



Explosion Hazards Limited

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Systematic Explosion Protection.....

Our products ensure your safety!

By reducing your fire and explosion risk

The safety and performance of your process is of major importance to us. We have developed client-oriented solutions to ensure optimum fire and explosion protection for your plant.

The ATEX product range covers all protection systems currently on the market and can be subdivided into four categories. Prevention, Isolation, Venting and suppression

All our products conform to your legal requirements and have been assessed by the relevant notified bodies. Following market analysis and our clients special requirements, we revise our products continuously to optimize your profitability, reliability and ease of handling, keeping an eye on all consequential costs, e.g. commissioning, process integration, handover, maintenance and after sales service.



The ATEX concept

- Experienced ATEX engineers can offer you tailor made explosion protection solutions adapted to your special requirements of cost and function, to your legal obligations.
- Development and turnkey design and install offered to avoid duplication in projects
- All systems can be integrated into our unique "plug and play" PC friendly Windows-based addressable control system, with full data capture and a remote modem facility
- Start-up, maintenance and service by our own expert staff
- Our special plus is that we can deliver all protection systems types currently on the market

All ATEX products have been revised and certified in accordance with 94/9/EC and optimized with regard to maintenance and service, giving our customers the most acceptable prices.

ATEX Group of companies has offices in Germany (Hamm & Frankfurt), Britain and Ireland, USA, Australia and specialised agents in France, The Netherlands, Italy, Spain and Austria.

1. Prevention for Fire and Explosion Protection.....

Prevention is better than cure!

Explosion Prevention Systems

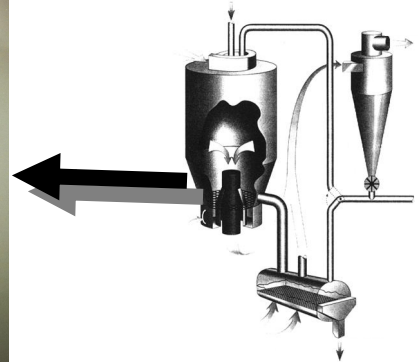
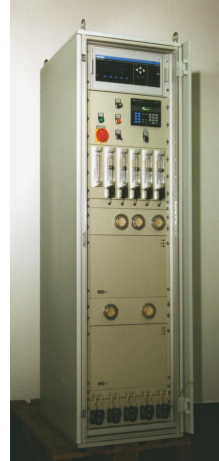
ATEX has developed fire prevention and explosion protection systems for the detection and elimination of fires and burning nests. Our systems have been installed successfully over decades and can be found in many industrial applications.

ACOM (ATEX CO Monitoring)

Operating experience shows that the primary sources of ignition for fires or dust explosions in drying and filter installations is smoldering spots or self-igniting dust deposits. The detection of such smoldering is by monitoring CO (carbon monoxide), the early byproduct of thermal decomposition.

DELTA CO VALUE

0.5 ppm	INSPECTION OF THE PROCESS
1.5 ppm	AUTOMATIC SHUT DOWN
3 ppm	EMERGENCY SHUT DOWN ACTIVATION OF THE SPRINKLER SYSTEM



Spark extinguishing system to prevent fires in pneumatic and mechanical conveying systems. Suitable for almost all branches of industry.

The ATEX spark detection and extinguishing systems use infrared optical sensors for the identification of sparks and burning nest being transported through your process and initiates water spray nozzles, extinguishing barriers, quick sliding valves, barrier valves & explosion diverters to isolate fire from all hazardous areas.



2. Explosion Isolation.....

Divide and conquer!

ATEX Isolation systems prevent the propagation of explosions into other process areas and ensure reliable explosion protection. When deciding to isolate, we consider the purpose of the isolation system, to stop flame, spark and/ or pressure? Whether the system needs to be active (sensor, control panel and actuation), will passive (no sensor, panel or actuation) be sufficient? We can offer the whole range of options, minimizing cost and maximizing your control.

Our isolation systems are suitable for suppressed, vented and containment protected areas.

Systems installed by ATEX are designed to cause minimum disruption to the protected process itself. Systems can be re-started without expert help, thus avoiding long shutdowns.

Active Quick Sliding valves

- Ranging in sizes from 80mm to 500mm
- Can be actuated by factory air many times without specialist refurbishment
- Available in steel and stainless steel, suitable for pharmaceutical application.
- We also offer FDA approved liners.

Passive Barrier valves

- Low cost passive barrier valves especially suitable for central vacuum systems with low dust concentrations.
- Easy to maintain and reset
- Comes with a range of proximity switches.



Explosion diverters

- Reduces the speed or stops completely an explosion in process lines.
- Venting to a safe area dangerous pressure piling, flame and sparks.
- Especially favoured in the coal, cement and steel industries.

3. Explosion Venting

Letting off pressure!

Explosion venting panels are the most natural protection system and can be used for system areas where the explosion pressure can be discharged safely outside. This system is currently the *cheapest* explosion protection method.

You can choose between two alternatives:

- Bursting discs for singular usage
- Explosion doors for repeated usage or self closing.

Explosion Vent doors can be re-used many times,

- Are self-closing, starving the subsequent process fire of air.
- Come with vacuum breakers and proximity switches.

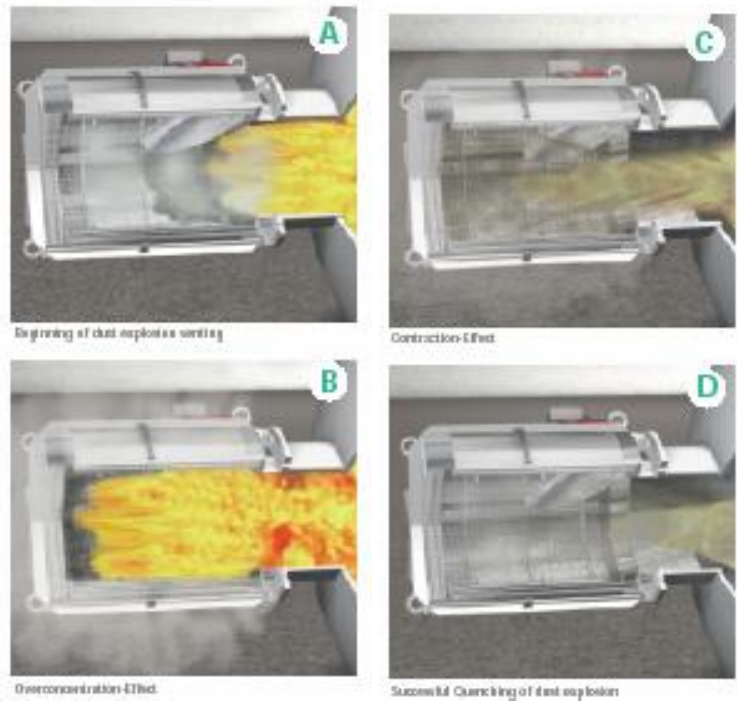
Explosion Vent ducts

ATEX venting systems for closed rooms: Overpressure in closed rooms is discharged via a vent duct to a designated safe area outside.

Q-Pipe flameless venting system If this is not possible we can use our Quench pipe i.e. flame and pressure are absorbed by a Quench Pipe and ensure optimum passive protection to your process.

Due to further product development the **New Q-Box** has been introduced, it is 2 to 3 times cheaper than the Q-Pipe especially for larger volume protection.

In accordance with legal requirements, explosion venting has to be performed in combination with suitable isolation systems.



4. Explosion Suppression

The best defence is a swift offence!

ATEX Suppression systems are used inside plant volumes, where the explosion cannot be discharged to the outside; it extinguishes the explosion at the point where it occurs.

The ATEX AIS hot water and Powder suppression system is a combination of:

- PXD pressure detector (static/dynamic)
- IRD Infrared detector
- ATEX suppression systems
- Control systems for monitoring and display
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It is optional to combine various sensors with e.g. two out of three redundancies.

The ATEX AIS hot water and powder system uses extinguishants adapted to our clients' special system requirements.

- Expensive and highly regulated explosives can be dispensed with.
- Each extinguishing bottle can be locked electrically and mechanically.
- The bottles are addressable individually allowing the condition of bottle to be monitored remotely.
- Its gas generators operated intrinsically.
- External modem analysis is also possible.
- Bottles are more used friendly and can be filled locally

