



ISMA

EXPLOSION SAFETY
CONSULTANCY

TRAINING COURSES



YOUR PARTNER FOR EXPLOSION SAFETY





Why ATEX trainings?

Training personnel working in hazardous areas with potentially explosive atmospheres is important. On the one hand, proper training provides employees with the knowledge and skills needed to perform work safely. On the other hand it helps meet requirements laid out in performance-based regulations placing a general duty on employers and managers to ensure the safety of their employees.

Our training courses

Addressed to employees, subcontractors and managers, ISMA offers four training courses to increase awareness and understanding of explosion related hazards.

	What you need to know about ATEX	Maintenance level 1	Maintenance level 2	Managing ATEX risk
Duration	0,5 day	1 - 1,5 day	4 days	2 or 4 days
Target audience	Operators, painters, truck drivers	Technicians	Technicians Engineering, responsible maintenance, engineers	Engineers, project managers, OH&S
Main objective	Understand and identify risks	Installation & maintenance of ATEX equipment	Installation & maintenance of ATEX equipment (more in-depth than level 1)	Ensure safety of workers

Tailor-made courses

ISMA's training courses cover general aspects of explosions and hazardous areas and address site-specific risks. Options to tailor trainings include on-site training and site-specific case studies.

Topics and industries

ISMA works for a wide range of industries and can adapt the training to the specific risks of the products such as:

- Sugar
- Cereals
- Chemicals
- Pharmaceutical products
- Wood
- Hydrogen
- Lead-acid battery storage stacks

Please do not hesitate to contact us if you would like to cover another topic.

Our trainers

ISMA trainers have accumulated many years of practical experience in the field of explosion risk management as well as teaching and training employees.

WHAT YOU NEED TO KNOW ABOUT ATEX

This basic knowledge training is developed for persons who occasionally enter or work in ATEX hazardous environments, such as operators, truck drivers, painters, cleaners, etc. This training is not adapted for personnel expected to work on Ex certified equipment. To learn more about installation, maintenance or repair of ATEX equipment and systems, see our level 1 and level 2 training courses for installation & maintenance of ATEX equipment.



0,5 day



MAX. 12



NL, EN, FR



No prerequisites



No

TRAINING OBJECTIVES



Understanding explosion risks

Learn what an explosive atmosphere is and how it forms. Understand the nature of explosion risks and how to avoid a dangerous situation or an explosion to occur.



Identify ATEX zones on site

Know how to recognise an ATEX zone and the procedures to follow in these zones.



Be aware of the intervention rules

Adopt the right behaviour and use the appropriate PPE and tools to ensure your own safety and that of your colleagues.

CONTENT OF THE TRAINING

- General information on the phenomena of gas and dust explosions
- Examples of explosions and explanation of the causes of accidents
- Classification of ATEX zones (gas and dust)
- Basis for marking of equipment
- Intervention rules in ATEX zones
- Possible ignition sources and how to avoid them



Certificate of participation issued for all participants present during the complete training.

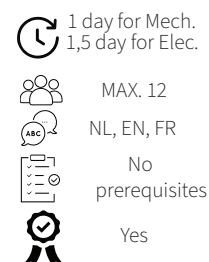
About ISMA

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.



INSTALLATION & MAINTENANCE OF ATEX EQUIPMENT LEVEL 1

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. This training course is available in two versions, one for electrical and one for mechanical engineering technicians.



TRAINING OBJECTIVES



Intervene safely

Understand the nature of explosion risks to avoid a dangerous situation or an explosion from occurring. Adopt the right behaviour and use the appropriate PPE and tools to ensure your own safety and that of your colleagues.



Understanding Ex marking

Know the difference between the types of ATEX zones and relate it to the marking to check that equipment is suitable. Identify the protection mode of the equipment to maintain it correctly.



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 1 person can work under the supervision of a level 2 person.

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)
- Marking of equipment
- Intervention rules in ATEX zones
- Possible ignition sources and how to avoid them
- Protection modes for electrical and mechanical

General rules for installation & maintenance 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 1-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.



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.



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.

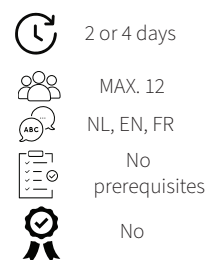
About ISMA

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.



MANAGING ATEX RISKS

This training is developed for project managers, OH&S professionals or project engineers to help them better understand and manage exposure to explosion related risks. This training course can be taken over 2 days or a more advanced 4-days version is also available depending on requirements.



TRAINING OBJECTIVES



Manage explosion risks on site

Apply the integrated safety approach to reduce the risk of creation of an explosive atmosphere, avoid ignition sources and reduce the adverse effects of an explosion.



Ensure the safety of workers

Understand the legal obligation of employers regarding the organisational measures to be put in place. Overview of the different solutions and points of attention to ensure safe working.



Know the difference between the types of ATEX zones

Discover the different methods that can be used to classify gas or dust zones and know the advantages and disadvantages of each method.

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)

Additional content for the advanced training

- Explosion protection methods
- Bringing old installations into compliance
- How to write an explosion protection document (EPD)
- Practical cases and exercises

- Marking of equipment
- Intervention rules in ATEX zones
- Possible ignition sources and how to avoid them
- ATEX regulations and employer's obligations
- Concept of risk analysis for explosive atmospheres

- Phenomena of static electricity
- Inspections and maintenance requirements
- ATEX zoning according to IEC 60079-10
- Inerting of installations



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.

