

Room pressurizer system for mining application

Working with a client to develop a pressurized room solution for a dusty, non-hazardous location



Overview

The client operates an open-pit coal mining operation. While the location is classified as non-hazardous, the environment is extremely dusty, and the protection of control room staff and equipment needed to be addressed.

Project Brief

To provide a pressurized room solution that would improve employees working environment by providing clean, filtered air, and extend the life of equipment such as computers and control systems.

Challenges

- The mining activity created an extremely dusty environment, made worse by heavy vehicle movements and conveyor systems
- The control room was not effectively sealed against much of the dust.

Solution

- Expo evaluated the room and recommended a standard single fan room-pressurizer system with a capacity up to 1,800 cfm of airflow. While intended primarily for hazardous locations, the system provides highly effective air filtration & room pressurization for non-hazardous applications such as this.
- Working with the client, and referencing hazardous area standards such as NFPA496, improvements were made to improve the sealing of doors and windows, to increase dust-tightness and the ability to hold the slight over-pressure.

Expo Products and Services



Room Pressurization Systems RP-Max

Expo's RP-Max-Z room pressurization systems are designed for type Z / Ex pz pressurization in accordance with NFPA496 and ATEX for Class I Div 2 and Zone 2 hazardous areas, making the interior of the room a general-purpose location.

Systems are self-contained units incorporating high flow fan units, filtration, pressure measurement and control.

[Click here](#) for more information.