

Exhaust gases ...

Your problem?
Our business!



Helping to provide a pollution free workplace!

Emissions harm your health!

General

Engines, whether they are in cars, buses, trucks or locomotives, produce exhaust from the combustion of fuel. This exhaust is a mixture of organic and inorganic constituents (products of incomplete combustion). In simple terms, exhaust is a mixture of gases and carbon-core particles that have a coating of various inorganic/organic compounds (POM/PAH). Diesel engines produce 20 to 100 times more particles than petrol engines.

Emissions include over 40 substances that are listed as hazardous air pollutants and 15 of them are listed as carcinogenic to humans

Exhaust can either appear as a grey or black smoke, or be invisible. People can see particles down to 20 microns. Ninety percent of exhaust particles are smaller than 1 micron. In comparison, a strand of human hair is 70 microns thick. This sometimes misleads people. Many believe that if they don't see the exhaust, that there is no danger to their health. The new generation of "clean" diesel engines with their invisible emissions have contributed to this problem.

New-generation diesel engines produce 15 to 35 times more small particles than old-generation diesel engines.

The difference between the old and the new generation of engines is in the size of the particles. New-generation diesel engines produce more ultra-fine particles, invisible to the naked eye. Because of this, it seems that the dangers have disappeared, but this is far from the truth.

How are individuals exposed to emissions?

Individuals are exposed to emissions when working in confined spaces in which engines are running.

Occupations with potential exposure to emissions include:

Truck drivers, mine workers, vehicle maintenance workers, loading-dock workers, tunnel workers and material-handling machine workers.

The particles remain airborne for a long time and this problem became larger with the ultra-fine particles produced by new-generation engines. Ultra-fine particles are more easily transported by air currents and penetrate deeper into our lungs.

Because of this, not only are the people who are in the same confined spaces as running engines exposed to the harmful emissions, but as a result of ineffective ventilation, people (such as office workers) working in adjacent spaces are also exposed to the dangers of the airborne particles.

Health Effects

We inhale airborne particles without even thinking about it. This is how the particles enter our respiratory system and fasten in our lungs. This can affect human health on both the short- and the long-term.

The problem with the particles is that they remain in our lungs. This is in contrast to the gases we inhale. Gases are transported to our blood vessels. In the worse case, this can cause blood poisoning. The difference between the lungs and blood is that blood regenerates itself and there is no permanent damage. With the lungs, this is not the case. Every time we inhale particles, more particles accumulate in our lungs and they are there to stay.

Short-term affects: Decreases in lung function, increased coughing, laboured breathing, chest tightness, asthma, etc.

Long-term affects: Chronic bronchitis, reductions in pulmonary functions and lung cancer.

How to deal with the problem?

Above all, it is important is to deal with the problem at the source. Using a roof-mounted ventilation system for a confined space is most often useless because people working in the space still inhale the polluted air.

The most economical solution is a classic exhaust extraction system. But in many cases, such a system is either impossible or impractical to use. Examples of such cases might be when you need to move vehicles in confined spaces or when it's logistically and/or economically impossible to use an extraction system.

In these cases, EHC exhaust filters provide the ideal solution.

EHC Exhaust Filters:

- Are simple and easy to mount on any type of exhaust pipe.
- Remove 99% of all harmful emissions.
- Reduce odours.
- Reduce mutagenic and carcinogenic substances such as POM and PAH from the exhaust.
- Resolve exhaust problems when conventional extractions systems cannot.
- Unlike catalytic converters, they work from the start.
- Are insensitive to humidity.
- Are available for all engines sizes.
- Are the result of almost 20 years of experience and research in this field.
- Are used by many of the world's leading vehicle manufactures, such as: Volvo, Saab, Opel, GM, VW, Ford, Rover, Landrover, Fiat, Mercedes, Scania, Iveco, Renault, Daf, Sterling, MAN and Leyland.

EHC exhaust gas filters stop 99% of harmful emissions

In closed areas some things are unavoidable. Vehicles driving around or engines that just keep running.

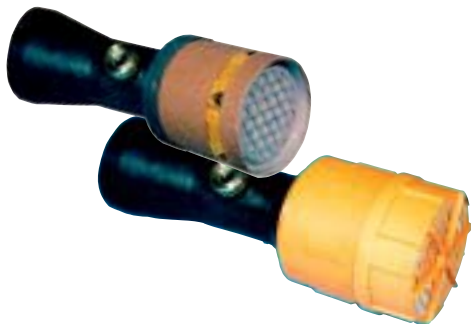
If this is daily practice in your company, you may well know that exhaust gas particles in the surrounding air cause damage to the health of your employees.

You may also know that although health and safety at the workplace are of vital importance, it has never been easy to find simple, affordable and efficient solutions to the problem of emissions.

Until now...

EHC exhaust gas filters offer organisations many suitable solutions to the problems caused by emissions in closed areas.

EHC P11 / P15



For starts and temporary driving indoors for cars and vans.

Efficiency	: > 99%
Max. engine	: 3,0 L / 5,5 L
Max. Rpm	: 2500 / min
Max. const. temp.	: 200°C
Weight	: 0,2 kg / 0,4 kg

EHC L20



For starts and temporary driving indoors for trucks, buses and heavy vehicles.

Efficiency	: > 99%
Max. engine	: 35 L
Max. Rpm	: 1200 / min
Max. const. temp.	: 200°C
Weight	: 5 kg

EHC HT



For permanent installation on forklifts, heavy vehicle and industrial plant.

Efficiency	: > 95%
Max. exhaustvolume	: 23 m ³ /min i 250°C (larger volume is possible)
Max. const. temp.	: 350°C
Weight	: 23 kg

Auto Extract Systems Ltd
Brearley House, Burnley Road,
Halifax, West Yorkshire HX2 6JB
Tel: (01422) 888144
Fax: (01422) 888145
www.autoextract.co.uk
info@autoextract.co.uk

