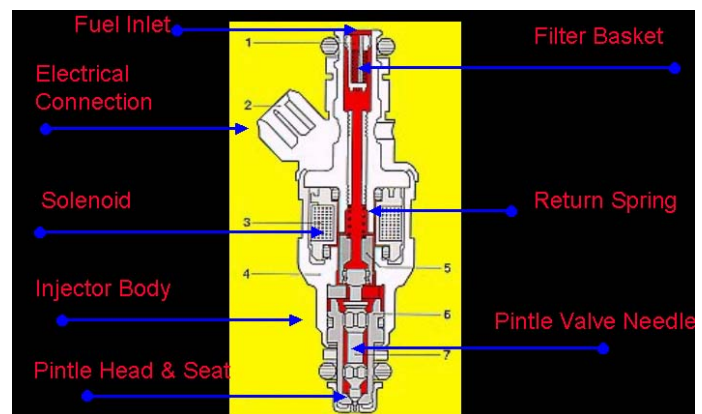


*“The injector is located in the inlet manifold of the engine and sealed in between the manifold and fuel supply rail by Viton rubber seals. A fuel pump pressurises the system to normally about 2.5 bar.*

*The Engine Control Unit (ECU) gathers information from the various sensors located around the engine and using this information, the ECU determines the opening duration required for that combustion stroke. To do this, the ECU generates a current and transmits it to the solenoid of the injector.*

*The solenoid will magnetically lift the pintle valve needle from the seat of the injector, varying between 60 – 100 microns. While the valve is raised, the pressurised fuel is forced through the orifice gap in the bottom of the injector; on to the pintle head or orifice plate. This forms a spray pattern shape as nominated by the head or plate design.*



*The injector will remain open for anywhere between 1 - 20 milliseconds, at a frequency of 3 - 125 Hz, depending on the engines requirements. When the current is stopped, a small coil spring pushes the valve needle to the pintle seat and stops any further fuel from passing through. This process is repeated many times a second”*