

# Data Center Liquid Fuel Operations

Market Application Publication  
for **CLEANDiesel**® Filtration Solutions



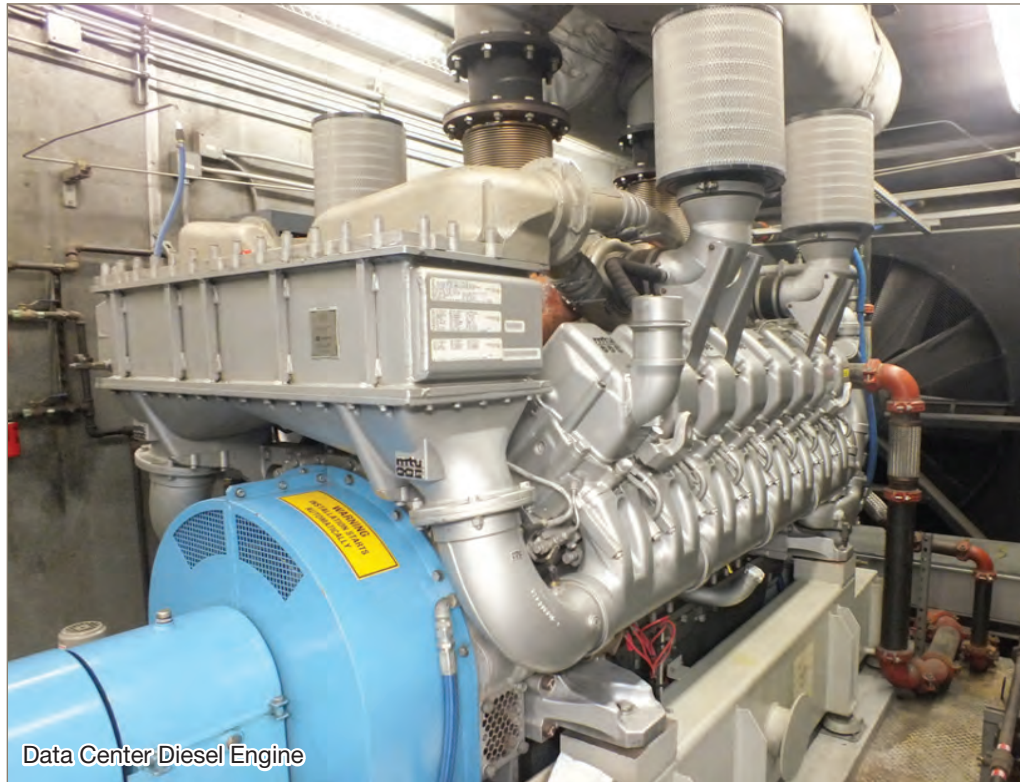
## System Integrator:

**Advanced Fuel Services**  
Moro Bay, CA  
advancedfuelservicesinc.com  
(805) 995-1715

## Customer Value Position

Multiple Diesel reciprocating engines for a Data Center require clean fuel to ensure longer engine ejector life, lower cost of ownership with less down time, and cleaner exhaust emissions. The customer require particulate removal and water separation systems that requires a small footprint while still being able to accommodate the engine's flow rate needs.

Application was structured around clean fuel for both one-pass filtration forward of the diesel engines as well



Data Center Diesel Engine

## Contact Information:

Parker Hannifin Corporation  
**Velcon Filtration Division**  
1210 Garden of the Gods Road  
Colorado Springs, CO 80907

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## Product Features:

- Wide variety of applications
- Free and emulsified water to less than 5 ppm
- 1/2 micron particulate removal
- Provides protection against "slugs" of water
- Pressure increase signals cartridge change

## Applications:

- Fuel Filtration for Data Center Diesel Engine



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## Customer Value Proposition (cont'd)

as polishing the 150,000 gallons of diesel in the main tanks.

Parker Velcon VF-61 was chosen by the customer with primary consideration given to the Parker Velcon filtration technologies that have been known for removal of particulates and water in the critical aviation fuel markets. In addition to the functional filtration, real time qualitative particulate data per ISO 4406 standards was also integrated into the final solution. Customer was looking to achieve same level of fuel quality for Diesel Engines that support data center operations around the clock and without shutdown.

## Results:

Advanced Fuel Service manufactured a fuel forwarding solution called the Diesel Dialysis System (DDS-2). The DDS-2 is a Tank and Fuel Quality Management and Maintenance System with Real Time Fuel Condition Monitoring and Treatment Metering. The system provides tank and fuel cleaning as well as controlling organic and inorganic contamination for tanks up to 5,000 gallons while meeting ASTM 975 and ISO 4406 standards and specifications. In addition, the DDS-2 system is fully automated with the building management system interface.



Parker Velcon VF-61 Housings in the DDS-2

## Specification:

- **Weight:**  
220 lbs
- **Size:**  
38" H x 36"W x 12"D
- **Power:**  
120 Vac/6A50/60Hz Single Phase
- **Plumbing:**  
1" Black Pipe
- **Flow Rate:**  
10 GPM = 600 GPH

## How the VF-61 Works:

