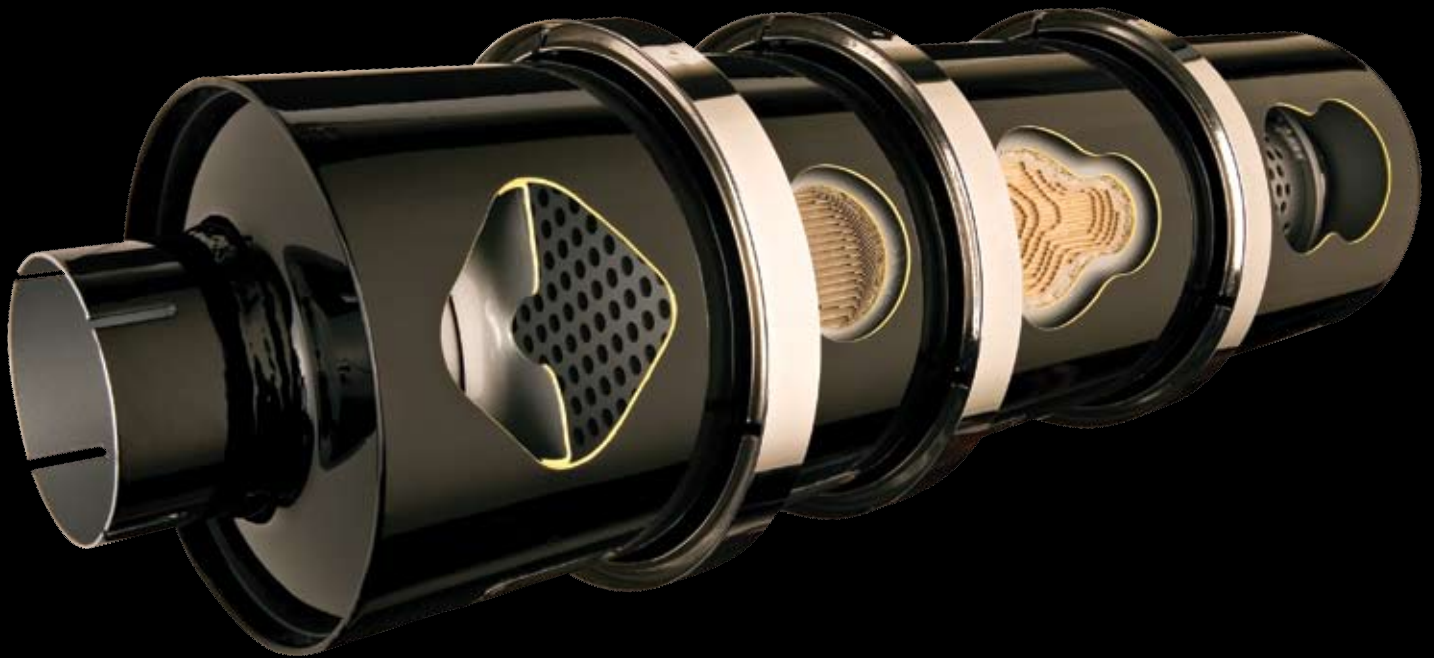




Emission Solutions

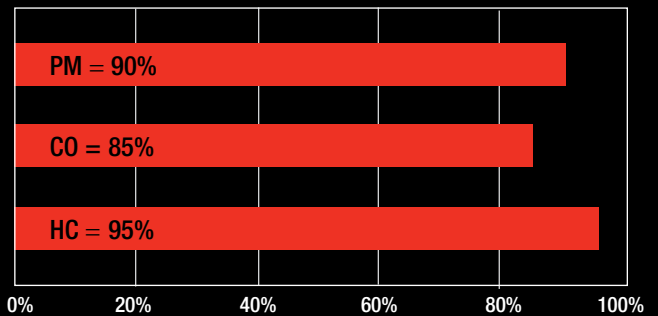
RETROFIT SOLUTION. DIESEL PARTICULATE FILTER.

- Uses Johnson Matthey's patented Continuously Regenerating Technology (CRT[®]), among the first verified for the EPA's voluntary retrofit program.



- Next generation Catalyzed Continuously Regenerating Technology (CCRT[®]) retrofit system available for lower temperature applications, where other systems stop cold.

The Diesel Particulate Filter reduces:*



* Actual reductions depend on engine emissions and duty cycle. Verification credits are represented in the above table.

Every Solution.

Cummins Emission Solutions retrofit diesel particulate filter uses Johnson Matthey's patented Continuously Regenerating Technology (CRT®), among the first verified for the EPA's voluntary retrofit program. Also verified by CARB, it has become the industry standard for heavy-duty diesel retrofit technology for particulate matter reduction. The next generation filter—the Catalyzed Continuously Regenerating Technology (CCRT®) retrofit system—works in lower temperature applications, where other systems stop cold.

Engineered for Performance.

The CRT and CCRT systems trap and oxidize soot before turning it to ash. The Johnson Matthey patented catalyst is designed with two chambers. The first is designed to oxidize a portion of the NO in the exhaust to NO₂. In the second chamber, exhaust flows through a wall-flow filter where gaseous components pass through, but soot is trapped. The trapped soot is then destroyed by the NO₂ product produced by the first chamber.

To ensure optimum performance of the filter and engine, the diesel particulate filter system monitors engine pressure and temperature. Controls alert operators when backpressure is high and the filter needs cleaning.

The CRT and CCRT retrofit systems are fully engineered and tested, and include:

- A complete two stage catalytic filter
- A monitor and sensors to measure backpressure and temperature
- Noise control utilizing our 30+ years in acoustic muffler development
- Exhaust piping and mounting brackets for customer-friendly installation

Vertically mounted units are designed to prevent water intrusion. Maintenance is minimal with recommended filter element cleaning at every 60,000 to 100,000 miles.



The Cummins Emission Solutions retrofit diesel particulate filter is an industry standard in dependability and performance.

Technology That Works.

Our CRT and CCRT filter products are verified by both EPA and CARB for retrofit across a wide range of diesel engines. As a verified product, the Cummins Emission Solutions diesel particulate filter is eligible for local, state and federal funding, and reductions are claimable within State Implementation Plans (SIPs)

CRT and CCRT System Application Guidelines

- Achieves maximum emission reduction with ultra-low sulfur (15 ppm) diesel fuel.
- Verified for use with biodiesel (up to B20 blend with ULSD). Review engine manufacturer's fuel guidelines for complete information regarding recommendations.
- Requires exhaust temperatures of 240° Celsius at least 40% of CRT filter operating time (data logging required to determine exhaust temperature).
- Requires exhaust temperatures of 200° Celsius at least 40% of CCRT filter operating time (data logging required to determine exhaust temperature).
- Applies to 1991 and newer on road diesel engines including some EGR engines (CCRT verified for 1994 and newer).
- Applies to a wide range of diesel engines.

Connect to a World of Diesel Expertise.

Cummins Emission Solutions provides technologies to protect your fleet and keep it running clean and strong. We are committed to developing superior products that meet or surpass emission regulations. Supported by the Cummins North American distributor network and Cummins worldwide, our systems bring real value to you—from installation through the life of the product.

Choose the emission-reduction leader backed by the Cummins legacy of technology for your complete fleet needs. Choose Cummins Emission Solutions.



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Cummins Emission Solutions products are covered by performance and emissions warranties that meet or exceed both EPA and CARB warranty requirements for retrofit verification coverage.