

PROFILE

# BWA WATER ADDITIVES

The desalination process requires the assistance of powerful chemicals and anti-corrosives.



BWA's technologies are playing a role in the expansion of desalination capacity in the region.

**What does BWA Water Additives do?**

We are a specialty chemical supplier, specifically in the area of additives that make water better, either for industrial or drinking water applications.

Our principal technologies are antiscalants, which prevent scale build-up and are especially useful in oilfield and desalination applications; corrosion inhibitors, which prevent the and

corrosion of pipes, which is also useful in oilfield and other industrial applications.

Other technologies we offer are industrial biocides, which kill a broad spectrum of bacteria and prevent Legionaire's and other deadly diseases; and finally desalination chemistries, which are necessary in the process of converting sea water into drinking water.

**What is the company's biggest breakthrough?**

If I have to name only one, I would say our initial discovery and subsequent additional intellectual property development of the utility of PMA (polymaleic polymers) as an antiscalant for desalination applications.

This antiscalant technology achieves the full effectiveness required for

desalination, oilfield and other industrial applications, and is the first-ever, fully biodegradable antiscalant... a true 'breakthrough' from our scientists in Manchester, UK.

New biodegradable antiscalants based on BWA Water Additives' maleic chemical technology are now being launched throughout the Gulf region from BWA's new regional headquarters in Dubai.

**Why is this particularly important for the Middle East?**

Desalination is the process through which sea water is distilled to produce drinking water – the primary means of providing drinking water to the Middle East.

The abundance and relatively low cost of fossil fuels throughout this region has supported the widespread development of thermal desalination techniques, typically multistage flash and multi-effect desalination.

In both processes, the thermal evaporation of seawater drives the formation of inorganic deposits which reduce heat transfer efficiency and shorten distiller lifetime. Such deposits are controlled using BWA's antiscalant products, thereby maintaining process efficiency.

BWA's innovative technologies are playing a significant role in the rapid expansion of thermal desalination capacity throughout the region. Owing to the demands of energy conservation and the development of new membrane types, we are also seeing expansion of reverse osmosis desalination capacity, which can similarly suffer from deposit problems, and which BWA can also help control with proprietary polymer chemistry.

**Describe the demand for water treatment in the region...**

The demand for water treatment is high, both for drinking water production and industrial applications. Industrial expansion and population growth in the region has and will continue to drive



Paul Turgeon, president and chief operating office at BWA Water Additives

Desalination is the process through which sea water is distilled to produce drinking water – the primary means of providing drinking water to the Middle East. The abundance and relatively low cost of fossil fuels throughout this region has supported the widespread development of thermal desalination techniques, typically multistage flash and multi-effect desalination.

strong need for many different types of water treatment additives. Apart from the need to reliably produce and distribute water for human consumption by seawater desalination, water is used in virtually all manufacturing and building maintenance processes.

Where water is used, say, in shopping mall air conditioning units, or in the boiler systems of aluminium manufacturing plants, changes in water temperature, pH and concentration will

drive inorganic deposit formation, metal corrosion and biological fouling. These effects can be managed by the skilled use of deposit inhibitors, corrosion inhibitors and industrial biocides. BWA has developed several successful industrial water treatment product ranges, with technologies which are well-targeted to meet the needs of specific business sectors, such as desalination, oilfield and industrial applications.

**In which Gulf states are you seeing the strongest appetite for your services?**

We conduct business across the region, and the size of our business in each country is proportionate to its relative size (in terms of population and industrial development). Power and water privatisation trends, which started in the UAE and are now common throughout the region, tend to focus project management effort toward driving efficiency. This is where BWA is providing direct assistance with bespoke product recommendations and techniques for effective measurement and control.