



# Why Medem's gas pressure proving system is a class act...

**MEDEM UK** now gives a five year warranty on all Medem panels and a 10-year warranty when a system is commissioned by a Medem engineer.

Medem is the only company in its sector to offer such a warranty. It can offer this because all Medem gas safety and energy monitoring systems are designed and manufactured in its own factory.

Managing director Chris Dearden said: "From the first inception of a product right through the design stage to the manufacture and testing, we undertake it all in house. We do not rely on outside designers and manufacturers so we have confidence in the quality of the design and the longevity of the products we produce."

In turn, Medem now passes on that confidence to the specifier, contractor and end user by way of the long warranty period. A longer design life also benefits the environment and offers the obvious cost savings.

The new Medem SEC range of panels offers both gas safety and environmental control in a single system. The SEC range has three variants for laboratories, kitchens and boiler houses.



## Use in laboratories

For the laboratory, the SEC-L is a gas pressure proving system utilising the Medem patented method of differential pressure proving that eliminates nuisance dropouts of the gas supply. Pipework pressures of up to 10bar can be proven. Pressure proving can be carried out on other gases as well as Natural and LPG. The system also isolates both bench electrical and water supplies to enable Building Bulletin 80 (BB) to be met.

Where mechanical ventilation is incorporated into a laboratory the system will control the ventilation rates dependant on the carbon dioxide level and, where required, the temperature. This enables energy and cost savings because the ventilation rate is based on occupancy and activities such as cooking or Bunsen burner use.

Where the CO<sub>2</sub> level rises above prescribed limits, the system can, where required, isolate a gas supply. The limit is variable depending upon the application and prevailing legislation or guidance such as BB101.

The SEC-L can monitor up to 16 detectors including carbon monoxide, natural & LPG gas, oxygen depletion/enrichment as well as carbon dioxide and temperature sensing.

## Kitchen and food technology

The SEC-K can control the ventilation rate so minimising energy consumption and associated costs. It monitors the carbon dioxide level and temperature of the kitchen. At busy times, as the kitchen temperature and/or the carbon dioxide increases, the ventilation rate will be increased and then automatically decreased after

a busy period.

This means that the ventilation rate, from the default minimum, is controlled by monitoring the kitchen atmosphere. This also ensures that if the extract grease filters are not cleaned regularly the gas will be isolated should the CO<sub>2</sub> level rise above 2,800ppm as per HSE catering sheet 23 revision 1. Where any fans are not running the gas will be isolated to follow BS6173/2009. A check for gas leaks is carried out at switch on because even where flame safety devices are fitted to all the kitchen appliances should the gas supply be interrupted during service these devices can take up to 10 seconds to operate. This means the gas pressure downstream of a closed valve can be at zero necessitating an integrity check of the pipework as stated in IGEM UPIA. Natural & LPG gas as well as CO<sub>2</sub> detectors can also be connected to the SEC-K.

In common with most Medem panels an LCD display gives the end user information and solutions making these systems very easy to use. Even where temporary or new staff switch a system on it will guide them through what to do ensuring safe procedures are followed.

## Boiler house installation

The SEC-B can carry out the same functions as the kitchen and laboratory systems as required in a boiler house. For example, where mechanical ventilation is fitted, the SEC-B will ensure any fans are running before allowing gas to be used. The main feature of the boiler



house system is the ability to automatically reset after a power cut, refer to Building Bulletin 100. This ensures no frozen pipes and associated damage where a school is empty during winter holiday periods. The system differentiates between safety shut downs and power outages as well as carrying out an installation integrity check before restarting when the power is returned.

## Commissioning, service and maintenance plus 24 hour service

Medem UK has its own Gas Safe registered engineers who also hold the 17th edition certificate. Using dedicated engineers ensures efficient product support on site. Annual inspections, service and maintenance can be carried out throughout the mainland UK. A 24 hour helpline is a standard feature where Medem commissions, after installation, a system.

Photographs, gas pressure and amperages are taken during the commissioning process and the information is uploaded to the Medem service database. If a call is made to the helpline, the on call engineer has information in front of him to enable a quick diagnosis of a problem such as a fan failure gas leak etc so the correct skills can be directed to the site.