CASE STUDY

Industrial Reverse Osmosis

Date: 2013

Country: USA Keywords: Limescale, Reverse Osmosis, Factory

Distributor: Hydroflow Holdings USA

The reverse osmosis system operated on well water with a hardness of 200ppm. The attached water softener was not fully protecting the system – after 6 months, the rejection percentage had increased to 98.5% from 96% for a newly-cleaned membrane (or 92% for a new membrane). The cost of maintaining the RO System was roughly $10,000 per 18 months.
Hydroflow was fitted to increase production capacity and reduce costs.

Results

- A significant improvement in the production water flow rate was achieved within two weeks.
- Exceptional improvement was achieved as soon as the water softener was bypassed (end of day water level increased from 1 foot to 8 feet).
- Within a few weeks, production capacity went up from 12,000 to 18,000 gallons per day.
- The increased flow rate did not affect the production water quality in a negative manner.
- Savings due to lessened maintenance and lessened damage to the membranes is roughly $8,000 per 18 months.
- As of October 31, 2013 (9 months from installation), the rejection percentage was maintained at 93.8%.