

Cost Effective Sustainability for leading manufacturer, UK

Manufacturing | Case Study

The Client

UK based, world leading manufacturer of household cleaning, personal care and healthcare products. At their personal and healthcare products manufacturing facility, all the process water is treated to comply with the US Pharmacopoeia (USP).



Key Figures

- £50k per annum saving
- Two year payback

The Client's Needs

USP compliant process water on the site is supplied by three water purification systems: two Veolia Orion® units and a new Veolia IonPRO™ LX. All three plants use a combination of softening, activated carbon filtration, reverse osmosis and continuous electro-deionisation to produce treated water of conductivity 0.2µS/cm and bacteria count 10cfu/ml. The wastewater from the three purification units amounts to some 70,000m³ per year which is discharged to sewer. The Client is committed to sustainability, an important facet of which is a reduction in water footprint. They turned to Veolia Water Technologies for a solution to reduce water waste.

The Solution

Veolia designed a water recovery system, which piped the pressurised concentrate streams from the three treatment plants to a central recovery tank. From here the mixed wastewaters are fed to two Sirion™ Maxi recovery reverse osmosis units, specially designed to handle the concentrated wastewater. The system recovers about 50% of the wastewater that is returned to the raw water tank for re-processing. The resulting reduction of 35,000m³ of raw water which would otherwise be purchased from the municipal water supply, together with a similar reduction in sewer discharge gives an annual cost saving of approximately £50,000 and a return on investment of less than two years.

The Results

- Annual cost saving of £50k
- Reduced mains water consumption
- Reduced wastewater discharge to sewer
- Sustainable solution