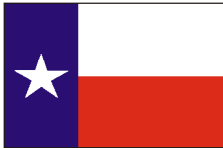




SMITH & LOVELESS INC.

System Application

FIBROTEX® Filtration System Achieves SDI Reduction Prior to RO System



Application Profile: El Paso, TX
S&L Equipment: FIBROTEX® Filter
Installed: 1993

FIBROTEX®, the spirally wound backwashable depth filter, made a positive impact on El Paso Electric's feed water for their Reverse Osmosis (RO) unit. The fully automatic system quickly reduced the Reverse Osmosis system's influent Silt Density Index (SDI) from 15 to less than 3.

The Reverse Osmosis system in the Rio Grande Power Station of El Paso Electric had historically been plagued with reduced membrane performance. This was the direct result of inadequate pre-filtration of the feed water through cartridge filters. Subsequently, the membranes were replaced frequently.

El Paso Electric sought to improve the RO performance by first improving the level of pre-filtration for the RO system to a level where the feed water SDI was consistently less than 5, and second by minimizing the volume of water wasted during filter backwashing. To accomplish these goals, El Paso Electric explored several options and selected one of the newest technologies, FIBROTEX®. El Paso Electric ran a pilot test using the FIBROTEX® AX5 system. As a result of the pilot test and FIBROTEX®'s installations and test data, a system was purchased and installed. This installation was the first of its kind in the United States. Other installations are found in the United Kingdom and Europe.

El Paso Electric was not only pleased with FIBROTEX®'s performance, they were also pleased with the reduced volume of water required to backwash the system and the smaller floor space of the unit. In comparison to traditional multimedia filters, the FIBROTEX® requires 80 percent less backwash and 75 percent less floor space.

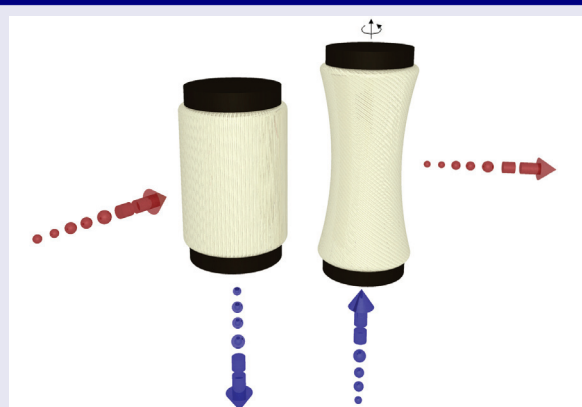
Recently, El Paso Electric purchased a new 75 gpm, two pass RO system. The FIBROTEX® was relocated to protect the new system. El Paso Electric is extremely pleased with the FIBROTEX® because the performance and life of the product has exceeded their expectations. After more than three years of service, the original nylon filter is still in service and continues to produce an SDI of less than 5.



The FIBROTEX® fine filtration system serves as excellent pre-filtration device prior to reverse osmosis (RO). At El Paso Electric, the system achieves SDI reduction below 5, thus protecting the integrity of the RO membranes. In addition, as seen above, FIBROTEX® utilizes a minimal amount of floor space, typically less than 25 percent of the area required with conventional multi-media filters.

The El Paso Electric FIBROTEX® installation led the way in the U.S. to many more RO pre-filtration installations. For more information on these, please contact Smith & Loveless or visit www.smithandloveless.com

FIBROTEX Filter Element Operation



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