

Bulletin: RJ-23-48
Revision: A
Product: Mechanical Pumps &
Leak Detectors
Reference: Fuel Compatibility
Date: July 1994

Questions often arise as to the compatibility of Red Jacket products with fuel blends and additives. This bulletin serves as a statement of compatibility for Red Jacket pumps and mechanical leak detectors.

The below listed gasoline additives are considered to be compatible with Red Jacket Petroleum Equipment. Proportions allowable of these additives will vary depending upon the specific product. See categories A-D below:

Methanol or Methyl Alcohol
Ethanol or Ethyl Alcohol
MTBE (Methyl Tertiary Butyl Ether)

ETBE (Ethyl Tertiary Butyl Ether)
TAME (Tertiary Amyl Methyl Ether)

- A.** Products listed below are intended for use in general fueling applications such as gasoline, diesel and kerosene.

Diaphragm Leak Detector #116-017
Big Flo Leak Detector #116-012
4" Submersible Pump models: P150S1, P75S1, P33R1, X3P150S1 & X5P150S1
Big Flo Pumps-Standard Construction

Additives in the below listed concentrations are compatible with the Red Jacket products in 'A' above:

Methanol concentrations: up to 10% TAME concentrations: up to 17%
Ethanol concentrations: up to 10% ETBE concentrations: up to 17.4%
MTBE concentrations: up to 15%

- B.** Products listed below are intended for general fueling applications involving gasoline, diesel and kerosene, but have greater resistance to alcohol and the aromatic content of fuels.

XLD Leak Detector #116-036
XLP Piston Leak Detector #116-035
PLD Piston Leak Detector #116-030
4" Submersible AG Pump models: AGP150S1, AGP75S1, AGP33R1, X3AGP150S1

Additives in the below listed concentrations are compatible with the Red Jacket products in 'B' above:

Methanol: to 100% MTBE concentrations: up to 15%
Ethanol: to 100% TAME concentrations: up to 17%
Any combination of gasoline, diesel, ETBE concentrations: up to 17.4%
kerosene, methanol or ethanol.

- C.** Products listed below are fitted with EPR seals and are intended for straight alcohol applications and other organic solvents. Refer to the solvent pump literature or call the Red Jacket Customer Service Department for further information.

EPR Leak Detector #116-019/116-038
Big Flo EPR Leak Detector #116-021/116-041
EPR Solvent Pump models: CP150S1, CP75S1, CP33R1
EPR Solvent Big Flo Pumps

Refer to Solvent Pump Literature Specification Sheet #5179

- D.** Products listed below are fitted with Viton seals and are compatible with fuels, aromatic and aliphatic hydrocarbon fluids. Refer to the solvent pump literature or call the Red Jacket Customer Service Department for further information.

Viton Leak Detector #116-018/116-037
Big Flo Viton Leak Detector #116-202/116-040
Viton Solvent Pump models: CP150S1, CP75S1, CP33R1
Viton Solvent Big Flo Pumps

Refer to Solvent Pump Literature Specification Sheet #5179

The above percentages are based upon using only one of the listed fuel additives blended with gasoline. These values do not represent maximums when more than one component is present; i.e., a blend of 15% MTBE and 10% Methanol would not be compatible with our standard pumps.

It is important to note that the above percentages are based upon experience and lab testing. "Off-spec" fluids or fuels that have additives in excess of the above concentrations may have detrimental effects to the elastomers and seals in Red Jacket products, even if they are present for only intermittent, short intervals.

Sudden switching from one type of fuel to another, conceivably, can have detrimental effects on elastomers and seals such as the diaphragms in functional elements and leak detectors and the O rings under the functional element. Preventive maintenance such as replacing the functional element or diaphragm-style leak detector, may be advisable if a known batch of "off-spec" fuel has been encountered or if a major change in fuel chemistry is implemented.

The above information may be used as a guide for the compatibility of Red Jacket products in various fuels and additives combined with fuels. If any further questions arise about fuel compatibility with Red Jacket, contact our Technical Support group at 1-800-2-MARLEY (262-7539).



Marley Pump

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