INSTALLING MANIFOLDED STPS/ISTS WITH MECHANICAL LEAK DETECTORS

Mechanical Leak Detectors (MLDs) can be used in setups with multiple tanks and pumps. The following example shows how to properly install MLDs in a manifolded pumping system and still be able to properly detect a 3 GPH line leak. Always consider the type of product being pumped and the type of piping when selecting the MLD for the job. For further information, please refer to the MLD installation manual.

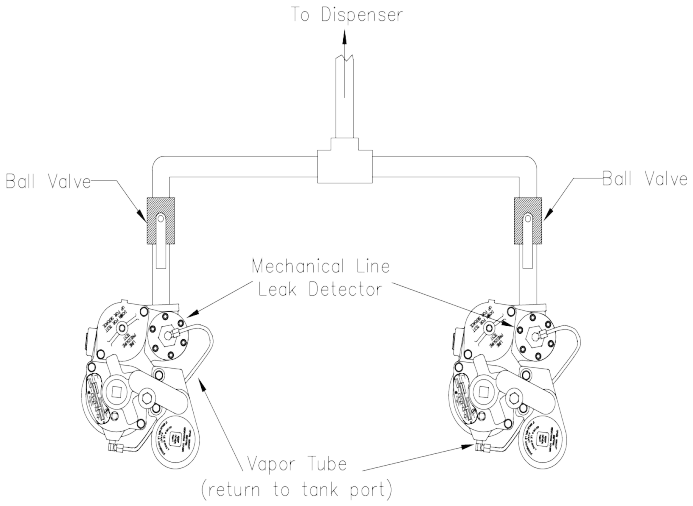


Figure 1

This setup is only valid for installations with underground storage tank(s) using the following controllers and their configurations:

STP-SCI/SCIII, MagVFC™, Guardian SPGC-220, or TPGC-380
Alternating Circuit (AC)
Primary-Secondary
Primary-Secondary & AC

This setup will not work if both pumps are turned on simultaneously (i.e., more than one controller configured Stand Alone) because each MLD will meter the equivalent of 3 GPH @ 10 PSI into the manifolded pumping system, resulting in improper line leak detection of about 6 GPH. Additional pumps may be added to this configuration when using STP-SCI/SCIII, MagVFC™, or Guardian Series™ SPGC-220 and TPGC-380 controllers because these controller configurations will allow only one lead pump while the MLD is testing. FE Petro® Standard check valves (Model STD) with pressure relief factory presets of about 40 PSI must be used in each submersible. Do not install in-line check valves that would present additive relief pressures and risk pump off line pressures exceeding 50 PSI in the manifolded pumping system.

⚠ **WARNING**: If using High Pressure pumps that can generate more than 40 PSI in this setup with submersibles installed in separate tanks, the pressure of one running pump may open the relief valve of the other idle pump and cause product from the running storage tank to fill into the idle storage tank. In this High Pressure scenario, additional measures must be taken to prevent storage tank overfill situations (such as interfacing pump controllers for shutdown with high or high-high storage tank levels).

⚠ **WARNING**: Highly flammable vapors or liquids may be present in the environment in which this equipment is installed or serviced. Installing or working on this equipment means working in an environment that presents risks of severe injury or death if instructions and standard industry practices are not followed. Follow all applicable codes governing the installation and servicing of this product and the entire system. Always lock out and tag electrical circuit breakers while installing or servicing this equipment and related equipment. Refer to the installation and owner's manuals for this equipment and related equipment for complete installation and safety information.

franklinfueling.com
3760 Marsh Rd. • Madison, WI 53718, USA
Tel: USA & Canada +1 800 225 9787 • Fax: +1 608 838 6433
Tel: UK +44 (0) 1473 243300 • Tel: Mex 001 800 738 7610
Tel: DE +49 6571 105 380 • Tel: CH +86 10 8565 4566

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