How does the Cattrap work?

The cordierite filter substrate is formed in a honeycomb design; alternating inlet 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 catalytic layer to reduce soot combustion temperatures to a level within the normal temperature range. Cattrap displays regeneration balance points between 380°C and 425°C varying with both vehicle engine and application. Continuous passive filter regeneration occurs during a vehicle duty cycle when the exhaust temperatures are above 400°C for more than 25% of the time.

Why Cordierite?

The ECS Cattrap features a Corning EX-80 filter. Cordierite filter substrates have a lower thermal conductivity than other ceramics. This provides a perfect match for the base metal catalyst which requires higher temperatures to regenerate. The low thermal conductivity allows the soot to be oxidized at the location of its build up; spontaneous, uncontrolled regeneration is limited.

Why Base Metal?

The Cattrap features an advanced base metal soot ignition catalyst. Unlike other catalysts, base metal does not produce NOx emissions during passive regeneration. This is essential to areas with limited ventilation.

Cattrap Performance

The ECS Cattrap is a catalyzed diesel particulate filter which typically reduces diesel particulate (PM) by >85%.
Mining Vehicles

The ECS Cattrap goes where other DPF’s can’t. The ECS Cattrap was specifically developed for the needs of mining operations in 1990. MSHA has recognized the Cattrap as the only catalyzed diesel particulate filter that does not promote NO2 formation. See table 1 of the MSHA website for full results: www.msha.gov/01-995/coal/DPM-FilterEfflist.pdf

Field Durability

The ECS Cattrap has proven field durability. Below: A dual CT23 Cattrap installed on an ST-8B AC Wagner Scoptram, powered by DDC S60 325hp at Brunswick mine. The filters have been evaluated under DEEP DPF program for 4000 hours without any problems. The filters were evaluated by CANMET Labs and given an excellent review.

Maintaining your Cattrap

Cattraps are virtually maintenance free when the minimum duty cycle conditions are met. However, residual ash and engine wear metals can build up with use. The Cattrap requires ash removal once every 50,000km (~30,000 miles), 12 months, or every 1000 hours, whichever occurs sooner. ECS recommends the use of the CombiClean™ to maintain your filter.

Does your product supplier/distributor do this?

ECS and its distributors are committed to ensure the following services to support 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 data-log your vehicles to ensure they comply with the duty cycle requirement for the 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 operation.

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

Support and Service (After the Sale) - ECS offers a dedicated customer service 800 support line as well as both technical service and customer service email accounts allowing for a quick and prompt response.

Advanced Backpressure Monitor and Logger system - The Backpressure Monitor and Logger will record vehicle duty cycle information for up to two years.