

Eminox - FBC System

Emissions Reducing Technology



The Eminox Fuel Borne Catalyst (FBC) System is one of the leading diesel particulate filter systems. Our system has electrically assisted regeneration as an integral feature, which extends the range of suitable applications to include vehicles with lower average exhaust temperatures. This includes smaller commercial diesel engines and larger vehicles operating on light duty cycles. It is also suitable for use on vehicles that do not run on ultra low sulphur diesel (ULSD).

The FBC system can reduce Particulate Matter (PM) by more than 90% and Nitrogen Dioxide (NO₂) by more than 50%. We use a silicon carbide filter which traps PM, including ultra fine particles (below one micron), which are known to be the most damaging to health.

Our system uses Satacen[®] fuel borne catalyst additive, which is stored in a separate tank on the vehicle and dosed in precise amounts directly into the fuel system. This intelligent dosing system makes the system extremely cost effective to operate. Continued use of Satacen has also been proven to prolong the performance of engine components and keep them running at optimum performance.



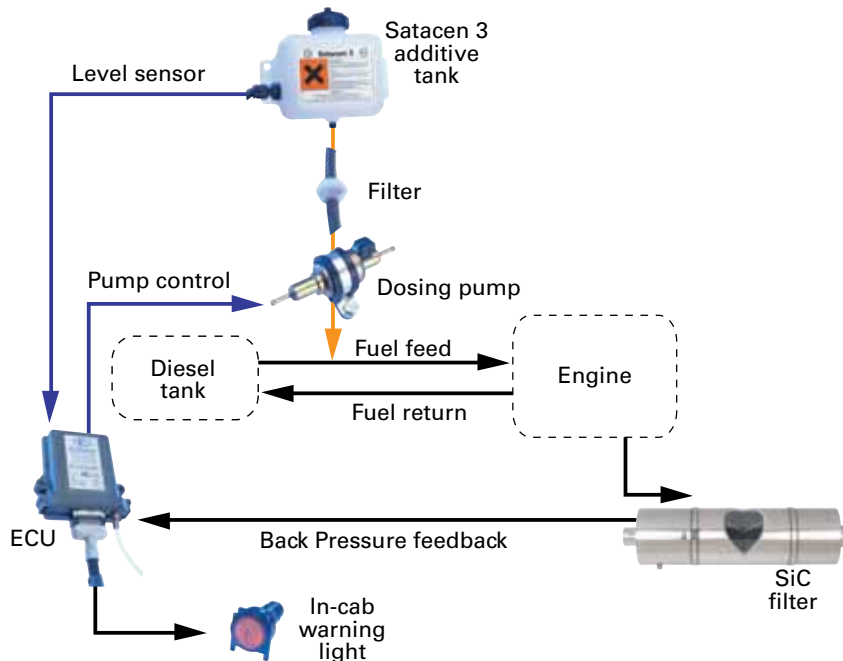
As the catalyst is added to the fuel, there is no catalyst section in the exhaust itself, making our systems compact and able to fit into tight space constraints. We use our applications engineering expertise to tailor our systems to fit individual vehicle requirements.



Technology

The Eminox FBC uses a Silicon Carbide wall-flow filter to trap the particulate matter (PM) which has been catalysed by the Satacen fuel borne catalyst during the combustion process. This particulate is collected and oxidised within the filter, which is extremely durable and can withstand high temperature regeneration.

Our electrically assisted regeneration system combines hardware and software control to maintain filter regeneration. The condition of the filter is continuously monitored via sensors which highlight the optimum time to trigger regeneration events, using automotive glow plugs on the filter face. This method makes efficient use of low energy input to initiate the regeneration.



Satacen additive uses a higher concentration of iron than other additives. This means we dose additive at a ratio of 0.4 litre to 1,000 litres of diesel. Other systems can dose 1.5 litres of additive to 1,000 litres of diesel, therefore using almost 4 times more additive than the Eminox FBC system.

Maintenance

Assisted regeneration of the filter maintains back pressure and allows the filter to operate effectively for long periods between cleaning. We offer efficient and environmentally responsible filter cleaning solutions using our unique Xpurge® cleaning process and Veritex® inspection technology.

The ECU monitors system performance and alerts the operator when the filter needs cleaning. The Eminox filter exchange scheme is a convenient way to service the system with minimal vehicle downtime.

Features and Benefits

- Integral electrically assisted regeneration
- Satacen typically consumed at a rate of 0.4 litre to 1,000 litres of diesel
- Satacen proven to prolong engine component life to maintain optimum performance
- High grade stainless steel casing for longevity
- Modular construction for easy servicing of filter
- EMC type approved

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North Warren Road Gainsborough DN21 2TU United Kingdom

Tel: +44 (0)1427 810088 Fax: +44 (0)1427 810061 Email: enquiry@eminox.com

