

AMERICAN TURBINE

IMPELLER / WEAR RING SHIMMING INSTRUCTIONS SD-312

Tools Needed:

1. Feeler Gauge
2. Propane Torch
3. Bent Screw driver
4. WD-40
5. Impeller Wrench
6. 9/16 Wrench
7. Dead Blow Hammer
8. Wooden Block
9. Caliper
10. Straight Edge

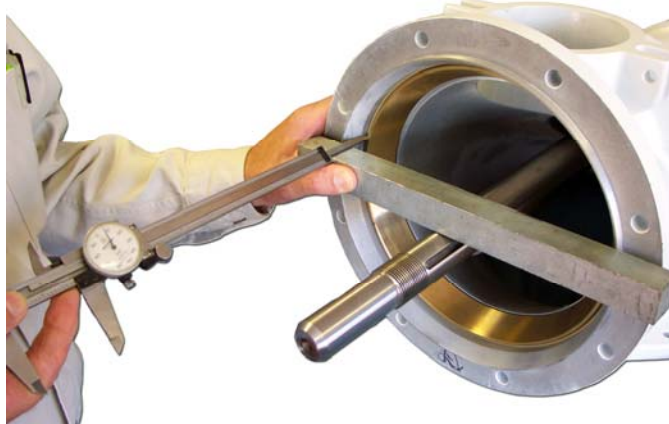


FIGURE 1



FIGURE 2

To remove old wear ring:

Use a propane torch. Place the flame on the brass ring go around in a circular motion until the insulator starts to melt. Grab the ring with a bent over screwdriver (90deg.) and pull out. Clean up wear ring bore.

Installation:

Place wear ring in freezer for four hours. Place insulator in suction bore. Spray with WD-40. Start wear ring by hand. Tap wear ring in using a wooden block and a mallet. You may use an old impeller but it may bottom out on the shaft before seating the ring. Do Not use impeller nut to pull impeller in.

Wear ring must be seated square in the bore with-in 0.004" side to side. Use dial caliper and straight edge as shown in FIGURE 1.

The axial clearance between the impeller and the wear ring must be 0.022"-0.024" (check at the top of the impeller as shown in FIGURE 2). Check again after the impeller nut has been tightened.

Use Zinc Anti-seize for steel lock nut. Use Red Loctite for aluminum nut. Torque impeller nut to 150 ft/lbs. Torque bowl nuts to 25-30 ft/lbs.

IMPORTANT: Do Not shim impeller tighter than 0.022". Severe damage can result.