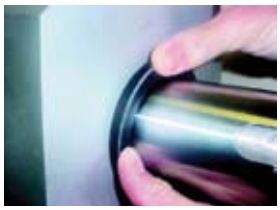
## Solid Clipper Seal Installation

1. Clean seal bore and shaft. Remove all burrs and nicks.

2. Pre-lubricate the seal ID and shaft before installing the seal into the cavity. Use a pre-lube that is compatible with the system lubricant. The pre-lube will make the seal easier to install and prevent dry running during initial start-up. **(Do not lubricate the seal OD or housing.)**

3. Protect seal lip against damage from sharp keyways, splines and screw threads. This can be done by either taping the keyway, inserting an element into the keyway or using an assembly sleeve that fits over the shaft.

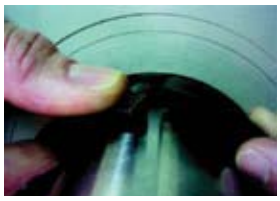


4. Point seal lip in correct direction and push to edge of the counter bore.

5. Start seal into cavity by finger pressure. After starting seal in housing, tap evenly with a soft-faced mallet all around until seated.

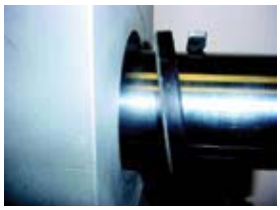
6. Finish installation by using a flat plate tool to drive seal in final position. The plate diameter should be large enough so it contacts the face of seal housing. This will ensure seal is positioned straight and perpendicular to the shaft.

## Split (R Series) Clipper Seal Installation

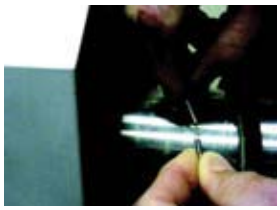


1. Clean the equipment cavity recess area thoroughly. Remove all burrs and sharp corners. Provide adequate lead-in chamfers.

2. Apply light grease or oil coating to the shaft area where the lip will engage. **Do not apply grease or oil to seal OD or equipment bore surface.**



3. Separate the cut ends of the seal sideways so that seal forms a helix. Do not try to form the seal into a “U” shape. Separate ends far enough so that the seal can be slipped over the shaft.



4. Insert the garter spring over the shaft, between the seal and the bore cavity, connecting the ends of the spring with the hook-and-eye connectors. Insert the garter spring into the lip carrier groove with the connection at least 45° from the split juncture. Push the seal toward the bore cavity until it touches, making sure that the split ends are well aligned and positioned at 12 o’clock.

5. Start inserting the seal into the cavity with the split juncture at top, compressing the OD slightly, until the split juncture has been inserted to about one-third of its width. Continue pressing the balance of the seal into the cavity, working away from the split, until the entire seal has been started into the cavity recess. Tap evenly around the back face of the seal with a soft-faced mallet until it is completely seated.

6. Use a flat plate tool that will drive the seal flush with the housing to ensure seal is installed square and perpendicular to the shaft.