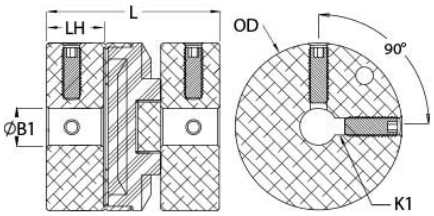
# OSC21-6-SS

Ruland OSC21-6-SS, 3/8" Oldham Coupling Hub, 303 Stainless Steel, Set Screw Style With Keyway, 1.313" OD, 0.590" Length






## Description

Ruland OSC21-6-SS is a set screw oldham coupling hub with a 0.3750" bore, 3/32" keyway, 1.313" OD, and 0.590" length. It is a component of a three-piece design consisiting of two stainless steel 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 three materials allowing the user to tailor coupling performance to their application. OSC21-6-SS can accommodate all forms of misalignment and is 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. OSC21-6-SS 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

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|---|---|---|---|
| **Bore (B1)** | 0.3750 in | **Keyway (K)** | 3/32 in |
| **Outer Diameter (OD)** | 1.313 in (33.3 mm) | **B1 Max Shaft Penetration** | 0.590 in |
| **Bore Tolerance** | +0.001 in / -0.000 in | **Hub Width (LH)** | 0.590 in |
| **Length (L)** | 1.875 in (47.6 mm) | **Recommended Shaft Tolerance** | +0.0000 in / -0.0005 in |
| **Forged Set Screw** | M4 | **Number of Screws** | 2 ea 90° apart |
| **Screw Material** | 18-8 300 Series Stainless Steel | **Screw Finish** | Bright |
| **Seating Torque** | 1.76 Nm | **Hex Wrench Size** | 2.0 mm |
| **Torque Specifications** | Torque ratings vary with insert selection | **Angular Misalignment** | 0.5° |
| **Parallel Misalignment** | 0.008 in (0.20 mm) | **Max Parallel Misalignment** | 0.131 in (3.33 mm) |
| **Axial Motion** | 0.006 in (0.15 mm) | **Moment of Inertia** | 0.0552 lb-in$^2$ |
| **Maximum Speed** | 4,500 RPM | **Recommended Inserts** | OD21/33-AT, OD21/33-NL, OD21/33-PEK |
| **Full Bearing Support Required?** | Yes | **Zero-Backlash?** | Yes |
| **Balanced Design** | Yes | **Mechanical Fuse?** | Yes |
| **UPC** | 634529239728 | **Country of Origin** | USA |
| **Material Specification** | Type 303 Austenitic, Non-Magnetic Bar | **Finish** | Bright |
| **Finish Specification** | Bright, No Plating | **Manufacturer** | Ruland Manufacturing |
| **Temperature** | Acetal Disk -10°F to 150°F (-23°C to 65°)<br>Nylon Disk -10°F to 130°F (-23°C to 54°C)<br>PEEK Disk -10°F to 300°F (-23°C to 148°C) | **Weight (lbs)** | 0.233600 |
| **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. Please consult technical support for more assistance." | | |
| **Prop 65** | ⚠**WARNING** This product can expose you to the chemical Nickel (metallic), known to the State of California | | |

to cause cancer. For more information go to www.P65Warnings.ca.gov.

**Installation Instructions**

1. Align the bores of the OSC21-6-SS oldham coupling hubs on the shafts that are to be joined and determine if the misalignment parameters are within the limits of the coupling. (*Angular Misalignment:* 0.5° *Parallel Misalignment:* 0.008 in (0.20 mm), *Axial Motion:* 0.006 in (0.15 mm))
2. Rotate the hubs on the shaft so the drive tenons are located 90° from each other.
3. Place a torque disk so one groove fits over the drive tenons of a hub and center the disk by hand.
4. Insert a shim with the thickness of the coupling's axial motion rating into the groove of the torque disk.
5. Slide the tenons of the second hub into the mating groove in the disk until it touches the shim stock.
6. Fully tighten the M4 screw(s) on each hub to the recommended seating torque of 1.76 Nm using a 2.0 mm hex torque wrench.
7. Remove the shim stock to leave a small gap between the top of the drive tenons and the torque disk to allow for axial movement.