

X-FLOW - PERFORMANCE SCAN ULTRAFILTRATION SYSTEM CHECK

THE BASIS FOR BETTER PERFORMANCE AND OPEX REDUCTION

Pentair is dedicated to the optimal functioning of your X-Flow filtration system. Is it working as well as it should? Are you getting the most out of it in terms of quality and capacity? How much do you stand to gain by replacing your current membranes with compatible new generation membranes?

The Performance Scan is the easiest and fastest way to answer these questions. It provides a clear overview of the system status. It can target any specific issue or

concern that may have shown up during operations. And it tells you when the time has come to decide on the most effective upgrade.

The Performance Scan is always aimed at lower operational costs and better system performance. As a frequent check, it is the best tool at your disposal to ensure the continuous optimization of your UF system. Many operators seize the opportunity to renew their KPI's, starting afresh with a new benchmark for production goals.



SYSTEM OPTIMIZATION

Our Service management department works closely together with R&D and project engineers to ensure you can continue to meet production goals in the most cost-efficient manner. Effective system optimization must start with the facts. They are presented by the Performance Scan, which also provides:

- An overview of optimization opportunities
- A detailed explanation of all optimization actions and their effects
- A new system projection to provide insight into plant operation after optimization

MemScan

Before the site visit, all information relevant to the Performance Scan targets

is gathered in a collective effort. The data may include specific operational issues, but generally serve to create a comprehensive picture of your system's current performance. A MemScan often provides essential additional information about the actual condition and fouling levels of your membranes.

Site visits & Data collection

The site visit starts with an operator interview, in which the system and operations are discussed in detail. A general inspection reviews the separate functional elements in your system, including the feed and filtration units. Any gaps in the data collection are filled in during this step, which gathers site-specific facts on feed water and permeate quality, TMP's and chemicals usage.

COST-EFFICIENT IMPROVEMENTS

No UF system can work miracles indefinitely, and continued performance will always depend on proper operation and maintenance. Even if the MemScan shows your membranes are still up to the job, it makes sense to find out how your system can be improved in the most cost-efficient manner.

For example, if your UF system is comparable to most, chances are it has been operating at the same settings ever since it was first installed. Your monitoring system detects no reason to intervene, but most likely the feed water quality has changed, the TMP will have risen slowly over the years, while the CEB dosing probably never has been checked.

The Performance Scan provides you with all detailed information you need to keep your UF system in perfect working order. As a comprehensive system check and data collection process, it is indispensable if you want to look ahead and realize performance improvements.

| PERFORMANCE SCAN ITEMS | PERFORMANCE SCAN RESULTS | PERFORMANCE SCAN BENEFITS |
|------------------------|---------------------------|---------------------------|
| Feed water quality | Optimization options | Improved overall recovery |
| Permeability | Fresh KPI overview | Reduced chemicals usage |
| CEB settings | Module status | Higher KPI score |
| Chemicals usage | Operator training | Effective cleaning |
| Filtration settings | Updated system projection | Reduced repair expenses |
| Physical condition | Cleaning advice | Less downtime |
| Permeate quality | | |
| TMP | | |
| Recovery | | |
| AIT testing | | |

ABOUT X-FLOW

Membrane filtration pure and simple

Advanced membranes are our business. We help equipment manufacturers, engineering and construction contractors to exceed expectations with membranes that make the difference, even in the most challenging tasks and conditions. Focused on practical and economical progress, we develop filtration technology with the lowest total cost of ownership and the highest efficiency.

X-Flow is the international membrane brand of Pentair, the global water, fluid, thermal management, and equipment protection partner. Pentair addresses some of the world's most pressing problems related to food, water and energy with innovative filtration products, services and technologies.

With X-Flow, Pentair delivers membrane technology to OEM's, partners and contractors through a worldwide distribution



network. We pride ourselves on going further than the competition by proactively supporting clients with today's most effective technical solutions. The X-Flow Membrane+ Approach helps our clients in solving any specific project-related problems, often before they even occur. Our engineers are committed to provide all the practical support required in every project phase from conceptual design to start-up and beyond: our services include maintenance support and tailor-made training sessions to enable organizations to continuously improve operations and reduce operational costs.

Membrane filtration purifies a liquid by separating it from unwanted particles as small as molecules. Our history in membrane development is one of continuous innovation, yielding competitive technology for producing potable water, cleaning and recycling waste and process water, and a range of industrial (non-water) applications in the food, beverage and pharmaceutical sectors.

With X-Flow, Pentair continues to evolve as a membrane innovator. With our dedicated laboratory, R&D and production facilities in the Netherlands, we turn ideas into new opportunities for customers. Our track record of development and multiple product awards has brought X-Flow membranes to filtration projects around the world. It has earned us a reputation of quality and reliability, and the trust of many long-term clients. Everyone at Pentair is proud to work on sustainable solutions in a changing world.



FOR MORE INFORMATION ON
REPLACEMENT AND PLANT
OPTIMIZATION, PLEASE CHECK
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