

Claris® Filters Extend Reverse Osmosis Membrane Efficiency



THE CHALLENGE

Traditionally, Reverse Osmosis (RO) plants use string wound or melt blown polypropylene 0.5 to 5 micron prefilters to protect the more costly RO membrane filters. During change-out, a stringy, slime-like substance is often found covering the inside of the filter housing. This contaminant is caused by air mixing with hydrogen sulfide.

The presence of this substance causes downtime and a mess that requires clean-up by maintenance engineers. Not only is the cleaning experience unpleasant, but the contaminant penetrates the filter cartridges and coats the RO membrane. This, in turn, causes additional downtime and increased costs. The fouling of the RO membranes results in reduced production efficiency and increased labor costs for membrane cleaning.

THE SOLUTION

Pall's Claris[®] Series melt blown filters were tested in place of string wound filters, and the results were outstanding. With the Claris filter cartridge, your facility may no longer experience fouled membranes, and the contaminants that are described by a customer as "egg drop soup." With Claris filters, concerns that contaminants would pass through the cartridge filters are eliminated. Furthermore, on-stream service life can be extended, thereby reducing filter costs as well as the number of change-outs.

THE RESULTS

The Claris filter cartridge is manufactured using a highly automated process that produces an extremely consistent product with a low unit cost. The long, on-stream life cycles of the Claris filter are attributed to the high void volume, which provides improved dirt holding capacity. The Claris filter also features a patented extruded fibrous core design. This E-core provides high collapse strength, thus extending the cartridge life. The thermally bonded polypropylene fibers maintain their structural integrity, thus preventing contaminant unloading. This structure is unlike wound filter cartridge fibers and competitive melt blown products, which have less fiber integrity.

THE BENEFITS

Overall, your facility will experience a tremendous increase in filter performance, without an increase in filter costs. Switching to the Claris Series filter cartridges can save over 50% of the original filtration and labor costs. The specific benefits include:

- Less downtime for cleaning the prefilter vessels and costly RO membranes, thus reducing overall costs
- Extended filter life, coupled with lower unit filter cost, can reduce total filtration cost by more than 50%
- Claris melt blown filters did not unload contaminants, leading to improved RO membrane protection and longer membrane service life
- Filter change-outs can be reduced by 50% due to the longer on-stream life cycle of Claris filters



prelude

Pall Water's range of Prelude[™] <u>filtration and</u>

pretreatment solutions are trusted to protect your membranes, your systems, and your investments. Additionally, a number of our trusted solutions are NSF / ANSI 61 certified for compliance in Drinking Water applications.

- Disposable pretreatment products designed to protect your membrane system
- Filters and housings are engineered to solve complex water treatment challenges
- Solutions for municipal and industrial applications



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