



# Mobile Water Services

Emergency, Planned  
and Multi-Year Water  
Treatment

**WATER TECHNOLOGIES**

# Anytime Anywhere

Veolia Water Solutions & Technologies offers Mobile Water Services to industries using purified water for their production lines or utilities.

This service constitutes a large fleet of mobile water treatment units that may be deployed as stand-alone units or combined to form complete systems using proven and up-to-date water purification technologies.



## Modular

- Skid mounted systems
- Containers
- Trailers

## Emergency Rental

Continuity of the production cycle is essential. A Mobile Water Services services engineer will operate the equipment if required. Based on a comprehensive onsite survey, Mobile Water Services can anticipate your needs in the event of water treatment plant failure, and develop a React site response pack which ensures that your water is treated securely and quickly.

## Proven

- Clarification
- Filtration
- Activated Carbon
- Softening
- Reverse Osmosis
- Demineralisation
- Ion Exchange polishing



## Planned Temporary Hire

Planned temporary Mobile Water Services are typically used for new plant commissioning applications such as:

- Water Reuse
- Water Shortages
- Chemical Filling
- Hydro Testing
- Unexpected changes to water quality
- Condenser Cleaning
- Pipe Cleaning
- Condensate Polishing
- Start Ups and Shut Downs

Operation & maintenance: Once installed and commissioned our local service engineer will visit your site regularly to ensure that the unit is operating correctly, chemical supplies are topped up, filters are replaced.

Full time on-site operators (including nights and weekends if required) can be provided at the customer's request.



## Long Term Contract

Thanks to our full on-site service, temporary hire contracts can move to long term (up to 7 years).

## Water Pre-Treatment

Mobile Clarification, Filtration and Activated Carbon – solutions to treat potable, borehole, surface or sea water:

- ACTIFLO™
- MOFI™



### APPLICATIONS

- Suspended solids and colloid removal
- Removal of heavy metals (iron, lead, cadmium, zinc)
- Manganese and nitrate reduction
- Chlorine removal
- Organic pesticides and COD reduction
- Recycling of treated wastewater
- Sea water conditioning

### BENEFITS OF MOBILE WATER SERVICES

- Compact
- Designed for low and high capacity flowrates
- Continuous or intermittent production

## Water Softening

Mobile automatic or manual Softening solutions:

- MOFI™
- MOSO™



### APPLICATIONS

- Filling low pressure heating and cooling tower circuits
- Filling low pressure boilers
- Pre-treatment for reverse osmosis
- Food & Beverage applications

### BENEFITS OF MOBILE WATER SERVICES

- Simple process
- No chemical handling
- Cost effective solution

## Demineralised Water Quality

Mobile Reverse Osmosis, Ion Exchange Exchange, De-ionisation and Evaporation:

- MORO™
- MODI™
- Evaporators (vacuum, mechanical vapour recompression)



### APPLICATIONS

- Large range of water qualities
- Ultra pure water conditioning
- Production of low quality deionised water (surface treatment, painting)
- Sea water desalination
- Final treatment after DI plant
- Colloid silica reduction

### BENEFITS OF MOBILE WATER SERVICES

- No regeneration required
- High capacity
- Continuous production
- Cleaning-in-Place (CIP)

## Pure Water Quality

### SMALL AND MEDIUM CAPACITY

Mobile Reverse Osmosis and Mixed Polishing solutions to produce pure water:

- MOFI™
- MORO™ & MOFI™

### HIGH CAPACITY PLANTS

Mobile Reverse Osmosis and Ion Exchange Demineralisation solutions to meet the most challenging qualities and quantities of treated water:

- MOFI™
- MORO™ & MODI™



### APPLICATIONS

- Filling of medium pressure boilers
- Injection water for gas turbines
- Production of high quality demineralised water
- Removal dissolved silica
- Pharmaceutical applications
- High pressure boilers (coal, nuclear, combined cycles)
- Commissioning for power industry

### BENEFITS OF MOBILE WATER SERVICES

- Two streams per MODI (Duplex-configuration)
- Minimal chemical handling

## Ultra pure Water Quality

Mobile Reverse Osmosis, Ion Exchange Demineralisation and Final Polishing units to produce high resistivity Water quality with low Silica content and Sodium (< 2 ppb).



### APPLICATIONS

- Water Quality up to 0.08  $\mu\text{S}/\text{cm}$
- Filling of high pressure boilers
- Filling of cooling circuits for nuclear plants
- Critical process applications

### BENEFITS OF MOBILE WATER SERVICES

- High capacity



# Why choose a mobile water system from Veolia Water Technologies?

Mobile Water Services offers mobile solutions including modular treatment plants, for industries with short, mid or long term purified water needs.

- Planned and temporary maintenance work
- Commissioning and Decommissioning of facilities
- Emergency response
- Delays in the delivery of new systems
- Peak demand coverage
- Variations in feed water quality

## **Benefits:**

- 24 hours, 365 days of the year
- Rapid response across The Region
- In-market off-site regeneration stations
- Flow rates 1-400 m<sup>3</sup>/h
- Diverse application base
- Stringent Health & Safety standards
- Technical expertise

## **Our markets**

Demand for mobile water services is growing year on year. Our customers come from a wide range of markets including:

- Power generation
- Oil and Gas
- Petrochemicals
- Food & Beverage
- Pharma
- Pulp & Paper
- Metals
- Waste water



# Case Studies



## INEOS ChlorVinyls

### Cooling Tower maintenance

INEOS ChlorVinyls is a major manufacturer of industrial chlor-alkali chemicals, a global leader in chlorine derivatives and Europe's largest PVC manufacturer.

#### CLIENT'S CHALLENGE

The company's wooden cooling towers needed to be replaced, but shutting down the entire cooling system would result in lost production.

The decision was taken to replace the towers one by one. During the process cooling water contaminated with demolition debris, flowed into the sump of the off-line tower. This water had to be treated before discharge to drain or recovery back to the cooling system.

#### OUR SOLUTION

Within days Veolia had provided a temporary water treatment plant with the capacity to process 50m<sup>3</sup>/h of contaminated water. The bespoke system, consisting of pumps and two stages of filtration, removed and retained the debris and chemicals from the water, enabling the continued operation of the cooling system.

## Indian Queens

### Keeping the winter lights on

#### CLIENT'S CHALLENGE

Indian Queens power plant in Cornwall operates at peak demand periods, to supplement electricity supplies from larger power stations. In winter months up to 170m<sup>3</sup> per day of deionised water is required to be sprayed into the burner, reducing the flame temperature and suppressing nitrous oxide emissions. Demand for water in summer months drops to just 40 m<sup>3</sup> per day.

Effluent discharge from water treatment is not allowed on the site and given the seasonal demand for deionised water it was decided that a multi-year mobile water treatment plant for the winter months with a fixed Veolia demineraliser for the low demand summer months would be the most cost-effective solution.

#### OUR SOLUTION

Veolia's Mobile Water Services supplied two separate MODI demineralisation plants. The equipment being capable of providing 30 m<sup>3</sup>/hr of demineralised water at <0.1 µS/cm, <10 ppb Silica – meeting and exceeding the water quality and volume requirements. Discharge of chemicals and effluent was not an issue as regeneration of the ion exchange resins takes place off site at Veolia facilities.

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