



TRAINING

# **INSTALLATION & MAINTENANCE OF ATEX EQUIPMENT LEVEL 2**

This training is certified ISM-ATEX by Ineris (notified body for ATEX certification).

This certification guarantees the competence of people working on ATEX equipment.

It ensures that maintenance and installation of equipment is carried out according to the applicable standards to avoid dangerous ignition sources.

More in-depth than Level 1, this training course is intended for personnel who regularly need to work independently on ATEX equipment, maintenance managers or engineers who need to select and install ATEX equipment. This course is for both electrical and mechanical engineering technicians.





Yes

#### **TRAINING OBJECTIVES**



#### Read Ex marking

Know the difference between the types of ATEX zones and relate it to the marking to select suitable equipment. Identify the protection mode and the certification process of the equipment.



# Know installation & maintenance rules

Know the maintenance and installation rules for the different types of ATEX equipment in order to intervene without impacting their protection mode. A level 2 person can intervene autonomously under his/her own responsibility on equipment subject to ATEX regulations.



# Identify non compliant equipment

Be able to identify whether or not equipment can be kept in a specific ATEX zone. Identify modifications to equipment, which alter the ATEX protection mode and no longer allow this equipment to be used in an ATEX Zone.

## **CONTENT OF THE TRAINING**

## The phenomena of gas and dust explosions

- Characteristics of flammable substances
- Specific case of dusts
- Examples of explosions and explanation of the causes of accidents
- Classification of ATEX zones (gas and dust)
- ATEX regulations and employers obligations
- Rules for assemblies (e.g. motor/pump)
- Explosion protection methods

- Marking of equipment
- Intervention rules in ATEX zones
- Possible ignition sources and how to avoid them
- Bringing old installations into compliance
- Inspection and maintenance
- Practical cases and exercises
- Protection modes for electrical and mechanical equipment ("d", "e", "i", "c", "t", etc.)

General rules for installation & maintenance of ATEX equipment (cable glands, equipotential bonding, types of cables distance between equipment and between terminals, types of bearings, belts, tightening of screws, seals, IP ingress protection, etc.).



ISM-ATEX level 1-E or level 2-M certificate for participants who succeeded the evaluation at the end of the training. Certificate of participation issued for all participants present during the complete training.

#### **About ISMA**

Specialized in the science of dust and gas explosions, ISMA has decades of practical experience in indentifying, analyzing and assessing explosion risks in various types of industrial processes and equipment. ISMA assists customers in several ways in managing their exposure to explosion risks. Please see isma.be for more information.

