

Project report

Austria's SABA's* attain the optimum efficiency with the Pneumatic Outflow Control from STEBATEC.

*Road runoff treatment plants

Freistadt (AT) SABA road runoff treatment plant

To ensure best possible performance of the road runoff treatment plants treating the water runoff in the sections of the new Freistadt express bypass road in Austria, the flow of water entering the plants should be constant at all times. Today's level of technology should make it easy to maintain a constant flow rate of 2.5 l/s under varying primary water pressure conditions. And exactly that was the reason why the treatment effect of the first such SABA treatment plant was affected dramatically. Conventional closed-loop controlled systems fail to provide the required flow continuity.

The Pneumatic Outflow Control from STEBATEC meets all requirements of precise control and solves a couple of other problems as well. For example, the plants were linked up with the higher-level control system and can be remotely monitored and controlled. In case of a technical failure the control systems can be closed without delay or outflow values adjusted as required for drainage management. If permitted by the hydraulic conditions, outflow values throughout the full range can be selected.

Most of the plants are unattended; therefore, the equipment must be self-monitoring and, in case of need, help must be called by alarm message. These functions are also installed in the plants developed and manufactured in Switzerland. To make events traceable, data recorded by the instruments is archived for five years.

Requirements:

- High control accuracy with small flow rates and high primary water pressure (water column up to 3m)
- High reliability and self-monitoring
- Little maintenance input
- Flow measurement for outflow control
- Closing the hatch at 100%





Pneumatic outflow controls of different designs

with adaption for suspended installation in manholes of 1m diameter and larger



Free-field aluminum cabinet for pneumatic outflow control.

NW 100 pneumatic outflow control prior to Shipment in the storage hall beside PNA NW 350



Standard control cabinet for pneumatic outflow control with the following installed units:

- Control unit with control panel (touch-panel)
- Lighting, heating, ventilation and electrical equipment
- Emergency opener/emergency throttle in case of power failure
- Oil- and maintenance-free compressor with automatic drainage
- Data logger with USB port and CF card for measuring data readout.