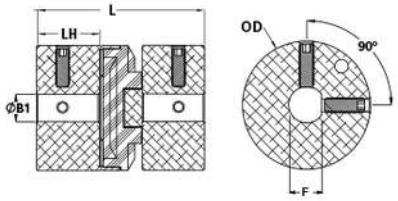
MOST13-5/4.5D-A

Ruland MOST13-5/4.5D-A, 5/4.5Dmm Oldham Coupling Hub, Aluminum, Set Screw Style With D-Bore, 12.7mm OD, 5.6mm Length





Description

Ruland MOST13-5/4.5D-A is a set screw d-bore oldham coupling hub with 5/4.5D bore, 12.7mm OD, and 5.6mm length. The d-bore allows for positive drive in applications where the coupling can not slip. It is a component of a three-piece design consisting of two anodized aluminum hubs press fit onto a center disk. This three-piece design allows for a highly customizable coupling that easily combines clamp or set screw hubs with inch, metric, keyed, and keyless bores. Disks are available in acetal plastic for zero-backlash and high torsional stiffness, nylon for shock absorption and dampening, and PEEK for high temperature and cleanroom environments. MOST13-5/4.5D-A can accommodate all forms of misalignment and are especially useful in applications with high parallel misalignment (up to 10% of the OD). It operates with low bearing loads protecting sensitive system components such as bearings and has a balanced design for reduced vibration at speeds up to 6,000 RPM. Hardware is metric and tests beyond DIN 912 12.9 standards for maximum torque capabilities. MOST13-5/4.5D-A is machined from bar stock that is sourced exclusively from North American mills and is RoHS3 and REACH compliant. It is manufactured in our Marlborough, MA factory under strict controls using proprietary processes.

Product Specifications

Bore (B1)	5/4.5D mm	**Flat (F)**	4.50 mm
Flat Tolerance	+.002”/-.000”	**Outer Diameter (OD)**	0.500 in (12.7 mm)
B1 Max Shaft Penetration	0.222 in	**Bore Tolerance**	+0.001 in / -0.000 in
Hub Width (LH)	0.222 in	**Length (L)**	0.625 in (15.9 mm)
Recommended Shaft Tolerance	+0.000 mm / -0.013 mm	**Forged Set Screw**	M3
Number of Screws	1 ea	**Screw Material**	Alloy Steel
Screw Finish	Black Oxide	**Seating Torque**	0.92 Nm
Hex Wrench Size	1.5 mm	**Torque Specifications**	Torque ratings vary with insert selection
Angular Misalignment	0.5°	**Parallel Misalignment**	0.004 in (0.10 mm)
Max Parallel Misalignment	0.050 in (1.27 mm)	**Axial Motion**	0.004 in (0.10 mm)
Moment of Inertia	0.258 x 10^{-7} kg-m^2	**Maximum Speed**	4,500 RPM
Recommended Inserts	OD8/13-AT, OD8/13-NL, OD8/13-PEK	**Full Bearing Support Required?**	Yes
Zero-Backlash?	Yes	**Mechanical Fuse?**	Yes
UPC	65432942066	**Country of Origin**	USA
Material Specification	2024-T351 Aluminum Bar	**Finish**	Black Anodized
Finish Specification	Sulfuric Anodized MIL-A-8625 Type II, Class 2 and ASTM B580 Type B Black Anodize	**Manufacturer**	Ruland Manufacturing
Temperature	Acetal Disk -10°F to 150°F (-23°C to 65°) Nylon Disk -10°F to 130°F (-23°C to 54°C) PEEK Disk -10°F to 300°F (-23°C to 148°C)	**Weight (lbs)**	0.004052

Tariff Code	8483.60.8000	**UNSPC**	31163015
Note 1	"Performance ratings are for guidance only. The user must determine suitability for a particular application."		
Note 2	"Torque ratings for the couplings are based on the physical limitations/failure point of the torque disks. Under normal/typical conditions the hubs are capable of holding up to the rated torque of the disks. 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 disks. Keyways are available to provide additional torque capacity in the shaft/hub connection when required. Please consult technical support for more assistance."		