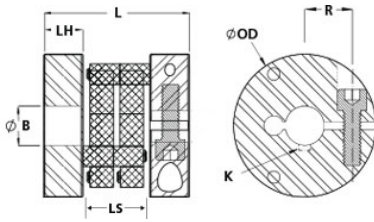




## CPTDK23-6-A

Ruland CPTDK23-6-A, Controlflex Coupling Hub, Aluminum, Clamp Style With Keyway, 1.457" OD, 1.260" Length



### Description

Ruland CPTDK23-6-A is a Controlflex coupling hub with a 0.3750" bore, 3/32" keyway, 1.457" OD, and 1.260" 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. CPTDK23-6-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. CPTDK23-6-A is RoHS3 and REACH compliant.

### Product Specifications

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                       |                                |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|--------------------------------|
| <b>Bore (B1)</b>              | 0.3750 in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>B1 Max Shaft Penetration</b>       | 0.610 in                       |
| <b>Keyway (K)</b>             | 3/32 in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Outer Diameter (OD)</b>            | 1.457 in (37.0 mm)             |
| <b>Bore Tolerance</b>         | +0.002 in / +0.001 in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Hub Width (LH)</b>                 | 0.276 in                       |
| <b>Length (L)</b>             | 1.260 in (32.0 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Space Between Hubs (LS)</b>        | 0.708 in (18.0 mm)             |
| <b>Forged Clamp Screw</b>     | M3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>Screw Material</b>                 | Alloy Steel                    |
| <b>Hex Wrench Size</b>        | 2.5 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Screw Finish</b>                   | Black Oxide                    |
| <b>Seating Torque</b>         | 1.3 Nm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>Screw Location (R)</b>             | 14 mm                          |
| <b>Number of Screws</b>       | 1 ea                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Rated Torque</b>                   | 4 Nm                           |
| <b>Angular Misalignment</b>   | 1.0°                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Peak Torque</b>                    | 5 Nm                           |
| <b>Torsional Stiffness</b>    | 3.40 Nm/Deg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>Axial Motion</b>                   | 0.028 in                       |
| <b>Parallel Misalignment</b>  | 0.039 in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Maximum Speed</b>                  | 15,000 RPM                     |
| <b>Recommended Inserts</b>    | <a href="#">CPFRG23/37-AT</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <b>Full Bearing Support Required?</b> | Yes                            |
| <b>Zero-Backlash?</b>         | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | <b>Balanced Design</b>                | Yes                            |
| <b>Weight (lbs)</b>           | 0.046300                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <b>Temperature</b>                    | -22°F to 175°F (-30°C to 80°C) |
| <b>Material Specification</b> | 6082 Aluminum Bar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>Finish</b>                         | Clear Anodized                 |
| <b>Finish Specification</b>   | Clear Anodized                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>Manufacturer</b>                   | Schmidt Kupplung               |
| <b>UPC</b>                    | 634529224472                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Country of Origin</b>              | Germany                        |
| <b>Tariff Code</b>            | 8483.60.8000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>UNSPC</b>                          | 31163022                       |
| <b>Note 1</b>                 | Stainless steel hubs are available upon request.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                       |                                |
| <b>Note 2</b>                 | Performance ratings are for guidance only. The user must determine suitability for a particular application.                                                                                                                                                                                                                                                                                                                                                                                                                           |                                       |                                |
| <b>Note 3</b>                 | 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. |                                       |                                |
| <b>Prop 65</b>                |  <b>WARNING</b> 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> .                                                                             |                                       |                                |

### Installation Instructions

- Align the bores of the CPTDK23-6-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 Misalignment: 1.0°, Parallel Misalignment: 1.0 mm, Axial Motion: 0.7 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 1.3 Nm using a 2.5 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 0.708 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.
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