

EMISSIONS

WHAT IS A CATALYTIC CONVERTER? A Catalytic Converter (or Cat) is an Exhaust Emissions Device located underneath a vehicle. It uses a combination of heat and precious metals to promote a chemical reaction, which breaks down harmful gases, making the emissions less detrimental to the environment.

HOW DOES A CAT WORK? The operating temperature of a cat is between 350 to 400 degrees Celsius. Once the cat has reached this temperature a chemical reaction occurs as the exhaust gases flow through the coated monolith. The harmful gases are oxidised and converted to nitrogen, carbon dioxide and water.

DIESEL PARTICULATE FILTER (DPF) A DPF is NOT a “flow-through” device, the gasses are forced through. Unlike a catalytic converter, the channels of the filter are blocked at alternate ends, forcing the gasses to flow through the cell walls in order to exit the filter. As the cell walls are porous, the clean gasses can pass through, but the holes are not large enough to let particulate matter pass through. Instead this is deposited on the cell walls and trapped in the filter. The Engine Management System (ECU) constantly monitors the filter and will carry out a regeneration to stop it blocking.