



FCS – Diesel Fuel Purification System

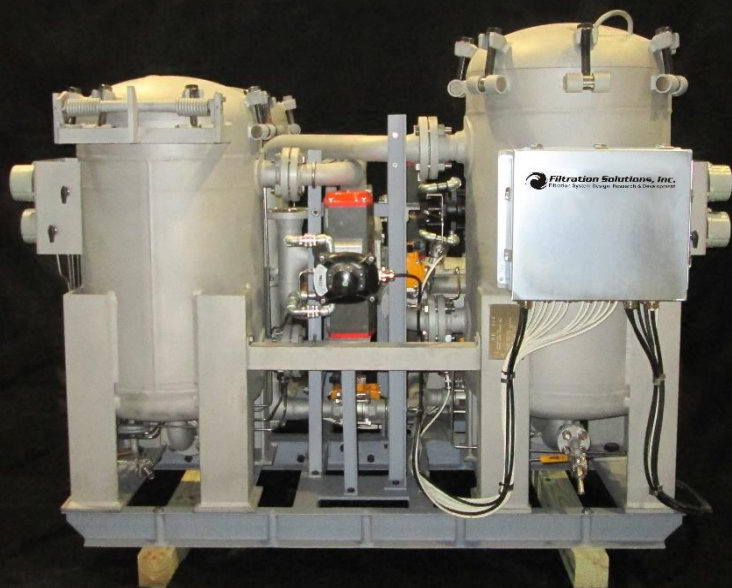
Contamination begins from the moment fuel leaves the refinery and begins its journey to the point of use. Dirt, water, and other debris find their way into the fuel as it is transported and stored. When using fuels, it is essential that they are free from particulate and water contamination. If the fuel does not meet the required cleanliness standards, fouling and corrosion of the equipment downstream may occur, leading to unplanned downtime, expensive maintenance costs and reduced component life.

The FCS Series of diesel fuel purification system addresses both particulate and water removal. The system features a first stage, large absolute rated micro-glass coreless filter element for maximized particulate removal. Our filter media is multi-layered pleated micro-glass certified to $\beta_{x \geq 1000}$ in accordance with ISO 16889. The second stage is a filter/separator coalescing vessel to remove free and emulsified water droplets.

As the coalescing filter elements coalesce smaller water droplets into larger ones, a second hydrophobic barrier element sheds the water droplets so they fall into the sump below. A sight glass provides a visual of the fuel/water interface. Water can be drained through a manual drain valve or an optional mechanical water drain valve.

Standard Features

- 150# R.F. flanged inlet/outlet connections
- Isolation valves
- Skid with drip lip
- ASME code epoxy painted carbon steel vessels
- Swing bolt housing closures and lid lifting
- Step ladder and walk way
- Independent differential pressure gauges
- Automatic air release valves
- Inlet/Outlet sample ports
- Mechanical housing lid lifting
- Pressure relief valves
- Water sight gauge
- Manual water drain valves

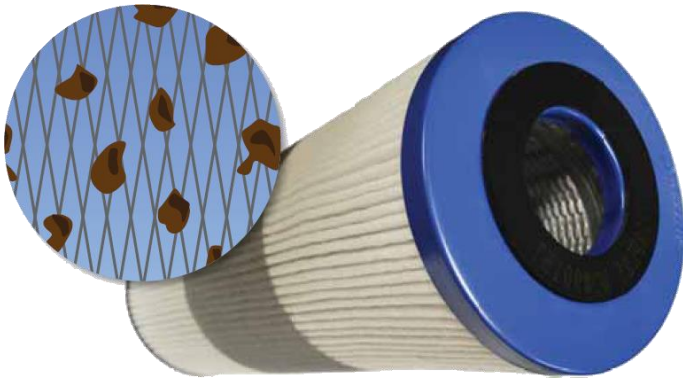


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MODEL	Flow Rate Range gpm (lpm)	Dimensions inches (mm)	Dry Weight lbs. (kgs)	I/O Flange inches, (mm)	Prefilters P/N (Qty)	Coalescers P/N (Qty)	Separators P/N (Qty)
FCS-3	100 -350 (380 - 1320)	70 x 60 x 80 (1780 x 1520 x 2030)	4500 (2050)	4 (102)	P9162XV (4)	C9262X (4)	S9161C (3)
FCS-5	250 - 550 (950 - 2080)	80 x 60 x 100 (2030 x 1520 x 2540)	6200 (2800)	6 (152)	P9162XV (6)	C9261X (6)	S9161C (5)
FCS-7	450 - 780 (1700 - 3000)	90 x 70 x 100 (2290 x 1780 x 2540)	8600 (3900)	6 (152)	P9162XV (8)	C9261X (8)	S9161C (7)

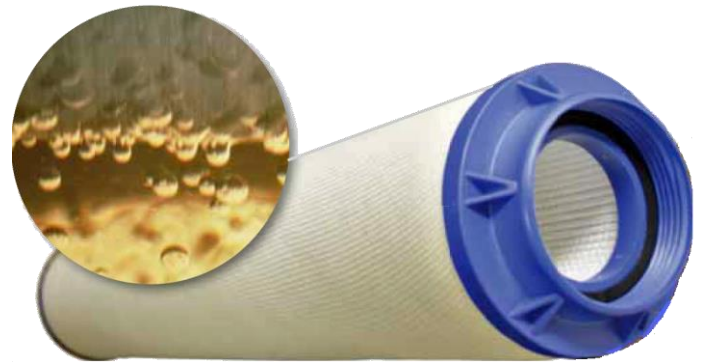
X: Micron Rating

The prefilters of FCS transform contaminated fuels to meet stringent downstream ISO 4406 cleanliness standards for the demanding limits placed on diesel fuels. The design balances high surface area and depth filtration to maximize filter life which reduces filtration costs. Micron ratings of 2, 4, 6, 10, 25, and 40 are available for prefilters.

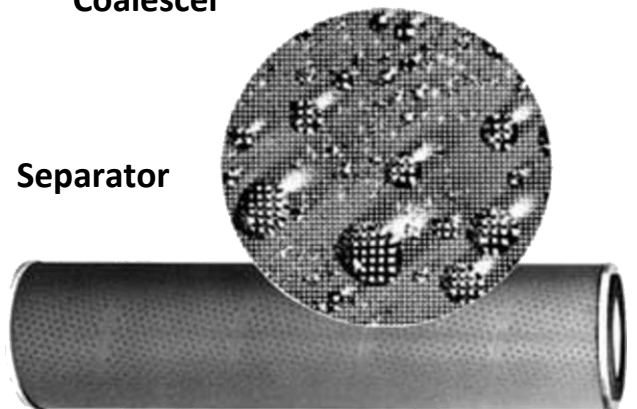


Prefilter

The first stage in the coalescer removes particles through an inside-out flow and coalesces emulsified water into large droplets, which then fall to the housing sump. In the second stage, an outside-in process, the separator creates a hydrophobic barrier to block the coalesced water droplets from flowing downstream of the housing. This multi-stage design assures the fuel is conditioned to a clean and dry state, ready for use. Micron ratings of 4, 10, and 25 are available for coalescers.



Coalescer



Separator

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