black Oxide
Dynamic Torque Non-Reversing 2.49 Nm Parallel Misalignment 0.38 mm Static Torque 4.97 Nm Axial Motion 0.25 mm Torsional Stiffness 0.83 Deg/Nm Moment of Inertia 9.275 x10 ⁻⁶ kg-m 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 Finish Specification Bright, No Plating Manufacturer Ruland Manufacturing Country of Origin USA Weight (lbs) 0.208000 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 app Torque ratings for the couplings are based on the physical limitations/failure point 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. Plea technical support for more assistance.	ng Torque	4.6 Nm	Number of Screws	2 ea
Static Torque 4.97 Nm Axial Motion 0.25 mm Torsional Stiffness 0.83 Deg/Nm Moment of Inertia 9.275 x10 ⁻⁶ kg-m 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 Finish Specification Bright, No Plating Manufacturer Ruland Manufacturing Country of Origin USA Weight (Ibs) 0.208000 UPC 634529048986 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 approvate and the physical limitations/failure point of the machined 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. Pleat technical support for more assistance.	mic Torque Reversing	1.24 Nm	Angular Misalignment	3.0°
Torsional Stiffness 0.83 Deg/Nm Moment of Inertia 9.275 x10 ⁻⁶ kg-m 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 -40°F to 350°F (-40°C to Bar Finish Specification Bright, No Plating Manufacturer Country of Origin USA Weight (lbs) 0.208000 UPC 634529048986 Tariff Code 8483.60.8000 JUSPC 31163003 Torque ratings are at maximum misalignment. Note 1 Torque ratings are for guidance only. The user must determine suitability for a particular app. Note 3 Torque ratings for the couplings are based on the physical limitations/failure point 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. Plea technical support for more assistance.	mic Torque Non-Reversing	2.49 Nm	Parallel Misalignment	0.38 mm
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Tero-Backlash? Yes Balanced Design Yes Metric Hex Keys Material Specification Type 303 Austenitic, Non-Magnetic Bar Finish Specification Bright, No Plating Manufacturer Meight (lbs) Meyer Material Specification USA Weight (lbs) Meyer Meyer Meyer Meyer Manufacturer Meyer Manufacturer Meyer Manufacturer Meyer Meyer Meyer Meyer Meyer Meyer Meyer Meyer Meyer Meyer Meyer Meyer Meyer Meyer Manufacturer Muland Manufacturing Manufacturer Meyer Meyer Meyer Meyer Meyer Meyer Meyer Meyer Meyer Meyer Meyer Meyer Manufacturer Muland Meyer Meyer Meyer Meyer Meyer Meyer Meyer Meyer Meyer Mey	ional Stiffness	0.83 Deg/Nm	Moment of Inertia	9.275 x10 ⁻⁶ kg-m ²
Torque Wrench Type 303 Austenitic, Non-Magnetic Bar Finish Specification Bright, No Plating Weight (Ibs) USA Weight (Ibs) Weight (Ibs) Word Word Word Word Word Word Word Word	mum Speed	6,000 RPM	Full Bearing Support Required?	Yes
Material Specification Type 303 Austenitic, Non-Magnetic Bar Finish Specification Bright, No Plating Manufacturer Ruland Manufacturing Country of Origin USA Weight (lbs) 0.208000 JPC 634529048986 Tariff Code 8483.60.8000 JNSPC 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 approach 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. Plea technical support for more assistance.	-Backlash?	Yes	Balanced Design	Yes
Bar Finish Specification Bright, No Plating Manufacturer Ruland Manufacturing Country of Origin USA Weight (lbs) 0.208000 JPC 634529048986 Tariff Code 8483.60.8000 JNSPC 31163003 Torque ratings are at maximum misalignment. Note 2 Performance ratings are for guidance only. The user must determine suitability for a particular approvate and the physical limitations/failure point 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. Plea technical support for more assistance.	ue Wrench	TW:BT-1R-1/4-41.0	Recommended Hex Key	Metric Hex Keys
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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 approved and the physical limitations/failure point of the machined 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. Plea technical support for more assistance.	h Specification	Bright, No Plating	Manufacturer	Ruland Manufacturing
UNSPC Note 1 Torque ratings are at maximum misalignment. Note 2 Performance ratings are for guidance only. The user must determine suitability for a particular approximate and the physical limitations/failure point of the machined 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. Plea technical support for more assistance.	ntry of Origin	USA	Weight (lbs)	0.208000
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Prop 65 △WARNING This product can expose you to chemicals including Ethylene Thiourea and Nickel known to the State of California to cause cancer		▲WARNING This product can expose you to chemicals including Ethylene Thiourea and Nickel (metallic), known to the State of California to cause cancer		

Installation Instructions

1. Align the bores of the PCMR25-8-8-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: 0.38 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 14.7 mm.