

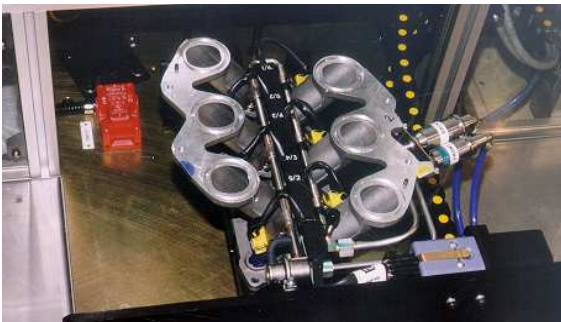
# Vauxhall V6

## Inlet Manifold Leak Test Facility

The manifold leak test station consists of a test unit located in the V6 engine assembly area, and is a self contained, free standing unit consisting of an aluminium frame on which is mounted a loading fixture, an operator control enclosure, an electrical enclosure, a pneumatic air compressor and a hydraulic power pack.

The test component is manually loaded to a retractable drawer, at which time an operator is required to connect the wiring harness to the connector provided and also connect the fuel rail connectors. At this point the drawer is closed and the sealing begins

The instrument controls the complete leak test cycle, including fill, stabilisation and measurement, basic operating principle is that of measuring pressure decay in the test volume as compared with the pressure in a reference volume, both having stabilised to the same pressure before starting the measurement.



The facility is designed to carry out four automatic air decay leak tests on a manually loaded assembly. These leak tests are on the

- air inlet branches,
- fuel rail assembly
- the opening value of the regulator fitted
- Resistance test checking each type of injector

Test pressures are controlled by an E-P regulator and are set to nominally 1.5 bar for the manifold, 4.0 bar for the fuel rail and 3.4 bar for the regulator.

Test parameters (time, alarm limits, etc) are programmable via the key pad on each instrument.

Results are indicated in terms of leakage rates (converted to cu.mm/sec) on each instrument when a positive leakage is measured.

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