



TOTAL FILTRATION SERVICES

Improving Paint Booth Operations for an Automotive Supplier

Customer Case Study



PROFILE

The customer involved in this case study is a tier-one automotive supplier that manufactures vehicle interior, exterior, and wheel trim. After years of purchasing their filters from a local MRO supplier, they began partnering with TFS to improve their filtration.

CHALLENGE

One of the early challenges the customer communicated to TFS was the discontinuation of the paint catalyst filter they had been using in their paint kitchen, which supplies all of the paint that is applied to the products being manufactured.

The catalyst filter is a liquid cartridge that filters the paint coming from a kettle that holds the primer and primary color. Although most paint manufacturers say their paint is already filtered, the catalyst filter is critical in the paint process, as it removes any potential contaminants that could cause defects or clog paint guns.

The previous supplier was unable to recommend an alternative product after learning the existing filter had been discontinued. This is a common issue when purchasing filters from an MRO supplier, as they are used to ordering off a list and typically rely on customers to identify the right replacement product.

With several thousand SKUs to keep track of, filtration is not their core business and is often considered an afterthought. Because the customer had always used the discontinued filter and lacked the technical knowledge needed to identify a replacement, TFS was asked to offer a solution that offered improved performance.

THE TFS SOLUTION

The customer was concerned about switching to a new product, but trusted TFS filter experts to identify a new solution that could provide equal (or improved) performance. Upon further review of their application and discussing the findings with a trusted filter manufacturing partner, TFS recommended replacing the previous catalyst filter with the Coax Series cartridge from Graver Technologies.

In addition to the product substitution, TFS also recommended the customer modify their change-out schedule, as the product specifications allowed for it. At the time, the customer had established a best practice of changing out the catalyst filter twice per month, regardless of how it was performing, or how the pressure gauge was reading. While the schedule-based change process is common practice for manufacturing facilities, it can lead to spending much more on filter replacements than what is truly necessary.

TFS ran a trial with the new filter and change-out recommendation in one of the paint systems to ease the customer's concerns of filter collapse, as such a failure would result in contaminants being released into their system and causing quality defects and costly equipment repairs.



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RESULTS

Upon agreeing to the trial, the customer installed the new catalyst filter and began monitoring the pressure gauge. Within two weeks, the customer began seeing improvements, as the new filters were performing well and lasting significantly longer. The 7-week trial run produced satisfactory results:

- The customer monitored the pressure gauge throughout the trial and successfully maintained pressure for 7 weeks. They are now confident in changing this filter every four weeks rather than every two weeks.
- The TFS solution lowered the customer's total cost of ownership by reducing the cost of labor for this application by 50%, as filters are now lasting twice as long.
- The TFS solution also reduced the amount of hazardous waste disposal for this application by 50%.