

PUMP GATES BRING A NEW FLOW TO FUZHOU'S RIVERS, REVITALISING LIFE IN CITY CENTRE



“Residents are very pleased that we have brought clean water to their doorstep,” says Song Zhiguo, General Manager, Fuzhou Water Environment Project, Beijing Enterprises Water Group. He is standing at one of the new pump gates in Fuzhou.

OVERVIEW

Fuzhou, China, has had problems with black and smelly water in its rivers and canals for a few decades. A series of Grundfos pump gates brought flow to the water. These are solving the problem of black and smelly water, creating a better living environment along the populated riversides.

THE SITUATION

Fuzhou, a city of more than 7 million people in southeast China’s Fujian province, is criss-crossed by rivers and canals. For many years, some of those inner-city rivers were stagnant,

turning black and smelly. The combination of very populated river banks, dirty water flowing into the city and lack of flow created the problem.

“Before, the river was very polluted,” says resident Ying Qi. “It stank when you walked next to the river.”

Another resident, 90-year-old Jiang Shouxiang, says, “Before, it was ragged and worn here. It was like a very small and stinky sewage ditch.”

TOPIC: URBAN RIVER MANAGEMENT

LOCATION: FUZHOU, CHINA

COMPANY: BEIJING ENTERPRISES WATER GROUP



Local residents Chen Danghui and Li Yuyin tell about how the riverside environment has become transformed and “very nice” since the pump gate station was installed nearby.

The Fuzhou people’s experience is not unlike that in other cities in South China, according to Song Zhiguo of Beijing Enterprises Water Group. He is also General Manager for the Fuzhou Water Environment Project. “The water system in Fuzhou is typical for cities in South China, where people like to live by the water,” says Song Zhiguo. “Management of black and smelly water in city river channels is a hot topic right now in China.”

Officials knew they needed to create flow in the water, but due to lack of space around the rivers, traditional pumping stations and accompanying reservoirs were not possible.

THE SOLUTION

To get the rivers flowing again, Beijing Enterprises Water Group and local Fuzhou officials worked with Grundfos to install a series of pump gates, integrating pumps, sensors and controls into a structure over the waterway that blends in to the surrounding landscape.

“Traditional sluice gates are unpowered. They can only work as sluice-like ramps in the middle of river channels,” explains

Chen Jiaying, Technical Director of the Fujian Fuyuanxing Electromechanical Equipment Company, which operates the pump gates. “What we did was to install pumps on the sluice gates. So at the same time as working as a sluice, the pumps move the water forward, thus creating flow. When the water is flowing, it will not turn black and smelly.”

Song Zhiguo adds, “For overall water management, the integrated pump gates achieve an even distribution of the water resources and ensure a continuous flow of water.”

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- Song Zhiguo, General Manager, Fuzhou Water Environment Project, Beijing Enterprises Water Group



Chen Jiaying is the technical director of Fujian Fuyuanxing Electromechanical Equipment Company, which operates the pump gates.

THE OUTCOME

“Now we have been able to clean the water and create flow,” says Song Zhiguo. “Grundfos is bringing its core products and competencies to this project in Fuzhou. The technical standards, durability and viability of these products have won recognition from both our company and the municipality.”

He says the pump gates are not only moving the water, but they have a beautiful design, making it easy to integrate them into parks. Some even function as meeting and recreation areas for the residents.

“Now the residents can walk and live along the river,” he adds. “They are very pleased that we have brought clean water to their doorstep.”

The local people agree. “They have been able to make the water come alive. It is no longer dead and smelly water,” says Hehua, a retired resident who used to be chairman of her community.



A local dance group rehearses routines at one of the pump gates in Fuzhou most mornings.



Grundfos pump gates in Fuzhou, China

Her neighbour, Chen Xuezhu, says “We are very happy. We come here to rehearse every day,” referring to the group of women who practice dance routines at one of the neighbourhood pump gates.

Jiang Shouxian adds, “After the transformation, the river is very nice. Very nice. I am 90 years old, so I have seen it all. It is a good place. I am very happy. That’s why I can live this long.”

GRUNDFOS SUPPLIED:

Grundfos supplied full, intergrated pump gate solutions. For more information on Grundfos pump gates, please see [here](#).

See video