

How WG Safety & Environmental uses the Casella VAPex pump to protect its clients' workforces from chemical exposure

It is estimated that every 30 seconds, somewhere in the world, one worker dies as a result of exposure to toxic chemicals, pesticides, radiation and other hazardous substances.^[2] The effects of exposure can develop quickly or take years to develop, leaving workers vulnerable to asthmatic and allergic reactions and longer-term illnesses such as cancer and cardiovascular, respiratory and nervous system disorders. While the cost to human health can be devastating, the financial costs to businesses through reduced productivity, employee absences, recruitment and compensation claims are substantial.

Few workplaces are immune, as exposure can occur in businesses as diverse as healthcare, education, gardening, transport, office work and catering, whether from products used in the core of the company or for equipment maintenance and general cleaning.

The team of consultants at [WG Safety & Environmental](#) work with businesses from various sectors to monitor and minimise hazardous exposure and, ultimately, meet their health, safety and environmental compliance obligations. For accuracy and reliability, the team uses the [Casella](#) VAPex low flow pump, designed for seamless reporting on levels of chemical exposure.

Chris Richardson, Manager of Occupational Hygiene, Safety & Environmental Services at WG Safety & Environmental, shares why the VAPex low flow pump has become an essential part of ensuring his clients are safe and compliant.

What challenges did your consultancy want to solve for its clients when it purchased the VAPex pump?

Our clients want to meet their moral duty of care and their legal obligations. Legislation requires that they protect their staff's health, safety, and welfare and those impacted by their workplace, such as service users and visitors. Carrying out assessments to evaluate health risks when using hazardous substances is also a legal requirement under the Control of Substances Hazardous to Health (COSHH) Regulations 2002. However, to advise our clients on effective solutions that comply with the law and protect worker and public safety, we need to understand their workplace exposure levels. The VAPex pump ensures that we provide an accurate assessment quickly and our clients have confidence knowing that we equip our consultants with the most current sampling methodologies and devices.

How does the VAPex pump help with accuracy and speed?



The VAPex pump has a sophisticated control mechanism that allows us to take readings at precise flow rates without drifting away from our set point, saving our consultants time as measurement runs do not need to be repeated. The ability to be precise ensures accuracy and makes readings easier and quicker, crucial for clients concerned with the health of their employees. Additionally, the VAPex pump enables us to partially or fully lock the keypad to prevent tampering,

making the sampling data more reliable.

How does the VAPex pump help you on a client's site?

The VAPex pump is pocket-sized, making it easy to carry the device to a client's site and fit to their employees when carrying out assessments. It has a run time of 34 hours under typical operating conditions and its three LED lights let us know the battery status from a distance. These features prevent any unexpected power or charge failures that might disrupt monitoring activity for our clients, ensuring that we can carry out measurements as efficiently as possible.

The VAPex pump also eliminates the need to transfer written notes and sample data collected on a client's site because the pro version works in conjunction with Casella's Airwave App. The app allows us to record our notes and input data instantaneously, using a tablet or mobile device. Seeing our survey progress on the Airwave App minimises the likelihood of returning to a client's site to complete repeat measurements, a crucial benefit as we travel throughout the UK and Europe to carry out assessments. We can also use the app to check the pump remotely with minimal disruption to the client who may be involved in a critical task or be otherwise inaccessible. These features are particularly valuable when there is a need for social distancing.

What features were important when selecting the VAPex pump?

The VAPex pump's Intrinsically Safe design means it will not cause an explosion from a spark or reaching a high temperature in hazardous atmospheres. This is critical because we often operate in high-risk workplaces with significant levels of combustible substances. With a wide flow range of 20mL - 500mL, the VAPex pump has exceptional backpressure capability. This capability ensures an uninterrupted smooth operation of the pump in even the most demanding situations.

The VAPex pump's remote operation via the Airwave App makes it ideal for modern-day sampling requirements. Taking a data-driven approach enables us to show our clients that our assessments are carried out following the latest standards and regulations, and they can have confidence that our tools are up-to-date and reliable.

[1] <https://chemicalwatch.com/70252/worker-exposure-to-hazardous-chemicals-is-a-global-health-crisis>

About Casella

Casella is dedicated to reducing environmental and occupational health risks by developing equipment and technology for dust, noise and vibration monitoring.

Casella's core purpose is to create technology aimed at improving the working environment of employees, while providing robust data and equipment platforms to enable organisations to remain compliant with health and safety regulations. The company is an expert in the integration of sensor technology and data management systems that further improve productivity and overall safety in the workplace.

Casella's range of instrumentation includes real-time dust monitors, personal sampling pumps, sound level meters, personal dosimeters, hand-arm vibration and boundary/fence-line monitors. Casella is a global business, part of the IDEAL Industries Inc. group of companies, with offices in the UK, US, Australia, China and India.

The company has provided precision instrumentation since 1799 and supplied eminent figures, including Charles Darwin, with instrumentation for exploration and scientific work. Casella works with a network of specialist distributors to provide local service and client support to those searching out solutions for risk reduction and management.

[1] <https://chemicalwatch.com/70252/worker-exposure-to-hazardous-chemicals-is-a-global-health-crisis>

[2] <https://chemicalwatch.com/70252/worker-exposure-to-hazardous-chemicals-is-a-global-health-crisis>