

# Fire protection

## AQ900 case study

Diesel engine test bed

### Project

Marine diesel engine test cells, Gloucester, UK

### Fire risk analysis

Diesel fuel load in enclosed engine test cells during automatic testing. Long duration tests meant that the tests continued overnight, with minimal supervision. Although instrumentation is used to continually monitor the cells, the diesel fuel load created a definite fire hazard during the unmanned periods.

### Further information

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### Solution

An automatic fire extinguishing system was needed that could be retrofitted to various rigs. A high foam water based agent was recommended for the application, using two low-pressure stored pressure cylinders. A fixed AQ900 system was installed, together with an 'intelligent' electronic FireGuard control package.

Heat detectors within the cell are preset at 90 deg C, which begin the extinguishing cycle when triggered. After 30 second audible warning the extinguishing agent is automatically dumped into the canopy via special aspirating foam nozzles. Additional signals are generated to shut down the test cell, and to remote signal the alarm condition.

During the 30-second audible warning period a supervising operator can intervene and cancel the alarm if necessary. A manual break-glass switch is available to initiate the extinguishing cycle manually, and the system can be switched off and isolated during periods of inactivity, and maintenance.

**STOP  
THAT  
FIRE**