



**Your project – Together we succeed**  
**EXAPOR®SPARK PROTECT -**  
Protection against electrostatic discharge  
and its consequences

**INITIAL SITUATION**

A complex filter system consisting of return filters (wear protection) and high-pressure filters (functional protection) was to be designed for a new series of construction service tractors. The particular challenge was that this application uses a zinc- and ash-free hydraulic oil without electrical conductivity, which means that there is a risk of electrostatic charging and discharging in the hydraulic system.

In the area of the filter elements in particular, the charge can become so great that sudden discharge flashes can occur. In addition to damaging the filter material, this can also disrupt or even destroy electronic components in the vehicle.

During the discharge process, the oil is subjected to high thermal stress. This leads to accelerated oil aging, as a result of which oil aging products are formed, which contribute to the reduction of the filter service life.

In addition, discharges to external components in the form of sparkovers are possible, which can even endanger people. The filter system, consisting of eight in-line filters, had to be optimally tailored to the customer's needs in order to ensure trouble-free and safe operation of the vehicles.

**SOLUTION**

ARGO-HYTOS has developed filter elements with the designation EXAPOR®SPARK PROTECT to meet these requirements. These ensure charge equalization when flowing through the filter material so that the hydraulic oil in the filter element does not receive any additional electrostatic charge.

The filter elements are compatible with standard filter elements and require no conversion or additional effort for possible retrofitting of existing machines. All filter performance data remain unchanged.

- high dirt holding capacity
- excellent filtration fineness
- low pressure drop
- high flow fatigue strength

## EXAPOR<sup>®</sup>

 **Spark Protect**

### CUSTOMER BENEFIT

- Maximum machine availability through reduction of downtimes
- Protection for filter elements and electronic components
- No premature oil aging due to thermal stress
- No reduced filter life and oil change intervals
- Increased machine and operational safety
- Reduction of maintenance and operating costs



### APPLICATIONS



### Curious?

Do you have a similar challenge for us?  
Our experts will be happy to advise you!



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