Innovative and versatile fire detection solutions for unique and complex risk areas.
Have you ever been faced with the dilemma of having a complex and unique fire risk area, but no detection method that is truly suited to protecting it?

Conventional fire detection systems in hostile environments struggle to cope with issues such as excessive levels of dust and grime, ultra high roofs and large volumes of ventilation. Issues like these can cause false alarms and reduced detection speed.

**Video Flame Detection** is a new technology which effectively uses a specialist CCTV camera which monitors the continuous video image for smoke and flame patterns which will then trigger your fire alarm system upon detection of a fire. Video Fire Detection systems are used in all kinds of applications across the world, from waste recycling facilities through to aircraft hangers and shopping malls.

**Thermal Imaging Cameras** constantly monitor a pre-defined risk area for a dangerous rise in heat indicating a developing fire situation - with these systems you can set different heat activation thresholds, giving you a pre-emptive warning and helping you deal with a situation even before it becomes a fire - a function that makes it a very popular solution for the waste recycling industry!

At Blazequel we specialise in providing unique and innovative fire safety solutions to protect our clients and their most valuable assets - contact us today to see how we can help you too!
What makes Video Fire & Smoke Detection
The ideal solution for you?

Video Fire Detection is an ideal solution for harsh, dirty, highly ventilated or even external environments where conventional systems are simply not capable of performing correctly or are causing problems.

Video Fire & Smoke Detection is effectively an advanced CCTV camera that operates by constantly analysing the video recording to spot motion and light behaviour patterns that indicate flame and smoke. Highly advanced software algorithms ensure a reliable level of detection accuracy, and specific parameters can be set up for each application’s unique requirements to ensure a reliable and fault-free service.

Ultra-Fast Detection
Video Fire Detection is almost always faster at detecting fires than conventional detection methods - this is because it detects the fire at its source - not just when the smoke finally reaches the detection system.

Large Area Coverage
Video Fire Detection can cover huge areas, with a single camera detecting fires up to 100 meters away! It is ideal for protecting warehouses, waste recycling facilities, factories… in fact, almost any large open risk area!

Simple installation & maintenance
As the system can cover a large area with little physical equipment, the installation and maintenance is both quick and easy, minimising disruption to your operations and ongoing cost.

Doubles up as (or can work with existing) CCTV Systems
The system can also function as your CCTV camera system, providing an added layer of protection for your facility. You can view the video image showing the detected risk though a computer screen in your control room (just like any other CCTV system), which will enable you to deal with a fire quickly and safely - knowing exactly what is occurring in the risk area!

Avoids Issues found in Conventional Systems
Often you will only find these out when your conventional system starts to give you unpredicted problems, so it’s important to analyse your requirements carefully before spending money on a solution that may only be efficient in the short term!

Common system problems are:
- Dust enters conventional point detectors and causes false alarms.
- Dust clogs the pipework and filters of HSSD (aspirating) systems.
- Dust, fumes or steam obscure beam detectors, causing false alarms.
- The roof of the building is so high that by the time sufficient smoke rises to trigger conventional detectors, the fire has become an inferno.
- There is too much ventilation in the risk area to allow smoke to predictably reach the detection system.
- Very few conventional detection methods can be used effectively in open or outdoor environments.
How Does Video Fire Detection Spot Fires?

The DAFO Forrex system is renowned for its ability to fight fires and prevent re-ignition having a track record and reputation that its competitors envy.

That's not by chance - it's the result of 40 years of continuous improvements, scientific research and live fire testing to ensure that everything about your system, from the extinguishing agent through to the droplet spray size the agent is delivered in to achieve the optimum effectiveness and give you the maximum protection possible.

At the heart of Video Fire Detection is the analytical software that is able to ‘see’ the movement of smoke across a CCTV image or the presence of flame within that image through the identification of characteristics unique to either smoke or flame. These include, but are not restricted to, assessing changes in brightness, contrast, shape, edge content, loss of detail, motion and colour matching.

These cameras can function in areas with low lighting levels, as well as operating under IR conditions when required for unlit areas.
What makes
Thermal Imaging Detection
The ideal solution for you?

Thermal Imaging detection systems constantly monitor a risk area, reading the surface temperature of the risk to raise the alarm in the event of high levels of heat.

The benefit of thermal detection is that you are not only monitoring from the heat that comes from flames, but you are also constantly monitoring the area for an increase in temperature (both a rapid rise of heat, and detection of a pre-defined temperature alert threshold) which could be indicative of a developing fire - allowing you to react and deal with a risk before a fire situation develops!

Like any CCTV or Video Fire Detection system, thermal detection relays a live video stream of the thermal picture it is taking back to the control room, giving you a clear visual picture of your risk area (see image below) and allowing you to make an informed reaction in the event of a fire.

Pre-emptive Fire Detection
Using thermal detection can allow you to spot a fire before the flames have even started! This makes it a fantastic option for waste recycling and power generation facilities etc, monitoring waste transfer hall, fuel bunkers and even large outdoor areas!

Large Area Coverage
Thermal detection cameras can protect even larger areas than video fire detection cameras! As they are simply taking a thermal image of the surface of the risk area, they can constantly rotate on a ‘pan and tilt’ chassis (see top right image), enabling a single camera to monitor a 360 degree area! This makes the system ideal for protecting large waste transfer halls or outdoor areas.

Simple installation & maintenance
As the system can cover a large area with little physical equipment the installation and maintenance is both quick and easy, minimising disruption to your operations and ongoing cost.
NEW - Thermal Fire Detection with Automatic Fire Extinguishing

PYROsmart is a new innovation designed for the waste recycling industry by Orglmiester in Germany, coupling together cutting edge technologies to provide a fast-response and targeted automatic fire fighting solution with a proactive thermal imaging system that watches out for the earliest stages of a fire.

The Thermal imaging system constantly monitors the risk area for signs of a risk developing, whereupon it raises the alarm. On identifying a fire, this unique system aligns the automatic water cannon(s) with the risk identified on the camera system - discharging directly into the risk area.

This system ensures a proactive and speedy response to a fire, as well as ensuring that the usage of water is targeted to the area it is required to prevent any unnecessary clean up costs. This is a huge improvement (and usually a lower cost investment) on conventional technologies such as sprinkler systems - due to the height of the ceiling in many waste recycling applications, the fire would have to become a firmly established blaze before the sprinkler was activated. The PYROsmart system can also be used outdoors, making it ideal for external waste processing applications.

Contact us today to find out how this unique technology can make you safer, proactively protecting your most mission-critical processing facilities!
Video fire detection is a new innovation and a complex product area, so you need to ensure you’ve got a specialist supplier who can ensure you get the right solution to your requirements.

If you’ve got any questions at all or would like to discuss your application and requirements, please get in touch today - our friendly and experienced team will be delighted to help and provide you with some free advice!
Total Honesty, Total Integrity, Total Protection