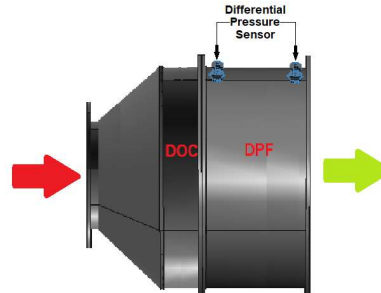


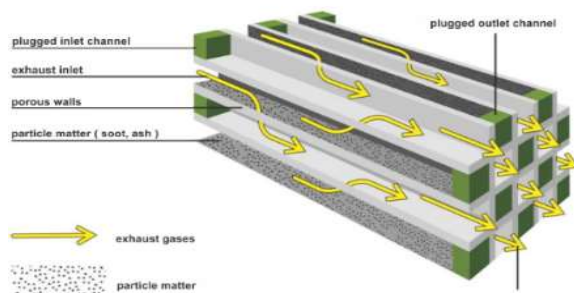


DPF, Diesel Particulate Filter

A Diesel Particulate Filter (DPF) removes particulates from Diesel engine exhaust gas through physical filtration. The DPF is a honeycomb filter made by Ceramic, Silicon Carbide or Metallic substrates and are designed as “wall-flow” filters. They are normally placed after the DOC, the DPF then traps any remaining soot that the DOC could not oxidize.



The particulate filter is similar to DOC system (cross-section - honeycomb). However, the channels in the cartridge have a larger diameter, porous walls and are plugged at opposite ends. In addition, the DPF system is coated with a catalytic coating that forms the foundation for the catalytic metal particles. The channels plugged on the outlet side are called inlet ducts - the exhaust gases fall into the filter. In contrast, channels with plugged ends on the inlet side are outlet channels, where the exhaust gases escape. The exhaust gases must squeeze through the porous walls which then leaves larger particles trapped inside the plugged channels.



The filter regeneration can reprimatinate the original backpressure. Ashes may collect inside the DPF and, if it does not burn or oxidize like soot, will remain until removed. Ash is made of minerals, metals, and other trace elements from the breakdown of lubricants, additives, and engine wear. The DPF and DOC system are suitable for pneumatic and thermal cleaning.

