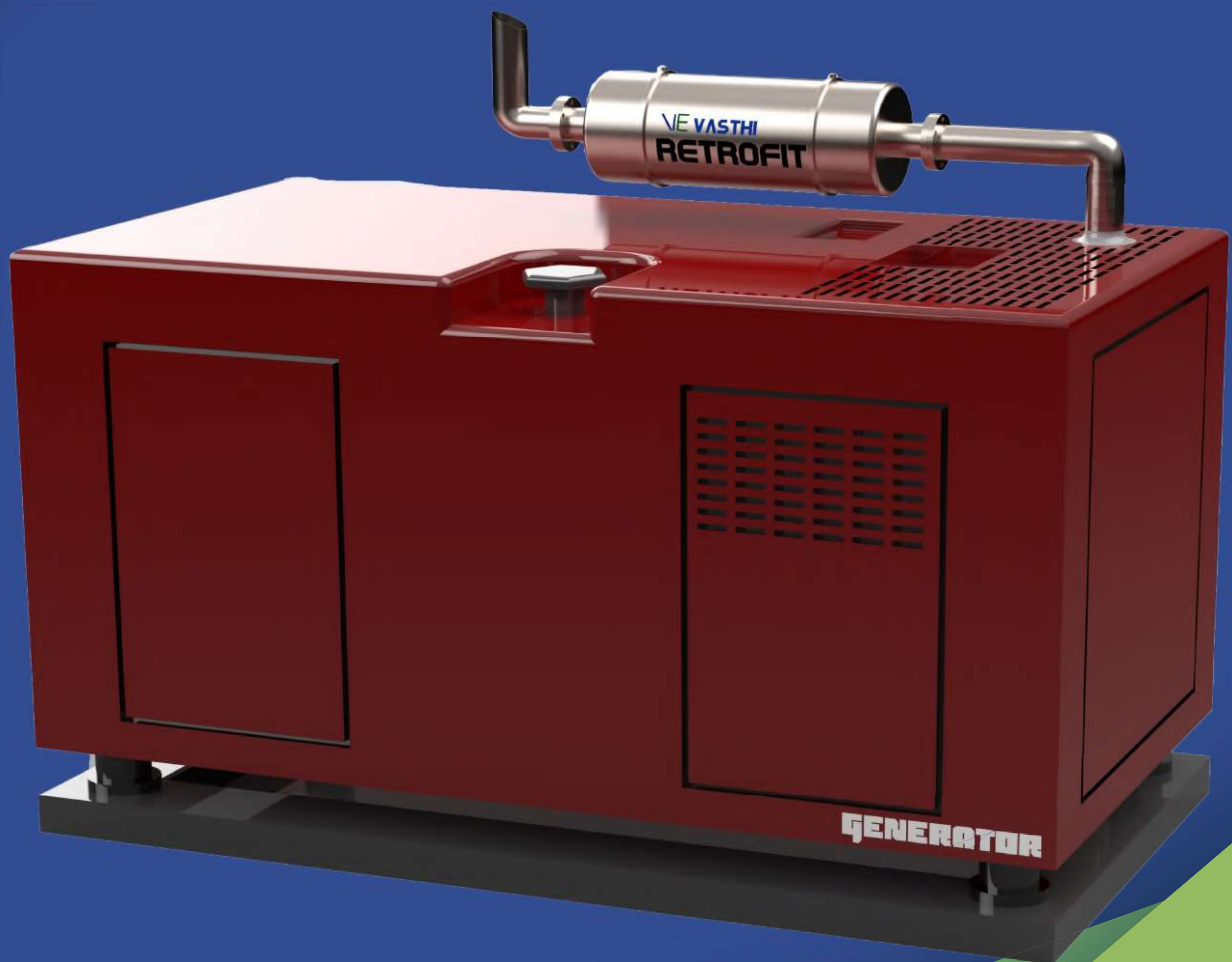




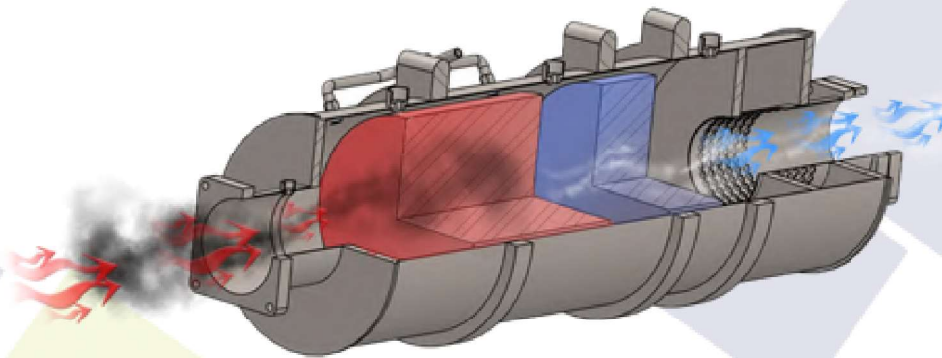
Retrofit Emission Control Device for DG Set



INTRODUCTION

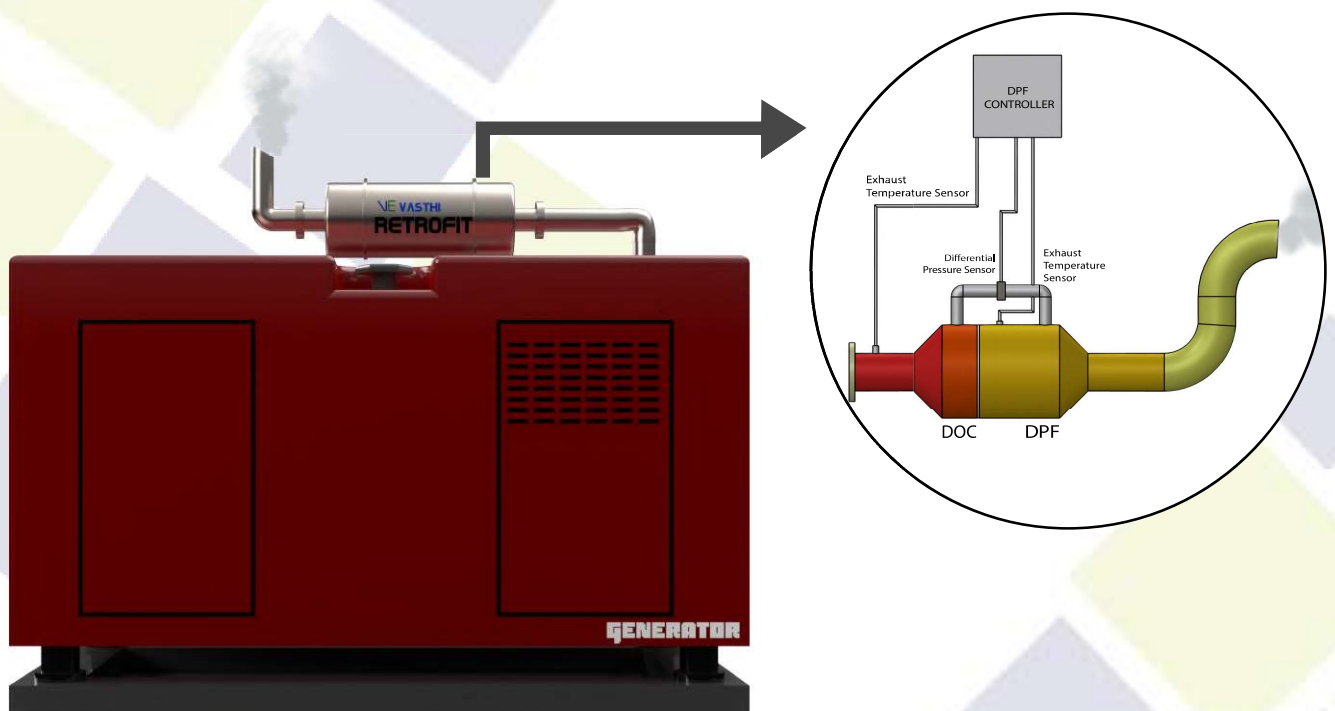
Diesel particulate purification device, also known as diesel particulate filter or DPF in short, is recognized worldwide as the most effective method and equipment for reducing diesel particulate matter. It first captures and concentrates the PM in the exhaust of the diesel engine without leaving it out of the engine, and uses catalysts, oxidizers, combustion technology, etc. to decompose and burn to remove most of the particles, thereby reducing particle emissions.

As the catalyst in the DPF carrier, we use alkaline metals, which can fully capture the oxygen atoms in the air for oxidation reaction. The common regeneration time generally takes around 20 minutes whereas we can completely regenerate in just ten minutes.



DPF Structure

The DPF device is made of special grade Ceramic with the porous partition walls between the alternately blocked honeycomb channels. The wall-flow structure of the DPF captures the PM black smoke micro-particles in the exhaust gas of the diesel generator.



Working Principle

During Generator running period, the black smoke containing carbon particles from Generator enters the and passes through the densely arranged filters inside the Ceramic Filter and get absorbed all together on the wall side of the cells of DPF filter. The precious metal used as Catalyst reduces the ignition point of particulate matter and increases temperature for regeneration reaction.

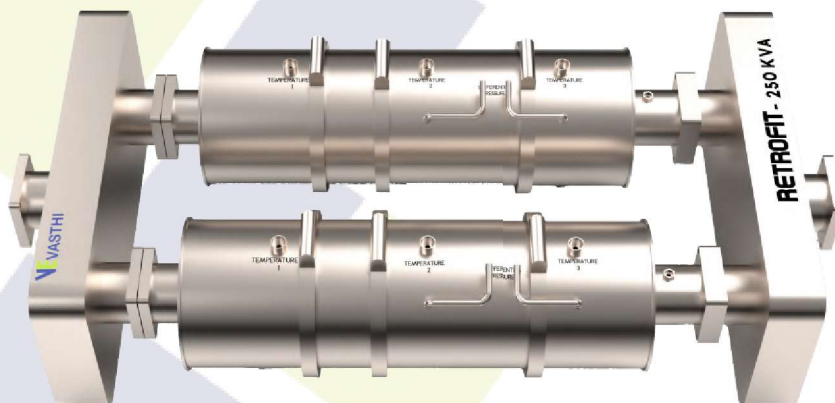
During this process, O_2 in the exhaust gas from generator is used to oxidize the particulate matter which is decomposed into CO_2 and H_2O thereby causing the elimination of the particulate matter entering the atmosphere. The efficiency of the DPF is more than 95%.



For 125 KVA



For 500 KVA



For 250 KVA

Important Features of Vasthi's DPF

The DPF device has the characteristics of high heat resistance, good thermal conductivity, low exhaust resistance, high filtration efficiency, strong pressure resistance, good cold start performance, low ignition temperature, and high conversion efficiency.

Technical Details

Working Technology: - Ceramic Filter with regeneration

Reduction Level of Particulate Matter : 95 %

Optional Reduction Level of CO , HC & NO_x :- 75 %

Material of constriction:- Stain less Steel 304

Inlet connection for RECD :- 6 hole 160 OD

Working temperature to activate Regeneration: - 180 Deg.C

Temperature Sensor :- 0 – 1000 Deg. C for before and after DPF

Differential Pressure Sensor :- for before and after DPF

Control panel for REF - :- Digital Display with Temp & Pressure indications

Analogue output from control unit :- 4-20mA for each Temp & Pressure

Digital Output :- RS485

Real time monitoring :- Optional available to monitor the back pressure and temperature



VASTHI INSTRUMENTS

Plot no:21&22, Block no:24, Phase-IV

Auto Nagar, Guntur-522001. Andhra Pradesh, India.

Tel: +91 863 2238 667, +91 738 2708 685, +91 958 1678 685

web: www.vasthi.com, www.gasdetector.co.in

E:info@vasthi.com.