

StrataConnect™

STRATA VENTILATION AUTOMATION AND CONTROL (VAC)



Automate the operation of underground ventilation systems to conserve power consumption and significantly reduce energy costs.


STRATA
WORLDWIDE

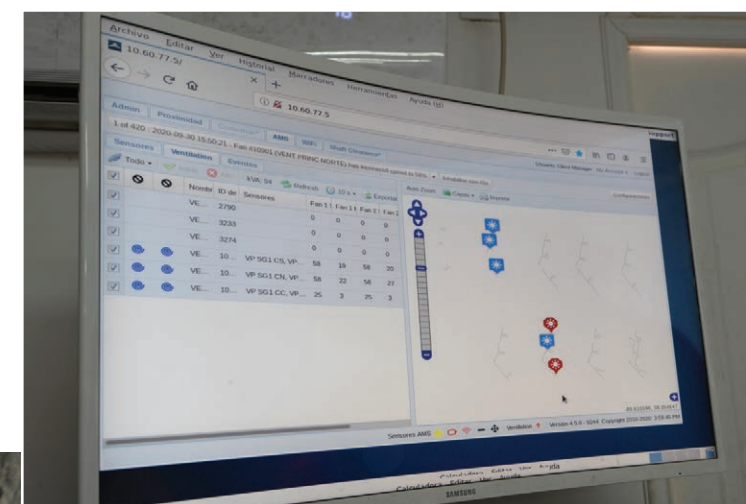


MULTIPLE SOLUTIONS IN A SINGLE NETWORK

StrataConnect Wireless is a wireless network capable of establishing complete coverage for communications, emergency alert and response, personnel tracking and equipment tracking.

This base network can be expanded for flexible options in remote monitoring, remote control, and automation.

It is ideal for permanent or temporary installation in localized or facility-wide applications and is fully recoverable.



CASE STUDY

The Problem – High energy consumption related to mine ventilation.

Guanaco Compañía Minera (Mina Amancaya), operated by Austral Gold in Chile was experiencing high energy costs related to its fan ventilation system. Even though harmful gas levels would fluctuate and the number of diesel vehicles in the working areas would vary, the ventilation circuit was operating at a constant steady-state to always ensure a healthy supply of air was available.

Due to this high-level of fan activity, the mine's daily output of energy was consistently measuring around 1,380 kilowatt-hours. Management was looking for an economical solution to reduce the power consumption and resulting energy costs.

The Solution - StrataConnect™ Ventilation Automation and Control (VAC)

Teamed with its qualified Chilean distributor, Catanoor, Strata delivered a network solution to fully automate the operation of the mine's ventilation system. The automation and control system is configured to adjust the speeds of the primary fans automatically and activate the secondary fans only when needed, this is based on specific factors: Harmful gas levels in the environment; the number of people in a working area; and the number of vehicles in a working area, particularly diesel-powered vehicles.

Results

Following the installation of the StrataConnect™ VAC, Guanaco Compañía Minera reported a 21% savings in costs and energy in the first month of operation.

Strata VAC enables operations to connect their underground ventilation system to a single user interface at the surface for automation and remote control. The fan automation is based on pre-selected environmental variables and adjusts the fan speeds and turns fans on and off automatically as needed. By automating these processes, unnecessary activity and usage is eliminated which results in decreased energy costs.

ADVANTAGES OF STRATA VAC

- Eliminate manual fan operation and travel time
- Establish real-time atmospheric monitoring with warning alerts
- Select and configure custom set-points
 - Harmful gas levels
 - Air quality due to diesel emissions
 - Number of personnel in working section
 - Number of vehicles in working section
 - Quantity of dust
 - Air flows
- Flexibility to automate partial or entire underground facility
- Fail-safe feature enables override of automation and remote control capabilities
- System suitable for all motor control automation
 - Fans
 - Belts drives
 - Pumps
 - Levers
- Completely wireless and battery-powered network that is fully interoperable with existing underground networks





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