

## Installing the Ogura or Warner AA clutch

Hub, Coil and Rotor/Pulley are preassembled. Armature is shipped loose along with Hardware Kit (consisting of center bolt, washer and shims)

Step 1:

Slide the Hub/Coil/Rotor/Pulley Assembly onto the pump shaft and secure to pump face using pump manufacturer supplied bolts through the two bolt holes.

Step 2 Ogura Clutches:

Place two shims onto pump shaft on top of rotor face. Slide armature onto shaft and measure air gap between the Armature and Rotor. Repeat this step and add shims as needed (more or less than 2) to acquire 0.3 to 0.6mm (.011" to .023") air gap between the rotor and armature. Check air gap at 3 locations 120° apart.

Step 2 Warner Clutches:

Place two shims onto pump shaft on top of rotor face. Slide armature onto shaft and measure air gap between the Armature and Rotor. Repeat this step and add shims as needed (more or less than 2) to acquire 0.02 – 0.04mm (.007" to .016") air gap between the rotor and armature. Check air gap at 3 locations 120° apart.

Step 3:

Fasten center bolt and washer to face of pump shaft and tighten to 25 ft. lbs. torque.

**Failing to set the air gap correctly will cause premature pump failure due to axial load placed on the pump shaft.**

