

ON THE ROAD TO A GREENER FUTURE

Purifilters[™]

DIESEL PARTICULATE FILTER (DPF)



Offering All-Makes technologies for:
Highway Trucks • School Buses • Urban Buses • Mining • Earth Moving • Construction • Heavy Industrial

Purifilter™ – Superior Performance at a Competitive Price

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

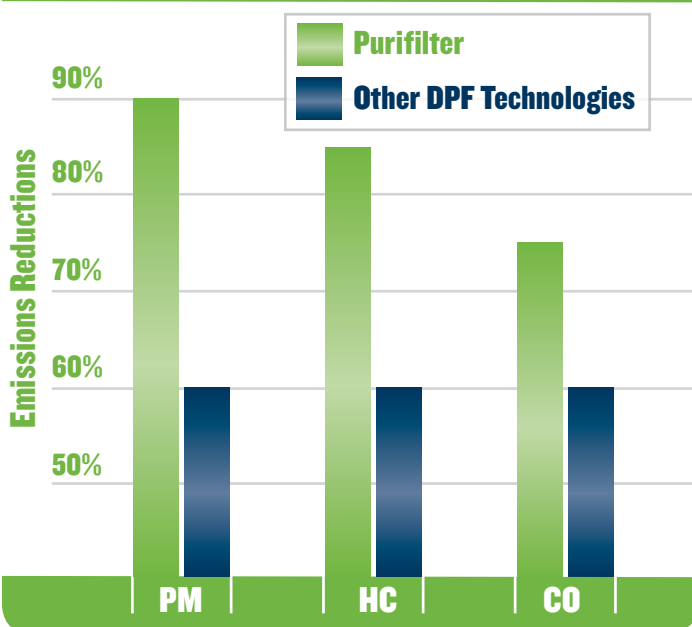
Each Purifilter™ is provided with an advanced Backpressure Monitor and Logger system which will record vehicle duty cycle information for up to two years. The Backpressure monitor presents the operator information on the condition of the Purifilter™, while the stored data is useful to hasten maintenance, reduce downtime and protect your investment.

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

Purifilter™ – 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.

US EPA DPF Verified Emissions Reductions



Why Silicon Carbide?

Purifilters™ 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.

Purifilter™ - Designed for your Application

The Engine Control Systems (ECS) Purifilter™ line offers more models than other competitive products to insure the optimal size and cost for your application. Additionally, each Purifilter™ 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. ECS 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 Purifilter™ can be made to fit in almost any vehicle.

TYPE 1 Center Inset/Center Outlet



TYPE 2 Offset Inset/Offset Outlet



TYPE 6 Side Inset/Offset Outlet



TYPE 9 Offset Inset/Side Outlet



TYPE 10 Offset Inset/Side Outlet



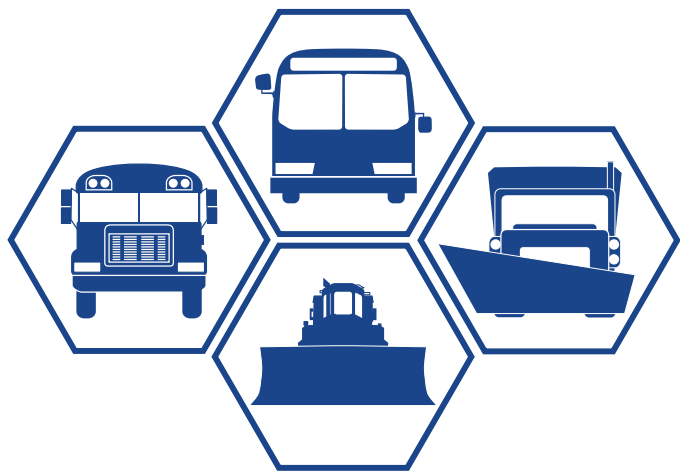
A=inlet position B=outlet position



Purifilters™ are EPA and ARB Verified!

ECS Purifilters™ 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 and is also verified by ARB on 1996 thru 2008 off-road diesel engines. For export applications that require diesel exhaust emission retrofit, ECS Purifilters™ have also been verified under the Swiss VERT and Swedish Environmental Zones Off-Road Engine Programs. For an up to date list of compatible engines under these verifications, please visit www.enginecontrolsystems.com

The goal of Navistar® and ECS is to insure your Purifilter™ is right for your vehicle! We are confident the Purifilter™ will outperform and outlast other competitive products.



Does your product supplier or distributor do this?

Navistar® and ECS are committed to insure the following services in support of your fleet:

Fleet Inspection – Your local International Truck or IC Bus dealer will perform a full fleet inspection and evaluation. We ensure the right equipment, for the right vehicle, the first time.

Vehicle Data Logging – Your local International Truck or IC Bus dealer will data log your vehicles to ensure they comply with the duty cycle requirement for the Purifilter™ application.

Opacity Testing and engine condition inspection – Your local International Truck or IC Bus dealer will check that your engine is free of obvious fuel system, turbocharger or other defects which may impair Purifilter™ operation.

Documentation – Your local International Truck or IC Bus dealer will register your warranty and provide you with a copy of all warranty statements and your Purifilter™ product manual.

After Sales Support and Service – In addition to the hands on support from your local International Truck or IC Bus dealer, 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.

Advanced Backpressure Monitor and Logger system – A Backpressure Monitor and Logger is provided with each Purifilter™, which will record vehicle duty cycle information for up to two years. The Backpressure monitor provides the operator information on the condition of the Purifilter™, while the stored data is useful to hasten maintenance, reduce downtime and protect your investment.

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



DPF Materials

Engine Control Systems (ECS) Purifiers™ feature a precious metal coating catalyst on a silicon carbide filter for exceptional regeneration performance and durability.

Purifier™ is a Verified Emissions Reduction Technology

- Verified by the California Air Resources Board for 1993-2006 on-road diesel engines using ULSD
- Verified by the US EPA Voluntary Retrofit program for 1994-2003 on-road diesel vehicles
- Verified by the California Air Resources Board for 1996-2008 off-road diesel engines
- 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



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To find the dealer nearest you, go to www.navistarpartsandservice.com and click the dealer locator.