

Case study - Axiom Process - Ultrafiltration

Axiom Process specialises in hygienic engineering, with expertise in filtration and membrane separation technology. From their base in South Wales, they serve their diverse customer portfolio across pharmaceutical and biotech industries as well as dairy, food, beverage and chemical. They have a reputation as one of the UK's leading hygienic engineering companies and have designed and manufactured an extensive range of hygienic process systems over the last 2 decades.

Whilst designing their latest filtration pilot plants, Axiom Process sought a reliable centrifugal pump manufacturer who could assist them. Due to our strong historical partnership with Axiom, Verder is their first choice on such process pumps.

The application

Designed for use with a variety of ultrafiltration and microfiltration membrane types, these hygienic plants are easily configurable for a wide range of applications. The pilot plants can be trialled at Axium or at the customer's site. The plants are used to obtain important process data that enable scale up and a full-sized filtration plant to be designed and manufactured.

Although the specific details of any new process developments are covered under NDA's, Axiom pilot plants are commonly used for the concentration, isolation and purification or clarification of a diverse range of liquid feed streams. Axiom has supplied several of these pilot plants to industry and various universities for R&D purposes.

Hygienic cleanability is imperative due to the different material's processed through the plants. The data collected is invaluable to ensure future steps taken are the right ones, as Axiom continue as a filtration expert.

Solution

After a technical consultation with Verder, and knowing the quality of our centrifugal pumps, the FP2 range was selected. These pumps are perfectly cleanable for hygienic applications and provide the correct parameters for the flows and duty points required. The surfaces are electropolished to eliminate the build of bacteria and increase the pumps resistance to corrosion, therefore decreasing downtime and maximising efficiency. Due to the modular concept, they are easy to maintain, another important feature for membrane filtration pumps.

System features include Axiom Pure-Screen prefilters with interchangeable filter elements, IO-Link communication for trouble free setup and operational visuals all provide critical information.



Results

Axiom and Verder have a longstanding relationship built on trust for our Packo products and excellent technical consultation through the years, so it was only fitting that Verder were approached for this project. The selected FP2 pumps have been installed and are working according to specification, with no issues to date.

Jamie George, Projects & Business Development Director, at Axiom Process said: "Aside from the historical relationship, Axiom chose to work with Verder due to the excellent level of customer service and technical support and the quality and reliability of the equipment".

The Packo FP2 range is ideal for a variety of applications, including filtration, across many sectors. It is a reliable pump with excellent features that can be tailored to your application. [Find out more here.](#)

