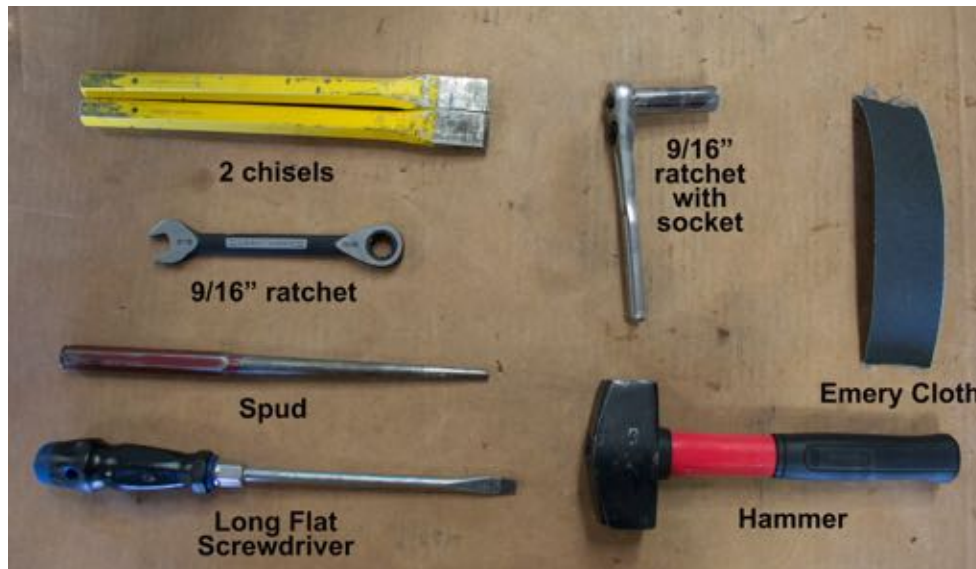


# Instruction Guide for Replacing the Shaft Seal or Impeller on a Humidaire Water Pump

Before you begin, gather these items:



## Step 1: Remove Pump Housing from Base

- Use 9/16" ratchet to remove the bolts from the underside of the pump housing.
- Once the bolts are removed, loosen the pump housing from the base by inserting a scredriver into the slot between them.
- You can also use a hammer to loosen the pump housing, just be careful not to hit it too hard as the cast iron may break.



- Lift off pump housing and set aside.



## Step 2: Remove Impeller

- Loosen the bolt in the impeller with the 9/16" ratchet and socket, using the spud to hold the impeller in place.
- Use a hammer to insert chisels under the impeller.
- **Important: Only insert chisels under the blades on the impeller so as not to bend it.**
- Remove the impeller. If you have a new one, discard the used one. If not, clean the used impeller thoroughly.



### Step 3: Remove Pump Base

- Use 9/16" ratchet to remove the bolts attaching the pump base to the motor.



- Insert a screwdriver into the slot between the pump base and the motor.
- Use a hammer to tap on the base to loosen it.



- Lift the base off the motor.
- Two inner seals will come off with the pump base. Discard the white ceramic one if it is cracked or damaged.

- Note: The shaft sleeve does not need to be removed unless it is being replaced
- If the bronze ring was damaged by the chisels, replace it.

- Thoroughly clean the pump base and pump housing.



## Step 4: Reinstall Pump Base

- After removing the 2 seals, reinstall the pump base onto the motor.
- The flat side of the base should face upwards.
- Reinstall the bolts.



## Step 5: Reinstall Lower and Upper Seal

- Take the new ceramic shaft seal and generously apply glycerin or vegetable oil.
- If the ceramic ring comes out of the rubber sleeve, make sure to put it back in with the groove on the inside.
- Press the shaft seal firmly into place with fingers.
- If it doesn't slide in smoothly, apply more lubricant.
- Take the upper seal and generously apply glycerin or vegetable oil to the rubber inside.
- If the rubber piece falls out, make sure to put it back in with the lip on the outside.
- Press the upper seal firmly into place with fingers.



## Step 6: Reinstall Impeller

- Reinstall the spring onto the pump shaft.
- Install the new or cleaned impeller onto the pump shaft, fitting the key into the slot.
- Use the 9/16" ratchet with the socket to reinstall the bolt and washer. Hold the impeller in place with the spud.



## Step 7: Replace Pump Body O-Ring

- Remove the old rubber gasket from the pump base and replace it with a new one.



## Step 8: Reinstall Pump Housing

- Use fingers to generously apply glycerin or vegetable oil onto the pump base so the pump housing slides on smoothly.



- Reinstall pump housing onto pump base.



- Replace the bolts connecting the pump housing to the pump base.

