Submersible Pumping Systems

MLD+ MECHANICAL LEAK DETECTORS

FE Petro™ brand MLD+ mechanical leak detectors provide precise leak detection for standard fuel and biofuel applications on 4" submersible turbine pumps (STPs). This lineup of advanced mechanical leak detectors features reliable line leak detection capabilities and maximum product flow rates. The MLD+ features a compact, yet rugged design to reduce installation height and provide accurate, hassle-free operation.

Specifications

- All models are capable of detecting line leaks equivalent to 3 gph at 10 psi (11.4 lph @ 0.70 bar) when installed properly with the appropriate fuels - all models will signal detection of leaks by restricting product delivery to less than 3 gpm (11.4 lpm) and taking more than 4 seconds to open.
- All models will remain in the open position during product delivery to manifold, with discharge pressures as low as 1 psi (0.07 bar) - all models will reset to "tripped" when line pressure delay is below 3 psi (0.21 bar) with pump off.
- Detects leaks up to 10 feet (3 meters) above the point of installation.
- Max. liquid viscosity of 70 SSU at 60 °F (15 °C).
- Gasoline models (blue cover, MLD+G and MLD+AG) are also listed for fuel mixtures containing 20% MTBE, 20% ETBE or 17% TAME with gasoline as well as diesel fuels, fuel oils, kerosene, Avgas and jet fuels.
- Diesel models (gold cover, MLD+D and MLD+BD) are also listed for kerosene applications.
- Piston style construction with reduced volume allows the MLD+ to react quickly and provide more accurate leak detection capabilities.
- A specialized metering pin unique to only the MLD+ provides precision leak detection for any type of pipework system including flexible, rigid or a combination of the two.
- Burnished piston chamber provides smooth operation and long service life.
- Color coded covers easily identify the model to the application (gold for diesel and blue for gas).
- Opens completely to allow maximum product flow during fueling operation and remains open with discharge pressure as low as 1 PSI (0.07 bar).
- Compatible with FE Petro™ brand STPs, as well as competitive STPs and line leak detector housings.

Approvals/Certifications

- cULus listed.
- Third party certified to comply with US EPA requirements 280.41 (B) and 280.44 (A) for continuous monitoring of pressurized piping.
- Consult factory for other applicable approvals.

Highlights

- Two models to meet the needs of your standard fuel applications include the MLD+G (blue cover, copper vent tubing) for gasoline with up to 10% Ethanol and the MLD+D (gold cover, copper vent tubing) for diesel with up to 5% biodiesel.
- Two models to meet the needs of your biofuel applications include the MLD+AG (blue cover, stainless vent tubing) for gasoline with up to 85% Ethanol and the MLD+BD (gold cover, stainless vent tubing) for diesel with up to 20% biodiesel or 100% biodiesel.
- Piston style construction with reduced volume allows the MLD+ to react quickly and provide more accurate leak detection capabilities.
- A specialized metering pin unique to only the MLD+ provides precision leak detection for any type of pipework system including flexible, rigid or a combination of the two.
- Burnished piston chamber provides smooth operation and long service life.
- Color coded covers easily identify the model to the application (gold for diesel and blue for gas).
- Opens completely to allow maximum product flow during fueling operation and remains open with discharge pressure as low as 1 PSI (0.07 bar).
- Compatible with FE Petro™ brand STPs, as well as competitive STPs and line leak detector housings.
Specifications continued

Installation

1. MLD+
2. MLD+ vent tube
3. Line leak detector housing (2” NPT)
4. Tank port (vent tube must be connected here)
5. Syphon port

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Ordering Information

Standard Fuel MLD+ Mechanical Leak Detectors

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
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<tbody>
<tr>
<td>403168901</td>
<td>STP-MLD+G for gas, single pack (blue cover, copper vent tube, brass fittings)</td>
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<tr>
<td>403168903</td>
<td>STP-MLD+G for gas, three pack</td>
</tr>
<tr>
<td>403170901</td>
<td>STP-MLD+D for diesel, single pack (gold cover, copper vent tube, brass fittings)</td>
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<tr>
<td>403170903</td>
<td>STP-MLD+D for diesel, three pack</td>
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<tr>
<td>403172903</td>
<td>STP-MLD+D combo, three pack (contains two STP-MLD+G and one STP-MLD+D)</td>
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Biofuel MLD+ Mechanical Leak Detectors

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
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<tbody>
<tr>
<td>403169901</td>
<td>STP-MLD+AG for alcohol-gas, single pack (blue cover, stainless steel tube and fittings)</td>
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<tr>
<td>403169903</td>
<td>STP-MLD+AG for alcohol-gas, three pack</td>
</tr>
<tr>
<td>403171901</td>
<td>STP-MLD+BD for biodiesel, single pack (gold cover, stainless steel tube and fittings)</td>
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<tr>
<td>403171903</td>
<td>STP-MLD+BD for biodiesel, three pack</td>
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</tbody>
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Notes:

1. MLD+G are listed for compatibility with fuel mixtures containing up to 10% ethanol with gasoline, up to 5% biodiesel with diesel fuels, and 20% MTBE, 20% ETBE, or 17% TAME with gasoline.
2. MLD+D models are listed for compatibility with diesel fuels with up to 5% biodiesel and kerosene applications only.
3. MLD+AG models are listed for fuel mixtures containing up to 85% ethanol with gasoline and 20% MTBE, 20% ETBE, or 17% TAME with gasoline as well as diesel fuels, fuel oils, kerosene, Avgas and jet fuels.
4. MLD+BD models are listed for diesel with up to 20% biodiesel or 100% biodiesel and kerosene applications only.
5. All above models will only mount in the 2” NPT leak detector port of a 4” submersible turbine, including competitive models, or in a leak detector adapter tee (sold separately below).
6. MLD+ models are listed for use with rigid pipelines up to 165.1 gallon capacity, with flexible pipelines up to 109.8 gallon capacity, and with combination rigid/flexible pipelines up to 274.9 gallon capacity.
## MLD+ Mechanical Leak Detector Repair Parts & Accessories

<table>
<thead>
<tr>
<th>Model</th>
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<tbody>
<tr>
<td>400440101</td>
<td>Vent tube (for use with MLD+G and MLD+D)</td>
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<tr>
<td>400449901</td>
<td>Hardware pack (fittings and documentation for MLD+G and MLD+D)</td>
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<tr>
<td>403123001</td>
<td>Vent tube, stainless steel (for use with MLD+AG and MLD+BD)</td>
</tr>
<tr>
<td>400449904</td>
<td>Hardware pack (fittings and documentation for MLD+AG and MLD+BD)</td>
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<tr>
<td>400518001</td>
<td>Leak detector adapter tee</td>
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