NAFFCO
PASSION TO PROTECT

Automatic Fuel Filtration System

NFPA®

NEMA

Specialists have proven that stored diesel fuel can start to deteriorate within just 28 days of refining. Researchers also confirmed that after 8 - 10 months, diesel fuel will start to form sludge if it stays still in the tanks increasing the chances of engine failure or damage, when required to operate.

Fuel contamination is a major cause of premature shutdown for standby engines, generator sets, fire pump engines, and other diesel engine support functions. Contamination commences as soon as the storage tanks are filled and continues until the fuel is used. As the length of storage period increases, the probability for premature engine shutdown due to either clogged filters, or excessive water entrainment, increases. And here comes the high need of smart fuel filtration systems.

Automatic Fuel Filtration System Model YH-FFS-01

NAFFCO YH-FFS-01 programmable automated fuel filtration system is self-contained, stand-alone system that removes and prevents the build-up of water, sludge and contaminants in tanks. It stabilizes diesel and bio-fuels, eliminates microbial contamination to optimize and maintain fuel quality. It is designed to fulfill NFPA requirements in maintaining and cleaning fuel stored in fuel tanks in accordance with NFPA requirements.

NFPA Codes & Requirements

NFPA 20

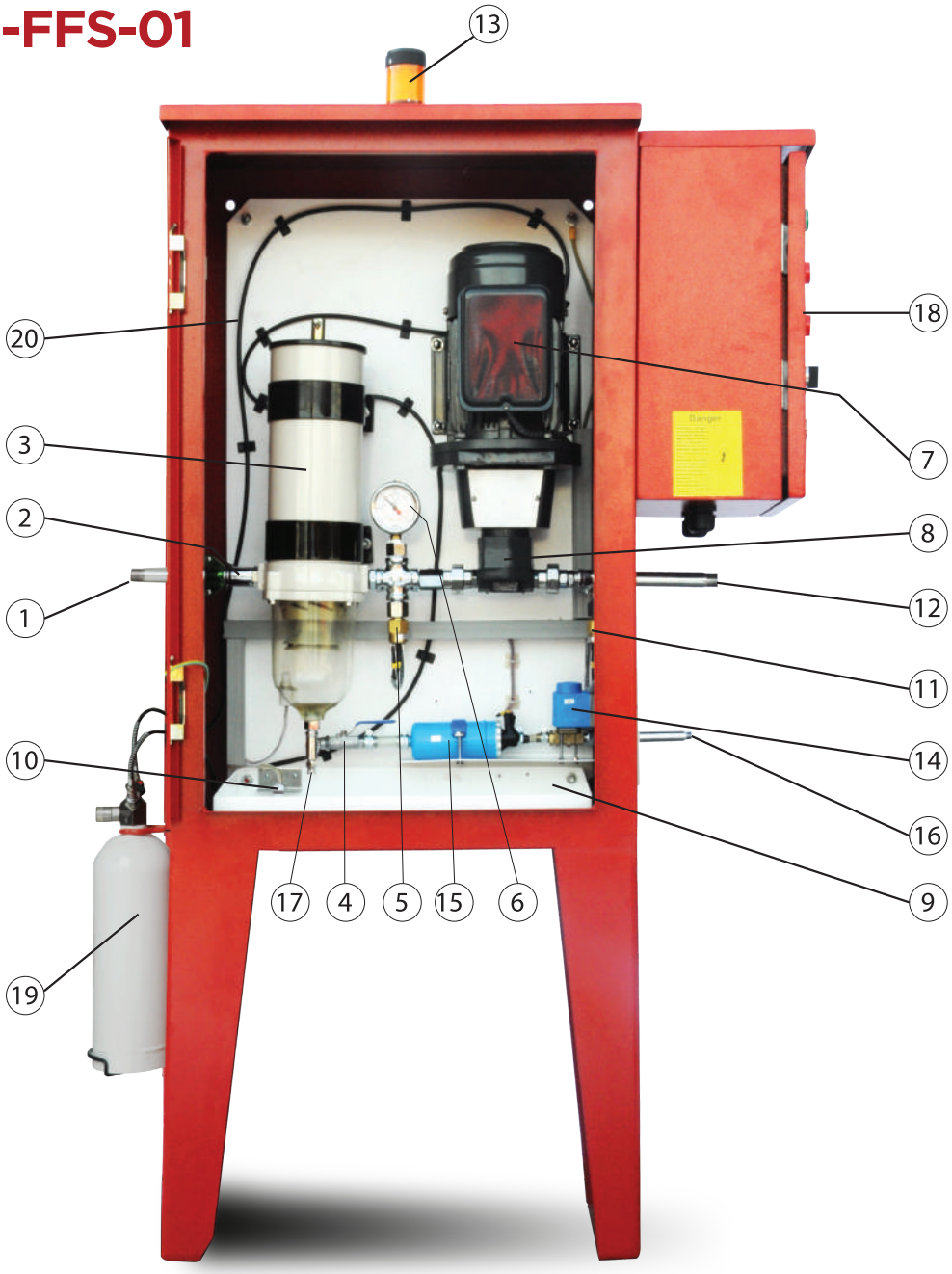
Chapter 11 requires that fuel tanks shall be always filled by means that will ensure removal of all water and foreign material.

NFPA 25

Annex B calls for a maintenance schedule to make sure that diesel systems are free of water.

NFPA 110

Chapter 7 requires that Fuel system design shall provide for a supply of clean fuel to the prime Mover and that the “Tanks shall be sized so that the fuel is consumed within storage life, or provision shall be made to remediate fuel that is stale or contaminated or to replace stale or contaminated fuel with clean fuel.”



Overview – Basic System Components

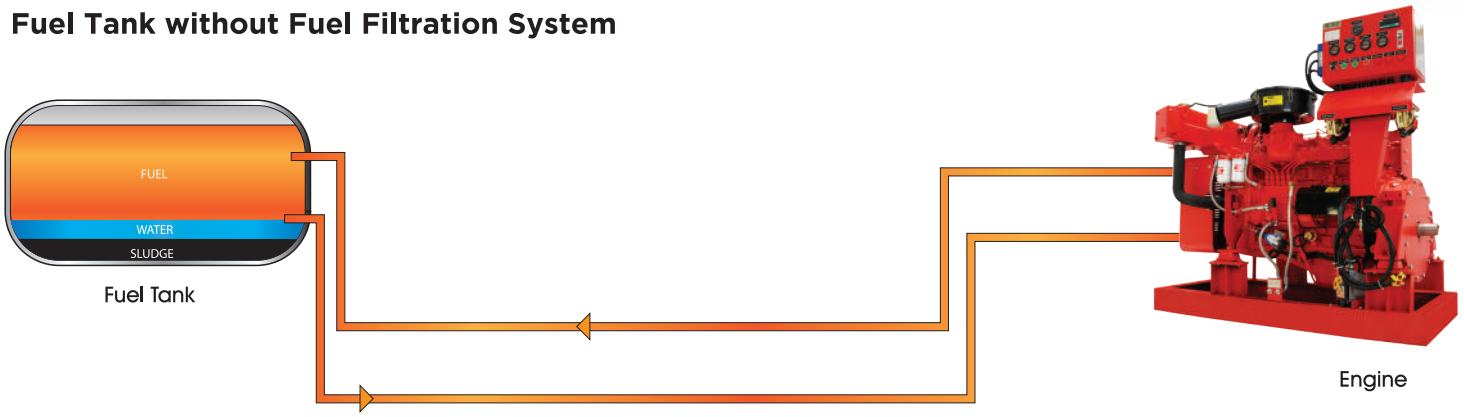
1. Fuel inlet.
2. Magnetic fuel conditioner.
3. Fuel filter.
4. Drain valve.
5. Vacuum pressure switch.
6. Vacuum pressure gauge.
7. Electric motor.
8. Fuel gear pump.
9. Drip tray.
10. Float switch.
11. Pressure switch.
12. Fuel outlet.
13. Pilot lamp
14. Solenoid valve
15. Water drain pump
16. Water drain outlet
17. Manual water drain valve
18. Control Panel
19. Clean Agent Fire Suppression Cylinder
20. Fire Suppression Pipe

Standard Features:

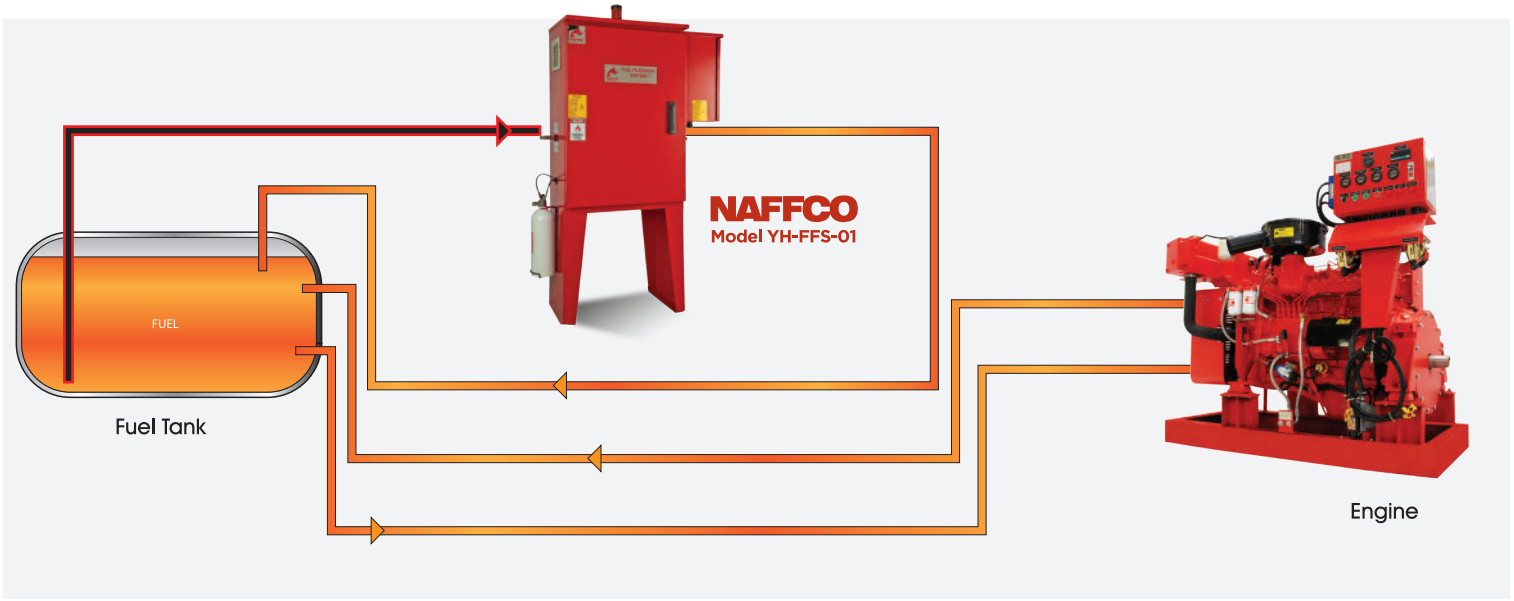
- 220/110 VAC at 50/60 Hz single phase system power.
- Industrial controller complying to UL508A standard.
- UL Listed Control Panel
- Fuel Filter and water separator for particles and water removal.
- Fuel gear self priming pump (2.6 GPM) coupled with UL recognized electric motor.
- Stainless Steel plumping.
- Magnetic fuel conditioner.
- Programmable automatic weekly timer.
- Water level controller for sensing water in filter.
- Automatic and manual water draining system.
- Float switch for fuel leak detection.
- Power ON indicator.
- Pump run indicator.
- Motor overload alarm indicator.
- Fuel leak alarm indicator.
- Low vacuum pressure alarm indicator.
- High discharge pressure alarm indicator.
- Water in filter alarm indicator.
- Common alarm relay for remote warning (free contacts).
- Common top mounted big alarm indicator.
- Automatic and manual operation (selector switch).
- Suitable for fuel tanks of capacity from 50 to 500 gallons.
- Suitable for 50 degree C ambient temperature.
- Clean agent fire suppression system.

YH-FFS-01

Fuel Tank without Fuel Filtration System



Fuel Tank with Fuel Filtration System



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NAFFCO has the right to change specifications without prior notice.

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