

SIMATEK
Filter Technology

SmartPulse
Controller®
EVO II



VC - 3

Continuous evaluation and optimisation of fabric filters

With Simatek's SmartPulse Controller® EVO II, you can continuously optimise and control the operating conditions of your plant's fabric filters.

Patented, state-of-the-art microprocessor technology

Cost competitive and easy to install, the plug-and-play EVO II, is available as an add-on for new filter installations as well as an upgrade to existing filters. It gives continuous analysis of filter operating conditions, enabling reduced compressed air usage and extending the life of your filter bags.

The SPC's microprocessor technology provides faster and more efficient detection and monitoring than PLC-based systems. This minimises downtime and encourages continuous production.

The Evo II is integrated with an IoT-based solution that allows for remote monitoring and analytics of filter conditions.

How it works

The SPC system can control all equipment related to the filter by combining various software controllers in one box – including the master controller, valve controller, hopper controller, the burst bag detection system and fresh air damper controller. It means Simatek can customise a system to match the specific needs of your plant.

The EVO II evaluates the specific filter operating conditions by analysing the rate of change of differential pressure across the filter. As the operating conditions vary within the plant, the EVO II readjusts the filter cleaning parameters to enable optimal cleaning. This ensures that only the minimal required cleaning is done at any point in time.

The parameters that determine EVO II operation need to be entered just once at commissioning enabling simple installation. These parameters are based on specific plant process requirements. All subsequent continuous optimisation is automated by the EVO II.

Main benefits

■
Simple
installation

■
Cost
competitive

■
Reduces fan and
compressed air
consumption

■
Extends
filter
bag life

■
Enables
remote filter
monitoring

■
Provides advan-
ced analytics of
filter operation

■
Savings
reported in
real time



The EVO II's plug-and-play system saves on installation costs: it comes pre-wired, making it easy to install in hours.

Bag and valve diagnostics

A failed filter bag can lead to dust pass-through, pollution penalties and production shutdown. The EVO II has a burst bag detection feature designed to eliminate these risks through rapid and precise failure detection.

In the event of a failed bag, the EVO II will test the area detected repeatedly to positively identify the exact row that contains the failed bag. Once identified, this row will then be removed from the cleaning cycle until repairs can be carried out.

This allows maintenance to quickly pinpoint the damaged bag, isolate the compartment and resolve the issue in a matter of hours. Quick identification ensures the emission does not exceed emission limits and allows the filter system and plant to remain online, enabling continuous production. Once the bag is changed, the EVO II will then re-introduce the row into the normal cleaning cycle.

Proven, tested, dependable

Before leaving the factory, every EVO II unit is tested for 12 hours in demanding conditions and up to 60 degrees Celsius, with type tests down to -40 degrees Celsius.

Each unit is custom-configured for your specific plant requirements. Test equipment in our factory replicates your plant specifications and allows us to test for all possible conditions to ensure smooth installation and performance.

Specialist supervision

Simatek specialists offer installation supervision as well as ongoing monitoring. Online monitoring allows the plant operator to receive specific preventive maintenance suggestions and plan for filter maintenance to reduce unplanned downtime.

IoT solution for Industry 4.0

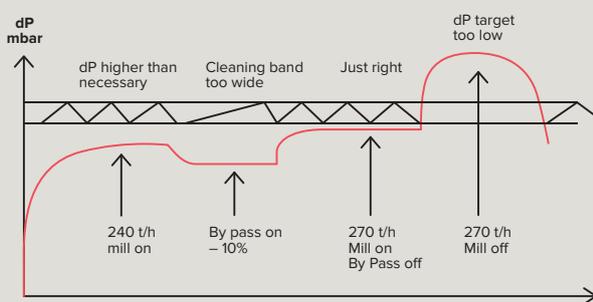
The Evo II has a IoT agent able to help data analytic that can be used to monitor and analyse the process parameters: you will be able to set strategies to optimize the most important KPIs as well as increase your sustainability footprint.

KEY FEATURES

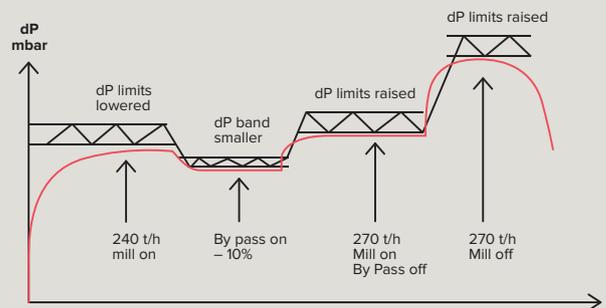
The SmartPulse Controller® EVO II system consists of a master controller, IoT agent, pressure regulator and failed-filter detectors.

- Platform-independent design
- Autonomous system
- Centralised control and monitoring
- Remote connectivity and analytics
- Plug-and-play design
- Software configurable

Normal operation with fixed dP start and stop limits



EVO II auto adjusting dP start and stop limits



Your partner for emission control

Simatek is a leading manufacturer of industrial emission and air pollution control solutions. Our high-value products and systems, optimise footprint, performance, powder recovery and maintenance for industrial plants worldwide. All at a low cost of ownership.

Our emission and air pollution control solution main areas:

- Dust collection and aspiration: A wide range of pulse-jet bag filters designed to work with dust explosion vents and meet international standards and certifications.
- Process air: A range of sanitary and non-sanitary bag filters for the processing industry – including filters with Cleaning-in-Place (CIP) and super-sanitary filters that hold the American 3-A Symbol certification.
- Air Pollution Control technology (APC): A wide range of fabric filter technologies to reduce particulate matter from cement and energy plants.

Our unique bag filter technology and specialised expertise are at the heart of everything we do. Our core team of dedicated employees – alongside our global network of partners and representatives – is ready to help you find the solution that that will best benefit your business. We call this an optimised investment, effectively delivered.

SIMATEK
Filter Technology

Simatek A/S
Energiens hus, Energivej 3
DK-4180 Soroe
Denmark

Tel (+45) 58 84 15 00
Fax (+45) 58 85 41 07
Mail office@simatek.dk
www.simatek.com