



Magnaloy Coupling Company

Technical Product Information

Couplings

Installation of Magnaloy Coupling Spline Bored/Steel Bushed/Clamp Type hubs

Magnaloy manufactures its steel bushing from high quality steel bar stock. In some cases, this material has residual stresses in it and after the bushing is turned, milled and broached with the spline bore, the bushing collapses when it is split for the clamp feature. During this splitting operation, the coupling with bushing installed is inserted on a spline arbor matching the spline bore of the bushing. This provides a positive method to locate the spline teeth in relation to the split and also provides assurance that the spline bore fits the shaft per specification. This condition has caused some installation issues which our customer service people and engineering staff have addressed with customers. In light of this, we are providing the following procedure for installation of these coupling hubs.

If the coupling hub does not install on the spline shaft readily. Please note there is not a great amount of clearance between the splined shaft and spline bore of these hubs, so attention to assembly is required.

1. Check the spline shaft size and the coupling spline bore size to be certain they match. This can be done quickly by counting the number of teeth and measuring the major diameter of each.
2. Loosen the Clamp Bolt and Set Screw in the coupling hub.
3. If the coupling still does not install on the spline shaft, the bushing may have collapsed.
4. **Do not remove the steel bushing from the coupling hub to perform this installation procedure.** Opening the split in the steel bushing excessively could cause damage to the steel bushing.
5. Use a small screwdriver or other wedge shaped device and insert it into the bushing split, as shown below, apply force to cause the bushing split to open to its original position.
6. Keep the screwdriver in this position and slide the coupling hub over the splined shaft and remove the screwdriver.
7. After positioning the coupling hub on the shaft, tighten the clamp bolt to the torque specified in the Magnaloy Coupling Catalog (page 11), then re-tighten the setscrew to its specified torque. **Note The fastener tightening sequence: clamp bolt first then the set screw over the bushing keyway.**

