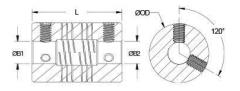




## FSMR25-10-7-SS

Ruland FSMR25-10-7-SS, 10mm x 7mm Six Beam Coupling, Stainless Steel, Set Screw Style, 25.4mm OD, 38.1mm Length





## Description

Ruland FSMR25-10-7-SS is a set screw style six beam coupling with 10mm x 7mm bores, 25.4mm OD, and 38.1mm length. It is machined from a single piece of material and features two sets of three spiral cuts. This gives it higher torque capacity, lower windup, and larger body sizes than single or four beam couplings and allows for use in light duty power transmission applications such as coupling a servo motor to a lead screw. FSMR25-10-7-SS 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. FSMR25-10-7-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. FSMR25-10-7-SS is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

## **Product Specifications**

18.3 mm 25.4 mm 38.1 mm M5 2.5 mm 4 Nm 1.42 Nm	Small Bore (B2) B2 Max Shaft Penetration Bore Tolerance Recommended Shaft Tolerance Screw Material Screw Finish Number of Screws	7 mm 18.3 mm +0.025 mm / -0.000 mm +0.000 mm / -0.013 mm Alloy Steel Black Oxide
25.4 mm 38.1 mm M5 2.5 mm 4 Nm 1.42 Nm	Bore Tolerance Recommended Shaft Tolerance Screw Material Screw Finish	+0.025 mm / -0.000 mm +0.000 mm / -0.013 mm Alloy Steel Black Oxide
38.1 mm M5 2.5 mm 4 Nm 1.42 Nm	Recommended Shaft Tolerance Screw Material Screw Finish	+0.000 mm / -0.013 mm Alloy Steel Black Oxide
M5 2.5 mm 4 Nm 1.42 Nm	Screw Material Screw Finish	Alloy Steel Black Oxide
2.5 mm 4 Nm 1.42 Nm	Screw Finish	Black Oxide
4 Nm 1.42 Nm		
1.42 Nm	Number of Screws	4
		4 ea
	Angular Misalignment	3°
2.83 Nm	Parallel Misalignment	0.38 mm
5.66 Nm	Axial Motion	0.25 mm
0.41 Deg/Nm	Moment of Inertia	11.293 x10 <sup>-6</sup> kg-m <sup>2</sup>
6,000 RPM	Full Bearing Support Required?	Yes
Yes	Torque Wrench	TW:BT-1R-1/4-35.0
<u>Metric Hex Keys</u>	Material Specification	Type 303 Austenitic, Non-Magnetic Bar
40°F to 350°F (-40°C to 176°C)	Finish Specification	Bright, No Plating
Ruland Manufacturing	Country of Origin	USA
0.263900	UPC	634529046111
3483.60.8000	UNSPC	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 machined beams. Please consult technical support for more assistance.		
known to the State of California to ca	ause cancer, and Ethylene Thiourea	known to the State of California to
	.41 Deg/Nm ,000 RPM fes Metric Hex Keys 40°F to 350°F (-40°C to 176°C) culand Manufacturing .263900 483.60.8000 forque ratings are at maximum miss performance ratings are for guidance forque ratings for the couplings are linder normal/typical conditions the eams. In some cases, especially w ndersized, slippage on the shaft is echnical support for more assistance WARNING This product can exp nown to the State of California to c	.41 Deg/NmMoment of Inertia,000 RPMFull Bearing Support Required?fesTorque WrenchMetric Hex KeysMaterial Specification40°F to 350°F (-40°C to 176°C)Finish Specification40°F to 350°F (-40°C to 176°C)Finish Specification40°F to 350°F (-40°C to 176°C)Vertex Specification40°F to 350°F (-40°C to 176°C)Finish Specification40°F to 350°F (-40°C to 176°C)Vertex Specification263900UPC483.60.8000UPC483.60.8000UNSPC60°r que ratings are at maximum misalignment.90°r que ratings for the couplings are based on the physical limitations/fail90°r que ratings for the couplings are based on the physical limitations/fail90°r que ratings for the couplings the hubs are capable of holding up to the90°r que ratings are cases, especially when the smallest standard bores are90°r que ratings que on the shaft is possible below the rated torque of the

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 M5 screws on one hub to the recommended seating torque of 4 Nm using a 2.5 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 18.3 mm.