

# Flow-Through Diesel Particulate Filters



**MINE-X<sup>®</sup>**

***Flow-Through Filter***

ON-HIGHWAY CONSTRUCTION EARTHMOVING MATERIAL HANDLING



# MINE-X<sup>®</sup> FTF

REMOVES PARTICULATE MATTER WITH NO MAINTENANCE

The MINE-X<sup>®</sup> Flow-Through Filter (FTF) is a patent pending, flow-through diesel particulate filter that provides effective removal of diesel particulate matter and lower backpressure than conventional wall-flow particulate filters. The MINE-X<sup>®</sup>FTF can be used in most above-ground diesel engine applications. It is ideal for retrofit on most diesel engines where wall-flow particulate filters are unsuitable, including light duty cycle, older and two-stroke engines. DCL flow-through diesel particulate filters are used to meet EPA or CARB standards for particulate reduction or simply to improve air quality around diesel engines.

The MINE-X<sup>®</sup> FTF requires diesel fuel with sulfur content less than 500 ppm for proper operation and works best with sulfur content less than 15 ppm (ULSD fuel).

## MINE-X<sup>®</sup> Flow-Through Filter Advantages

- ★ Reduces up to 60 percent Diesel Particulate Matter (DPM).
- ★ Looks, installs and operates like a conventional diesel oxidation catalyst.
- ★ Does not clog or accumulate soot particles.
- ★ Requires no maintenance.
- ★ Achieves a backpressure of less than 20 inches wc (5 kPa), meeting many off-highway engine manufacturer's exhaust system limits.
- ★ Attains a high conversion efficiency for carbon monoxide, hydrocarbons, odor and particulate matter.
- ★ Effectively removes diesel nano-particles (Highest human health risks).
- ★ Improves sound attenuation (Equivalent or superior to the original muffler).

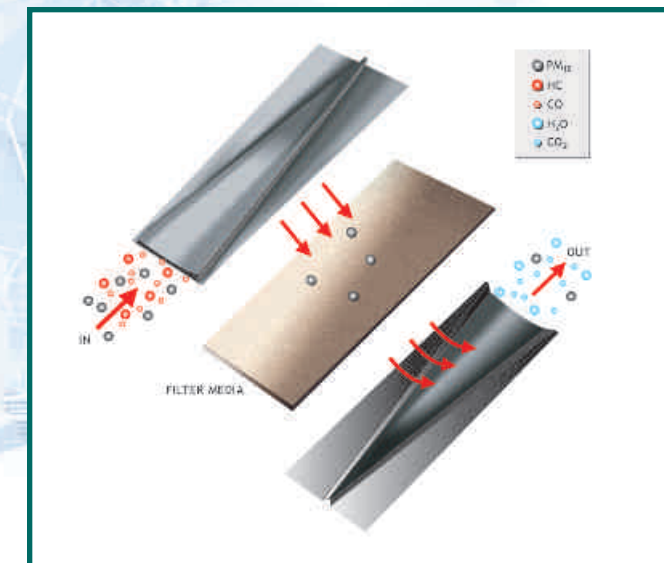


MINE-X<sup>®</sup> FTF substrate

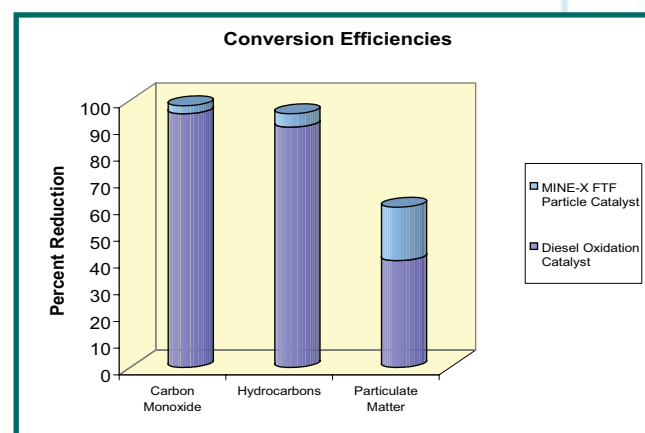
## How IT WORKS

The MINE-X<sup>®</sup> FTF is a patent pending network of flow-through channels consisting of corrugated metal foils and metal fiber fleece. The channels use a continuous but variable cross section to transfer exhaust gas through the stainless steel filter medium. Nano particles are collected within the filter on the surface of the fibres, which are effectively oxidized by means of a catalytic coating. The coating provides high overall particulate reduction across a wide range of exhaust flows and temperatures, with backpressure characteristics similar to a conventional diesel oxidation catalyst. The design also effectively destroys carbon monoxide (CO), diesel hydrocarbons (HC) and diesel odor.

### A cell of the main metal filter

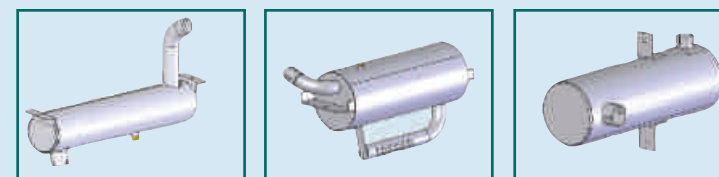


## Typical Conversion Efficiencies under US Heavy Duty Transient Cycle and ULSD Fuel



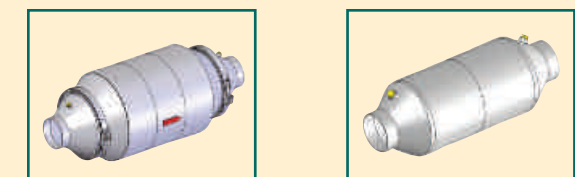
## Direct Fit Muffler Configuration

The MINE-X<sup>®</sup> FTF can be configured to exactly the same dimensions as the original muffler for the vehicle. The part is an exact replacement of the original muffler so installation is easy and requires no change to the exhaust system. DCL has a design library of over 2000 catalytic mufflers, ensuring the catalytic muffler for your engine is readily available.



## Standard Configuration

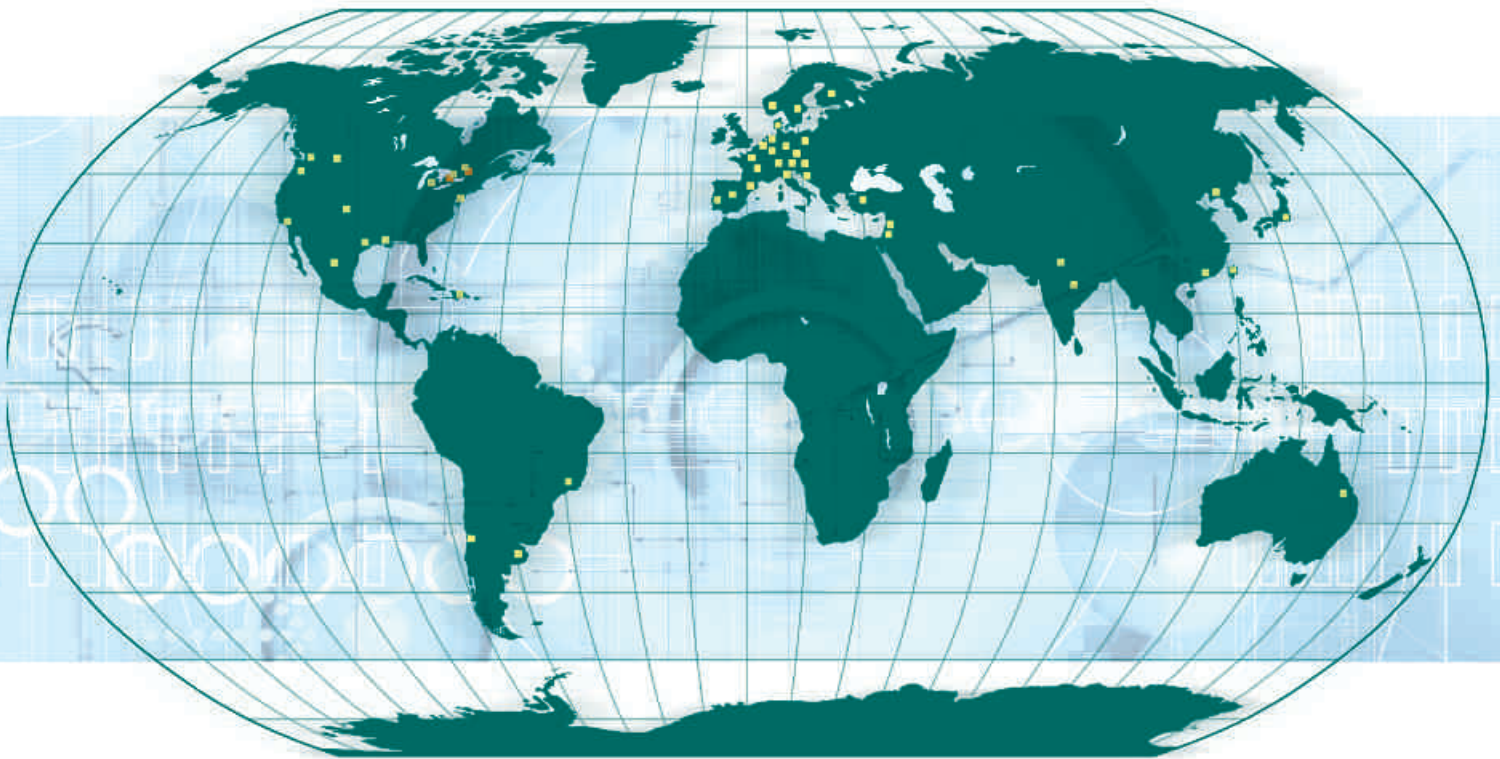
The MINE-X<sup>®</sup> FTF can be configured as a universal catalyst or a universal muffler for retrofit onto the vehicle. Illustrated below are examples of a universal configuration.



# DCL International Inc. – Preserving and Improving the Quality of the Air We Breathe

DCL International Inc. is a global leader in the engineering, manufacturing and supporting of advanced emissions control technology for stationary and mobile industrial engines. Our products include oxidation and three-way catalytic converters, catalytic mufflers, diesel particulate filters, stock mufflers and VOC abatement catalysts. Established in 1986, DCL provides innovative solutions for controlling engine exhaust emissions to the mining, tunnelling, construction, material handling equipment, power generation, co-generation, and gas compression markets.

To meet the specialized needs of the emission control market, we adopt an integrated approach, bringing together product development, design, manufacturing and testing all under one roof. This single-source capability enables us to provide better engineered emissions solutions that deliver outstanding performance, longer life and lower cost of ownership. Our superior product quality has made DCL the choice of customers around the world.



■ *Manufacturing Facilities*

■ *Representatives*



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