

TITLE: MineARC Systems Wins International ITA Award for New Compressed Air Management System

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For Immediate Release.

MineARC Systems has been awarded the Global Safety Initiative of the Year accolade at the 2015 International ITA Awards for their new Compressed Air Management System; designed specifically for refuge chambers in the mining, tunnelling and petrochemical industries.

The ITA has recognized the Compressed Air Management System (CAMS) as an industry leading solution to providing compressed air and maintaining positive pressure within a refuge chamber, resulting in reduced running costs and improved operational safety and serviceability.

As compressed air is the primary life support for survival in a refuge chamber during an emergency, it is essential that it is treated in order to be safely used for breathing purposes. Unlike most compressed air filtration systems, CAMS boasts an extensive list of features and benefits.

While traditional breathable air systems consist of a three-stage process, CAMS features a four-phase filtration method involving a water separator followed by preliminary, coalescing and absorption filters. This process ensures the air inside a refuge chamber is free from contaminants such as hydrocarbons, dust particles, moisture and oil.

One of the major key benefits of CAMS is its ability to manage the flow of compressed air to the refuge chamber. "One major expense on any industrial project is the electrical cost of running compressed air", says Daragh Quinn, lead engineer in charge of the CAMS project. "In order to restrict the infiltration of smoke and other toxins, refuge chambers require positive pressure to remain emergency ready at all times. Over time, the cost of supplying continual compressed air to the chamber can be considerable."

CAMS regulates air flow so the chamber emitting periodic bursts of air to maintain an internal pressure of 200pa. This creates a positive pressure seal; ensuring contaminants cannot enter the refuge chamber from the outside environment. Over the course of a year, the use of CAMS results in significant operational cost savings as well as reduced wear and tear to on-site compressed air equipment.

CAMS has been third party tested to prove its efficiency and economic savings during normal running conditions. Tests were conducted to measure compressor power consumption rates on MineARC Standard and Compact Design Refuge Chambers, both with and without CAMS. The results confirmed MineARC's own in-house testing.

Another key feature of CAMS is a unique, integrated gas toxicity monitor with auto shut-off. "In the event of fire, there is a serious risk that carbon monoxide and other toxins can be drawn through the airline and into the refuge chamber", says Quinn. "The gas toxicity monitor activates a solenoid valve at the air intake, which automatically shuts off compressed air if oxygen levels in the airline fall below 19%; signifying an offset which is caused by an increase in harmful gases entering the airline. Once

activated the CAMS auto-shut off solenoid will remain closed for the remainder of entrapment, ensuring no toxins enter the chamber through the airline.”

Yet another feature of CAMS is the flood protector. Accidental flooding of a refuge chamber can often occur due to human error or excessive condensation from the compressor, causing catastrophic and costly damage to the interior of the chamber. In the event of water ingress to the compressed airline, the flood protection valve will seal closed preventing any water from entering the chamber. The water pressure will seal the valve shut until the water source is eliminated and the filter is drained.

The final key benefit to CAMS is ease of service. In the harsh environment of heavy industry, traditional filter systems are subject to oxidization and seizure. This can make filter change-over during service a problematic and time consuming exercise.

Brad Whittaker, MineARC Service Manager says, “MineARC’s unique click-in-click-out bayonet clipping system removes the need for traditional threaded rod elements and screw-in filter housings that can break due to wear and tear. This precision snap and lock design also reduces service time by up to 80%, which is a major advantage to our clients.”

The award winning Compressed Air Management System is now standard on all new MineARC Refuge Chambers. It can also be retro-fitted to any existing permanent or portable chamber so that any industrial operation can capitalise on its many features and benefits.

For further information regarding the MineARC Compressed Air Management System, please contact service@minearc.com.au.

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