

Case Study:

# Advanced Ventilation System Transforms One of Mexico's Key Mines



## The Customer

One of the most technologically advanced deep mines in the world, as well as one of the largest and most important gold and silver mines inside of Mexico.



## The Challenge

The mine is set in mountainous terrain, and subject to extreme weather. To add to the difficulties, the main ventilation fans, each one a 400hp surface mounted unit, are separated from each other by distances of between 500m and 3km and lacked suitable control mechanisms to enable the effective function of Ventsim CONTROL. The process of installing the instrumentation required a great amount of logistics and specialised work to be carried out on-site on the four fans already installed and the eight more awaiting delivery.

## The Solution

Tests at Howden Montreal confirmed Ventsim PLC compatibility with the customer's chosen fans. A detailed plan for logistics and on-site engineering, considering risks, was established. Retrofit work on the existing four fans, scheduled with mine operators to minimise production loss, required a week. Readiness of electrical equipment and specialised personnel was crucial. The successful completion of the first phase allowed for commencement of work on the next eight fans post installation.

## The Results

The project delivered a reliable and highly efficient Ventilation on Demand (VOD) system, reducing energy costs while ensuring complete safety. Despite the challenges and that Howden can supply Ventsim CONTROL plug-and-play ready fans, the situation clearly demonstrated Ventsim CONTROL's versatility in allowing for connection to existing third party fans. For the next phase of the mine's development, the operators have already decided to install Howden Ventsim CONTROL ready fans. These can be quickly installed and immediately integrated into the existing monitoring and management infrastructure by non-specialist staff, keeping the mine at the leading edge of technology and safety with minimum cost and disruption to production.

## KEY ADVANTAGES



### ⚡ - SAVINGS

Significantly reduced energy consumption, driving down associated running costs.



### VERSATILITY

Ventsim CONTROL can be integrated with most existing fan installations, no matter brand.



### PLUG-&-PLAY

Removes the need for specialist technicians and allows for fast install times.



Ventsim CONTROL is a world-class intelligent ventilation software that communicates to hardware devices, monitoring remotely, controlling and automating airflow, heating, and cooling systems. It improves safety, production, and significantly lowers mine ventilation costs. **Try it today!**