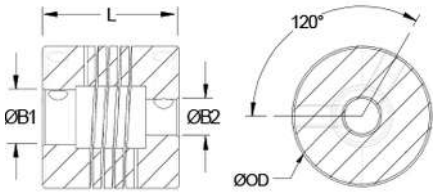
MIS40-1/2"-12MM-A

Ruland MIS40-1/2"-12MM-A, 1/2" x 1/2" Single Beam Coupling, Aluminum, Set Screw Style, 1.181" (30.0mm) OD, 1.181" (30.0mm) Length





Description

Ruland MIS40-1/2"-12MM-A is a single beam coupling with 0.5000" x 12mm, 1.575" (40.0mm) OD, and 1.969" (50.0mm) length. It is machined from a single piece of material and feature one long continuous spiral cut. This gives it higher misalignment capabilities than comparably sized multiple beam couplings. MIS40-1/2"-12MM-A is zero-backlash making it well suited for applications such as encoders that require high positioning accuracy. MIS-series couplings have purely metric outer diameter and length dimensions and fit in a smaller envelope than the ISR-series. All hardware is metric and tests beyond DIN 912 12.9 standards for maximum torque capabilities. MIS40-1/2"-12MM-A is made from 7075 aluminum for lightweight and low inertia. It is machined from bar stock that is sourced exclusively from North American mills and RoHS3, REACH, and Conflict Minerlas compliant. MIS40-1/2"-12MM-A is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product Specifications

Bore (B1)	0.5000 in	**Small Bore (B2)**	12 mm
B1 Max Shaft Penetration	0.961 in (24.4 mm)	**B2 Max Shaft Penetration**	0.961 in (24.4 mm)
Outer Diameter (OD)	1.575 in (40.0 mm)	**Bore Tolerance**	+0.001 in / -0.000 in (+0.025 mm / -0.000 mm)
Length (L)	1.969 in (50.0 mm)	**Recommended Shaft Tolerance**	+0.0000 / -0.0005 " (+0.000 / -0.013 mm)
Forged Set Screw	M6	**Screw Material**	Alloy Steel
Hex Wrench Size	3.0 mm	**Screw Finish**	Black Oxide
Seating Torque	7.2 Nm	**Number of Screws**	4 ea
Dynamic Torque Reversing	3.67 Nm	**Angular Misalignment**	5.0°
Dynamic Torque Non-Reversing	7.35 Nm	**Parallel Misalignment**	0.25 mm
Static Torque	14.69 Nm	**Axial Motion**	0.25 mm
Torsional Stiffness	0.88 Deg/Nm	**Moment of Inertia**	33.428 x10^{-6} kg-m^2
Maximum Speed	6,000 RPM	**Full Bearing Support Required?**	Yes
Zero-Backlash?	Yes	**Recommended Hex Key**	Metric Hex Keys
Material Specification	7075-T651 Extruded and Drawn Aluminum Bar	**Temperature**	-40°F to 225°F (-40°C to 107°C)
Finish Specification	Bright, No Plating	**Manufacturer**	Ruland Manufacturing
Country of Origin	USA	**Weight (lbs)**	0.337070
UPC	63452943976	**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 application.		
Note 3	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.