

Eminox CRT[®] System

Retrofit Particulate Matter Reduction



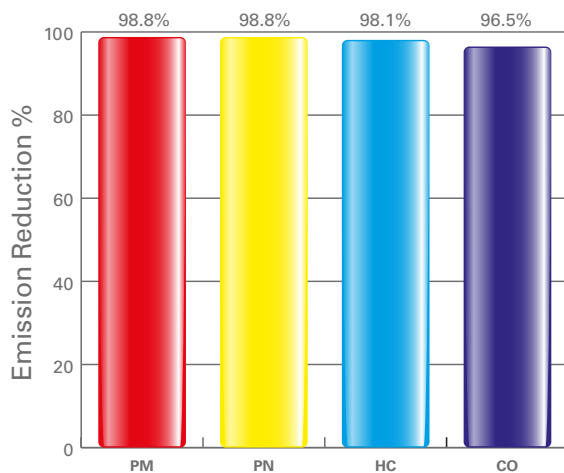
5.5 million people die each year as a result of air pollution, and diesel exhaust emissions are a large contributor. The World Health Organisation (WHO) has classed diesel exhaust emissions as carcinogenic, and particularly associated with lung cancer.

The Eminox CRT[®] (Continuously Regenerating Trap) system is the world's leading retrofit diesel particulate filter (DPF). It reduces Particulate Matter (PM) emissions by more than 95%, allowing vehicles as old as Euro III to be upgraded to the PM standards of a Euro VI vehicle. It has been installed on buses and trucks across the globe.

The passive regeneration capability of CRT[®] makes it a simple and robust system, which does not require an additive or complex electronic controls.

The CRT system removes Particulate Matter (PM) and virtually eliminates Hydrocarbons (HC) and Carbon Monoxide (CO). It is Oxides of Nitrogen (NO_x) neutral. PM is reduced by both mass and number (PN), trapping ultra-fine particles, which can penetrate deep into the respiratory tract and cause damage to both heart and lungs.

Emission Reduction with Eminox CRT



The Eminox CRT[®] has been rigorously tested and VERT approved. It is also approved for use in many Low Emission Zones and E-Zones across Europe.

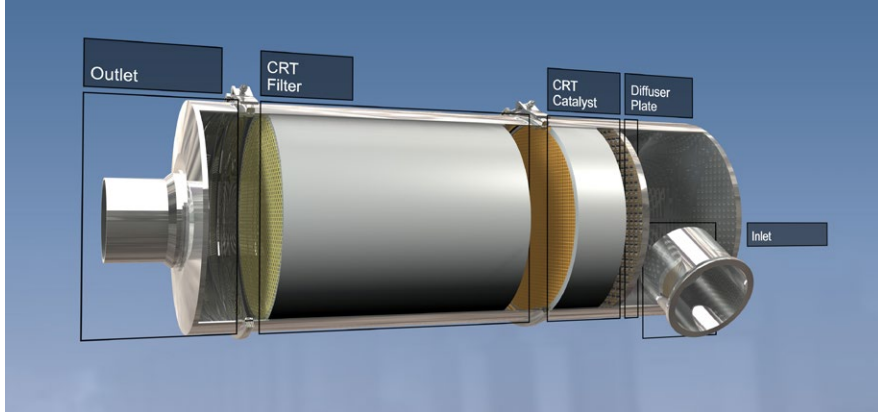
This is backed by proven performance in the real world since 1995.



Technology

The system combines a specifically-formulated oxidation catalyst and a ceramic wall-flow filter.

The catalyst is a matrix of tiny channels coated in platinum, which oxidises CO and HC into harmless CO₂ and water vapour. It also changes the proportion of NO to NO₂ and this is the key to filter regeneration.



The wall-flow filter traps particulate matter, which is then oxidised by the NO₂ removing it from the filter. This chemical reaction takes place at normal exhaust temperatures, so the filter is cleaned by continuous regeneration during normal operation, without the need for any additives. Locating the catalyst before the filter leads to more effective filter regeneration.

The Eminox CRT[®] system is manufactured using high grade stainless steel for durability and its modular construction is designed for ease of maintenance. It can be tailored to meet specific vehicle requirements. CRT[®] systems can be supplied for a wide range of vehicle applications and engine powers.

Maintenance

The continuous regeneration of the filter maintains back pressure and allows the filter to operate effectively for long periods between cleans. However, periodic filter cleaning is necessary to remove incombustible ash and any build-up of soot.

The Eminox CADi (Control and Diagnostics interface) monitors system back pressure and provides alerts when the filter needs cleaning.



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