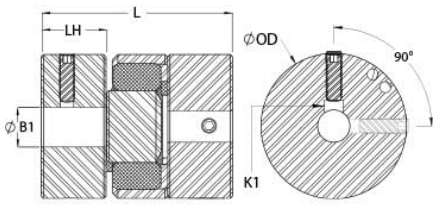
MJSC57-20-A

Ruland MJSC57-20-A, 20mm Jaw Coupling Hub, Aluminum, Set Screw Style With Keyway, 57.2mm OD, 28.7mm Length





Description

Ruland MJSC57-20-A is a set screw zero-backlash jaw coupling hub with a 20mm bore, 6mm keyway, 57.2mm OD, and 28.7mm length. It is a component in a three-piece design consisiting 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. MJSC57-20-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

Bore (B1)	20 mm	**Keyway (K)**	6 mm
B1 Max Shaft Penetration	28.7 mm	**Outer Diameter (OD)**	2.250 in (57.2 mm)
Bore Tolerance	+0.03 mm / -0.00 mm	**Hub Width (LH)**	28.70 mm
Length (L)	3.150 in (80.0 mm)	**Recommended Shaft Tolerance**	+0.000 mm / -0.013 mm
Forged Set Screw	M8	**Number of Screws**	2 ea 90° apart
Screw Material	Alloy Steel	**Screw Finish**	Black Oxide
Hex Wrench Size	4.0 mm	**Seating Torque**	17 Nm
Torque Specifications	Torque ratings vary with insert selection	**Misalignment**	Misalignment ratings vary with insert selection
Maximum Speed	8,000 RPM	**Moment of Inertia**	9.741 x 10^{-5} kg-m^2
Full Bearing Support Required?	Yes	**Recommended Inserts**	JD36/57-98R, JD36/57-92Y
Zero-Backlash?	Yes	**Balanced Design**	Yes
Fail Safe?	Yes	**Weight (lbs)**	0.449100
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**	634529116531
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 MJSC57-20-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 M8 screw(s) on the first hub to the recommended seating torque of 17 Nm using a

4.0 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.