**PRESS RELEASE**

The importance of ‘fire safe’ belt systems in mines

***20 April, 2016:*** *Despite common misconceptions, fire is a pervasive threat to conveyor belt systems in mines. Fire can cause substantial damage to the conveyed material, electromechanical components of the system and the belt itself, if the necessary fire protection systems are not in place. This results in costly damage and downtime.*

Belts contain polymeric materials that pose a serious risk in terms of rapid fire spread and the generation of toxic, corrosive smoke. In addition to being lethal, these fires are also incredibly difficult to control, warns ASP Fire CEO **Michael van Niekerk**.

“Conveyor belt fires threaten the lives of anyone onsite and can cause the collapse of the conveyor structural elements, which results in an excessive loss of revenue that will be incurred by the downtime required to fix or rebuild the conveyor belt. Bearing this in mind, a quality conveyor belt fire protection must revolve around the preservation of the conveyor belt system itself,” he states.

Early detection, fast-acting fire prevention solutions are key to ensuring the quick and successful extinguishing of any fire, while simultaneously cooling the affected structure. Every conveyor belt system is unique, and an individual assessment has to be made for each system in order to adequately and accurately determine where the fire risks lie for that particular system design.

ASP Fire designs, installs and maintains a full range of fire detection and suppression equipment suited to individual customer needs. “We provide a holistic, proactive and preventative fire solution based on integrated fire risk assessment, training and consulting. Our installation and maintenance of fire detection and suppression systems are in line with all industry standards,” adds van Niekerk.

To ensure early fire detection on a conveyor belt, van Niekerk suggests the installation of Technoswitch fire detection technologies in conjunction with suitable fire control and extinguishant panels, which are specially-suited to long-distance and moving environments. These include;

**Ember detectors:** Designed to detect a smouldering ember on a moving conveyor belt before it bursts into flames.   
**Linear heat detection cable:** Used for long distances, which are prevalent on conveyor belts, and responds to a rise in heat that is above the alarm threshold.   
**Fibre Optic Detection Cable**: Intelligent system used for long distances or tunnels, where specific zones need to be identified. Applicable to very sensitive or high-risk areas.  
**IR3 Flame Detectors:** Make use of three different Infrared light wavelengths to detect an open flame within the conveyor system.

To complete the fire protection system, van Niekerk recommends i-CAT Fire Solutions’ industry-leading EXTINGUISHmist handheld water and foam mist fire suppression systems, which can automatically detect fire and effectively suppress a fire in a matter of seconds before it becomes a problem. This range is capable of extinguishing all types of fires, including; rubber and plastic fires; oil fires; diesel and petrol fires; and electrical fires rated up to 245 kV.

The atomised mist generated by the extinguisher rapidly cools down a hot surface without causing thermal shock. It creates a thermal heat radiation barrier between the operator and the fire, thereby shielding the operator from the heat radiation emitted by the fire when operating the extinguisher. Advanced T-Rotor technology atomises water and charges it with kinetic energy, creating a fine atomised mist with a size of between 50 and 60 micron (μ).

The system can also be designed to create cooling zones on conveyor belts to detect and cool hot material without adding to the moisture content of the product, to reduce any potential fire risks. Using water and nitrogen is safe, effective and saves on maintenance and service costs. Each litre of water in a water mists system amounts to 120 m2 of coverage capability, and the small quantity of water that is used has the added benefit of ensuring little to no redundancy, damage or environmental contamination.

The Water Mist range boasts an operational lifespan four to five times longer than standard DCP extinguishers, to ensure greater cost-savings too. The range received SABS approval at the end of 2014. “The use of water and nitrogen is safer, more effective, and saves on maintenance and service costs – all of which are major benefits in modern-day mining,” van Niekerk concludes.

***Ends***

**Notes to the Editor**  
To download hi-res images for this release, please visit <http://media.ngage.co.za> and click the ASP Fire link to view the company’s press office.

**About ASP Fire**  
ASP Fire operates across the entire African continent from its Gauteng base, providing professional, accredited fire risk management and support to its clients. ASP Fire designs, installs and maintains a full range of fire detection and suppression equipment suited to clients’ needs. ASP Fire provides a holistic, proactive and preventative fire solution based on integrated fire risk assessment, training and consulting, with the installation and maintenance of fire detection and suppression systems that meet SABS, NFPA, FPASA, FDIA and SAQCC standards.

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