

Diesel engines emit pollutants into the air we breathe. To reduce the amount of pollutants in our air, 2007 and newer diesel engines have been fitted with a filter in the exhaust pipe to capture soot particles.

This matrix of materials (a composite of cordierite, silicon carbide, or metal fibers), called a Diesel Particulate Filter (DPF), traps the particulates (soot) flowing out of the exhaust pipe.

What Happens To The Trapped Particles?

All DPFs capture soot until they fill up and create too much backpressure. At that point, DPFs use one of two approaches to regenerate (clean) themselves: active or passive.

Passively regenerating DPF systems are commonly found in the retrofit marketplace for construction equipment. In these applications, the vehicle's duty cycles and temperature profiles can be observed prior to filter installation.

Passive systems rely on precious metal-coated substrates to heat the normal exhaust flow to temperatures that trigger regeneration. Although more sensitive to duty cycle and temperature, once installed, these DPF systems are considered to be more user friendly, as they do not require fuel additives, have no moving components, and only need to be serviced for annual cleaning.

DPF Cleaning

DPF regeneration can happen every time you drive, but cleaning it requires removing the filter from the vehicle and placing it in a machine. This machine blows the trapped ash out of the filter and into a disposable container. With more than two million DPF-equipped vehicles on the road right now, DPF cleaning services are becoming necessary for customers across the country. Most manufacturers recommend DPFs be cleaned every 1,000 to 1,500 hours (or about every 80,000 to 120,000 miles), depending on duty cycle.

