

## MBR Bollberg, Germany

### Task

A new biological WwTP with membrane filtration was built turnkey ready for the industrial business park IGP Jena nest to the Hermsdorfer Kreuz. Client: STEG Stadtentwicklung Südwest GmbH Dresden / Stadtverwaltung Stadtroda.

### Inlet

The WwTP was gradually extended from 50 PE to 100 PE and finally to 350 PE. Due to the sensitive receiving water course the values for discharge of the magnitude 2 as well as the disinfection of the purified wastewater were required for the first two stages of extension by legal requirements. In the final extension, an advanced elimination of nitrogen and phosphorus is carried out.

### Process Description

The receiving wastewater is led to an inlet pump station with submersible motor pumps with cutting system. Afterwards the wastewater is pumped to a vertical fine screen compact headwork where screenings retained and the sand is collected. The membrane biology consists of an aeration tank and two downstream externally installed filtrate tanks. The filtrate is removed by filtrate pumps and flows afterwards to the filtrate storage. Then the filtrate flows through a measurement sewer and is finally discharged to the receiving water course. Excessive sludge is removed periodically by submersible motor pumps.



### Design Data

Einwohnergleichwerte (EW)	350,0
Tageszufluss (m <sup>3</sup> /d)	65,6
Maximalzufluss (m <sup>3</sup> /h)	5,8
Installierte Membranfläche (m <sup>2</sup> )	496
Belegungsvolumen (m <sup>3</sup> )	25