

500MA & 900MA

Turbine Series Fuel Filter
On John Deere Power Generator

Market Application Publication



Application:

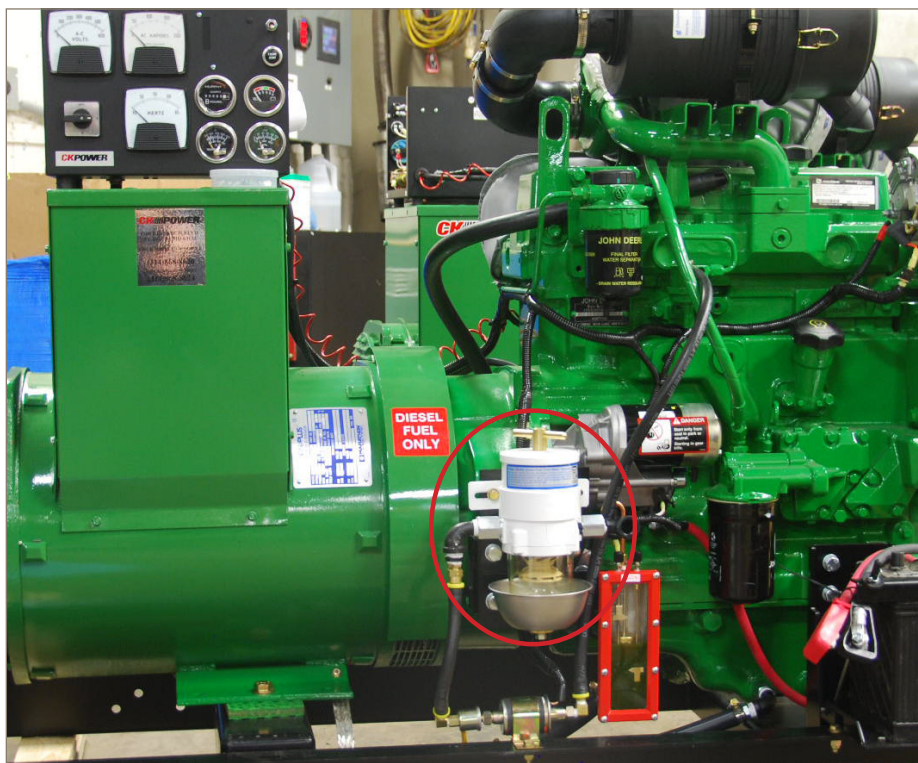
Installation of 500MA and 900MA on an offshore diesel power generator.

The Problem:

A customer located in St. Louis, MO, needed a fuel filter water separator capable of delivering clean, dry fuel to a John Deere diesel power generator for offshore use.

Why Racor was chosen as the solution:

Racor's reputation for superior performance and durability made Racor's 500MA and 900MA an easy choice to solve this problem. The 500MA and 900MA fuel filter water separators are highly effective at removing water and dirt before it can reach downstream filters.



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Features and Benefits:

- Available in several sizes to fit any application.
- Heavy duty construction.
- Installs quickly.
- Available in 2, 10, and 30 micron.
- Easy to service.
- Clear collection bowl.
- Self-venting water drain.

How the solution works:

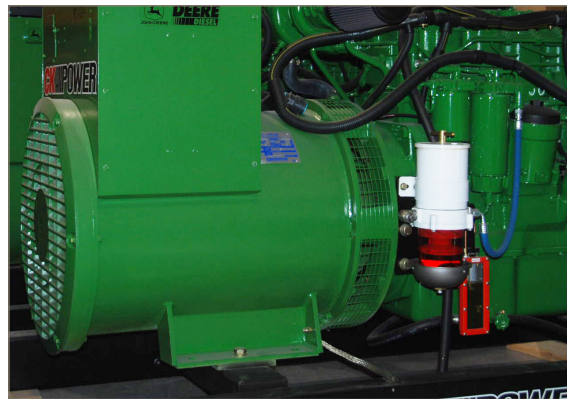
Turbine Series filter assemblies protect precision engine components from dirt, rust, algae, asphaltines, varnishes and water, which are prevalent in engine fuels. The filters remove contaminants from fuel using the a three stage process, shown on the next page.



ENGINEERING YOUR SUCCESS.

| Model | 500MA | 900MA |
|---|---------------------------------|----------------------------|
| Max. Flow Rate (One filter on-line) (Two filters on-line) | 60 GPH (227 LPH) N/A | 90 GPH (341 LPH) N/A |
| Height | 11.5 in. (29.2 cm) | 17.0 in. (43.2 cm) |
| Width | 5.8 in. (14.7 cm) | 6.0 in. (15.2 cm) |
| Depth | 4.8 in. (12.2 cm) | 7.0 in. (17.8 cm) |
| Weight (approx.) | 4 lbs (1.8 kg) | 6 lbs (2.7 kg) |
| Port Size (metric optional) ¹ | 3/4"-16 SAE 16 mm x 1.5 | 7/8"-14 SAE 22 mm x 1.5 |
| Clean Pres. Drop | 0.3 PSI (0.02 bar) | 0.34 PSI (0.02 bar) |
| Max. Operating Pressure ² | 15 PSI (1.03 bar) | 15 PSI (1.03 bar) |
| Replacement Filter | 2010 Series | 2040 Series |
| Overhead Clearance | 4.0 in. (10.2 cm) | 5.0 in. (12.7 cm) |
| Ambient Temperature Range | -40° to +255°F (-40° to +124°C) | |
| Maximum Fuel Temperature | 190°F (88°C) | |

Notes: Units are available with metal bowls, add "M" after MA, i.e. 1000MAM. ¹ Use (*) for metric port threads, i.e. *500MA, *900MA, and *1000MA. ² Vacuum installations are recommended.



Stage One Separation:

As fuel enters the filter assembly, it moves through the centrifuge and spins off large solids and water droplets which fall to the bottom of the collection bowl.

Stage Two Coalescing:

Small water droplets bead-up on the surface of the conical baffle and cartridge element. When heavy enough, they fall to the bottom of the bowl.

Stage Three Filtration:

Proprietary Aquabloc®II cartridge elements repel water and remove contaminants from fuel down to two micron (nominal). They are waterproof and effective longer than water absorbing elements.