INTERNATIONAL MINING PROFILES

JOHNSON CONTROLS HELPS KEEP MINERS AND EQUIPMENT SAFE WITH FACTORY-INSTALLED FIRE SUPPRESSION SYSTEMS



NSUL[®] a premium brand of Johnson Controls, represents rugged time-proven fire protection products for the mining industry. These products are part of a full-line, special hazards portfolio including fire extinguishers and hand-line units; preengineered restaurant, industrial and vehicle systems; sophisticated fire detection/ suppression systems; and dry chemical, foam and gaseous firefighting agents.

In the 1960's, the mining industry's need for dependable vehicle protection culminated in the design and introduction of the first ANSUL[®] automatic fire detection and suppression systems. In 2016, a new commitment to the mining industry involved partnering with equipment manufacturers to provide fire suppression systems on various mining equipment models. Today, factory-installed ANSUL[®] LVS liquid agent fire suppression and CHECKFIRE 210 detection and actuation systems are seamlessly incorporated into the machines during the earliest stages of production with the goal of enhancing vehicle integrity and longevity as well as expediting machine delivery.

"At Johnson Controls, we pride ourselves on constantly challenging the status quo to engineer new technologies and products, with the goal of improving system durability and reliability. This program is a prime example of a new way of thinking to address evolving customer needs," said Mark Neumann, global product director, preengineered systems, Johnson Controls. "Under this initiative, we're proud to be a preferred partner for fire protection in the mining industry."

Prepare for the worst. Protect with the best

Whether on the surface or underground, mine operators rely on their equipment to run around-the-clock in extreme temperatures and harsh environments. ANSUL® automatic fire suppression systems and portable extinguishers are designed to help keep mining equipment rolling and operations running while protecting miners and assets from fire.

Most mobile mining equipment operates virtually non-stop while flammable liquids flow through its pressurized lines within inches of super-heated engine blocks. The ANSUL® LVS Fire Suppression System provides both fire suppression and superior

cooling of superheated surfaces while blanketing the fuel and cutting off oxygen to help prevent reflash. The liquid agent flows easily into hard-to-reach areas along the same path flammable liquids may have traveled.

The combined performance of the ANSUL® A-101 and LVS Twin-Agent Fire Suppression System provides protection where equipment works 24/7 such as rugged mining environments. While the A-101 dry chemical knocks down flames, the LVS agent cools surrounding areas, helping to minimize the possibility of reflash.

Protection Starts with Detection

The ANSUL® CHECKFIRE 210 Detection and Actuation System was designed to provide detection, alarm and fire suppression system actuation for mobile applications like hydraulic excavators, haul trucks, wheeled loaders, dozers and graders. One of the top features of the CHECKFIRE 210 system is its flexibility in the protection of various hazard areas.



With color-coded, plug-and-play connectors, the system is equipped with two independent detection circuits configurable for multiple options, including single-zone detection, twozone detection, cross-zoned detection, discharge pressure feedback monitoring, or alarm only. The CHECKFIRE 210 offers linear detection wire and spot thermal detection that can be used individually or in combination.

Fight Fires in Earliest Stages

ANSUL® RED LINE Cartridge-Operated Fire Extinguishers and RED LINE Wheeled Fire Extinguishers provide powerful and portable fire protection in tough mining environments. These highly mobile extinguishers offer fast, one-step actuation and one-person operation.

> Heavy-duty vehicle brackets provide reliable mounting of the extinguisher for easy access and proper placement on mobile equipment.

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Early protection of control rooms in large machines starts with the ANSUL[®] INERGEN[®] and SAPPHIRE[®] Clean-Agent Fire

Suppression Systems, which use a clean, electrically non-conductive agent designed for use with sensitive electrical equipment found in the control rooms of large equipment. INERGEN® is a clean, non-conductive and natural fire suppressant that helps reduce damage to valuable assets and sensitive equipment. SAPPHIRE® systems are engineered to quickly suppress fires without causing harm to equipment, people, or the environment.

Training for Mining Safety

Since 1940, the ANSUL Fire School has trained thousands of first responders from high hazard/ high risk industries such as aviation, mining, oil and gas, chemical, utility, fire service, and metal processing. The three-day program includes a mix of classroom and live field instruction with heavy emphasis on live hands-on firefighting. Students are trained to use cartridge operated and stored pressure extinguishers, wheeled extinguishers and hose line apparatus.

A passion for complete fire protection is what drives our innovators to find even better ways to help protect your valued employees and assets from fire. For more information on these and other ANSUL® products, visit www.ansul.com.

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