Quality Petroleum Equipment
Solutions for Over 20 Years

99 LD-3000 High Capacity
LLD Cylinder Assembly Instructions

September 1st, 2012

The 99 LD-3000 high capacity mechanical line leak detector is designed so that the actual leak detector cylinder assembly, complete with check valve, may be replaced without removing the housing from the piping system. To accomplish this:

- **Turn off the electricity to the submersible pump and lock it out to prevent accidental activation of the pump.**
- **Close the ball valve on the discharge of the leak detector to prevent fuel from escaping the product line.**
- **Disconnect the vent tubing from the cap of the leak detector.**
- **Below the cap, remove the 4 or 8 (depending on date of purchase) socket-head cap screws located where the hold down sleeve meets the Leak Detector T-housing. Remove the sleeve.**
- **Pull the leak detector cylinder assembly from the housing. This may be possible to remove by hand. If it is too tight, you may need to insert a large screwdriver into the slot of the cylinder assembly to pry it loose.**

You are now ready to install the replacement cylinder assembly.

- **Grease the o-ring seals and insert the cylinder assembly into the housing, being careful not to damage the o-ring seals. You may have to lightly tap the top of the cylinder assembly with a rubber mallet to seat it.**
- **Align the hold down sleeve with the 4 or 8 cap screw holes. Insert and tighten the cap screws.**
- **Start the turbine and open the ball valve to purge the line of any air.**

To facilitate easy purging, the cylinder assembly is shipped with the piston in the fully open position, held open by a screw at the top of the insert.

- **Once the line has been purged, remove the screw and hold-down washer from the cap of the leak detector.**
- **Replace the vent tubing.**
- **Perform a 3 GPH leak detector test to assure that the leak detector is functioning properly.**

If technical assistance is required, please call our toll-free number.

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There are many instances of VMI MLLDs functioning 10 or more years. When our customers review critical component equipment such as MLLDs, it is important to remember the more cycles, wear, and exposure, the higher the probability of reduced function or imminent failure. VMI suggests each site have a preventative maintenance / risk reduction program that incorporates each site's ecological sensitivity, historical information, equipment age, maintenance history and other operational risk management considerations. Our customers should consider a replacement schedule based on information provided to us by testers suggesting previous generations of our MLLDs have a 5 to 6 year mean time to failure in the field. Site specific conditions including particulates in the fuel, exposure to acids, water or other oxidizing agents in the fuel, and other site specific conditions may cause premature substandard performance or equipment failure. At this time, and until information to us changes, VMI recommends a maximum field service life of 5 years for all VMI MLLDs.

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