

# EHC Exhaust filter



# **EHC**<sup>®</sup>

**WE REDUCE EMISSIONS**

With over 35 years of experience with manufacture & development of exhaust filters.

est.  
1983

**4-5**

### **EHC P15 Filter**

Suitable for starting and driving cars and light transport vehicles.



**6-7**

### **EHC L20 Filter**

Designed for starting and driving trucks, buses and other heavy vehicles.



**8-9**

### **EHC HT Filter**

For permanent installation on heavy vehicles, forklifts and working machinery.



**10-11**

### **EHC PF Filter**

Self-regenerating exhaust filter for permanent installation.



# Exhaust gases damages your health!

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Vehicles with petrol or diesel engines represent a significant health hazard when they are started and driven indoors. Some occupational groups, such as truck drivers and personnel in mines or ports are at particular risk. While the health risks are elevated for those who drive or work close to vehicles, persons in adjoining areas are also exposed. It is important to acknowledge that within the course of normal business, vehicles are routinely started or driven short distances indoors.

## **The very small particles emitted in exhaust gases are a serious health problem**

Engine exhaust emissions contain a mixture of gases and carbon particles coated with various organic and non-organic substances. The emissions can contain more than 40 substances that are listed as hazardous air pollutants, 15 of which are proven to cause cancer. The problem is that 90 percent of exhaust gas particles are less than 1mm in size, making them invisible to the naked eye. We seldom take note of the gas emissions and this especially applies to modern petrol and diesel motors.



Diesel motors produce 20 to 100 times more particles than those running on petrol. Moreover, new-generation diesels primarily produce small 'invisible' particles and these small, lighter particles stay in the air longer. In other words, exhaust hazards are still a current problem, even if your company has modernized its vehicle fleet.

## **Particles end up in the long tissue**

Each time particles are inhaled, a portion of them attaches to the tissue in our lungs. The smaller the size of the particles, the deeper they penetrate into the tissue. The short-term effects are coughing breathing difficulties or asthma attacks. In the long-term, this may develop into chronic bronchitis or lung cancer.

With the health of your staff at risk it is therefore vital to solve the problem of indoor exhaust gases. An indoor system using exhaust hoses is the classic solution but in very many cases, this is neither economically nor practically feasible. The alternative and more practical solution is to use mobile exhaust filters which are easily mounted directly onto exhaust pipes - EHC filters eliminate 99% of hazardous particle emissions.



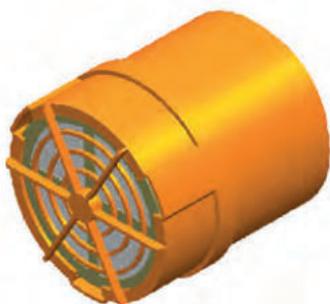
# Exhaust filter for vehicles

## EHC P15 Filter

**EHC P15** is an exhaust filter for short duration driving of vehicles in factories, ships, workshops and exhibition halls etc.

The filter is working directly when the engine is started and is unaffected to humidity.

The filter separates mutagenic, cancerous and allergy-producing substances attached to particles in the exhaust.



### Technical data:

Reduce Particles > 99 %  
Incl. mutagenic, cancerous and allergy producing substances attaches to the particles.

### Engine size:

Max > 4 L

### Temperature:

Max. 200°C

### Filter life

EHC P15 > 200 starts  
The lifetime is dependent on the engine size, engine type, usage and engine condition.

### Weight:

Complete 0,4 kg

Filter EHC P15 complies with emission standards in TRGS 554 (D), COSHH (GB) and VERT (CH) B272

EHC replacement filters are treated as normal waste.



**Connection cone**

- Ø 45 - 25 mm
- Ø 70 - 35 mm
- Ø 100 - 50 mm



**Connection cone with plug**

- Ø 60 - 35 mm

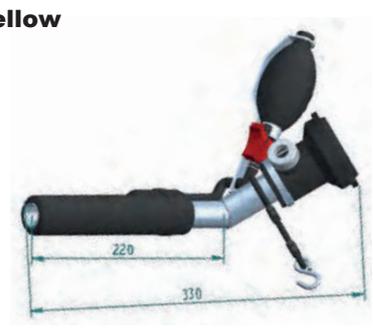


**Connection cone, angle**

- Ø 50 - 30 mm
- Ø 70 - 30 mm



**Connection with bellow**

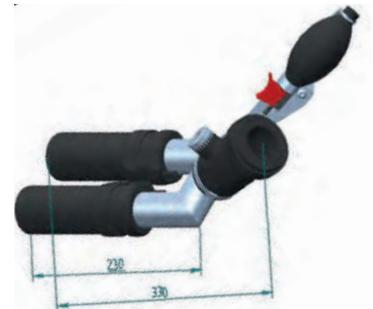


**Connection cone, double**

- Ø 45 - 25 mm
- Ø 65 - 35 mm



**Connection double with bellow**



# Exhaust filter for heavy vehicles

**EHC L20** is an exhaust filter for short duration driving of vehicles in factories, ships, workshops and exhibition halls etc.

The filter is working directly when the engine is started and is unaffected by humidity.

The filter separates mutagenic, cancerous and allergy-producing substances attached to particles in the exhaust.



## Technical data:

Reduce Particles > 99 %  
Incl. mutagenic, cancerous and allergy producing substances attaches to the particles.

## Engine size:

EHC L20, 4 L -->

## Temperature, max:

Standard filter element (4120171) 200°C  
Reinforced filter element (4120371) 300°C

## Filter life

EHC L20 > 100 starts  
The lifetime is dependent on the engine size, engine type, usage and engine condition.

## Weight:

EHC L20 complete 7 kg  
EHC L20 x 2 complete 11 kg

Filter EHC L20 complies with emission standards in TRGS 554 (D), COSHH (GB) and VERT (CH) B272

EHC replacement filters are treated as normal waste.

EHC L20 Filter



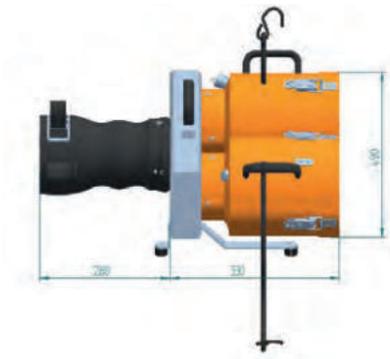
**EHC L20 pipe**



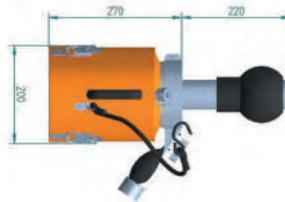
**EHC L20 double, hose**



**EHC L20 double, pipe**



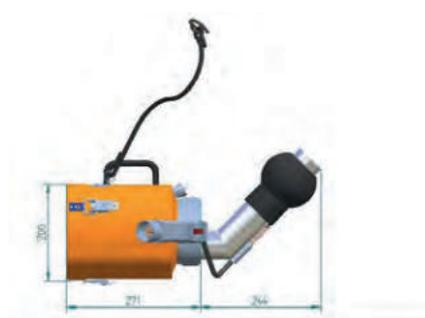
**EHC L20 bellow**



**EHC L20 hose**



**EHC L20 bellow, angle**



**EHC L20 Filter**



# Exhaust filter for diesel engines

**EHC HT** filter are designed for permanent use on diesel engines and are available in SS and alu zinc. The filters work from start of the engine and are unaffected by humidity

All filters are delivered with:

- filter
- flanges on inlet
- heat shield
- pressure switch control lamp and buzzer to alert the driver when filter or membrane needs changing

The EHC HT filter is recommended when diesel exhaust gases are continually emitted in a confined space.

For example: Building machinery, heavy vehicle, industrial machinery and forklift trucks.



## Technical data:

Reduces particel > 99 %  
Incl. mutagenic, cancerous and allergy producing substances attaches to the particles.

## Temperatur, max:

Standard filter element 250°C  
Reinforced filter element < 400°C for short period

## Filter life

The service life depends on engine size, engine type, how it is used and the condition of the engine.

## Weight

EHC HT 10 Complete 23 kg  
EHC HT 20 Complete 34 kg  
EHC HT 35 Complete 50 kg

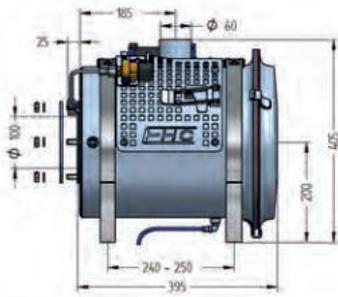
Filter EHC HT complies with emission standards in TRGS 554 (D), COSHH (GB) and VERT (CH) B416.

EHC replacement filters are treated as normal waste.

EHC HT Filter



## EHC HT 10

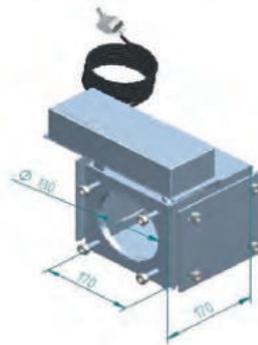
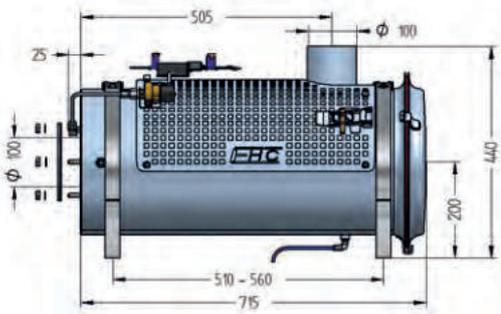


## 3-way Valve

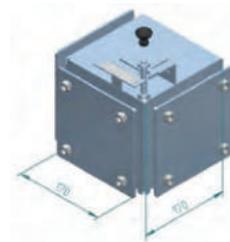
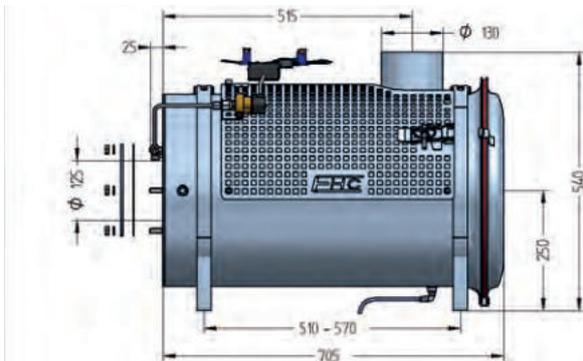
When EHC HT is for dual use (indoors & outdoors) a 3-way valve can be mounted in front of the filter, this makes it possible to switch off the filter when driving outdoors.

The EHC 3-way valve can be manual or electric. When electric the driver can control the valve from the driver seat. A control lamp will indicate in which position the valve is.

## EHC HT 20



## EHC HT 35



EHC HT Filter



# Self-regenerating exhaust filter

The **EHC PF** filter is a closed self regenerating exhaust filter developed for permanent use with all kinds of vehicles and machines. The filter is made of Silicon Carbide (SiC) which is durable and heat resistant.

The element has a honeycomb structure. Each channel is alternately closed. The exhaust gas goes through the porous walls and the exhaust particles are caught in the filter element. The PF filters also have a positive effect on the emissions of NOx, NO2 and HC.



## Application

EHC PF filter are developed for Heavy Duty applications. They can be used when engines are running long periods and with high workloads (min exhaust temp 300°C). Therefore it's very important to analyse the working conditions of the engine (temp logging).

## Self regeneration

The particles (also called soot) which are trapped in the filter are automatically burned. To reduce the regeneration temp (from 650°C to 300°C) two solutions are possible:

### 1) Use of an additive:

- the additive can be manually added (bulk) or automatic via an on-board dosing system.
- max Sulphur 50 ppm

### 2) CAT Fire System:

- ad additive and diesel
- min exhaust temp. 200°C
- max Sulphur 50 ppm

EHC PF Filter



## EHC PF A-C



## EHC PF B-D



### Installation

EHC PF needs to be mounted as close as possible to the engine. Therefore the PF filter can replace the original muffler.

### Choice

The correct filter size is determined by the engine specification.

### Description

All EHC PF filters are housed in a stainless steel muffler and delivered with:

- flanges on the in and out
- quick clips
- mounting legs

The EHC PF filter can be delivered with the in or outlet on the front or on the side. The in and outlet can be turned 360° to ensure easy mounting.

All EHC PF filter are VERT approved (B241).

### Maintenance

Like all regenerating filters the EHC PF filter needs occasional maintenance. The interval is dependent on the fuel quality, oil consumption, the engine condition, usage etc. The average interval is 1000 hours. The back pressure kit that is standard equipment for all PF filters will monitor the back pressure.

### Efficiency

PM > 98%  
CO and HC 10-30%  
NOx 12%  
NO2 85%  
Buller > 15%

### Exhaust temp

Min 300°C



EHC PF Filter

Since 1983 EHC Teknik has developed and manufactured filter systems for reducing vehicle exhaust emission. Our main office is in Partille, near Gothenburg and our customers are primarily in Europe. In addition to Sweden, we now have sales offices in Belgium and Germany.

EHC filter systems are produced in a standard series, however, we can also assist customers with specially designed custom products upon request.

**Original - EHC Particle filter - more then 35 years on the market**



## **WE REDUCE EMISSIONS**

With over 35 years of experience with manufacture & development of exhaust filters.

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