



# MINE-X® Catalytic Converters and Catalytic Mufflers Installation, Operation and Maintenance

The MINE-X® catalytic converters and catalytic mufflers contain a brazed metallic honeycomb substrate, coated either with an oxidation or a three-way catalyst. The oxidation catalyst reduces carbon monoxide (CO), hydrocarbons (C<sub>x</sub>H<sub>y</sub>) and partially oxidized hydrocarbons (C<sub>x</sub>H<sub>y</sub>O). The three-way catalyst reduces oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO), and hydrocarbons (C<sub>x</sub>H<sub>y</sub>).



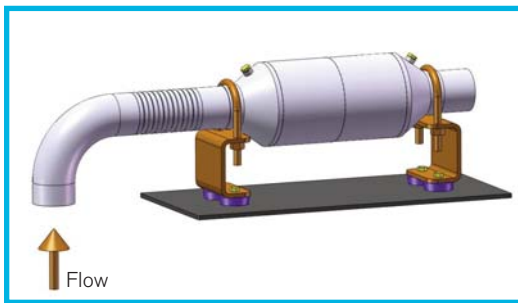
## Product Details

Below are examples of DCL catalyst products for industrial equipment.

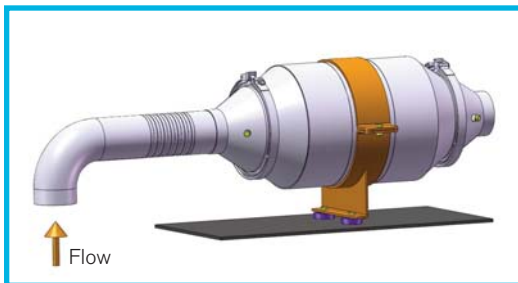
Code	Description	Examples
DQ	A <b>universal</b> oxidation or three-way catalyst for many types of equipment. Includes quick-release clamps for easy removal of the substrate.	
DP	A <b>universal</b> oxidation or three-way catalyst for many types of equipment.	
ID/IT	An oxidation or three-way catalyst for a specific model of equipment. Directly replaces a section of the exhaust pipe between the exhaust manifold and the muffler.	
IV/SV	An oxidation catalyst for a specific model of equipment. Attached after the equipment's muffler. Has a venturi for air intake. Used on spark-ignited engines.	
SAM	A <b>universal</b> oxidation or three-way catalyst and muffler combination for many types of equipment. In some cases the muffler is provided without the catalyst.	
MV/MT/MD MX/MY	An oxidation or three-way <b>catalytic muffler</b> for a specific model of equipment. Directly replaces the original muffler.	

## Universal Designs - Installation

- Follow one of the two recommended options as shown.
- For good performance, the unit should be installed as close as possible to the exhaust manifold or turbo of the engine.
- The maximum recommended distance from the exhaust manifold is 3 feet (1 meter).
- Mount the device securely to minimize transmission of vibration.
- Use flexible tube as required (may require welding or clamping to secure).
- Check that the system is free of leaks and all fittings are tightened.



**Universal Design – Option 1**



**Universal Design – Option 2**

## Catalytic Mufflers - Installation

- Remove the existing original muffler.
- Install the replacement catalytic muffler into the same location using the same clamps, brackets, bolts, straps, etc..
- Replace all exhaust components for a secure fit.
- Check that the system is free of leaks and all fittings are tightened.

## Equipment Operation

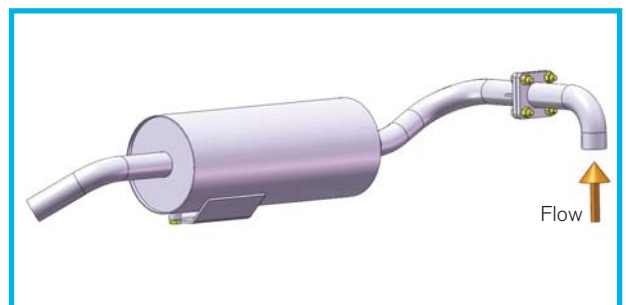
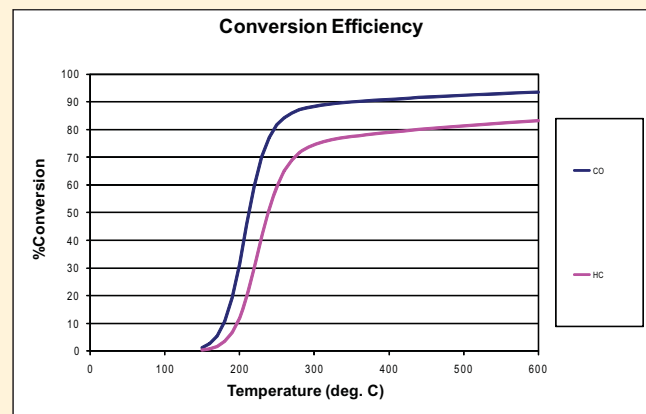
Removal of pollutants by the catalyst starts when a properly operating engine is lightly loaded or with an exhaust temperature greater than 160 °C (320 °F). If the engine is idling and the catalyst is cold, there may be little or no removal of pollutants. Avoid excessive idling, particularly when operating in indoor environments.

## Durability

The durability and long-term performance of the catalyst is dependent on many factors including engine maintenance, lube oil consumption, fuel quality, and duty cycle. The catalyst remains effective for over 10,000 hours of operation or several years, even in heavily used equipment.

## Maintenance

No regular maintenance is required on the MINE-X® Catalytic Converters. If a problem occurs, please contact a DCL technical support engineer at 1-905-660-6450.



**Direct Muffler Replacement**