



CASE STUDY
TEXTILE
FACILITY

Ensured waste water effluent compliance at textile print company

LARGE SCALE SYSTEM FOR BOD AND COD TREATMENT

 **ozonetech.**

THE HONDURAS TEXTILE INDUSTRY IS EXPANDING FAST

There is an increasing worldwide consumer demand for printed textiles and Honduras is committed to expanding their domestic industry. The South American textile print company Index has set out to satisfy this demand for the North American and international market. With over 400 employees and in business since 1993, the company exclusively delivers high quality consumer goods to prominent brands such as Under Armour and O'Neill.



THE PROBLEM

Large quantities of solvents and tightened effluent requirements needed a solution

The process of textile screen printing requires ample amounts of solvents which leave the factory as wastewater. These compounds, such as alcohols and aldehydes, are difficult to degrade biologically or by other means. Due to tighter effluent requirements, the factory was in dire need of an effective solution, especially since the facility could not build a new treatment plant due to restricted available space.

THE SOLUTION

Pilot project and extensive treatment trials led to a highly tailored full scale system

Index contacted Ozonotech in search for an efficient treatment system. In order to evaluate the required capacity, our pilot project consulting services were employed. Our engineers treated actual wastewater, sampled directly from the effluent stream, using our in-house pilot facility. Following extensive treatment trials, incorporating filtration, pH control and ozone oxidation, a full scale system was designed.

The system includes our RENA Tellus X1000 water treatment system, foam collection, and monitoring and controls. The solution was delivered with built-in capacity redundancy for future increase of wastewater loads.

EVALUATION

Levels now reduced below the new requirements

The system was installed and successfully commissioned on site by our engineers, including connections to the collection tank, sensor installation with calibration, and start-up of ancillary equipment such as cooling system, foam collection system and ozone dissolution optimization. The ozone system handles 25 tons of high concentration wastewater per day.

The result of the effective oxidation is clear. After installation, COD and BOD levels were reduced to below 20 ppm, below the environmental regulations enforced upon the facility. The performance is continuously monitored through integrated ORP sensors and frequent lab testing of biological and chemical oxygen demand.



The complete solution designed by Ozonetech, including complete ozone system with optimized ozone dissolution, control unit, oxygen system, cooling unit, reaction tank and foam collection.



The ozone system is connected to a collection tank for allowing the required reaction time.

“The ozone system is working. I really appreciate your help to make this project successful”

Operations manager, following our on-site commissioning



An automatic screen printing press.

FACTS

Name:	Index
Industry:	Textile
Purpose:	Industrial wastewater treatment
Capacity:	25 tons per day
Solution:	RENA Tellus X1000
Dimensions (WxDxH):	3500 x 1812 x 2135 mm
Total input power:	21 kW
Noise level:	49 dB

Solution includes

- Foam collection
- Monitoring
- Controls
- Built-in capacity redundancy for future increase of wastewater loads
- Frequent lab testing of biological and chemical oxygen demand

About Ozonotech

Ozonotech is an award-winning cleantech company that has offered premium products for air and water treatment since 1993.

Our unique technology and extensive expertise has made us a rapidly growing global company with installations on six continents. All development and manufacturing is located in Sweden. In addition, we have in-house specialists for consultation, planning, installation and service.

As a Center of Excellence within air and water treatment, we also collaborate in international efforts to develop global standards for purification solutions.

At Ozonotech, we have a strong incentive to reduce energy consumption, health risks and the impact on the environment. Our current solutions provide a multitude of benefits in the processing and food industry, real estate, commercial kitchens as well as in the retail market.

For additional information, visit our website at www.ozonotech.com

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