



# POWERTRAIN TEST CELLS

## Description

CSA Group Leyland provides ten general purpose engine test cells, taking engine capacities of up to 50 litres, with dynamometers chosen to suit the application (150 kW to 2100 kW absorption). The cells are generously proportioned to provide space for large engines and full, un-cut exhaust installations. All cells are provided with diesel and petrol fuel supplies together with the appropriate fire protection. Test control is enabled using fully programmable systems to provide control and also to monitor and record every measurement parameter. Two cells also have CNG gas supply and particulate emission measurements to Euro 5 are also provided.

## Typical Applications

- General engine durability: High torque passenger car engines, commercial vehicle engines, off-highway engines
- Durability with emissions: It is increasingly critical to confirm the performance of the emissions control system throughout a durability cycle and we can deliver this kind of testing from our standard test cells
- Exhaust after-treatment durability: Durability testing of the complete emissions control system including exhaust gas processing unit (EGP)
- Passenger car exhaust system durability: Hot resonance testing, thermal fatigue and manifold cracking type tests

## Specification

- Size Range: From 7m x 4m x 2.5 m to 5.5m x 10m x 5m
- Dynamometers: 150 kW – 2100 kW
- Fuel: Diesel, Petrol, CNG, Special/Reference Fuels
- Fuel heating/cooling
- Air inlet: Fully conditioned for temperature and humidity
- Exhaust: Forced exhaust extract system Open or closed exhaust collectors, automated back pressure control
- Control: Fully automated test cycle control
- Data logging up to 145 standard channels (expandable)
- Measurements: Emissions, Speed, Torque, Pressure, Temperature, Blow-by, Smoke, Fuel consumption, Fluid & Gaseous Flow, Vibration, Strain, CAN traffic and Gaseous & Particulate emissions