

Carbon Dioxide in Pub Cellars

Recently, there has been an increase in the awareness of gas dangers in pub cellars within the hospitality industry.

In response to this, we have created this document to provide more information on the issue, and introduced a number of offers on our pub cellar monitoring system – the Cellarsafe.

What is Dispensing Gas?

A dispense gas is usually a mixture of 2 pressurised gases – Carbon Dioxide and Nitrogen – which are used for dispensing drinks.

A dispense gas installation includes the pressurised gas cylinders (or ‘bottles’), along with the associated pipework, and the control and mixing equipment.

When is Dispensing Gas Dangerous?

If a leak occurs, the dispense gas can replace the oxygen in the room, and contaminate the atmosphere with toxic carbon dioxide. Dangerous gas levels are more likely to occur:

- i. In confined spaces which have poor (or no) ventilation – such as a pub cellar or storage room
- ii. When a large gas leak occurs (regardless of ventilation)
- iii. When a relatively small leak occurs and is unnoticed for a period of time and is not dispersed

What are the signs of exposure?

Breathing in a dispensing gas in a sufficient quantity can lead to headaches and dizziness. In a sufficient concentration, the nitrogen from the dispensing gas can displace the oxygen in the air, which will lead to asphyxiation. Asphyxiation (or suffocation) can occur

rapidly, even before a person can realise what is happening and can leave the area.

Before asphyxiation leads to death, the lack of oxygen greatly impairs judgement, and can cause unconsciousness – making evacuation even more difficult, especially since it may involve climbing stairs from a basement cellar

The Cellarsafe

As the dispensing gases are undetectable by the human senses, the only way to detect a gas leak is to install a gas monitoring system.

This system will monitor for gases, and at a dangerous level will trigger an audible/visual alarm, alerting staff of the dangerous atmosphere in the cellar.

The gas monitoring system we provide is ‘The Cellarsafe’. This should be mounted in the cellar, but comes with a Repeater Unit which is to be located outside the cellar, providing an indication of the internal atmosphere before entry.

The Cellarsafe comes with 2 relays, 1 of which can be linked to a ventilation fan. In the event of a dangerous build up of gas, the Cellarsafe will trigger the fan, allowing the gases to be quickly and safely dispersed.

If you require any further information on these units, please do not hesitate to contact Gas & Controls Ltd on 028 9335 0425.

