TECHNICAL SUPPORT MATERIAL

Routine and Preventative Maintenance

ADS 3-HP Motor and Pump

When installing a new motor for the 3-HP pump, always use a new secure bolt w/locking strip (098-1613) to hold the impeller (282-6303) to the motor shaft.

This bolt should only be used once, and never reused.

Motor shaft sleeve w/inner o-rings

The stainless motor shaft sleeve (284-6203) with two internal o-rings (289-6618) should already be installed on the 7/8” motor shaft. The sleeve is 1.5” diameter OD, this is the surface that the pump seal (292-2001) rides on.

When looking at the wet-end of the pump, the impeller should turn counter-clock wise. Check rotation.

Installing the pump seal is typical of the standard 5/8”motor seal installation, only larger parts.

Motor 291-1002, shaft sleeve, o-rings, impeller, key, lock bolt, washer

Seal spring, graphite half, ceramic half and rubber boot

Lubricate the pump housing with some dish soap

Place the housing on the motor w/sleeve installed

Press the ceramic half of the seal w/boot into the housing

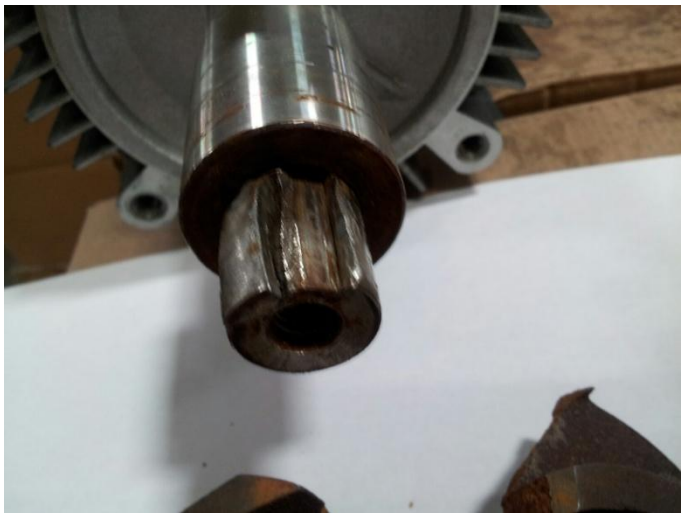
Use 1.5” OD plastic tube to press seal till firmly seated

Using dish soap again, press graphite till it seats on ceramic

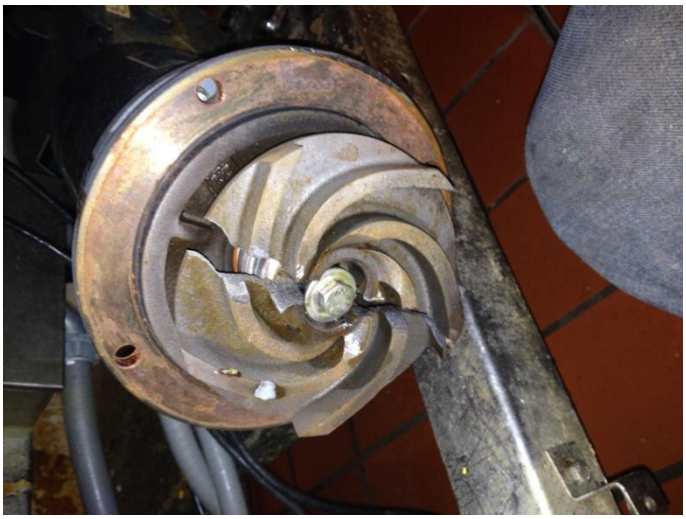
Key in the keyway, place impeller & tighten lock bolt 15 ft/lbs

CAUTION

When installing the impeller, carefully inspect the key way in the motor shaft and the impeller. If the edges of the key way are flattened out or pushed over (see photo below) the motor or impeller are not serviceable and should be replaced.



Motor with damaged key way

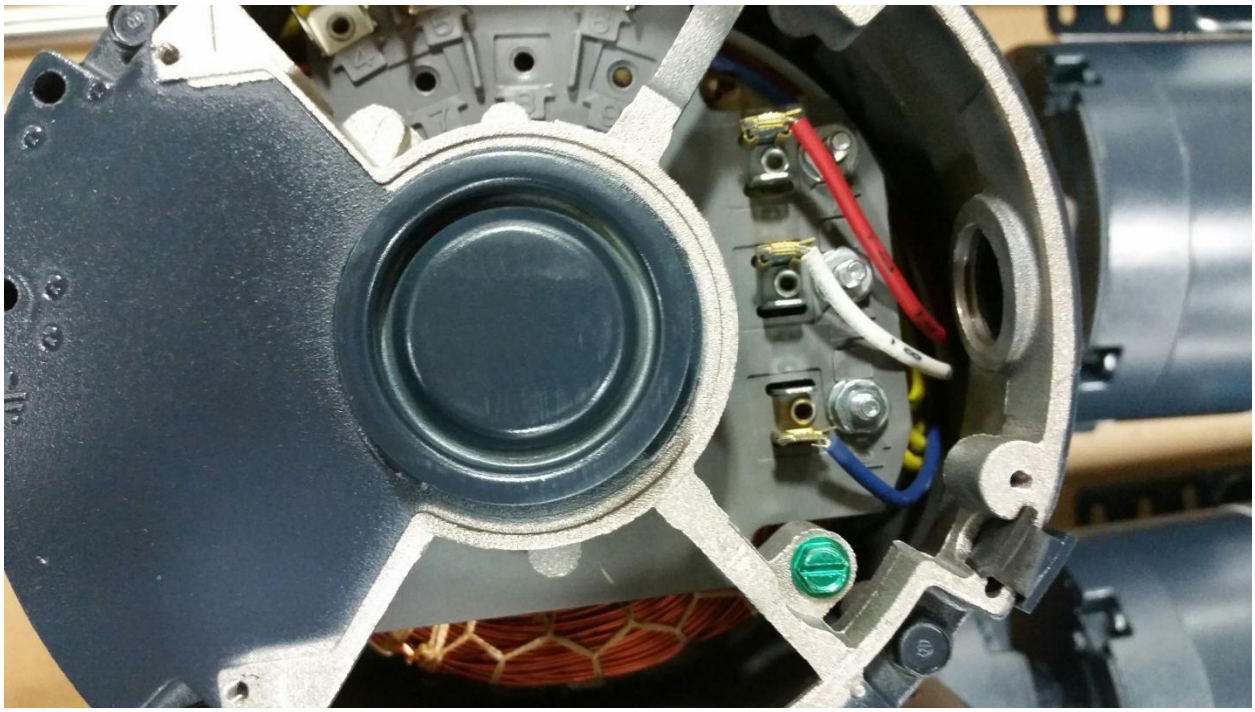


Results of key shifting in the shaft and motor

Showing key way damaged

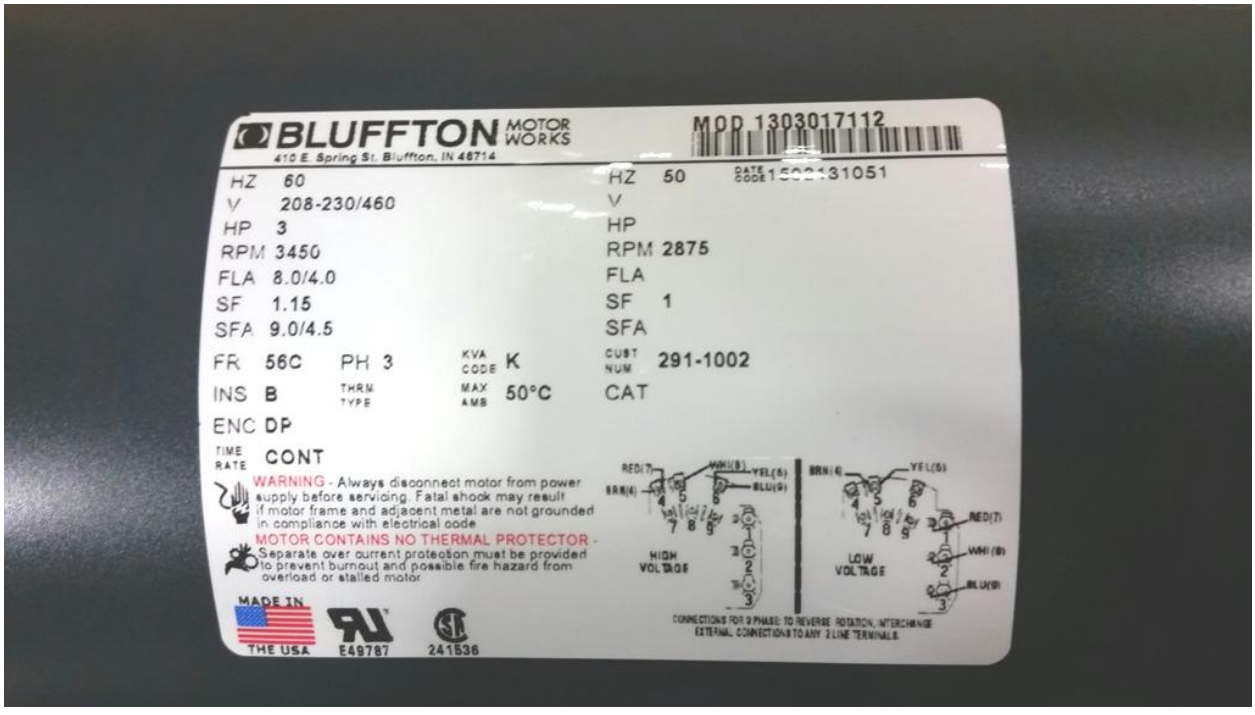
Result of spinning impeller in high ratio acid solution

Electrical

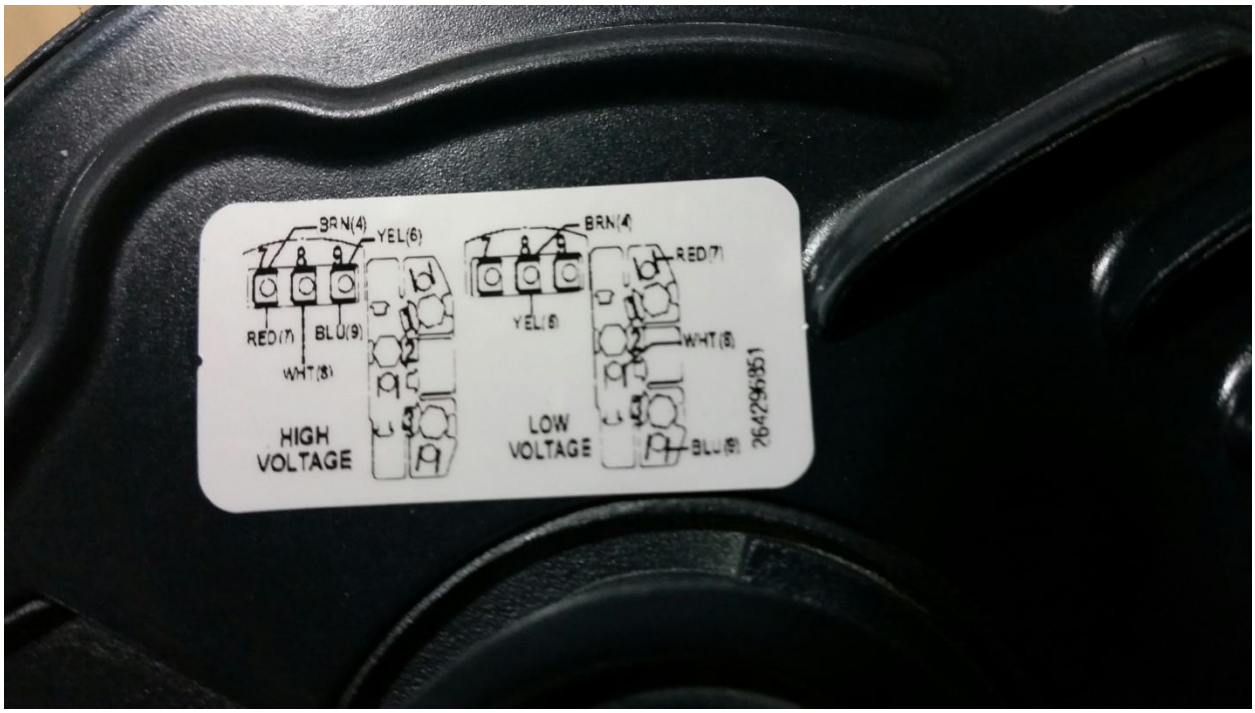


Connecting 3-phase power to the motor is done at terminals L1 Red, L2 white, L3 blue. Note: with 3-phase motors, there is a 50/50 chance of the motor rotation being correct when first connected to power—to reverse, switch any two of the phase wires.

Look at the arrow on the motor for correct rotation.



Motor specifications



Low voltage is 208-230v, high voltage is 460v