

GLR **injection** PTY LTD  
TECHNOLOGIES

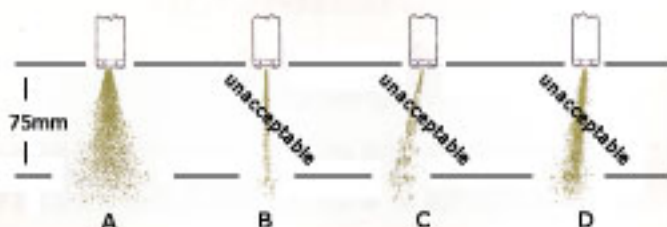
**SPECIALISTS IN FUEL INJECTION  
CLEANING SYSTEMS & PRODUCTS  
PETROL & DIESEL**

**GUARANTEED  
BETTER PERFORMANCE  
BETTER ECONOMY  
LOWER EMISSIONS  
1 HOUR SERVICE**



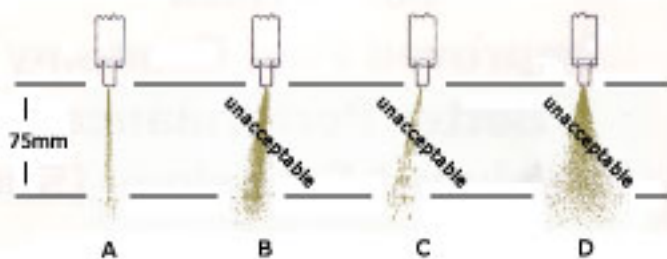
# HOW INJECTORS WORK

## Petrol Injectors



- A. Good even partially atomised pattern.**
- B. Solid stream, poor spray pattern.**
- C. Dirty nozzle causing poor spray pattern.**
- D. Uneven spray pattern is also unacceptable.**

## Diesel Injectors



- A. Good uniform mist of fuel**
- B. Uneven or lopsided pattern.**
- C. Solid stream with droplets.**
- D. A too wide pattern is also unacceptable.**

# HOW THE INJECTORS ARE CLEANED

**1** Solvent mix is pumped through filters to the Injectors while the vehicle is running.

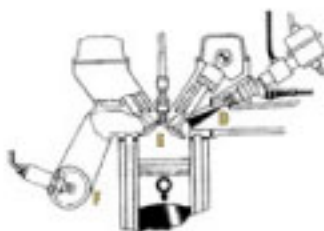
**2** Excess is pumped back through filters to the Solvent Tank and recycled.

**Before**



- A. Clogged up Injector.**
- B. Carbon build up on valves & piston.**
- C. Carbon build up on oxygen sensor.**

**After**



- D. Clean Injector with improved spray.**
- E. No carbon build up.**
- F. Clean oxygen sensor with no build up.**

# WHY YOUR INJECTORS NEED CLEANING?

Poor fuel quality or fuel injectors that are clogged with residue commonly affect a vehicle's performance which may result in rough idle, stalling, hesitations, poor acceleration, low fuel economy, black smoke, increased gas emissions or even hard starting.

At some point in time all vehicles suffer from clogged injectors. As a preventative measure, GLR recommend an injector clean every 20,000 kms. Fuel injectors get heat soaked each time a hot engine is turned off. A heat soak occurs when the heat from the engine rises, causing the fuel sitting in the tip of the injector to evaporate. This process results in the formation of a gummy residue in the tip of the injector, which adversely affects the performance of the vehicle's engine.

**Both diesel and petrol engines suffer from this problem.**

Residue in the tip of injectors causes the fuel spray pattern to change from the desired cone shaped mist to an uneven stream. When fuel is injected in a stream it tends to drop out of the air stream or takes longer to enter the cylinder. Either way, the fuel burns inefficiently, affecting engine performance.

The quickest and most effective way to clean injectors is to force GLR's injector solvent, at a concentrated rate through the injectors. This type of cleaning has the added advantage of cleaning carbon from the back of the intake valves. Carbon on the back of valves soaks up or blocks fuel delivery to the cylinders.

The GLR proprietary cleaning process takes about 1 hour to complete.

So, if your vehicle has **hesitations, rough idle, pinging, surging, black smoke, low fuel economy or other driveability problems**, it may be the gum in the tip of your injectors causing the problem.

**Injector cleaning is specialised work. GLR Injection Technologies provides patented injector cleaning products, services and systems.**

For further information call Colin on 9272 7028 or visit the website at [www.glr.it.com](http://www.glr.it.com)

Trade enquiries welcome.

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