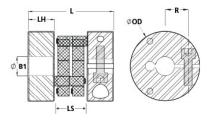




## **MCPTD37-12-A**

Ruland MCPTD37-12-A, Controlflex Coupling Hub, Aluminum, Clamp Style, 37.0mm OD, 32.0mm Length





## Description

Ruland MCPTD37-12-A is a Controlflex coupling hub with a 12mm bore, 37.0mm OD, and 32.0mm length. It is a component in a four-piece design consisting of two aluminum hubs mounted by pins to two acetal inserts creating a lightweight low inertia coupling capable of speeds up to 15,000 RPM. This four-piece design allows for a highly customizable coupling that easily combines clamp hubs with inch, metric, keyed, and keyless bores. MCPTD37-12-A has a thinner length than regular hubs allowing it to be used in confined spaces. Hardware is metric and tests beyond DIN 912 12.9 standards for maximum torque capabilities. Controlflex couplings have a balanced design for reduced vibrations at high speeds, can accommodate all forms of misalignment, and are an excellent fit for encoders, tachometers, and light duty stepper servo positioning applications. MCPTD37-12-A is RoHS3 and REACH compliant.

## **Product Specifications**

| Bore (B1)12 mmOuter Diameter (OD)1.457 in (37.0 mm)Hub Width (LH)7.0 mmSpace Between Hubs (LS)0.708 in (18.0 mm)Screw MaterialAlloy SteelScrew FinishBlack OxideScrew Location (R)14 mmRated Torque4 NmPeak Torque5 NmAxial Motion0.70 mmMaximum Speed15,000 RPMFull Bearing Support Required?YesBalanced DesignYesTemperature-22°F to 175°F (-30°C to 80°C)FinishClear AnodizedManufacturerSchmidt KupplungCountry of OriginGermanyUNSPC31163022Note 1Stainless steel hubs are available | B1 Max Shaft Penetration     Bore Tolerance     Length (L)     Forged Clamp Screw     Hex Wrench Size     Seating Torque     Number of Screws     Angular Misalignment     Torsional Stiffness     Parallel Misalignment     Recommended Inserts     Zero-Backlash?     Weight (lbs)     Material Specification     UPC     Tariff Code | +0.06 mm / +0.02 mm<br>1.260 in (32.0 mm)<br>M3<br>2.5 mm<br>1.3 Nm<br>1 ea<br>1.0°<br>3.40 Nm/Deg<br>1.0 mm<br><u>CPFRG23/37-AT</u><br>Yes<br>0.046300<br>6082 Aluminum Bar<br>Clear Anodized<br>634529227541     |
|---|---|--|
| Hub Width (LH)7.0 mmSpace Between Hubs (LS)0.708 in (18.0 mm)Screw MaterialAlloy SteelScrew FinishBlack OxideScrew Location (R)14 mmRated Torque4 NmPeak Torque5 NmAxial Motion0.70 mmMaximum Speed15,000 RPMFull Bearing Support Required?YesBalanced DesignYesTemperature-22°F to 175°F (-30°C to 80°C)FinishClear AnodizedManufacturerSchmidt KupplungCountry of OriginGermanyUNSPC31163022Note 1Stainless steel hubs are available  | Length (L)<br>Forged Clamp Screw<br>Hex Wrench Size<br>Seating Torque<br>Number of Screws<br>Angular Misalignment<br>Torsional Stiffness<br>Parallel Misalignment<br>Recommended Inserts<br>Zero-Backlash?<br>Weight (Ibs)<br>Material Specification<br>Finish Specification<br>UPC   | 1.260 in (32.0 mm)     M3     2.5 mm     1.3 Nm     1 ea     1.0°     3.40 Nm/Deg     1.0 mm     CPFRG23/37-AT     Yes     0.046300     6082 Aluminum Bar     Clear Anodized     634529227541                      |
| Space Between Hubs (LS)0.708 in (18.0 mm)Screw MaterialAlloy SteelScrew FinishBlack OxideScrew Location (R)14 mmRated Torque4 NmPeak Torque5 NmAxial Motion0.70 mmMaximum Speed15,000 RPMFull Bearing Support Required?YesBalanced DesignYesTemperature-22°F to 175°F (-30°C to 80°C)FinishClear AnodizedManufacturerSchmidt KupplungCountry of OriginGermanyUNSPC31163022Note 1Stainless steel hubs are available  | Forged Clamp Screw<br>Hex Wrench Size<br>Seating Torque<br>Number of Screws<br>Angular Misalignment<br>Torsional Stiffness<br>Parallel Misalignment<br>Recommended Inserts<br>Zero-Backlash?<br>Weight (Ibs)<br>Material Specification<br>Finish Specification<br>UPC   | M3     2.5 mm     1.3 Nm     1 ea     1.0°     3.40 Nm/Deg     1.0 mm     CPFRG23/37-AT     Yes     0.046300     6082 Aluminum Bar     Clear Anodized     634529227541   |
| Screw MaterialAlloy SteelScrew FinishBlack OxideScrew Location (R)14 mmRated Torque4 NmPeak Torque5 NmAxial Motion0.70 mmMaximum Speed15,000 RPMFull Bearing Support Required?YesBalanced DesignYesTemperature-22°F to 175°F (-30°C to 80°C)FinishClear AnodizedManufacturerSchmidt KupplungCountry of OriginGermanyUNSPC31163022Note 1Stainless steel hubs are available   | Hex Wrench Size<br>Seating Torque<br>Number of Screws<br>Angular Misalignment<br>Torsional Stiffness<br>Parallel Misalignment<br>Recommended Inserts<br>Zero-Backlash?<br>Weight (lbs)<br>Material Specification<br>Finish Specification<br>UPC   | 2.5 mm<br>1.3 Nm<br>1 ea<br>1.0°<br>3.40 Nm/Deg<br>1.0 mm<br><u>CPFRG23/37-AT</u><br>Yes<br>0.046300<br>6082 Aluminum Bar<br>Clear Anodized<br>634529227541  |
| Screw FinishBlack OxideScrew Location (R)14 mmRated Torque4 NmPeak Torque5 NmAxial Motion0.70 mmMaximum Speed15,000 RPMFull Bearing Support Required?YesBalanced DesignYesTemperature-22°F to 175°F (-30°C to 80°C)FinishClear AnodizedManufacturerSchmidt KupplungCountry of OriginGermanyUNSPC31163022Note 1Stainless steel hubs are available  | Seating Torque<br>Number of Screws<br>Angular Misalignment<br>Torsional Stiffness<br>Parallel Misalignment<br>Recommended Inserts<br>Zero-Backlash?<br>Weight (lbs)<br>Material Specification<br>Finish Specification<br>UPC  | 1.3 Nm     1 ea     1.0°     3.40 Nm/Deg     1.0 mm     CPFRG23/37-AT     Yes     0.046300     6082 Aluminum Bar     Clear Anodized     634529227541   |
| Screw Location (R)14 mmRated Torque4 NmPeak Torque5 NmAxial Motion0.70 mmMaximum Speed15,000 RPMFull Bearing Support Required?YesBalanced DesignYesTemperature-22°F to 175°F (-30°C to 80°C)FinishClear AnodizedManufacturerSchmidt KupplungCountry of OriginGermanyUNSPC31163022Note 1Stainless steel hubs are available   | Number of ScrewsAngular MisalignmentTorsional StiffnessParallel MisalignmentRecommended InsertsZero-Backlash?Weight (Ibs)Material SpecificationFinish SpecificationUPC  | 1 ea<br>1.0°<br>3.40 Nm/Deg<br>1.0 mm<br><u>CPFRG23/37-AT</u><br>Yes<br>0.046300<br>6082 Aluminum Bar<br>Clear Anodized<br>634529227541  |
| Rated Torque4 NmPeak Torque5 NmAxial Motion0.70 mmMaximum Speed15,000 RPMFull Bearing Support Required?YesBalanced DesignYesTemperature-22°F to 175°F (-30°C to 80°C)FinishClear AnodizedManufacturerSchmidt KupplungCountry of OriginGermanyUNSPC31163022Note 1Stainless steel hubs are available  | Angular Misalignment<br>Torsional Stiffness<br>Parallel Misalignment<br>Recommended Inserts<br>Zero-Backlash?<br>Weight (Ibs)<br>Material Specification<br>Finish Specification<br>UPC  | 1.0°     3.40 Nm/Deg     1.0 mm     CPFRG23/37-AT     Yes     0.046300     6082 Aluminum Bar     Clear Anodized     634529227541   |
| Peak Torque5 NmAxial Motion0.70 mmMaximum Speed15,000 RPMFull Bearing Support Required?YesBalanced DesignYesTemperature-22°F to 175°F (-30°C to 80°C)FinishClear AnodizedManufacturerSchmidt KupplungCountry of OriginGermanyUNSPC31163022Note 1Stainless steel hubs are available  | Torsional Stiffness<br>Parallel Misalignment<br>Recommended Inserts<br>Zero-Backlash?<br>Weight (Ibs)<br>Material Specification<br>Finish Specification<br>UPC  | 3.40 Nm/Deg     1.0 mm     CPFRG23/37-AT     Yes     0.046300     6082 Aluminum Bar     Clear Anodized     634529227541  |
| Axial Motion0.70 mmMaximum Speed15,000 RPMFull Bearing Support Required?YesBalanced DesignYesTemperature-22°F to 175°F (-30°C to 80°C)FinishClear AnodizedManufacturerSchmidt KupplungCountry of OriginGermanyUNSPC31163022Note 1Stainless steel hubs are available   | Parallel Misalignment<br>Recommended Inserts<br>Zero-Backlash?<br>Weight (Ibs)<br>Material Specification<br>Finish Specification<br>UPC   | 1.0 mm       CPFRG23/37-AT       Yes       0.046300       6082 Aluminum Bar       Clear Anodized       634529227541  |
| Maximum Speed15,000 RPMFull Bearing Support Required?YesBalanced DesignYesTemperature-22°F to 175°F (-30°C to 80°C)FinishClear AnodizedManufacturerSchmidt KupplungCountry of OriginGermanyUNSPC31163022Note 1Stainless steel hubs are available  | Recommended Inserts<br>Zero-Backlash?<br>Weight (Ibs)<br>Material Specification<br>Finish Specification<br>UPC  | CPFRG23/37-AT<br>Yes<br>0.046300<br>6082 Aluminum Bar<br>Clear Anodized<br>634529227541  |
| Full Bearing Support Required?YesBalanced DesignYesTemperature-22°F to 175°F (-30°C to 80°C)FinishClear AnodizedManufacturerSchmidt KupplungCountry of OriginGermanyUNSPC31163022Note 1Stainless steel hubs are available   | Zero-Backlash?<br>Weight (Ibs)<br>Material Specification<br>Finish Specification<br>UPC   | Yes<br>0.046300<br>6082 Aluminum Bar<br>Clear Anodized<br>634529227541   |
| Balanced DesignYesTemperature-22°F to 175°F (-30°C to 80°C)FinishClear AnodizedManufacturerSchmidt KupplungCountry of OriginGermanyUNSPC31163022Note 1Stainless steel hubs are available  | Weight (lbs)<br>Material Specification<br>Finish Specification<br>UPC   | 0.046300<br>6082 Aluminum Bar<br>Clear Anodized<br>634529227541  |
| Temperature-22°F to 175°F (-30°C to 80°C)FinishClear AnodizedManufacturerSchmidt KupplungCountry of OriginGermanyUNSPC31163022Note 1Stainless steel hubs are available  | Material Specification<br>Finish Specification<br>UPC   | 6082 Aluminum Bar<br>Clear Anodized<br>634529227541  |
| FinishClear AnodizedManufacturerSchmidt KupplungCountry of OriginGermanyUNSPC31163022Note 1Stainless steel hubs are available   | Finish Specification<br>UPC   | Clear Anodized<br>634529227541   |
| ManufacturerSchmidt KupplungCountry of OriginGermanyUNSPC31163022Note 1Stainless steel hubs are available   | UPC   | 634529227541   |
| Country of OriginGermanyUNSPC31163022Note 1Stainless steel hubs are available   |   |  |
| UNSPC 31163022   Note 1 Stainless steel hubs are available  | Tariff Code   | 0.400.00.0000  |
| Note 1 Stainless steel hubs are available   |   | 8483.60.8000   |
|   |   |  |
|   | e upon request.   |  |
| Note 2 Performance ratings are for guida  | ance only. The user must deterr   | mine suitability for a particular application.   |
| normal/typical conditions the hub<br>especially when the smallest star  | s are capable of holding up to the<br>ndard bores are used or where s<br>e. Keyways are available to prov   | tions/failure point of the inserts. Under<br>he rated torque of the inserts. In some case<br>shafts are undersized, slippage on the shaft<br>vide additional torque capacity in the<br>upport for more assistance. |
| known to the State of California to   | o cause cancer, and Ethylene T  | ng Ethylene Thiourea and Nickel (metallic),<br>Thiourea known to the State of California to<br>ation go to <u>www.P65Warnings.ca.gov</u> .   |
| with the drive pins facing  | g each other and determine if the   | ing hub on the shafts that are to be joined<br>e misalignment parameters are within the<br>allel Misalignment: 1.0 mm, Axial Motion: 0.  |
|   | shaft so the drive pins are 90° for end of the shaft. Tighten the classifier the shaft.   |  |

Ruland Manufacturing Co., Inc.

- 5. Align the drive pins on the second hub to match the holes in the insert(s).
- 6. Verify that the space between hubs is 0.708 in, 18.0 mm.
- 7. Tighten the clamp screw on the second hub to the recommended seating torque of 1.3 Nm using a 2.5 mm hex torque wrench.