

## Application: Calibration rig for custody transfer proofed water flow meters



**Devices:** 7 x Batching Master 210  
7 x Flow meter OPTIFLUX 5010  
7 x Control valve Pre-Vent BR 11

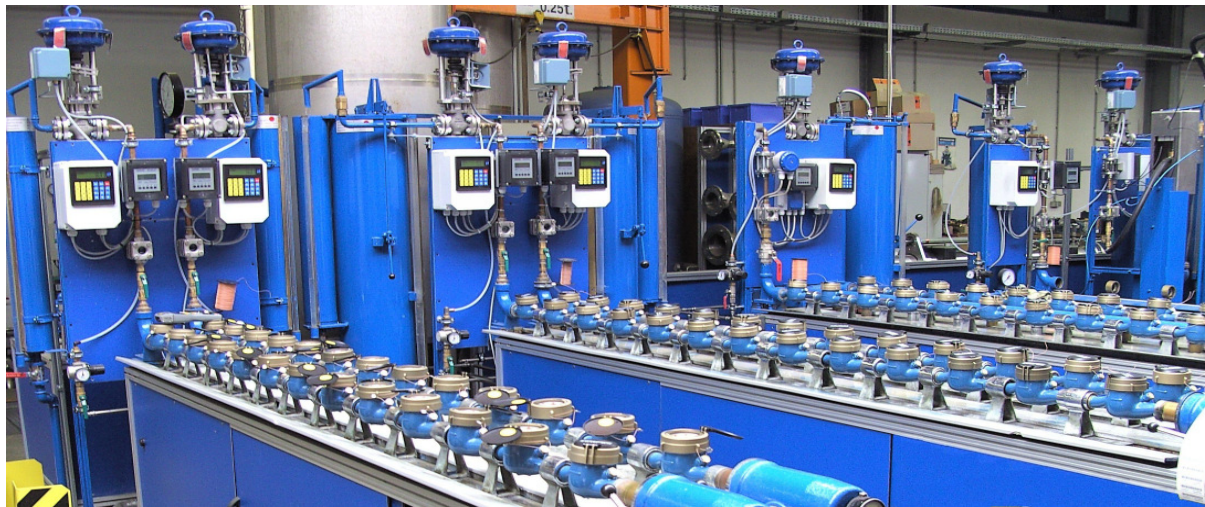
**Customer:**



**Industries:** Manufacturing of flow meters

Biesenthal GmbH  
56575 Weißenthurm, Germany

**Project:** Calibration of water flow meters



**The Company Biesenthal** is one of the leading manufacturers of custody transfer proofed flow meters for water. In a close cooperation with the German board for weights and measures Biesenthal built a calibration rig allowing to calibrate the flow meters self-contained in their company.

### Quality and precision - the first priorities

The company Biesenthal decided to use batch- and flow control systems from Krohne Messtechnik and IBS Batch Control GmbH.

### The system:

The electromagnetic flowmeter OPTIFLUX 5010 is used for the exact measuring of the flowrate. The flow signal is connected to batch controller Batching Master 210, allowing a pre-selection of flowrate and volume. The Batching Master controls the batched volume and the flowrate of the water via a 4-20 mA output signal which is connected to the control valve Pre-Vent BR11. This batch system controls the flowrate of the water which runs through the flowmeters, positioned in series, into a TÜV proven, scaled reservoir.

### Handling:

Having entered the required quantities of 10 or 50l, the flowrate has to be selected, depending on the flowmeter size (50, 100 up to 800 l/h). The Batching Master 210 integrates the flow rate, controls the flowrate during the calibration process and stops the batch exactly in 5 steps. The batch being completed, the counted quantity of each water flowmeter will be compared with the quantity inside the TÜV proven reservoir. It is important for the German boards of weight and measures, that the required flowrate can be reached fast and exactly, in order to provide a sufficient calibration time for the selected flowrate.