



Rotterdam Harbour DWP

Centralised demineralised water for the Rotterdam harbour

Clients



The Rotterdam harbour area is one of the largest refinery and (petro)chemical clusters in Europe. A total of five oil refineries, more than 45 chemical companies, and five vegetable oil refineries produce chemicals, fuels, and edible oils and fats. Collaboration within the cluster enhances the benefits of synergy in the value chain in which Evides Industriewater plays an important role through of a centralised demin water plant. Some 25 industrial companies from the oil refining (3), petrochemical (12), food (2) and pharmaceutical industries obtain high quality demin water for the production of, for example, steam, energy and products.



Case

Since as long ago as since the seventies, Evides Industriewater has supplied distilled water to the industry in the Port of Rotterdam. Due to increasing quality standards and reliability expectations, the existing distillation facility was no longer suitable. Its replacement would require a production installation that could guarantee 100% availability, while coping with increasing salinity of the feed water over a period of several decades. The new centralised installation would also have to meet the demands of the various end users with respect to:

- supplying of high quality demin water via a redundant pipeline system;
- flexibility in handling normal and peak capacities;
- experienced asset and contract management;
- reduced Total Cost of Ownership.

Solution

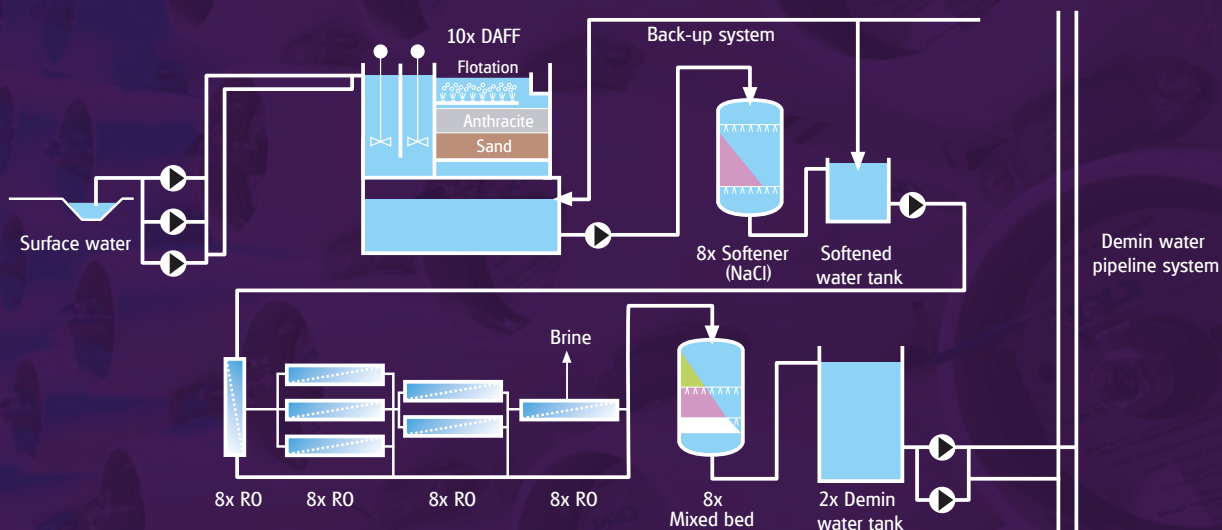
Over a period of nearly 50 years, Evides Industriewater has developed the competences and knowhow in the treatment of surface water for the production of industrial water. Applying this knowledge, Evides Industriewater has been able to design and build an installation that can operate on two separate sources of feed water to ensure maximum availability. Evides Industriewater developed a business case for owning and operating a centralised demin water plant by:

- pre-financing the investment;
- designing and building a state of the art demin water plant (1,600 m³/h);
- multi-client contract management;
- handling the day-to-day operation and maintenance.

Features

Start of operation	2010
Pre-treatment plant in	2011
Products	Polished demin water for a large number of (petro)chemical companies
Source	Surface water (back up: drinking water)
Companies connected	25
Max. capacity	1,600 m ³ /h
Technology	DAFF, VRO-RO-IX (MB)
Conductivity	< 4 µS/cm
Total Organic Carbon	< 50 ppb
Redundancy	N-1

Process flow diagram of DWP



Your innovative water partner

As part of Evides, the Dutch drinking water company, Evides Industriewater has been a reliable and inventive water partner for the industrial sector for nearly 50 years. Evides Industriewater supplies nearly 150 million m³ of process water each year (of which 20 million m³ via re-use solutions) and treats a similar quantity of waste water.

These services are provided via almost 90 facilities, which are built, owned and operated by Evides Industriewater throughout Northwestern Europe.