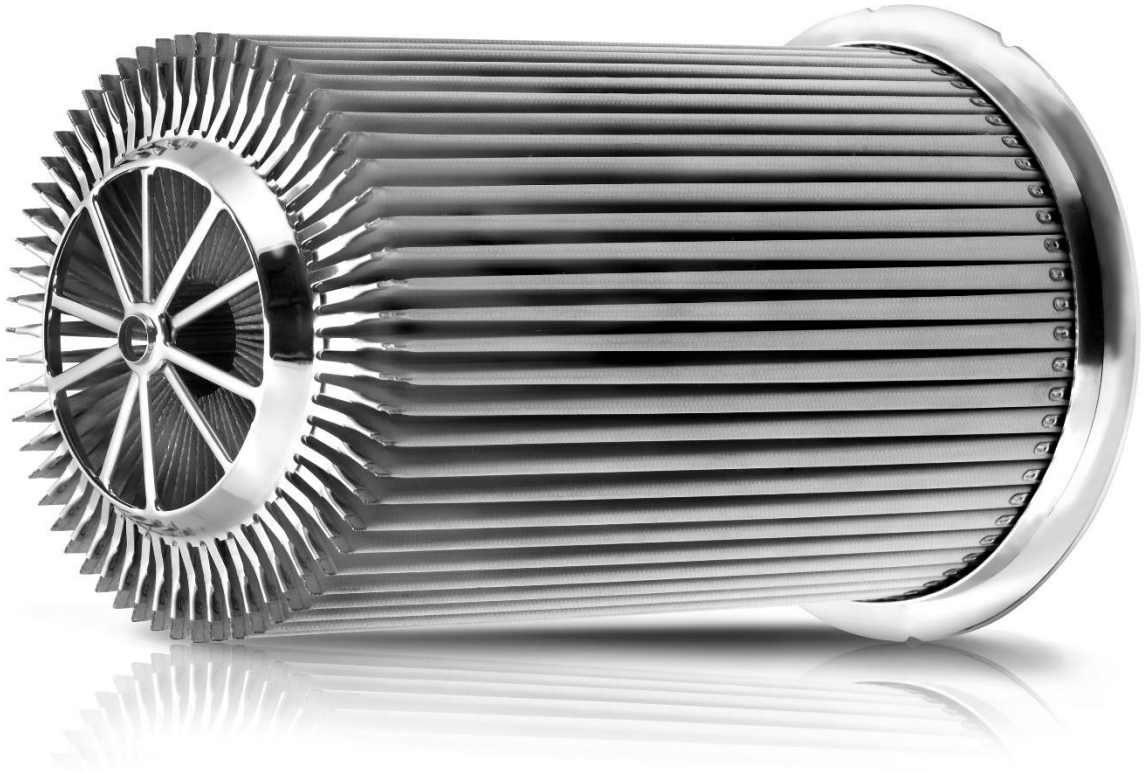
SMF-FBC Sintered Metal Filter with Fuel Bourne Catalyst System

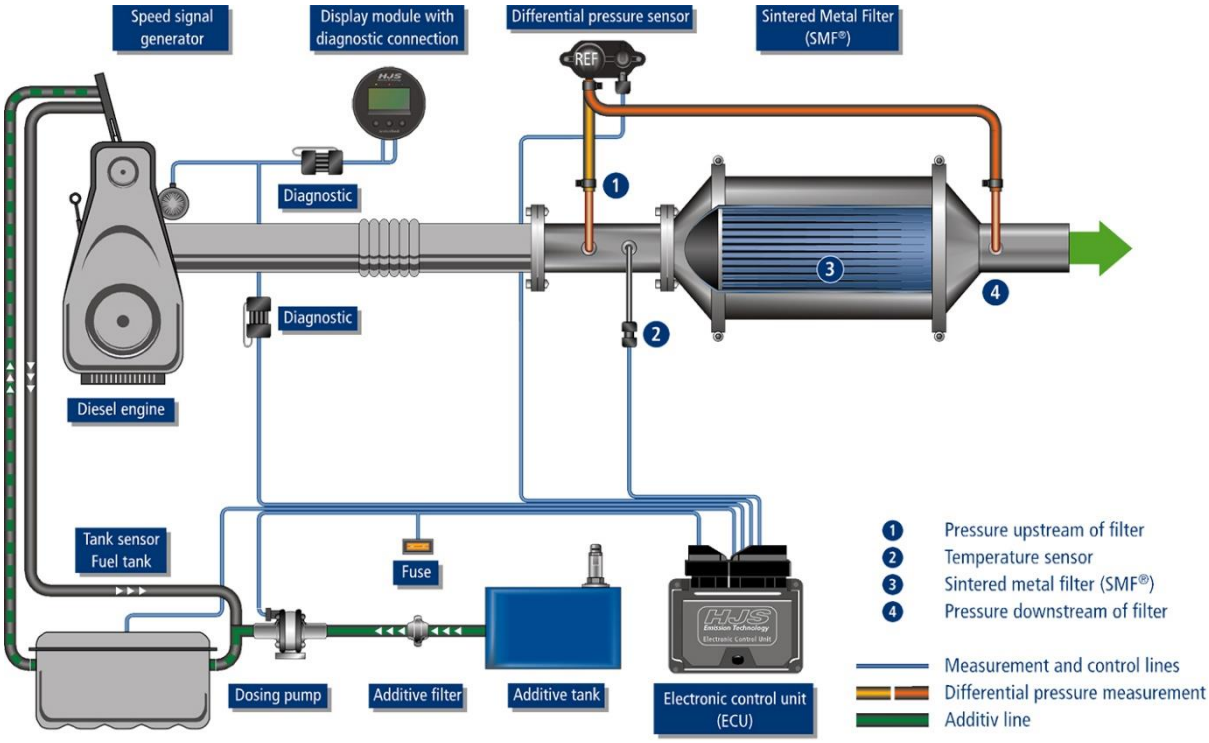
The new sintered metal filter technology from John Ratcliffe cc can be used for mobile machinery and stationary applications.

SMF® advantages at a glance

- ✓ Reduction of soot particles and fine particulate matter by more than 99%
- ✓ Suitable for OE and retrofitting applications
- ✓ Proven system already installed in more than 20,000 construction machines
- ✓ High ash holding capacity and low exhaust backpressure
- ✓ Low-maintenance and economical
- ✓ Reliable with long service life
- ✓ Easy DIY cleaning



SMF-FBC Complete System



Servicing and maintenance

Automatic monitoring and maintenance

The service unit (ECU) monitors the filter automatically by measuring the backpressure and temperature of the exhaust gases. The information is displayed on the “ServiceCheck” display module, which means the status of the filter is immediately visible at all times.

ECU and Display

Benefits

- ✓ Constant monitoring of the exhaust backpressure and temperature
- ✓ Overload detection for particulate filter
- ✓ Automatic indication that the filter needs cleaning
- ✓ Lower maintenance cost

Maintenance

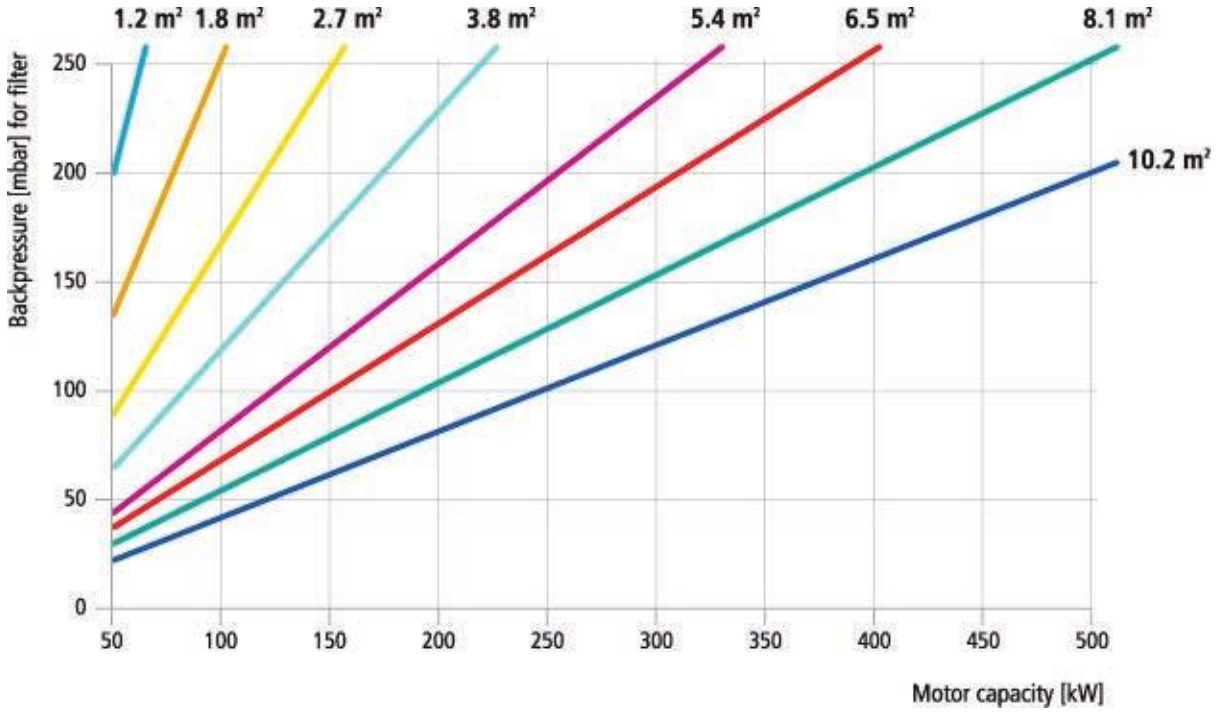
In addition to combustible soot particles, filter systems also remove all other solid particulate matter from the exhaust gases, above all ash from engine oils and additives. These residue must be removed from the filter at specific intervals by cleaning with a high pressure washer only. No need for ovens and ash extracting systems!

Cleaning intervals

Thanks to the high ash holding capacity of the SMF®, the operating hours it can reach before need to be cleaned is considerably higher compared with that of a conventional wall-flow (honeycomb) filter. Experience shows that many machines can operate for longer than 2,000 hours before the first servicing work needs to be carried out. This makes it possible to keep the running costs for servicing and maintenance as well as the associated downtime costs to a minimum.

SMF-FBC Sizing

The SMF-FBC can be used on machinery with an engine capacity from 100kW upwards, depending on the exhaust gas temperature directly in front of the filter. The system needs exhaust temperatures of 380°C and higher to regenerate. The filter size to be used, depends on the maximum allowable backpressure as per the engine manufacturer specifications.



Unique application and safe

The system is No_x neutral due to an additive used to lower the flashpoint of the accumulated soot. The approved additive contains an organic iron compound; which is soluble in diesel fuels. The maximum coverage amount for damage to an engine is 250,000 € per occurrence, and a maximum of 3,000,000 €, should your engine be effected by the additive.

Certification

…are certified and approved in accordance with Switzerland's VERT test method

…are included on the Swiss BAFU filter list and as such satisfy the tough specifications laid down by the international Air Quality Control Regulation (LRV)

…are approved by the US Marine Safety and Health Administration (MSHA)

…satisfy Germany's Technical Rules on Hazard Substances (TRGS) 554 – Diesel Engine Emissions

Practical experience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