

Filtration Group Application Example – Automotive Industry

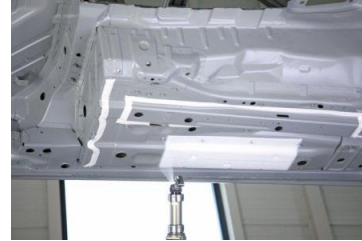
Automatic metal edge filter for highly viscous media



Factory Equipment

Initial situation

Due to their variety of properties, plastics are the key to technical innovation in the automotive sector. PVC is the third most important plastic in this application with a share of approx. 10 %. Parts made of PVC are durable or have special protective functions for other materials. For example, PVC plastisols used as underbody protection prevent the corrosion of a motor vehicle. In the automotive industry, the metal edge technology of Filtration Group has been used here for many years. Filtration Group has selected an **AF 71 H automatic metal edge filter** for the filtration and homogenization of highly viscous PVC.



Solution statement

- Filtration Group uses a FG automatic metal edge filter type AF 71 H for this application
- Due to the composition of the PVC media (fillers), filtration is a finely tuned process step. Only then can the vehicles be optimally protected and meet the high optical requirements for the paint shop.



Customer value

- No consumption of filter material and associated reduction of handling costs
- The service provider for filter cleaning no longer needs to be employed
- Cleaning can be done during the process, thus less downtime due to element change
- With the metal edge filter constantly high PVC quality is ensured
- The manual AF 71 H can easily be automated, so manual efforts will be further reduced
- Low initial differential pressure due to optimized flow characteristics and filter efficiency



Challenge

Due to the composition of the PVC media (fillers), filtration is a finely tuned process step. Only then can the vehicles be optimally protected and meet the high optical requirements of the paint shop. Filtration Group has selected an metal edge filter for the filtration and homogenization of highly viscous PVC.

Here the PVC pastes range between approx. 2,000 - 4,000 mPas at 40°C. Filtration Group worked closely together with the fluid supplier to find the perfect solution for the end customer. The critical point was to find the right filter efficiency that filters out all the harmful particles and agglomerates but leave all relevant additives and protective ingredients in the fluid PVC. We supplied several test filters to find the right solution. All tests were implemented together with the fluid supplier

The final solution was a metal edge filter AF 71 H with an efficiency of 250 µm. The filter contains a metal edge filter element that can be cleaned manually without process interruption.

