

# Howden to Install Ventilation Optimization System for Gold Fields South Deep Gold Mine

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ATLANTA, April 26, 2023 (GLOBE NEWSWIRE) -- Howden, a Chart Industries Company, and leading global provider of mission critical air and gas handling products, technologies and services, has secured a contract for its innovative Ventsim™ CONTROL system at Gold Fields South Deep gold mine. The mine is a world-class bulk mechanized mining operation reaching depths between 2,800m and 3,300m below surface and is located in the Witwatersrand Basin, near Westonaria 50km south-west of Johannesburg (South Africa).

South Deep has invested in key infrastructure to ensure that it operates as a safe, low-cost, bulk and mechanized gold mine and is collaborating with Howden to implement a state-of-the-art ventilation optimization system. The solution will support a safe working environment as well as reducing the mine's energy consumption, which will contribute towards South Deep's environmental and operational goals.

Ventsim™ CONTROL combines ventilation modelling of the mine with a flexible control system and advanced control strategies for monitoring, control and optimization of underground mine ventilation. The remote and autonomous control of ventilation devices allows operators to view underground mine conditions in real time as well as the ability to act quickly to suit their conditions.

Howden's ventilation optimization solution offers varying levels of control to suit the needs of the mine. Level 1 and 2 allows for manual remote control and scheduling of ventilation devices, whilst the level 4, Ventilation on Demand (VOD), solution employed by South Deep will allow ventilation devices to react based on feedback from environmental sensors underground. It will furthermore adjust mine airflow in real time based on vehicle and personnel position. The Ventsim™ CONTROL solution also offers a 3D modelling capability within the software, which helps users to better predict and control air flows based on what is evidenced in the simulation.

Eric Vemer, President of Africa and Middle East Chart commented: "The installation of Ventsim™ CONTROL will improve the operability and flexibility of the mines ventilation system to ensure a safe, healthy and efficient ventilation solution. Ventsim™ CONTROL will further reduce energy consumption and associated tons of carbon emissions. As the system allows the mine to optimize its ventilation based on fully remote vehicle and personnel monitoring, it directly contributes to achieving emissions reduction targets – something of which the Howden team

is very proud.”

#### About Chart Industries, Inc.

Chart Industries, Inc. is an independent global leader in the design, engineering, and manufacturing of process technologies and equipment for gas and liquid molecule handling for the Nexus of Clean™ - clean power, clean water, clean food, and clean industrials, regardless of molecule. The company's unique product and solution portfolio across stationary and rotating equipment is used in every phase of the liquid gas supply chain, including engineering, service and repair and from installation to preventive maintenance and digital monitoring. Chart is a leading provider of technology, equipment and services related to liquefied natural gas, hydrogen, biogas and CO2 capture amongst other applications. Chart is committed to excellence in environmental, social and corporate governance (ESG) issues both for its company as well as its customers. With over 48 global manufacturing locations and 41 service centers from the United States to Asia, Australia, India, Europe and South America, the company maintains accountability and transparency to its team members, suppliers, customers and communities. To learn more, visit [www.chartindustries.com](http://www.chartindustries.com).

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