

ABB flowmeters reduce water loss in Riyadh leveraging digital wireless communications



ABB WaterMaster and AquaMaster flowmeters have cut leakage in the water distribution network of Riyadh, the capital of Saudi Arabia, by about 40 percent.

Background

The sprawling city of Riyadh stretches over 200 square miles, an area more than five times the size of Paris. In the past, about 60 percent of Riyadh's water supply disappeared through leakage in the 6000 miles of piping that transported water to the city's 4.5 million population. The government-owned National Water Company set out to reduce the volume of water and revenues lost to leakage to a more sustainable 20 percent.

ABB FlowMaster flowmeters

The company required a compact, robust and maintenance-free solution as part of a large-scale project to modernize Riyadh's vast but aging water distribution network. The solution would transmit measured data via a GSM telecommunications network to the National Water Company's central control room.

On three separate occasions company engineers selected ABB WaterMaster and AquaMaster flowmeters to play a prominent role in the solution. They repeatedly selected these flowmeters for their outstanding accuracy and performance.

The challenge

Requirements called for an exceptionally robust solution. For those locations where no power was available, the flowmeters had to be battery-powered. Currently about 900 of these ABB flowmeters measure water flow rates to help achieve the leakage target.



ABB AquaMaster flowmeter is available with wind or solar back-up power supply.

The strong, durable design of ABB's AquaMaster and WaterMaster flowmeters ensures a long, maintenance-free operating life under the most difficult conditions.

Both AquaMaster and WaterMaster flowmeters share the same outstanding features of unparalleled accuracy, ease of use and advanced data communications. The former is powered by the AC network, the latter by a single ultra-long-life battery.

Their strong, durable design ensures a long, maintenance-free operating life under the most difficult conditions. They can be buried directly in the ground or submerged in water without the need for costly protective chambers. Their measurement accuracy enables the National Water Company to know exactly how much water is flowing through the main pipeline and to detect leaks when and where they occur throughout the piping network.

WaterMaster and AquaMaster are part of ABB's FlowMaster range of electromagnetic meters for flow measurement in industrial processes, water and wastewater management, and the food and life science industries. ABB has the world's largest offering of flowmeters, with an unrivalled number of well-proven measuring principles, type variants and applications.

For more information:

www.abb.com/measurement

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Learn more:



ABB WaterMaster family of flowmeters.