

Humidity Generation and Calibration Equipment

THUNDER SCIENTIFIC
CORPORATION THE HUMIDITY SOURCE

Model 3900

Fluid Pump Motor Replacement Procedure

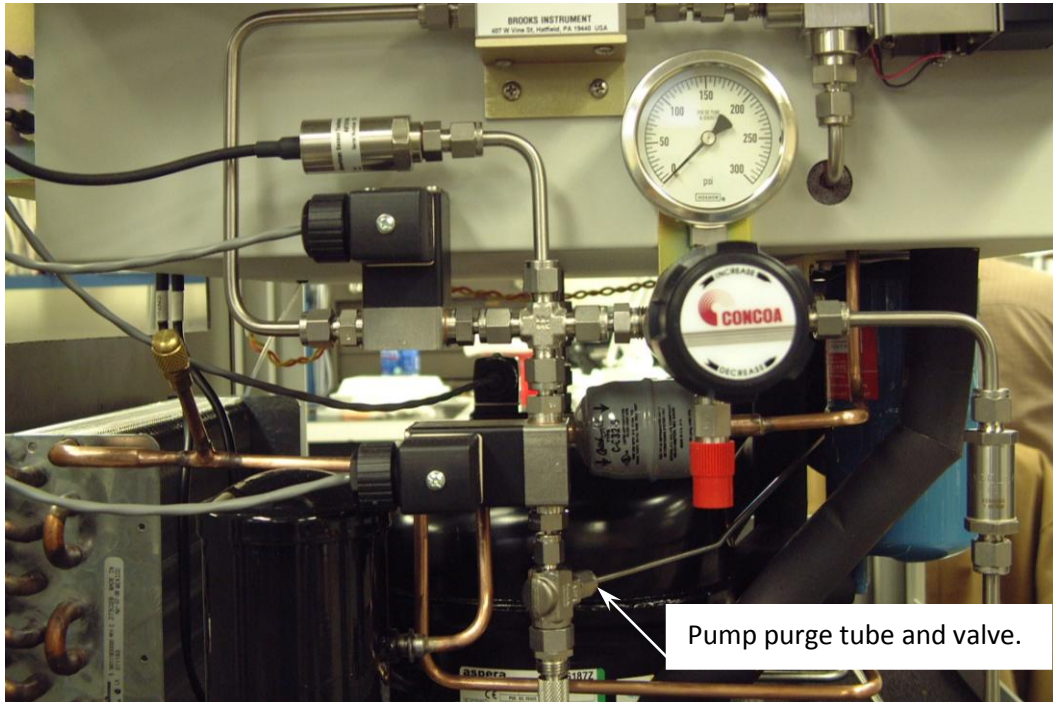


Tech Support Document TSD-0237
Revision Date: December 9, 2009

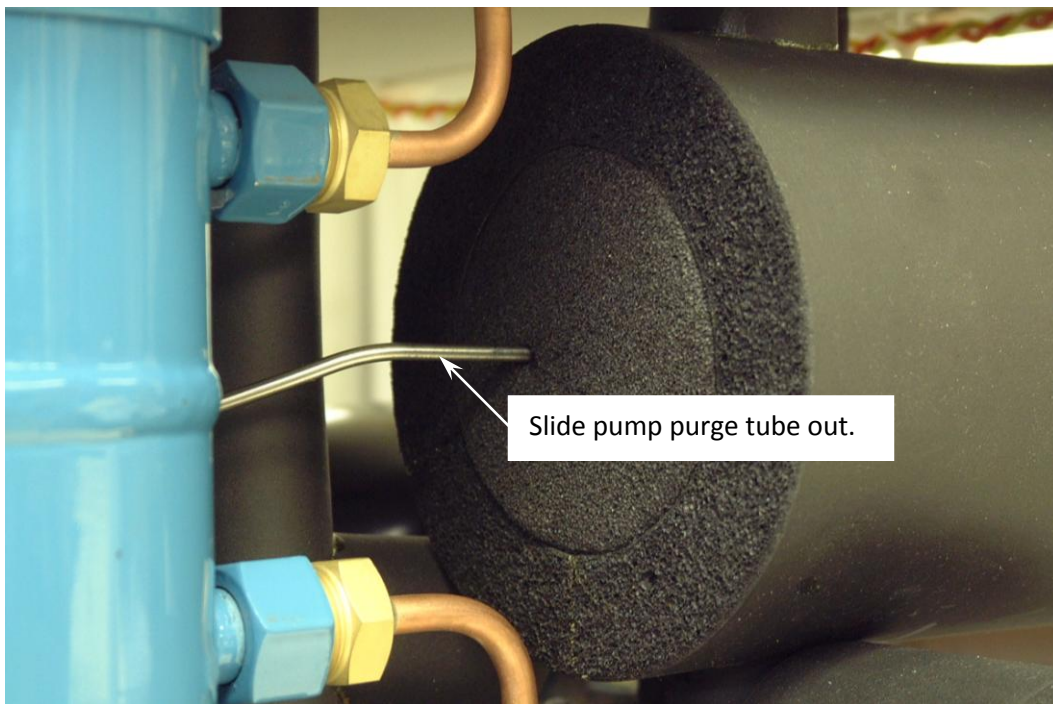


3900 Fluid Pump Motor Replacement Procedure

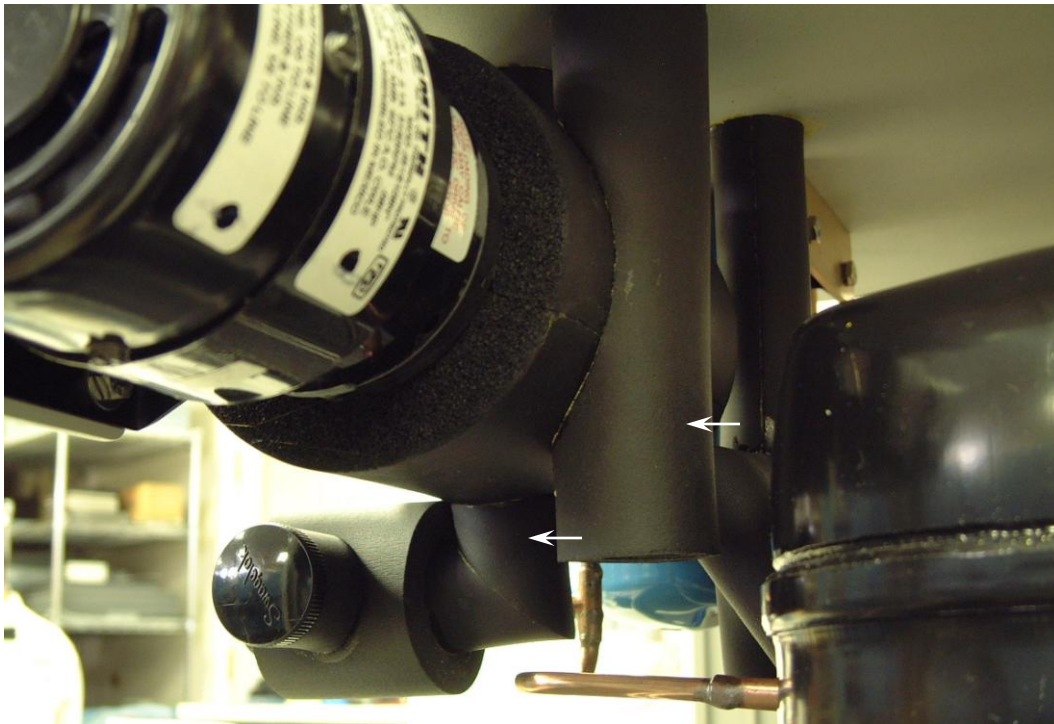
1. Begin with the pump purge tube. Use a 7/16" wrench to loosen the fitting at the purge valve. Support the valve as the fitting is removed.



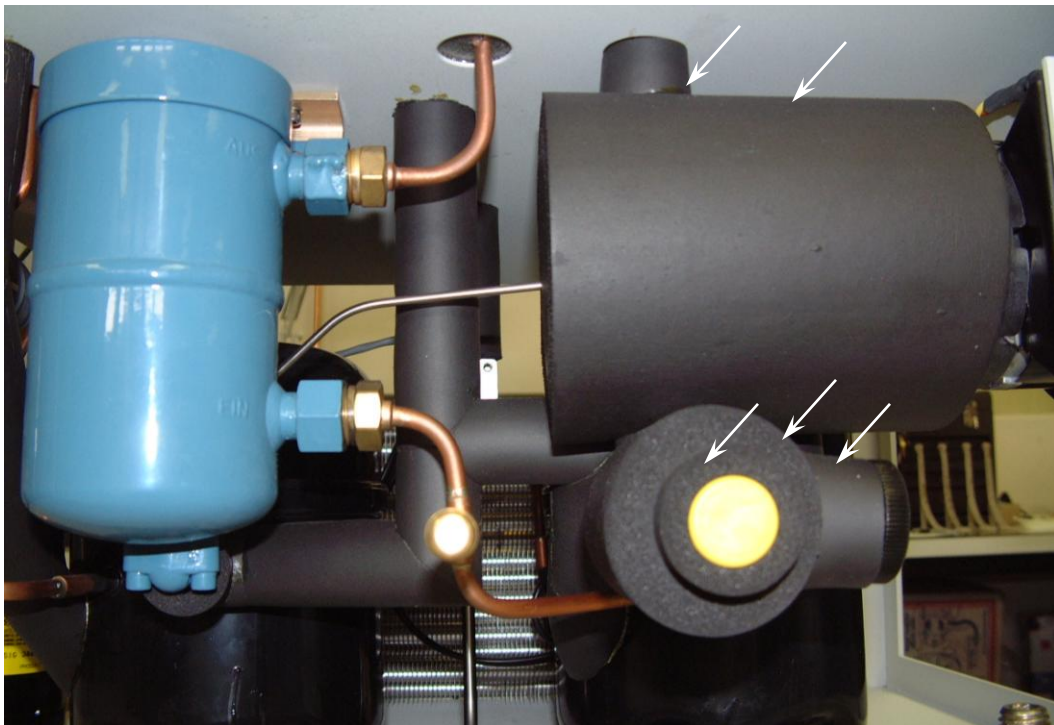
2. Once the fitting is removed from the valve, slide the tube out of the insulation



3. Remove only the fluid pump insulation pieces.



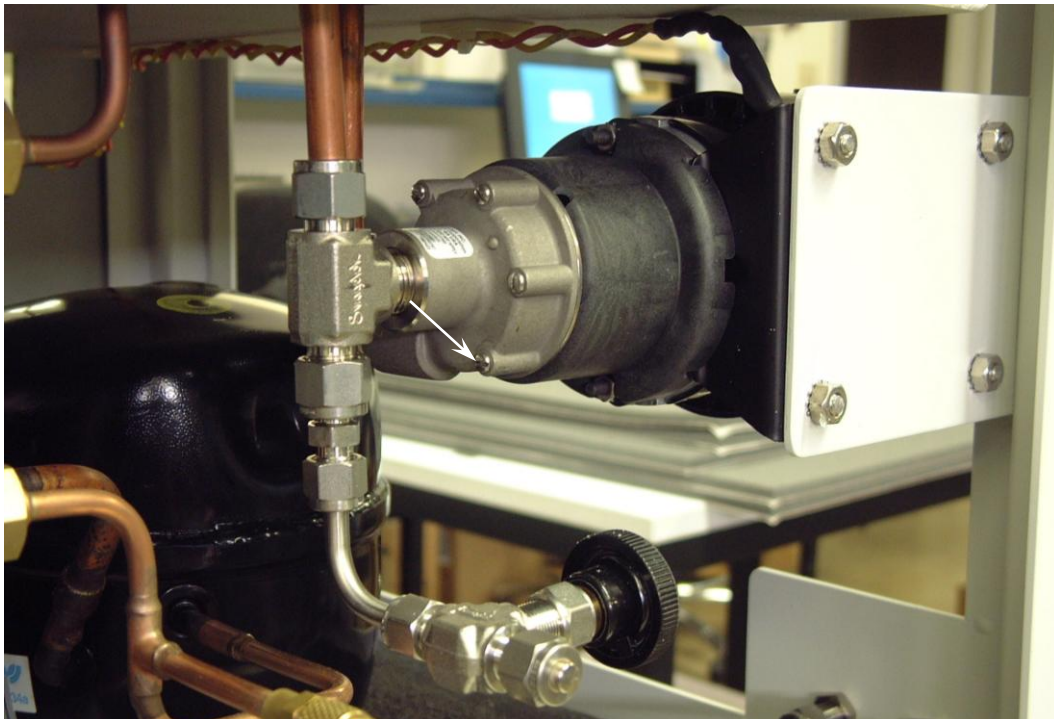
4. Drain the methanol from the system. Refer to the manual for methanol draining procedure.



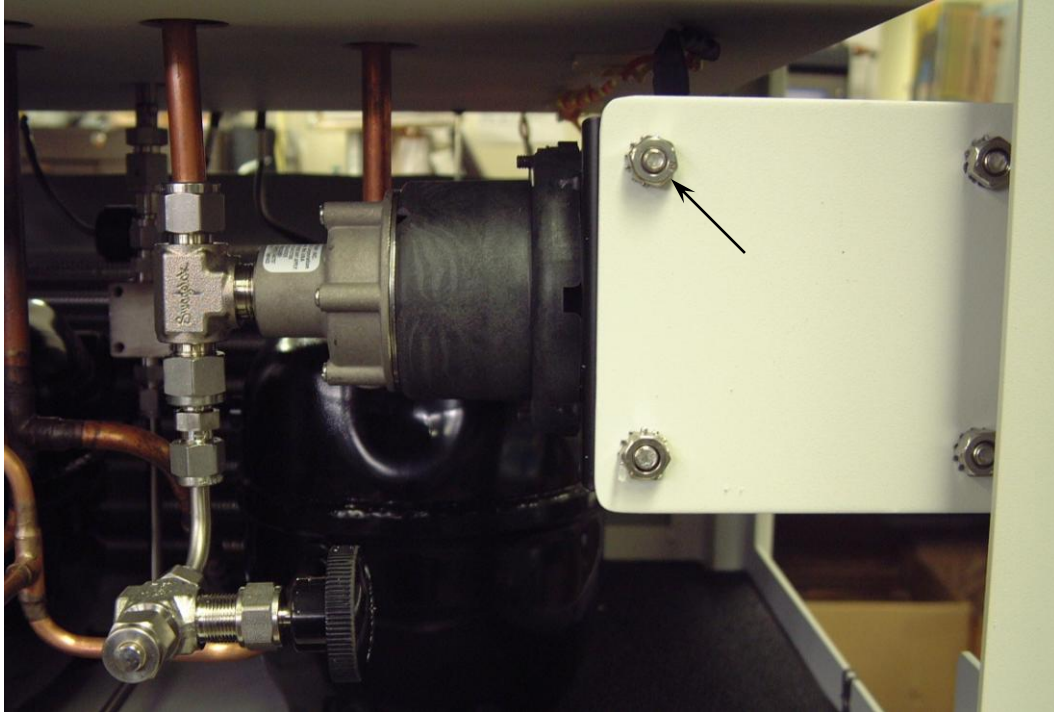
5. Disconnect the pump power harness from the machine by cutting the cable ties and unplugging from the electrical box.



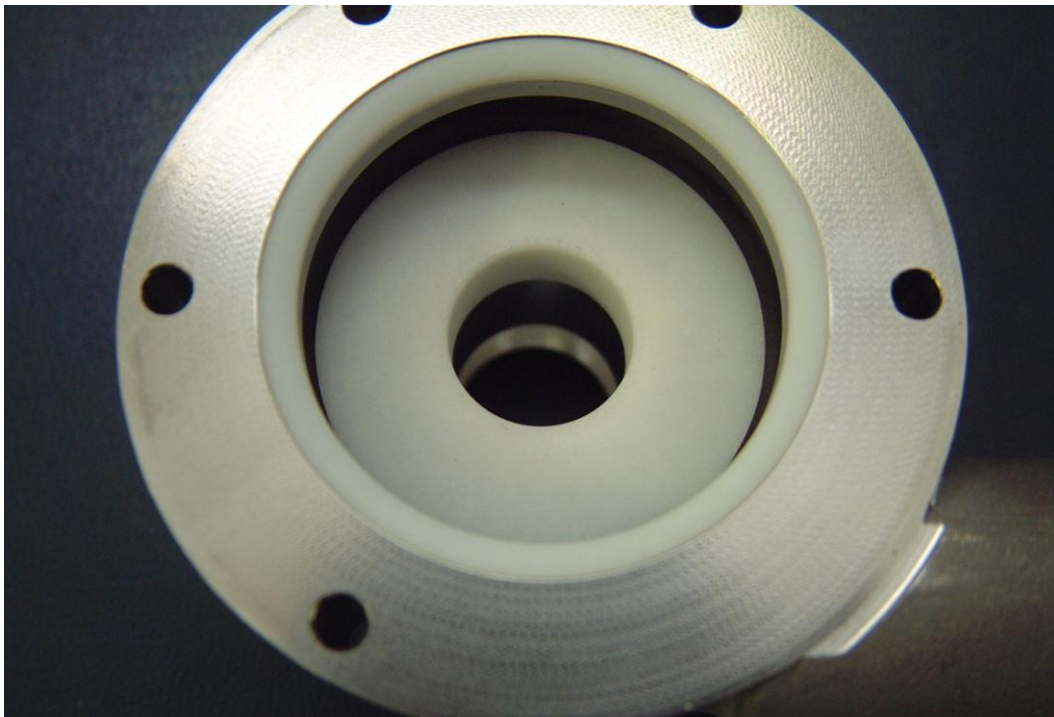
6. Remove the five screws from the fluid pump.



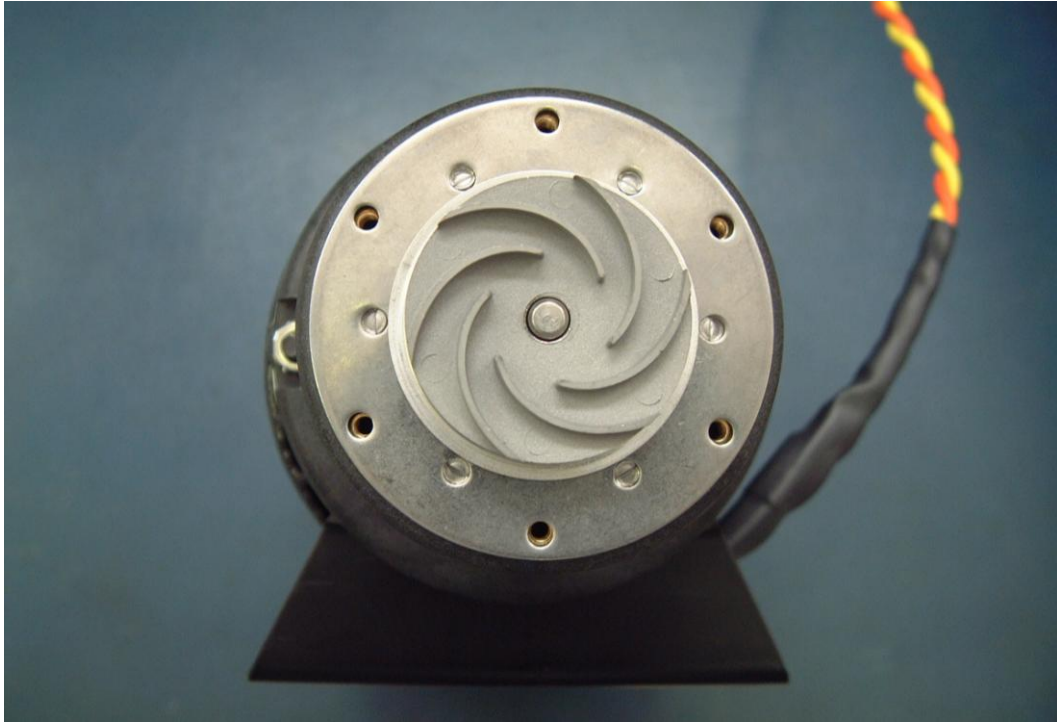
7. Once the screws are removed, remove the four mounting bolts. Support the pump motor as the hardware is being removed. Carefully slide the motor away from the pump. Be prepared to catch any parts that may fall out. To prevent damage to the pump and seals do not allow the motor to drop.



8. The Teflon seals should stay in the pump housing as shown.



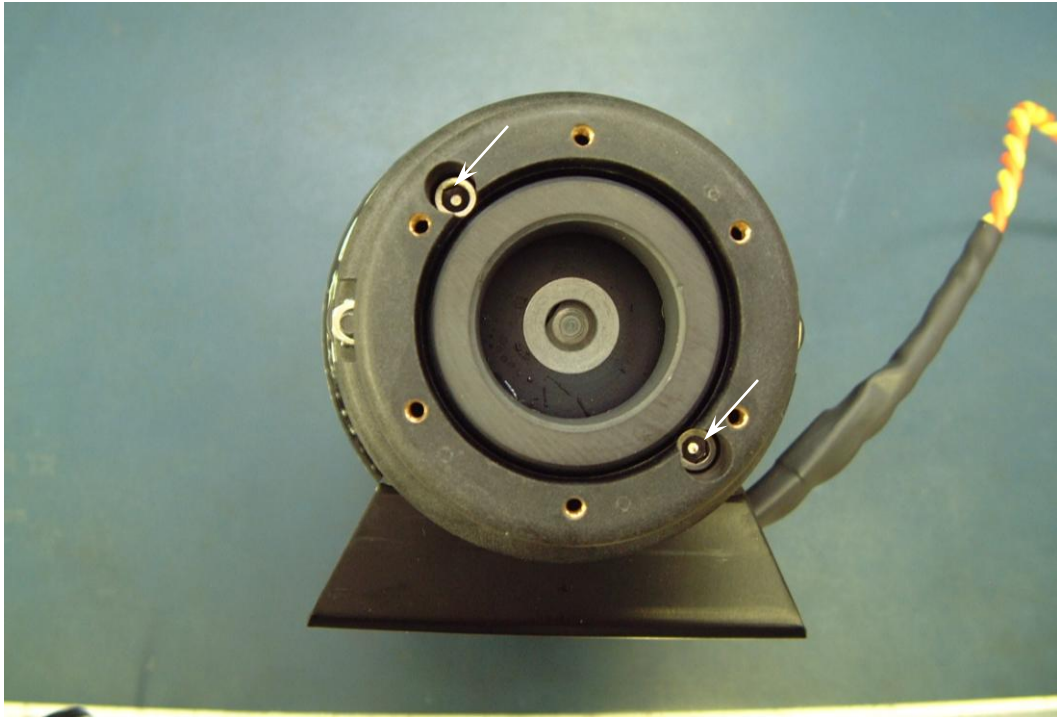
9. Remove the pump parts from the motor. Lift the mounting plate from the motor adapter.



10. The impeller is magnetically coupled to the motor and will resist.



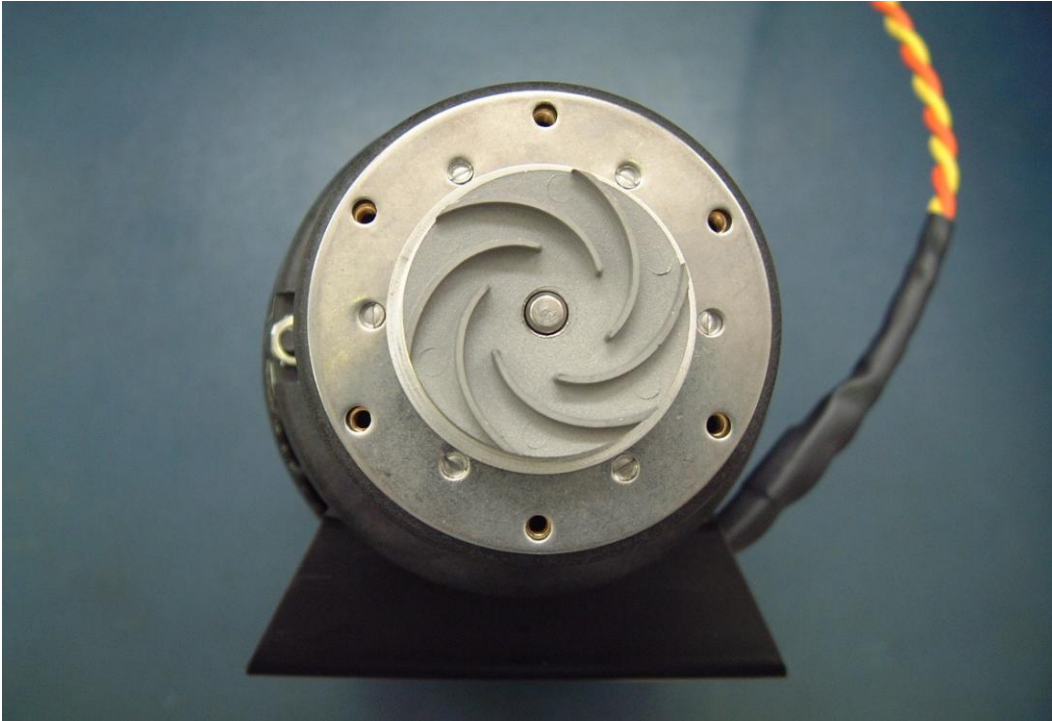
11. Use a 9/64" hex wrench to remove the two socket head cap screws from the motor adapter housing then remove housing. Remove any sealant from the housing. Do not damage the housing as it will be used on the new motor.



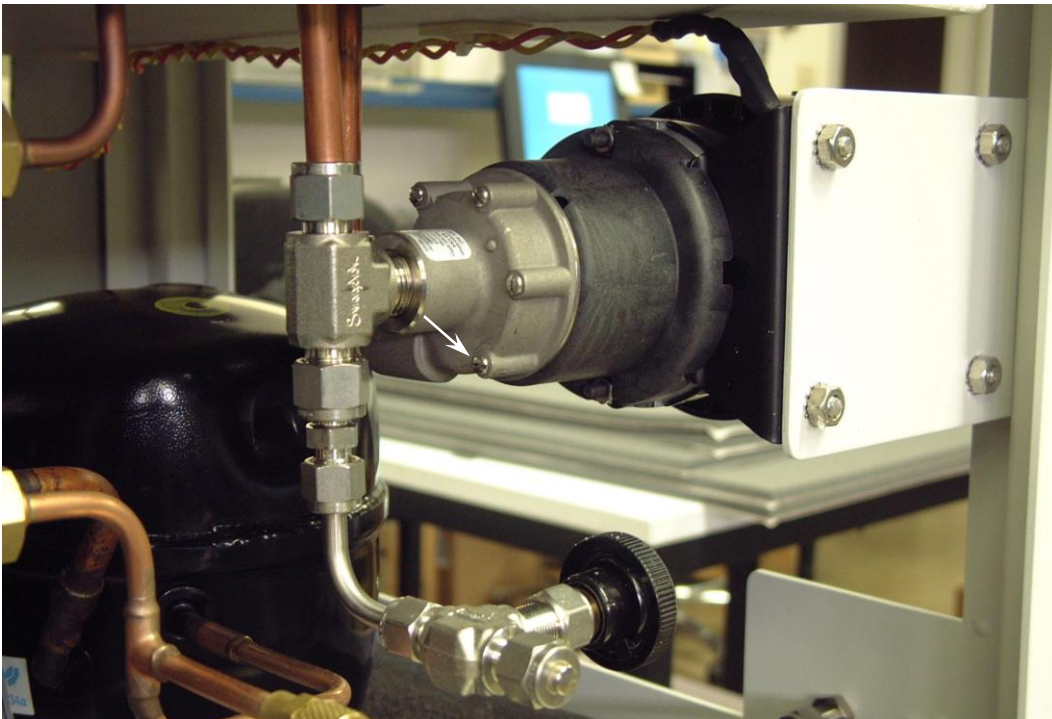
12. Place the housing on the new motor in the same orientation and tighten the screws.



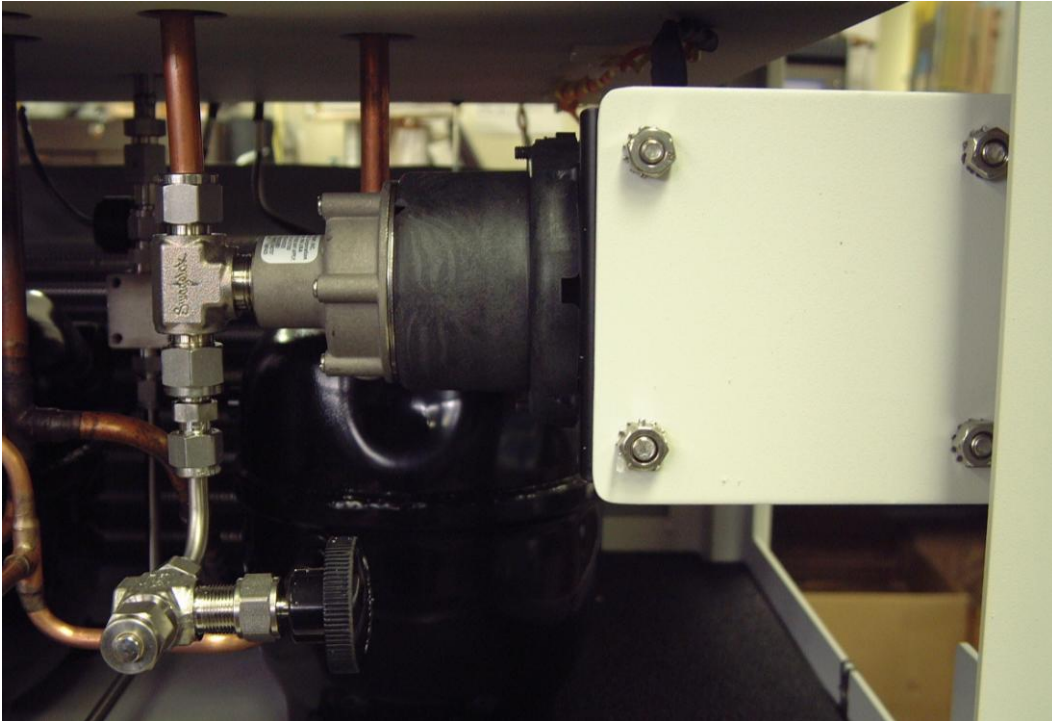
13. Place the pump parts back on the motor.



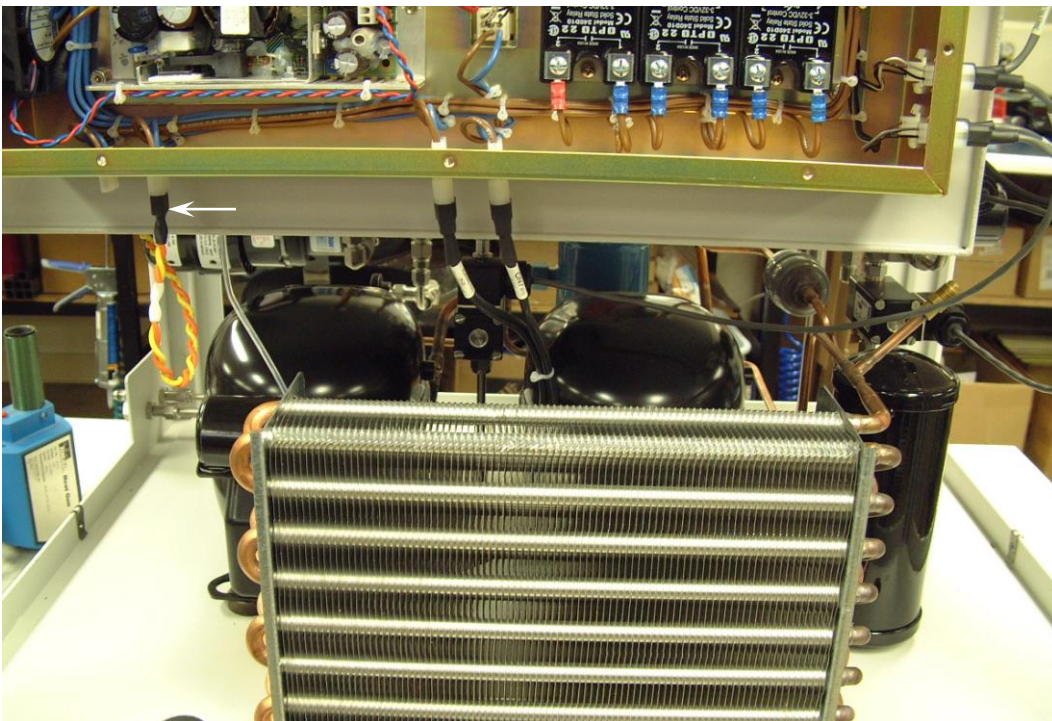
14. Carefully slide the motor into place and tighten the five screws. Use caution because the pump impeller is sharp enough to damage the Teflon seal.



15. After tightening the pump screws, then install the four mounting bolts and tighten the nuts.



16. Fill the system with methanol. Refer to the system manual for methanol filling instructions. Inspect for any leakage before continuing.



17. Route the power harness and plug it in to the electrical box as shown.