

Schroeder Provides RF3 As Successful Pre-Filtration For Cartridge Filters

Background

In many water treatment plants where drinking water is produced from brackish water, a pre-treatment solution consisting of fine filtration and downstream reverse osmosis is often employed.

Problem

A water treatment customer was looking to incorporate the above mentioned process to better extend the life of the cartridge filters being used.

Solution

A Schroeder Industries representative suggested using a superior Automatic Self-Cleaning Strainer (RF3) for the pre-treatment filtration process. The customer became interested in testing this solution.

The goal of the test was to prove and evaluate the RF3's capabilities in the pre-treatment stage when producing drinking water from brackish and sea water.

The test revealed that the RF3 is ideally suited to protecting the cartridge filters. The particle contaminants which consisted of fine sand, were continuously removed from the untreated water which meant that the fine filter cartridges had a considerably longer service life. Retrofitting the backflushing filter in the water treatment plant demonstrated the economic and technical advantages of this concept.

Specifications

Type of Machinery: Reverse Osmosis Water Purification System

Fluids Addressed: Process Water

Schroeder Product: RF3 Series

Flow Rating: 1760-2640 gpm (6670-10,000 L/min)

Results

Upon implementing an RF3 as a pre-treatment filtration solution, the customer experienced extended service life of the cartridge filter elements to several months. Maintenance costs and energy consumption were both reduced and process reliability was increased by successfully removing the sand particles prior to the reverse osmosis process.

Furthermore, it was demonstrated that retrofitting the Schroeder RF3 into an existing system is not difficult due to its space-saving, flexible design. In addition, the self-cleaning, robust stainless steel filter elements mean that there are no recurring additional costs. In the meantime, this design has now been successfully implemented in a number of other water treatment plants which had similar problems with fine sand contaminants.



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