



PASSENGER & LIGHT COMMERCIAL VEHICLE FUEL INJECTION OVERVIEW 2026



PASSENGER AND LIGHT COMMERCIAL PRODUCT OVERVIEW

The passenger and light commercial vehicle sector includes vehicles designed for personal transport and light commercial use. The sector encompasses a wide variety of vehicles including – cars, SUVs (Sports Utility Vehicles), MPVs (Multi-Purpose Vehicles), 4x4s and commercial vehicles, such as pickup trucks and vans.

Merlin Diesel cater for the diesel fuel injection needs of this sector and can provide both remanufactured units alongside new. We hold over £26m of stock and ship same day globally.

As distributors for all the leading brands, our ability to source stock is unparalleled. We are National Distributors for Delphi, Denso and Stanadyne in the UK and Ireland, Authorised Distributors for Bosch, Continental, Perkins and Yanmar, ensuring direct availability of parts and next day UK delivery.

There are several types of diesel fuel injection systems used in passenger and light commercial vehicles, the most common being direct injection and common rail. This product overview will guide you through the products and systems covered in this varied sector.



DIRECT & INDIRECT INJECTION



Bosch Mechanical Injector

Merlin Diesel have been at the forefront of supplying diesel technology for over 75 years. Two of the most common technologies for diesel fuel injection are direct injection and indirect.

In a direct fuel injection system, fuel is injected directly into the combustion chamber at high pressure. This is in contrast to an indirect injection, where fuel is injected into a pre-combustion chamber.

Merlin Diesel supply all the different direct/indirect injection units for the car and light commercial vehicle sector.

Here is a selection of older mechanical injectors from our extensive inventory.



Stanadyne Mechanical Injector



Delphi Mechanical Injector



Bosch Instrumented Injector



Stanadyne Pencil Injector

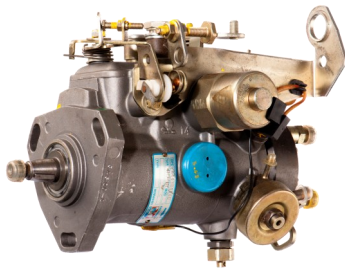


Bosch Mechanical Injector



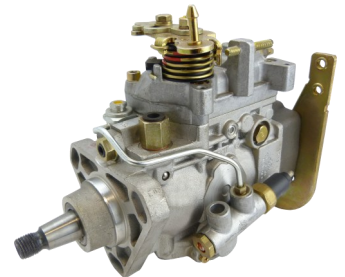
Delphi Mechanical Injector

ROTARY PUMPS



Delphi DPC Pump

A rotary pump works in conjunction with a direct injection system. It is a positive displacement pump that operates on the principle of rotary motion to build pressure, and provide a constant and precise supply of fuel to the injectors.



Bosch VE Pump

The distributor type pump does this by using a single pumping element that distributes high-pressure fuel to each injector through a rotating distributor head.

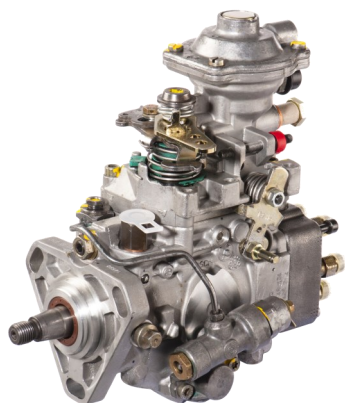
As these pumps are obsolete, Merlin rely on its extensive repair parts division to supply authorised components for remanufacture and keep stock levels replenished.



Stanadyne DE Pump



Delphi DPS Pump



Bosch VE Pump

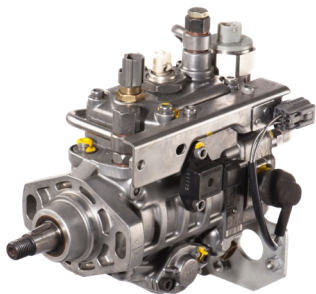


Rotary Pump Solenoids



Delphi DPCN Pump

EDC PUMPS (Electronic Diesel Control)



Denso V3/V5 Pump

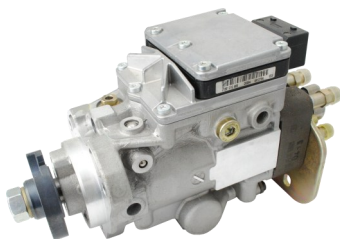
EDC pumps are a type of fuel injection system used in diesel engines to precisely control the fuel injection process. These pumps were commonly found in passenger and light commercial vehicles.

The EDC system integrates an ECU (Electronic Control Unit) with the mechanical rotary unit to optimise fuel delivery, improve engine performance and reduce emissions.

At the time, this advancement in technology was a challenge to repair. Merlin's authorised workshop, and its fully OEM qualified staff have built up the knowledge and skills over decades to remanufacture all the different EDC units for this sector.



Delphi Epic Pump



Bosch VP Pump



Zexel VRZ Pump



Zexel Covec



Denso V4 Pump



Bosch VE Pump

COMMON RAIL



Delphi CR Injector

Common rail diesel fuel injection is a modern technologically advanced system used in passenger and light commercial vehicles. The evolution of this technology has resulted in optimum fuel efficiency, reduced carbon emissions and better overall diesel engine performance.



Denso HP0 Pump



Bosch CR Pump

The system utilises a high pressure accumulator or rail to store the pressurised fuel, typically ranging from 1000 to 2500 bar. This high pressure allows for finer atomisation of the fuel injector and peak combustion efficiency.

Merlin Diesel are at the forefront of monitoring the advances in this technology and bringing the latest supply and repair solutions to the market.



Continental CR Injector



Bosch CR Injector



Denso HP5E



Denso HP3 Pump

EUI INJECTORS (Electronic Unit Injectors)



Bosch PD Injector

The EUI injector was predominantly used by Volkswagen and Land Rover. Known for its reliability and efficiency, it worked directly off the engines cam and acts as both pump and injector, generating its own pressure and electronic injection timing.

With stringent emissions targets however, the common rail system advancements resulted in the technology becoming obsolete.

Merlin Diesel are able to offer a comprehensive range of exchange references.



Delphi TD5 Injector

REPAIR AND REPLACEMENT PARTS



Lift Pumps

Merlin Diesel not only provide injectors and pumps for the passenger and light commercial sector, we hold extensive stock on all major parts.



GDI Products



Sensors

We have access to replacement products covering engine management and filtration for all sectors and technologies.

We are able to source repair parts for the whole fuel injection industry, providing global workshops with the repair solutions they need.



AdBlue and Vapour Valves



Internal Parts



Filtration



- Diesel Pump / Injector / Test and Repair
- Suppliers of New and Remanufactured Pumps / Injectors
- Technical Support
- Test Equipment
- Parts Sales
- Injector Software Coding Solutions
- Conference and Training Facilities

