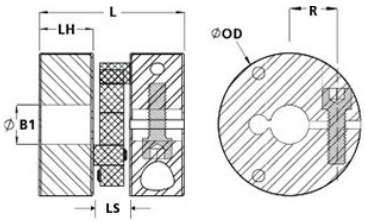
# MCPTS25-10-A

Ruland MCPTS25-10-A, Controlflex Coupling Hub, Aluminum, Clamp Style, 25.0mm OD, 20.5mm Length






## Description

Ruland MCPTS25-10-A is a Controlflex coupling hub with a 10mm bore, 25.0mm OD, and 20.5mm length. It is a component in a three-piece design consisting of two aluminum hubs mounted by pins to one acetal insert creating a lightweight low inertia coupling capable of speeds up to 22,000 RPM. This three-piece design allows for a highly customizable coupling that easily combines clamp hubs with inch, metric, keyed, and keyless bores. MCPTS25-10-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. MCPTS25-10-A is RoHS3 and REACH compliant.

## Product Specifications

| | | | |
|---|---|---|---|
| **Bore (B1)** | 10 mm | **B1 Max Shaft Penetration** | 7.0 mm |
| **Outer Diameter (OD)** | 0.984 in (25.0 mm) | **Bore Tolerance** | +0.05 mm / +0.01 mm |
| **Hub Width (LH)** | 7.00 mm | **Length (L)** | 0.807 in (20.5 mm) |
| **Space Between Hubs (LS)** | 0.255 in (6.5 mm) | **Forged Clamp Screw** | M2.5 |
| **Screw Material** | Alloy Steel | **Hex Wrench Size** | 2.0 mm |
| **Screw Finish** | Black Oxide | **Seating Torque** | 0.7 Nm |
| **Screw Location (R)** | 8 mm | **Number of Screws** | 1 ea |
| **Rated Torque** | 0.7 Nm | **Angular Misalignment** | 1.5° |
| **Peak Torque** | 1 Nm | **Torsional Stiffness** | 0.65 Nm/Deg |
| **Axial Motion** | 0.50 mm | **Parallel Misalignment** | 0.70 mm |
| **Maximum Speed** | 22,000 RPM | **Recommended Inserts** | CPFRG16/25-AT |
| **Full Bearing Support Required?** | Yes | **Zero-Backlash?** | Yes |
| **Balanced Design** | Yes | **Weight (lbs)** | 0.015400 |
| **Temperature** | -22°F to 175°F (-30°C to 80°C) | **Material Specification** | 6082 Aluminum Bar |
| **Finish** | Clear Anodized | **Finish Specification** | Clear Anodized |
| **Manufacturer** | Schmidt Kupplung | **UPC** | 634529228258 |
| **Country of Origin** | Germany | **Tariff Code** | 8483.60.8000 |
| **UNSPC** | 31163022 | | |
| **Note 1** | Stainless steel hubs are available upon request. | | |
| **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 inserts. Under normal/typical conditions the hubs are capable of holding up to the rated torque of the inserts. 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. Keyways are available to provide additional torque capacity in the shaft/hub connection when required. Please consult technical support for more assistance. | | |
| **Prop 65** | ⚠**WARNING** This product can expose you to chemicals including Ethylene Thiourea and Nickel (metallic), known to the State of California to cause cancer, and Ethylene Thiourea known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. | | |

**Installation Instructions**

1. Align the bores of the MCPTS25-10-A controlflex coupling hub on the shafts that are to be joined with the drive pins facing each other and determine if the misalignment parameters are within the limits of the coupling. (*Angular Misialignment:* 1.5°, *Parallel Misalignment*: 0.7 mm, *Axial Motion*: 0.5

mm)

2. Rotate the hubs on the shaft so the drive pins are 90° from each other.
3. Place the first hub at the end of the shaft. Tighten the clamp screw to 0.7 Nm using a 2.0 mm hex torque wrench.
4. Place an insert(s) with the standoffs facing the hub over the pins of the hub that was just installed.
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 0.255 in, 6.5 mm.
7. Tighten the clamp screw on the second hub to the recommended seating torque of 0.7 Nm using a 2.0 mm hex torque wrench.