



Purifilter™

Diesel Particulate Filter (DPF)

VERIFIED PRODUCT



Urban Buses

School Buses

Highway Trucks

Off-road Vehicles



ECS Purifilters feature a precious coating catalyst on a Silicon Carbide filter for exceptional regeneration performance and durability

ECS Purifier™ – Superior Performance at a Competitive Price

With close to thirty years of retrofit experience, the ECS Purifier was the first passively regenerating diesel particulate filter to be verified by the US EPA to provide an industry leading >90% reduction in diesel particulate matter.

ECS is also pleased to provide each Purifier with an advanced Backpressure Monitor and Logger system which will record vehicle duty cycle information for up to two years. The Backpressure monitor provides the operator information on the condition of the Purifier while the stored data is useful to hasten maintenance, reduce downtime and protect your investment.

The Purifier also complies with stringent NO₂ emissions limits as set by the California Air Resources Board (CARB) and US Environmental Protection Agency (EPA). Additionally, no company offers as many models and configurations to afford the best installation for your application.

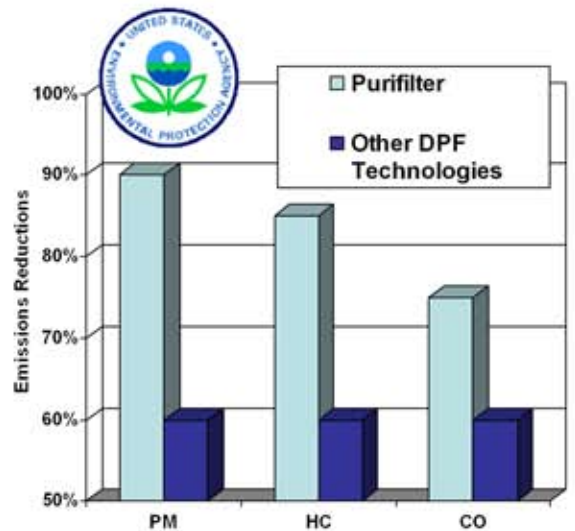
Why Silicon Carbide?

Purifiers are manufactured with highly efficient silicon carbide wall flow substrates which offer superior filtration and durability compared to other DPF substrate materials. Silicon Carbide filter substrates have higher thermal conductivity than other traditional ceramics such as cordierite, providing a superior ability to tolerate exposure to high temperatures that can occur during severe regeneration events. Silicon Carbide filter substrates also have extremely low chemical reactivity with lube ash and fuel additives, as well as superior noise attenuation that is comparable to high grade mufflers.



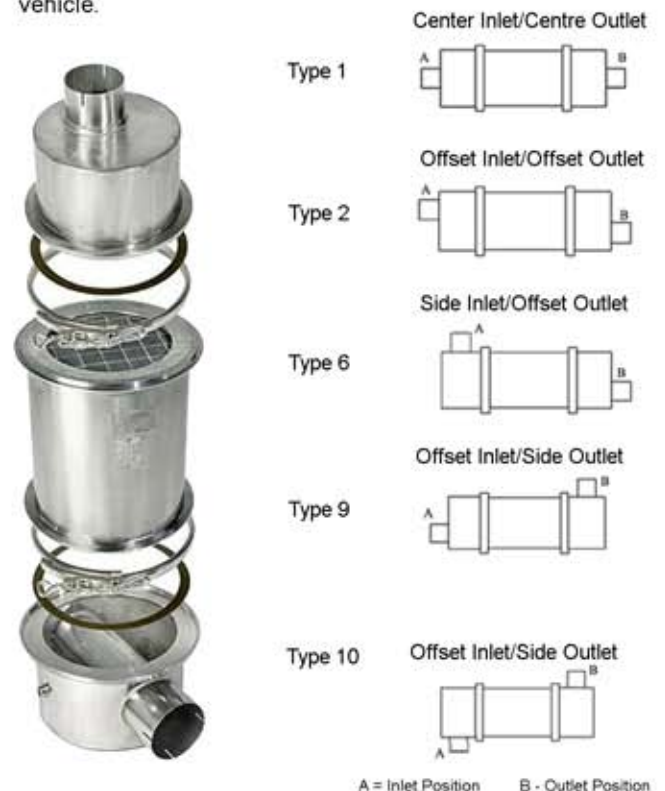
Purifier™ – How does it work?

The wall flow filter substrate is formed in a honeycomb design; alternating cells are open on one end and plugged at the outlet end. As the exhaust flow enters the open inlet cells, it is forced to pass through the micro-porous walls to the outlet cells, filtering the diesel particulate from the exhaust. The filter substrate is coated with a proprietary catalyst coating to reduce soot combustion temperatures to a level within the normal exhaust temperature range of diesel engines. For 1994 and newer HD Highway engines, continuous passive filter regeneration occurs when the exhaust temperatures exceed 280°C for more than 25% of the operating time. The catalyst also serves to oxidize >75% of carbon monoxide and >85% hydrocarbons. Higher emitting non-road engines typically require exhaust temperatures to exceed 280°C or 320°C for more than 25% of the operating time.



ECS Purifiers- Designed for your Application

Engine Control Systems offers more Purifier Models than other competitive products to insure the optimal size and cost for your application. Additionally, each Purifier model is available in 5 different inlet / outlet configurations or "Types" with either standard stamped flanges or optional machined flanges. The 100% stainless steel modular design allows for 360° rotation of the muffler inlet and outlet sections to provide the greatest range of fit. Engine Control Systems also manufactures and supplies its distributors a wide range of mounting and installation hardware and customized parts. With both horizontal and vertical mounting options, an ECS Purifier can be made to fit in almost any vehicle.



Purifier Modular Design and Variety of Design Types provide the greatest range of fit

ECS Purifiers are EPA and ARB Verified!



ECS Purifiers are EPA and ARB verified to work with a variety of model year 1993 thru 2006 heavy duty highway applications including school buses, urban buses, refuse, drayage, delivery and public fleet vehicles. For a complete up to date list of engines, visit our company website. ECS Purifiers have also been verified under the SWIS VERT and Swedish Environmental Zones Off-Road Engine Programs. CARB and EPA non-road verifications have also been verified. Our goal is to insure your Purifier is right for your vehicle! ECS is committed to insure that each Purifier installed on a vehicle by our distributors will outperform and outlast other competitive products.



Does your product supplier or distributor do this?

ECS and its distributors are committed to insure the following services in support of your fleet;

Fleet Inspection - ECS and its distributors perform a full fleet inspection and evaluation. We ensure the right equipment, for the right vehicle, the first time.

Vehicle Datalogging – ECS and its distributors will datalog your vehicles to ensure they comply with the Purifier duty cycle requirement for Purifier application.

Opacity Testing and engine condition inspection– ECS and its distributors will check that your engine is free of obvious fuel system, turbocharger or other defects which may impair Purifier operation.

Documentation – ECS and its distributors will register your warranty and provide you with a copy of all warranty statements and your Purifier product manual.

After Sales Support and Service - ECS offers a dedicated customer service 800 line as well as both technical service and customer service email accounts and phone contacts with a guaranteed response within 24 hours.

Advanced Backpressure Monitor and Logger system - ECS provides a Backpressure Monitor and Logger (which can be purchased separately) which will record vehicle duty cycle information for up to two years. The Backpressure monitor provides the operator information on the condition of the Purifier while the stored data is useful to hasten maintenance, reduce downtime and protect your investment.

Maintaining your Purifier - Purifiers are virtually maintenance free when minimum duty cycle conditions are met. However, residual ash and engine wear metals will build up with use. The Purifier periodically requires ash removal at an interval dependent upon the equipment duty cycle.



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CombiClean™ - DPF Cleaning Station

The CombiClean is designed with health and safety in mind. The cleaning process is designed to safely and effectively clean the filter while minimizing exposure to harmful diesel particulate. The system allows the debris collected from the CombiClean to be disposed of following both municipal and environmental guidelines.



Purifilter is a Verified Emissions Reduction Technology

- ✓ *Verified by the California Air Resources Board for 1994-2003 on-road diesel engines using ULSD*
- ✓ *Verified by the US EPA Voluntary Retrofit program for 1994-2003 on-road diesel vehicles*
- ✓ *Certified by the Swedish Environmental Zones: Off-road Engines program*
- ✓ *Tested and Approved under the Swiss VERT Program*
- ✓ *Approved by the Vehicle Certification Agency of the United Kingdom for on-road vehicles*
- ✓ *Verified by the California Air Resources Board for 1996-2008 off-road diesel engines*