

FirePro. Denning



Location: Australia

Application: Bus Systems

Industry: Logistics



Denning Manufacturing Pty Ltd builds quality coaches, buses and chassis that meet the highest standards necessary to cope with the tough conditions of Australian weather and terrain.

We pride ourselves in producing quality, hand built buses and coaches.

Denning is Australia's only manufacturer of buses and coaches that use all-American running gear. Combined with innovative Australian designs, we produce rugged, long lasting vehicles.

We are the only bus and coach builders in Australia that design and build our own chassis. We do this to ensure that our coaches meet the rigorous operating conditions within which our customers work.

Risks Involved & Consequences

A fire in the engine bay of a bus can rapidly grow and destroy the entire vehicle. This creates a very dangerous incident for passengers and immediate environment. The new design of buses create a scenario where the cabin is airconditioned and insulated from outside noises. With the engine typically mounted in the rear of the vehicle, makes it very difficult for the driver to be aware of any fire which may occur in the engine bay. Fire systems are required to protect and reduce collateral damage across all equipment.

The Task

Design and install a fire suppression system that will protect the engine bay. The enclosures have diverse fire risks and therefore, the technology needed to be effective against multiple classes of fire. It should also require as little maintenance as possible and be in line with Australian Standards, Health & Safety and protection of the Environment (HSE) strategy. Likewise, the systems needed to autonomously monitor and protect the enclosures from various fire scenarios.

The operator is notified of the fire event by an indicator light and buzzer which have been integrated into the driver's console.

The operation of the system is automatic, but equipped with a delay to allow the operator to be aware of the incident, while still having time to safely stop the vehicle and attend to passengers.



Why FirePro ?

Firstly, the FPC Compound found inside the FirePro generators is effective against various classes of fire (A, B, E). Secondly, the compactness and modularity of the system allows fire engineers to customise the design and efficiency according to project mission and space requirements of each bus design. Furthermore, the FPC compound poses no active threat to operators and will remain environmentally friendly even after activation which is in line with environmental policy. As a final point, the generators have a 15-year lifetime cycle and no re-filling requirements thus very low maintenance.

Results & Implementation

Detection and extinguishing systems were installed to engine bay of the buses. Looming fires are detected and extinguished at a very early stage while alarms notify the operator and other personnel of the fire hazard. The systems can be easily reached providing a convenient maintenance process. More importantly, there are no Health and Safety issues of concern in regards to the units. Additionally, FirePro's FPC compound 15-year life span and low system maintenance maximises ownership benefits and value for the company.

