

# CONVEYOR BELT FIRE SUPPRESSION SYSTEM

Complete Conveyor Belt *Suppression Solutions*



The danger with conveyor belt fires is that they are fast spreading. The result can be a fire that spreads across the distance of the conveyor belt and structure. The supporting structures of conveyors, as well as enclosures, are generally constructed from non-combustible materials, but large fires may result in severe damage or collapse of such structures, that could potentially result in many fatalities, damage to surrounding equipment and significant losses to production due to down-time. Even without complete structure collapse, conveyor belt fires pose a significant threat to occupants in the mine, due to the toxicity of the smoke released.

Consequently, I-CAT has pre-engineered its Localised Suppression Systems (LSS) for conveyor belt installations to mitigate the fire hazards, as mentioned above. Surface and underground conveyor belt suppression is one of the most common applications for I-CAT's water- and foam mist LSS and consists of three sub-systems i.e. primary suppression systems, suppression zones and an optional redundancy system; collectively capable of suppressing fires on complete conveyor belt installations. The systems are used in conjunction with detection systems, based on the fire hazards and the environment.



## Technical Specifications

Specification		Value	
Operating Pressure		1 700 kPa	
Min and max operating temperature		5°C to 60°C -40°C to 60°C	
Available system sizes		130L & 230L	
Extinguishing Agent	Primary Suppression	I-CAT Standard	Water & CLEAVOS AFFF 1%
	Suppression Zones	I-CAT Standard	Water
	Redundancy System	I-CAT Standard	Fire water feed

## BENEFITS

- Minimal damage to conveyor belt installations resulting from water flooding or hazardous chemical suppression agents
- Minimal water usage, pre-determined exclusively for the risk
- Rapid cooling of the conveyor belt and components
- A reduction in the probability of cracks forming in conveyor structure, due to thermal shock
- Fully interfaceable with fire alarm panels and SCADA systems
- Fire risks on the entire conveyor belt is significantly reduced without having to install suppression along the total length of the belt
- Reduced down-time and clean up after system discharge

*'effective on A,B and F class fires with minimal collateral damage'*