



Eaton improves biodiesel loading system

Location:

United States

Segment:

Alternative Fuel

Problem:

To reduce filtration costs

Solution:

Eaton's QIC LOCK™ MAXILINE™ filter housing.

Results:

Improved filtration efficiency and reduced costs

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Eaton's solution totally eliminated the costly, inefficient duplex cartridge filter in the loading system.

Background

Quality requirements are rising fast in the alternative fuel market and the final product has to conform to tighter than ever standards. A biodiesel manufacturer originally installed a vertical duplex cartridge unit to filter biodiesel from a storage tank into trucks and rail cars.

Challenges

The purpose of the filter was to remove any storage tank related impurities from the product before transport to customers. The vertical cartridge vessels had bottom outlets which raised the vessel opening over six feet high. The expensive, jumbo cartridges used in the vessels were extremely heavy and difficult to remove. The operators did not have a platform or other method to position themselves for safe and easy removal of dirty cartridges. Several changes of cartridges were required to filter a single batch. The customer desired a lower cost filter system which would be easier and safer to operate, while still achieving quality filtration. The ultimate goal was to filter one batch, over 900,000

gallons of biodiesel, without having to change filters.

Solution

A local distributor took a trailer mounted Eaton QIC LOCK™ MAXILINE™ Filter housing to the customer to demonstrate how the quick opening cover and low profile design would offer improved operational and safety advantages. The Eaton Filter Housing holds twelve filter bags and could filter the entire batch at one time eliminating the duplex requirement.

Results

After extensive testing with different types of Eaton Filter Bags the customer concluded that the Eaton Filter Housing would improve filtration efficiency and reduce costs and replaced the old duplex cartridge filter with the QIC LOCK MAXILINE Filter Housing using Eaton's DURAGAF™ Extended Life Filter Bags. Looking to the future the customer is considering using Eaton's new HAYFLOW™ Filter Element for even longer service life when they begin to process larger batches of biodiesel.



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