

## Consequences of fire and explosions

A fire or an explosion can have serious consequences for your company:

- Injury and loss of human life
- Damage to machines, transport facilities and storage space
- Production interruptions
- Loss of income
- Repair / Replacement costs due to damaged machines
- Loss of customers

## The right solution for your food production

To protect your production, your staff and your machines against fire and explosions, GreCon offers you...

- a fast, reliable spark extinguishing system which is especially adapted to your production
- the detection of sparks and glowing particles in the areas at risk
- the immediate automatic diversion of sparks out of the conveying system or water or gas extinguishment – in 99 percent of cases without production interruption
- recording of events down to the millisecond to help identify the cause of a problem

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# GreCon

Fire and  
Explosion Protection  
in the  
Sugar Industry

**GreCon**

Fire  
Protection

**GreCon**

Measuring  
Technology

**GreCon**

Service



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# Sugar

## Fire and explosion protection in the sugar industry

For the production of sugar, the **sugar beets** are **processed completely**. The sugar is extracted, and the remaining chips are pelletised and return to the farms as animal feed.

Sugar dust is highly explosive and requires good extraction systems and explosion protection.

The **drying, pelletising, cooling** and **conveying** processes hold a high risk of fire. Machines and material transport are to be monitored.

A GreCon spark detection and extinguishment system significantly increases the safety and protection of the production facilities. It detects sparks in time and automatically extinguishes them – and has done so successfully for more than 35 years.

## Risks in sugar production

For the **drying of sugar beet chips** in drum dryers, temperatures are up to about **750 °C**. Interruptions of the material flow lead to overheating of the chips, which can cause fire in the dryer and the spreading of fire via **exhaust ducts** and conveying facilities. A further risk of fire is represented by the **pelletising process** where sparks and glowing embers can also be generated. The following **cooling process** leads to an extremely high risk of fire.

Defective machine parts, foreign bodies or high process temperatures can cause overheating, sparks or glowing embers that can cause fire and dust explosions in the mechanical and pneumatic conveying facilities and downstream filters, silos and bins.

## Danger zones in sugar production

Fire or explosions in sugar production can damage or even destroy the facilities.

A GreCon spark detection and extinguishment system monitors and protects the following areas at risk:

- Dryer
- Pellet press
- Cooler
- Filter
- Conveying facilities



Diagram of protection concept for the sugar industry

