

## Intelligent Air Quality Monitoring and Management Solutions



Workers' lung health is at significant risk in hazardous environments due to exposure to harmful particles like silica and asbestos. To protect workers, BreatheSafe offers advanced air quality control with OnGuard, a next-generation controller that provides real-time monitoring, air quality measurements, and alerts. This system notifies operators and staff of any air quality issues that could threaten health, safety, or equipment. When paired with BreatheSafe's HEPA filtration solutions, OnGuard ensures superior air quality and effective protection, reducing maintenance costs while meeting and exceeding air quality standards in demanding conditions.



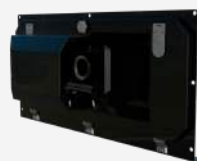
### **HEPA Variable Speed Pressuriser**

Pre-cleans, HEPA filters, and pressurises. Utilising a high-capacity variable speed brushless DC motor. Fitted with tested H14 filter (individually tested to EN1822 and serialised).



### **HEPA Return Air Filter**

Custom designed return air filter assemblies, designed to integrate HEPA filters with the OEM heating, cooling, and ventilation system.



### **Custom Install Kit**

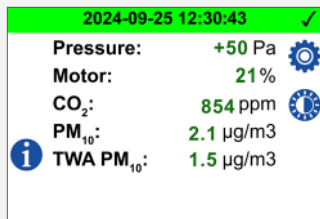
Custom-made components are designed to optimise airflow while effectively sealing the cabin from dust and hazardous particles, maximising overall system performance.



### **OnGuard Controller**

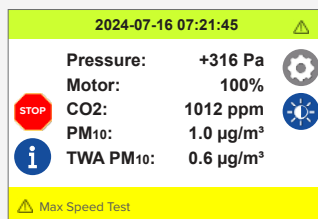
Real-time air quality monitoring and control. Our OnGuard controller is designed to exceed industry standards, ensuring compliance with ISO 23875 and MSHA regulations.

## Key Features of the OnGuard™



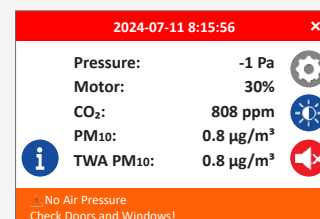
### Default Screen

The OnGuard home screen displays sensor telemetry and control parameters.



### Max Pressure Test Function

Maximum pressure result achieved when the motor is running at 100% speed.



### Traffic Light System

Visualises system status with clear indicators: normal, warning, and alert.

### Real-Time Air Quality Data

Displays complete air quality and system performance parameters, including pressure, particulate matter monitoring, CO<sub>2</sub> concentration, temperature, humidity, and more.

### Date and Time

Displays and logs the current date and time in your timezone for accurate data management.



### Integrated Sensors

Sensor integration into User-Interface that delivers accurate air quality data from within the breathing zone, including CO<sub>2</sub>, temperature, humidity, particulate mass and count in real time.



### Main Unit

Manages data storage, processing and communications.

### Alert Notification

Shows current alert details and possible solutions to the operator.

### Faster System Response Rate

Optimises control to intelligently adjust the pressuriser motor speed.

### Pressure Control

Automatically adjusts the pressuriser fan speed to maintain the target pressure and increase the filter lifecycle.

### High CO<sub>2</sub> and Particulate Concentration Flush

Detects elevated CO<sub>2</sub> and particulate levels. Intelligently increasing the fresh air supply to reduce CO<sub>2</sub> and flush excess particulate.

### Data Communication

Provides local and networked, wireless and wired data access capability.

## Data Management

Gain comprehensive visibility into your air quality system with OnGuard's intuitive dashboard. Displaying real-time data through color-coded dashboards and detailed graphs to provide a clear view of air quality conditions to maintain a safe environment.

Get access to:

- Live and historical system performance and air quality data. Measure pressure, CO<sub>2</sub> concentration, particulate count and mass concentration, motor load, humidity and temperature, alert times, severity, and details.
- Access remotely from a web-based interface and change cabin pressure, conduct pressure testing, set alarms, recalibrate sensors, and more.
- Historical data analysis: Review and analyse up to 6-years of stored data making it easy to understand system performance and air quality trends, saving lives and protecting equipment.



Controller Animation

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