



## MULTIPURPOSE PLATFORM FOR THE DIAGNOSIS AND TESTING OF MULTIBRAND FUEL INJECTION SYSTEMS

It is our commitment to offer you a trust worthy, reliable and accurate diagnosis of any fuel injection units that come into our workshop. We have invested hugely in the ERAGON Suite, which is the most advanced diesel injection test platform on the market. With our trained, dedicated and enthusiastic engineers we are well placed to give you the personal service you deserve.

Advantages of the new ERAGON system to test common rail injectors and pumps.

1. Test Pressures Capabilities over 1800 bar up to 2650 bar, as required by the newest injectors.
2. More accurate control on target pressure, thanks to the new automatic "PDI" control.
3. Results to O.E. specifications not after-market standards.
4. Codification capability for injectors such as Delphi C21, C4I and C31, Denso 30 digit, Bosch IMA, Bosch Piezo and Siemens VDO.
5. The Eragon repair platform has successfully recoded over 100.000 VDO units with zero known failures, to repaired and tested units.
6. The ability to diagnose Bosch Piezo ISA codes and then recode.
7. PDF printable result reports.
8. Increased volume in the Rail with the ability to test heavy duty injectors, as L'Orange, MTU, Scania, Cummins, Caterpillar/Perkins, ect.
9. New Clamping system for injector testing with counter pressure on injector base, similar to the fitting on the engine.
10. Testing of injectors with O.E. specific, original driver profiles allowing for more accurate results.
11. Testing capabilities of the latest CRIN 4.2 double coil Bosch, CAT C4 and Cummins XPI injectors.
12. Possibility to check the exact nozzle closure point before the main injection on multijet injection systems.
13. Time response available for all injector types.
14. Possibility to test phased pumps like Bosch CP2, Denso HPO and Caterpillar/Perkins.

### The importance of Injector Coding.

With ever increasing emissions legislation and tightening of limits, vehicle manufacturers have been forced to more accurately control the flow of fuel and pressure being atomised to optimise the efficiency of the combustion process and control emissions within acceptable limits.

The IMA coding is an industry standard: Injector Menge Abgleichung (Injector Quantity Offset)

When an injector goes through the OE test it generates an IMA code which identifies where in the tolerance range the needle and nozzle assembly fit, this allows the ECU to vary the fuelling accordingly and optimise the engine performance.

Failure to code in the injectors can result in several issues,

- Performance – in some systems it may be possible to drive away and not know any difference. In reality if the injectors have not been coded in it is unlikely that the vehicle will obtain its optimum performance suffering in an increase in fuel consumption or black smoke etc.
- Non-start – in newer systems if you do not code in the injectors the vehicle will not start.
- Poor / lumpy running –The ECU will carry on fuelling as if the previous injector/s were still present which can cause poor performance. The engine management light is also likely to come on necessitating another visit to the garage.

### Bosch Piezo ISA code – Diagnostics / Recoding

We are able to test and diagnose Bosch Piezo injectors to establish how far out they are to their original ISA code. This helps to identify rough running issues like uneven idle, excessive smoke, high fuel consumption and poor performance. We may repair and re-code the injectors to allow for optimum performance.