ZETTLER

The benefits of installing **MZX Technology into a Manufacturing Facility**

// Overview:

The Requirements for installing a suitable fire detection and alarm system within a manufacturing facility may vary dependent upon the nature of the business and size of building(s). A manual system usually satisfies the requirements of local legislation. This system is often combined with additional fire detection, usually at the request of the insurers. Factory units can vary enormously in size and process, with some processes being fully automated. Height is also a factor when planning fire detection, and therefore factory units can present many different challenges to the designer. Alternatives to the standard point detection systems are sometimes the answer with smoke beams, and aspirating systems providing an alternative for a sensitive yet stable fire detection solution.

The **MZX** fire detection and alarm offers a wide range of systems that either connect directly or interface to the addressable digital loop, offering a broad spectrum of solutions to meet these challenges. Some of the systems key features are highlighted below.

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// Risk: Factory units are difficult places in which to work, often requiring specialist platforms for working at height and present on-going problems for maintenance and repair.

During the initial install period these problems are more easily overcome, as the building, usually under construction, is unoccupied and not a functioning unit. Once up and running however access is restricted not least because of the height and obstacles created by machines and processes. Reliability is therefore key to systems installed in such buildings as remedial works to replace or relocate equipment is difficult, time consuming and costly.

// Solution:

By specifying and installing an **MZX technology** system we offer reliability in all of our components. The **850 series addressable point detectors** have added protection applied to printed circuits and vital components to enable them to survive in difficult environments. Threshold compensation overcomes the effects of dirt and dust and prolongs the life of the detector reducing lifetime costs. The **Fire Ray 5000 Smoke beam and Beam detector Module, BDM800,** allows direct connection to the addressable loop, saving wiring and associated costs. The beam detector is motorised so if the beam alignment shifts due to building movement, it realigns itself automatically. The **ICAM AS 460 and 461** single or dual air sampling system combines the best of the 850PC mutisensor with proven air sampling techniques. The **Vesda Laser Compact, Laser Plus and Scanner units** connect directly to the loop or via the **VIO800 MX Vesda Interface.**
This form of detection is ideal within racking where plastic pipes are all that exist and can easily be protected against the risk of mechanical damage. In MZX Technology, integration of these systems is well thought out, engineered, tested and fully supported and certified to **EN54-13 Compatibility of Components and Systems, as certified by VdS.**

// Risk: What happens if by accident the system is activated? This is still referred to as an unwanted alarm, which could be caused by accidentally operating a manual call point, or some unusual occurrence close to a sensor.

The incident, whilst not really being a malfunction, still causes the same amount of disruption as that of a genuine alarm. Lost production, especially on automated processes can be substantial and are sure to cause the business substantial expense.

// Solution:

When configuring the system cause and effect, (what happens when a device goes into alarm), the **MZX configuration software** allows devices to be configured to work individually and instantly, individually and after a delay, or in conjunction with another device. This enables the designer to programme out some of the high risk unwanted alarm causes by introducing delays or confirmation from a second device before the system goes into full alarm. First stage alarms can be investigated quickly and without disruption as every MZX control panel has an **investigate delay programme** ensuring that a procedure is followed within recognised time constraints.

// Risk: One of the most common causes of unwanted alarms within a factory comes from the bi-products of the manufacturing process.

Do you compromise the detection system in order to avoid this problem. Any compromise isn't just for that period when the processes are running.

// Solution:

All MZX Control Panels incorporate Day/Night Mode. The **DAY MODE function** can be initiated in various ways, manually or automatically, to introduce a short delay allowing an investigation of the incident, or to switch modes or sensitivity settings on the sensors. The **850 PH and PC** Addressable mutisensor detectors can be programmed in such a way that at certain times of the day, when the building is fully occupied and running and the risk of fire going undetected is low, the smoke elements can be turned off or to low sensitivity and then turned back to their normal mode and sensitivity during unoccupied periods when the building is most at risk. **MZX control panels offer full functionality with simplistic operation.**

// Risk: Working at height and in confined spaces increases the time taken to service equipment or indeed to make changes to equipment at high level. Often special platforms are required in congested areas and some disruption is inevitable and can often affect productivity. Out of hours working whilst overcoming these difficulties, adds substantially to the lifetime costs of the system.

// Solution:

The 850 Engineering Management Tool is a powerful and flexible tool used during the installation, commissioning and servicing of MZX 850 series devices. The tool provides Infra-Red communication with the series 850 devices, up to a distance of 15 metres, which is especially beneficial where height and access is a problem. It contains the system's configuration programme and can read and write to detectors and ancillary devices. The unit will display the detector's outputs, (temperature, CO and smoke obscuration levels), and has the ability to test both the device's led and control outputs. The tool can be used to change the devices settings and will record and store any changes made, providing a valid audit trail. Service data is also stored and offers a true record of all devices, detectors, ancillaries and sounders that have been tested during the visit. All data is stored onto a USB flash drive. **MZX technology continues to offer value throughout the lifetime of the system.**
