

PROCESS

Protecting the production plant and employees: Continuous dust measurement in malt filling

APPLICATION

In an Estonian brewery, beer is produced from yeast, hops, malt, and water. Delivered by trucks, the malt is stored in silos before further processing. When it is needed in production, the malt is being filled into big bags and transported to its place of use in the brewing process.

During the filling, it might occur that big bags are not properly attached, or that they tear. In this case a dust cloud arises and above a certain dust concentration it results in an explosive mixture. Electrical equipment and other ignition sources are in close proximity to this dust cloud, leading to a potentially dangerous situation for employees and the production facility. Therefore, the employees would shut down electrical equipment manually.

PROCESS DATA

Customer: Brewery (Estonia)
Product: Malt
Installation: Big bag filling, vicinity of the silos
Function: Continuous dust measurement of the silos' ambient air



SOLUTION

By installing the AirSafe 2 in the hazardous area of the silos, the dust concentration in the ambient air is continuously monitored and a warning signal is given in case of high dust content. The robust and low maintenance dust monitoring device could easily be retrofitted without any conversion measures.

With the AirSafe 2, the dust concentration in the ambient air of the silos is constantly measured. A trend value over 4...20 mA shows the dust content, an increase is detected right away. Reaching a threshold value, an alarm is triggered, resulting in an automatic shutdown of all potential ignition sources in the hazardous area around the silos, preventing a potential explosion.



AirSafe 2

CUSTOMER BENEFITS

- Continuous monitoring of the dust concentration in the silo area
- Protection of employees and the production facility from dust explosion by early shutdown of ignition sources
- Available in dust zone 22

Monitoring for Powder, Dust & Gas