

Industrial drying systems always harbor an increased risk of fires and explosions. The fire properties of the media change as a result of the removal of moisture. Especially in spray dryers, caking occurs due to the very high entry moisture in case of suboptimal process control. This caking can heat up in the course of operation up to the so-called Maillard reaction. This leads to an exothermal reaction between protein, carbohydrates and water. The resulting heat cannot be dissipated and accumulates until the medium starts a self-combustion. If such glowing embers loosens or opens, it can ignite existing explosive atmospheres and mixtures. The carbon monoxide (CO) concentration in the process is used as a parameter for early detection of such a situation.

Application

The CO.Pilot is a detection system for monitoring of CO concentration in drying plants based on the tunable Laser absorption spectroscopy.

Mechanism

With the help of the CO.Pilot, Maillard reactions, smoldering embers and fires within the processes and systems are detected at an early stage in order to prevent them out as an ignition source for a fire and an explosion.

Visit rembe.de for detailed information and your personal contact.

REMBE[°] GmbH Safety+Control

Gallbergweg 21 | 59929 Brilon, Germany | T +49 2961 7405-0 hello@**rembe.de** In addition to monitoring the CO concentration, the system also provides information about the moisture content of the process air so that your process can always be optimally controlled.

Applications + industry

Chemical industry, flash dryers, food industry, pharmaceutical industry, ring dryers, spray dryers

Advantages

- Unsurpassed precision in the large measuring range (0-1000 ppm).
- ✓ CO and humidity measurement combined.
- ✓ No cross-sensitivities with other gases.
- ✓ Constant comparison with Hitran database.
- ✓ Fast reaction time.
- ✓ Can be adapted to the type of firing by the RFA (REMBE[®] flow algorithm).
- ✓ Optimised sampling.
- ✓ Checking of all gas streams.
- ✓ Adjustment of the limit values depending on the process parameters.
- ✓ Display of the respective absolute measured values in real time.

REMBE® Sustainability: Not only do we provide professional safety for your plant and machinery and protect human life, but our products also avoid harmful emissions sustainably eliminate leaks and/or reduce noise pollution. You can find more information on sustainability at rembegreen.de.