

Delphi

Discover our technologies

GASOLINE DIRECT INJECTION (GDI) FUEL PUMP

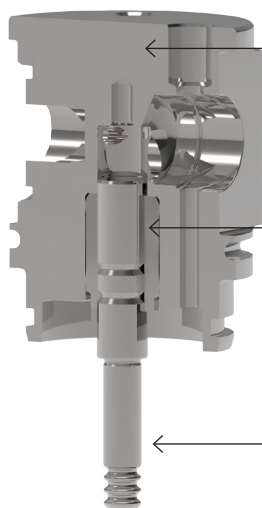
for Passenger Cars, Light Vehicles and Hybrids



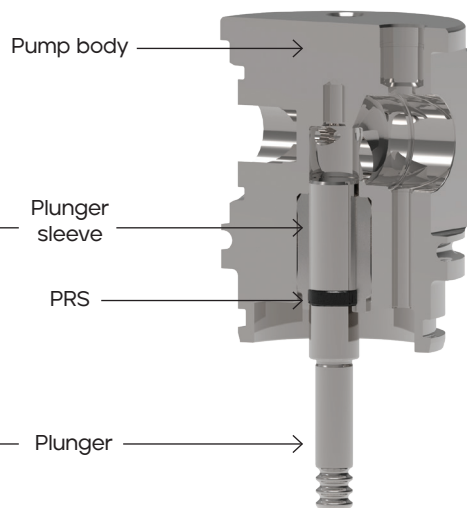
Discover our technologies GDi FUEL PUMP

The Delphi pump is an engine driven single piston fuel pump providing high pressure for GDi engine applications. It exists in 2 versions, at 350bar and 500+bar, to cover the different market needs.

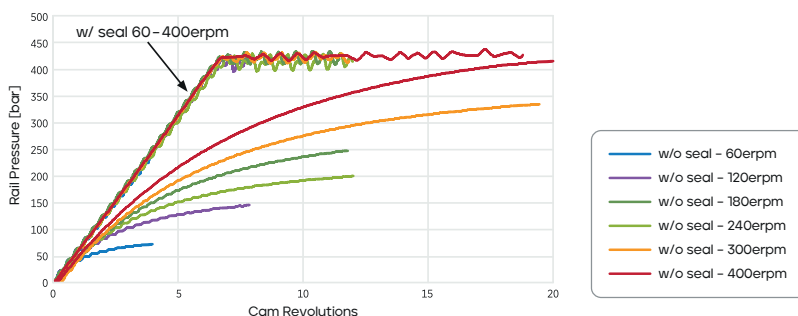
Base design



Plunger ring seal design



Rail pressure build at low RPM: Standard vs PRS pump



Plunger Ring Seal (PRS)

- Virtually eliminates Plunger/Seal leak
- Cranking pressure rise improved
- Efficiency improved, particularly at low rpm
- Durable in various run environments
- Allows for pump/cam downsizing

Features and benefits

- 500+bar for compliance with most stringent emissions regulations
- Packaging flexibility
- Corrosive fuel robustness - DLC coated IV assembly & PRV Seat, ceramic ball
- Fuel compatibility E0 - E100, M15
- The pump family offers full range of plunger sizes; 6, 7, 8mm up to 600bar, 10mm up to 350bar, 9mm up to 500bar
- GFP2 and Plunger Ring Seal (PRS) is the most efficient GDi pump in the market
- Low mass - approx. 720 grams
- Low pressure pulsations - due to different accumulator options
- Benchmark noise level: < 53 dB-A (750erpm, 5MPa)
- In production since 2016 at 350bar, SOP in 2025 at 500bar