

#### Technical bulletin

## Measurement campaigns

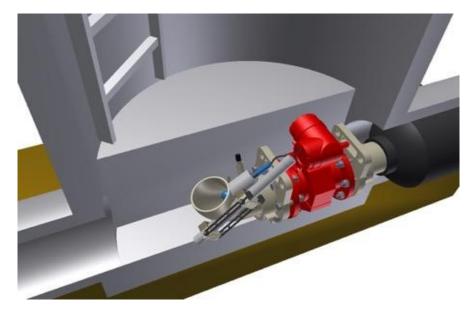






# Applications

- Infiltration water measurement and infiltration water test
- Volume and load measurements as basis for waste water accounting
- Measurements to establish the measuring accuracy of installed measuring systems
- Volume measurement as part of general drainage planning
- Measurements for establishing the utilization of the hydraulichen capacity of ducts and lines
- Measurements for checking the efficiency of hydropower systems
- Measurements for checking the efficiency of waste water treatment systems



Example of a portable flow measuring system. The milti-sensor module measures not only the flow but also the COD value, the conductivity, the pH value and the temperature of the medium. It also has a port for connecting a sampling line.



# Technical set-up

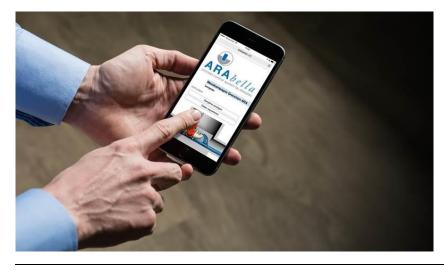
#### Measuring method

As a rule, measurements are made with a high-precision, portable, magneticinductive flow meter that is protected from mechanical damage by a plastic coat. This can normally be installed in the available infrastructure without additional building work. An inflatable cushion closes the inlet to ensure that the complete inflow is routed through the meter (see title page photo). To avoid uncontrolled backwater when the cross section is closed at high flow rates, the cushion deflates automatically in an emergency.

Besides, no-contact measuring methods or methods that block less of the sewer section can be used. Generally, the method best suiting the conditions and the object related and financial criteria will be selected together with the customer.

#### Data transfer

To transfer the measuring data, a measuring case with a modem is connected to the meter. Data can be accessed by the browser based process control system ARAbella online from STEBATEC AG. The customer can access the process control system while the measurement is running and view interesting data such as, for example, load curves or means and export the data in Excel format.





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# Advantages

### Independent undertaking

Quite often, new measurements have consequences for fees and bills. To ensure that all parties involved can trust the new measuring results and data cannot be questioned, an independent and trustworthy undertaking should perform the measurements. STEBATEC AG has always been able to demonstrate that it complies with all expectations in this respect.

# Quality assurance – hydraulic testing and calibration system

Extensive quality assurance mechanisms generally eliminate potential errors. The hydraulic lab of the STEBATEC AG, where the measuring devices are inspected and tested for functionality and accuracy before and after every campaign and accuracy certificates are issued, plays a central role (see documentation «Tests and inspections»).



Measurement campaigns september 2016 · STEBATEC AG



### Wide delivery scope

As a specialist for flow measurements in sewers, watercourses and pipelines, STEBATEC AG offers further services such as pH, temperature, conductivity or COD measurements, and automatic sampling.

An order comprises all steps from the performance of the measurements to the delivery of the measuring data and the analysis of the data. This includes, in addition to the measuring hardware, batteries with chargers, compressed air, road block material, mobile crane, safety equipment as well as other equipment for the execution of measurements.

Experienced personnel undertake installation and removal of the hardware, in cooperation with customer personnel if necessary. Maintenance work throughout a campaign is usually done by the customer; if required, this can also be undertaken by STEBATEC AG.

STEBATEC AG also attends to the measuring equipment engineering. This includes the selection of optimum measuring locations, the hydraulic design and the development of measuring concepts with accuracy definitions or even the complete project management.





# Contact data

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