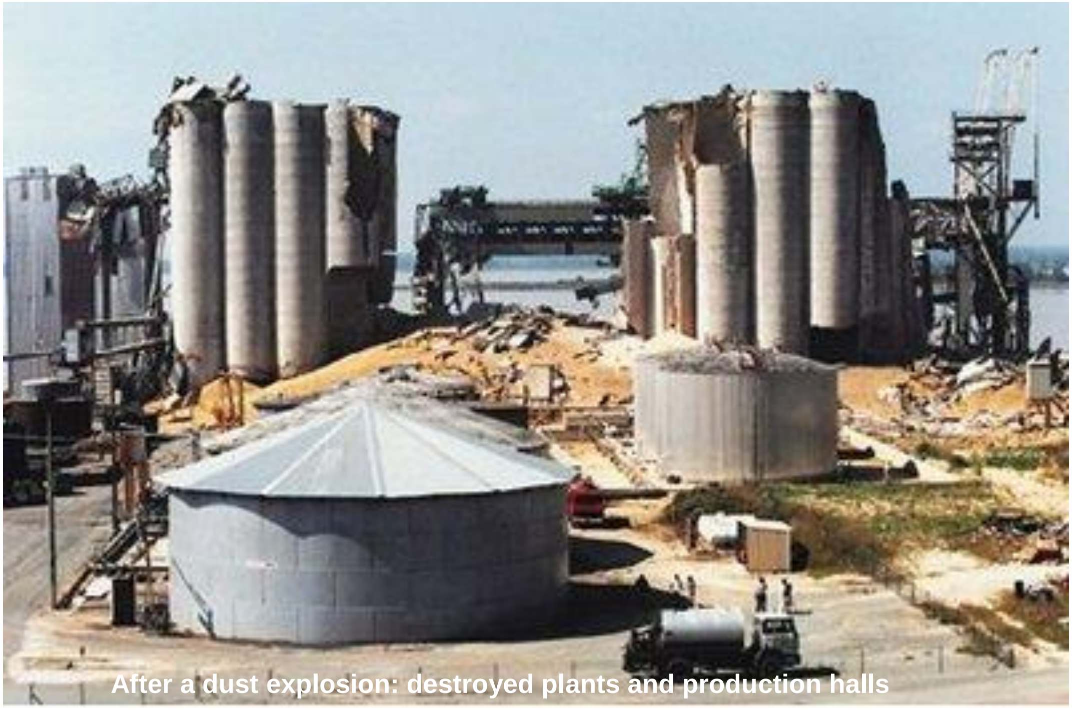
LAJAC

We take care of your safety
in dust explosions and combustible materials

with know-how and experience!



After a dust explosion: destroyed plants and production halls

An effective, constructive explosion protection minimizes your Risk!

When oxygen, flammable material and an ignition source meet in a special concentration, an explosion occurs!

The explosion is a sudden reaction with enormous temperature and pressure conditions! Increasing amounts of fine dust caused by high-speed machines and automated conveyor systems, as well as new air pollution control measures required by law, increase the risk of a dust explosion on site. The smaller the dust particles are, the harder the dust explosion will be!

Potential sources of ignition, such as mechanically or electrically caused sparks, frictional heat, electrostatic charging, welding work or other thermal effects cannot always be ruled out. Oxygen can only be eliminated from the process with great technical effort by inerting. Therefore, the risk of a dust explosion can never be completely ruled out and constructive explosion protection is essential!

The constructive measures to minimize the risk for people and systems is therefore the development of an effective and safe system concept!

www.lajac.se

Pressure relief, safety in the separator

rupture discs

These rupture discs are characterized by their particularly robust and insensitive design. Its use is particularly recommended under harsh operating conditions.

The rupture discs are each tested and equipped with an emergency stop sensor.

Intended for outdoor installation! For safety reasons, the filter separator can only be installed indoors in conjunction with a flame arrestor (see below) or pressure relief duct with a maximum length of 1 m!

flame arrestor

The flame arrestor guarantees the explosion pressure relief without flame and dust spread in closed company buildings. This means that equipment and operating systems that are difficult to access can be relieved without expensive conversion measures and space-consuming wall openings! Can only be used in conjunction with a rupture disc (see above)!

pressure relief valve with integrated flame arrestor

The endangered systems are protected by safe and rapid pressure reduction of the explosion tip - even when installed indoors!

It opens at a defined response overpressure and then closes again completely tight. The flame filter prevents flames from escaping, therefore approved for explosion in the room according to ATEX.


extinguishing barrier for explosion and / or fire protection

This explosion suppression system protects wherever the explosion pressure could exceed the strength of the production facilities.

Combustion reactions or sparks are detected by the sensors installed in the pipeline (and filter) and stopped by suddenly blowing out the extinguishing agent.

The aim is to spatially prevent any explosion and / or fire!

Pressure relief, safety in the piping

non-return valve

Explosions can be effectively decoupled with the non-return valve.

Approved for organic and inorganic dust. Suitable for a maximum dust content of 5 g/m³ and a maximum KSt value of up to 200 bar m/s.

Not approved for gases!

pneumatic quick-acting quench valve

This compact system with monitoring prevents flames, sparks or pressure from the filter from spreading into the pipeline. The quench valve is fed with compressed air from the operating network and safely and reliably decouples the pipeline.

It consists of self-monitoring safety electronics (in the control cabinet) and the compact quick-acting valve.

Control cabinet / control

control cabinet and controller

The control cabinet includes the complete monitoring and control of all components. Optionally, remote control units can also be used to start and stop the vacuum system.

The control corresponds exactly to the respective, individual operating requirements and regulations.

remote control

The remote control units are equipped with on/off switches, which - depending on requirements - can be installed at different locations or levels along the pipeline.

material discharge device for pre-separator or filter separator	
	**eumatic quick-closing discharge valve** s ATEX - certificated, flame-proof discharge valve can also be ched to the pre- or filter separator as a double-chamber charge system. ses the separator safely and reliably. Opens and empties the pective material container by signals from the control cabinet. valve is constantly monitored by the limit switches.
	**rotary valve** The cellular wheel sluice (with EC type examination certificate) serves as an explosion barrier in systems with a dust explosion hazard. Ignition protection against explosions of organic dusts of dust explosion class St 1/St 2 is guaranteed It ensures continuous discharge of free-flowing material!
	**material container** For small amounts of dust, mounted under the filter separator. It is emptied manually and is equipped with a plastic bag for safe and dust-free disposal.

The list above only covers a small part of the possible solutions for safe explosion and fire protection in your company.

Ask us, we will be happy to prepare an offer for the extraction system that is right for your company down to the last detail - to ensure added value and to protect your employees and operating facilities!