

ARE WE STANDING NEXT TO AN UNEXPLODED BOMB?



The risks of self-certified ATEX non-electrical equipment v IECEx certified non-electrical equipment

History

Certification of equipment for use in potentially explosive atmospheres, often referred to as "hazardous areas" has been around for many years. There is a well-established supply chain for electrical equipment and knowledge through our industry is generally good. In 2003 ATEX was expanded to cover mechanical as well as electrical equipment. Despite being introduced 17 years ago, there is still widespread ignorance of the requirements for mechanical equipment in hazardous areas.

Legal Requirements

ATEX compliant equipment is mandatory for use in hazardous areas throughout the EU. In the European Union compliance is a legal requirement; this is not so for the rest of the world. The ATEX Directive allows manufacturers to "self-certify" mechanical equipment for use in Zone 1 and Zone 2 hazardous areas, However, electrical equipment requires independent certification for use in a Zone 1 area and more often than not, electrical equipment manufacturers also provide independent certification for Zone 2 products.

**Every day, there are 16 industrial explosions!
380,500 Industrial fatalities per year**

ATEX

ATEX is not just about safety. It sets minimum standards to allow free trade within the EU and between the EU and the rest of the world. Self-certification of ATEX products can become a "race to the bottom" with commercial pressures leading to the cutting of corners with regard to construction and adherence to specifications. Policing by compliance authorities is seen to be weak, requires a high level of product knowledge, and still does not insist on accreditation. Although goods require a technical file there is no requirement that this is assessed by anyone other than the manufacturer. More often than not these are sealed & only to be opened AFTER an incident.

Introducing IECEx Non-electrical

IECEx is a worldwide certification system for both electrical and non-electrical equipment and requires full compliance to IEC International standards. "Self-certification" is strictly not allowed. Manufacturers of both electrical and non-electrical equipment must have been awarded an IECEx Certificate of Conformity, prior to manufacturing the goods, by an approved IECEx Notified Body.

IECEx, though voluntary, requires a two-stage approval process, putting a greater focus on safety. Firstly, the manufacturing facility and its quality assurance processes have to be approved by IECEx who issues a Quality Assurance Report (QAR). The second stage IECEx review the design and testing of the product itself and is assessed against relevant international standards. Successful assessment will then result in the issuing of an IECEx Certificate of Conformity.

ATEX Vs IECEx

- ATEX is not all about safety, It was introduced to set minimum standards to allow free trade!
- Self-certification becomes a race to the bottom!
- Policing is weak!
- No assessment of the technical file!
- ATEX allows for interpretation of standard!
- Compliance to any standards is not mandatory!
- It's open to misuse & fraudulent production of certificates!
- Key Focus on safety
- Full compliance to IEC international standards
- "self-certification" is strictly not allowed.
- IECEx certificate of conformity prior to manufacturing the goods
- Products & manufacturing systems are approved by IECEx
- Central online Data base
- IECEx audits
- Policing is strong

Advantages of IECEx

The IECEx scheme carries added security for the supply chain as the equipment must have been independently certified by IECEx. The system is completely transparent as the manufacturers' certificate of conformity is available to view on the IECEx website. The emphasis on safety that IECEx brings, when compared to ATEX, gives users a guaranteed minimum level of design and manufacturing quality assurance. IECEx is a globally recognised scheme but does not yet replace ATEX in EU countries; dual-certified products that comply with both schemes are becoming increasingly available.

