



Global Filter's extensive knowledge of media characteristics and process optimization while offering flexible solutions helped reducing both the filtration cost and operator exposure to harmful products.

## THE CUSTOMER

A global leader producing fine chemicals for pharmaceutical drugs, based in Europe approached Global Filter for help with processing of their high-purity products. As a manufacturer of active pharmaceutical ingredients (API) and vaccines, protecting employees and consumers from harmful process components while ensuring product consistency, was a top priority.

## THE INITIAL SITUATION

The customer filtration process included a step removing any hydrogenation catalyst particles not captured by the prefilter, specifically filtering the catalyst used in the production of dronedarone in a solvent environment. Their existing 0.2 micron PTFE membrane cartridge met the required removal efficiency but the customer needed help optimizing their final filtration process while minimizing exposure to their operations personnel. In case of pre-filter failure, the maintenance cost was high and potentially dangerous with their existing filtration solution: the large amount of catalyst particules would pollute not only the vessel but also the surrounding environment.

Plus its outside to inside flow design allowed for potential operator exposure to the catalyst during filter changes. As a result, routine maintenance became complicated and time consuming, not to mention potentially dangerous.

## THE SOLUTION

Global Filter developed a custom 0.2 micron absolute 100% **Polypropylene High Flow** cartridge for this customer (**HF-series (PP)**) which offered a cost effective solution compared to the previous PTFE membrane cartridge. Migration tests in the customer's solvent environment were conducted to verify compatibility of the **HF-series (PP)** cartridges with their process. Additionally, the **HF-series (PP)** element was securely retaining catalyst contaminants on the inside of the element rather than on the outside preventing pollution in case of pre filter failure. The maintenance was also simplified as fewer cartridges need to be changed and the vessel stays clean.

As a result of switching to the **HF-series (PP)**, the customer was able to reduce maintenance time and costs as well as harmful chemical exposure to their employees. Ultimately, Global Filter was able to offer a significant cost savings, not only as a result of a **38% reduction in filter spend**, but also in the form of reduced changeout labor and improved employee safety.

