



To: All Distributor Personnel

Monthly bulletin: Number 9

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Subject: Possible opportunities in the expanding fields of Ethanol/Gasoline blending and Biodiesel fuel production

As we are all painfully aware, the price of foreign oil continues to soar. With these escalating prices and shorter supplies comes the need for America to look at and invest in alternative energy sources. I would like to touch on two such alternatives and the possibility of selling Lexair, Inc. products into these markets.

Ethanol, by definition, is 200 proof pure ethyl alcohol. It is usually blended in a product commonly referred to as "Gasohol", which contains 90% gasoline and 10% ethyl alcohol. The latest mixtures may contain up to 85% ethyl alcohol and are referred to as "E85" fuel. Lexair, Inc. Poppet Valves as well as Tube-O-Matic series products can be used in the mixing or bulk dispensing of these products. However, it is important to pay close attention to the type of seal materials used. With both straight ethyl alcohol and the blended mixture, EPR seals or sleeves must be used. Gasoline that is used in the blending process can be handled with valves containing either Buna-N or Viton[®] seals or sleeves. For more information on Ethanol, please visit this website <http://www.ethanol.org/>.

Biodiesel is a newer, lesser known process to many people. This process takes oils (typically soy bean oil) or fats and through a process called "transesterification" converts the oils or fats to Alkyl esters. The process of "transesterification" most often involves the use of methyl alcohol (sometimes ethyl or isopropyl) blended with a catalyst (sodium or potassium hydroxide) which, when processed with soy bean oil, yields a clean burning diesel fuel substitute that can be blended in any percentage with petroleum diesel fuel or even used in it's pure form (100% biodiesel) if the proper engine modifications have been made. Any of the alcohol blends used in the production process would require the use of EPR seals or sleeves. The soy bean oil as well as the petroleum diesel fuel used to make blends would require either Buna-N or Viton[®] seals and sleeves. The blended Biodiesel product requires the use of Viton[®] seals or sleeves. For more information on Biodiesel, please see this website <http://www.biodiesel.org/>.

The information above only deals with the seal materials used in our valves during the production of Ethanol or Biodiesel. There are also other factors which must be considered. In the case of ethyl alcohol used in the blending of Ethanol, the standard body material of our Poppet Valves (bronze) is perfectly fine to use as it would also be with Ethanol, diesel fuel and gasoline. However, when dealing with Biodiesel blends above "B20" (20% biodiesel, 80% petroleum diesel) bronze materials are not acceptable so our stainless steel models must be used. When using Tube-O-Matic Valves, make certain that the correct materials are chosen for the end caps and core as well as the sleeve depending upon the fluid or mixtures of fluids to be used. Either website shown for the processes



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above contains invaluable information about projects, locations of current and future plants as well as answers to many frequently asked questions. Use these websites to help explore possible opportunities in your area. Our pilot operated Poppet Valves and Tube-O-Matic series products lend themselves well to both these industries as they can be safely used around fuels and alcohols due to the fact that the solenoid valves used to pilot them can be kept at a safe distance away from the process. If you have any questions, please do not hesitate to contact me.

Sincerely,
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