

Installing an STP in a Water-Ballasted Tank

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As a general practice, Franklin Fueling Systems (FFS) does not recommend that the Pump Motor Assembly (PMA) of a Submersible Turbine Pump (STP) be exposed to water, but FFS also recognizes the industry practice of water ballasting tanks during installation.

As such, when STP and PMA installation in water-ballasted tanks cannot be avoided, Franklin Fueling Systems suggests the following best practices to minimize negative consequences.

Keep the entire STP immersed in the water ballasted tank:

- DO NOT remove the STP Extractable Assembly as this can allow corrosion to occur on the sealing surfaces of the STP Stationary Manifold and also can allow for damage of the STP Extractable Seals during storage.
- DO NOT remove the PMA from the STP Extractable Assembly as this can allow for damage and/or rusting of the PMA during storage.
- DO NOT allow the water ballast level in the tank to fall below 6 inches above the PMA connection to the STP Extractable Assembly at all times (see Figure 1). A water ballast level at a lower height can allow irreversible corrosion to occur within the PMA.

Do not use the STP to remove water ballast from the tank:

- Always remove all water and add adequate fuel before allowing the PMA to be run.
- Immediately upon removing the water ballast from the tank, add fuel to a level at least 6 inches above the PMA connection (Figure 1) to the STP Extractable Assembly to completely cover the PMA against corrosion.
- **If the STP fails to start** after adequate fuel has been added to the tank, manually break any surface corrosion free as follows:
 1. Remove the extractable.
 2. Remove the black end cap from the bottom of the Pump Motor Assembly.
 3. Insert 5/32" Allen wrench into PMA shaft screw.
 4. Turn the wrench to break the corrosion free (Figure 2).
 5. Reinstall the black cap.
 6. Reinstall the extractable.
 7. Verify proper STP operation.

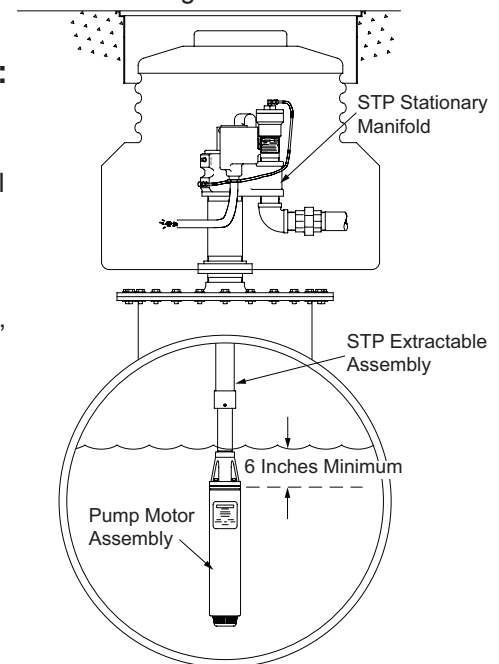


Figure 1: Liquid Level Above the Pump Motor Assembly



Figure 2: Turn Wrench to Rotate the Pump Shaft

Again, if water-ballasting tanks cannot be avoided, follow the above best practices to avoid potential operational issues with the STP/PMA and related equipment.