



APPLICATION REPORT

Water & Wastewater

Manufacturer-independent functional testing of flowmeters in sewer system and wastewater treatment plants

- Reliable compliance with verification cycles in accordance with Self-Monitoring Ordinance
- Verification of all electromagnetic flowmeters, including documentation
- Reduced administrative cost: only one service partner takes care of all device testing, regardless of manufacturer



1. Background

Veolia Wasser Deutschland GmbH operates several wastewater treatment plants in the German federal state of Saxony-Anhalt. Among them is the Schönebeck wastewater treatment plant, which treats wastewater from approximately 90,000 residents. In order to guarantee the steps required for treatment at this and other smaller wastewater treatment plants operated in the municipal area, the company makes use of both measuring solutions and a number of electromagnetic flowmeters (EMF) from different manufacturers. These measuring devices are subject to the applicable Self-Monitoring Ordinance in place in the state of Saxony-Anhalt. The Self-Monitoring Ordinance requires operators of every wastewater treatment plant to test the measuring technology on an annual basis.

2. Measurement requirements

As wastewater treatment falls legally under state jurisdiction, each state has its own ordinance. For this reason, the monitoring cycles may vary. One of the legal requirements in water management has always been to accurately track and document wastewater quantities. To this end, proper and accurate flow measurement is a must.

Regular testing by a service technician guarantees compliance with legal requirements the entire time a measuring device is in use. Field-tested verification tools and approved comparative measurements followed by the issuing of a test certificate ensure that the monitoring is sufficiently documented. This applies regardless of manufacturer, which is particularly important to the wastewater treatment operator because, for historical reasons, the facility uses many different flowmeters from different manufacturers. In the operator's catchment area there are 13 flowmeters subject to legally required testing. Only four of these devices are KROHNE EMF. The rest are competitors' devices.

3. KROHNE solution

The customer commissioned KROHNE to test all of the flowmeters in the municipal area. KROHNE's service department specialises in these legally required tests in addition to numerous other services. A service technician tests all of the flowmeters in the wastewater treatment plants at the prescribed intervals to ensure that they are operating properly and records the results. In the process, the technician also checks signal output function and makes sure that each device is set properly. The technician also carries out a comparative measurement independent of the measuring principle. This all takes place without process interruption. There is no need for pipes to be opened or removed. The service technician uses a portable, battery-powered ultrasonic clamp-on flowmeter to test all common nominal sizes – from DN15 to DN1500. It goes without saying that the service technician complies with all required safety standards while performing this work.



A KROHNE service technician testing a measuring device



Verifying a device at a wastewater treatment plant

4. Customer benefits

In the past, the operator had to call on service technicians from a variety of manufacturers. Different contact people and a wide variety of price models resulted in significant administrative cost. Today, the operator enjoys a much leaner process. For a guaranteed period of five years, KROHNE will test the measuring devices – regardless of manufacturer and with fixed annual terms and conditions. This increases process efficiency and decreases the amount of organisational effort on the part of the customer. Hiring KROHNE has made it quick and easy for the customer to exploit untapped optimisation potential at the facility.

5. Services & products used

Verification services for flowmeters in wastewater treatment plants

- Compliance with prescribed verification cycles in accordance with applicable monitoring ordinances
- Functional testing and documentation regarding the operating status of electromagnetic flowmeters, regardless of manufacturer
- Use of innovative service tools for on-site verification
- Carrying out of comparative measurements without process interruption



OPTICHECK Master

- Handheld for in-depth verification, device commissioning and monitoring
- On-site performance check and verification (level 0,1,2) without process interruption



OPTISONIC 6300 P

- Ultrasonic clamp-on flowmeter for temporary flow measurement of liquids
- Portable, battery-powered measuring device for the testing of process flows or inline measuring devices (up to DN 1500 / 60")



Contact

Would you like further information about these or other applications?
Do you require technical advice for your application?
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