

China

Yunnan Province, China

The treatment of municipal and industrial wastewater and sludge is becoming increasingly important for sustainable environmental protection and conservation of natural resources. In addition to mechanical dewatering systems, such as filter presses, centrifuges, and belt filters, the Andritz Environment and Process Business Area supplies thermal drying plants which convert dewatered sludge into granulate. With its high calorific value, this granulate can be used as a substitute for fossil fuels in heat and power generation systems, thus reducing CO₂ emissions.



**“WE USE THE MOST
ADVANCED EQUIP-
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THE WORLD.”**

Gu Hong, General Manager, Qingyuan Hua Yan Water Industry Co. Ltd., China



Andritz supplied five fully automatic large-capacity filter presses for water and wastewater treatment in China's largest Industrial Park. Two additional presses will be installed in 2007.

WORLD-CLASS WATER IN CHINA

Interview with Gu Hong

General Manager, Qingyuan Hua Yan Water Industry Co. Ltd., China

The Suzhou Industrial Park, the largest in China, was formed in Jiangsu Province in 1994 and is now home to 260,000 people. This high-tech industrial park encompasses 288 km² and presents a garden-like setting beside Jinji Lake. Andritz supplied the filter presses for treating fresh water and wastewater in this massive park. Mr. Gu Hong, General Manager of the water industry serving the Suzhou Park, speaks to the environmental aspects of the project and Andritz's contribution.

Personal background

My degrees are in chemical processes and international trade. I am also working on my Executive MBA degree. My first work was at a pharmaceutical factory in Suzhou. In 1996, I joined the Suzhou Industrial Park. First, I was the Manager of the Construction Department of Qingyuan Hua Yan Water Industry Co. Ltd., and now I am Vice President of the Municipal and Public Utility Group of Suzhou Industrial Park and General Manager of the Qingyuan Hua Yan Water Industry Co. Ltd., responsible for the water network.

Suzhou Industrial Park water network

The water plant of Suzhou Industrial Park can supply 450,000 m³ of water every day. It consists of the three parts: a water inlet and suction pump station with a capacity of 900,000 m³ per day; two water mixing pipelines that are 28 km and 32 km in length; and a clean water plant with a capacity of 450,000 m³ per day. The wastewater plant has a treatment capacity of 200,000 m³ per day.

Customer requirements

Our customers want their water supply to be safe and sufficient, comparable to the best international standards for health and quality. After the water is recovered and treated, they expect that the discharge will be environmentally safe as well. In addition, we in the business are concerned with the quality of the filtrate and the filter cake. We want to re-use the filtrate in our processes and have a high solids content for the filter cake. This way, we can economize on energy usage and protect the environment at the same time.

Filtering and dewatering for the Suzhou plants

In earlier days, we used centrifuges for slurry dewatering; however, the solids content was very low. We had to dose the slurry with polymers, which increased our operating costs. In addition, we could not convey the filter cake easily, which led to pollution.

Today, environmental concerns are the most important drivers for our investments. This was not always the case in China, as you know. But we now recognize the need to preserve and protect the environment. After comparing the technical aspects, we decided to use filter presses. They can handle large capacities, produce a filter cake with high solids content, and the filtrate is clear. The filter cake can be moved by conveyors, which is convenient and saves money.

Based on our research, we set the target of 40% final solids content.

Why Andritz?

I had no direct experience with Andritz before the Suzhou water plant and wastewater plant projects. However, I knew they were a global leader in supplying filter presses for many industries, including water and wastewater treatment.

Before we decided to purchase from Andritz, we carefully studied the company and its products. We compared Andritz with other suppliers. Andritz has many successful reference projects and is regarded as a good problem solver. I visited the Wu'xi Meiyuan Water Supply Plant where the Andritz filter press is installed. The dewatering effect and production situation are excellent. Andritz also has an office in Shanghai and their after-sales support is considered to be prompt and earnest.

Scope of supply

We selected Andritz to supply two filter presses for water treatment (capacity 450,000 m³ of drinking water per day) and three filter presses for wastewater treatment (capacity 200,000 m³ per day). A new wastewater treatment plant with a capacity of 400,000 m³ per day will be completed next year.

For these projects, Andritz supplied the equipment and process design, including the whole dewatering system from slurry tank to cake conveyor. The entire filter press system can run fully automatically.

This is our first application of filter presses in the wastewater plant, so the project was an adventure for us. Also, in our way of working, we must complete our projects – from design to equipment selection, to installation to commissioning – in one year. This is an extremely limited period of time. Even with this short time, Andritz came in under full sail to reach our target successfully.

Meeting international standards

Today, we use the most advanced equipment and treatment process in the world. I believe that our treatment level meets the international standards. We display the water quality and wastewater discharge quality reports every day on our Web site. Our customers can see how we are performing.

We are very satisfied with the Andritz filter presses. The most important aspects of their performance are the fully automatic operation and the perfect dewatering effect. The solids content of the slurry is 40%. We save money by not having to add as much polymer. The cycle time is short. The operation and maintenance costs are low. We have gained even better results than originally planned concerning environmental protection. Now we can work within delightful and neat surroundings.

During the project, I found that Andritz worked to a high standard all the time. They were concerned about safety and schedule. We closely and happily worked together with Andritz. My deepest impression of Andritz has been its teamwork, earnest work attitude, and care for its customers. We are not only partners at work, but now also good friends.

Future

I now know why Andritz has become a successful, fast developing, and international company. I wish Andritz great success in China. We will be updating our equipment in the future and the entire industrial park is expanding. As we enlarge or build new plants, we will give priority to the use of Andritz filter presses. ■