

# OUTPERFORM WATER



## WHATEVER YOUR WATER CHALLENGE, AST WILL NOT JUST SOLVE IT, AST WILL ADD VALUE TO IT.

**Our mission** is to provide holistic, tailored, affordable engineering, integration and project management (PMO) services to water treatment, desalination and wastewater reuse customers. We do this by employing outstanding engineers, breakthrough technologies and complementary partnerships - leveraging synergies to provide our customers with maximum water value.

## TAKING WATER TO THE NEXT LEVEL

What sets AST apart is the ability to leverage vast in-house expertise, best practices, and a fresh, agile approach to deliver water value via comprehensive solutions . We provide cost-effective, time saving, reliable and environmentally friendly solutions to meet each project's unique specifications.

We deliver turnkey solutions to water treatment, sea or brackish water desalination, and wastewater reuse customers.



PROCESS  
ENGINEERING



PURCHASING



CONSTRUCTION



COMMISSIONING



O&M



SUPPORT



TURN KEY PROJECT  
MANAGEMENT

## TODAY'S TECHNOLOGIES FOR TOMORROW'S CHALLENGES

We excel at integrating Best Available Technologies (BAT), in-house within the WFI Group, as well as innovative third-party technologies, and elaborate engineering tools for industrial control, including unique R&D development, enabling customers autonomous control of the systems and plant.

## A NOVEL APPROACH TO WASTEWATER REUSE TAYA TECHNOLOGY BY TRIPLE-T

### SIMPLE AND AFFORDABLE WASTEWATER TREATMENT

TAYA by Triple-T is a hybrid biological wastewater treatment technology for decentralized communities and reuse for irrigation. By maximizing efficiency while minimizing sludge, energy consumption and labor requirements, the **TAYA** game-changing technology **outperforms conventional wastewater treatment technologies, offering extremely low OPEX, and increasing growth.**

## ULTRA-HIGH RECOVERY RO DESALINATION FLOW REVERSAL TECHNOLOGY BY ROTEC

### MAXIMIZING SAVINGS, MINIMIZING ECO FOOTPRINT

ROTEC's Flow Reversal (FR) golden standard technology is implemented in both existing and new desalination facilities, in which the flow direction of the saline stream in RO pressure vessel arrays is periodically switched. **It outperforms conventional RO technologies, achieving a recovery rate of up to 98%**, increasing permeate production by 15-20%, and reducing brine by 50-70%. FR delivers the most robust, cost-effective, risk-free and eco-friendly solution on the market.

## ENGINEERED FOR EXCEPTIONAL SELECTIVITY MAC TECHNOLOGY BY TOXSORB

### RECOVERING RESOURCES, GENERATING VALUE

Modified Activated Carbon (MAC) enables the removal of a wide variety of inorganic pollutants, while maintaining its original adsorption capability for organic pollutants. **MAC outperforms traditional ion exchange systems in real life conditions by 88%, resulting in minimal brine and maintenance, with significant energy and cost savings.** NSF approved, MAC is one of few technologies around the world authorized by the health authorities to transform contaminants into fresh drinking water. It has also been successfully installed in industrial plants worldwide.

# PROJECT HIGHLIGHTS

## AFFORDABLE DRINKING WATER AUTONOMY



### Customer

Malta Government via  
WSC, Malta, Gozo Island

### Project type

SWRO Desalination Plant

### Capacity

11,000 m<sup>3</sup>/day

The government of Malta urgently needed additional water sources for the island, in order to supply potable water for its residents and tourist at the peak tourist system. The project involves a smart, unique design and restoration of an ancient building for the desalination facility. **The turnkey solution leads to high efficiency, cutting operational costs (OPEX) in a very short time, securing water supply for the island, improving drinking water quality while ensuring sustainability.**

## CLEAR WATER VALUE FOR 1 MILLION PEOPLE IN AFRICA



### Customer

MEB Energy South  
Africa, Mozambique

### Project Type

Water Treatment Plant  
for Drinking Water

### Capacity

30,000 m<sup>3</sup>/day

AST was approached by MEB to design the process and supply the equipment including commissioning, aiming to mitigate severe water scarcity in Greater Maputo. The plant treats river water to potable quality, leveraging our full suite of integration tools, including design strategy, to deliver the project safely and to the highest standards. **The project enables water, time, cost and footprint savings, supplying clean water to 1 million people.**

## REDUCING BRINE BY 90% VIA INNOVATIVE WATER RECYCLING



### Customer

Dalu Industrial Park,  
Dalu, Inner Mongolia

### Project Type

Industrial Wastewater  
Brine Reclamation Plant

### Capacity

50 m<sup>3</sup>/day

The new Dalu industrial park planned to serve industrial plants handling coal deliverables. It was seeking a solution to minimize its brine evaporation ponds due to the large footprint and high disposal costs. AST rapidly and successfully designed, executed, commissioned and operated the plant. **The brine was reduced to less than 10%, eliminating 90% of the original brine quantity, saving hassle and cost, while producing high quality clean water, allowing optional park irrigation.**





## GROWING WITH WATER

A business unit of the WFI group, Israel-based AST specializes in smart clean water technologies integration and project management to deliver safe and clean water for drinking, agriculture and industrial purposes. AST's experienced and dedicated team of water specialists provides customers with smart, optimized flexible turnkey solutions that are fast and easy to install, based on sound engineering practices, superior technologies and reliability of proven design performance.

Spanning a decade, our track record includes successful projects with strategic partners in the US, South Africa and China, as well as global customers, including; Coca Cola, Jacobs, Strauss Group, Nestle, WSC Malta, PUB Singapore, Atlantic Copper, Suez, Kurita, SQM, Teva, municipalities, agricultural plants, and more. AST's global customers benefit from reduced OPEX, lower energy and water consumption, as well as the highest levels of quality and service. Our vast experience enables us to turn ground water, surface water or wastewater into the high quality, affordable water you need.



**LET'S CREATE MORE VALUE FROM WATER – TOGETHER!**

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