

# AWF-e particulate filter

Active regeneration using electricity



## AT A GLANCE

- Continuous particulate filtration of > 99 %
- Automatic regeneration overnight or on week-ends by means of external power supply
- Continuous particulate filtration independent of machinery operation and exhaust temperatures
- Long regeneration intervals of more than 40 hours
- Manual start of regeneration and automatic switch-off
- Function monitoring via PTL filter monitoring and digital display in the cockpit
- No additional operating materials such as additives, etc., required
- Certified system in accordance with LRV (BAFU) and VERT<sup>®</sup>; TRGS 554-compliant

With the »Active Wall Flow-elektric« (AWF-e) Particulate Filter System, we offer you a versatile particulate filter system for machinery and systems that are operated regularly at a fixed location or within a limited deployment radius or for limited periods of time.

This applies, for example, to lifting platforms, municipal vehicles, diesel-powered special machines or industrial trucks of all kinds.

Furthermore, the AWF-e soot particle filter system is excellently suited for applications whose function is power generation. These include CHP units, emergency

power plants, mobile generators and construction site power generators.

The AWF-e soot particle filter system consists of a wall flow filter substrate which is fixed with a flexible sealing mat in a stainless steel housing.

The substrate is provided with a light catalytic coating. The filtered particulate is regenerated using a heating coil that is integrated into the system's inlet hood upstream of the filter element. If necessary, the heating coil generates the required energy to regenerate the filtered soot particles.

## PRODUCT OVERVIEW

- |              |                   |                           |
|--------------|-------------------|---------------------------|
| • Active DPF | Muffler           | Catalysts                 |
| Passive DPF  | Thermal isolation | Spark arresters           |
| SCR-System   | Exhaust pipes     | Pipe Connection Technique |

## FUNCTION

The soot particulate filter works as a pure collector during machine operation and is loaded with particles during the operating time. If the back pressure in the filter reaches a programmed alarm value, the driver is informed that regeneration must be carried out.

Depending on the type of machine and its application, regeneration intervals of up to 40 hours are achieved, so that regeneration can be carried out at the end of the working day or at the weekend.

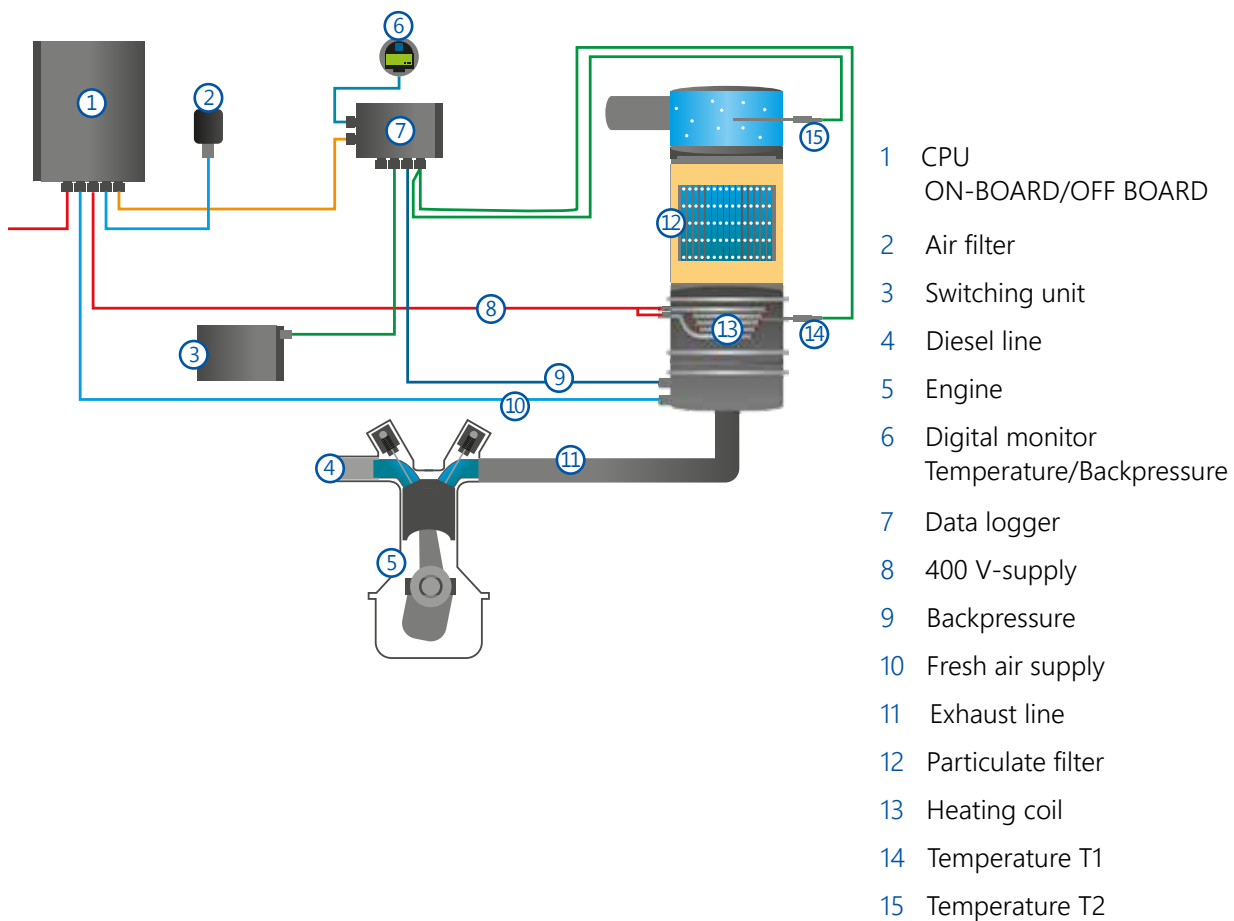
To start a regeneration, the machine must be switched off and the 400V/16A power supply must be established.

The heating spiral is energised via the control and thus generated approx. 600 °C in front of the filter element.

In addition, a blower starts and ensures sufficient oxygen supply during regeneration. In addition, the heat is better transported into the filter channels by the air flow.

Depending on the loading condition of the filter element, a regeneration takes 5 - 8 hours during which the engine must not be started.

## AWF-e FUNCTIONAL SCHEME



Switzerland

TEHAG Engineering AG  
Ratihard 1  
CH-8253 Diessenhofen  
Tel.: +41 52 646 0110  
Fax: +41 52 646 0111  
Email: info@tehag.com



Germany

TEHAG Deutschland GmbH  
Gutenbergstraße 42  
D-47443 Moers  
Tel.: +49 2841 887850  
Fax: +49 2841 8878569  
Email: info@tehag.de