

4" SUBMERSIBLE PUMP SYSTEM

Submersible pump systems shall be provided where required by the Contract Drawings. The Contract Drawings show the type, number, size and location of submersible pump systems for each site. Each submersible pump system shall be the Red Jacket brand manufactured by Veeder-Root in Altoona PA or approved equal.

Each submersible pump system shall consist of a UMP (unitized motor and pump), an iron packer manifold assembly, and a variable length pipe. Each submersible pump system shall be UL-listed and approved for use in the City of NY by the NFPA and BOCA Codes and the NYCFD.

Each submersible pump system shall be designed for ease in installation, and servicing the pump, motor, and leak detector.

- The contractors box will be integrated into the manifold and will not require an additional step for installation specific to the contractors box
- The yoke connection not require an additional step for installation specific to the yoke electrical connection.
- When removing the extractable no pulling force will be required to break the seals between the packer and manifold.
- When pulling the extractable the extractable portion must be able to be removed without removing a MLLD or PLLD pressure transducer.
- When pulling the extractable the yoke connection must disconnect without an additional step related only to disconnecting the yoke

Each submersible pump system shall be suitable for use with the products to be stored in the tank system. Base level product must be suitable for use in fuel containing alcohol and ether concentrations up to 20%. In addition, an option for an STP suitable for use with 100% methanol or other alcohol, will be available.

C. Each submersible pump system shall have, at a minimum, the following features.

1. Dry Run Protection and Mechanical Line Leak Detector

Each submersible pump shall have dry run protection. Each mechanical line leak detector shall be suitable for use with the products to be stored in the tank system. Each Mechanical Line Leak Detector shall be capable of detecting a minimum of 3 gallons per hour leak at 10 pounds per square inch.

2. Mechanical Line Leak Detector Tee Housing

Each mechanical line leak detector tee housing shall be compatible with _____ detector and shall be suitable for use with the products to be stored in the tank system.

Not sure we would want a T housing in the specification

3. Syphon Check Valve

The submersible pump will have a minimum of 2 syphon check valves. Each syphon check valve will be field replaceable/upgradeable and in cartridge form. Each syphon check valve shall be capable of providing a suction source for condensate return from vapor recovery lines.

4. Vapor Recovery Port

Each VST Vapor Recovery Port shall be capable of providing a power source for vapor return jet pumps being utilized with vapor recovery lines.

5. Control Boxes

IQ control boxes will have replaceable relays. Control boxes will be furnished for all units.

E. The system will feature redundant fuel for all products. Two submersible pumps will be furnished for each 30" man way. Units will be manifolded in the sump with UL approved flex connectors, and Morrison Model 246PR swing check valves. Pump Control Selector Switches as manufactured by K & R Industries, Dearborn Michigan.

F. The models for each product are as follows:

1. RJ 1.5 horsepower
2. RJ 2 HP