

SYSTEM AVAILABILITY

WORK BOAT FLEET REGAINS TRUST IN THEIR FUEL QUALITY THANKS TO POLISHING SYSTEM

Technical Application Bulletin

PROJECT BACKGROUND

DISCOVER

- This application came to us through a distributor with whom we have a close partnership.
- The customer operates three full-service fleets providing services on the Mississippi River.
- Their fleets currently include 29 tow boats as well as 11 launch boats.

DIAGNOSE

- In early March of 2019, the customer launched a new push boat (with brand new engine) that only made it out of the dock approx. 1 mile before having a catastrophic engine failure due to water in fuel.
- The customer immediately approached our distributor, who has had a long standing business relationship with the customer, looking for possible solutions.

INDUSTRIES





DESIGN

What We Did: We presented our BDFP (Bulk Diesel Filtration Panel) demo stand to the customer and they were impressed at the water removing capabilities shown via the demo. The marine industry is heavily regulated, making our goal to support their needs while minimizing regulatory costs. Understanding the customer's application, we recommended a kidney loop setup to be able to avoid the costly and difficult marine approval standards.

Course of action

- 1. We presented our distributor's demo stand to the customer, demonstrating our water removal capability.
- 2. Working with the customer we developed a BDFP configuration that included our automatic water drain (AWD)
- 3. The customer immediately purchased (7) BDFP's with AWD5 for the purpose of running a kidney loop system in the engine rooms of 7 of their vessels.



DELIVER

- As of March 2020, the customer has purchased (10) BDFP's with auto drain and have plans to purchase 10-15 additional units to complete the installation across their fleet within the year.
- Since installation of the BDFP units, the customer has had no additional engine failures due to water in their diesel fuel.
- This customer has been a positive reference in the industry to allow for continued promotion with other work boat fleets.

Bulk Diesel Filtration Panel	With SI Solution
Fuel Quality	Cleaner, dryer fuel
Cost of Operating	 Lower maintenance costs due to reduced engine filtration loading
Tank Conditions	 Reduction in unplanned downtime Maintain efficient engine operation Improved by reducing or eliminating biological growth Reduced or eliminated acidity-related corrosion
Safety	Prevents hazardous operating conditionsConfidence in equipment reliability
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CUSTOMER BENEFITS

- Turn-key polishing and transfer filtration system incorporating Automatic Water Drain
- Minimal clearance needed for element service, ideal for limited installation space
- High performance particulate element to ensure clean and dry fuel with low operating costs.

FURTHER APPLICATION AREAS

- · Bulk fuel transfer systems
- Agricultural, mining, construction, or fleet fuel dispensing
- Fuel polishing system for regular fuel conditioning or long term storage

ROI

Diesel Fuel System Repair (\$)



\$100K+

Total Ship Price (\$)



\$3.8M+

Underlying Values:

Diesel Fuel System Repair: Includes injectors, pumps, fuel system cleaning, and potential for additional engine damage

Total Ship Price:

Ranging from older push boats to newly commissioned push boats. With loss of control or power, the vessel may be damaged or a total loss in challenging river conditions.

PRODUCT SPECS

Bulk Diesel Fuel Panel | with AWD

Flow Rate: 14 or 25 gpm Electrical Service: 115/208-230 VAC 60Hz Single Phase Particulate Filtration: 1 or 3

micron

Coalescing Filtration: >95%
Efficient

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Sealing Material: Fluorocarbon

(FKM, Viton)

Housing Materials: Anodized

Aluminum