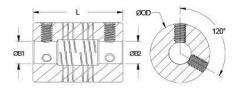




FSMR38-20-13-SS

Ruland FSMR38-20-13-SS, 20mm x 13mm Six Beam Coupling, Stainless Steel, Set Screw Style, 38.1mm OD, 57.2mm Length





Description

Ruland FSMR38-20-13-SS is a set screw style six beam coupling with 20mm x 13mm bores, 38.1mm OD, and 57.2mm 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. FSMR38-20-13-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. FSMR38-20-13-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. FSMR38-20-13-SS is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product Specifications

27.3 mm 38.1 mm 57.2 mm M6	Small Bore (B2) B2 Max Shaft Penetration Bore Tolerance Recommended Shaft Tolerance	13 mm 27.3 mm +0.025 mm / -0.000 mm +0.000 mm / -0.013 mm
38.1 mm 57.2 mm M6	Bore Tolerance Recommended Shaft Tolerance	+0.025 mm / -0.000 mm
57.2 mm M6	Recommended Shaft Tolerance	
M6		+0.000 mm / -0.013 mm
	Canaux Matarial	
3.0 mm	Screw Material	Alloy Steel
5.0 mm	Screw Finish	Black Oxide
7.2 Nm	Number of Screws	4 ea
2.37 Nm	Angular Misalignment	3°
4.75 Nm	Parallel Misalignment	0.76 mm
9.49 Nm	Axial Motion	0.38 mm
0.28 Deg/Nm	Moment of Inertia	83.407 x10 ⁻⁶ kg-m ²
6,000 RPM	Full Bearing Support Required?	Yes
Yes	Torque Wrench	TW:BT-4C-3/8-64
<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
0.762100	UPC	634529211441
8483.60.8000	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
	4.75 Nm 9.49 Nm 0.28 Deg/Nm 6,000 RPM Yes Metric Hex Keys -40°F to 350°F (-40°C to 176°C) Ruland Manufacturing 0.762100 8483.60.8000 Torque ratings are at maximum mis 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 MARNING This product can exp known to the State of California to c	4.75 Nm Parallel Misalignment 9.49 Nm Axial Motion 0.28 Deg/Nm Moment of Inertia 6,000 RPM Full Bearing Support Required? Yes Torque Wrench Metric Hex Keys Material Specification -40°F to 350°F (-40°C to 176°C) Finish Specification -40°F to 350°F (-40°C to 176°C) Finish Specification -40°F to 350°F (-40°C to 176°C) Finish Specification 0.762100 UPC 8483.60.8000 UNSPC Torque ratings are at maximum misalignment. Performance ratings are for guidance only. The user must determine sui Torque ratings for the couplings are based on the physical limitations/fai Under normal/typical conditions the hubs are capable of holding up to th beams. In some cases, especially when the smallest standard bores are undersized, slippage on the shaft is possible below the rated torque of th

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

Misialignment: 3°, Parallel Misalignment: 0.76 mm, Axial Motion: 0.38 mm)

- Fully tighten the M6 screws on one hub to the recommended seating torque of 7.2 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 27.3 mm.