



## Case Study

# DB Breweries

Proactively addressing the potentially catastrophic outcomes of workers becoming exposed to dangerous levels of CO<sub>2</sub> gases



## > The Client

DB Breweries is one of the most well-known companies in New Zealand. Originating in 1929, the business now has a team of over 500 across the country.

Crowcon was initially asked to provide a quotation to DB Breweries by the company's health and safety advisors, a trend which is increasing within the food & beverage industry as the industry is currently upgrading its gas detection policies.

## > Requirement

Along with the New Zealand Government's initiative to reduce workplace accidents in the manufacturing sector, is driving demand for a gas detection solution with food and beverage as it proactively addresses the potentially catastrophic outcomes of workers becoming exposed to dangerous levels of CO<sub>2</sub> gases.

Many do not fully appreciate that CO<sub>2</sub> is toxic. This is possibly because it occurs naturally in the atmosphere, albeit at very low concentrations – around 400 parts per million (ppm).

It is used or produced in the brewing and pub industry both during production and in the bar or restaurant, and we even produce it when we breathe out. We breathe CO<sub>2</sub> out because it is toxic, of course, and great care is needed when working in environments where it may be present at elevated levels.

## > Approach

Brewery industry employees who enter drinks storage areas without adequate gas monitoring equipment are potentially entering a lifethreatening environment.

If workers are equipped with personal monitors before they enter a risk zone, gas levels can be monitored.

In this case, Crowcon's single-gas Gasman CO<sub>2</sub>IR was selected largely due to its infrared sensors. Infrared sensors tend to have a faster response time and longer active life than other CO<sub>2</sub> sensor technologies, as well as performing better at the lower temperatures that can be encountered in cellars.

As part of the gas detection solution, service and calibration of instruments is provided. CO<sub>2</sub> is heavier than air. It is a hazard throughout the manufacturing process, right through to packaging and bottling, and even to the bars and eating establishments where the drinks are served.

If CO<sub>2</sub> escapes, it will tend to sink to the floor, where it can form deadly, invisible pockets. It collects in cellars and at the bottom of containers and confined spaces, such as tanks and silos.

## > Outcome and Benefits

DB Breweries Hamish Clentworth, explains: "One of the key factors in selecting Crowcon was the flexibility of its device.

The ability to select the alarm function to best suit the working conditions whilst ensuring safety, is paramount, as it ensured minimal disruption when our sales teams visited bars, restaurants or retail outlets.

Furthermore, the response time when increased CO<sub>2</sub> levels are present was impressive, which meant our employees are alerted of the possibility high levels of CO<sub>2</sub> in good time.

Even when gas detectors are deployed; maintaining protection for every employee can be a challenge as CO<sub>2</sub> can be present in several areas; gas detection devices must be an integral part of an employee's daily routine.

"Crowcon is one of the most popular choices across New Zealand and Australia, specifically within our industry and this proven track record was a deciding factor in our selection."

Hamish Clentworth

