
WML: Digital Dosing system - Pioneer solution for water company

The WML (Water Maatschappij) is a Dutch water company, which is housed in the province of Limburg. The water company oversees the complete water cycle from water extraction to wastewater extraction. On a yearly basis, WML supplies some 75 million m³ of water to more than 510.000 customers.

The Situation

Providing clean drinking water for the customers is evidently a key success factor for WML. To be able to supply clean drinking water it is necessary to remove the polluting substances from the wastewater by adding chemicals. Until recently, several traditional dosing pumps at WML saw to it that different chemicals, such as ferrychlorides and hypochlorides, were added to the water to eliminate polluting substances. Previously, the company had both stationary dosing units and mobile dosing units with so to speak traditional dosing pumps. These pumps were difficult to set and operate and were imprecise. Consequently, they did not provide the exact amount of dosing additive needed for the water treatment.

The Grundfos Solution

Grundfos installed an entire dosing system at WML, consisting of a dosing panel, an interrupt unit, a storage tank and a filter unit. The dosing panel consists of 4 DME 48 Digital Dosing pumps that see to it that the exact amount of FeCL₃ is added to the water. The panel, which is mounted on a wall is easy to operate and has transparent sliding doors that ensure a high safety level. Such a dosing panel is normally used in connection with toxic chemicals that have to be handled with special care.

The interrupt unit is a safety device. The unit is connected to the Digital Dosing pumps and sends start/stop signals to the

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pumps. Different signals from different control units in the system monitors the flow, the pH value etc. The dosing panel, the interrupt unit and the storage tank are all linked to a PLC. This means that it is possible to monitor the dosing process closely and ensure that the exact quantity of FeCL₃ is dosed in proportion with the flow of wastewater.

The Outcome

According to WML, the Grundfos solution fully lives up to the company's expectations.

At least two factors contributed to carry out the dosing project at WML successfully:

The Grundfos partnership and the Grundfos know-how about Digital Dosing. Grundfos was involved in the project from the beginning to the end and provided WML with the necessary know-how as to the equipment, the installation, the chemicals and the dosing techniques.