

SMF®

Block Filter Systems

HJS
Emission Technology

SOUTH AFRICA

Flexible Diesel Particulate Filtration for Mining & Industrial Applications

The SMF® (Sintered Metal Filter) technology from HJS Emission Technology is a proven diesel particulate filtration system designed to drastically reduce harmful diesel particulate matter (DPM) emitted by diesel engines. These systems are widely used in mining, construction, industrial equipment and other heavy-duty applications.

The SMF® Block Filter configuration is a modular adaptation of the standard SMF® system, designed to suit different machine layouts, power ranges and installation requirements.

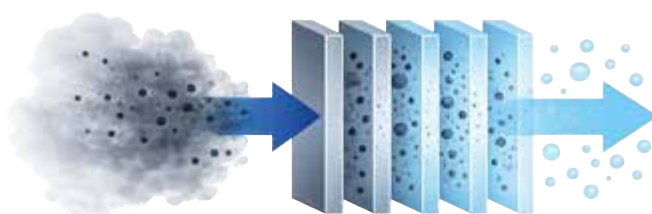
What is an SMF® Block Filter System?

An SMF® Block Filter uses the same proven HJS sintered metal filtration technology but arranged in a block-style housing with multiple filter modules. This design allows the system to be configured in various shapes and sizes to fit machines where traditional cylindrical filters may not be suitable.

The system can be installed as part of a retrofit emission solution or integrated into new equipment to significantly reduce diesel particulate emissions.

How the Technology Works:

- Exhaust gases enter the SMF® filter housing
- Microscopic, sintered metal filter media captures soot particles
- Cleaned exhaust gases pass through the filter
- Soot is continuously removed through regeneration processes
- The SMF® filter traps soot and fine particulate matter while allowing exhaust gases to pass through its microscopic metal pores



Depending on the application, the system can be configured with:

- Passive regeneration systems (using exhaust temperature and catalysts).
- External regeneration solutions where filters can be cleaned off-machine.

Key Benefits for Mining Operations

- Up to 99% reduction in soot and fine particulate matter.
- Reduces harmful diesel particulate matter at the source.
- Modular & flexible design: block configurations allow adaptation to various machine layouts and space constraints.
- Modular filter design allows for lower parts stock holding.
- Available in full-flow or partial flow configurations.
- High ash storage capacity and is designed for long service life in heavy-duty applications.
- Suitable for retrofit or new equipment.
- Can replace existing silencers or integrate into custom exhaust systems.
- Highly resistant to temperature and mechanical stress.
- Lightweight serviceable filter elements and filter modules can be removed and cleaned to extend system life.



Custom Engineered Solutions

At HJS Emission Technology South Africa, SMF® Block Filters are custom designed for each machine and application based on:

- Engine power and displacement
- Machine duty cycle
- Exhaust temperature profile
- Available installation space
- Emission reduction requirements

Each system ensure maximum filtration efficiency while maintaining optimal engine performance.

Reducing Diesel Particulate Matter at the Source

SMF® technology has been deployed in hundreds of thousands of applications worldwide, making it one of the most reliable and proven solutions for diesel emission reduction.

By implementing SMF® Block Filter systems, mining operations can:

- Improve underground air quality
- Protect worker health
- Meet stricter emission regulations & comply to OEL limits
- Extend equipment life



Contact us today

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