# Vmi

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# Technical Bulletin 120904

# AST Bleed-back Testing

### Problem: Above Ground Storage Tanks, Marinas Scenario:

Fuel storage for a marina typically sits high above the water level and flows downhill to a docking area. In some rural areas, above ground storage tanks are fairly common for normal fuel dispensing. There are other scenarios where the leak detector may sit higher than the dispensing system.

Our recommended piping system for a system such as this is as follows:

**A. On discharge of submersible pump install a normally closed solenoid.**
**B. Install a VMI Leak Detector Adaptor (Part # PLC-5040)**
**C. Install VMI 99LD-2000 Leak Detector**

When trouble-shooting possible leak detector problems, it is very helpful to know what the resiliency (bleed-back) of the line is. It is also necessary to know the bleed-back when installing an ARM-4073 Automatic Repressurization Module or an ISM-4080/4081 Integrated Shutdown Module. An important programming feature of these two products depends upon setting the proper timing sequence to assure the leak detector has time to reset if a leak is present.

When testing a typical service station, it would be performed at the farthest or highest dispenser in the piping system. When measuring the bleed-back, we turn the pump on, let it go to full pump pressure, turn the pump off, and measure how much fuel goes into the beaker as line pressure drops to zero. A typical bleed-back may be 100 ml.

If you did this on a system where the leak detector is higher than the dispensers you will probably drain the entire pipe and you would not get an accurate bleed-back reading.

The proper method of measuring the resiliency in the above scenario is as follows:

**1.** Turn the pump off.
**2.** Install the LDT-890 Leak Detector Tester into the line test port of the PLC # 5040 Leak Detector Adaptor
**3.** Turn the pump on.
**4.** Watch the right hand gauge of the LDT-890 as it attains full pump pressure.
**5.** Turn the pump off.
**6.** Put the large beaker under the drain hose of the LDT-890.
**7.** Open the 4-way valve to Dispensing Nozzle position.

Whatever amount of fuel drains into the beaker when the pressure gauge drops to 0 psi is the bleed-back.

Test the leak detector as per normal LDT-890 instructions to assure it functions properly.

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