

Delphi

Explore our technologies

GASOLINE DIRECT INJECTION (GDi) FUEL PUMP

for Passenger Cars, Light Vehicles and Hybrids

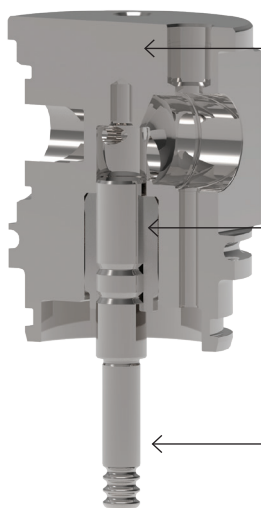


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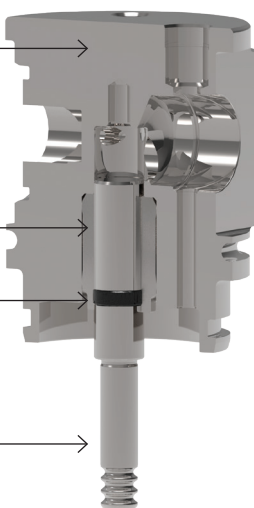
GDi FUEL PUMP

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



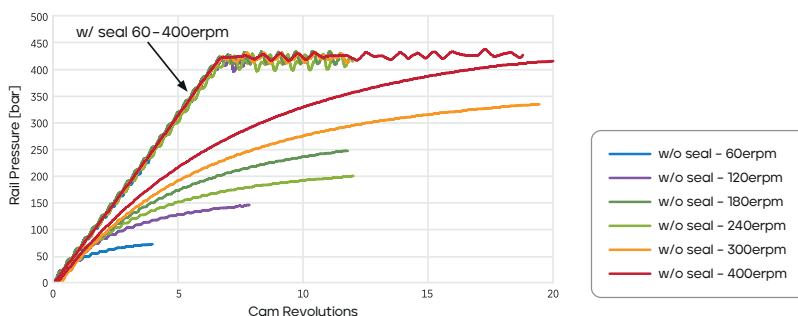
Pump body

Plunger sleeve

PRS

Plunger

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 (750rpm, 5MPa)
- In production since 2016 at 350bar, SOP in 2025 at 500bar