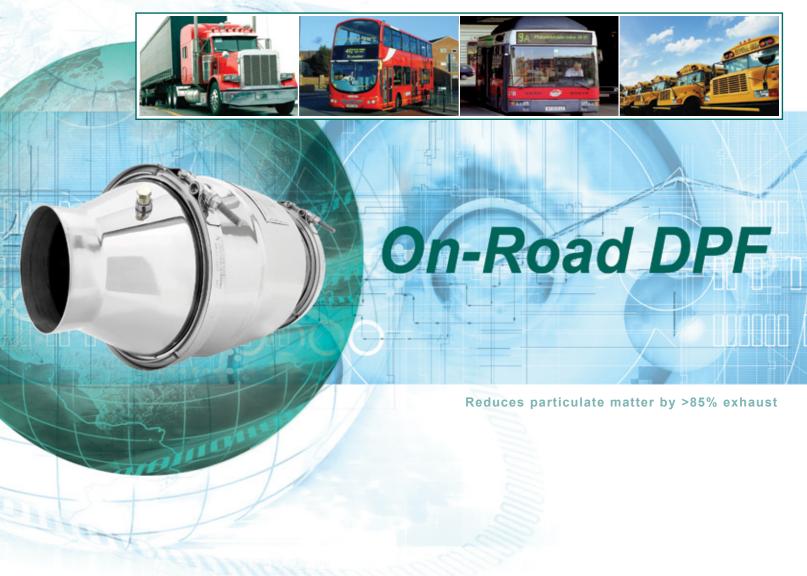
DCL International Inc. – Preserving and Improving the Quality of the Air We Breathe

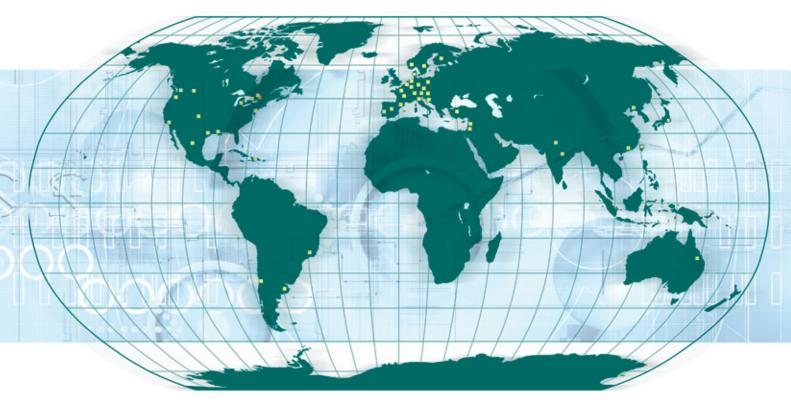
DCL International Inc. is a global leader in the engineering, manufacturing and supporting of advanced emissions control technology for stationary and mobile industrial engines. Our products include oxidation and three-way catalytic converters, catalytic mufflers, diesel particulate filters, stock mufflers 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.



On-Road Diesel Particulate Filters





Manufacturing Facilities

Representatives



DCL International Inc. Corporate Headquarters P.O. Box 90 Concord, Ontario L4K 1B2, Canada 1-800-872-1968

Phone: (905) 660-6450 Fax: (905) 660-6435 e-mail: info@dcl-inc.com web: www.dcl-inc.com

ISO 9001:2000 Registered





Diesel Particulate Filters

For over 20 years, DCL has been providing superior quality and innovative emission solutions to various industries. The CARB verified On-Road diesel particulate filter for on-road vehicles effectively reduces particulate matter by >85% by mass from diesel engine exhaust.

DCL diesel particulate filters are used to retrofit diesel vehicles to meet EPA or CARB requirements for particulate reduction in diesel vehicles, or simply to improve air quality around diesel engines. A vehicle or engine fitted with a CARB verified diesel particulate filter will operate normally, using only the heat in the exhaust gas to continuously burn off particulates.

CARB LEVEL 3 PLUS VERIFICATION

The California Air Resources Board (CARB) has classified DCL's diesel particulate filter as a Level 3 Plus system for heavy-duty on-road vehicles that use certain certified heavy-duty diesel engines. The CARB verification number assigned to the On-Road diesel particulate filter is DE-12-002.

CUSTOM MUFFLER DESIGNS

So why are DCL diesel particulate filters the choice of customers worldwide? At DCL, we offer both standard and custom designed exhaust emissions solutions to meet your requirements.

As a customized solution, the On-Road diesel particulate filter directly replaces the original muffler, eliminating the need for exhaust system modification. The illustrations below are examples of muffler replacements:



Scania Bus



Thomas Shuttle Bus

Volvo B10M Bus

With thousands of installations worldwide, DCL diesel particulate filters are the industry standard for long, reliable operation.



- Product approvals include:
- VERT
- Japan MLIT
- Sweden Environmental Zones, and
- Denmark Road Safety & Transportation Agency.



How **IT WORKS**

The catalytically-coated ceramic monolith contains long narrow channels open at one end and blocked at the other. The exhaust gas is forced to escape by passing through the filter walls, trapping particulate matter (soot) in the filter. At a high exhaust gas temperature, the soot particles burn away and transform into carbon dioxide. The filter also destroys carbon monoxide (CO) and diesel hydrocarbons (HC).

BASIC REACTIONS

C

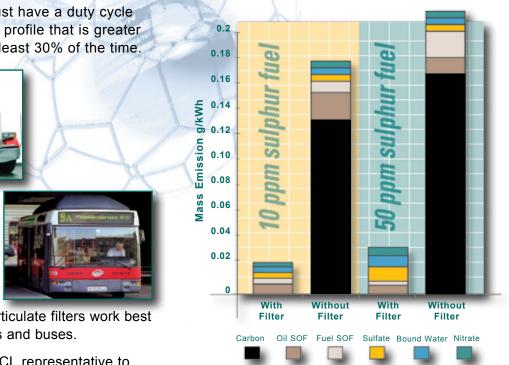
C

(soot) + O ₂ -)
$0 + \frac{1}{2} O_2 -$;
$_{x}$ H _y + O ₂ -	,

EXHAUST TEMPERATURE REQUIREMENTS

The application must have a duty cycle with a temperature profile that is greater than 280 °C for at least 30% of the time.





On-Road diesel particulate filters work best on post 1994 trucks and buses.

Please contact a DCL representative to determine the suitability of an On-Road diesel particulate filter for other applications.



CO₂

 $CO_{2} + H_{2}O$

 CO_2