

# Bag Filter Management in Wood Processing

Early detection of filter failures in recirculated-air systems



**Continuous dust monitoring downstream of bag filters helps plant operators detect filter failures earlier and reduce the risk of excess dust being recirculated into the workshop.**



## The Challenge

A German manufacturer of baghouse filtration systems for wood-processing plants needed a reliable way to monitor dust levels in filter outlet ducts. In these installations, filtered air is recirculated back into the workshop, so a filter failure needs to be detected quickly and traced to the affected compartment.

The company had previously relied on differential pressure measurement to indicate problems in the filters. For this application, it needed direct dust monitoring downstream of the filters to detect broken filter bags more quickly.



## The Solution

The original installation used a Sintrol Snifter monitor in the outlet duct of each baghouse compartment. Auto Setup was used to establish the normal dust level after installation, and alarm settings were configured with Sintrol DustTool.

Each baghouse compartment was monitored separately, allowing the affected compartment to be identified directly.



## Results

From three trial plants to 30 installations.

Following successful trials at three plants, the customer expanded the Sintrol solution to 30 plants.

- Faster detection of filter failures
- Faster identification of the affected baghouse compartment
- More targeted maintenance and reduced risk of excess dust being returned to the workshop

## Today's Sintrol solution

Today, Sintrol offers two current product families for filter leak detection and filter performance monitoring.

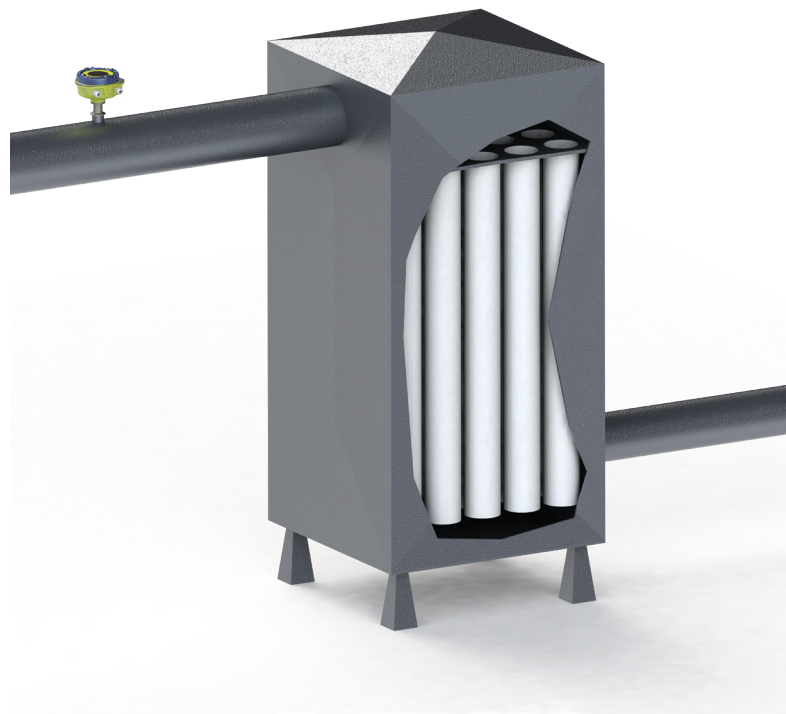
**The S101 / S103 Ex Filter Monitor series** is the updated version of the former Snifter series and is designed for broken-bag and filter-leak detection. S101 provides relay outputs for dust alarms, while S103 provides an isolated 4–20 mA output.

For more demanding industrial applications requiring certified filter leakage or filter dust monitoring, Sintrol offers **the S304QAL-L and S304QAL-D**. The series is QAL-certified according to EN 15859:2010. S304QAL-L provides a relay output for leakage monitoring, while S304QAL-D provides an isolated 4–20 mA output for continuous filter dust monitoring.

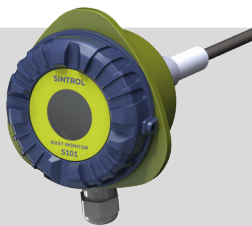
For installations with multiple monitoring points or sites, **Sintrol DustCloud** provides centralized access to measurement trends, device status and alerts from supported Sintrol dust monitors through web and mobile interfaces.

## How it works

Sintrol filter monitors use Inductive Electrification technology. When solid particles contact or pass close to an insulated probe, they generate an electrical signal. The signal is processed using Sintrol's signal-processing and filtration algorithms to provide an indication of changes in dust levels.



## Product portfolio for the case



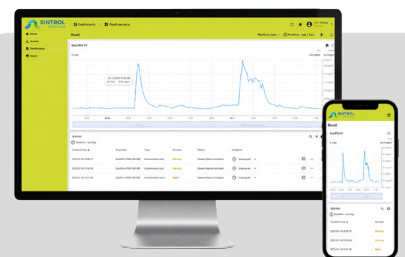
**S101 / S103 Ex**

Broken-bag detection



**S304QAL-L / S304QAL-D**

Certified filter monitoring



**DustCloud**

Centralized access to trends and alerts