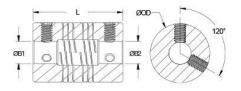




## FSMR32-13-12-SS

Ruland FSMR32-13-12-SS, 13mm x 12mm Six Beam Coupling, Stainless Steel, Set Screw Style, 31.8mm OD, 44.5mm Length





## Description

Ruland FSMR32-13-12-SS is a set screw style six beam coupling with 13mm x 12mm bores, 31.8mm OD, and 44.5mm 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. FSMR32-13-12-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. FSMR32-13-12-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. FSMR32-13-12-SS is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

## **Product Specifications**

n //Nm PM <u>ex Keys</u> 350°F (-40°C to 176°C)	Small Bore (B2) B2 Max Shaft Penetration Bore Tolerance Recommended Shaft Tolerance Screw Material Screw Finish Number of Screws Angular Misalignment Parallel Misalignment Axial Motion Moment of Inertia Full Bearing Support Required? Torque Wrench Material Specification	12 mm 21.4 mm +0.025 mm / -0.000 mm +0.000 mm / -0.013 mm Alloy Steel Black Oxide 4 ea 3° 0.38 mm 0.25 mm 32.426 x10 <sup>-6</sup> kg-m <sup>2</sup> Yes TW:BT-4C-3/8-64 Type 303 Austenitic, Non-Magnetic Bar Bright, No Plating
n /Nm PM <u>ex Keys</u> 350°F (-40°C to 176°C)	Bore Tolerance Recommended Shaft Tolerance Screw Material Screw Finish Number of Screws Angular Misalignment Parallel Misalignment Axial Motion Moment of Inertia Full Bearing Support Required? Torque Wrench Material Specification	+0.025 mm / -0.000 mm +0.000 mm / -0.013 mm Alloy Steel Black Oxide 4 ea 3° 0.38 mm 0.25 mm 32.426 x10 <sup>-6</sup> kg-m <sup>2</sup> Yes <u>TW:BT-4C-3/8-64</u> Type 303 Austenitic, Non-Magnetic Bar
n /Nm PM <u>ex Keys</u> 350°F (-40°C to 176°C)	Recommended Shaft Tolerance Screw Material Screw Finish Number of Screws Angular Misalignment Parallel Misalignment Axial Motion Moment of Inertia Full Bearing Support Required? Torque Wrench Material Specification	+0.000 mm / -0.013 mm Alloy Steel Black Oxide 4 ea 3° 0.38 mm 0.25 mm 32.426 x10 <sup>-6</sup> kg-m <sup>2</sup> Yes <u>TW:BT-4C-3/8-64</u> Type 303 Austenitic, Non-Magnetic Bar
n /Nm PM <u>ex Keys</u> 350°F (-40°C to 176°C)	Screw Material Screw Finish Number of Screws Angular Misalignment Parallel Misalignment Axial Motion Moment of Inertia Full Bearing Support Required? Torque Wrench Material Specification	Alloy Steel Black Oxide 4 ea 3° 0.38 mm 0.25 mm 32.426 x10 <sup>-6</sup> kg-m <sup>2</sup> Yes <u>TW:BT-4C-3/8-64</u> Type 303 Austenitic, Non-Magnetic Bar
n /Nm PM <u>ex Keys</u> 350°F (-40°C to 176°C)	Screw Finish Number of Screws Angular Misalignment Parallel Misalignment Axial Motion Moment of Inertia Full Bearing Support Required? Torque Wrench Material Specification	Black Oxide   4 ea   3°   0.38 mm   0.25 mm   32.426 x10 <sup>-6</sup> kg-m <sup>2</sup> Yes   TW:BT-4C-3/8-64   Type 303 Austenitic, Non-Magnetic   Bar
n /Nm PM <u>ex Keys</u> 350°F (-40°C to 176°C)	Number of Screws Angular Misalignment Parallel Misalignment Axial Motion Moment of Inertia Full Bearing Support Required? Torque Wrench Material Specification	4 ea 3° 0.38 mm 0.25 mm 32.426 x10 <sup>-6</sup> kg-m <sup>2</sup> Yes <u>TW:BT-4C-3/8-64</u> Type 303 Austenitic, Non-Magnetic Bar
n /Nm PM <u>ex Keys</u> 350°F (-40°C to 176°C)	Angular Misalignment Parallel Misalignment Axial Motion Moment of Inertia Full Bearing Support Required? Torque Wrench Material Specification	3° 0.38 mm 0.25 mm 32.426 x10 <sup>-6</sup> kg-m <sup>2</sup> Yes <u>TW:BT-4C-3/8-64</u> Type 303 Austenitic, Non-Magnetic Bar
n /Nm PM <u>ex Keys</u> 350°F (-40°C to 176°C)	Parallel Misalignment Axial Motion Moment of Inertia Full Bearing Support Required? Torque Wrench Material Specification	0.38 mm 0.25 mm 32.426 x10 <sup>-6</sup> kg-m <sup>2</sup> Yes <u>TW:BT-4C-3/8-64</u> Type 303 Austenitic, Non-Magnetic Bar
n //Nm PM <u>ex Keys</u> 350°F (-40°C to 176°C)	Axial Motion Moment of Inertia Full Bearing Support Required? Torque Wrench Material Specification	0.25 mm 32.426 x10 <sup>-6</sup> kg-m <sup>2</sup> Yes <u>TW:BT-4C-3/8-64</u> Type 303 Austenitic, Non-Magnetic Bar
//Nm PM <u>ex Keys</u> 350°F (-40°C to 176°C)	Moment of Inertia Full Bearing Support Required? Torque Wrench Material Specification	32.426 x10 <sup>-6</sup> kg-m <sup>2</sup> Yes <u>TW:BT-4C-3/8-64</u> Type 303 Austenitic, Non-Magnetic Bar
νΜ <u>ex Keys</u> 350°F (-40°C to 176°C)	Full Bearing Support Required? Torque Wrench Material Specification	Yes <u>TW:BT-4C-3/8-64</u> Type 303 Austenitic, Non-Magnetic Bar
ex Keys 350°F (-40°C to 176°C)	Torque Wrench Material Specification	TW:BT-4C-3/8-64 Type 303 Austenitic, Non-Magnetic Bar
350°F (-40°C to 176°C)	Material Specification	Type 303 Austenitic, Non-Magnetic Bar
350°F (-40°C to 176°C)		Bar
. ,	Finish Specification	Bright No Plating
In a standard standard		Dright, NOT lating
lanufacturing	Country of Origin	USA
)	UPC	634529211113
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.		
the State of California to c	cause cancer, and Ethylene Thiourea	a known to the State of California to
	8000 atings are at maximum mis ince ratings are for guidance atings for the couplings are irmal/typical conditions the n some cases, especially v ed, slippage on the shaft is support for more assistance <b>NING</b> This product can exp the State of California to of th defects or other reprodu	BOOO UNSPC atings are at maximum misalignment. Ince ratings are for guidance only. The user must determine su atings for the couplings are based on the physical limitations/fa irmal/typical conditions the hubs are capable of holding up to the in some cases, especially when the smallest standard bores are ed, slippage on the shaft is possible below the rated torque of t

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 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 21.4 mm.