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WATER TREATMENT SYSTEM: PRODUCTIVE & SUSTAINABLE

By Abdul Rahman Mohammed, CEO, Sahara Industry



Since the human inception, water has always been the lifeblood of all human activities. With rising population and demands for more resources, water supply has been challenged and unsustainable practices for ages have caused severe water scarcity. The lack of access to clean drinking water leads to millions of deaths every year and ever rising demand for clean water is outstripping supply.

It has been estimated that 80% of India's surface water is polluted which results in India losing \$6 billion every year due to waterborne diseases. Water cycle imbalances, increasing water consumption and wastage in urban areas, political and regulatory disputes, increasing irrigation and agricultural demand, industrial growth, lack of optimal water resource management technologies and water-borne diseases pose major challenges to the Indian water sector. According to estimates, India's water sector requires investment worth billions of dollars. Development of new and sustainable means to supply, recycle and reuse of precious water resources is the most significant challenge. We need to get serious about water to avert a major future global economic and humanitarian crisis.

A sustainable approach for provision of clean water is essential to control the precarious tilt in the water balance.

The Project

In-Effects Marketing is an authorized distributor for international acclaimed brands of furniture and hardware for southern states in India. Started with a modest beginning in 2006, it currently deals in brands like Ebco, Zipco, and European brand Peka, Salice and Yale by Assa Abloy with distribution network in all major states with over 600 variations. It has established its leadership as a competitor to Ikea brands with technology driven and innovative approach of integrated supply chain management. They provide environment friendly workplace to their employees and sales force at all locations with full liberty to innovate and craft excellence in all their products and services. They have created a niche of their products and have a captive market across all southern states in India.

As part of their sustainability goals, a better water treatment plant was needed that could reduce the water usage and energy costs associated with its operations.

Challenges

A major distribution chain of international brands of wide range of furniture and hardware solutions in Andhra Pradesh was looking to reduce the impact of its operations on the environment while



INDUSTRIAL WATER AND WASTEWATER TREATMENT

meeting the water treatment challenges at its facility. Until recently, the company was using municipal water supply and groundwater for its operation and personnel. The company was looking to make water drinkable from the ground water sources which have the turbidity of over 1400 PPM and TDS of 2300 PPM and reduce the use of more expensive municipal water supply.

Project Implementation

Sahara Industry is a leader in water treatment plant and machineries in south India and has executed a large number of projects for making water clean and safe for domestic and industrial purposes. The Engineers of the company surveyed the facility, obtained a series of water samples, reviewed water usage pattern and water source plans and investigated associated energy and water costs.

Sahara Industry's field sales team and product engineer performed water input and output projections, evaluated water quality at receiving end and calculated resulting energy and water savings to determine a viable approach for the plant.

A completely new and fully automatic water treatment system with agitator having the capacity of 400 litres per minute was installed. The installed water softener has the capability of making water ultra-pure reducing the turbidity level to more than acceptable level. The USP of this particular model of water softener is that it has reduced the TDS of 2300 PPM and hardness from 1400 PPM to less than 25 PPM where conventional water softeners work upto 800 PPM hardness only, thus reducing the load of water contamination to advanced purity level.

Solution

The customised and innovative solution placed by Sahara Industry as per detailed analysis resulted in a significant return on investment to the client. After research and consulting with the end user, the final solution included a high grade water softener, top opening 36" diameter pressure vessel that could withstand 250,000 times of cycle test from 10 psi to 150 psi withstanding pressure having a one piece, seamless high density polyethylene liner and an encapsulated, leak free engineered polymer inlet which are 100% corrosion resistant and low maintenance requirement. A Droplet 7x32 FRP Bag Filter Housing with 5 Micron Filter bag is provided to stop suspended solids entering into the system. By this system both Softener life is enhanced and also improves water quality.

The storage tanks for raw and treated water separately along with level controls and re-pressurization system and retrofit kit to realize the savings of softener salt. All system being fully automatic, there was no need for softener sequence controller for proper valve sequencing and timing.



Demonstrating its commitment to continuous product improvement and post purchase efficient services, Sahara Industry has been working in the field of water and wastewater treatment solutions for a long time now. The ISO 9001:2015 certified company has executed projects in almost all industry verticals and its innovative and customised designed solutions have been well appreciated by its client and customers resulting in improved reliability. Its premier membranes, vessels, deionizer system and other products command a leadership position in the market.

Being market oriented and with modern system and processes, Sahara Industry has a client-centric approach to provide high quality products with excellent service standards. The technical expertise and in-depth understanding of the water sector has enabled it to offer the best integrated and strategic approach to industrial and municipal water and wastewater treatment systems. The Company provides multi-disciplinary water and wastewater treatment and engineering services and delivering ideal solutions based on the experience of implementing hundreds of plants and projects with integrated project approach.

ABOUT THE AUTHOR

Abdul Rahman Mohammed is a young entrepreneur with an MBA in marketing & finance, he is the Founder & CEO of Sahara Industry, providing technologically advanced, economical yet best quality water and wastewater treatment solutions. His success lies in his dynamic leadership and his group company has achieved turnover of over INR 1000 million.

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