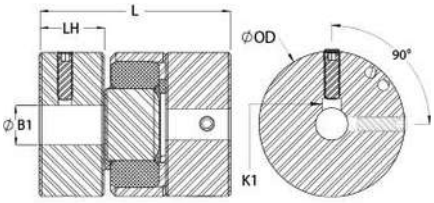
# MJSC51-24-A

Ruland MJSC51-24-A, 24mm Jaw Coupling Hub, Aluminum, Set Screw Style With Keyway, 50.8mm OD, 20.8mm Length








## Description

Ruland MJSC51-24-A is a set screw zero-backlash jaw coupling hub with a 24mm bore, 8mm keyway, 50.8mm OD, and 20.8mm length. It is a component in a three-piece design consisting of two aluminum hubs and an elastomeric insert called the spider creating a lightweight low inertia coupling capable of speeds up to 8,000 RPM. 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. Spiders are available in three durometers allowing the user to tailor coupling performance to their application. Ruland jaw couplings have a balanced design for reduced vibration at high speeds. Hardware is metric and tests beyond DIN 912 12.9 standards for maximum torque capabilities. MJSC51-24-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

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|---|---|---|---|
| **Bore (B1)** | 24 mm | **Keyway (K)** | 8 mm |
| **B1 Max Shaft Penetration** | 20.8 mm | **Outer Diameter (OD)** | 2.000 in (50.8 mm) |
| **Bore Tolerance** | +0.03 mm / -0.00 mm | **Hub Width (LH)** | 20.83 mm |
| **Length (L)** | 2.400 in (61.0 mm) | **Recommended Shaft Tolerance** | +0.000 mm / -0.013 mm |
| **Key Width (K1)** | 8 mm | **Key Height (K1)** | 7 mm |
| **Keyway 1 Height (T1)** | 27.3 mm | **Keyway 1 Width Tolerance** | +0.018 mm / -0.018 mm |
| **Keyway 1 Height Tolerance** | +0.2 mm / 0 mm | **Forged Set Screw** | M6 |
| **Number of Screws** | 2 ea 90° apart | **Screw Material** | Alloy Steel |
| **Screw Finish** | Black Oxide | **Hex Wrench Size** | 3.0 mm |
| **Seating Torque** | 7.2 Nm | **Torque Specifications** | Torque ratings vary with insert selection |
| **Misalignment** | Misalignment ratings vary with insert selection | **Maximum Speed** | 8,000 RPM |
| **Moment of Inertia** | 4.328 x $10^{-5}$ kg-$m^2$ | **Full Bearing Support Required?** | Yes |
| **Recommended Inserts** | JD32/51-98R, JD32/51-92Y | **Zero-Backlash?** | Yes |
| **Balanced Design** | Yes | **Fail Safe?** | Yes |
| **Weight (lbs)** | 0.229700 | **Temperature** | -10°F to 180°F (-23°C to 82°C) |
| **Material Specification** | 2024-T351 Aluminum Bar | **Finish** | Bright |
| **Finish Specification** | Bright, No Plating | **Manufacturer** | Ruland Manufacturing |
| **Recommended Gap Between Hubs** | 0.050 in (1.25 mm) | **Country of Origin** | USA |
| **UPC** | 634529124611 | **UNSPC** | 31163011 |
| **Tariff Code** | 8483.60.8000 | | |
| **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 spiders. Under normal/typical conditions the hubs are capable of holding up to the nominal torque of the spiders. Please consult technical support for more assistance. | | |

## Prop 65

**WARNING** This product can expose you to the chemical Ethylene Thiourea, known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

## Installation Instructions

1. Align the bores of the MJSC51-24-A jaw coupling hubs on the shafts that are to be joined and determine if the misalignment parameters are within the limits of the coupling. (See spider for misalignment parameters.)
2. Fully tighten the M6 screw(s) on the first hub to the recommended seating torque of 7.2 Nm using a 3.0 mm hex torque wrench.
3. Insert a spider into the jaws of one hub until the raised points contact the base of the hub.
4. Insert the jaws of the second hub into the spider openings until the raised points contact the base of the second hub. Some force will be required to insert the second hub. This is normal.
5. Assure that a gap is maintained between the two hubs so there is no metal to metal contact. Fully tighten the screw(s) on the second hub to the recommended seating torque.