

### ABSTRACT

This document will provide the proper procedure for the replacement of an impeller on a GRP pump. **CAUTION:** the cutters used on the GRP are sharp and can cause injury if handled improperly. Take care when handling and removing them.

### PROCEDURE

- Position and support pump upside down with the suction connection facing up.
- Mark the location of the suction cover to the volute to ease reassembly.
- Remove socket head cap screws that retain suction cover. Do not disturb the set screws for suction cover adjustment.
- Remove suction cover, taking care to protect the O Ring.
- Holding cutter head with suitable device loosen the impeller retaining bolt and remove.
- Remove cutter head from impeller. Carefully pull impeller off of shaft. Important: The impeller holds lower mechanical seal in place. Take care not to disturb mechanical seal.
- Verify impeller key is still properly positioned on shaft.
- Install new impeller onto shaft, and reinstall cutter head. Note: Take care to properly position dowel pin into locating hole in impeller.
- While holding the cutter head with suitable device, reinstall impeller bolt. Torque to 18 ft. lbs. ( Use of Loctite 242 on impeller bolt is desirable)
- Reinstall suction cover, taking care to lubricate the O-ring before installation.
- Replace the retaining bolts for the suction cover. Torque to 12 ft. lbs.
- Rotate the cutter head and verify that no contact occurs between cutter and ring.
- Unit should now be ready for test operation. Return unit to normal orientation, connect power, and start pump. Some slight rubbing may be heard, and is acceptable. However, if severe grinding or rubbing is evident, adjust suction cover (with unit disconnected from power supply) until components move freely. This may require more than one adjustment to obtain proper clearance.

**Notes: If oil is found leaking from the impeller/volute/seal area, the mechanical seal was not compressed properly during the impeller installation. Disassemble unit, and reinstall impeller properly, taking care to keep mechanical seal compressed until impeller bolt is secured.**